

ENVIRONMENTAL MOVEMENTS AND FISHERFOLK PARTICIPATION ON A
COASTAL FRONTIER, PALAWAN ISLAND, PHILIPPINES

by

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(Under the Direction of Dr. J. Peter Brosius)

ABSTRACT

Transnational environmentalism has traditionally been considered an environmentalism that emphasizes the conservation of "nature," not social justice and the empowerment of local peoples. On Palawan Island, Philippines, the linkages between meso-level environmental Non-Governmental Organizations (NGOs) and local fisherfolk are the primary foundation for social justice, food security, and the empowerment of local peoples through community-based coastal resources management (CBCRM). This suggests that these linkages are the basis for CBCRM, which focuses more on social justice, and less on scientific, technocratic, or preservationist approaches to resource management. Since the People Power movement and the new Philippine Constitution of 1987 the democratic space in the Philippines became especially conducive to community-based resource management. My research is significant because it fills several gaps in the literature on environmentalism. First, the relationship between meso-level NGOs and local communities is rarely addressed in analyses of environmental movements, which are usually focused primarily on *either* transnational discourses *or* local case studies. Second, most contemporary environmental movements have focused more on the conservation of nature, and not on social justice and the empowerment of local peoples. Third, there is a dearth of literature on coastal environmentalism. Palawan in particular has received international attention for its high biological diversity and is host to a growing number of coastal environmental programs. Recently, environmentalism has begun to emphasize the conservation and regeneration of the world's oceans and coastal zones. Utilizing tools and perspectives from cultural anthropology and other disciplines, this research analyzes the linkages between NGOs and local peoples. Unlike projections made by early critiques of NGOs, many Palawan environmental advocacy NGOs started as volunteer organizations, and with the infusion of donor funding have not "sold out" advocacy to become project managers. On Palawan, *hybrid* NGOs have maintained advocacy positions and activities while taking on project management roles. The research suggests that fisherfolk become empowered through relationships with and information learned from NGOs along with government agencies, and will likely maintain those

relationships for effective resource management as opposed to an ideal held by NGO environmentalists for autonomous self-determination.

INDEX WORDS: Community-based coastal resources management, social justice, social movements, environmentalism, transnational discourse, NGOs, hybrid NGOs, fisherfolk, coastal zone, Philippines, Palawan Island.

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In memory of Eduardo Austin, Rico Austin, and Rebecca Favila.

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LIST OF ACRONYMS

BFAR	Bureau of Fisheries and Aquatic Resources
CADC	Certificate of Ancestral Domain
CBC	Community-Based Conservation
CBCRM	Community-Based Coastal Resource Management
CBFMA	Community-Based Forestry Management
CBRM	Community-Based Resource Management
CENRO	City Environmental and Natural Resources Office
CI	Conservation International
CRMP	Coastal Resources Management Project
DENR	Department of Environment and Natural Resources
ECAN	Environmentally Critical Area Network
ELAC	Environmental Legal Assistance Center
FARMCs	Fishing and Aquatic Resources Management Councils
HOBAI	Honda Bay Boatman's Association, Inc.
ICLARM	International Center of Living Aquatic Resources Management
ICRI	International Coral Reef Initiative
IMA	International Marine Life Alliance
KFMC	Katumbal Farm-fish Multipurpose Cooperative
KKP	Kabang Kalikasan ng Pilipinas (World Wide Fund for Nature)

KWG	Katumbal Women's Group
MNFA	Milwang Neighborhood Fisherman's Association
NGO	Non-Governmental Organization
NIPAS	National Integrated Protected Area System
OSB	Overseas Service Bureau (Australia)
PAIO	Palawan Area Information Office
PCSD	Palawan Council for Sustainable Development
PENRO	Provincial Environmental and Natural Resources Office
PIADPO	Palawan Integrated Development and Project Office
PNNI	Palawan Network of NGOs
PO	People's Organization
PPC	Puerta Princesa City
PPDO	Palawan Provincial Development Office
PRRM	Philippine Rural Reconstruction Movement
PTFPP	Palawan Tropical Forestry Protection Program
PVO	Private Voluntary Organization
SEAMO/ SEARCA	Regional Center for Graduate Study and Research in Agriculture
SEP	Strategic Environmental Plan
VSO	Voluntary Service Office (Britain)
WWF	Worldwide Fund for Nature

CHAPTER 1

INTRODUCTION

In 1995, I flew to Puerto Princesa City, Palawan for a three-day visit. I had corresponded with an American colleague who was conducting research in coastal communities on Palawan. He had offered to show me around because I was considering dissertation fieldwork on coastal resources, community participation, and environmentalism. Commonly known as the “last frontier” of the Philippines, I thought that Palawan would be an ideal place to study local knowledge and community-based coastal resource management (CBCRM). At that point I was vaguely aware that Palawan was a sort of haven for environmentalists. I had just come from attending a seminar on coastal resource management, and I was eager to see whether or not Palawan was indeed a frontier of pristine wilderness with an unspoiled coastal environment ripe for community participation to manage coastal resources. Most of the other Philippine islands had badly degraded marine environments with decreased fish productivity, while Palawan maintained a reputation as an unspoiled paradise throughout the Philippines as well as to scuba and snorkeling enthusiasts throughout the world (Flippin 1998, Theoroux 1998).

From the plane, as we descended into Palawan, I could see lush green mountains and blue waters, but I also noticed muddy siltation from erosion along dirt roads pouring

into the ocean in a few places. In the coastal management seminar I had just learned of the damage erosion can cause to tropical coastal ecosystems so I took special note. We landed on a small air strip at the end of town and I checked into Puerto Pension, a guest house that advertised all natural construction materials: bamboo walls and floors with palm thatched roof, a Palawan bearcat in a cage (the rare animal that symbolizes biodiversity on the last frontier), and a parrot to keep guests company at the tiny open-air restaurant. I was pleased with the aesthetics of my choice in lodging. Having only been to the Philippines once before, and being part Filipina, I was anxious to examine my potential field site.

In the lobby of the pension house, I picked up a local paper. “Perfect,” I thought to myself, “this is an environmental paper, *Bandillo ng Palawan*.” I did a double-take as I glanced at the picture on the cover. It was Navajoland, a place I had lived and worked a few years earlier, halfway around the world in the American Southwest. “But wait,” I thought: “This paper is in Tagalog. Why is there a picture of Navajo canyon country on this newspaper?” Puzzled, I noticed the paper was written in both Tagalog and English. I read on to learn that the editor of the paper was Yasmin Arquiza, a well known Filipina environmental writer whose work I had read and admired. As I read further, I realized the cover feature was Yasmin’s travelogue of her trip through the southwestern United States. She had come to the United States to learn about the peoples, parks, and environmentalism in the United States. This publication seemed to indicate to me that transnational environmental discourses are an important topic, and that Palawan would be an ideal place for me to study environmental movements and community participation in coastal resource management. It was the least developed of all of the Philippine islands,

and geographically different from the rest of the Philippines. It was, after all, a frontier worth saving. Having just seen some of the more developed areas of central Philippines in the Visayas, I realized that I could study areas already degraded, or I could go to Palawan and study efforts of local people and environmentalists to save this frontier. Reading *Bandillo ng Palawan*, I was led to believe that the environmental movement flourished and was widespread on the island.

I studied more about transnational environmental movements and community-based resources management over the course of the next two years. In 1997, I landed again in Puerto Princesa City, ready to start fieldwork examining linkages between, and perceptions of, environmentalists and fisherfolk. I was surprised to notice how developed the small city had become. Motorized tricycles, serving as a kind of mini-taxi, buzzed up and down the main street, spitting out pollution that made it hard to breathe. The busy marketplace was jammed with tricycles and hard to navigate on foot without worries of being trampled. The people seemed a bit less friendly downtown, and I saw more foreigners than I had seen on my previous trip. The last frontier of the Philippines was already changing and its pristine environment rapidly degrading.

A few months later, when I visited the village of *Lucbuan*, the family I stayed with marveled over the tourist map of Puerto Princesa City, a jurisdiction that encompasses several hundred square kilometers, including their village. Not lacking in basic education, both parents and children were able to read the map, but had never seen this pamphlet I brought from town. They poured over the map's tourist destinations, and longed to be able to go to some of the places they had never seen, less than a hundred kilometers away. Once I saw their reaction to this simple map, I realized the

environmental and social justice movement had a long way to go, as local residents were too poor to enjoy the nearby national park that tourists from all over the world came to see. These residents reacted to information about the world beyond their reach with a thirst for knowledge. They could spend hours studying this simple map and planning how they might take a trip to the famous St. Paul Subterranean National Park (also known as *Underground River*). They told me how their fishing catch had declined dramatically, how they chased illegal fishing trawlers out of their community waters, how the environmental non-governmental organization (NGO), the Environmental Legal Assistance Center (ELAC) was helping them to set up a community-based coastal resource management (CBCRM) program. They dreamed of the days when their children would prosper and their community would once again have abundant food. They seemed proud of their small community, yet they envied the “outside world,” that of Puerto Princesa City with its goods and services just beyond their reach, close enough for a long day trip, yet set apart from their daily existence. They were linked to town through markets and services, and now with an expanding effort of environmental programs to preserve the coastal resources of the island, they were connected to external resources through their relationships with NGO workers and other fisherfolk who struggled to save the resources of Honda Bay. These were not communities living in isolation; they were not autonomous, romanticized indigenous peoples. They were marginalized fishers who wanted the same benefits of mainstream Filipino society, yet they possessed their own identities and valued their way of life in their small community. Their stories had, in the past, been neglected in literature on environmental movements that focused on "saving the rainforest," sustainable agriculture, biodiversity conservation, and indigenous rights.

Throughout the next 14 months, I witnessed the birth of several CBCRM programs and a concerted effort to bring fishers into the fold of the environmental movement on Palawan.

Features That Make the Research Site Distinctive

There are thousands of Filipinos and others actively engaged, often through employment with environmental NGOs, in projects around the country aimed at empowering the poor through local resource management efforts. This global environmental movement to focus on local management, community-based resource management (CBRM), or participatory methods in resource management has perhaps been more widespread in the Philippines than in any other nation in the world (Korten 1987).

My research shows how global or transnational¹ environmental movements and discourses come to be realized at the local level, and how Filipino environmental professionals marshal their cause at the local level, often influenced by various intellectual, political, environmental and other transnational perspectives. As a result, in the Philippines, the movement towards CBCRM highlights social justice and emphasizes that local communities along with environmental NGOs can implement coastal resources management with very little scientific training and background. Even more distinctive is

¹ The use of the terms global and transnational are interchangeable in this dissertation. I recognize that "trans" national is more often used to denote concepts or theories that cross and formulate between and among national boundaries, whereas global is usually more all encompassing and would likely refer to a movement that covers the entire globe, and not just ideas that intersect between nations and continents. Since the current state of CBCRM in the Philippines is part of a larger global environmental consciousness to protect and regenerate our oceans and coastal areas, as well as a national movement with transnational influences, I would argue that both terms are appropriate.

the nature of environmental movements on Palawan. Palawan Island has been recognized as a "biodiversity hot spot" by Conservation International and other international conservation organizations, is the most pristine of all of the Philippine islands, and is known to Filipinos as their last frontier. It represents an untamed wilderness to Filipinos and (increasingly) to foreign researchers and tourists as well. Palawan also supplies the majority of coastal resources for the major metropolitan area of Manila, and is known for its rich coastal environment. It has such privileged status that the Filipino government recognizes the entire island as a protected area under national law. Filipino citizens consider the island to be a rugged land of opportunity, much like the frontier character of the American west.

Fisherfolk and grassroots indigenous, farmer, and fisherfolk organizations (known as People's Organizations) on Palawan have learned that they may receive assistance from a plethora of regional or what I shall refer to as "meso-level" NGOs. In much of the literature on transnational environmentalism at the time of my field research, the most popularly assumed scenario of environmental NGOs, was that regional or national NGOs implement top-down approaches to community-based resource management, and often compete with each other for international funding. This dissertation research on Palawan demonstrates that for several reasons, this is often untrue, at least where Palawan is concerned. NGOs on Palawan grew out of advocacy organizations, and have become so well-known on the island that local people often seek assistance from the NGOs in such causes as contesting illegal logging, encroachment of trawlers into local fishing waters, or opposing mining permits. This is in contrast with preconceived notions that became popular critiques in the mid 1990s that NGOs implementing community-based projects

are usually top-down, externally funded endeavors with little understanding of and input regarding community needs (Novellino 1999). On Palawan, as I shall demonstrate, the social justice movement tied with Philippine environmentalism, in particular, shows that although communities often receive assistance from meso-level NGOs, they are not simply recipients of top-down programs and act as partners with NGOs in CBCRM. Since Palawan is recognized by most international conservation organizations as an important geographic area for the preservation of biodiversity, especially that of marine life, it is also highly significant internationally.

Statement of the Research Problem and its Significance

Transnational environmentalism has traditionally been considered an environmentalism that emphasizes the conservation of "nature." Recent attention given to community participation within environmental movements has often been based more on rhetoric than reality. However, in contrast to most popular environmental movements throughout the globe, on Palawan Island, Philippines, the linkages between meso-level environmental NGOs and local fisherfolk are the primary foundation for social justice, food security, and the empowerment of local peoples through community-based coastal resources management (CBCRM). CBCRM attempts to empower communities to become autonomous and manage their own resources. This research explores the interlinkages between communities and NGOs and suggests that these linkages are the basis for CBCRM, which focuses more on social justice, and less on scientific, technocratic, or preservationist approaches to resource management. Although

considerable attention is given to local knowledge in Chapter 5, the focus of this research is not primarily about local knowledge of coastal resources.

The research is significant because it fills several gaps in the literature on environmentalism. First, the relationship between meso-level NGOs and local communities is rarely addressed in analyses of environmental movements (Brosius 1999a). Such analyses are primarily focused on either transnational discourses *or* local community case studies (for example Western and Wright 1994, Agrawal and Gibson 2001); they rarely address the linkages as I do here. Second, most contemporary environmental movements have traditionally been focused on the conservation of nature, and not on social justice and the empowerment of local peoples (Guha 1989, Shiva 1993, Dunlap and Mertig 1992). It was only after the United Nations Conference on Environment and Development (Earth Summit) of 1992 that social justice came to be considered an important aspect of environment movements (Fisher 1993). Third, there is a dearth of literature on the social and cultural implications and perspectives of coastal environmentalism (Blount, personal communication 2001). Finally, the research is distinctive because much of the social science literature that analyzes environmental movements and NGOs has emphasized a polarization between environmental NGOs and local peoples (Novellino 1998, 2000; Paolisso and Moaloney 2000; Lowe 2000; Zerner 2000; Schroeder 2000). Some of the main criticisms of the environmental movement have come from the south. Those who have criticized northern environmentalism do not believe that environmentalists from the north truly care about local peoples and their environment in the south (Khor 1992, Sachs 1993, Ransom 1992).

As explored in this research, the Filipino case is unique in that environmentalism in the Philippines has merged with and grown out of a social justice activism for the poor (Arquiza 1997, Coronel 1996, Vitug 1996, Broad and Cavanaugh 1993). Many of the early environmental advocates in the Philippines originated in leftist movements prior to People Power revolution of 1996 and the new Philippine Constitution of 1997. These advocates, familiar with organizing and fighting for justice, moved into the environmental arena with a background in other people-oriented causes (Sosmena 1991, Silliman and Garner Nobel 1998). Community Organizers, often trained in political science or social work, have become the country's major advocates for the environmental movement. The environmental movement revolves around an axis and framework of social justice and human rights with an inherent discourse of empowerment.

Palawan residents and organizations are just beginning to recognize the importance of protecting their coastal resources. Coastal ecosystems throughout the Philippines have been destroyed by destructive fishing methods such as the use of dynamite, cyanide, and illegal trawl fishing, as well as upland logging and development causing erosion and siltation in the coastal areas (Arquiza 1996a, 1996b, 1999; McGinn 1998, 1999; White et al. 1994, Sandalo 1994). Mangrove degradation has also been recognized as an important environmental issue. Recently, global attention has focused on protection of coastal ecosystems throughout the world and on Palawan (McGinn 1998, 1999).

I found that though many critiques of community-based conservation claim that top-down approaches to community involvement and participation in development are common, often lacking true participation (Zerner 1994, Peters 1993, Peluso 1993,

Novellino 1998, McDermott 2001), many residents of Palawan are actually seeking help from NGOs, and are not mere helpless recipients of programmatic attempts to implement participation mandated by Philippine federal law. NGOs may be considered to be larger transnational organizations such as World Wide Fund for Nature or Conservation International, national organizations, or meso-level organizations such as those I studied on Palawan (see Chapters 3 and 4). People's Organizations (POs) are generally community-level organizations and livelihood co-operatives that often work with NGOs. In the case of my research, the POs of Honda Bay actively sought the assistance of NGOs to combat the problem of illegal fishers near their communities. Another distinctive aspect of this research site is that Palawan is the site of an international environmental movement (Sandalo 1996, Novellino 1999), making the case of Honda Bay even more relevant. It is not only a place where the global discourses are played out at the local level, it also the site of NGOs and communities exercising local agency to benefit from the transnational environmental movement.

For example, I once observed a group of Indonesians visiting *Lucbuan* gather around the Director of the Environmental Legal Assistance Center (ELAC) who explained the Honda Bay CBCRM program. She explained to the Indonesians, who were from an NGO, that the Local Government Code of 1991 gives communities in the Philippines the authority to manage their own resources. The Indonesians were surprised to hear about the Local Government Code, and the ELAC director was interested to learn that Indonesia has no such law. Through these kinds of exchanges of information, seeds are planted for movements and projects around the world. Not only are local peoples influenced by international aid organizations, regional NGO counterparts, they also

receive information, ideas and projects in their communities from sources ranging from regional advocacy NGOs, to foreign visitors like the Indonesians, to American and European volunteers stationed on the island of Palawan, and finally through media and cyberspace. Although many of the poorest fisherfolk of the Philippines have no access to such projects and information, an overwhelming number of community-based programs that endeavored to help the poor and protect the environment swept the country in the late 1990's (Rivera and Newkirk 1997). Palawan in particular has received international attention for its pristine environment and is host to numerous environmental programs. Within the last four years, Palawan has been written up in such well-circulated magazines as Outside Magazine (Theroux 1998), National Geographic (Vesilind 2002), Conde Nest Traveler (Alcorn 2000), as well as the New York Times (Flippen 1998).

Another reason the research is significant is because of recent emphasis on protection of the world's oceans and coastal areas. Recently, partly due to the designation of 1997 as United Nations (UN) Year of the Reef, and 1998 as UN Year of the Ocean, the focus of many environmental programs, discourses, and movements has been the preservation and recovery of declining coastal resources. However, research on coastal environmental issues is lagging severely behind more popularized environmental movements that often focus on rainforest preservation. A report published by the Environment Program of the Pew Charitable Trusts (1999 *in* Wilcox and Isaacson 2002, Chadwick 1999) found that non-profit environmental organizations in the United States devote less than one half of one percent of the amount earmarked for land and animal [non-marine animal] protection. This figure is likely similar to that of environmental organizations in other countries as well.

In summation, through anthropological analysis, this research brings an unusual perspective to studies of environmental movements. Furthermore, as Palawan is the site of a number of international conservation efforts, the research site is important globally. Finally, coastal environmentalism is an emerging trend throughout the world. Palawan Island provides the link between coastal resources management and environmentalism and is therefore a highly significant location.

Social Analyses and Environmental Movements: An Overview

The purpose of this overview is to demonstrate how various aspects of ecological anthropology and ethnoecology evolved and came to be utilized by practitioners and scholars conducting social analyses of environmental movements. I will show how those who have employed such analyses have contributed to the formation of environmental movements that grew out of social justice ideologies. As a result community-based coastal resources management is more human oriented with less emphasis on scientific and conservationist approaches.

Since anthropologists began studying humans' relationship to their ecosystems, the subfields of ecological anthropology and ethnoecology, including studies of indigenous knowledge systems and local knowledge, have meshed with participatory development and conservationist trends towards involving communities in resource management. Whereas some well known works focus on conservation (Western and Wright 1994, Agrawal and Gibson 2001), little attention is given as to how the field of international development, a field previously unconcerned with protection of the environment, came to be so closely associated with conservation. Two poles, which at

one time couldn't have been further from each other, are now often taken for granted as innately interconnected. Resource management and conservation now commonly attempts to include the involvement of communities, whether the purpose is the management of resources for utilitarian needs such as farming, fishing, or irrigation – or for a protectionist conservation regime (Jeanrenaud 1997). "People oriented conservation" has become a matter of policy of WWF (Jeanrenaud 1997) and other large non-governmental environmental organizations (Alcorn forthcoming).

Ethnoecology and ethnobiology initially looked at the value and logic in local knowledge and showed how humans' utilize their environments in a manner that may be considered rational, efficient, and ultimately sustainable. Then with the advent of a movement towards participatory development, practitioners of development used anthropologists' research and ideals, ideals that stated indigenous knowledge was worth considering, and included them in efforts by international aid agencies to promote development initiatives. However, an underlying tension between science and the value or rational purpose of considering local knowledge pervaded development programs that proposed to include local peoples. Rather than focus on local knowledge at first, efforts to include locals in the participatory development process was more of an educational or passive approach, whereby development programs proposed to help communities, by educating them about projects they might promote (Cernea 1985).

Gradually, as indigenous knowledge systems came to be considered sustainable and efficient, if not more so than externally imposed scientific solutions to Third World development, participation began to more fully mean the inclusion of local knowledge.

A resurgence of environmentalism and conservation programs followed the EXXON Valdez oil spill of 1989 and the Bruntland Commission Report of 1987. These events precipitated Post-Rio² activism of the early 1990's, after which the call for indigenous knowledge (Suzuki and Knutson 1992, Warren et al. 1995, Brush and Stabinsky 1996) experienced another surge accompanied by environmentalist representations of indigenous peoples as forest guardians, and keepers of important secrets about nature. Hidden within their treasures of knowledge might be the key to long-term survival of biodiversity, old-growth forests, and the human race. Major medicinal discoveries might be found there, in the depths of impenetrable rain forests. Romanticized images of indigenous peoples were conjured that represented such peoples as those who held invaluable knowledge within their hands. Coinciding with movements to recognize indigenous knowledge, human rights and social justice advocates mobilized around the world to protect indigenous peoples, farmers, and fishers against the injustices of global capitalist intrusions into their lives and communities (Sachs 1992, 1992; Ransom, 1992; Johnston 1994; Rahman 1993).

Throughout the 1990s, a call for social justice and human rights swept the globe as our forests became more and more threatened by oil and gas development, large scale logging, global greenhouse warming, and decreased productivity of our seas. Pollution in coastal zones began to be considered a threat to vital wetlands and ecosystems (McGinn 1998, 1999; Bailey 1997). Destruction of upland forests was considered a threat, not only to those indigenous communities who lived there, but also to world food supplies from oceans and coastal communities. Corporate interests invading pristine wilderness caused

² United Nations Conference on Environment and Development at Rio De Janeiro, Brazil.

global consternation among environmentalists and to a degree, the general public, about health risks associated with degrading forests and coasts from the effects of clear cutting of forests, erosion, toxic waste, global warming, and large-scale destructive fishing method (Broad 1994, Khor 1992, Gottlieb 1993).

Community-based resource management (CBRM) and public participation in development rose in popularity in part as a result of pressure from activists. Other influences on CBRM included the experiences of international development practitioners who learned the importance of including locals in development projects, many of which had failed due to the lack of consultation with local communities (Korten 1990, Chambers 1997).³

Advocates of community-based resource management eventually began programs that more fully included community participation not only among indigenous and farming communities, but also in fishing communities, especially in Southeast Asia. Community-based coastal resource management experienced a surge throughout the Philippines in the late 1990s (Rivera and Newkirk 1997), yet little in-depth analysis has looked at this phenomenon as a social movement and an artifact of transnational discourse.

In this section, I cover five main topics. First, after providing some background on ethnoecology and environmental anthropology, I delve into a broad category I have called transnational environmental discourse, which includes relevant domains of globally invoked conservationist discourse such as the nature/culture divide.⁴ Second, I provide a brief context for understanding and incorporating political ecology, as much of

³ A brief overview on CBRM is provided below.

the work here is relevant to the basic tenets of political ecology. Third, I offer a discussion of the evolution and practice of community-based conservation (CBC) and resource management (CBRM) with special reference to CBRM in the Philippine context. I also examine critiques of the movement. Finally, I present a discussion of social justice and environmental movements. Social justice permeates every aspect of Filipino environmental movements - so much so, that as a researcher working in communities and with NGOs as well as government organizations, "empowerment" discourses were commonplace.

The Issue of Local Knowledge

Anthropologists have traditionally studied tribal societies that were assumed to be bound by culture and geography. Earlier emphasis on ecological anthropology, human ecology, and ethnoecology focused on the interaction of various culturally defined groups with their environment. Some of the most concise, more recent reviews can be found in Brosius 1999a, Kottak 1999, Milton 1996). The field of ethnoecology has been interpreted in various ways over the years. Although the primary focus of this research is not about ethnoecology, the origins of the field and its relationship to cognitive science provide a foundation for understanding decision making in resource management and environmental discourse.

With the earlier work of Frake (1962) and Conklin (1969) the field of ethnoscience was born. While Frake drew on the models of cultural ecology as the study

⁴ This is not to be confused with a debate of the early twentieth century that split the disciplines of natural science and cultural geography, the early antecedents of cultural anthropology (Horigan 1988).

of "the role of culture as a dynamic component of any ecosystem of which man is a part" (1962: 53), he also stressed the need for ethnography of study communities to better understand their knowledge and use of resources.

During the same time period, in the late 1950s and 1960s, Conklin conducted extensive research and published the ground-breaking work (and various related works) "An Ethnoecological Approach to Shifting Agriculture" (1969). Conklin's research provided a detailed description of shifting agricultural practices among the Hanannoo' in the Philippines. Conklin's work today continues to be used (and sometimes misrepresented) by those who aim to absolve tribal peoples from accusation that they destroy tropical forests, causing erosion by practicing shifting agriculture (Harold Conklin, personal communication 1994). Conklin's painstaking attention to detail resulted in the most comprehensive ethnoecological study of his time complete with descriptions of ecologically sound swidden clearing practices, taxonomies in native languages, and harvesting practices. Conklin, in a later paper, stressed that natural local systems of domesticated plants and animals are reflected linguistically and that we have much to learn from studying the way people talk about them (Ellen 1996).

In the 1970s Berlin (1992) and colleagues followed Conklin's earlier work, seeking universal explanations for taxonomies guided by cognitive scientific premises and theories, apparently rebelling against culturally relativistic ethnoecological studies such as those of Frake and Conklin. Frake, Conklin and Hunn laid the groundwork for including an element of decision making to the analysis of cognitive processes and resource use, as did Rappaport (1979). As the field of ethnoecology slowly developed in the 1970s Fowler (1977) and others developed methods to elicit ethnoecological data,

often tailored with the intention of uncovering covert categories. For various reasons the field dropped off in popularity since the late 1970s.

However, the late 1980s and 1990s has seen somewhat of resurgence and reworking in the field of ethnoecology (Posey et al. 1984). Ellen (1993) brought into consideration the classification of habitats and landscapes, and provided a broader integrative approach.

The work of Frechione, et al. (1989:263) on the perception of ecological zones captured the concept of "zonation" and the relationship of biotopes to *caboclos*, a folk classification of resource units in the Amazon Basin. Dove (1993) also looks at resource management practices and provides a case study of "coevolution" and issues with fuel wood and forest resources in Pakistan. This particular type of ethnoecology is useful to consider as a point of departure for ethnoecology and natural resource management.

In moving towards a broader, more integrative approach to ethnoecology, and following in the path of Rappaport's (1979)"On Cognized Models," Nazarea-Sandoval (1995) attempted to link the ideational and operational. She adds the dimension of class and gender, two areas often glossed over or outright ignored in earlier and more recent ethnoecological studies. Various works produced in the 1990s provide excellent examples of the diverse re-emergence of ethnoecology: Bellon (1995), Dove (1993), Frechione et. al (1989), Gragson and Blount (1999), Nazarea-Sandoval (1995), Nazarea (1998) and, Warren, et. al (1995), to name only a few. They all provide various case studies of an integrative approach to ethnoecology, and many began to consider more seriously the role of local knowledge and perceptions in contemporary resource management.

For example, Lansing (1991) and Tsing (1993) began to combine local knowledge with considerations of resource management. In *Priests and Programmers*, Lansing's analysis of Bali water temples shows us the connections between religious practices and resource management of an entire landscape. He also addressed several other themes regarding the relationship of institutions and government to environmental decision making processes, and the roles of history, power, and cultural dispute resolution mechanisms within Balinese society and water regulation practices.

Anna Tsing's book *In the Realm of the Diamond Queen* (1993) focuses on the themes of marginality, the construction of discourse, notions of community, gender and feminism. Tsing uses local maps to illustrate the principal of movement in Meratus society (1993:160). The issues presented by Tsing, especially marginality, notions of community, and gender are all important contemporary issues and might be considered to be a form of political ecology. Tsing's example of subjective ethnographic studies is illustrative of a transition in the field and particularly relevant to the study of social justice movements. As Lansing (1991) and Tsing (1993) have shown, an understanding of how locals utilize resources is a necessary component of resource management. Any program that proposes to include perspectives and needs of local communities must take into consideration their resource utilization practices, as well as their perceptions of resource management. Therefore, in this research, I utilize some of the principles learned from ethnoecology to engage in analysis of environmental discourses and perceptions among fisherfolk.

Environmental Anthropology

This subfield of anthropology, most often called *Environmental Anthropology* is informed by a variety of traditions. Elsewhere, Biersack (1999) and Kottak (1999) provide overviews of the evolution from ecological anthropology to environmental anthropology or, "new ecologies," more broadly defined (Biersack 1999) and "the new ecological anthropology" (Kottak 1999). My purpose here is to provide the reader with a context for the evolving field of what is commonly referred to as environmental anthropology, and the associated trends toward anthropological analysis of social movements.

Political scientists and sociologists have traditionally studied social movements, but anthropologists have only recently entered into this domain (see Brosius 1999a, 1999b, 1999c; Johnston 1994, 1995, 1997; Kempton et al. 1996; Kottak 1999; Merchant 1992; Milton 1993, 1997; Orlove and Brush 1996; Paolisso and Maloney 2000; Rappaport 1993; Redclift 1987; Turner 1991). Perhaps the most likely explanation for the recent surge of anthropologists interested in environmental movements (also referred to as environmentalism) is the overall growing interest in environmental issues throughout the world since the 1987 Bruntland report, *Our Common Future*, and Agenda 21 resulting from the 1992 Earth Summit at Rio de Janeiro.

Brosius (1999a:279) cites three factors that have contributed to the "rather striking growth" in interest in environmentalism among anthropologists:

- 1) Environmental scholarship has grown tremendously across many diverse disciplines,

- 2) Many anthropologists have "witnessed the emergence (or arrival) of environmental movements at out field sites." As this transpires, anthropologists have observed local communities "...mobilize or adopt elements of transnational environmental discourse..." and
- 3) Recent theoretical trends in the discipline (and beyond) that call for an anthropology as "cultural critique" (Marcus and Fischer 1986:111), Foucauldian analyses of knowledge and power as related to discourse (Foucault 1972), and numerous original analyses on the phenomenon of resistance (Comaroff 1985, Guha 1989, Ong 1987 *in* Brosius 1999a, and Scott 1985, 1990).

Cultural critique in particular has come to be utilized as a tool for analyses of environmental movements, often taking place in developing nations, yet highly influenced by discourse originating in Western contexts (Brosius 1999a, 1999c). These discourses regarding environmentalism have been influential in the development of Foucauldian analyses of power and governmentality (279).

Other major influences in the development of interest in environmental scholarship among anthropologists have been the works of individuals who began to theorize about nature itself and the meaning it evokes for humans (Cronan 1995, Escobar 1996, Haraway 1989, 1992; Rabinow 1992). Many of these researchers, in their attempts to write about nature, would contend that we must first make an effort to theorize about the presumptions that we make about nature⁵ and related discourses, such as how we view ecology, environmental science, and other fields (see also Brosius 1994, 1999a,

1999c). Furthermore, within and outside the discipline of anthropology, a number of writers have recently produced a series of works that are critical commentaries on discourses of international development (Escobar 1992, 1995, 1996, Ferguson 1994, Sachs 1992)

Finally, among the many significant theoretical perspectives that have contributed to anthropologists' interest in environmentalism, Brosius (1999a:280) includes the following five additional, yet overlapping influences: 1) "...efforts to understand the phenomenon of globalization and the forms of articulation between 'the local' and globalizing processes (Appadurai 1996, Featherstone 1990, Hannerz 1996 *in* Brosius 1999a); 2) the way in which feminist theory, in particular various debates about essentialism and feminism itself (Carlassare 1994, Mies and Shiva 1993, Sturgeon 1997) has influenced recent inquiries and debates about indigenous rights movements and environmentalism; 3) the widely dispersed field of cultural studies leading some analysts to study environmentalism as a site for cultural production; 4) efforts to understand the processes of the... "relationship between knowledge making, subject making, and domination in postcolonial theory," in particular considering the effects of environmental interventions in the "Third World" by northern discourses, institutions, and actors (Brosius 1999a:280); and 5) a broad effort throughout many disciplines attempting to define the field of political ecology .

All of the influences described by Brosius have in fact influenced this research. As with many of the current trends in environmental anthropology, it is often difficult to

⁵ The subsection in this chapter entitled: Transnational Environmental Discourse includes a discussion of biodiversity conservation and the nature/culture divide.

determine which influences might lead to a singular theoretical framework. The broad theoretical approach followed in this dissertation is then a product of not only influences on the development of an emerging subdiscipline of environmental anthropology but recent trends in the discipline, described by Brosius (1999, Milton 1997) as critiques of romantic, essentialized images, emphasis on contestation, and interest in globalization and transnational discourses.

Milton has described anthropology's role in addressing environmental problems as a technical one (while also stating that "anthropology, by nature, is not a technical subject"), more about means, rather than ends, and providing the "knowledge which helps to identify and effect a solution" (1997:492). In other words, she explains, that the environmental problem is defined by those outside the discipline, by policy-makers or environmental lobbyists, but that our anthropological perspective allows us to apply "systematic doubt" to identifying and solving problems, especially our understanding of the role of culture regarding human-environment relations.

Regarding anthropologists' contributions towards defining environmental problems, I would disagree with one aspect of Milton's assessment of the role of environmental anthropologists that is her statement that our main contribution is problem-solving and not problem or issue identification. I believe that we have a great deal to contribute towards understanding and determining what would be considered appropriate and accurate environmental problems as well as socio-cultural and economic problems. I would add to the trends in environmental anthropology described above that the discipline is burgeoning in the field of applied anthropology in the United States and abroad, in part because of various environmental and cultural resources laws and

regulations, but also because of concerns about toxic waste, public health, and countless other environmental issues thousands of anthropologists working within governments and NGOs deal with domestically and abroad. I would therefore broadly define the field of environmental anthropology as the study of humans' cultural and social reactions to and interactions with nature, including (but not limited to) issues concerning perceptions of nature, environmental degradation, policy, resource management, and conservation.

Transnational Environmental Discourse: The Nature/Culture Divide and Biodiversity Conservation

In this section, I discuss two primary and related discourses: the nature/culture divide, and science as a major construct of nature versus equal or primary consideration of humans in analyses of nature. I also briefly discuss the implications of these discourses for resource management, studies of ecosystems and environmental degradation, as well as their implications for social justice.

One of the most profound debates regarding discursive constructions of nature is the nature/culture divide; that is, whether humans are a part of nature or whether nature should be considered only as some pristine or “pure” state, separate from humans. Within the last decade and a half, scholars from various disciplines have studied the idea of nature as a social construct (Bennett and Chaloupka 1993, Cronan 1995, Soule and Lease 1995, Milton 1993). Haraway's work is an example of those who critique positivist approaches to examining nature (see Forsyth 1998), yet such critiques often lack alternative solutions for environmental problems. Although she has written that “biology is a discourse, not the living world itself” (1992:298), she only makes a vague attempt to

provide an alternative that is “another relationship to nature besides reification and possession...” Haraway seeks a nature that is “commonplace,” a public culture that has many houses with many inhabitants which/who can refigure the earth” (Haraway 1992:297). She writes: “...organisms are made as objects of knowledge in world-changing practices of scientific discourse by particular and always collective actors in specific times and places” and that ..."organisms emerge from a discursive process.” Haraway further deconstructs the idea of a pure nature, separate from all humans, including those who might occupy those lands deemed worthy of protection in the Third World. She has described a popular notion that the “the great white hand will be the instrument for saving nature” (1992:308). She proposes that in mainstream environmentalist perceptions, only nature and animals are depicted in documentaries of non-northern nations, resulting in a global consciousness that protecting the environment means the protection of unspoiled wilderness.

Haraway discusses scholarly efforts to deconstruct the “image of the tropical rain forest, especially Amazonia, as ‘Eden under glass’”(Hecht and Cockburn’s 1989 *in* Haraway (1992:309). The imagined pure rainforest is seen as nature, absent of humans, and worthy of protection from human destruction. In contrast to this image, in her attempts to show how local peoples might exercise power and agency, Haraway provides an example of a regional power base among the indigenous peoples of Amazonia and the nonindigenous rubber tappers (1992:310). In this example social movements, comprised of rubber tappers, have the ability to promote justice through organizations, which, when combined with indigenous movements would then be effective in local/global environmental discourses and social justice causes. In the Amazon forest “many... have

organized themselves into a regionally grounded, world-historical subject prepared for local/global interactions” (310). The power, as she sees it, is to reconstitute the real that is implied in discursive constructions of nature. In utilizing coalitions of environmental and human-rights based coalitions, rubber tappers may have the power to create and shape new discourses that benefit them, and possibly others who would absorb and deploy those discourses, eventually forming wider transnational social movements that might counter essentialized notions of poor helpless rainforest dwellers.

Ellen (1996:12) has written and discussed some common assumptions regarding the “cultural construction of nature in science "in order to deal with the way in which nature is used in professional scientific discourse.” One assumption is “that nature really exists out there in the world in a positivist sense and that science offers us a realistic model of how it is different from culture. Another assumption is that “that nature itself is out there but that science (including folk science) can only apprehend it through shifting cultural lenses." This would include a high value on the cultural lenses of the "other" or what is commonly referred to as local knowledge. If one were to apply the principle of shifting cultural lenses to the nature/culture divide, then it could be said that western science is only one cultural lens⁶. Local knowledge, or multiple conceptions of knowledge, constitute(s) another form of knowledge, often perceived as contrasting with science.

⁶ Ellen offers a discussion of the growth of a "European culture of science and its associated conception of nature" (1996:15), including reference to issues of influences of different cultures on scientists, but for the purposes of this dissertation, only one general representation of western science is used when referring to "science."

The nature/culture divide tends to separate "science" from much consideration of the human element in nature and reinforces a notion that conservation and resource management is primarily science driven, with only occasional input from the social sciences⁷. This divide is extremely significant in regards to the role of environmental interventions in developing nations by First World institutions and discourses. As described above, for many years, anthropologists have engaged in analysis of international development programs and discourses. Not only have anthropologists and other social scientists been concerned with critiques of environmental discourses, but through our analyses we have also contributed to a second generation of discourses. These discourses are about projects, programs, or research we have critiqued, and found to be untrue. In other words, we have formulated new discourses, the antithesis of those we critiqued. One of the most general examples of this is the premature conclusion that science is of little or no use because those who place so much emphasis on the human element seem to minimize the importance or existence of any scientific, biophysical reality (see for example Bayer 2001, Olofson et al. 2000, Vayda and Walters 1999).

Forsyth (1998) aptly describes some of the main difficulties with current trends that analyze environmental discourses, and points out that these critiques often do not propose solutions to the problems that persist when myths are debunked. He uses the term "environmental orthodoxies" to refer to "commonly-held explanations of environmental degradation which, on closer, inspection, do not match available evidence." (Forsyth1998:109). He explains this phenomenon in his paper "Mountain

⁷ In the following discussion of the social sciences, no distinction is made between humanistic or positivistic social science. While the divide *within* the social sciences as a discipline is an important topic, this section is more concerned with the divide between natural and social science.

Myths Revisited: Integrating Natural and Social Environmental Science”

(Forsyth 1998). He presents a useful analysis for understanding the dilemmas conservation scientists and social scientists face regarding the issue of integrating the disciplines. The case study he provides is of Himalayan environmental degradation theory, and how it came to be considered simplistic, “if not simply wrong” (1998:108). Briefly, the model, of “rapid deforestation and erosion leading to imminent ecological collapse,” became known as Himalayan environmental degradation theory and was then applied to other contexts of mountain environments (Forsyth 1998:108,109). In his discussion of the theory, and the Mohonk process (the result of a conference in Mohonk, New York), where scholars sought to disprove the theory, Forsyth explains that how the model came to be considered as truth, or an “environmental orthodoxy,” by the mid 1980s.

The analysis is helpful because Forsyth not only explains how discourses come to be realized as fact, and then deconstructed, he also offers perspectives on how integrations between disciplines may occur, and finally, a discussion on why the role of science may be neglected as a result of what Forsyth refers to as an “epistemic fallacy.” (1998:110). This fallacy involves the creation of what may be called secondary discourses—those discourses that have come to be believed as *true* because they found some other theory or “environmental orthodoxy” *false*.

In discussing the “problem of not integrating” social and natural sciences, he states that numerous researchers have found the theory of Himalayan environmental degradation to be untrue because the model disregards the different perceptions of risk by different actors, it ignores the importance and effects of long-term biophysical change,

and it disregards the role of organizations that “create different images of crisis to match their political ambition” (Forsyth 1998:108). The problem with establishing that the model is often untrue is that those who challenged it (Forsyth 1998, and McKinnon 1983 *in* Forsyth 1998) then created an "epistemic fallacy" that itself had political ambitions. Any reference to similar causes of environmental degradation came to be considered as false because the model had been disproved in several cases. As result, opponents to the model, including social scientists, humanists, or political ecologists, concentrated more on the contested and constructed meanings of environment and little or no emphasis was often offered on rebuilding the explanations of degradation itself.

These critiques charging the politicized nature of environmental regulation, research agendas, and explanation began en mass with the increase in political ecology studies in the mid-1980s (Forsyth 1998, Esobar 1996, Greenberg and Park 1994). Within the natural sciences, a positivistic scientific view of nature inherently ignores factors of cultural relevance, while a humanistic or social analysis of nature inherently places value on local knowledge, or human perceptions of nature over science. Forsyth has shown how it is necessary to include both perspectives, but rarely do scholars offer suggestions on how to do this, nor do they desire to in many cases. As such, Forsyth suggests that in order to accommodate the two perspectives, greater attention should be placed on particular constructions of risk as global, concurrently with local social movements that can communicate local knowledge as a way of supporting larger global campaigns. Local social movements may use alternative environmental agendas, but still need access to external resources, and scientific explanations of biophysical processes, in spite of western scientific origins outside the local area in question. (Forsyth1998:122,

McDermott 2001). However, it is unclear as to when, why, and how each type of perspective becomes useful (Forsyth 1998:112).

Saurin (1993) states that modernization and global environmental degradation are closely related and historically coincidental. Along with this relationship, global modernity produces modes of knowledge that are exclusive [to First World knowledge producers] and marginalize others. Conversely, Breyman (1993) points out that knowledge is power, when considering ecology movements. When discussing Third World environmental degradation and conservation strategies, the mode of production of knowledge emanates from scientific discourse (Saurin 1993:52). This “post-enlightenment science” or Western science claimed a monopoly on knowledge itself, as well as, “what constitutes knowledge” (ibid.). As a result, Western science is routinely juxtaposed against non-Western (or local knowledge), with Western science either considered the obvious true knowledge possessing solutions to global environmental problems, or an elitist institution and discourse that is to be used against the poor and powerless without regard for concerns of social justice, and often used against them (Shiva 1993).

Since the poorer economic classes, often powerless, have come to realize that they experience disproportionate burdens of “hazardous exposure, psychological stress...and the economic costs of proposed solutions,” they have lost trust in the legal, governmental, and scientific institutions and discourses (Perolle 1993). This loss of faith in science (Caper 1993 *in* Perolle 1993) typically posits social justice movements *against* environmental movements, which are most often outgrowths of scientific perspectives and discourses.

An example of a specific environmental discourse that stems from science-based discourse is that surrounding the term “biodiversity,” Proctor and Pincetl (1996:682) argue that the very use of the concept of biodiversity conservation implies a nature that is “literally and figuratively constructed in the context of the nationally significant biodiversity-conservation efforts taking place in the Far West of the USA.” In their example of the spotted owl controversy, they review Latour’s (1993 *in* Proctor and Pincetl 1996) argument that biodiversity conservation is a reaction by so-called purists against nature-culture hybrids, that is a nature that includes humans, and has therefore been corrupted by the human presence. In their view, strictly scientific definitions of biodiversity, which intentionally exclude any human presence (Soule and Lease 1995), while they serve a “laudable goal” ... “may achieve certain ends at the expense of others.” (Proctor and Pincetl 1996:687). This is illustrated in the case of the spotted owl, wherein, the Endangered Species Act had been used by environmentalists to protect the spotted owl and other endangered species at the expense of those humans whose livelihoods may depend on areas nearby or within habitats of the species in question.

Moving from biodiversity to another discourse related to the concept of a purist nature, protected areas are worthy of mention. As Ghimire and Pimbert (1997:7) have explained, the ideology of protected areas as “pristine landscapes” is an ideology that was transplanted from a “rich country institution” to an alien setting (referring to protected areas in the third world). The issue of livelihood is rarely discussed in the literature on protected areas, with the exception of a few studies (Ghimire and Pimbert 1997:3). Success is usually measured in purely environmental terms, without regard for human survival in these areas (*ibid.*). The notion of marine protected areas regarding CBCRM in

the Philippines is unique in that it now includes a concept of marine protected areas that incorporate an incentive for increased food protection as a result of protection of coral reef and associated coastal ecosystem habitat, as well as its origins coming from a scientific paradigm (see Alcala and Russ 1994, and White et al. 1994).

The purpose of this discussion of environmental discourse has been to look at the various ways in which human perceptions of not only nature, but also to consider how perceptions of environmental issues, problems, and programs affect transnational discourses and vice versa (how they are formulated based on these discourses). This is especially relevant when considering how the global trend to protect oceans and coastal areas is highly influenced by the CBCRM movement in the Philippines. In a sense, although the approach used in this dissertation is informed by contemporary theory, (see Gupta and Ferguson 1992) one could connect the etiology of these analyses to earlier ethnoecological and cognitive anthropological schools. Conklin and Frake were concerned with human perceptions of nature; Rappaport (1979) and Quinn and Holland (1987) later followed with cognized models and cultural models. All of these scholars were concerned with the understanding of how humans perceive nature and later looked at other discourses surrounding nature, the environment, and environmental problems.

Political Ecology

Greenberg has provided a comprehensive review of the field of political ecology, broadly defining the field as comprised of two theoretical orientations. First is that of "political economy, with its insistence on the need to link the distribution of power with productive activity." Second is "ecological analysis, with its broader vision of bio-

environmental relationships”(1994:1). He also proposes the reasons for and need for the transformation of the older field of cultural ecology to expand its area of study to incorporate "broader political and economic systems. " Greenberg states that it is unadvisable to try and narrowly define political ecology, and that various forms of the field will have some similarities, but "need not share a common core" (1994:5).

Peet and Watts (1996), while not necessarily advocating a reductionist definition of political ecology, have offered their breakdown of the field into three main groups: 1) a political ecology arising from the political economy background, 2) a political ecology arising from a poststructuralist discourse analysis of development and conservation, and 3) an analysis focused on social movements.

Stonich and Bailey have also explained that, "Rather than a coherent theory, the budding field of political ecology is more a forum for analysis and discussion among an interdisciplinary group of scholars..." (2000:25). They are also among a very limited few who study environmental movements in the coastal zone. Their work regarding the ill effects of the shrimp farming industry shows how the "blue revolution" is analogous to the green revolution's detrimental effects on rural farmers (Stonich and Bailey 2000).

Recently, Vayda and Walters have argued for a return to an emphasis on local knowledge when analyzing environmental change. Their approach follows a scientific paradigm, as opposed to a humanistic, or poststructuralist framework. They state that "'political ecology' appears to have begun as a reaction to certain features of human ecology as it was practiced in the 1960s and early 1970s" (1999:168). They believe this also stemmed from various scholars who themselves felt political dimensions of human/environment interactions. Although they agree that more attention to political

influences on environmental issues is "a good thing," they argue that many political ecologists insist that political influences always take precedence over actual analysis of resource use, thereby biasing the research.

Vayda and Walters propose "a programmatic alternative to political ecology" that they have termed "evenemental" or event ecology. Their argument is that when analyzing an issue of environmental change, one should start with focusing on changes he or she wishes to explain and "work backward in time and outward in space so as to enable us to construct chains of causes and effects leading to those events or changes" (1999:168). In short, they believe that political ecologists have placed too much emphasis a priori on political forces.

They discredit the notion that political and economic forces are the cause of mangrove degradation by providing an example wherein they propose that, in their study area, locals' utilization of mangrove resources is the main cause of their destruction. A popular notion in the Philippines and among coastal research is that the destruction of mangroves is often connected with elite development of large-scale intensive fish farming or shrimp farming, which do not benefit local populations, and in fact disrupt local ecosystems. Vayda and Walters (1998) explain that in one well-known bay in central Philippines, in contrast to popular notions that elites are always the main cause of the destruction of mangroves, their research found that elites had actually contributed to planting and protecting mangroves. This contrasted with popular notions that the poor and landless would be more inclined to protect mangroves through tenured stewardship

arrangements (i.e., Mangrove Stewardship Agreements).⁸ In fact, they found that poor fisherfolk were more destructive to mangroves once they obtained stewardship because they utilized the forested land for construction materials, and in some cases sold the land and/or materials.⁹

In analyzing this example, it is useful to examine several factors that *are* influenced by outside political forces. There are two factors that drive landless fishers' use of mangroves. First, in the Philippines, the majority of fishers are landless, thereby forcing them to reside on public lands in the coastal zone. Second, the amount of mangrove forest cover *originally* occurring in these areas has already been dramatically reduced over time (Kummer 1993). As emphasized by Forsyth (1998), a true understanding of the biophysical processes is necessary when analyzing human/environment interactions and environmental change. However, Vayda and Walters (1998) have failed to incorporate political factors within the broader reality in the Philippines concerning the resource base available to the landless poor, and how their lack of land tenure and diminishing mangrove forests, contributes to their usage(s) or allegedly unsustainable use of mangrove areas.

Any combination of ethnoecology, or analysis of local knowledge, with political ecology would be the most desired research framework regarding human/environment interactions. However, a comprehensive analysis of internal local knowledge within a community, biophysical processes, and external political factors, is often difficult to accomplish, especially without a team of researchers (see Kottak 1999).

⁸ Mangrove Stewardship Agreements have since been replaced by Community-based Forest Management Agreements (CBFMA), which may be used in all forested areas, including mangroves.

⁹ It is illegal to sell land obtained through stewardship agreements in the Philippines.

Situating Community-based Resource Management

Within the past decade and a half, community-based conservation (CBC) and community-based resource management (CBRM) have become widespread in international and domestic conservation and resource management initiatives. At this juncture of rapid proliferation of community-based management policies, programs, and scholarly analyses, it would be superfluous to attempt to reconstruct the only "correct" history of community-based resource management. Understanding the origins of public participation, however, is important in understanding a general history of CBRM because it originated in the international development field (Cernea 1985, Chambers 1997), and was later modified for environmental and resource management programs. Some environmental professionals and radical environmentalists have been under the false impression that community-based resource management was new at the time of its most obvious escalation during the post-Rio climate of the early 1990s. At that time the trend to include communities in efforts to practice or work towards sustainable development was paramount on the minds of environmentalists as well as policy-makers. Some environmentalists and scholars who engaged in critiques of the movement towards community participation in resource management and conservation seemed unaware that many international development professionals had spent years promoting the inclusion of local participation in development projects. (Sachs 1992, Szaz 1994, Killingsworth and Palmer 1996)

Two of the main principles behind CBRM are the participation of local communities in the management and conservation of resources, and the empowerment of such communities (Korten 1980, 1984, 1987, Coward nd). In the Philippines, the term

“empowerment” has taken on almost synonymous meaning with “social justice” among human rights advocates and environmentalists. Methods of implementing CBRM vary, but generally, the strategy involves a local grassroots organization, private voluntary organization (PVO), or a People’s Organization (PO), that coordinates with nongovernmental organization (NGO). The NGO can be regional, national, or international. Most often, especially on Palawan, a meso-level institution organizes programs, often funded by larger NGOs or other multi-lateral international organizations. These meso-level institutions have become the cornerstone of many CBRM programs around the world. As demonstrated by Pinto (2000), the intersection of the meso-level institution with the People’s Organizations is crucial in understanding local management of natural resources.

Funding for such programs is often secured through international development organizations such as the United States Agency for International Development (AID), the World Bank, the Asian Development Bank, and OXFAM. International conservation organizations such as World Wide Fund for Nature and Conservation International as well as numerous others are also program-funding sources. Some of the CBRM programs in developing countries were started through multilateral government Debt for Nature Swap agreements.

Some of the early cases of public participation were rarely called "community-based." Korten and Klauss’s edited volume *People Centered Development* (1984) and Cernea's *Putting People First* (1985) are perhaps the two earliest and best known works for advocating for peoples’ participation in development projects. During the 1980s, development projects sought to include local people in the planning process, but not at

the level of local empowerment and social justice that today's community-based advocates hope to accomplish. The inclusion of social science principles in planning natural resource management projects began, albeit minimally, in the mid-1970s. At that time the major trend moved away from social forestry. Some viewed it to be an abuse of community labor for forestry projects, so the phrase and certain aspects of the practice eventually became outdated viewed social forestry (Contreras 1994, Schroeder 1993).

In addition to social forestry, various other labels have been applied to the concept of peoples' participation in development projects. Some of the most common are: participatory development, participatory rural development, grassroots development, community forestry, community development, and community-based development. Farming systems research is the term for an agricultural method that emphasizes community participation in development planning (see Warren et al. 1995). Protected area management and reserve design are perhaps the most closely related to conservation in the traditional sense. National parks and biosphere reserves now include community concerns in buffer zones surrounding core zones in reserves as part of the overall design. (See Murphree 1994).

Southeast Asia experienced dramatic deforestation rates throughout the 20th century (Poffenberger 1990), particularly within the last three decades. As Poffenberger stated: "Local forest management problems are characterized by the diverse and complex social forces changing the land in each local" (1990: xxi). Earlier attempts at implementing projects to work with communities who inhabit public forests in southeast Asia have been considered "paternalistic" in that it was assumed that outside implementers would know more about communities needs and solutions to their

problems (Poffenberger 1990: xxii). After many years of failed external forestry management efforts to include local people in the planning process, post 1980s forest management efforts began to take seriously the need to include local peoples in forestry management, and various legal mechanisms sought to give more control and rights to resources to communities (Lynch and Talbott 1995). The Philippines in particular began some of the earliest effort at community-based forest management programs, but these early programs did not give tenurial rights to local communities (Pinto 2000). (See also Chapter 2)

In 1994, the popular book, *Natural Connections*, a publication edited by David Western and R. Michael Wright, resulted from a workshop among practitioners and scholars on community-based conservation in the early 1990s. The workshop brought together many conservation minded people from different disciplines to share their experiences and visions for a new conservation, one that would include local communities. Around the same time Ghai and Vivian (1994) edited a volume *Grassroots Sustainable Development*, a collection of case studies in sustainable development with emphasis on peoples' participation.

One of the most famous cases of an early CBRM program is that of CAMPFIRE (the Zimbabwe Communal Areas Management Programme for Indigenous Resources) (Metcalf 1994, Murphree Forthcoming). CAMPFIRE is an example of how a shift from a shift from an old protectionist wildlife policy to a strategy that links protected areas [on public lands] with “sustained utilization of wildlife on communal and commercial land...”(Metcalf 1994:161). The idea for such a transformation apparently originated from three Fulbright scholars in the 1960s (Cumming 1990b, Dasmann and Mossman

1961, and Mossman 1961, in Metcalf 1994:163). Their rationale was that since wildlife had been considered property of the state, naturally no one would want to “invest in it as a resource” (Metcalf 1994:163). A legislative act (the 1975 Parks and Wildlife Act) laid the formal groundwork for government-sanctioned co-management of wildlife—that is joint management efforts between government and local communities. Three unsuccessful attempts were made to implement some kind of management of wildlife whereby local communities (residing on communal land) and private landholders would participate in wildlife management. The early failures were attributed to lack of incentives (often economic) for non-state actors. As an incentive Metcalf and others sought to implement the CAMFPIRE program to provide food for malnourished communities who lived nearby and sometimes within reserve areas that possessed wildlife and other resources. The program was finally implemented with some success and with an important underlying component, the devolution of authority to local communities (Metcalf 1994). This example is one of the many success cases that I would attribute to a more human-oriented focus, where community-based resource management when implemented has improved the lives of people who benefit in some way from a CBRM project.

The Juncture of Conservation and Development

It would seem paradoxical that the phrase “conservation and development” has become commonplace – their union begs the question, “How have United States development, conservation and environmental policies as well as ethics influenced international development policy, and vice versa?” Many professionals in the field of

international development would likely believe that many conservation organizations including international, national, and local nongovernmental organizations have appropriated and transformed the idea of participation. With a tremendous amount of experience along with lessons learned from the field of international development, the environmental movement for community-based conservation has been adopting the concepts of participatory rural development from the development paradigm. In doing so, the environmental community, at times, fails to consider all of the lessons learned from development, such as appropriate technology, and the need for long-term participatory process monitoring (Bonifacio 1993, Cerna et al. 1993, Korten 1990, Kottak 1993). Furthermore, the questions of local versus regional, national, or global are complex ones, enmeshed in a myriad of issues concerning policy, representations and definitions of local and community, as well as questions about the unintended consequences of quick fix community-based management schemes.

In the late 1980s a program involving debt-for-nature swap was developed with various large international NGOs and national governments of developing countries (Broad and Cavanaugh 1993, CI nd.). The process involved in the debt-for-nature swap is that the larger NGO agrees to buy the debt papers, usually at a reduced cost to the NGOs, from the loan organization in the particular country. Then that country agrees to spend the same amount of the original debt on conservation within that country (Conservation International nd). This system has resulted in a plethora of localized environmental and conservation programs within the Philippines and other developing countries. Utilizing local and regional meso-level NGOs, larger NGOs tap into local in-country systems in place and work closely with local NGOs.

Also, in the late 1980s, Berkes (1989) produced an anthology of community-based sustainable development case studies that critically examined the idea of “common-property” resources. Stemming from his reaction against Hardin’s “tragedy of the commons,” which proposes that common property will always become over-exploited, Berkes sought to prove the existence of sustainable traditional community-based resource management regimes. McCay and Acheson (1987), and Pinkerton (1989), produced groundbreaking works on the commons and fisheries, followed by Ostrom et al’s (1994) focus on the commons. In Southeast Asia, by the mid-1990’s community-based coastal resource management became the “hot topic” (Rivera and Newkirk 1997). Because of the nature of marine resources as mobile resources, they are considered to be common property.

As early as 1993, Fisher (1993) cautioned that development professionals seemed to have oversimplified the NGO movement to date. She stated that the movement is a mixture of complex relationships between NGOs and the diverse social, political, and economic contexts within which they operate. Although Fisher warned of the potential dangers of the relationships between NGOs and international donor and lending agencies, she also encouraged NGOs around the globe to move forward with their commitments. Larger NGOs and their linkages with meso-level NGOs has been a subject of much debate. Some are wary that smaller NGOs may sell out their values of advocacy once they contract their services with larger NGOs (Contreras 1994, Garner Noble and Silliman 1999).

The end result of managing international donor-funded projects need not be “all or nothing” for smaller NGOs. In fact, Palawan NGOs have maintained advocacy roles,

while shifting into their roles as project managers. As this process has escalated throughout the late 1990s, many NGOs in the Philippines have become project implementers, and in some cases advocacy roles have taken a back seat to development-funded projects. In other words, those who may have participated in resistance movements such as logging blockades or protests against the removal of urban poor from public lands found themselves as implementers of resource management plans, often funded by international development or conservation organizations. In some ways, this is similar to the “professionalization” of mainstream environmental groups in the United States, following the passage of the National Environmental Policy Act, the Clean Air Act, and other environmental laws that followed with role of environmental organizations in the United States evolving into those of experts (Gottlieb 1993).

Community-based Coastal Resources Management (CBCRM)

Works produced in the early 1990s tended to promote CBRM as an answer to rapidly degrading coastal resources. White et al. compiled an edited a volume entitled *Collaborative and Community-Based Management of Coral Reefs: Lessons from Experience* (1994). Pomeroy’s edited volume on co-management in Asia (1994) was also published around this time. While White’s volume promoted CBCRM, Pomeroy utilized the term co-management to refer to community participation and local government cooperation in fisheries management. In the case of CBCRM, and co-management, fisheries agencies widely promoted both throughout the 1990’s as well as a concept called “integrated coastal management” (CRMP 1998).

In efforts to combat ecologically damaging fishing methods as well as to protect upland and mangrove forests from illegal logging, community-based coastal resource management seeks to empower local communities to manage their own resources. In the Philippines, a unique phenomenon has occurred. NGOs in the Philippines propose to empower local peoples through education about coastal ecosystems and legal rights regarding resource use, opportunities to participate in CBCRM projects, alternative livelihood projects, establishment of marine sanctuaries, local ordinances, bay-watch organizations to guard against illegal fishing operations, mangrove reforestation, and various other coastal management projects. Filipino environmental NGOs have routinized community organizing at the local level, stimulating the formation of community organizations referred to as People's Organizations (POs). These POs are local fishers' and women's organizations that were established in hopes that their collective efforts will result in benefits to improve their quality of life through alternative livelihood projects, and restoration of coastal ecosystems, in turn resulting in increased food supply. Some early successes are well known in the literature on resource management and environmental movements.

The movement for CBCRM is flourishing and no less than hundreds of local communities around the Philippines are recipients of international donor-funded CBCRM programs. Palawan is host to a number of CBCRM programs, many of which started the year of my fieldwork, or the year before. Palawan is a special case, being the center of a very strong environmental movement in the Philippines: hence, I reemphasize that although many CBCRM programs are donor funded, not all are started by top-down approaches or necessarily maintained by donor agencies. In the case of the ELAC Honda

Bay CBCRM program, many local residents sought the help of ELAC to expel illegal fishers from their inshore waters. This legal assistance eventually grew into a CBCRM program, which now receives funding from OXFAM.

One of the best-known examples of a CBCRM was an early model of CBCRM at Apo Island, Philippines. In this case, the small volcanic island (76 hectares) had been declared a municipal marine reserve. A section of reef area in excellent condition was made a sanctuary, with a remaining portion of the reef designated as a traditional use area (ICM 1995). Silliman University, a prestigious institution with an active marine biology program, was the catalyst for the program in 1979. Extension workers introduced fisherfolk to the idea of a marine sanctuary. Education and conservation programs were held and community members formed People's Organizations with assistance from Silliman University. Enforcement of sanctuary boundaries prohibiting fishing within a 500 meter stretch of reef, and the local organization was responsible for collecting fees to allow tourism and diving in the area. Local fishers reported a perceived increase in catch since the establishment of the sanctuary (ibid.). The case of Apo Island was one of the early movements towards community participation in coastal resources management. However, residents of Apo Island did receive a great deal of assistance from Silliman University.¹⁰

Rivera and Newkirk (1997) have summarized a collection of 9 case studies of CBCRM over the course of a decade and identified Apo Island, San Salvador, and Bolinao in the Lingayen Gulf on Luzon as some of the most well-known (among others) early cases of CBCRM. Although each case is unique to its own socio-political and

environmental factors, all shared similarities of involving external (meso-level and National or Transnational) NGOs with local People's Organizations (POs) to achieve the goals of education, establishment of marine sanctuaries, local volunteer and government efforts to enforce laws on illegal fishing, and the banning of destructive fishing methods appropriate for the specific area (e.g., on San Salvador Island, beach seining was found to be destructive). Rivera and Newkirk (1997:74) also note that the CBCRM tradition has inherently included NGOs with experience and goals of poverty alleviation in other non-coastal sectors.

Originating with a social orientation, CBCRM represents the juncture of a conservation based on science and the protection of biodiversity, with a participatory development approach emphasizing human well-being and livelihood. The effectiveness of CBCRM in the Philippines is in part due to its location at this juncture of conservationist, protectionist principles with an advocacy/social justice paradigm that includes, but is not limited to, a utilitarian incentive to increase food production for local populations. Protected areas have initially been designed to protect biodiversity of forests of coral reefs, with little or no concern for local communities (Ghimire and Pimbert 1997, Brandon et al. 1998). In contrast with examples such as the well-known success case, Campfire, that offered livelihood programs *after* sustainable resource use plans were still found to exclude small-scale black farmers (Murphree 1997), CBCRM in the Philippines has attempted from the onset of its paradigm to give equal or often greater priority to the increased production of reef fish productivity (Rivera and Newkirk 1997)

¹⁰ I visited Apo Island in 1995 as part of a seminar in Coastal Resources Management, and learned that Silliman University was still instrumental in assisting the community organizations.

as the desired result of community-based marine protected areas (Parras 2001). Biodiversity conservation of tropical coastal ecosystems is usually considered of major importance in the implementation of small community protected areas, but it is not the foremost driving force behind these reserves. CBCRM then, doesn't fit a purely protectionist conservation model, yet it promotes the designation of marine protected areas. The protected area model originated with a conservation perspective (Alcala and Russ 1994), but has been transformed by advocates for communities and fishers' needs for increased food production. As a result, in communities' fishing territories, hundreds of marine protected areas have been designated as part of CBCRM programs.

Critiques of Community-Based Resource Management

Some scholars throughout the mid to late 1990s and the early part of the current decade have engaged in critical examination of the CBRM paradigm (Agrawal and Gibson 2001, Ghimire and Pimbert 1997, Brosius et al. 1998, Zerner 1994, McDermott 2001, Novellino 1999). Some have found that, although the proponents of the environmental movement generally have good intentions concerning local participation, the outcomes of community-based resource management may not always produce the solution to environmental problems. The potential successes of many CBRM programs are unknown to date, but some scholars have begun to examine the discourse of community participation and to ask questions about the long term effects these programs may have (Zerner 1995, Brosius et al. 1998, Novellino, McDermott, Agrawal and Gibson 2001). In particular, questions of agency, the actors involved, and representation should be primary considerations when considering the concept of community. One major point

to consider is whether or not local communities actually become empowered by CBRM programs. Or, by promoting community-based resource management programs, does the state become absolved of, or maintain control of (McDermott 2001, Zerner 1995) responsibility for larger environmental issues such as deforestation, the degradation of coastal ecosystems, and erosion, (to name a only a few)? With the advent of environmental programs advocating indigenous rights and CBRM, many national governments now promote community-based sustainable development under the assumption that indigenous peoples are the best caretakers of natural resources. However, scholars and practitioners as well as some indigenous peoples themselves recognize that not all indigenous peoples are conservationists (Gonzalez 1992, Novellino 2001).

Brosius et al. (1998) have raised some important issues for consideration regarding community-based natural resource management. They suggest that a wide range of topics should be considered when analyzing the movement for (CBRM) including, but not limited to the following: understanding of "international organizations and the mandate for community-based natural resource management,"(160) "proliferating models"(161) of CBRM, questions regarding the production of maps, legal strategies, questions of power, and the "struggle for democracy" (1997:163).

Most notable among their concerns are the lack of definitions of said communities in CBRM programs and reification of a notion of bounded, homogeneous communities. For example, McDermott (2001:38) has illustrated that through supposed laudable efforts by the Philippine government to allow indigenous peoples to have control over their ancestral land, inflexible notions of bounded communities that are "fixed, homogeneous

groups occupying delimited territories since some unspecified time in the past” force groups, or tribes of indigenous people’s to demark boundaries, and provide proof of occupation of specific areas. Her work refers primarily to the Certificate of Ancestral Domain (CADC) that allows communities to gain rights to manage territories of forests in the uplands of the Philippines. The notion of bounded communities becomes problematic when the only way for communities to avail themselves of the CADC is for those communities to show that they were/are a single entity who speak with a uniform voice, and that they occupy bounded territories. These terms may often be in contrast with on-the-ground realities of upland indigenous group structures in the Philippines and elsewhere. A major problem with this model of a homogenous, “territorially and socially bounded community” is that “the policy fails to bring about the reallocation of resource control (i.e. power) necessary to achieve stated objectives of social justice and environmental protection” (McDermott 2001).

The main issues that have arisen as a result of critiques like McDermott’s are issues of the definitions of community, representation, appropriation, effectiveness of community-based resource management, and most importantly, allocation of resources and benefits.

Social Justice and Environmental Movements

Many environmental activists would not likely see their roots as originating in social justice movements. Yet Grove (1995), states that historically there has been a connection between environmental protection advocates and social reform. While mainstream American environmentalism/ conservation movements for the protection of

“nature” (which heavily influenced global environmentalism) grew in the 1970s (Contreras 1994, Gottlieb 1993, other parallel (at times more related than others) environmental and social justice movements to protest against and regulate toxic waste also grew. Mainstream American environmentalism is the phrase given to some of the larger earlier conservation-oriented groups such as the Audubon Society, which Foreman referred to as a “child of the establishment” (in Manes 1990: 50). Foreman and Brower (of Earth First) considered these groups to be more moderate with respect to their political interests, as well as possessing a narrower ideology of conservation of “nature.” Brower, the original leader of the Sierra Club, felt the group became too conservative and left it to form Earth First, a more militant environmental organization (Manes 1990).

On the other hand, an “anti-toxics” movement was most often based on human concerns, usually felt and acted on by women who were more concerned about the health of their children and reproductive health (Gottlieb 1993, Szaz 1994, Perolle 1993). Mobilization for the movement came with the growing awareness of women who began to notice health problems among their family members, thought to be a result of toxic substances that were discharged nearby their communities, often polluting groundwater systems (Perolle 1993). One of the most well known cases of this was Love Canal, New York, where Lois Gibbs brought the groundwater contamination and health hazards issues near her community under public scrutiny (Gottlieb 1993, Szasz 1994). Lois Gibbs and Love Canal became an icon for the movement in the United States to regulate toxic waste (Gottlieb 1993, Szaz 1994).

Struggles against toxic waste, like those of Love Canal, heavily influenced broader movements to counter these injustices (Gottlieb 1993, Szasz 1994, Bullard 1994,

Low and Gleason 1998). Throughout the 1980s and ongoing, the involvement of women in the anti-toxics movement invariably spread to include women of color, who had also experienced heavy pollution and contamination of their neighborhoods (Gottlieb 1993, Benton 1987, Merchant 1992). Initially these movements were a reaction to what has been termed environmental racism (Bullard 1994) to denote the unfair racist practices of large corporations in placing a disproportionate portion of environmental degradation on ethnic groups and lower economic classes (usually due to their location in areas with lower economic value). In the United States, to counter environmental racism, an environmental justice movement was born to bring justice to various ethnic minority groups, and peoples of lower economic classes and under-represented women who often led campaigns against toxic waste. These same people, however, were uninvolved in nature conservation organizations and movements (Bullard 1994, Low and Gleason 1998). Shortly after public awareness of toxic contamination and environmental risk began to grow in the United States, so did the awareness of peoples and organizations of developing nations, who also experienced a growth in social movements protesting the contamination of their environments and seeking to protect the health of associated communities (Broad 1994, Diamond et al. 1990, Contreras 1994).

Prior to the 1980s there was very little cooperation, or attempts at cooperation, between organizations that promote environmental protection, international human rights, and sustainable development (Hofrichter 2002). However, just as documentation and recognition that in the United States blacks, lower income groups, and other minorities bear disproportionate burdens of pollution and other environmental stressors, it became apparent that peoples of the Third World also bear disproportionate burdens of

environmental degradation and pollution (Hofrichter 1993). With the onset of increased global consciousness and renewed environmental activism after the Earth Summit, a transnational movement for environmental justice began to grow in recent years.

In the Philippines the response to environmental degradation has been a more wide-ranging social justice and environmental movement that could be called environmental justice (Contreras 1994, Rivera and Newkirk 1997). This movement seeks to include communities' rights to protected areas and participation in biodiversity conservation and is exemplified with environmental NGOs and fisherfolk communities in this dissertation (see Zerner 2000, Johnston 1997).

Environmental justice is rarely perceived in terms of coastal communities, yet the majority of the world's population lives in these areas (McGinn 1999). One of the best examples of the ways in which local fishers bear disproportionate burdens of the global capitalist system, and also bear the brunt of blame for degradation of coral reef ecosystems is well illustrated by Celia Lowe (2000). She documents the ways that fishers are used and abused in the live fish trade in Southeast Asia. By showing their connection to the broader regional system, she stresses that although biophysical degradation may be incurred by locally practiced unsound fishing practices, the primary cause is external market forces that promote unsound practices at the local level. She argues for an environmental justice movement that strives to address these inequities. This type of environmental justice movement can be found on Palawan where the intersection of community-based resource management, social justice, and biodiversity conservation have led to a powerful, albeit at times conflicted, regional environmental justice movement.

The strength of regional coalitions of environmental organizations and their connections to the broader transnational environmental movement has been the subject of recent scholarly attention (Keck and Sikkink 1999, Haynes 1999, Escobar 1999). While such networks build political power for legislative action, Keck and Sikkink (1999:89) state that: “At the core of the relationship is information exchange. What is novel in these networks is the ability of non-traditional international actors to mobilize information strategically to help create new issues and categories, and to persuade, pressurize, and gain leverage over much more powerful organizations and governments.” The flow of information through community-based coastal resources management is enough then, when ascribing to this viewpoint, to give power. The power of information (Breyman 1993) may be absorbed, transformed and re-produced to create new discourses promoting environmental justice agendas. It is this situation that I believe is occurring on Palawan through the creation of CBCRM programs along with the environmental movement there fueled by the activism of meso-level NGOs and the coalition of NGOs known as the Palawan Network of NGOs (PNNI). CBCRM is not just a coastal management program, nor is it a conservation/protectionist program; it is a social movement to allow fisherfolk the rights to livelihoods and food that was once plentiful in their communities.

Among Filipino environmentalists, protecting coastal ecosystems has come to be almost synonymous with protecting coastal peoples. As opposed to a “regime of environmental managerialism” (Escobar in Brosius 1999:37), wherein the “Western scientist continues to speak for the Earth” (Escobar:194 in Brosius 1999), Filipino NGO environmental advocates speak for the poor. Not only do they speak for the poor, many of the poor, based on my research in the case of Honda Bay, actually speak for

themselves. The environmentalism of Palawan is shaped by Marxist ideologies in which the large-scale developers represent bad and destructive environmental practices, and the poor have taken on a meaning that renders them not helpless bystanders, but fisherfolk who can become empowered thru countless CBCRM regimes.

Perhaps it is too soon to tell, because the indicators for success are difficult to judge, as criteria for success differ. Pomeroy (interview 1998) defined success as a program able to operate without external assistance or funding for three years. Several environmentalists I interviewed also held this perception of success. However, I would argue that a community-based project may be able to sustain itself without external funding, but the support, information, and technical advice from external resources such as regional actors and “meso” level institutions is imperative in order to attain a fuller level of empowerment for the marginalized fishers. Yet, on Palawan, “the moral/political force” (Brosius 1999a) of the environmentalist discourse about empowering the poor is targeted at liberating the poor from the grasps of the upper elitists’ control on politics and coastal resources.

The literature overview presented here has been a compilation of various perspectives on the study of human-environment interactions. My analyses of community-based coastal resource management is significant because it brings together these varied perspectives and bodies of literature and relates them all to an emerging coastal environmentalism, one that stresses social justice in coastal resource management and environmental movements. In order to demonstrate the nature of social justice as a primary part of CBCRM and provide the foundation for analyses, I have provided overviews of the importance of ethnoecological understanding and environmental

anthropology as related to perceptions and decision-making in coastal resource management. The discussion of transnational environmental discourse and the nature/culture divide presents a useful discussion of the significance of the backgrounds and differences in biophysical scientific conceptions of nature and biodiversity versus social or humanistic interpretations. Brief overviews of political ecology and community-based resource management also address political factors pertaining to social justice in resource management, with particular attention to the Philippines. (This is also further discussed in Chapter 2.)

Research Methods

Multi-sited Ethnography and Ethnographic Authority

Field research was funded by a Fulbright-Hays grant for graduate research abroad, and was completed from August 1997 thru October 1998. Primary data collection was accomplished through ethnographic interviews and observation with environmental professionals on Palawan, in Manila, and with fisherfolk living in Honda Bay, Palawan where a community-based coastal resource management (CBCRM) project is currently underway. Eighty-five audiotapes (including tapes of interviews, conferences, and public meetings) and thirty videotapes were collected, along with ethnographic field notes. I also collected data through observation of over fifty public meetings, conferences, or training sessions.

Gupta and Ferguson (1997) have argued that the objects of anthropological study are often no longer fixed at a particular point in space. In discussing the transformations of anthropological fieldwork they point out that in contemporary anthropological

research our "field sites" are usually not bounded in a particular geographic area. This transformation, along with the notion of anthropology as "cultural critique" (Marcus and Fischer 1985) has affected the use of anthropological methods. Marcus suggests that "multi-sited" ethnography studies the "circulation of cultural meanings, objects, and identities in diffuse time-space" (1995:96). As such, classic anthropological research methods that focus on particular groups of people located in particular places need to be reevaluated, especially regarding research on issues that attempt to study transnational discourses. These critiques notwithstanding, my research focused on two specific fisherfolk community sites in northern Honda Bay, Lucbuan and Babuyan, and on environmental professionals based out of Puerto Princesa and Manila, who worked for various NGOs throughout the island of Palawan.¹¹ Hence, the research "sites" included actual communities in northern Honda Bay as well as a collection of environmentalists who worked on Palawan as NGO environmentalist advocates. The "site" of environmental movements on Palawan then was part of a series of "chains, paths, threads, conjunctions," (Marcus 1995: 96) which make up the circumstances of multi-sitedness.

Although ethnographic research of subaltern social movements may be a useful tool in evaluating environmental movements, thus providing insights that could be helpful in furthering the an environmental justice agenda, one risks the unintended outcome that "our accounts and critiques may be appropriated by the opponents of these movements and deployed against them" (Brosius 1999c:180). The task here is partly to describe the complexities and risks involved with such an experimental undertaking, yet

¹¹ Some key informant interviews were also conducted with government officials, but these were not the primary focus of the research.

also provide the theoretical and methodological background for the various methods used. Keeping in mind that researchers who attempt to study social movements through field work are "scripted into the events we are attempting to study...in ways perhaps cannot even imagine" (1999:191), I chose a collection of methods from a range of traditions in anthropology, including: classic ethnographic/participant observations, development and applied anthropology, coastal resources management, as well as more reflexive accounts. I recognized that, by attempting to study it, I would be "scripted" into the community-based coastal resources management program, and therefore I never intended to undertake a purely objective study. For example, as a reciprocal gesture for the assistance of the NGO I worked most closely with, I agreed to provide them with a report assessing their programs. Rosaldo (1989) argues that we should "explore subjects from a number of positions, rather than being locked into any particular one," in contrast with the way that classic ethnographic writings emphasize detachment and impartiality. Therefore, I offer a certain amount of reflexivity throughout this dissertation, primarily in ethnographic accounts and my attempts to show what marginality means and feels like for the fisherfolk of Palawan. Since the topic is also about environmentalists, at times the reflexive approach is used in accounts of my interactions with them as well.

The concepts of "multi-sited ethnography" (Marcus 1995) and "multi-vocality" (Rodman 1992) are both utilized in this dissertation. The multi-sited aspect refers to the physically distinguishable communities of Lucbuan and Babuyan, as well as the environmental movement in the region of Puerto Princesa City and Palawan. Multi-vocality refers to multiple voices among various actors (Rodman 1992), including myself, the ethnographer (Clifford 1983). For example, at times and where appropriate,

the reader will encounter an authoritative voice from the interviewees, rather than scholarly literature, or myself, the researcher (see Geertz 1988).¹² Whereas earlier authors of ethnographies reported on native worldviews as a detached observer, this dissertation acknowledges my presence in the process throughout the text, albeit sporadically.

Ethnographic reporting was also influenced by Geertz's "thick description" although he did not offer a particular method for unearthing ethnographic information and presentation of texts (Ortner 1984). Following earlier ethnosystematic ethnographic methods with Geertz's interpretive approach, Spradley (1979) proposed a variety of data collection methods and suggestions for writing that also strongly influenced my research design and presentation of results. The methodology I used for specific analysis of environmental discourse most closely follows Kempton et al.'s (1996) use of a protocol. These methods along with other ethnographic methods are described below.

Ethnographic Methods

I entered the world of Palawan environmentalists and Honda Bay fisherfolk through various avenues. I met and corresponded with a newly hired NGO community organizer via email, and he offered to assist me when I arrived. We had met on-line after I signed the internet guest book of the first internet provider on Palawan. Through networks of Fulbright and other scholars, I became housemates with two women, one Filipina-American, and one Filipina, who worked with the NGOs on Palawan. They welcomed me, and although some NGO representatives were a bit wary of my presence

¹² For example, in Chapters Two and Three, sections on environmental degradation include not only background literature, but also interview data on environmentalism in the Philippines as well as fish catch and productivity.

at first, through time I became acquainted with many of the environmental professionals on the island and was often invited to parties and social events. I carried a letter of introduction from the Fulbright office and a brief summary of the research to my first meetings with all of the NGO and government representatives. After visiting several communities, I negotiated with ELAC to observe the CBCRM program they were implementing in northern Honda Bay.

Classic ethnographic methods included participant observation and unstructured interviews (Spradley 1979). Participant observation was conducted throughout the field research along with countless unstructured interviews. As a resident of Palawan for fourteen months, I engaged, in the broadest sense, in a continual process of participant observation (which is sometimes used as an umbrella term for all ethnographic fieldwork) (Spradley 1979, Agar 1996). I also practiced participant observation in a more narrow sense, as described by Dewalt and Dewalt (1998). This included participating actively in the daily lives of both environmentalists and fisherfolk, and, after a period of establishing rapport for two months, systematically observing and recording such events as public meetings, the behavior of community organizers and fisherfolk interactions, along with environmental and paralegal training (this includes education about laws and policies provided by NGOs for fisherfolk) (Dewalt and Dewalt 1998: 266-267). As part of this process I gleaned shellfish with women from Lucbuan, made occasional fishing trips, accepted invitations for boat rides in Honda Bay with environmentalists, or attended local cultural events such as fiesta with fisherfolk or art openings with environmentalists.

The primary source for the chapters on ethnography of fisherfolk and environmentalists, along with chapters on local knowledge and environmental discourse, were semi-structured interviews with the use of a protocol (Appendix A). These interviews were conducted with 25 representatives from the study community, and with 20 representatives from environmental NGOs, a total sample size of 45 for the protocol. The interview protocol contained the same questions to be asked of fisherfolk and environmental professionals with minor modifications. At least two representatives (preferably one community organizer/field worker and one higher level representative) from each of the NGOs who engaged in coastal resources programs were interviewed. These semi-structured interviews were tape-recorded and transcribed when possible. Following similar research on American environmental values by Kempton et al. (1996), the protocol and survey were designed prior to the fieldwork and modified after they were pilot tested. Farnell and Graham also influenced the use and premise of "discourse-centered methods" (1998:411). The protocol was divided into two sections: one on environmental discourse and one on local knowledge. The section on environmental discourse was utilized with all of the informants in the sample of semi-structured interviews, and local knowledge questions were only asked of knowledgeable key informants.

Some questions regarding local knowledge also related to environmental discourse. For example, the question: "Are there any mangroves around here?" led to the discussion of topics that related not only local knowledge, but also to such projects as mangrove reforestation efforts or government sponsored conservation mechanisms such as Community-based Forest Management Agreements. The same is true for questions

about particular local knowledge issues, such as the purpose of coral reefs: one might respond with a discussion of their destruction and various efforts to regenerate and protect reefs within marine sanctuaries. The entire protocol interview could last more than 2 hours; therefore, as is common with the use of a protocol in ethnography, not all of the questions were always addressed.

Free listing was also used among key informants to elicit data about knowledge of specific resources. In the chapter on local knowledge, a section on participatory mapping includes lists that were compiled as a result of free listing activities in interviews.

Videotapes served as reference material for various analyses. Interviews were tape-recorded in Tagalog and English. Tagalog interviews were conducted by research assistants, either with me or alone, and later translated.

By examining the transcripts of key informants codes were delineated for various salient categories. The computer text analysis program NUDIST was used to identify, code and analyze interview transcripts as well as to create the charts in Chapter 8. A number of categories were coded for use in descriptive statistics, shown in the charts in Chapter 8. The transcripts, along with observation data, also served as primary data for the majority of the ethnographic information presented throughout the dissertation.

Videotapes served as observation tools and were viewed to supplement ethnographic data. One focus group was conducted with fisherfolk who viewed a 20-minute video of fishing practices. Written or verbal consent was obtained in compliance with requirements set by the Human Subjects Office of the University of Georgia. Written or verbal consent was obtained prior to conducting interviews and tape recording interviews. Participants were given the opportunity to choose whether or not they would

like their names used in association with the interview data¹³, if they would like to be acknowledged for participating in the study, or if they preferred their interviews to be anonymous. Participants were not required to disclose information about illegal fishing activities.

Participatory Mapping

The purpose of this section was twofold: first, to evaluate the potential use of local knowledge in Community-based Coastal Resources Management. Second, I wanted to evaluate the potential uses of the participatory mapping methods utilized. Although, participatory mapping exercises have become quite common in CBCRM as well as with land-based community-based management regimes, in Chapter 5 I suggest that the mapping results are underutilized and show how various kinds of information could be more effectively combined with scientific knowledge and management strategies.

The participatory mapping exercise was conducted in August of 1998. The exercise followed a modified version of the method that was promoted in coastal resources management projects throughout the Philippines at the time of the research (Walters et al. 1998). I attended a ten-day session in coastal resources management that trained community organizers and other coastal managers in the mapping procedure. The procedure involves utilizing a base map that shows the outline of the coastal area of concern. Group participants from communities are asked formulate lists of coastal resources and issues and to plot them onto the map. Men and women may participate

¹³ Within the sample of environmentalists, most women chose not to be named in association with the interview data; however, this is not a reflection of their participation, but rather likely attributed to a cultural value of modesty.

together or separately. My version of the exercise was modified in two main ways. One was the method of compiling the lists to be used, wherein I used free listing techniques with key informants (Spradley 1979), and then compiled lists of two male and two female key informants from each community. The other important modification that I made was to ask for three types of coral to be drawn (mapped), dead, recovering, and live. I also utilized a map that showed main features of towns, higher elevations, and rivers. Four groups participated in the exercise. Two groups were men from Lucbuan and Babuyan and two groups were women from Lucbuan and Babuyan/Sitio Teresa. Participation among women from Babuyan was low (for unknown reasons – possibly due to low awareness of CBCRM or because of lack of transportation to the mapping activity site in Sitio Katumbal) so Babuyan women were grouped with those from Sitio Teresa, a community south of Babuyan.

Participants were asked to map resources that had been collected in free listing exercises throughout the previous 10 months in the field. Free listing results from key informants from Lucbuan and Babuyan were compiled. Any items listed more than once were included in the lists used in the participatory mapping exercise. Men were asked to map gear types and fish. The gear types included destructive fishing methods since these had been listed as “things used to catch fish” in the free listing exercises conducted in both communities. Women were asked to map shellfish and seagrass. Both men and women were asked to map mangroves, dead coral, recovering coral, live coral, upland agricultural plots (*kaingin*), and logging. Both men and women were also asked to map additional resources that were known to be species of concern to environmentalists, such as turtles (*pawikan*), and sea mammals (*dugong*). Four base maps were compiled from an

artist's reconstruction of a map of the municipality of the City of Puerto Princesa, originally produced by the City Planning Department. Four separate base maps were used, one for each group. Each group was then given instructions and codes for the various items to be drawn onto the maps. These maps are representative of the perceptions of community members regarding coastal resources and cannot be taken as purely factual representations of existing resources. However, they show important trends, differences between communities and between men and women's perceptions, and can be useful tools in aiding in community-based coastal resources management. Although differences were noted between communities, coastal resource use territories also overlap between the two communities. The maps were digitized onto ArcView for analysis, which yielded some important trends and confirmed generalized data about the use of destructive methods and coral reef health.

As described, I utilized a range of methods in cultural anthropology and coastal resources management. When possible, throughout the dissertation the interview data is presented as quotes in order to invoke the voice of environmentalists and fisherfolk on Palawan.¹⁴

Organization of the Dissertation by Chapters

The task of organizing this dissertation into an order that follows a linear trend, while addressing the issues from the perspectives of both environmentalists and fisherfolk, proved to be overwhelming. After completing eight chapters and a conclusion it occurred to me that the very object of this study *is the very obstacle to preventing the*

¹⁴ Interviews with fisherfolk were usually conducted in Tagalog and translated into English. Interviews with environmentalists were conducted in English.

story in a linear sequential format – that is: understanding the linkages, as in a web, not a line, between social justice, CBCRM, and transnational environmental movements. As Palawan NGOs, fisherfolk, the environment, and coastal resource management intersect, neither of the four can be separated from the other. They are intermeshed on so many levels that to disaggregate them for the purpose of presenting data in a structured manner for the reader required a considerable amount of reflection, yet no one order presented itself as the *only* appropriate way to organize the chapters. I chose the specific order offered here after careful consideration and reworking of the outline with suggestions from committee members and my major professor. However, it is inevitable that the reader may at times feel that he or she would like to know more about a particular topic that may in fact be presented later. I have attempted to remedy this by cross-referencing associated chapters and providing footnotes when possible. Pertaining to the same issue of interconnectedness of the material, one may notice repetitiveness of various issues, terms, and themes. This is usually intentional, either to emphasize a specific point, or simply because it is necessary to explain the information in more than one place.

Chapters One, Two, and Three present theoretical, geographical, environmental, political, and cultural background. Chapter One has provided the introduction to the subject material and setting, statement of the research problem, literature review of anthropology and the environment, transnational environmental discourse, political ecology, community-based resource management, and community-based coastal resources management (CBCRM), as well as social justice and research methods. Chapter Two offers background material on Philippine environmental degradation, especially logging and forest degradation, coastal degradation, and the rise of

environmental movements in the Philippines, as associated with pre and post 1987 Philippine Constitution sanctioned sustainable development initiatives and the Local Government Code of 1991 that devolves authority to local communities to manage their own resources. I have also outlined the growth of environmental movements in the Philippines that arose in response to the political climates and dramatic environmental degradation mostly within the last two decades. In Chapter Three I discuss the Palawan geographical, cultural, environmental, and political setting. This includes a discussion of environmental degradation on Palawan and Honda Bay as well as the rise of the environmental movement on Palawan and how it was connected with and also influenced the larger Philippine environmental movement. The governmental jurisdiction and political context of Palawan and Honda Bay is also discussed here.

In Chapters Four and Five, I offer a description and ethnographic perspective on the lives perspectives of both environmentalists and fisherfolk. In Chapter Four, in presenting the environmentalists' ethnography, I focused more on stories from life histories and feelings on commitment to the cause of social justice as related to environmentalism. This is to allow for better understanding of the context in which these people work and their relationships to fisherfolk, as well as to illustrate the evolution of the NGO environmental movement on Palawan. Chapter Five is a profile and ethnographic glimpse into the lives of marginalized fisherfolk of northern Honda Bay. Chapter Five also gives specific information on local knowledge, including fishing technologies and specific coastal resources as well as the ways in which environmental degradation is manifested in coastal communities. This includes a section on participatory coastal resource mapping that analyzes not only local knowledge of

resources and destructive fishing methods, but also discusses the potential uses of such maps.

Chapter Six is about Filipino cultural values and how they influence the participation with and effectiveness of CBCRM. Consideration of cultural values in the Philippines, as elsewhere, is often lacking in coastal resource management. Some distinctive characteristics of Filipino cultural values lend themselves to community organizing and group participation, but may also be a hindrance to other aspects of CBCRM, particularly law enforcement.

In Chapter Seven, NGO and fisherfolks' efforts of resistance and responses to marginalization are presented, describing citizens' arrest of illegal fishers and loggers, fisherfolk assistance from NGOs in securing land tenure, the International Marinelife Alliance (IMA) cyanide detection laboratory, and the demolition "monkey wrenching" (Abbey 1990, Foreman and Hellenbach 1989) of illegal fishpond dikes.

Chapter Eight on environmental values and discourse is an analysis of some key concepts and terms regarding CBCRM, such as the "environment," environmental problems, biodiversity, coral reefs, marine sanctuaries (protected areas), the *Bantay Dagat* (baywatch) and law enforcement, as well as the role of NGOs. This analysis offers quantitative as well as ethnographic comparisons of environmentalists' and fisherfolks' perceptions of environmental discourse as related to CBCRM. The presentation of data is broken down to include environmentalists of biophysical and social orientation and the number of seminars attended for fisherfolk. In understanding these varied perceptions, some surprising results showed that fisherfolk may be more likely to adopt sanctuaries than commonly thought, while environmentalists' focus shows a more human orientation,

often even among those who came from biophysical backgrounds. This chapter also demonstrates the connection between social justice and CBCRM. Additionally, I suggest that the perspectives of environmentalists and fisherfolk differ regarding the role of NGOs and the notion of empowerment.

CHAPTER 2
ENVIRONMENTAL DEGRADATION AND THE EMERGENCE OF
PHILIPPINE ENVIRONMENTAL MOVEMENTS

Introduction

In the Philippines, as in most developing countries, natural resources are generally viewed for their subsistence and economic value (Porter and Ganapin 1988, IBON 1997). Despite growing environmental movements in the Philippines, the environment is not, itself, perceived wholly for its intrinsic and ecological values. Filipino peasants, indigenous peoples, and fisherfolk who depend on their natural surroundings for food and shelter are rarely concerned with the wider notion that rainforests and coral reefs must be saved and protected to preserve biodiversity. And yet, toxic waste, oil spills in coastal areas, air pollution, the effects of mining on landscapes and water table and quality, overpopulation, deforestation, and degradation of coral reefs are all serious problems that affect daily lives of millions of Filipinos (IBON 1997, Coronel 1996).

Degradation of both forest and coastal resources are currently considered the two most serious environmental problems in the Philippines. Other major causes of environmental damage are linked to mining, overpopulation, and other forms of pollution and erosion (IBON 1997; Coronel 1996, 1997; Balgos 1997) as well as to gross deforestation. Furthermore, the politics of logging have been a major impetus for the rise

of environmental movements in the Philippines. In this chapter, I first discuss the history of environmental degradation in the Philippines. This includes particular attention to deforestation and logging, the degradation of tropical coastal ecosystems, the effects of mining, and population growth. I then provide an overview of the rise of complex Philippine environmental movements.

Environmental Degradation

Logging

Information regarding deforestation in the Philippines is sparse and obtaining accurate data regarding most natural resource management issues in the Philippines (see also Chapter Three), as well as in other developing countries, is a challenge. According to Kummer (1993), one reason for this is that government statistics have proven to be unreliable and skewed. Additionally, there have been illegal conflicts of interest regarding politicians' ownership of resource extraction from industries that are rarely prosecuted under the law. In some cases such ownership is not even illegal. Some environmental professionals state that the Department and Environment Natural Resource (DENR) officials who have ties to political influences and logging industries often grant environmental compliance certificates illegally (Vitug 1996, Arquiza 1996, Contreras 1991, 1994). As discussed in Chapter Six, *Cultural Values* as well as in Chapter Eight, *Environmental Values*, loyalties among family and other ties may permeate more deeply than simple superficial bribery or corruption. However, it has been well documented that logging and natural resource depletion is often tied to larger corporate and political

influences (Kummer 1993, Vitug Marites 1992, Broad and Cavanaugh 1993, IBON 1997).

Kummer (1993) and Vitug (1992) trace the causes of deforestation and depletion of natural resources in the Philippines directly to political corruption and government economic policies that are actually controlled by, and benefit only, the elite. Contreras (1991, 1994), Vitug (1996) and others state that the causes of deforestation in the Philippines is directly linked to control of forest resources by a handful of powerful logging companies who control over 30% of public lands. Peluso (1992) also noted that throughout Southeast Asia, logging interests have historically been tied to political interests. With the increase in logging, particularly throughout the 1970s and 1980s, environmentalists, as well as communities, began to note degraded environments, diminishing forests, and lessening economic livelihoods (Robles 1997). The Timber Licensing Agreements (TLA) system in the Philippines has traditionally been lax in enforcement, usually resulting in more timber harvesting than permits allowed (Robles 1997, Vitug 1996).

Kummer argues that the difficulty in determining the actual loss of forest cover is due to the ties that government officials have to logging interests. Consequently, harvests are underreported and statistics skewed. Figure 2.1 demonstrates the difference in Philippine government statistics compared with those of Kummer, the latter of which were taken from remote sensing data, ground verification, and a number of other sources over a period of two years (1993:56, 60). This comparison shows a striking difference of as much as 250% percent between government-reported statistics and Kummer's figures for deforestation rates.

From 1970 to 1987, the annual average rates of deforestation according to Kummer's sources were 2,097 square kilometers. This contrasted significantly from the government statistics of 787 square kilometers.

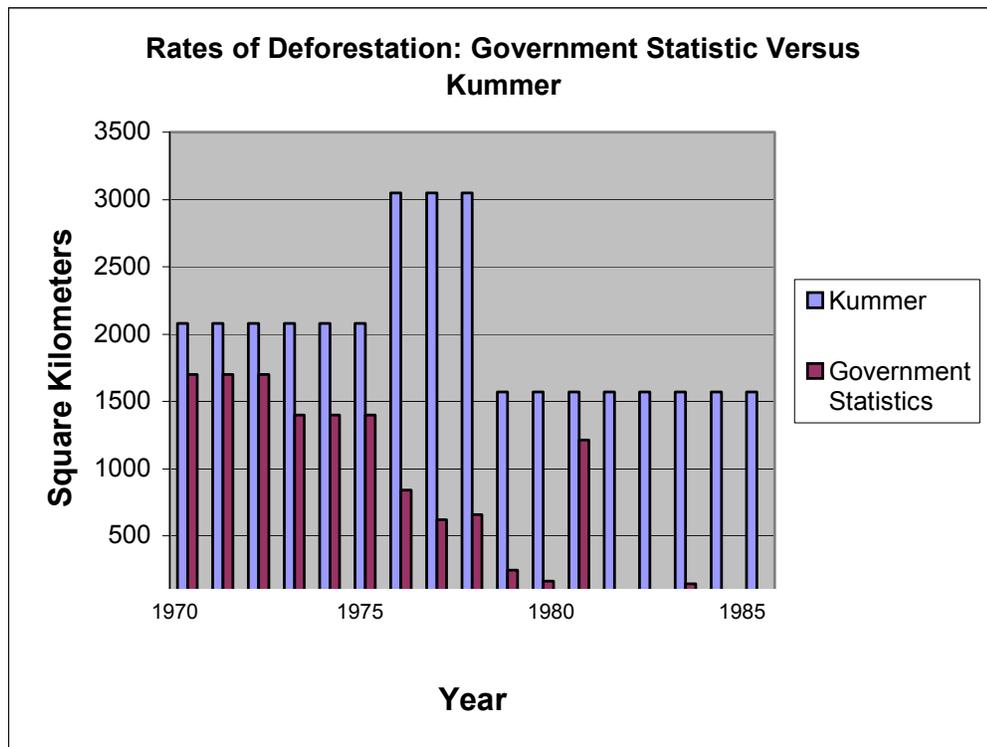


Figure 2.1

Land Tenure

Historical circumstances have also contributed to the lack of land tenure among a vast majority of Filipinos, worsening the effects of deforestation on the human-environment condition. Spanish colonialism from the 16th century through the 19th century set up a feudal system of land tenure. Attempts at land reform have been inefficient at best, despite the Comprehensive Agrarian Reform Program (CARP). After

World War II the United States offered to sell land to Filipino peasants who worked the land. Unfortunately, this only reinforced land holdings of those families with enough capital to purchase land. Most Filipino peasants who worked the land did not have the finances to buy land, even at a supposedly reasonable price (Broad and Cavanaugh 1993).

Another concern has revolved around the use of public lands. "Under the Philippine constitution, uplands are classified as public lands. More than 50% of the Philippine area, including coastal lands, are identified as public lands" (Anti Slavery Society 1983 in Asinas 1995:6). Slopes over 18 % in steepness are considered uplands and therefore public (Kummer 1993) as are lands situated within 3, 20, or 40 meters of the high tide line (depending on whether they are located in urban, agricultural, or forested areas).

A major problem contributing to deforestation resulting from lack of land tenure is the influx of migrants from the lowlands to the uplands, creating a strain on forest resources, although the extent of this as a cause of deforestation is not well documented. In many areas, *kaingin*, or shifting cultivation has been practiced by indigenous peoples¹. However, migrants from different areas are also assumed to practice forms of this deemed unsuitable to sustaining the tropical ecosystem of the forests. This is often blamed for forest destruction (Broad and Cavanaugh 1993). In the Philippines, security of tenure has been addressed for upland peoples (Lynch and Talbot 1995, McDermott 2001, Novellino 2000, Seki 2000), but land tenure for fisherfolk has barely been addressed at all by current legal statutes. The introduction of Community-Based Forest Management

¹ Kaingin is a term initially used for traditional types shifting agriculture, now widely used as a blanket term to refer to almost all types of agriculture in the uplands.

Agreements (CBFMA) and Certificates of Ancestral Domain Claims (CADCI) are not commonly utilized in coastal areas (see also Chapters Three and Seven).

Coastal Degradation

The vast destruction of coastal ecosystems in the Philippines has alarmed both fisherfolk, who depend on resources from coastal areas for their livelihood, and environmentalists. Tropical coastal ecosystems are considered to be among the most biologically diverse ecosystems in the world, and their devastation throughout the globe is widespread (CRMP 1998, Chadwick 1999, McGinn 1998, 1999). Coral reefs, a key indicator of the health of coastal environments, have been proclaimed "rainforests of the sea" (Clausen 1995) because of their rich biodiversity. Some of the few remaining pristine tropical coastal ecosystems in the world are on the island of Palawan. Such reefs in the Philippines are threatened by various types of large-scale fishing operations (including trawl fishing, overfishing, dynamite fishing, the use of cyanide for the live fish trade, as well as pollution and siltation from erosion caused by logging (CRMP 1998, McGinn 1998). Political ties in the fishing industry are similar to those of the feudal logging lords. Politicians often own boats used to conduct illegal activities. Some have affiliations with large-scale fishing operators. The effects of and types of degradation of coastal ecosystems and the human-environment relationship in the coastal zone are further discussed in Chapters Three and Five.

The use of the phrase "coastal zone" commonly refers to these coastal ecosystems and the narrow strip of land occupied by humans adjacent to the shoreline. I have chosen to refer to consider the coastal zone of Palawan as a coastal frontier because of its remote and relatively undeveloped condition. In order to better understand the tropical coastal

ecosystems it is easiest to break them down into three main components as follows: 1) coral reefs, 2) mangroves, and 3) sea grass beds (CRMP1998). Together, these divisions contribute to a complex system. For the entire ecosystem to maintain a healthy state, each must remain intact.

Coral reefs have become recognized as simultaneously the most important and most threatened elements of the marine environment of the tropics (Chadwick 1999, McGinn 1999). Consequently, their protection was assigned a high priority in Agenda 21 at the United Nations Conference on Development in 1992. In 1995, the International Coral Reef Initiative (ICRI) “Call to Action” was established at an international conference held in the Philippines. This Call to Action, in which it was said “Coral reef ecosystems are among the most biologically productive and diverse in the world” (ICRI 1995), was designed to develop plans to “urge attention” to the global problem of threats to coastal ecosystems (ICRI 1995).

Coral reefs are unusual substances consisting of masses of cemented calcium carbonate (CRMP 1998) upon which living corals have attached and built on over hundreds of years. Fringing reefs, formed underwater on the outer edges of volcanic islands and islets, are those most commonly found in the Philippines. Habitat for the formation of hundreds of species of living corals (CRMP 1998) comes from the production of organic matter that provides nutrients and algae derived from mangroves combined with that of seagrass beds. The reefs are habitat to literally thousands of fish species and other invertebrates such as lobster and other species used for aquarium fish trades. Coral reefs also provide important physical buffers against tidal waves in coastal

communities. Anthropocentric values of coral reefs include their contribution to economic gains through tourism.

Coral reefs are also valued for their intrinsically perceived resources. Some of the most devastating extractive uses of coral reefs are coral mining, and gathering of ornamental fish and reef products. Dynamite blasting and cyanide use in the water are two of the most widely utilized techniques for collecting tropical fish around the coral reefs. They are also among the most damaging fishing methods to the fragile reefs in the Philippines. Recently, trawl fishing has become recognized as a destructive, and equally devastating fishing method that also damages coral reefs. Inland and upland erosion caused by development, mining, and logging, is often overlooked as a serious threat to coastal ecosystems and needs to also be recognized as destructive to tropical coastal ecosystems. (Munro and Munro 1994, White 1994, Rivera and Newkirk 1997).

Mangroves, a second component of tropical coastal ecosystems, have recently received widespread attention from environmentalists and coastal resource managers because of their importance to tropical coastal ecosystems. “Mangroves are salt-tolerant, woody, seed-bearing plants ranging in size from small shrubs to tall trees. They occur along sheltered intertidal coastlines and in association with estuaries and lagoons.” (CRMP 1998). Mangroves have many beneficial roles in tropical ecosystems including: protection from erosion caused by upland runoff, protection of inland areas from storm winds and ocean tides, regulation of uptake and export of nutrients and organic matter for the coastal ecosystem (CRMP 1998). They also provide habitat for shrimp, crabs, and nursery habitat for several fish species in their juvenile stages. Some adult fishes also

utilize mangrove habitats. Siltation of and degradation of mangrove areas is detrimental to the entire coastal ecosystem.

Seagrass, the third component of tropical coastal ecosystems, has received the least amount of attention from scientists, advocates, and coastal resource managers. Notwithstanding this lack of attention, seagrass remains an essential part of the ecosystem. It provides habitat for “a large quantity of commercially important organisms” (CRMP 1998), endangered sea mammals (*dugong*), sea turtles, and various fish species. Like mangroves, seagrass beds produce nutrients essential to the coastal environment (CRMP 1998). Additionally, in Honda Bay, it also serves as habitat for crabs that some local fisherfolk harvest as their primary source of livelihood.

Without coral reefs, mangroves, and seagrass, the entire coastal ecosystem remains threatened, directly impacting coastal zone. Moreover, the loss of the reefs means loss of biodiversity for the entire planet. As compared with land ecosystems, there is little documentation of the complexities of marine biodiversity (Perez and Mendoza 1998), but as marine biologists learn more about coral reefs and their importance to the diversity of genetics, species, and ecosystems, some claim that the loss of this particular source of biological diversity will weaken the entire ecosystem’s ability to adapt. Such sources propose that this loss will potentially lead to the collapse of an entire biosphere (Thorne-Miller and Catena 1991:10). Thorne-Miller and Catena (1991:10) warn, “...this progressively destructive routine results in impoverished biological systems, which are susceptible to collapse when faced with further environmental changes.”

A staggering 50% and 60% of Filipinos (CRMP 1997, ELAC personal communication 1998) live in the coastal zone. Their livelihood of fishing is therefore

directly affected by damages to coral reefs, associated mangroves, and seagrass beds. Coral reefs also act as a barrier to tidal waves created by storms. As reefs become destroyed, coastal residents face the additional threat of heavy flooding during the rainy seasons (IBON 1997, Broad and Cavanaugh 1993).

Commercial fishpond development, once promoted as an answer to food security problems, further threatens mangroves throughout the Philippines. This form of expansion is now illegal with the exception of some 'grandfather clauses' that allow fishponds that are already in place to continue operating. One of the other major causes of coral reef degradation has been the development of large-scale aquaculture in mangrove areas of the Philippines (Porter and Ganapin 1988). As explained above coral reefs, mangroves and seagrass are interconnected components of tropical coastal ecosystems. Siltation and loss of habitat from mangrove destruction affects the entire system. During the Marcos era, an increase in aquaculture was encouraged as an economic strategy in response to large international debt (IBON 1997, Bailey et al. 1986). The promotion of fishpond development escalated in the 1980s and was thought to be a food security solution for the nation. As production of municipal and commercial marine fisheries began to decline, the government shifted policies to encourage movement toward aquaculture as a viable economic alternative (Broad and Cavanaugh 1993). The backlash of this development strategy has been the destruction of the mangrove areas. Their demise causes loss of nutrients for spawning aquatic life, nursery grounds for marine organisms, as well as organic matter for coral reefs and the habitats they in turn provide for other marine organisms. Small-scale municipal fisherfolk are experiencing even further reductions in fish harvests as a result of large scale aquaculture development

combined with destructive fishing technologies (see Chapters Three and Five). Aquaculture was originally promoted as potentially able to increase food supplies throughout Southeast Asia and the Philippines (Bailey et al. 1986). In contrast with stated policy objectives of the national government to improve food security for the poor, large-scale aquaculture has been found to serve the interests of fishpond owners, mimicking the patronage system of peasant agriculture in which small-scale laborers would receive minimal shares of the profits (Stonich and Bailey 2000). Over time, subsistence fishers who worked for fishpond owners became more reliant on cash and simultaneously experienced decreases in their subsistence food supply due to the destruction of habitat in inshore areas from aquaculture and other environmental factors.

Deforestation, which causes erosion and creates heavy siltation, also damages coral reefs and reduces the productivity of fisheries. Although a clear link with global warming has not been identified as a cause of the decline in fisheries in the Philippines, in 1998, record high temperatures from the El Nino effect resulted in "coral bleaching" (Chadwick 1999) of many reefs. When water temperatures exceeding suitable conditions the results are damaging or even lethal to coral reefs.

In the Philippines, local fisheries are referred to as "municipal" fisheries. These are nationally defined by the National Fisheries Code of 1998 (see Chapter 3) as fisheries existing in waters within a 15 kilometer distance of the coastline; fisheries that are one-half of an equal distance between two coastlines that themselves are less than 15 meters apart; or existing within waters that are less than seven fathoms deep. Small-scale fisherfolk are among those most immediately affected by decreased municipal fish yields.

Although the Philippines has traditionally yielded some of the largest areas of marine biological diversity in the world, now only 5 % of its reefs remain in excellent condition (Chadwick 1999). Figures vary regarding the condition of the remaining coral cover throughout the country. IBON cites studies that demonstrate that less than 4% of reefs remain in excellent condition. The study reports that 31% are in “good” condition, and that 30% are “poor” (1997: 39). As a whole, municipal fish production throughout the country dropped over 10% from 1985 to 1994 (IBON 1997).

Year	Volume (000 Metric Tons)	Proportion to Total in Percent
1994	601	29.3
1993	622	30.34
1992	668	30.34
1991	721	35.17
1989	764	37.24
1988	757	36.92
1987	797	38.87
1986	792	38.63
1985	785	38.26

Table 2.1. Volume of Municipal Fish Production
(After IBON 1997:37, Source Bureau of Fisheries and Aquatic Resources)

Population

Human overpopulation is another contributor to the depletion and degradation of natural resources. In fact, the Philippine Department of Environment and Natural Resources (DENR) Master Plan (1990:17) directly relates deforestation to overpopulation, but tends to downplay other potential causes. As of 1996, the Philippine population was 70 million (IBON 1997), 44 million living in the coastal zone (ELAC personal communication 1998). The annual population growth in the Philippines stands at 2.4 % (World Bank 1989). At the time of the field research, implementation of family

planning programs, although common on a national level, were not incorporated as part of CBCRM. A team of foreign donors and Palawan NGOs informed me that there was ongoing research regarding the potential effectiveness of this approach in Honda Bay.

Mining

Mining has been yet another cause of environmental degradation in the Philippines, with gold and copper as the primary products extracted. Other mining resources include chromite, iron, aluminous laterite, and nickeliferous laterite (DENR 1992). The Philippine Mining Act of 1992 served to further promote mining for foreign investors in an effort to increase foreign investment as a means of reviving the economy.² Florentino-Holfileña (1998:99) described the detrimental effects of mining thus: "Mining causes barren land, denuded forests, dried up or heavily silted rivers, and displaced communities." In fact, one of the most devastating mining disasters occurred in Marinduque in the mid-1990s when the Marcopper mines dumped 4.2 million tons of tailings into a river on the island of Marinduque (IBON 199:vii). These kinds of environmental disasters and other forms of rapid environmental degradation combined with a complexity of other factors triggered Philippine NGOs previously organized for other causes to move into the environmental arena.

² Despite the advances in civil society with the new democracy of the 1987 Philippine Constitution, a number of sources I interviewed felt that some of the worst environmental problems occurred throughout decade of the new democracy following the fall of Marcos. This was attributed to the continued pattern of high-level politicians being linked to logging, mining, and other large-scale corporations, as well as lack of enforcement of various laws following a period of martial law.

History of Philippine NGOs

The history of NGOs in the Philippines is long and rich. No one historical account could adequately describe the complexity and multifaceted nature of Philippine environmentalism (Noble 1998). This cursory overview is merely intended to provide a context for the transnational and national political climate of the country regarding environmental movements. In Chapters Three and Four I offer background and accounts that specifically address the environmental movement on Palawan. Various interpretations and histories of Philippine NGOs can be found in Contreras (1994, 1991), Broad (1994), Silliman and Garner Noble (1998), Arquiza (1997), Magno (1993), amongst others. Broad has called some regions with a history of successful social movements a "culture of empowerment" (1994:3), because of their successes in mobilization and resistance regarding environmental degradation (Kerkvliet 1977, Scott 1985). The rise of Philippine environmentalism throughout the late 1980s and 1990s can be attributed to a number of factors but which primarily include reactions to the forms of environmental degradation described above, specifically large scale logging. Resulting flooding prompted communities and environmentalists to respond by organizing anti-logging campaigns as well as lobbying for logging bans (Arquiza 1997, Garner Noble 1998). Decreased fish productivity, and growing awareness of the effects of blast (dynamite), cyanide fishing, trawl fishing also prompted environmentalists and community-based programs to work toward protecting the oceans and coastal zones (Newkirk and Rivera 1997).

As described by Miclat-Teves and Lewis (1993), the history of Filipino NGOs is linked to peasant movements from the early 1900s that sought to address problems of the

rural poor. The widespread HUK rebellion was the most well known of these peasant movements (Kerkvliet 1977). After World War II, with little progress towards land reform, agrarian unrest resulted in a rebellion of peasants. By the 1950s, other peasant workers formed organizations. In particular, the Philippine Rural Reconstruction Movement (PRRM) was created and today participates in many community-based conservation and resource management programs (Miclait-Teves and Lewis 1993:230). By the 1960's, planned community development approaches evolved, but were later deemed to be failures by sociologists (Ferrari, Email interview 1998).

During the Marcos era (with the declaration of martial law in 1972) many smaller NGOs were formulated and their members became accustomed to operating under the suppressed conditions that martial law ensures. Much of the impetus for environmental activism was therefore in response to development projects of the Marcos government, as well as in general opposition to the Marcos regime (Garner Noble 1998). (See Chapter 4 for ethnographic account of the experience of Palawan NGO environmentalists). Church-based philanthropic organizations have also been tied to the history of NGO movements in the Philippines (Silliman and Garner Noble 1998).

By 1983 with the assassination of then-presidential candidate Benigno Aquino, the growth of popular social movements gained new momentum (Miclait-Teves and Lewis 1993). The new Philippine constitution of 1987 granted local communities the right to participate in their own development, as stated in the following excerpt: "The state shall encourage non-governmental organizations, community-based or sectoral organizations that promote the welfare of the nation" (Article II, in Miclait-Teves and Lewis 1993). Simultaneously, the international community also began to emphasize the

role of NGOs in the development and planning process as a result of the post-Earth Summit Climate, and the Philippines was the first country to set up a national Commission on Sustainable Development in response to this summit (Contreras 1994).

The rise of Philippine environmentalism throughout the late 1980s and 1990s can be partially attributed to the reactions to the forms of environmental degradation described above, primarily that of large scale logging. Flooding resulting from the logging prompted communities and environmentalists to respond by lobbying for logging bans and organizing anti-logging campaigns (Arquiza 1997, Garner Noble 1998). Decreased fish productivity, and growing awareness of the effects of blast (dynamite), cyanide, and trawl fishing also triggered environmentalist and community-based programs to work toward protecting the oceans and coastal zones (Newkirk and Rivera 1997). Reactions against "red tides" (coastal fish-kill resulting from disease usually caused by pollution, bacteria, and salinity changes) and tidal waves killing thousands of the population (Garner Noble 1998) also brought reactions of environmental NGOs to the surface throughout the late 1980s and the 1990s. This was also in part due to the newly opened democratic space that the loss of the Aquino and Ramos governments left open.

In the 1980s the Chico Dam development project in northern Luzon aroused protest from indigenous peoples (the Kalinga and Bontoc) who inhabit the uplands and farm rice terraces that would have been destroyed by the project (Drucker 1988). After failed attempts to negotiate peaceful protests, the indigenous peoples who would have been affected by the proposed dam engaged in rallies and protest marches against the Philippine military that had sent soldiers into the area. Allied with the New People's Army (insurgency army connected with the Communist Party of the Philippines), the

indigenous groups were able to successfully stop the construction of the dam. The case remained influential in illustrating early environmental activism in the Philippines and is still known internationally (Pinto 2000).

Clearly a variety of NGOs have existed in recent decades in the Philippines. Broad (1994) defined four "main strands" of NGOs to which she has stated that one out of ten of Filipinos belong. First, Filipinos are highly likely to belong to some type of Peoples Organizations (POs) (Korten 1990). These can consist of larger organizations such as trade unions, peasant movements, and educational organizations. But they may also be of a smaller nature, with representatives consisting of women's movements, fisherfolk organizations, and indigenous Filipinos. Second are the meso-level NGOs that may be more research or policy-oriented, and usually aid the POs through education and research in achieving their goals. Third are the spontaneous NGOs, which are usually activist oriented (i.e. protests and direct resistance); and fourth are the environmental NGOs. Throughout my research, I found that combinations of the aforementioned types of NGOs were also common. Additionally, government-sponsored attempts at community forestry also provided the impetus for another kind of NGO in which project implementers (Arquiza 1997) offering some technical expertise have been used (Garner Noble 1998).

Contract reforestation was one of the earliest types of arrangements that the government entered into with NGOs. It was comprised of a system that allowed families, communities, or NGOs to contract with the DENR for seedling and plantation production, and maintenance and protection of forest products. This program typically involved communities who receive a 25-year lease of the reforested area, and in some

cases, intercropping of other plants with trees was encouraged. Broad and Cavanaugh (1993) reinforced that most reforestation programs benefited the logging companies who then harvested the replanted trees for profit, leaving little, if any, benefits for the community participants. This supports my earlier statements. In any event, the long-term effects of contract reforestation programs are unknown to date, but may account for much of the negative reputation of NGOs.

The DENR program was primarily an effort to improve economic conditions for upland populations, while encouraging tree-planting and sustainable forest utilization. Since the government had to contract with NGOs, many organizations formed rapidly with the sole purpose of contracting for reforestation purposes. As a result of this "quick fix" forestry scheme, many NGOs engaged in, or were accused of, "taking advantage of the financial rewards associated with government programs" (Contreras 1994:71). Since the late 1980's, environmental NGOs have had to overcome this negative reputation of being considered insincere opportunists. The system of contract reforestation has subsequently been abandoned in favor of community-based forest management agreements (CBFMA).

Under CBFMA, with the devolution of authority to local communities (as sanctioned by the Philippine Constitution of 1987 and the Local Government Code of 1991), communities are allowed to utilize forest resources in a sustainable manner in specific areas if they hold a CBFMA. They are also expected to design a forest management plan, and they receive more security of land tenure than with contract reforestation. The localized branches of the DENR such as the Community Environment and Natural Resources Office (CENRO), or the Provincial Environment and Natural

Resources Office (PENRO), oversee this process which was first implemented in the mid 1990s (Executive Order No. 263). In order for one of more communities to acquire a CBFM, assistance from meso-level NGOs is usually required. These projects are most often donor funded, thereby in need of national, knowledgeable NGOs to deliver aid in forestry management to local communities (usually in the form of an NGO/PO relationship).³

As a result of this history, NGOs began to proliferate in the 1990s, serving as the managing agencies of projects throughout the Philippines, despite the fact that many had no experience with international development aid. Hence, a transformation and blending of NGO purposes and practices occurred as result of the need for NGOs to assist on this level. Aid initially came from such international organizations as the United States Agency for International Development or the Canadian International Development Association. Later, support from transnational environmental organizations such as the Word Wide Fund for Nature or Conservation International also required Philippine NGOs to be project implementers. This was in contrast to earlier leftist movements prior to the democratic space afforded by the Philippine Constitution of 1987. As NGOs entered into the arena of natural resources management, the rapidly degrading coastal areas also gained attention from environmentalists. Community-Based Coastal Resources Management (CBCRM) gained popularity throughout the 1990s, soon becoming a widespread phenomenon throughout the Philippines. As with forestry, community organizing in coastal areas remains one of the key factors in CBCRM. Some of the earlier success stories have already been discussed in Chapter One, such as including fisherfolk as part of environmental movements.

³ See McDermott 2001, Novellino 1998, 1999, 2001, Seki 2000 for critiques of this process.

Local activists have rallied against a type of fishing known as “muro-ami” fishing for its socially unjust practices. This form of fishing, although rarely occurring in the research site (Honda Bay, Palawan) is worthy of a brief discussion because it is an example of the connection between human rights issues and fisheries / coastal resource management. It is a large-scale type of fishing banned in 1989 (although still practiced at times) because of its non-humanitarian and environmentally destructive nature (Olofson 2000a). The method most commonly involves the use of child-laborers (under 15 years old) who free-dive (without gear) to the ocean bottom's coral reefs where they manage scare-lines that hold the nets around the reefs. (This is an adaptation of a Japanese fishing technology brought to the central Philippines in the 1930s.) While under water divers also beat the coral with rocks to scare the fish into the net. Each muro-ami operation usually involves 300 or more child divers (Olofson 2000a). In recent years it became well known as a human rights violation throughout the Philippines, resulting in its ultimate ban in 1989 and numerous journalists' articles on the subject throughout the country.

These different backgrounds of environmentalism and community-based resource management strategies all relate to the issues of social justice and the human component of resource management. As demonstrated here in the Philippines it is critical to emphasize that it is not possible to separate the environment from human problems such as poverty and violations of human rights.

In an e-mail interview in 1998, Ferrer explained his perspective on the origins of community development and organizing, which clarifies some of the points just made:

During the martial law period in the Philippines, community organizing was very political in character. The aim of organizing was to gain political clout in almost every aspect of Philippine society. So [community organizing] in the fishers' sector began as political struggles for justice

issues e.g. [such as] conflict between small fishers and large trawl owners; dumping of mine tailings by [transnational corporations] like Benguet Mining in the Agno river that [found] its way to the Lingayen Gulf; control of the price of fishery products by big fish traders, etc. Many activists began as anti war, i.e. Vietnam War in the 60's. They have been influenced by the ideas of Bertrand Russell and Sartre and the student movement of the 60s. However, when martial law was declared...many students and other sectors of Philippine society were radicalized. Many were influenced by Marxist and Leninist ideas. During the Cultural Revolution in China Mao Tse Tung ideas took root in the Left movement, which was facilitated with the founding of the CPP [Communist Party of the Philippines]. While many activists found themselves in the environmental movement they have been branded/repudiated by the Left as reformists.

Casper (1998:113) explained that the CPP, and those associated with the leftist social activism of the times, became divided in their ideologies after the People Power Revolution of 1986 overthrew the dictator Ferdinand Marcos. Marcos had implemented Martial Law since 1972, and practiced what has been called "authoritarian rule" (Silliman and Noble 1998: 15). Other radicals as well as scholars have outright referred to Marcos as fascist. After the nonviolent People Power revolution overthrew Marcos, some activists believed that they should reaffirm the ideologies of Mao and Marx and were dubbed the reaffirmists (RA). Others "searched for alternatives to Marxism and Leninism" (Silliman and Noble 1998:15) and wanted to participate in the new democracy through the legislative process. Those who proposed this ideology became known as the rejectionists (RJ, also called the "reformists"). Silliman and Garner Noble refer to the two groups as the National Democrats (reaffirmists) and the Social Democrats (rejectionists) (1998:15). Regardless of the terminology used to describe the split, it is important to note that the eventual growth of the environmental movement still carried undertones of loyalties to either of the two viewpoints.

The nature of my research was not to fully explore each individual or organization's political stance; however, the theme of loyalty to either the RA or the RJ recurred throughout my fieldwork and cannot be overlooked. Foreign volunteers from northern countries remarked on several occasions that the various NGOs they worked with throughout the Philippines still upheld these loyalties. According to these volunteers, the differing political ideologies of various NGOs sometimes accounted for the difficulties that existed between NGOs and between NGOs and governmental organizations.

Although I did not question environmental activists on Palawan about their personal political affiliations, the fact that NGOs were associated with left-wing politics became rapidly apparent as a result of informal interviews and observations with both NGO environmentalists and foreign volunteers. Within the open public discourse of environmentalism and public participation, I even heard one environmentalist joke at a government meeting that he had been labeled a communist.

The Donor-driven Phenomenon

Environmental NGOs have been accused of being primarily interested in financial opportunities (Contreras 1994). Constantino-David argues that "mutant NGOs," often government run and initiated, have resulted from the "avalanche of funds from foreign donors" (1998:30). Furthermore, she refers to GRINGOs (government-run and initiated NGOs) that are "usually set up by politicians and government functionaries" (Constantino-David 1998:30). Some NGO entrepreneurs ("COME N'GOs") are

considered "fly-by-night" organizations that form and hire themselves out according to the available funds from large donor organizations (Constantino-David 1998:31).⁴

In the early 1990s after the United Nations Conference on Environment and Development, NGOs began to flourish in the form of conservation and development projects. Marciano Carrean, a high level official with the Bureau of Fisheries and Aquatic Resource Management, explained that in many cases, the fluorescence of NGOs was actually donor-driven, and that it was difficult for him to find qualified NGOs to implement coastal resources management projects.

MC: Some of the NGOs that we worked with, we actually destroyed in some sense...before we came in, let's say – they were handling two barangays, three barangays, or even one municipality. They thought, we thought, we both thought, that it's just a matter of infusing more money, that as an organization it's simply getting more funds so that they can hire more people to do work in bigger areas. But it doesn't happen that way. Such infusion, such expansion, instant expansion has a lot of...puts a lot of stress on the organizations particularly the management capability. In most cases, again some of the NGOs are led by very charismatic people. They are not exactly professional managers, you know...their systems work with this size but try to enlarge a bit and it collapses...

MC: We destroyed a number of NGOs by infusing money into them... But the thing is, we're sometimes forced to...get into arrangements with the various types of NGOs, because there's not a lot of them that qualify for the type of work that we require.

INT: So you're constrained by your own requirements?

MC: Yes... We've actually...to some degree, we've actually put ourselves in a spot, in a corner because we require an NGO that has experience in community organizing, who can handle these areas, varying sizes and are into...has a history of particularly coastal resource management advocacy. How many of those NGOs are there...? Even in some cases, and during FSP [Fisheries Sector Project], we could not find qualified NGOs in the area or in one day, the local NGO...will take one part of the bay, and there's no one to take the other part. We have to import another NGO from another area and that, itself, has problems.

INT: So how did you get into that position?

MC: ...overseas economic cooperation fund of the Japanese government.
[Interview with author 1998]

⁴ For a lengthy overview and discussion of critical perspectives on NGOs and discourses about their effectiveness as well as their failures see Willam Fishers' article (Fisher 1997).

As Carrean explained, and contrary to popular belief, it was the Japanese in this case that funded a large coastal resources management project and the Philippine government's need for NGO contractors that provided the impetus for the unplanned growth of NGOs who began to accept more and more coastal management projects. As a result, the overflow of available contracts grew at a faster rate than the number of NGOs experienced in and with the technical capabilities for coastal resources management. Several NGOs on Palawan began to experience this phenomenon while I was there in 1997 and 1998. The United Nations declaration of 1997 as “Year of the Reef,” and 1998 as “Year of the Ocean” likely played a role in the rapid growth in community-based coastal resources management. Attempts to provide training to government as well as some NGOs were ongoing throughout the Philippines with some of the larger national NGOs and international aid programs. On Palawan, it was not uncommon to hear of internationally funded projects *in search of NGOs to carry them out*. While I was conducting an interview with a woman, she received call from a friend/colleague in Europe asking for recommendations for NGOs to implement a project the European Union had in mind. Interestingly, she asked that I recommend a Palawan NGO, since I had become familiar with them.

The formation of the Palawan Network of NGOs is especially effective in allowing NGOs to carry out their mission of accomplishing advocacy work while concurrently managing donor-funded projects. With a resource base of thirty-six NGOs, each NGO can engage in different aspects of activism, advocacy for social justice, and natural resource management (See Chapters Three, Four, Seven, and Eight). It should be obvious that no one history would be fully able to explain the mushrooming of

environmental NGOs since the late 1980s. However, those who were quick to characterize NGOs as solely project implementers did not recognize that many NGOs still carry out environmental activist and human rights advocacy movements in addition to taking on the responsibilities implied in the role of project implementers. The strength of this approach on Palawan is seen most clearly in the Palawan Network of NGOs (PNNI) because of their ability to be flexible and carry out various duties with different member NGOs. The coalition of PNNI is also invaluable in mobilizing for policy changes and carrying out activist movements. On Palawan, NGO representatives often distinguish themselves from "Manila-based" NGOs. In this research, I am primarily concerned with meso-level NGOs, which although some may have ties with Manila-based NGOs, are based on Palawan where they have a strong presence (see also Chapters 3 and 4).

Overview

Constantino-David adeptly summarizes some of the overall changes that have taken place within the NGO community, especially throughout the decade or the 1990s:

The growing recognition of the role of NGOs, the avalanche of funds from foreign donors (especially after the fall of the Marcos dictatorship), and the government's decision to engage NGO services in the implementation of programs resulted in the proliferation of organizations whose essence was really a mutation of the original spirit of NGOs. [1998:30]

Here, the interviewee refers to "mutant NGOs," his perception of the metamorphosis of NGOs. Silliman (1998:71) argues that if NGOs primarily work to provide services for the government in the field of international development, and are funded by international donors with "moderate to conservative character," then they are less likely to be involved in the "political arena." In response to the idea of mutant NGOs

and Silliman's scenario, whereby NGOs inherently become less political because of their connections to external donors and the Philippine government, I suggest that many of the NGOs I observed on Palawan, and perhaps throughout the Philippines, are *hybrid NGOs* (Bach and Stark 2001), not mutants. As illustrated throughout this chapter, issues affecting environmental degradation and the myriad of events in the history of the Philippine NGOs are inseparable, logically leading to a combination/hybrid of functional NGOs. Not surprisingly, most still maintain their profound commitment to political activism, while simultaneously taking on the additional and critical role of project implementers.

CHAPTER 3

PALAWAN AS THE LAST FRONTIER

Introduction

This chapter covers a range of topics related to Palawan's environmental and cultural history. As I have identified Palawan as the Philippines' last frontier here, it is important to note that prior to the implementation of the Strategic Environmental Plan of 1992, and the rise of environmental movements there throughout the decade of the 1990s, environmental degradation began to proceed at a rapid pace. As discussed later in this chapter as well as in Chapter Four, this was part of the impetus for the growth of the environmental movement on Palawan.

Environmental and Cultural Setting

Palawan Island, the long, narrow island to the southwest of the other Philippine islands, is geographically isolated from the rest of the Philippine Islands. Conservationists and environmentalists throughout the world refer to it as a “biodiversity hot spot.” “Biodiversity hot spots” are the brainchild of Conservation International, considered to be areas worthy of protection and study, and have received considerable attention in recent years. The publication of the Global Biodiversity Strategy (WRI et al. 1992) and the Convention on Biological Diversity signed at the Earth Summit in Rio de

Janeiro in 1992 shaped subsequent efforts to protect global diversity for wide ranging efforts to protect global biodiversity and biodiversity hot spots such as Palawan.

Yet people's perceptions regarding Palawan have varied throughout time and space. Prior to its reputation as a region important for terrestrial and marine conservation, Palawan was known among Filipinos for much of the 20th century as an undesirable and feared place – the home of a prison colony and leprosarium, as well as the locale for an endemic strain of deadly malaria (Eder and Fernandez 1996).

When I traveled to metropolitan Manila throughout the course of my fieldwork on Palawan, residents there often referred to Palawan as an underdeveloped, isolated province, one only suitable for brief vacations to El Nido Resort (a well known tourist attraction on northern Palawan), or a place where indigenous peoples lived. Urban Filipinos often express fears relating to the unknown quality about the frontier island and many of those I met in Manila asked why I chose such a far away place with so little “civilization.”

In contrast, on Palawan itself, many of the recent migrants, both middle class and poorer families, expressed a sense of pride to me about their decision to come to the frontier to get away from Manila or other overcrowded provinces. These newer immigrants cite reasons for their choice that have to do with traits associated with a lifestyle that Americans might call “quality of life:” clean air, clean environment, a peaceful existence, and perceived economic opportunity (Eder and Fernandez 1996).

This transformation of both the ecological and the social landscape of Palawan toward the end of the 20th century resulted in a change in the "mental imagery evoked in the [larger, non-Palawan] national consciousness by the very term 'Palawan'" (Eder and

Fernandez 1996:1). No longer do Filipinos associate Palawan primarily with undesirable attributes. Instead the term evokes images of either "a land of economic opportunities" or a "land of natural beauty and unspoiled, ecologically significant wilderness" (Eder and Fernandez 1996:1). While Eder and Fernandez refer to Palawan as the Philippines' last land frontier (Eder 1999, Eder and Fernandez 1996), it is also the countries' last coastal frontier.

Palawan's economy throughout the 20th century has been primarily agricultural. Thirty-five percent of its total land area is classified as agricultural land, slightly more than half of which was under cultivation in 1990 (PPDO 1991 *in* Eder 1999:29). Coconut, cacao, cashew, coffee, and other permanent tree crops comprise the majority of cultivated land. Annual crops such as vegetables, corn, and rice are planted in remaining agricultural lands as well. Eder has referred to the "ecological transformation of Palawan" (1999: 28) as the result of migrants' logging and farming activities of the 20th Century. He further states that this "conversion [is] still ongoing, of Palawan's onetime tropical forest landscape into an agricultural one" (Eder 1999:29). In conjunction with agriculture, commercial logging has been another major primary economic activity on Palawan throughout the last century (Eder 1999:29). (The topic of destructive commercial logging and its effects on the environment is discussed in more detail below.) Lastly, the fishing industry on Palawan has been another major resource in the national and international economy. This includes various forms of fishing that have in recent years, been found to be destructive to coastal ecosystems. In particular, trawling and the live fish trade accounted for much of the Province's fishing economy (Arquiza 1996a).

At the time of my field research, and prior, (Broad and Cavanaugh 1993) it was estimated that Palawan contributed 60% to 70% of Manila's fish products (Broad and Cavanaugh 1993, John Galit, interview with author 1998). Internationally, according to the Bureau of Fisheries and Aquatic Resources (BFAR), the live-fish trade from Palawan reaches foreign markets throughout Asia at a rate of as much as 48 tons annually from only one village (Coron) on the northern tip of the island¹ (Arquiza 1996:59). This is an estimated 10 % of the total live-fish productivity for the country (*fr.* Arquiza 1996a: 59). Other economic activities on the island have included mining (PSEP 1996), primarily in the central and southern parts of the province (Kineavy and Galit 1998). Mining on Palawan has accounted for 8 % of the Gross National Product in 1988 and 7 % in 1994 (PSEP 1996). Oil production occurring off of the northern tip of the island is another economic factor on the island (Eder 1999). Finally, increasing tourism primarily around Puerto Princesa City and northern Palawan was a growing industry at the time of the research (Eder and Fernandez 1996).²

The main island of Palawan is 425 kilometers long and 40 kilometers wide at its widest point (Eder and Fernandez 1996.). Its total land area is 1,489,655 hectares (PAIONd). In 1994 its total human population was over 600,000 and almost 1800 islands surrounding Palawan comprise the Province (PIAONd). Palawan is a mountainous island with elevations reaching 2,086 meters (Eder and Fernandez 1996). The mountains of the island are rugged in places with ridges forming a crest along the middle stretch of the long island. Along the northern part, dramatic lush green mountains jut up from the coast

¹ As explained in Chapter 2, the live fish trade is primarily based on the use of cyanide, a toxin highly destructive to coral reefs.

² Increased terrorism and the kidnapping of two American missionaries from Honda Bay since my return has slowed tourism considerably, according to email correspondence with various colleagues on Palawan.

in rocky cliffs. Northern Palawan has the most intact primary forest cover on the island, with a total of less than half of the island's forest cover remaining (Eder and Fernandez 1996). Palawan's flora and fauna are more similar to Borneo than the rest of the Philippines because of its geological formation, including its occurrence at the edge of the Sunda Shelf (Eder and Fernandez 1996, Rigg 1991)³. In addition to being known for its pristine upland forests and coral reefs, mangroves are more abundant on Palawan than any of the other Philippine islands.

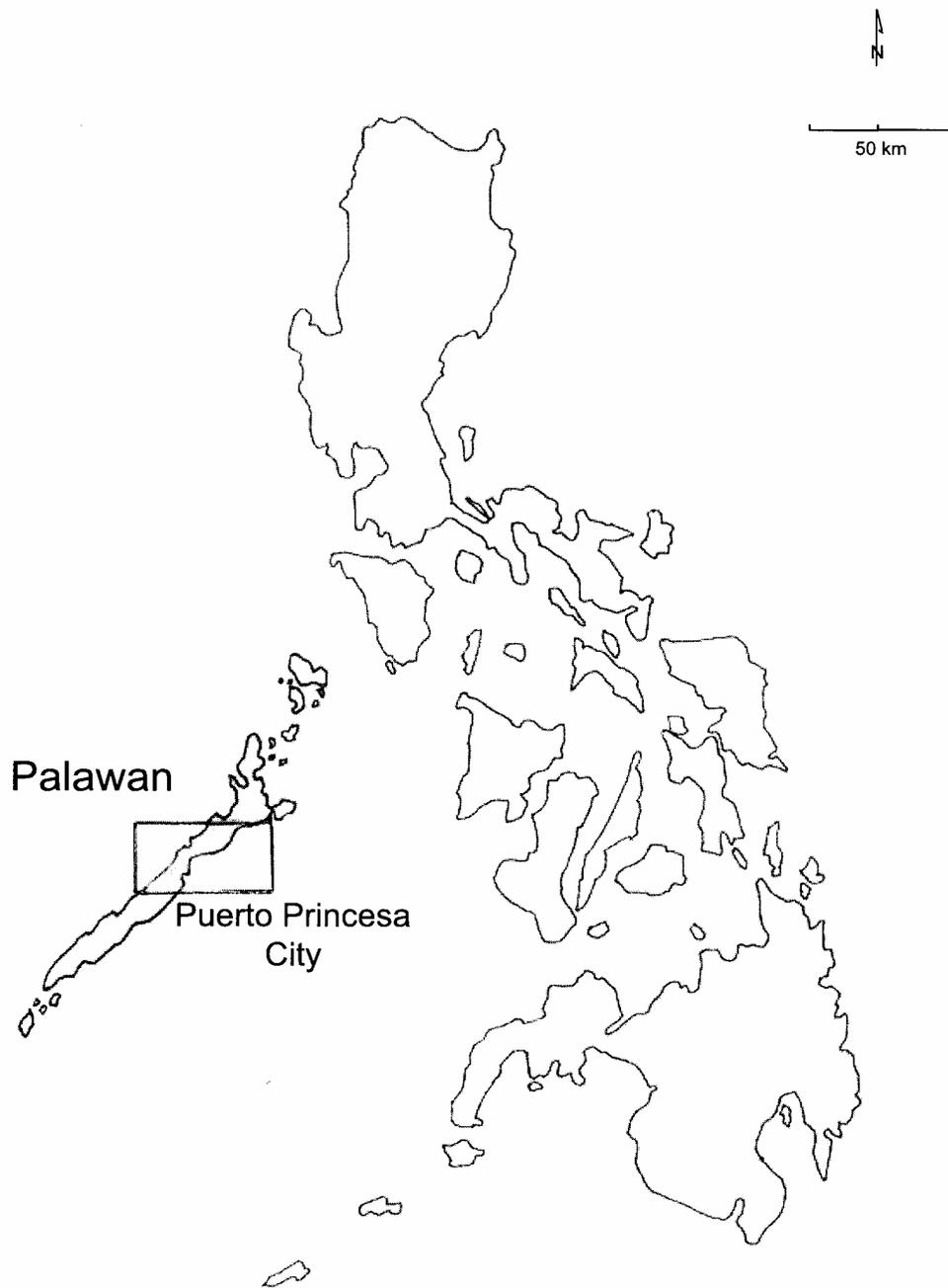
The presence of relatively intact coral reef ecosystems in and around Palwan and concomitant high marine biodiversity has brought widespread attention to the area. The most famous resort and first marine sanctuary established on the island is El Nido, located on the northern part of the island. Throughout my stay on Palawan, it was not unusual for me to encounter world-class marine biologists who had come to Palawan to study and record the marine life around the island. In contrast, incoming migrants from other provinces are rapidly settling lowlands around Puerto Princesa City, and signs of development, including tourist accommodations, are visible throughout the city.

Ethnic Diversity on Palawan

Both fishing communities and the environmentalist community⁴ on Palawan are loci of cultural hybridity (Aschcroft et al. 1998), in part as a result of the influx of immigrants from other Philippine islands as well as the influences of foreigners.

³ Darwin's contemporary, Wallace, first noted the diversity of flora and fauna in this region of southeast Asia, where major changes between the flora and fauna of the Indo-Malayan and the Austro-Malayan zoological regions occur (Rigg 1991).

⁴ As stated in Chapter One, I recognize some problems with the use of the term "community." I use the phrase "environmentalist community" here to refer to those environmental professionals on Palawan working primarily for NGOs, but in some cases also government agencies.



The Philippines

Figure 3.1. Palawan Location Map

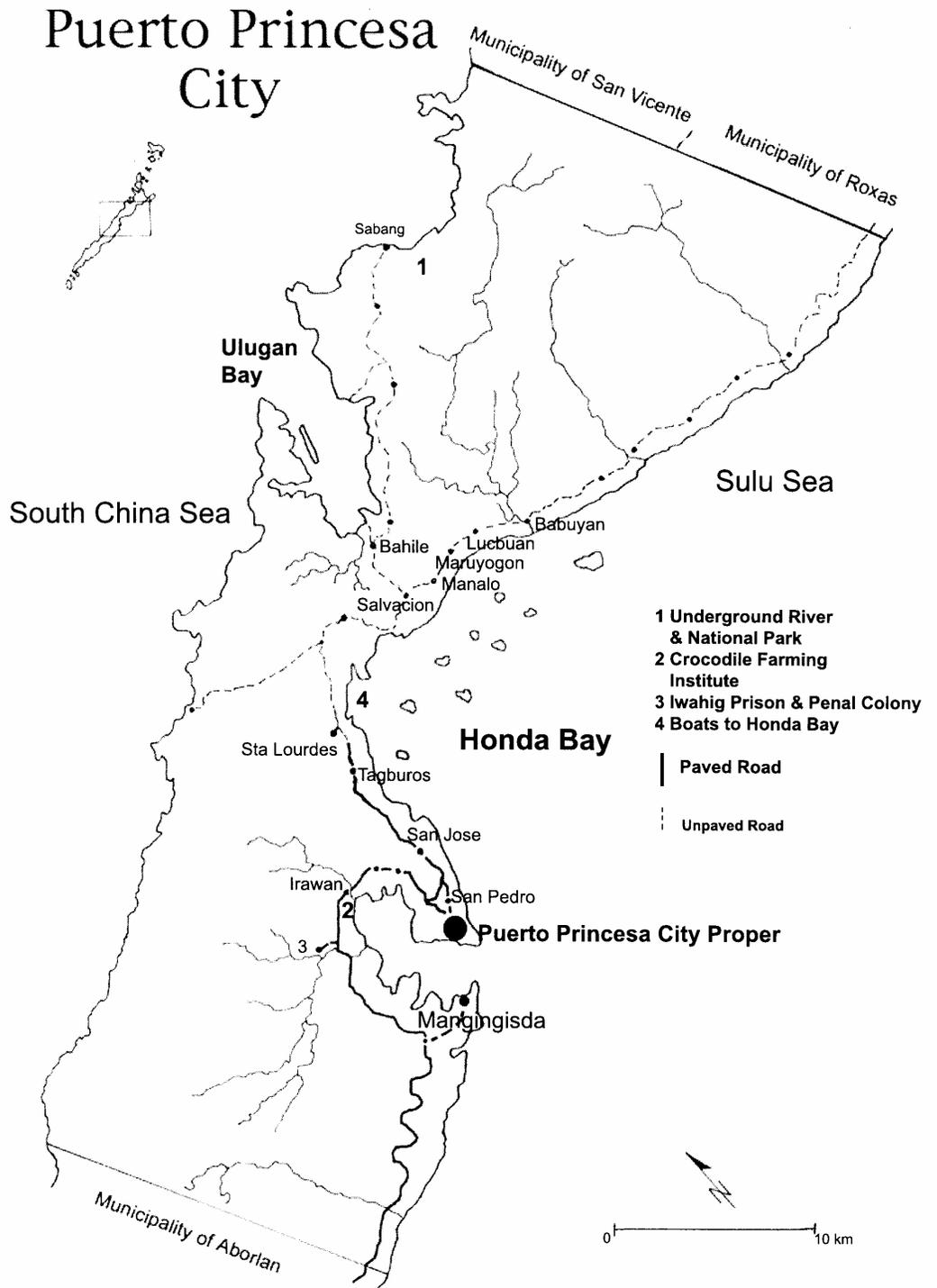


Figure 3.2. Puerto Princesa City/Honda Bay Map

Ashcroft et al. have described the "creation of new transcultural forms within the contact zone"(1998: 118). This kind of cultural hybridity is the phenomenon occurring on Palawan. The fishing communities I studied, although less influenced by foreigners, are also culturally hybrid because they are comprised of peoples from different islands in the Philippines, though a majority of one particular group is usually present in each community. Despite a majority presence of particular groups in specific communities, most of the fisherfolk speak or understand two or three Philippine languages (excluding English).

Philippine ethnography has traditionally categorized populations as upland or lowland, without much attention to coastal communities.⁵ Anthropological studies have primarily been associated with indigenous peoples of the uplands with little attention to cultural differences between Hispanized lowland Filipinos (Eder 2002). Even the category of "lowlands" is often not inclusive of coastal communities and lifeways and primarily refers to farming peoples. Although my work did not focus on the indigenous peoples of Palawan, an overview of them is nonetheless included here as part of this discussion on ethnic diversity. Moreover, many of the early community-based resource management programs in the Philippines were originally designed for uplanders and indigenous peoples. For example the Certificate of Ancestral Domain Claim (CADC) and the Community Based Forest Management Agreement (CBFMA) were originally designed with indigenous peoples in mind (Lynch 1995, Novellino 1999, McDermott 2001) and were precursors to CBCRM.

⁵ This is true especially for those outside of the Visayas (see Ushijima and Neri Zayas 1994, 1996).

The major indigenous groups of Palawan are the Palawan, Batak, and Tagbanua, each of which has their own language⁶. Both the Palawan and the Tagbanua practiced shifting agricultural cultivation. Extensive ethnographic and ethnobiological works on the Palawan have been published in French by Revel (1990).

The Batak traditionally occupied some areas in and around Puerto Princesa City as well as to the north. They were traditionally hunters and gatherers and some still subsisted mainly this way at the time of fieldwork. Eder (1987), Cadelina (1983, 1985), and more recently, Novellino (1998,1999, 2000) have written extensively on the Batak. Their hunting territory extends to nearby barangays in northern Honda Bay today. Fishers in Lucbuan occasionally buy wild boar from Batak hunters. Batak today do not fish in the bay or ocean, mostly due to population pressure and development in coastal areas from other settlers on Palawan. In the past, they were known to travel along rivers to fish and collect shells intermittently from the rivers and coastline.

The Tagbanua traditionally fished as well as gathered and farmed; however, with incoming settlement of the Tagalog speakers following Spanish rule, most Tagbanuas fled to the uplands and only a few groups in the north continue fishing. Some Tagbanua individuals still live around Honda Bay and some have married partners from other ethnic groups. Little documentation of their uses of marine resources exists. The Tagbanua fishers in the north today are among only a few indigenous groups left in the Philippines who still practice traditional coastal lifestyles, often alternating between farming in the

⁶ Various tool and ceramic items associated with early Homo sapiens date from several different time periods ranging from as long ago as 50,000 BP in the Pleistocene era to as recently as the twelfth and fourteenth centuries (Ocampo 1996). Remains of early Homo sapiens from the Tabon Caves date to around 22,000 to 24,000 BP (PAIO nd.). Advanced Metal Age, as well as stone and porcelain jars from the twelfth to fourteenth centuries of the Sung and Yuan Dynasties have also been excavated at Tabon Caves in southern Palawan. Some believe that the Tagbanua and Palawan Tabon Caves in southern Palawan. Some believe that the Tagbanua and Palawan are possible descendants of the Tabon Cave's inhabitants (PAIO nd.).

uplands and fishing. (Fox 1954, Abby Reyes, personal communication 1997, Eli Gibb, personal communication 1997).

Other original inhabitants of Palawan include the Agutaynan, Cagayanin, and Molbog, all of whom comprise minimal percentages of the total population (Palawan PAIO nd.). Some debates are ongoing as to who should be allowed to (or might want to) identify as indigenous (Eder 2002), mostly because, as noted, the earliest community-based resource management programs in the Philippines relied on indigenous claims known as Certificates of Ancestral Domains (CADZI). The first CADZI to be awarded that includes ancestral sea tenure in the Philippines was awarded to an indigenous coastal group of Tagabanua on Coron, in northern Palawan (Mayo-Anda 1999).

History of the Sulu Region

The prehistory of Palawan was connected economically to the larger Sulu region of Southeastern Asia. The chain of islands from northeast Borneo to southwest Mindanao in between the Sulu Sea to the north and the Celebes Sea to the south is referred to as the Sulu Archipelago (Keifer 1972). For the purposes of this discussion, the Sulu region extends from the Sulu Archipelago north and broadly encompasses parts of what is now Malaysia as well as the Philippines and Celebes islands (Warren 1981). Ocampo (1996) suggests that the land bridges that likely existed between Palawan and Borneo were one factor for the similarities in cultural characteristics of the native groups on these islands. The Taosug Sultan of Sulu likely exercised most authority throughout the region. Palawan was considered under the jurisdiction of the nearest Sultunate at Jolo, a small island off the coast of Mindanao (Keifer 1972, Reid 1988).

These relations also influenced the material culture of the pre-hispanic Palawan indigenous groups and items of trade from as early as the Jung Dynasty of China in the 13th century AD have been found in association with indigenous groups of southern Palawan in particular (Ocampo 1996). The native people of Palawan also participated in trading with Muslim and Chinese merchants, and as noted by Ocampo the Tagbanua, Palawan, and Molbog cultures have traces of Muslim influence today (1996).

Sulu Sultanates were found throughout the Sulu region as far north as Manila in the Philippines. One of the main trades in the region was that of slaves. Early Spanish accounts noted slave raiding occurred on southern Palawan. Slave trafficking with China and the west occurred throughout early Sulu periods of the 1700s and 1800s until it reached its peak somewhere between 1800 and 1848. The Tausug and the Magindanao were the main cultural groups involved in slave raiding in the Sulu region (Warren 1981:xv). Although most historical accounts have considered the Tausug to be the main slave raiders, Warren notes that the Magindanao from Mindanao were probably more active in slave raiding from the 1700s to 1900s (1981:xv). If this is true, the slave trade and spread of the Magindanao would indicate the tradition of the spread of *jihad* (Muslim holy war) throughout the region during that time period. Magindanao slave raiding was thought to be primarily related to political factors associated with *jihad*, as opposed to economic factors (Warren 1981: xv).

As an institution, the slave trade was unlike the western conception of slaves (Warren 1981:215). Although slaves were considered property, slaves were usually defined in terms of their servile status and some could even own property (Warren 1981:215). This also varied between societies. Slaves were incorporated into the Tausug

society and needed to produce goods for the economic trade throughout the region. As described by Warren: "Slaves were predominately Visayan, Tagalog, Minahassan, and Buginese speakers, although almost every major ethnic group of insular Southeast Asia was to be found among their ranks" (1981: 215). One of the services slaves provided for the Sultanates was that of fisheries (Warren 1981).

The maritime network throughout Sulu served as a trade center for goods such as porcelain earthenware, textiles, opium, guns, and gunpowder coming from China to the Sulu region. Sulu products for export to China (and later European traders) were birds' nests⁷, tortoise shell, wax, camphor, and mother of pearl (Warren 1981).

Throughout later periods (1768-1848), the Sulu region became the center for European trade in addition to previously existing trade networks. The Spanish, Dutch, and British in particular somehow managed to incorporate themselves into the already existing trade network (Warren 1981). Textiles were still considered one of the most valuable trade items to the Tausog, including fourteen different types of cloth. Other trade items brought in to Sulu were cutlery, knives, razors, scissors, (looking) glasses, perfumes, essences of lemon and lavender, toys, and occasional fine goods (Warren 1981:43). Export goods for British and other European country traders were usually "natural" produce, small in bulk, and highly prized by the Chinese" (Warren 1981:43). These were usually spices, "marine-jungle" products, and local handicrafts. The Spanish generally encountered hostility from the Tausog, but somehow became engaged in the trade network as well (Pinto 2000, Ocampo 1996). By the late 1800s, on Palawan, the Spanish established ports at Balabac in the south and Puerto Princesa (then-Paragua) and

⁷ Balinsasyaw is the term used in Palawan for this delicacy, now endangered but still highly prized.

succeeded in acquiring representation from Muslims (Tausug) (Ocampo 1996, Pinto 2000).

Colonization and Settlement of Palawan

By the 1570s, soon after the Spanish began their initial colonization in other parts of the Philippines, they began to colonize Cuyo and the Calamanias (a northern island group of the Palawan island complex) (Ocampo 1996). Spanish Friars began to collect tribute from Cuyo and Calamania residents; residents of Cuyo reportedly showed little resistance (excluding native religious leaders who were known to resist in various ways) (Ocampo 1996:25). By the mid 1600s, there were over 2,000 Catholic families on Cuyo alone. Conversion of the islanders to Christianity was rapid, with numbers having grown to over 18,000 in the Calaminaes, despite frequent attacks from non-Christian natives.

After the Spaniards left, as a result of the 1898 Revolution, the name of the province was changed from Paragua to Palawan, and Puerto Princesa became its capital. American governors took control of the province and began the process of developing the country, including the construction of schools, the promotion of agriculture, and attempts to bring people closer to the government (PAIO Nd.).

Throughout the 1900s Palawan was then further settled by migrants from Cuyo, the small island to the northeast of the larger Palawan group, and by resettlement programs in the 1940's, sponsored by the national government (Pinto 2000). For hundreds of years during Spanish colonialism, Cuyo was the home of an old Spanish fort. The fort was built for protection from the "Moros," the term the Spanish used for various groups who had been exposed to Muslim influences and occupied southern Philippines.

Consequently the Cuyonon language incorporates slightly more Spanish than some of the other Filipino languages. Many Cuyonon residents of Palawan today would say that they are the indigenous peoples of Palawan. Despite the high prevalence of Cuyonon speakers on Palawan, it is officially classified as a Tagalog-speaking province.

The legally sanctioned language for Philippine law and for certain educational curriculum is still English, but English is only widely spoken among more educated professionals in Puerto Princesa City proper, and sometimes in tourist destinations. Other languages commonly spoken on the island among fisherfolk are Ilongo, Cebuano, and related Visayan languages, due to the influx of migrants from many of the other Philippine islands.

The major activities of the original migrants from Cuyo included mixed subsistence patterns of both farming and fishing (Eder 1974). However, those who were born on Palawan along with long-term residents who migrated there more than a decade ago may feel they have fewer opportunities than do today's migrants. The sparsely populated province has now become home to incoming Filipinos from other parts of the country who arrive in droves. Partly as a result of this, the long-term residents of the communities of northern Honda Bay, mostly Cuyonons and Ilongos, have seen their livelihoods dwindle, as fish productivity has declined dramatically since the late 1980s. For the purposes of my study, I focused on communities that rely heavily on fishing livelihoods.

Settlement of Northern Honda Bay

The study communities, located in northern Honda Bay, were settled by the current residents as early as the late 1920s, and as recently as the 1970s. All of the study communities, Sitios Katumbal and Milwang in Barangay Lucbuan, and Barangay Babuyan, were settled by migrants from Cuyo and the Visayas.

Sitio Katumbal was settled in 1928 by the Tropa family. During World War II several families evacuated the area and relocated to outlying islands and provinces. By 1950, resettlement of the area had begun. Many of the current residents of Sitio Katumbal are somehow related to the Tropa family. The majority of the residents of Katumbal came from Cuyo and most now speak Cuyonon as well as Tagalog. Some of the current residents are descendants of prisoners who were residents of the fishing outpost for Iwahig Penal Colony, formerly located just south of Sitio Katumbal on the south side of the Mintis River. The next family after the Tropas to settle Katumbal in the 1950s was the Favilas, who still hold title, gained by the homesteading act, to the land in Sitio Katumbal.

Sitio Milwang, also part of Barangay Lucbuan, was settled as part of the Human Settlements Program during the Marcos administration, and is often referred to as “Yuman” (meaning human) for that reason. Residents of Milwang have stated that they were promised land title by the Mayor of Puerto Princesa City to the area they now occupy. Most of the residents of Milwang speak Ilongo and Tagalog.

Further north on Honda Bay is the Barangay of Babuyan (meaning ‘piggery’) which is comprised primarily of residents from the Visayas, including many Ilongo speakers. Most also speak Tagalog. According to one of the older residents of that area,

the mangroves there had been cleared prior to his arrival with subsequent construction of several fishponds in the area in the mid 1970s.

Small -Scale Fishing Technologies

The communities of northern Honda Bay practice several different types of fishing, all of which can be divided into the categories of traditional and non-traditional. For the purposes of defining terms, I will consider traditional fishing methods to be methods used by small-scale fishers, sometimes without any motorized boats. I will refer to non-traditional methods as those that usually utilize motorized boats and are often large-scale commercial operations. It should be recognized that small-scale fishers can and do have detrimental impacts on their environments; therefore it is not assumed that marginalized fishers always practice sustainable methods.

Some of the most common traditional methods used by residents of northern Honda Bay include: several different types of nets: *panti* (gillnets), *sudsud* (dip net or push net), *kitang* (a traditional method used for longlines), *pangilaw* (the use of a lantern at night to attract crabs and other animals), *bubo* (fish traps, some of which are used for live fish), *panak* (crab traps), *baklad* (fish corral), and *kawil* (hook and line). Women and children most commonly practice ‘gleaning,’ a term used by fisheries managers to describe the activity of gathering shells from exposed reef flats and sand beds during low tide. Men sometimes participate in gleaning, and women occasionally accompany their husbands fishing.

Some of the most common non-traditional methods listed by community members include: methods utilizing sodium-cyanide (*sodyum*) (for the live fish trade), dynamite

(*bong-bong*), and air compressors. *Tangkals*, or stationary lift nets, were introduced into the area in the 1970s. Many residents complained of large scale trawlers, “*baby*” trawlers, and *hulbot-hulbot* fishers encroaching into their area. *Hulbot-hulbot* is a destructive fishing method, which uses large weights and scarelines. However, when asked about fishing methods, they did not state that baby trawlers, or hulbot-hulbot were practiced by residents of northern Honda Bay. Other technologies used by fishers in the area include: rafts with palm and debris (*balsa/payaw*) as fish attracting devices, spears (*pana*, not as common in Honda Bay as in other areas), and *bangus fry bulldozers* (used seasonally to catch larvae/fry sold for fish farms). Chapters 5 and 7 provide a more comprehensive discussion of fishing lifeways and technologies.

History of Environmental Degradation in Palawan

Based on interviews with various government officials and records searches at the PCSD and the Bureau of Fisheries and Aquatic Resources (BFAR) and other government as well as non-government offices, I learned that records regarding Palawan's degrading resource base have not been readily available and in some cases non-existent.

Furthermore, the data that are available are often inconsistently collected over time, and therefore incomparable for the purposes of discerning trends and dates. These problems plague the fisheries and coral reef data as well as data on forest degradation and reduction over time.

There are several reasons for this. First, since Palawan has lagged behind the rest of the Philippines in its development, some of the activities most detrimental to the environment have occurred only within the last ten to twenty years. As Palawan has

maintained its frontier character, its growth has occurred mostly in an erratic, undocumented, and unregulated manner resulting in a "scrambling" (Eder 1999) for resources. As a result, the situation at the time of my research was that documentation of natural resource degradation of the island had been inconsistent, sparse, inaccurate, or non-existent. Secondly, once the People Power movement came into play and Aquino took office in 1986, the environmental movements in the Philippines proliferated exponentially, strike on Palawan *prior to* the initiation of and compilation of results of particular studies. This is especially true regarding fisheries. As a result, information on environmental degradation, such as it is, is often embedded in the literature on environmental movements themselves (Broad and Cavenaugh 1993, Arquiza 1997).

Logging

Logging data was more available than fisheries or coral reef data. However, as explained in Chapter 2, it is likely inaccurate, depicting lower rates of forest depletion than is the reality (Kummer 1993). As stated by the World Bank: "Land statistics in the Philippines tend to be imprecise and ever changing as new survey of collation efforts supercede older ones" (1989:9). The effects of large-scale commercial logging on Palawan have been a major cause of siltation in coastal areas (although there is some debate about the degree to which siltation has affected the degradation of the coastal environment), and are known to be damaging to tropical coastal ecosystems in general. All lands over 18% in slope are considered to be Forest Lands in public ownership "in perpetuity" (World Bank 1989:9). This totals approximately half of the total land area, which is under the disposition of the Department of Environment and Natural Resources

who issues logging permits and monitors forest statistics. Despite the inconsistencies in data, some general trends and data can be noted. In the early part of the twentieth century, Palawan Island was more than 90% forested (Eder and Fernandez 1996). Landsat imagery showed around 65% forested in 1970 (PIADPO in Eder 1999). According to several sources, by the late 1980s and early 1990s slightly over 50% of Palawan remained forested (World Bank 1989, Eder 1999, Broad and Cavanaugh 1993). Eder reported an even lower estimate of 45% remaining forest cover "circulating in government offices" (1999: 28). The Palawan Council for Sustainable Development has stated that an average of 19,000 hectares per year are lost to logging (PCSD 2003). Finally, the Palawan Tropical Forestry Protection Program (PTFPP), a European Union funded program, for more than a decade, reported an *increase* of 7.1 % annual forest cover by 1998. This has been attributed to growing awareness, reforestation efforts by PTFPP, and the total commercial logging ban (PCSD 2003). Considering the inconsistencies in land statistics in the Philippines, the suggested increase could be a result of different, or new survey techniques.

Migrant farmers on Palawan practice slash-and-burn methods of clearing agricultural fields – a form of shifting cultivation seen predominantly in tropical areas the world over, known as *kaingin* in the Philippines⁸. Upland agriculturalists have often been blamed for deforestation by logging companies who attempt to defend accusations that commercial logging has been the main cause of forest degradation on Palawan and elsewhere (Eder 1999, Broad and Cavanaugh 1993). Upland dwellers and fisherfolk are also known to utilize at least some forest products for fuelwood and housing construction.

⁸ Kaingin is illegal on Palawan, and has a negative connotation. As practiced by non-indigenous migrants around the Philippines, kaingin often does not involve rotation of fields whereas traditional forms of kaingin are shifting agricultural practices.

There has been a source of considerable debate about the extent to which farmers contribute to forest degradation. Environmentalists argue that logging requires the construction of countless new roads into the forest, which then open up the forest for agricultural expansion and development. Clear cutting of forests also often leaves open territory for farming. The roads built by logging companies have been referred to as "the arteries of forest destruction" (Kalaw, Manlogan *in* Broad and Cavanaugh 1993:46). Environmentalists, foresters, and farmers themselves have noted that slash-and-burn and shifting cultivators will only enter the forests after roads have been built, and that farmers lack the necessary equipment to cut down large tracts of forests by themselves (Broad and Cavanaugh 1993, Eder 1999). Notwithstanding these debates, the growth of agriculture, as well as growing population may be contributing factors to forest degradation, in the uplands as well as coastal mangrove areas.

Coastal Resource Degradation on Palawan

As I have discussed, mangrove swamplands are highly important components of coastal ecosystems in tropical climates. Throughout the Philippines, most primary mangrove forests have been highly logged or degraded (Pontillas 2001). Within the Philippines, the majority of mangrove forests are now secondary growth. Palawan is the site of almost all of the remaining primary growth mangroves (5% of the total existing mangroves in the Philippines). Mangroves in southern Palawan have been reduced to a total of 34,784 hectares and are highly degraded (Manalo 1998). The main causes of degradation are fishpond conversion, timber extraction, and tannin production⁹ (*ibid.*).

⁹ Tannin is extracted from the bark and used for processing hides (Manalo 1998).

Loss of mangroves and other wood sources to logging have led to other problems. For example, Taytay Bay, one of the most productive fishing grounds in the Philippines, located in northeastern Palawan, also showed serious signs of degradation caused by "siltation from land runoff as a result of logging activities and the subsequent destabilization of soil adjacent to the coast" (Curran 1996:2). Major threats to the coastal zone there include mangrove destruction, habitat degradation due to sewage and other waste forms, anchor damage from tourist/diving activities, destructive fishing techniques such as cyanide and blast fishing, and other ecological disturbances (Curran 1996:2). Fish production statistics for Palawan, like forestry statistics, are often lumped with other islands considered to be part of Region IV. However, the World Bank reported that west Palawan waters alone produced 25,863 metric tons in 1983-84 and had the potential to produce approximately ten times that amount (World Bank 1989). At that time the emphasis of the Philippine government and aid agencies such as the World Bank was primarily on production and not on conservation. Accurate statistics on the productivity of Palawan alone were unavailable at the time of the research. Likewise, composite figures on coral cover were unavailable for the province. Some figures on the degradation of Honda Bay are provided in the section below.

In addition to degrading mangroves, coral reefs and lowered fish productivity, the dugong (a sea mammal referred to as a sea cow) and marine turtles are considered threatened with taking and consumption is prohibited (Curran 1996). Dugong have been known to be caught for food and sold in markets and are sometimes incidental catches in nets (*ibid.*). Two types of sea turtles (the hawksbill, and the leatherback) occur on

Palawan and are threatened due to consumption and taking of eggs (Curran 1996). Field research also revealed that turtle eggs are considered desirable food sources.

Interviews with NGO representatives from Puerto Princesa City, as well as with residents of northern Honda Bay all stressed the rapid decline of the fisheries within the last ten years. When interviewed most individuals were not able to recall specific dates, but some traced the degradation to post-Marcos years, indicating that the drastic decline began in the late 1980s.

Coastal Resource Degradation in Honda Bay

Mangrove swamplands cover approximately 1,500 acres of Honda Bay, which is around 15 % of the all of Puerto Princesa City's mangroves (Pontillas 2001). Overfishing and deteriorating water quality are affecting the health of Honda Bay's mangroves (ibid.). Two indicators of the deterioration are poor sanitary quality as shown by high coliform counts, and high concentrations of cadmium and mercury (ibid.).

Resource degradation in Honda Bay was documented as early as 1989, with siltation from the four major rivers draining into the bay listed as a "suspected" factor contributing to the death of corals in the area. Five of the twelve primary islands of Honda Bay were surveyed in 1988. The corals were found to be in generally poor condition with an average of 59 % dead coral, and only 19 % of live coral cover, the remaining reef formations consisting of 2.5 % soft coral and rubble. These surveys were concentrated on islands in the southern to central portion of the bay.¹⁰ Similarly, BFAR

¹⁰ Few marine resource surveys are conducted in northern Honda Bay, primarily as a matter of convenience. The central and southern portions of the bay are closer to Puerto Princesa City proper.

statistics for Puerto Princesa City reported a drastic decline in fisheries from an average of 36.5 kilos per day in 1985 to an average of 8.4 kilos in 1989 (ICLARM 1996).

ICLARM surveyed coral cover of 10 areas of Honda Bay, but only one of the areas was that same as one of the islands surveyed in 1988. Ramesamy Island was reported to have a total live coral cover of 54 % (ICLARM 1996), indicating recovery of the reefs there. Skinner (1997) reported an occurrence of 50% live corals, 20 % dead, and 30% recovering corals around two villages in southern Honda Bay. As these data on coral cover show, only general trends can be discerned since the data were collected from different areas of the bay in different forms. The field research has shown similar data, with some trend towards recovery in the mid 1990's, apparently due to the curtailment of blast fishing in the bay.

Honda Bay was once abundant in marine resources and has become a popular tourist destination for "island hopping" trips and snorkeling. While the ostensibly clear waters of Honda Bay are promoted as a major tourist attraction, problems of poverty and food shortages among residents of the barangays outlining the bay are aggravated by several different factors. Despite its reputation as an unspoiled paradise, siltation from logging and development, increased fishing pressure, overfishing, various forms of illegal fishing (including trawling in undesignated waters, cyanide fishing and blast fishing), siltation caused by erosion, as well as other causes of environmental degradation such as mining and development, have decreased the fish productivity of the bay. As compared with other parts of the Philippines where decreased fish productivity became apparent by the 1970s and 1980s, the field research revealed that the most devastating decrease on Palawan occurred quite recently, throughout the late 1980s and 1990s.

Coastal Resource Degradation and Food Shortages in Northern Honda Bay

Food shortages are prevalent in most, if not all, of the fishing communities around the island, and at the time of the field research Honda Bay residents were rapidly experiencing a decreasing “quality of life.” Throughout the course of the fieldwork, I observed that residents of the northern bay often eat only twice a day. During the lean season (called *Amihan*), these meals may include only rice and a plain soup made of broth from dried fish.¹¹ On the whole, however, residents have experienced a drastically decreasing food supply over the last ten years, and moderate decreases in other resources beginning in the late 1980s.

The average daily fish production for municipal fisherman from all of Puerto Princesa City dropped from 36 kilos in 1986 to 8.4 kilos in 1989 (HBRMP Nd:21). This figure represents all of Puerto Princesa City and includes Honda Bay. It is inclusive of medium-scale fishers who also fish in Honda Bay. The increased pressure from declining resources is one of the factors leading to the development of fishers encroaching into different territories throughout Honda Bay and Palawan.

The decline was noted in field research in both Babuyan and Sitio Katumbal, even though these areas are sometimes referred to by residents and NGO representatives as some of the more well off fishing communities. Yet during certain time of the year, residents there often have very little to eat for meals, subsisting on only two meals per day of dried fish and rice. The catch has declined so dramatically over the last five to ten years, that fishers often fish the entire night only to return with a mere two kilos of fish in the morning.

¹¹ Since many of the residents in Sitio Katumbal farm or trade vegetables with farmer relatives, some vegetables are more available there than in other fisherfolk communities on Honda Bay.

Although most residents will state that the catch has been reduced substantially, it is difficult to get a quantitative figure for comparison of average fish catch during the fieldwork with previous years. The following quote from an interview illustrates the fact that, even if people were able to remember how much fish they caught in previous years, the original amount was not determined by a scale.

RESP: before when we sell fish, we don't use a scale we just estimate. Even for the rice, it was so cheap. We priced our fish for one peso per two kilos of fresh fish. We just tie them up.

The following graph based on ethnographic interview data and participatory rural appraisals shows the amounts of average catch per day beginning in 1975. Using hook and line, in 1975, fishers say they averaged 13 or 14 kilos per day. Their average catch per hour was around 4 kilos. According to their accounts, they did not fish more than a few hours per day because there was no need once they got enough catch to sell and consume. In 1995, hulbot-hulbot operations began in Honda Bay and the catch was drastically reduced (John Galit, interview with author 1998) as depicted in the graph. Fisherfolk, with the assistance of ELAC, filed protests to the city government demanding that the hulbot-hulbot operators be apprehended and prosecuted. The protests were successful in that they stopped the illegal hulbot-hulbot operations in the bay. By 1995, residents have stated that because of more vigilant citizen patrol against illegal trawlers, and hulbot-hulbot operators, the average catch at the time of the field research was perceived to have increased slightly, to approximately 2 - 4 kilos per day with the use of kawil. The perceived average number of kilos per hour had also increased slightly.

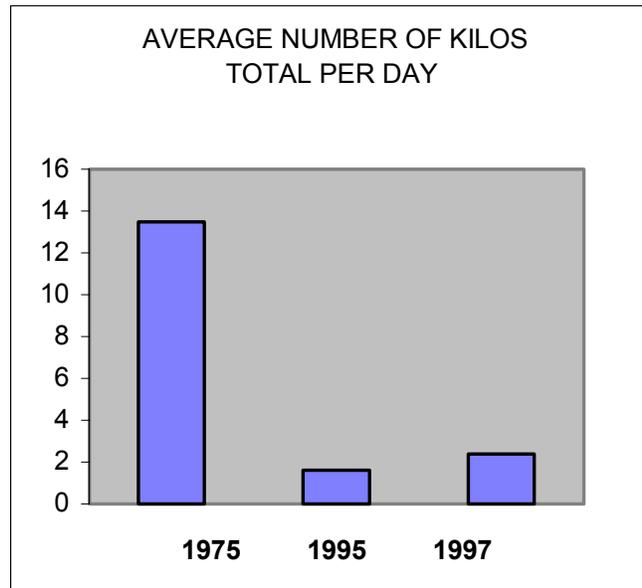


Figure 3.3. Honda Bay Fish Catch Graph

Despite the difficulty in reconstructing an accurate account of catches in the past, interviews have confirmed the general time periods for the decline, as well as dramatic changes in the way of life on Honda Bay. When an eleven year old boy was asked to describe the difference in life “before” (*noon*) and “now” (*ngayon*), his response was: “before there was a main dish (*ulam*).” Based on his account of remembering when there was plentiful food, information from other interviews, and observation at public meetings we can assume that the catch has declined drastically during the period from 1988 to 1998. One former resident of Lucbuan recounted how plentiful the catch was prior to this period:

AN: Oh! You could catch many shrimps here only on that side [she is pointing to a spot just near the shore] ...you don`t have to go that far to fish .We can catch so much using only net, yes ! Only net and we could get as much.

Interviewer: What kind of net do you use?

AN: Just a simple fish net with a wooden handle plus light and the boat of course...in the evening....It will only take us an hour or less, and with that short span of time our boat can no longer contain our catch. Many varieties like crabs, shrimps and many more...

CB: ...Before, you use the hook and line for two hours, it takes almost a full day now to get an even catch. The alimasags [crabs] used to be just along the shores walking. We just used a torch or a flashlight and we got plenty. You had the luxury to choose the big and fat ones.

Another interviewee described the plentiful catch as “*fiesta*.”

AN: During those years, you can see many lights in the sea, as if it was fiesta. People along the shore have their own lights waiting for the boats to unload their catch.

Causes of the Decline

Most of the same causes of the degradation of tropical coastal ecosystems described in Chapter 2 are applicable to Palawan and Honda Bay. During the time of the field research very little consistently comparable data on degradation of coastal ecosystems was available. The primary source of information about declining coastal resources was collected from interviews with local fisherfolk and some environmentalists who were lifelong (or long term) residents of Palawan. As the focus of the study was to understand the movement of CBCRM, further data on the degradation of coastal resources including changes in species, rising tides, erosion and fishpond development is also presented in Chapter 5, Fisherfolk ethnography, as well as Chapter 7, Local Knowledge. According to interviews with residents of northern Honda bay, changes in fishing technologies, unsound fishing practices resulting in over fishing and damage to coral reefs, upland logging, mining operations, and erosion have all caused major changes in the productivity of the coastal ecosystem of Honda Bay. The main types of

fishing blamed for the decline in productivity of the bay are large scale trawling, baby trawlers, baling, dynamite, cyanide used in the live-fish trade, and, hulbot-hulbot (see Chapter 2). According to interviews some large-scale trawling operations began in Honda Bay in the early 1970s and subsided for a while until the late 1980s when hulbot-hulbot operators, baby trawlers, and dynamite fishing were rampant. Much of the dynamite fishing was curtailed with the installation of the Bantay Dagat (baywatch) program of Puerto Princesa City in 1992, but other destructive fishing activities continued.

The degradation of Honda Bay has also been attributed to mining operations in the area. Quicksilver Mines Inc. engaged in mining operations in the area around Honda Bay between 1954 and 1976 (Kineavy and Galit 1998). “The company extracted the mercury (Hg) from ores of cinnabar (HgS) mined from an open pit...More than one million tonnes of tailings were discarded along the Honda Bay coastline during the 1960s...” (Kineavy and Galit 1998) Several community members mentioned these mining activities as one of the earliest reasons for the decline of fisheries in northern Honda Bay. The quarrying operations caused noticeable siltation at the time, and long-term health effects are being studied among residents of some barangays on the bay. The long-term consequences of mining in the bay are unknown to date. However, in some communities of southern Honda Bay, health effects of mercury contamination are being studied. Based on the field research, their main complaints are neurological problems and fatigue. Anemia is another health effect of mercury and other tailings contamination, but the connection between mine tailings and anemia in Honda Bay has not been established.

Environmentalism on the Coastal Frontier

A major factor contributing to Palawan's current reputation as a biodiversity hot-spot and last frontier is its history of environmental movements. Arquiza (1996b) points to both the 1988 "Save Palawan" campaign launched by then-Manila-based Haribon and the resident Palawan activists' efforts to protect the island natural resources and the livelihoods of forest residents. The rise of the Palawan's environmental movement was largely driven in reaction to large-scale logging activities undertaken by Pagdanan Timber Products (and a sister company) owned by "Filipino timber baron and businessman Jose 'Pepito' Alvarez" (Broad and Cavanaugh 1993:43). At the time of their research in 1988/1989, Broad and Cavanaugh reported that Pagdanan's concessions covered about 61 percent of Palawan's productive forest, with as much as two-thirds of those concessions in virgin rainforest (1993:43.).

As part of the Marcos era politics of natural resource use, Alvarez's companies were granted concessions to forest resources in exchange for political backing. Since a vast amount of forest resources are the property of the Philippine government, the Department of Environment and Natural Resource controls the issuance of concessions. Key officials in the DENR may be appointees, or staff; regardless, they have historically been tied to higher level political control within the country. Broad and Cavanaugh recorded Haribon's then-president Maximo "Junie" Kalaw's description of how politics came into play regarding Alvarez's rights to the forest resources of Palawan: "Forest resources and land resources were given as political patronage and as a source of resources to keep people in power and to buy electoral votes" (1993:44). To illustrate the extent of his power Alvarez held within Palawan, based on Haribon's calculations, his

annual revenues totaled three quarters of the total income of the entire province, which was twenty-four times the entire governmental budget for the province (Broad and Cavanaugh 1993:45). One example of how environmentalism in the Philippines grew out of human rights and social justice causes,¹² as well as environmental concern, is the case of former Pagdanan workers who filed complaints against Alvarez for violation of labor practices (Broad and Cavanaugh: 1993:48). A key human rights lawyer, who became President Cory Aquino's first labor minister, represented the laborers in their fight against Alvarez (ibid.).

Haribon Manila was instrumental in successfully campaigning for a total commercial logging ban on Palawan, which led to the creation of Haribon Palawan in 1989 (Arquiza 1996 b). The awareness of early Haribon Palawan members began with acute awareness of inequitable access to natural resources. With so much power in the hands of one individual, it was not difficult to pinpoint the individual and his allies who were in control of forest degradation. Just as Haribon Palawan vehemently opposed commercial logging on Palawan, they also began to oppose mining and commercialization of the waters surrounding Tubbataha Reefs National Marine Park for seaweed farming. Other groups began to develop around the island and included individuals from various sectors including: "divers, tourist guides, young government employees, and social activists who [were] all part of the anti-Marcos campaign" (Arquiza 1997). One of the primary causes that early environmental groups on Palawan endorsed was that of community-based resource management (Arquiza 1997). As early Palawan environmentalists recognized, the rights of residents to indigenous, farming, and

¹² Many of the NGO environmental and social justice advocates consider social justice to be a form of human rights activism, hence, they may be used interchangeably in this dissertation.

fishing lifeways were considered to be important social justice issues along with degradation of the biophysical environment.

Another factor that largely contributed to Palawan's designation as a biodiversity hot spot and reputation as a last ecological frontier is that Palawan was the site of the first Debt-for-Nature Swap in 1988 in Asia (Broad and Cavanaugh 1993). With global attention drawn to the island's rich marine biodiversity in the late 1980s, El Nido became a marine protected area, known to be host to some of the richest marine biodiversity in the world.

Environmental Management in Palawan

Governmental Jurisdiction and Relevant Legislation

The governmental jurisdiction of the research area is distinctive in at least two important aspects. First is the Strategic Environmental Plan (SEP) for Palawan. Second is the unusually large land area of Puerto Princesa City. Palawan is comprised of 1700 islands all of which fall under the jurisdiction of the Palawan Province. The formation of the Strategic Environmental Plan for Palawan grew out of an earlier project called the Palawan Integrated Area Development Project, which was initiated in 1979. These early efforts to plan for simultaneous economic development and environmental protection were attempts to recognize the unique natural resources of the province, as well as the potential for growth on the least developed of the major Philippine islands. The plans for SEP were initiated in 1986 (Sandalo 1996) and passed into law in 1992. The law itself best describes the general philosophy of SEP:

The SEP shall have, as its general philosophy, the sustainable development of Palawan, which is the improvement in the quality of life of its people in the present and future generations through the use of complementary activities of development and conservation that protect life-support ecosystems and rehabilitate exploited areas to allow upcoming generations to sustain development growth.[Sec. 5, Republic Act 7611 1992]

The Palawan Integrated Development and Project Office (PIADPO), funded by international donors and the Philippine government (Sandolo 1994), initiated baseline studies and pilot projects for sustainable development in the 1980s. This office was converted to the Palawan Council for Sustainable Development (PCSD) with the enactment of SEP. The PCSD acts as a planning body for Palawan. It is comprised of political appointees and PCSD staff, those engaged in project planning and development. The role of the PCSD and PCSD staff is limited in that they do not serve in a legal capacity as a regulatory body for all aspects of resource use, yet they oversee development in the Province. SEP provides for the eventual zoning of all of Palawan by establishing the Environmentally Critical Area Network (ECAN) (Republic Act No. 7611 1992; see also Novellino 1999). The network is intended to provide for controlled development on land and in coastal areas, as well as areas considered to be "tribal ancestral lands" that are given a "special cultural consideration" (RA 7611). The ECAN strategy involves delineation of a "core zone," and a "multiple use zone" on terrestrial and coastal environments (RA 7611). At the time of the field research the process of "ecanization" of the coastal zone was underway with the initial drafting and review of the ECAN guidelines for the coastal marine component.

The overlapping jurisdictions are further complicated by the large jurisdiction of the Puerto Princesa City government whose goals and authority may conflict with the PCSD. The governmental jurisdiction of Puerto Princesa City (PPC) covers sixty-six

barangays, the smallest legal governing unit in the Philippines. These sixty-six *barangays* include all of the communities of Honda Bay where I conducted most of my research with fisherfolk, and the *barangays* of the city proper, the location for the various non-governmental offices whose employees I interviewed. The government offices for the province of Palawan, Puerto Princesa City, and local branches of national agencies are also located in the city proper. The Local Government Code of 1991, a national law devolving authority to local governments to manage their own resources, sanctions the autonomy of the government of Puerto Princesa City. The law, though well intentioned, has created some confusion, overlaps in jurisdiction, and gaps in the implementation of controls over local resource use. To further compound the situation, relations between the Puerto Princesa City mayor and the PCSD are strained as each governing body vies for power and control.

The mayor of Puerto Princesa City has been referred a "self-confessed crook known to have boasted of his shady past," (Theroux 1998:108) who operates as a sort of a maverick. He has gained a national and international reputation of presiding over the "cleanest and greenest" city in the Philippines and is well known for implementing environmental programs. Despite his reputation for environmental programs and that he "single-handedly turned this situation [of environmental degradation] around" (Theroux 1998:108), some say that he takes credit for the work of various other individuals' efforts on the island, including environmentalists and then Governor Socrates (Theroux 1998:108). The most well know example of the clean and green city is that litter is cleaned daily from the streets, and trash cans are found throughout the city proper,

something not common elsewhere in the Philippines. Arquiza has referred to his environmental programs as "more cosmetic than real" (1996:61).

The Local Government Code of 1991 as well as devolving authority to local governments, further devolves national regulatory agencies to open mini-offices around the country. For example, the Department of Environment and Natural Resources has local City Environment and Natural Resources offices (CENRO) and Provincial Environment and Natural Resource offices (PENRO), among many other regional and government offices. To further complicate matters, the City of Puerto Princesa has its own fisheries code, agriculture office, and other offices dedicated to environmental issues. Most people are unaware of which office has jurisdiction over which domain, and many government workers themselves will often refer individuals to other agencies, or claim jurisdiction when legally they do not have such rights.

National Level

As early as 1935, Act 4003 was passed to prohibit the use of explosives and electricity for fishing. A series of laws since then have been enacted, often with the intent to accelerate the fishing industry (Francisco 1997). At the time I began field research in 1997, the primary national law regarding fisheries was Presidential Decree No. 704, passed in 1974 in attempts to revise consolidate existing laws at the time. By 1991, the Local Government Code repealed various portions of the code (Francisco 1997). In February of 1998, a new National Fisheries Code, Republic Act No. 8550 was passed, "An Act Providing for the Development, Management, and Conservation of the Fisheries and Aquatic Resources." The act, among many purposes, explicitly states its goals are to

achieve food security and protect the rights of fisherfolk. The Bureau of Fisheries and Aquatic Resources (BFAR) had been delegated limited jurisdiction outside municipal waters (within 15 km. of the shoreline) until passage of the National Fisheries Code, after which time it was delegated the responsibility of providing technical assistance and coordinating with local government units for the development of fisheries management plans. Implementing regulations were to be drafted by the Palawan Network of NGOs. The Department of Agriculture (DA) also has jurisdiction over fisheries, particularly research, and its official involvement with fisheries management was lessened with the passage of the National Fisheries Code.

The Philippine Constitution of 1987 includes a marine resources development policy intended to limit the "exclusive use and development of marine wealth to Filipino citizens" and to protect communal marine resources and offshore Filipino fishing grounds (ICLARM 1997). The Local Government Code of 1991 established that municipal waters are considered to be waters within 15 kilometers from the high tide line and exclude commercial fishers. However, if local governments pass ordinances to allow it, commercial fishers can operate within those 15 kilometers in waters that are over seven fathoms deep. The Local Government Code also provides for communities to pass their own ordinances pertaining to resource management. In effect, this can even apply to the barangay level. As it pertains to fisheries, barangays may enact ordinances to create marine protected areas. In the case of Puerto Princesa City, or a bay like Honda Bay, it is more likely that the city or a group of barangays would set up a protected area rather than one community.

The National Integrated Protected Area System (NIPAS) Act is another important law that pertaining to both land and coastal resources. The NIPAS Act, enacted in 1992 (the same year as SEP) established guidelines for sanctuaries and protected areas, including zoning schemes that sometimes exclude humans and other times allow for human occupation and resource utilization provided they "are characterized by the harmonious interaction of man and land" (NIPAS *in* Novellino 1999:268). The act is designed to function with a multi-sectoral board in areas where protected areas are established, including members from all levels of government, villages, tribal communities, and NGOs (ICLARM 1997). The NIPAS Act applies to landscapes as well as seascapes (Novellino 1999).

Provincial Level

The Province of Palawan has several fisheries laws, but they do not apply to Puerto Princesa City (PPC). Since PPC is an independent chartered city it is required to create and enforce its own legislation. The SEP law provides for the creation of the Palawan Council for Sustainable Development as a policy making body. As a part of its mandate to create policy, a PCSD staff office also conducts research. The PCSD itself is comprised primarily of government representatives with two NGO representatives as well. One area of conflict that creates gaps and sometimes animosity is that PCSD cannot regulate, or even force implementation of the laws that it has created, but in some ways it has jurisdiction over the Province. The Bantay Gubat (forest watch) and Bantay Dagat (sea or bay watch) programs were set up by the provincial government in the early 1990s

and have curtailed (but not stopped entirely) illegal logging and fishing programs throughout the province since that time.

City Level

The Basic Fisheries Ordinance (Ordinance #57) of the City of Puerto Princesa City was passed in 1997 and included several major bans such as: hulbot-hulbot, baby trawl, pa-aling, commercial fishing within city waters, as well as a total ban on mangrove conversion into fishponds or for other purposes (ICLARM 1997).¹³ The ordinance redefined fishing access and stakeholder rights, in the spirit of the Local Government Code of 1991 and the Philippine Constitution of 1987. It also included provisions for a Fisheries and Aquatic Resources Management Councils (FAMRCs) comprised of members from local government, NGOs, and POs. The City Department of Agriculture provides technical assistance to local government units and NGOs implementing projects for coastal resources management.

A five-year total ban on the live-fish trade was enacted in 1993 prior to the cities' fisheries ordinance. The intent of the ban was to deter any use of cyanide for the live-fish trade, with no allowance for other methods of live-fish capture.

One special program of the City of Puerto Princesa is the Bantay Dagat (bay watch or sea watch). The city set up a system utilizing volunteers who are not regular employees of the city, but do receive a stipend for use of their boats. As such, no real city regulatory body exists. The program was successful in curtailing blast fishing throughout most of the 1990s, but it only sporadically enforces illegal trawling, hulbot-hulbot,

¹³ This ordinance was drafted with assistance from local NGO attorneys based in Puerto Princesa City.

pa-aling, and cyanide use. Field work revealed that although at first the city Bantay Dagat was instrumental in protecting the bay from blast fishing, it was considered by most to be ineffective at the time of my research. Another practice of deputizing community members to be "fish wardens" was found to be ineffective as a substitute for regular law enforcement officials because community members lack basic resources such as boats, gas, radios, flashlights, etc.

Honda Bay Community-based Coastal Resource Management

Honda Bay has been considered to be representative of typical mangrove forest and local coastal communities found throughout Palawan (Pontillas 2001), and as a result has been the site of various fisheries management research efforts, programs, pilot testing, and recently Community Based Coastal Resources Management programs (CBCRM). Among the various projects occurring in the area over the past several years have been those conducted by SEAMO SEARCA (Regional Center for Graduate Study and Research in Agriculture), ICLARM (International Center for Living Aquatic Resources Management), and World Fish Center (formerly ICLARM), the Palawan Integrated Development Plan (PIADPO), the Palawan Council for Sustainable Development (PCSD), the Coastal Resources Management Project¹⁴, World Wide Fund for Nature, Bandillo ng Palawan, Haribon, and ELAC. Several management councils and committees have also been formed among barangay officials and community members.

¹⁴ The Coastal Resource Management (CRMP) was a joint project of the DENR, the DA, and BFAR funded by the United States Agency for International Development (AID). The project operates at the community level in five "learning sites" throughout the Philippines, one of which is in northwestern Palawan, and it provides technical assistance to local governments including Puerto Princesa City. It has little influence and interaction with Palawan meso-level NGOs. CRMP also provides aid and training to various government and NGO coastal resource managers.

Most of the projects involving communities have focused on barangays in the southern or central portion of the bay and have not reached the northern Honda Bay communities of Lucbuan and Babuyan where a portion of the ELAC CBCRM project I studied is located. Haribon sponsored a CBCRM project just north of Babuyan and under a Memorandum of Understanding with ELAC agreed not to interfere with ELACs projects nearby.

ELAC Honda Bay CBCRM Program

The ELAC CBCRM project includes two barangays in southern Honda Bay and the barangays of Lucbuan and Babuyan in northern Honda Bay. ELAC's initial involvement with CBCRM in Honda Bay grew out of their efforts to assist fishers who had been jailed for illegal fishing. The fishers had reported a commercial fishing business owner for the use of cyanide and they in turn sued them. ELAC took the case and the fishers were acquitted (Galit 1998). ELAC later became involved in assisting communities with setting up tourist boat charters, health issues related to mining tailings in the bay, the apprehension of destructive commercial fishing vessels, and land tenure issues. Eventually, the relationship that had begun between individuals from ELAC and People's Organization (PO) leaders from a few barangays grew to become a CBCRM program, with funding secured from OXFAM's Great Britain's office (Carrean 1998).

The CBCRM program follows the basic tenets of CBCRM as described in Chapter Two with various aspects tailored to ELAC's approach and community needs. The most important component of the program is community organizing. ELAC initially brought in community organizers from outside the communities, but these attempts proved unsuccessful. They adopted the philosophy that individuals from within

communities would be best at the Community Organizer (CO). One CO from Lucbuan was hired to be the organizer for both Lucbuan and Babuyan.¹⁵ ELAC often started their community organizing process with a meeting referred to as a consultation wherein community members and ELAC staff can exchange ideas and the needs of the community.

A series of environmental education seminars and a series of paralegal seminars are also provided for community members. Each of these can last from one full day to three days. Environmental seminars provide information about marine biology, coastal ecosystems and destructive fishing, while paralegal seminars focus on laws pertaining to fishing, foreshore rights and land tenure issues. The paralegal aspect of the ELAC CBCRM program also provides assistance, if requested, with the drafting of local ordinances. Another aspect, intended to empower community members is training that teaches individuals how to enact citizens' arrests of illegal fishers in their municipal waters. Participatory resource mapping is undertaken in lieu of or in addition to marine biological resource assessments to collect baseline data.

ELAC also provides assistance to organizations in setting up or formalizing People's Organizations. In some cases loans to POs are made available through ELAC, funded by the city or other agencies. These POs are often a mechanism for the implementation of alternative livelihood projects, including fish cages, crab fattening, mat weaving, roof thatching, hog raising, seaweed farming, and tourism (although primarily concerned with southern Honda Bay). The premise of CBCRM is that it will improve not only the biophysical coastal environment, but also the well-being of its

¹⁵ A CO from Santa Lourdes in the southern part of the bay was hired as well, but my research is primarily concerned with the two communities mentioned in northern Honda Bay.

inhabitants. Since ELAC grew out of a human rights orientation, its efforts on assisting the people are parallel to, if not more important than the biophysical environment. As I have explained, with CBCRM programs and the orientation of NGOs on Palawan and throughout much of the Philippines, the separation of human concerns from environmental concerns is not as rigid in typical western conservation schemes. As such, the purpose of providing alternative livelihood projects is twofold. First, it takes pressure off of the bay's resources, and second, livelihood projects are intended to improve the incomes and quality of life of fisherfolk.

The establishment of marine sanctuaries and mangrove reforestation projects are introduced after educational seminars have been held so that community members understand the importance of coral reef and mangroves to fishing productivity. Once they have made this connection in their view of the coastal ecosystem, community members are often in favor of marine protected areas because they are intended to increase fish productivity as well as conserve marine biodiversity. All of these components of the Honda Bay CBCRM are flexible and geared towards the needs of each community. The actual management of the resources may seem limited at times, with emphasis on PO meetings and livelihood projects, but the overall intent is a comprehensive approach to fairness in access to resources, including human rights to a healthy environment, specific fishing territories and protected area management, as well as land tenure and legal issues.

CHAPTER 4
PALAWAN NGOs

Introduction

As we have seen in Chapters 2 and 3, NGOs can take many forms throughout the world, and especially the Philippines. On Palawan, most of the original meso-level NGOs started as volunteer organizations and later became professionalized, thus maintaining a hybrid character. This chapter will address how the transformation from volunteer advocacy to environmental professionalism took place, and will do so primarily through insights into the lives of environmentalists. Following the growth of environmental NGOs throughout the Philippines, and the phenomenon of international conservation organizations funding NGOs, NGOs on Palawan have evolved to a place of special power, in part because of a commitment not only to environmental causes, but to social justice issues as they relate to those causes. However, outside Palawan and to some extent the Philippines in general, an awareness of the fundamental commitment to social justice within the movement may be lacking. Furthermore, critiques of the movement may find fault with the lack of emphasis on biophysical conservation of nature. Through understanding the origins of the movement it becomes evident that the underlying core of the movement (at least among the individuals I encountered on Palawan) is about social justice. Just as Palawan has a nationally sanctioned environmental status (the Strategic

Environmental Plan (SEP)), regional or meso-level NGOs also enjoy a kind of special status and possess a unique character compared to the rest of the Philippines. They are noted nationwide for their advocacy to protect the environment as well as their vigilance over government agencies. For example, when I arrived in the Philippines and met with a well-known coastal resource manager at a large international NGO based in Manila, he mentioned the fact that large-scale trawling operations had been chased out of Honda Bay by local community members with the help of ELAC (Environmental Legal Assistance Center). This is an incident that has become emblematic of Palawan community and NGO character.

Other factors that have contributed to their vigilance are: 1) the fact that El Nido Protected Area in northern Palawan was the first Debt for Nature swap in Asia (Broad 1993), 2) the designation of Tubbataha reefs as a World Heritage site and the mobilization of NGOs to protect the reefs (discussed below), 3) the designation of the island as a protected area under the Strategic Environmental Plan, 4) the reputation of the Mayor Hagedorn of Puerto Princesa City as an environmentalist (elected in 1992), 5) the reputation of Governor Socrates of Palawan (also elected in 1992) as environmentally conscious, and Palawan's association with the national anti-logging campaign, "Save Palawan." All of these factors, among a general reputation in the Philippines as a wilderness, contribute to Palawan's reputation as an environmentalists' domain. Moreover, in 1992, a formerly powerful politician, Ramon Mitra, allied with the province's major logger, Alvarez, lost his run for the Presidential Candidacy. The Palawan candidates he supported lost in local politics as well (Arquiza 1996:46). As

result of the fall of Mitra's popularity, political influences were dispersed, opening up the political grounds. Joselito Alisuag¹, then-chair of Haribon, Palawan explained:

With the rise into power of sympathetic local officials, a new era of government and NGO cooperation on environmental issues has dawned on the Philippines' last environmental frontier...Everybody has turned Green. [Aquiza 1996]

Palawan NGOs are widely recognized as legitimate organizations that will contribute to policy, enforcement, as well as protest regarding environmental and social justice issues. As Pinto (2000) has aptly pointed out, the meso-level NGOs on Palawan are the axes from which discourses, movements and management emanate. In fact, during my fieldwork, I witnessed several instances in which NGOs were asked by government organizations to draft (or assist with drafting) city laws, SEP policy or federally mandated regulations, including the implementing regulations for The Philippine Fisheries Code of 1998 (Republic Act 8550). Most of the popular discourse among coastal resource managers (or would-be managers) about environmental issues emanates from Puerto Princesa City, the site of most offices for CBCRM programs on Palawan. These meso-level organizations and actors have also become internationally known (see Eder and Fernandez 1996; Arquiza 1996, 1997, Sandalo 1996).

Actors of the Environmental Movement on Palawan

Like most of the Philippines, Palawan as a whole and its fishing communities, can be characterized as a place of cultural hybridity, perhaps more so than other areas of the

¹ Joselito "Lito" Alisuag was appointed Director of the Palawan Council on Sustainable Development after the 1998 national elections, moving from his position as chairman of Haribon-Palawan into a government role.

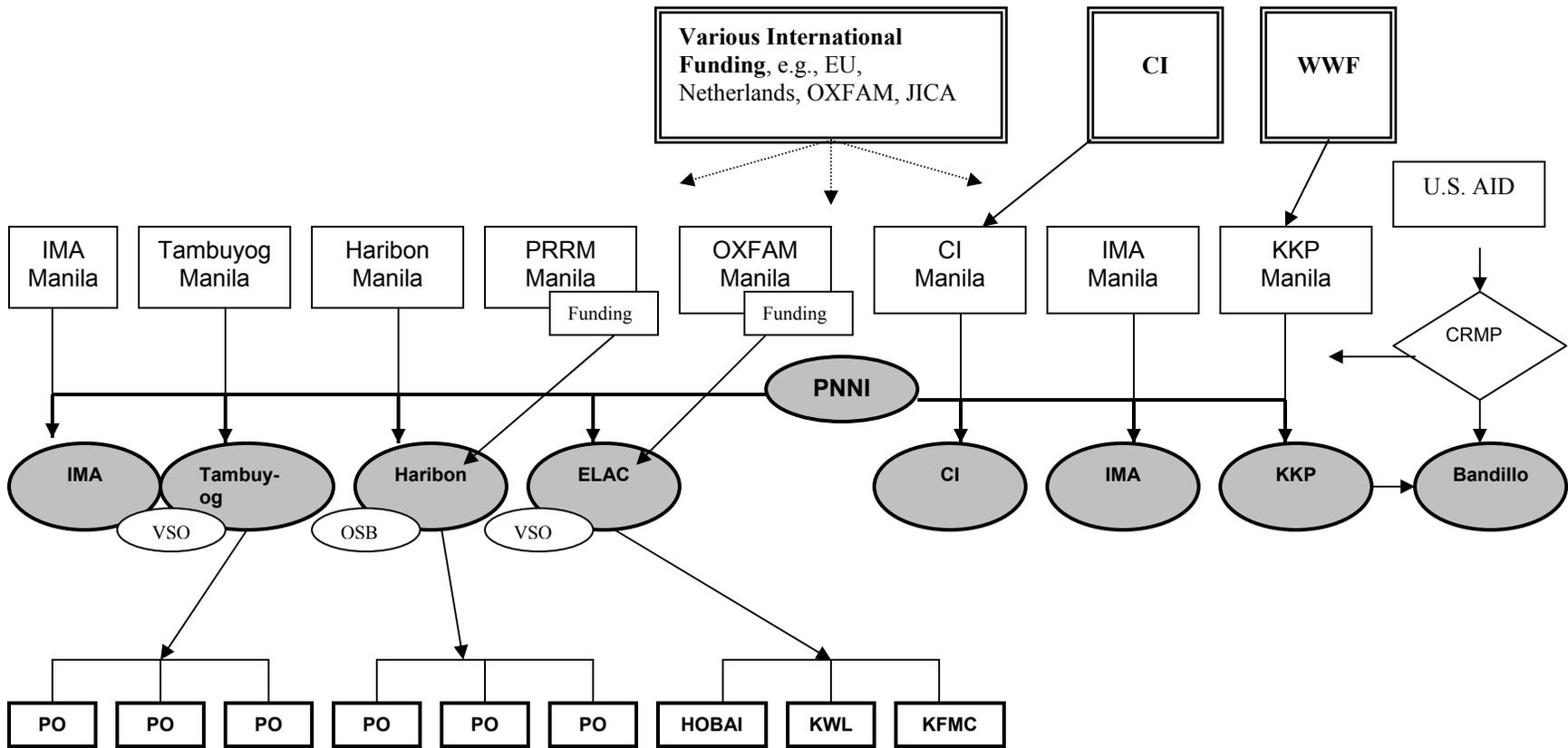


Figure 4.1: Flow Chart of NGOs Involved in Coastal Resource Management on Palawan

Philippines because of an influx of immigrants from other Philippine islands as well as influences of foreigners. As defined by Ashcroft et al., hybridity is "the space in which cultural meanings and identities always contain the traces of other meanings"(1998:61). The fishing communities studied are a blend of peoples from different islands in the Philippines, though a majority of a particular group is usually present in each community. Puerto Princesa is also host to a multiplicity of conservationists, foreign volunteers, and donor representatives from other nations such as Australia, the United Kingdom, The Netherlands, Germany, France, the European Union, Austria, the United States, and Japan, all of whom contribute to the "creation of new transcultural forms" (Ashcroft et al. 1998: 118).² In particular, at the time of the field research, I met a number of individuals who were at that time or formerly volunteers with the U.S. Peace Corps, the British Voluntary Service Organization, the Australian Overseas Service Bureau, and the Jesuit Volunteers of the Philippines. With such diverse and wide-ranging influences, the environmental movement on Palawan has come to embrace its own unique cultural hybridity.

Palawan NGOs

Palawan Network of NGOs

The Palawan Network of NGOs, Inc. (PNNI) was established in the early 1990s in order to form stronger advocacy for social justice and environmental issues. Many of the core staff were born on Palawan and have lived there for most of their lives. A government employee of fairly high stature once told me that he was the one who

² Many of the high-level fisheries managers in the Philippines are non-Filipino Anglo males married to Filipina women. Former Peace Corps volunteers, along with ex-patriots from other countries also married some of the Filipino women involved in the environmental movement.

originally suggested that PNNI be formed. He said that he saw the need for a stronger NGO contingency on Palawan to assume functions that the government was unable, unwilling, or inefficient at implementing. At the time of the field research the member organization was comprised of 36 NGOs. Annual meetings are held with participating member groups who discuss and vote on various issues. An interesting aspect of PNNI is that it not only serves as a consortium for Palawan NGOs, but it also acts as an independent NGO as well, securing contracts for funding when requested to undertake various projects, or in order to secure funding for specific needs.

Another interesting feature about the way in which PNNI functions is that member organizations will often alternate sending NGO workers to various conferences and meetings to provide representation from Palawan. For example, PNNI or a particular NGO may be invited to an international conference. PNNI will contact member organizations, or individuals within the network, to be sure that Palawan is represented at the conference. If a specific NGO receives an invitation or has an obligation that they cannot meet, they may contact PNNI to ask for help in sending a representative. NGOs on Palawan often have cooperative arrangements with each other through PNNI. This contrasts with common notions that NGOs are usually in competition with each other. Although competition between various NGOs on Palawan occurs at times, acting on behalf of various institutions and actors, PNNI serves as a buffer between NGOs and a resource that all member NGOs can draw upon. PNNI also assisted me with my search for a research assistant and passed along a flyer advertising the position to several applicants.

In 1997, PNNI was only minimally involved in coastal management projects, but throughout the course of 1998 PNNI began to take on several projects regarding coastal issues. One such project was to draft special regulations for the National Fisheries Code, passed in early 1998. The regulations for implementing the code were to be customized to comply with Palawan's special status under the Strategic Environmental Plan (SEP). Some environmental professionals from both NGOs and government organizations found this to be a curious endeavor because most thought it should be a government function. PNNI staff explained to me that PNNI took on this monumental task, initially as volunteers; so as to ensure that "fisherfolk friendly" regulations were implemented. If left to the government, PNNI members believed that fisherfolk interests might not be met. As discussed in Chapters Two and Three, Philippine Constitution of 1987, the Local Government Code of 1991, and the Strategic Environmental Plan all emphasize public participation and community involvement. To fulfill the legal emphasis on participation NGOs are often called upon to fill the gap where government resources are minimal. NGOs on the other hand often take on tasks that might be considered government responsibilities as a way of asserting influence in policy. By the time of my departure, PNNI was in the process of applying to donor organizations for funds to pay for the task of drafting the regulations for the National Fisheries Code.

Palawan NGOs Involved in Coastal Resource Issues

Haribon, Palawan

Haribon, Palawan, initially a Manila-based NGO, opened a Palawan branch in 1989. The original Haribon Palawan was a volunteer organization, and operated without

salaries, or a permanent office. Some of the members were Palawan born, and some were recent immigrants with an environmental consciousness. Haribon was primarily responsible for a 1989 log ban on Palawan that preceded a national log ban on old growth forests. Haribon-Palawan and the Manila Haribon office were instrumental in lobbying for the national logging ban in primary forests in 1992. The famous case, often referred to as “Kids Versus Factoran,” was initiated prior to the ban, and was influential in drawing attention to the issue of the impact of logging on the environment:

In July 1993, the Supreme court, in a landmark decision, ruled in favor of 43 children and their parents who sued the DENR [Department of Environment and Natural Resources] for failing and refusing to cancel existing [Timber license Agreements]...and to prevent the processing, renewing and approving of any such new ones. [Legaspi 1997:167]

The court stated that:

This case...has a special and novel element. Petitioners' minors assert that they represent their generation as well as generations yet unborn. We find no difficulty in ruling that they can, for themselves, for others of their generation and for the succeeding generations, file a class suit. Their personality to sue on behalf of the succeeding generations can only be based on the concept of intergenerational responsibility insofar as the right to a balanced and healthful ecology is concerned. Such a right, as hereinafter expounded, considers the 'rhythm and harmony of nature.' Nature means the created world in its entirety. Such [indispensable] rhythm and harmony include, inter alia, the judicious disposition, utilization, management, renewal and conservation of the country's forest, mineral, land, waters, fisheries, wildlife, off-shore areas and other natural resources to the end that their exploration, development and utilization be equitably accessible to the present as well as future generations. Needless to say, every generation has a responsibility to the next to preserve that rhythm and harmony for the full enjoyment of a balanced and healthful ecology. [Oposa 2000]

This ruling was significant because it emphasized the rights of unborn future generations in addition to the children of current generations to a healthy and clean environment.

Haribon-Palawan eventually grew from a legal advocacy organization to one that manages specific environmental community-based projects, much like many of the

NGOs in the Philippines. The Palawan office operates separately from the consortium of organizations, which comprise the Manila Haribon office, but has the benefit of their sanctions and resources when needed. Haribon-Palawan was instrumental in initiating the protected area of El Nido, a popular tourist destination of high marine biological diversity on northern Palawan. Throughout the course of my fieldwork, Haribon-Palawan began to expand some of their CBCRM project sites on Palawan. They also worked in the area of Honda Bay, just north of ELAC's project site and through a Memorandum of Agreement with ELAC agreed to participate in management projects only in the northern part of Honda Bay while ELAC would concentrate on the southern part of the bay. Haribon, Palawan also provides environmental education and paralegal training to communities.

The Environmental Legal Assistance Center

At the time of my field research, the Environmental Legal Assistance Center (ELAC) had been in existence for approximately ten years and focused on advocacy for environmental and human rights through the use of various legal strategies. Initially ELAC started in Cebu, and though, not considered a national NGO, has a number of offices throughout the Philippines. The Environmental Legal Assistance Center provides paralegal training, as does Haribon, about existing laws regarding natural resources, education, and assistance to coastal residents, farmers, and upland indigenous communities. The purpose of these seminars is to inform local peoples of the relevant laws so that they may manage their own resources, and to educate them regarding basic environmental principles. Volunteer lawyers who had served in a national organization of human rights lawyers founded ELAC. Palawan was the founders' childhood home.

During my fieldwork, I noticed a shift in ELAC's role as an advocacy organization to one that participates in project management. This was partly due to local requests, as well the result of a donor-driven phenomenon that affects many Palawan and other Philippine NGOs. Despite the shift, many of the ELAC's core staff still operates with a spirit of volunteerism. I worked most closely with employees of ELAC, and therefore was able to observe firsthand the long hours and extra duties they performed.³

ELAC is popularly known as kind of legal "watchdog" for environmental laws on Palawan. ELAC staff, merely by association with the ELAC name, command respect among environmental professionals in both government and non-governmental organizations. ELAC works closely with government and other non-government organizations to implement its programs and advocacy.

ELAC practices a philosophy of law called the developmental approach. This approach differs from traditional legal aid. ELAC staff aim to transfer knowledge and skills regarding relevant laws and environmental education to communities in order to empower them through providing them with legal tools. They do not advocate simply preparing legal documents for clients and community members.

Tambuyog

Tambuyog Development Center was started in 1987, by a Professor Elmer Ferrer from the University of the Philippines who was working with his students from the College of Social Work and Community Development (Tambuyog 2000). Professor Ferrer was influenced by activist movements of the 1960s which were political in nature,

³ This behavior may also be typical of other NGO workers; however, since I did not work as closely with other NGOs, I did not spend as much time in their offices and was unable to observe their work schedules.

aimed at empowering local peoples and providing justice in all realms of Philippine society (Ferrer 1999, email to author). Equally influential in the founding of Tambuyog was the primary health care movement of the 1980s, strongly advocated by Dr. Jaime Tan, a pioneer in the field of primary health care and community-based health care. The community-based health care programs of the 1980s involved similar procedures to those that many Philippine NGOs and Tambuyog utilize today, specifically the immersion of health workers into communities. Initially, Professor Ferrer and his students adopted an approach common in primary health care programs, but unique to fisheries management. This involved immersion of students, field workers, and organizers into the coastal communities of the Lingayen Gulf on Luzon. The coastal areas of these communities were among the most severely degraded in all the Philippines (Pomeroy 1998). Dynamite fishing in particular had already destroyed much of the coastal ecosystem by the time Ferrer and his students tackled the problem of educating the community and attempting to restore productive livelihood activities to the population there. This project in essence was one of the early community-based coastal resources management (CBCRM) projects in the Philippines.

Tambuyog's general information website (2000) best describes the purpose and activities of their organization. Tambuyog envisions self-reliant coastal communities capable of managing their own resource toward sustainable development. Since its founding, the agency has adopted and developed various approaches in its work: research and education, political organizing, advocacy work, socio-economic projects, and even relief and rehabilitation.

Tambuyog, like many Philippine NGOs, focuses on political and social equity for the poor. Tambuyog's former Executive Director Carlito Añonuevo has referred to the lack of attention to social and cultural dimensions, political considerations, and power structures in favor of technological solutions to coastal resource management as "technofacism" (1994: 39).⁴ As described by Añonuevo:

"Technofascism is a mode of thinking and conduct which treats people not as a subject but merely as an object of intervention...that upholds the primacy of technology and "science" in solving the limitations imposed by the finite satellite we are in...technofascist solutions are implemented in a very authoritarian fashion" [1994:39-40].

Clearly, Tambuyog's mission pushes against these sorts of techno-solutions. Tambuyog has taken a lead role in implementing community-based coastal resource management (CBCRM) in the Philippines, with an emphasis on genuine participation of communities in order to balance out social and political inequities.⁵ Between 1995 and 1997, Tambuyog experienced a seventy-five percent growth as an organization (Rebecca Rivera (personal communication December 9, 1997)). This was only one of several indications that CBCRM projects had become commonplace by the time I entered the field in 1997. As a result of this enormous growth, Tambuyog, a Manila-based NGO, had recently opened its Palawan office within the year prior to my arrival. As a Manila-based NGO, Tambuyog was not readily considered to be a strong force in the Palawan NGO movement, but they joined PNNI, eventually becoming involved in many of the activities of the NGO environmental movement on Palawan. Like the other NGOs, Tambuyog engaged in reciprocal arrangements with other PNNI member organizations.

⁴ See Malone (1998) for a discussion of the use of the term technofacism and its origins as it pertains to the computer industry and privileges for those who can afford technology.

⁵ Tambuyog's legacy at Lingayen Gulf, the famous case of Apo Island (ICM 1995), along with the San Salvador Island CBCRM project (White et al. 1994) all influenced the various CBCRM projects on Palawan.

International Marineline Alliance

The International Marineline Alliance (IMA) is a Manila-based NGO that was formed by an ex-patriot American zoologist Vaughan Pratt, whose intent was to promote coastal conservation and stop illegal and destructive fishing activities. In collaboration with the City of Puerto Princesa, IMA operates the Cyanide Detection Laboratory on Palawan that tests fish samples for traces of cyanide and provides results to the Department of Environment and Natural Resources (DENR). IMA does not consider itself to be regulatory, although they engage in collaborate efforts with the DENR. The lack of IMA's regulatory authority is ascribed to the need to keep relations smooth with local fishers around Palawan so that they may be allowed to test fish samples. Some have complained that the DENR does not follow up on cases once it receives IMA reports of fish that tested positive for cyanide. IMA is also involved in other activities such as community education, children's educational curriculum on coastal resources, and coastal cleanups. For example, they implemented training programs throughout the Philippines to train fishers to use barrier nets in lieu of cyanide. Palawan has an IMA branch office whose director was born on Palawan, spent a lengthy career in NGO and development work in Manila and abroad, and returned to Palawan in the 1990s.

SAGUDA

SAGUDA is a unique volunteer NGO formed by a group of friends (*barcada*) whose intentions were to protect the environment and have fun doing it. These self-proclaimed environmentalists work on environmental issues they feel they might be able to contribute solutions toward and enjoy themselves in the process. One of their key

activists is a dive shop owner, and most recently their activities are focused on marine conservation. At the time of the field research, these activities were most often not donor-driven. The members, in contrast with the other NGOs described, all had full time employment outside their SAGUDA activities. During my fieldwork, they were involved in presenting a puppet show to children on the importance of protecting the *dugong*, an endangered sea mammal. The *dugong* is used by environmental groups as a flagship species because of its appeal as a charismatic megafauna. The show was contracted by the World Wide Fund for Nature, but its implementation by SAGUDA was mostly autonomous. In an interview, one of SAGUDA's leaders stated: "If we can't have fun with what we are doing, then we won't do it."

Bandillo ng Palawan

Bandillo ng Palawan published an environmental magazine and newspaper from the early 1990s through 1999. The well-known Filipino environmental writer Yasmin Arquiza and her environmentalist colleagues started the magazine and newspaper. The office of Bandillo eventually grew into a resource center for other environmental programs such as SAGUDA, and also subcontracts from WWF and the Coastal Resources Management Project (CRMP⁶). Bandillo ng Palawan was dedicated to environmental journalism and often expressed views that may have been perceived as conflicting with the Palawan NGO community at large; however, its staff was welcomed within the NGO community despite some differences of opinion. Bandillo operated

⁶ CRMP was a U.S. Agency for International Development funded project to implement coastal resources management projects, provide training, and assist local governments throughout the Philippines, included the municipality of Puerto Princesa City. Its presence was primarily government related, but some overlap occurred with the Honda Bay CBCRM projects.

independently and while the publication was aimed at raising environmental consciousness, many times it did not conform to NGO ideals or government expectations. Well-known travel writer, Paul Theroux (1998) wrote of Arquiza's conflict with the mayor of Puerto Princesa. On more than one occasion, Arquiza wrote about her distaste for what was referred to as a cosmetic environmentalism espoused by the mayor.

Conservation International

Conservation International (CI) operated a local two-person office on Palawan at the time of the field research. It has concentrated many of its activities in the world famous El Nido and Coron areas of northern Palawan. CI maintains involvement in many marine-based activities, but it does not attempt to implement CBCRM projects. Their focus, although they do use participatory methods, is to collect the data used to preserve natural areas. In late 1998, there was talk of CI's potential involvement in proposed educational components of the management of Honda Bay. Like other PNNI members, CI staff maintain involvement in public meetings and activities regarding environmental issues on Palawan.

Kabang Kalikasan ng Pilipinas (KKP), Worldwide Fund for Nature

KKP Palawan is a branch office the Manila associate of the Worldwide Fund for Nature (WWF) and operates a small office in Puerto Princesa. KKP contracts with other organizations to conduct marine biological assessments and trainings, as well as legal activities. Among environmental activities that are supported by government and NGOs are festivals to raise awareness of the forest and the sea. *Pista ang Kagueban* (festival of

the forest) was originally started as a program of the PIADPO and eventually became jointly sponsored by the city government. This annual fiesta has grown to enormous significance on Palawan, and is of great symbolic importance in forming an environmental movement on Palawan. The event is a mass tree planting activity that occurs annually. Seedlings are supplied to individuals and organizations who descend upon preselected areas to plant trees *en mass*.⁷

Pista ng dagat (festival of the ocean), was started in 1998, and as of the end of my stay in 1998 had yet to gain the popularity and awareness about coastal resources that *Pista ng Gubat* has inspired over forest conservation. All of the NGOs and most appropriate government organizations participated in *Pista ng Gubat* coastal cleanups, and activities of *Pista ng Dagat*, but had not become widespread at the time I left the field. The purpose of the festival and activities was to raise awareness about degrading coastal resources and the importance of protecting endangered species such as the dugong and sea turtle, while promoting non-destructive fishing techniques.

Life Histories/Way of Life

Character of Palawan NGO environmentalists and leaders

An interesting point regarding the environmental movement on Palawan is that many of the key leaders are from Palawan or have long-term ties to the area. Many of the key leaders were born in the late 1950's. Either intentionally or as a result of circumstances, they became involved in environmental causes. Some were actually born

⁷ The idea of an annual tree planting was the impetus for a law proposed and implemented by a local attorney that requires couples applying for a wedding license to plant a tree. One couple described an example of an emerging belief: "We are going to plant a lot of trees; if you plant a lot, you will have a good marriage."

on Palawan, left the area, and later returned. Motivating factors for leaders to become involved in the environmental movement often evolved as a progression from their involvement in human rights causes to more specific emphases on environmental causes. The growing global environmental movement as well as the decline of productivity of coastal resources on Palawan led many Filipinos formerly involved in various human rights causes to begin to take on the environmental cause. The dichotomy of nature and social justice is a fallacy for Filipinos, as it is for many peoples of the world, yet with more emphasis on environmental degradation and its relationship to social justice, as well as global and National influences discussed in previous chapters, a large scale environmental movement became prevalent among Palawenos from the late 1980s throughout the 1990s.

One such organizer explained his story and how he came to be involved in the environmental movement on Palawan. Through an insight into his story, the transition from other forms of organizing to environmentalism as intertwined with social justice becomes clearer:

INT: Okay. Can you tell me how it is that you got involved in community organizing? Why did you go into this type of work? I'm just interested in your own personal perspective about that.

RESP: I started...before Martial Law...

INT: Before Martial Law?

RESP: Yeah, 1970-1971, I was a first-year student then and I loved people, serving people. That was my first concept...People serving people...Before, I was a scholar of the government and the Commission on National Integration, which was for indigenous people...because I have indigenous blood...a tribe in Palawan, [the Tagbanua]. My tuition was free. I received a monthly allowances as a scholar, for clothing, laundry, then...When I joined the student leadership, student government – I loved serving my students so I learned some initial concepts...it's really interesting to serve people. When there was a student movement, I became an activist. We raised the issue of tuition increase, like that, economic issues, school issues, and academic issues. And when Martial Law was

declared, I hated the government laws and the way they managed society...And that time it was dictatorial, under the Marcos regime. ...Before graduation, I was apprehended as a political detainee and released after six months. As a student leader...with no case filed against me.

INT: No case?

RESP: Yeah, so I was hated by my brothers and my parents because I joined the student movement. So I told them that I wanted to serve people. I didn't want to just think of myself, because I cannot live alone, without people around me. And my parents got angry with me when I was in prison. They left me in prison and said that they don't have a son.

INT: But that's sad and difficult?

RESP: Oh yeah. It was a very desperate way of handling my relationship with my parents. When I was released from prison and went back here, I tried to talk to the school authorities to continue my scholarship and they agreed.

INT: Even after you were in prison?

RESP: Yeah...because there was no[thing] filed against me. It was only during Marcos' time. So I finished my studies and worked as a timekeeper... But I wasn't satisfied because I felt I was only working for myself. Then I worked in Central Luzon...I eventually got promoted and became a manager, an assistant purchasing manager in the office. Within one year...I became a factory supervisor ...before I became an assistant purchasing manager. When I was still a purchasing manager, I saw how the unions were being fooled by the management, because I belonged to management. Low salaries, discrimination of women...I was still single that time but I know how those managers, assistant managers, supervisors exploited women...our health regulations within the factory...our salaries were very low. We in the office had higher salaries than those in the...

So I helped unions organize themselves. And when there was a general strike in one of the export processing zones, I was one of the leader-organizers of the general strike. From that time on, I organized unions. The company kicked me out and I found myself in trouble because I had no employment but the workers supported me with their monthly incomes, they gave me P 15.00 to P 20.00 each monthly. So about 30 of them gave me that amount...I was happy because I had something to eat for a month while organizing other sectors like fishermen, women...we had a big organization and we built alliances of workers and also alliances of non workers, like fishermen. That was how I started. I worked as an organizer of fishermen, women, youth...[in Luzon]

INT: How long were you in prison?

RESP: Just six months?

INT: How did it change that you got into the environmental process? Was that something that grew up around you or did you have something personal – interests?

RESP: When I went back to Palawan, I saw that the organization of people was very low, very poor. [But I noticed that]...organizing in the environmental movement was ahead. The organizing in the environmental movement was ahead compared to the workers' and fishermen's sector...

So, I said, we must start here.

INT: And it's your province?

RESP: Haribon convinced me to join them. I said no. I was still organizing the urban poor, the urban poor sector. We built the federation of the urban poor in Puerto Princesa, almost 20 community-based urban poor organizations. Then they recruited me. They said they wanted me in their organization...they talked to me, so I joined them⁸. But these are my principles. I don't want to exploit people.

Two of the NGO leaders talked about some of their uncomfortable situations in the past when they had been accused of being communists during the Marcos regime because of their organizing efforts. Throughout the course of their lives however, their consciousness as well as their reputations shifted and they became well known and well respected throughout Palawan. As these transitions occurred so did their personal outlook on the environment and social justice issues:

The first time I got involved in NGO work, human rights...eventually it evolved into we cannot face [just] human rights, we have to relate it somehow with the environment because any abuses that are committed within the area...are human rights violations itself no, in fact that I was involved with indigenous peoples, that [was] the very first time I saw the connection between land and life – between environment and people. No? That they are not two different worlds – they are linked with each other and so after that I became familiar with and educated in away about how the struggles are being done by these people and how this struggle has been there for centuries, especially with indigenous peoples.

After her work with indigenous peoples had been ongoing for a number of years, she eventually entered into organizing activities with fisherfolk in coastal communities.

⁸ The practice of "tapping" NGO workers was observed during the fieldwork. This involves recruiting known individuals for various positions, with a fair amount of pressure (whether it be an internal cultural value, or at times overt). If the organization it intent on hiring a particular individual, that person usually eventually agrees.

A younger generation of Palawenos, along with immigrants and itinerant community organizers from other provinces and Manila, are also active environmental professionals on the island. At an impromptu focus group session I interviewed three environmentalists about their perspectives on the environmental movement in the Philippines. Three generations of environmental activists were present: those who began their careers as social work students in the early 1970s, those who came about a decade after in the 1980s, and one younger woman who began her career in the late 1990s. They worked for OXFAM and were visiting Palawan to conduct a participatory rural appraisal in Sitio Katumbal and other communities. I asked them how they came to be involved in this type of work and about their feelings and perspectives concerning their work. The interview explained some of the ways in which human rights perspectives had woven their way into the fabric of Philippine environmentalism as it is known today.

The oldest member of the group had been a student in the College of Social Work and Community Development at the University of the Philippines and was a former student of Elmer Ferrer, the well-known activist for community-based coastal resources management. She explained to me that her initial exposure to community development was an outgrowth of the intellectual climate of the 1960s and was influenced by anti-Vietnam war activism, Marxism, and other counterculture movements of the time (see Chapter 3). All of them seemed to espouse a social justice consciousness; however the youngest stated that she had not experienced first hand some of the injustices of the 1960s and 1970s. Nonetheless she was devoted to her work and explained that she was trained to "shed my bourgeoisie ways" and be with/help the poor.

Even those younger Filipinos residing on Palawan, who may have stumbled onto their roles as NGO environmental professionals, became devoted to the cause of helping the poor and protecting the environment. For example, I became acquainted with three NGO workers newly hired as a CBCRM community organizers for Palawan NGOs. Two had degrees in Political Science and another in Communications. They quickly learned their job duties, staying in the community for weeks at a time, visiting all class sectors of the fisherfolk, learning fish names in languages that were not their native tongue. They became so dedicated that when asked to work on their "rest days" to look into some community issues they usually gave up their days off. As they learned their jobs, they learned more about the environmental causes as well as the biophysical aspects of coastal ecosystems. They seemed to readily "take on" the causes of social justice intertwined with a desire to protect the degenerating coastal ecosystems of Palawan, perhaps influenced by their older, more experienced counterparts and seasoned veterans of community organizing.

Jaime Mission, a then- employee of an NGO working with CBCRM projects on Palawan, explained his passion for his work and how he came to be a community organizer, and eventually a higher-ranking NGO worker. Although Jaime grew up as a resident of urban poor settlements of another province, and worked for a Manila-based NGO, his sentiments about the government, the poor, social justice, and his personal commitment echo those of others who came from Palawan and other islands,⁹ as illustrated by the quote below:

⁹ One main difference between NGO environmental professionals from other islands and those from Palawan is that Filipinos who came from other islands may have seen and possibly endured more environmental degradation than those from Palawan. This is because Palawan is a decade or more behind other parts of the Philippines in depletion of its resource base to the point of food shortages.

JM: If you are poor, then you are nothing in this government. According to the boasts of this government, you are still poor and yet we have democracy? Why? Can we eat democracy? Can we feed our children just because we have democracy? And there is a manner of misleading the people [that things] have really changed. As it was before, they were just plundering the resources of the government. But they are fooling the people [now too]...According to them – they have given us democratic space...in the local governments. But that is token participation because [they don't let us] participate to the...meaningful and expansive meaning of it. For example, if they want a particular resource to be a concession to the private sector, they would just call the people and tell them about this particular resource, the bird's nests,¹⁰ which are on an island. We are informing you that from now on you cannot fish here because it is now partially owned by these people, this group [who collects birds nests]. Any questions? That's democracy for the local government. We are not consulted in the [true] meaning of it. Participation *should* mean participation in decision-making. It would mean caring, absorbing or integrating our positions. For example, if they want that particular resource to be given temporarily to the business people...so, we would say "No way! You cannot just do it that way. We have a right to that resource historically and of course, our birthright to use that resource."

Changes in personal life/ outlooks

Although many of the NGO environmentalists, who were born in the late 1950's or 1960's were heavily influenced by anti-government/anti Marcos ideologies, throughout the course of the People Power Revolution and the subsequent new Philippine Constitution of 1987, following the passage of the Local Government Code of 1991, a an important shift began to take place, away from advocacy and toward management and implementation. This shift occurred personally as well as within the professional NGO realm. Jaime explains what this has meant to him and his work:

JM: ...don't take it negatively because from the very start I've been attacking the government. I am also a victim of the government...I'm a victim of the government. I'm not a negative thinker anyway. I am ...just sharing my opinion, but I don't feel hopeless. I'm just stating my point of view because if I don't really see bad things in the government [I wouldn't

¹⁰ Balinasyaw is an edible birds nest considered to be a delicacy and brings high market value in other parts of Asia as well as certain parts of the Philippines.

do positive things]. Then I will say I made my life good because I implemented these projects. I know there are people who are implementing the projects and that they are good, they make people's lives more bearable than ever or they make the place livable compared to the past years. I will say the negative things just to put the program into proper perspective... whatever happens to people's lives, it is because of the situation and not because of their laziness. Because in the government, they are castigating the poor when they are accusing them of being lazy (*tamad*). In fact, that's not true. There are people waking up at 3 am and going to sleep at 12 midnight. So, they are not lazy, they are just marginalized.

Another environmental leader talked about the changes that have occurred throughout her career as a lawyer, and an NGO environmental activist:

RESP: No, they're scared because you see even if Marcos says this, he acts the other way. Oh, the year before [naming individuals involved in activist movements] and I were victims because we were activists, and our ELAC Cebu lawyers, they are all human rights activists. We were all human right activists so we had our share of harassments. [They said that] we were communists. So during the Marcos era, it was scary to fight. Now it's different because the military come to you...I'm really amused when I look back. [laughing]...So it was beginning little by little...It was a metamorphosis...

It's like now, how can you expect Boy Morales? – an underground person, now becoming Secretary of Agrarian Reform. And he formed PRRM [the Philippine Rural Reconstruction Movement]. Even the NGOs, we never expected to be dealing with local officials before and business groups. Because the Marcos said that was a no-no. Now we can unify because there is now democratic space and there is now openness on both sides...there is some common denominator.

It became apparent that this shift from purely advocacy to management and implementation regarding community-based resource management was taking place concurrent with the time of field research. In particular, a number of CBCRM projects were in the initial implementation stages. The shift to more management-related foci was accompanied by a shift in NGO – government relations. In a 1998 interview with Jaime Mission, a former employee manager at Tambuyog's Palawan office, he explained the

transitions occurring with Philippine NGOs, his position regarding ideological splits, and how he came to his own realization that his personal beliefs no longer fit any specific political parties' ideology.

INT: Do you think the role of the NGOs has changed in the last 5 to 10 or 10 to 15 years?

JM: Yes...It has changed a lot...I am now in the transition that's why you can feel, you can hear ...my...bashing of the government...because I was trained...my frame of mind, when it is the government, they are always fooling the people, so we should unmask them before the people's eyes always. So [since] the downfall of Marcos, my paradigm has also shifted. The paradigm shift...my attitude before...ten years ago...was "oppose and expose." Now, I am practicing the "oppose, expose, propose and then implement." I am now adding the "propose and implement" side of it because...the people deserve the best. If I keep on teaching them how to [protect] the environment without addressing their basic problems – food, water and basic needs, then I am nothing to them...I will teach them how to go to the streets, how to cry, fight for our rights, but if I am not giving, helping or guiding them on how to get income from whatever legal and environment-friendly ways...then I should get out.

So there are a lot of changes in the NGO's perspective in relation to the government. But still, the instinct of always guarding [against] the government...from its abuses [is still there]...they are prone to make abuses anytime they want... They can do that anytime they want. But on our part, [now] I think...there are a lot of people from the government who are also supporting the people. And there are also some government people who came from the basic sectors.

...in that situation, the NGOs have changed. We are now, according to our community organizers' conference, we are now enriching our skills on how to...what's that, snake charmer? Just like a snake charmer...We know that the government is a snake and it can attack us anytime, but we will use some tricks on how to "charm", how to make them "dance" to our methods. For example, we are coordinating with them. Whatever they want, we will not right there and then oppose them...partnering with the government is so hard, an arduous task for them to understand what the people are saying...ten years ago, the people were affected by the "red scare", that the NGOs were the fronts of communist organizations or the rebels. But now, the people do really understand what we are talking about. So there have been a lot of changes.

INT: But there are some people who came out of that background?

JM: Hmmm...like me.

INT: So is that what you meant when you said you were trained, you were trained to be...

JM: Yes, I was trained.

INT: So it was a difficult time to be doing that type of work during the Marcos era?

JM: Yes, it was difficult. Many people in the NGOs had underground movement backgrounds. Anyway, who...in their right mind [would] coordinate with the Marcos government if they are continuously killing the people. So the best way to combat them is to arm ourselves, organize, right? Why...people organizing just to make them realize that they are not good enough. So I was involved for five years in the underground movement and then I resurfaced. So the third change in my life would be the NGOs – talking and coordinating with the government.

INT: That's relatively new.

JM: Yeah, new.

INT: Would that be an outcome of the local government code or the 1987 constitution?

JM: Maybe...(unclear)...

INT: People talk about political space...

JM: ...but...

INT: ...even though some of it is only on paper. Sounds like some of it actually...

JM: ...but in my case that was not the primary reason of the changes in my attitude. Internally, I was affected with ideological weariness. Putting some ideologies in every...in each step of my life, was also causing me weariness, etc....So I'm tired of it. I've been doing that for how many years and there is no change and still the government is too strong for us to beat them. So that's why in the Philippines, in the...how do I call it, the tradition of the opposition...are now split into many branches, so I think I am now on my own. I can think and do whatever I want, as long as it's not anti-people.

INT: So you're freer to be more of an individual now?

JM: Uhh, hmm...

INT: Okay, I think we're almost done, but if you have time for a few more, we can keep on talking, for 10 minutes?

JM: Okay, but I would just like to say on the first part of our interview or discussion, I made it a point...my perceptions, concepts in dealing with the government, I should really say it...the first time...bashing the government and then I will clarify later.

INT: Yes, that's right.

JM: ...always the people I'm discussing...I'm making it clear that I am not pro or anti-government. What I'm saying is, I know what's happening. The government cannot fool me anymore. This is my personal struggle, issue with the government. Of course, I cannot do it alone. I cannot do anymore...whatever my approaches and strategies in implementing or achieving development in the Philippines...particularly the lives of the

people. So this is my...this is not only my job, but my personal...because when I'm helping the fisher folks, I think I'm helping my immediate family.

Another unique aspect of the environmental movement on Palawan is that many of the NGOs that started as volunteer advocacy organizations still maintain many volunteer activities. Despite the commitment of many Palawan NGOs to advocacy work, like many Philippine NGOs, donor-driven projects on Palawan now consume much of the time of NGO workers. A Coastal Resources Management Network on Palawan was established in 2000 (CBCRM RC 2000). The purpose of the network is to allow different coastal resources management organizations and actors to work together and learn from each other's experiences to strengthen the CBCRM movement on Palawan.

Even with this shift towards project management, common themes of the rights to food, the rights to participate in decision-making, and a passion to help the poor are found throughout the texts and lives of virtually all of the NGO environmentalists that I interviewed. NGO workers on Palawan maintain intimate relationships with community members. While not all community organizers from outside the community are automatically accepted, those who stay on with a project for more than a few months establish long-term relationships with individuals and organizations in their target communities. These relationships are maintained through various informal exchanges, such as sponsorships of weddings and absorbing the costs of funerals, often out-of-pocket expenses for NGO workers. Fishers filing cases against human rights abuses with the assistance of NGOs also received assistance and shelter when they were required to testify. The tradition of Fiesta in local barangays was sometimes sponsored by some of

the NGOs, offering an influx of food into communities that might have little to share for this traditional holiday.

Even though some of the NGO environmentalists came from backgrounds that were more affluent, they all possessed a passion for helping the poor, and considered their jobs to be not only a job, but also a way of life. They could be found at the local art gallery, a popular restaurant in town (KaLuis), conferences, or at an NGO's office during their off time, celebrating birthdays and singing old American folk songs from the 60s and 70s.

CHAPTER 5

LOCAL COMMUNITIES OF NORTHERN HONDA BAY

This chapter describes the lifeways of fisherfolk in Lucbuan and Babuyan, the primary study sites for fisherfolk located in northern Honda Bay. The data here are largely drawn from ethnographic semi-structured and unstructured interviews, as well as participant observation. In addition to basic information on ethnic composition and livelihoods, this chapter aims to express the ways in which marginalization occurs as a result of displacement, lack of land tenure, encroachment of illegal fishers into locals' fishing territories, and how their marginal status is often worsened as a result of declining resources.

Lucbuan and Babuyan: Community Profiles

Barangay Lucbuan was comprised of 1,154 people according to the 1990 census, with a projected increase to 1,875 by the year 2000 (PPC 1992). The total population of Babuyan in 1990 was 1,061 with a projected increase to 2,020 by 2000 (PPC 1992). Children ages 2 to 14 comprised almost 50% of both populations, according to the 1990 census (PPC 1992). The average household size in 1990 was 5.5 members for both Lucbuan and Babuyan (PPC 1992). By the time of my fieldwork, the average household

size was slightly larger partly because of a growth rate of almost six per cent per year (PPC 1992).

The average annual household income in Lucbuan was 10,808 pesos (less than \$300.00 U.S.), while that of Babuyan was closer to 18,000 (approximately \$450.00 U.S.) (Galit 1998). Galit's figures for Babuyan and Lucbuan are likely not representative of the families I studied because the communities I studied were fisherfolk within each barangay who had significantly low cash income that was not representative of entire barangay. The data presented here, compiled by Puerto Princesa City, include farmers who make higher incomes than marginal small-scale fisherfolk. Subsistence fishing and vegetable gardening resources were also not included in the statistics produced by socioeconomic studies.

Electricity and running potable water were not available in any of the locations I worked in northern Honda Bay at the time of my arrival. One community, Sitio Milwang in Lucbuan had a pump installed (by a politician soliciting support) that provided brackish water unsuitable for drinking. The water was used for laundry and bathing.

Major health problems includes malaria, flu, pneumonia, diarrhea, urinary tract infection rheumatism, arthritis, diabetes, skin rashes, ulcers, high blood pressure, ectopic pregnancy, tuberculosis, "sore eyes," headaches, anemia, and dehydration. Public transportation to the local public health clinic was not available; therefore the use of public health facilities was limited, often resulting in increased severity of common illnesses such as colds or intestinal problems. Infant mortality was high; based on the field research, it was not uncommon for an average-sized family of five or six children to

have lost one or two in infancy, nor were deaths due to simple dehydration and the inability to get medical help uncommon.¹

Economic Activities and Strategies

The community members I studied in both Lucbuan and Babuyan practice various forms of fishing and gathering of resources from the sea for livelihoods.

As defined earlier, traditional methods include those used primarily by small-scale fishers; i.e, wind or paddle powered boats, or fishing from the shoreline with nets. Most of the residents of Sitio Katumbal use small bancas (boats between 10-15 feet) that are either wind-powered, or have a small engine. Some of the larger boats can be found in Milwang and Babuyan and are used for fishing with nets, or for a team of four to five hook and line fishers who set out for several days of fishing in waters further north. The most common traditional gears, along with non-traditional and large-scale gears such as various types of trawls, dynamite, and cyanide, are described below in the section on local knowledge. Women and children also practice ‘gleaning,’ or gathering clams, other kinds of shells and resources from exposed sand beds and reef flats during low tide. Men also sometimes participate in gleaning, and women occasionally accompany their husbands fishing.

Men and women supplement fishing income with other economic activities, including coconut collecting and drying (copra), hog and poultry raising, *bangus* (milkfish) fry collecting, *sari-sari* stores (small stores attached to homes), rice farming

¹ As of 2000 a new program to bring limited public health services as part of CBCRM to the study communities had been initiated.

(rarely occurring), vegetable farming² (uncommon among my study group), gathering/selling of wild fruits and vegetables, charcoal production, mat weaving, roof thatching, fish paste processing, and dried fish processing. Other sources of income are derived from pensions, and from children who have left the village and work in cities or on large fishing boats elsewhere³. Both women and men spend long days working on livelihood activities as well as daily needs including laundry, transferring or hauling water delivered by *carabao* (water buffalo), food preparation, and so on.

The majority of families belong to some type of cooperative but participation varies. Most individuals are aware that they cannot receive aid from various programs (often internationally funded) unless they join or form a cooperative, also considered to be a People's Organization (PO). The cooperative strategy also serves as a lending institution for individuals, regardless of whether or not it was intentionally set up for this purpose. Once a cooperative is established, say among women for roof thatching, the coop can receive a loan to purchase materials, etc. Furthermore, if individuals in the community are in urgent need of funds for some purpose like medical costs, the coop can provide the funds. Active members of coops noted that it is difficult to receive reimbursements for loans once the money is lent. Nonetheless local cooperatives, combined with family incomes, seem to be popular strategies (see Chapter 8).

² Several families complained that since hog raising had been introduced into the community, they were not able to raise vegetables because the hogs roamed freely and ate their crops.

³ Some of the men from Lucbuan and Babuyan may have the opportunity to work on large scale fishing boats, including trawlers, but few will stay with that profession because they often prefer the independence of the small-scale fishers' lifestyle. Working on medium-scale fishing boats and trawlers would not take them as far from home for long periods and they might choose this as a temporary occupation if the opportunity presented itself. However, with the anti-trawling sentiments of the communities and the advent of CBCRM, this type of occupation would be considered undesirable.

Although fisherfolk would not list the idea of acquiring fish from *tangkal* (lift net, see section on gear types below) owners as an economic strategy, I learned through observation throughout fieldwork that fishers commonly acquired *dilis* and sometimes *sap-sap* from the *tangkal* operators. These are small fishes that are often used for bait and can be dried and eaten in a soup during the lean season. This made up a substantial portion of their diet, especially during the lean season when food shortages were common. In previous years of more abundant fish, fishers and their families were able to eat larger fish more often and they had more food available during the lean season.

I also observed that communities adopted another strategy, this one pertaining to the arrival of NGOs on the scene. When an NGO holds a public meeting, food is always provided. Local women are hired for their services to provide meals. Families who might not otherwise be interested in the subject of the meeting would be more inclined to participate in events knowing that afterwards a meal or snacks would be provided. As a result, individuals and communities have come to believe that NGOs and foreigners like myself have ample funds to spare and would often ask NGO colleagues or myself to "sponsor" events. One such case is the tradition of *fiesta*. In earlier times, *fiesta* was a time when everyone opened up their home to others and fed any visitors that might enter. During my fieldwork I observed a different practice. *Fiesta* was still held, but sponsorship was solicited from any outside NGO, politician, or foreigner that might contribute funds. The practice of exercising local agency to acquire funding and food from NGOs is an evolving economic strategy, regardless of the original purpose of the presence of outside organizations. For example, the People's Organizations that were participants in the ELAC CBCRM program at the time of a visit from Indonesian NGO representatives

received substantial donations from the Indonesian visitors. The same is true of *individuals* who work for NGOs. Once a relationship is established, he or she may be asked to provide funds for various purposes ranging from fiesta to a funeral. In these cases, the funds often come from individuals, and not from the NGO itself.



Figure 5.1. Morning Catch.

Way of Life: Fisherfolk As They Perceive Themselves

One of the most striking comments that fisherfolk made to me about my research was that when I went back to the "states" I should be sure and tell everyone how the *mahirap* (the poor) live! To me, their understanding of themselves and the hegemony of their lives were illustrated in the example above, and other comments like it. They refer to themselves frequently in interviews and conversation as the *mahirap* (the poor). On

another field visit, one of my key informants told a fellow Fulbright scholar (who was visiting my field site) that she was impressed and envious that we received grants to travel because they were “trapped” there (in Sitio Katumbal) and couldn’t go anywhere. With regard to their place in Filipino society, fisherfolk often feel powerless to move upwardly or even laterally out of their situation. Yet with outside influences, CBCRM programs, and environmental seminars, they sometimes begin to have hope and vision that they might change their circumstances for the better.

Throughout the course of my fieldwork various Filipinos I met gave me the impression that they felt fishers were ignorant, only having lived a certain way and unaware of a better life, a life different from that of the poverty most of the Filipino fisherfolk endure today. Interviews and observation during my research have revealed that the long-term residents of northern Honda Bay have a kind of “cultural memory” (see Nazarea 1998) of a better life before they became impoverished due to declining abundance of coastal resources. Many still state that they prefer life in the *barrio*⁴ to that of town because they prefer the lifestyle of the rural fisherfolk. Some, however, still want the benefits of economic gains of the outside world.

When asked what they liked about living where they do, many responded that they liked the clean air, lack of noise, and helpful relationships with their families and neighbors. One fisher described his reasons for wanting to stay in Lucbuan, even though he has experienced life as a migrant some twenty-five years earlier.

⁴ Barrio is a Spanish term used often by fisherfolk and other rural or poor Filipinos to refer to their barangay or local community, also referred to as Sitio, or Purok (a unit of government smaller than the barangay with less decision-making authority)

CB: Well, for one, we're already used to this place. We're used to this place. If we move to another place, it will be a whole new adjustment period for us. You never know...we might get salvaged⁵...[laughter]

INT: So what you're saying is, you already know everyone here?

CB: Yes, I'm so used to the people here.

INT: What else, *kuya* [kin term for older male, literally meaning brother]? Why do you like this place better than other places?

CB: I don't really want to move from one place to another anymore, especially now, with the kids around...already separated....I really just got used to this place. [*Nakasanayan na.*]

THIRD PERSON [joined interview] : ...it's okay if you don't have money here...it's a problem if you don't have money there. Here, it's okay.

CB: ...If you're living downtown, you have to buy everything...if you have rice...it's okay...

Although fisherfolk find economic gains that come with prosperity desirable, they recognize that they live a different existence from those who live in Puerto Princesa City proper, or outside the barrio. They recognize themselves as living a rural existence, and as poor. Many fisherfolk are caught in the contradiction of wanting a better life for their children's future, but not wanting to succumb to a more rigid lifestyle that would entail working a regular job. Independence from an established profession and workplace is a highly desirable quality in their lives. The slower paced, quieter lifestyle that some still experience or remember is still preferable to life in Puerto Princesa for many. One college-aged woman who lives in Puerto Princesa proper during the week to go to school explained why she likes life in Sitio Katumbal:

I like it here because it is peaceful. You have a flexible source of income that allows you to work on land and in the sea. You have a choice. It is also very easy to ask favors from neighbors who still possess the old traditional Filipino quality. People here help each other and in almost all forms except financially.

Another example of the desire to maintain a rural lifestyle, independent of a formal job, is that of a resident fisherman of Sitio Katumbal. One of the Favila brothers

⁵ Attacked

explained during an interview that he was once offered a job at the nearby newly developed resort, Dos Palmas, on Arecife Island (also known as Mais Island). Even though his fishing productivity has declined dramatically, not only in yield, but also in number of hours of effort and distance traveled from home, he preferred to continue his current life because of the flexibility it allows him. The thought of working for someone else was unappealing to him, despite an offer to earn regular wages at the nearby resort.⁶

One small-scale fisher described his feelings about his place in the world as a fisher:

PF: If you have a (*hanap buhay*) your own business with the right equipment (gear) and you are paddling a small boat (*banca*), and sometimes a big ship passes me and they just look at me padding my boat with [my] gear, (*pasaguan saguan*) it's alright, but sometimes it's hard when they [large boats] are passing you. It's sad when they pass [me] and [I] don't have the right equipment, and I'm just paddling. But it's ok. [I] have a feeling of being free. (*Nakakalibre.*) Because I know that when I'm working hard, my accomplishments come from my own sweat from paddling.



Figure 5.2. Small-scale Fisher in Wind or Human-Powered Banca

⁶ See Pollnac and Poggie's work on job satisfaction among fishers for more information about this as common theme among fishers in other parts of the world (Pollnac and Poggie 1991).

Marginalization: Lack of Land Tenure, and Encroachment into Fishing Territories

Throughout the Philippines the lack of land tenure is a pervasive problem related to poverty and poor standards of living among marginalized peasants and farmers (Lynch and Talbott 1995). In the Philippines, as in many places around the world, landless people are often considered “squatters,” meaning that they occupy public or privately owned land. In the Philippines the term squatter has come to be associated with various negative connotations. Because of this negative connotation, many human rights advocates have begun to use the term “urban poor.” Unfortunately, by emphasizing urban, the rural landless poor are forgotten even more. Furthermore, programs aimed at aiding landless, rural poor are most often geared towards farmers and indigenous peoples, with no specific programs designed for fisherfolks.

Small-scale fisherfolks in the Philippines have generally occupied a low social status; being landless is just one way in which this has manifested itself. Throughout the period of my fieldwork I observed a common tendency for long-term residents of Palawan (ten or more years) to blame fishers from the Visayas in particular for having "used up" resources in their fishing grounds and moving in to the Palawan area to do the same; therefore these fishers are considered especially undesirable. Most fisherfolk and coastal resource managers assume that they will move on in search of new territories, as is common with the Visayan way of life. However, as Palawan's reputation for being the last frontier implies, its waters may be their last stop, despite their reputation for moving from place to place. These fishers, along with many other hundreds of thousands on Palawan, most often lack any title to the lands they may occupy, regardless of whether they have been long-term residents or not. Only a few families in Sitio Katumbal owned

the land they occupied (the result of a homesteading act in the mid 1900s). Three particular examples of the ways in which landless fishers are marginalized are provided here. First, is the example of fisherfolk displaced from a small island for tourist development. Then I describe another example of a group of people who were displaced from private land because the landowner had convinced them they could stay on his land for free. Finally, I show how an elderly fishpond owner lacks title to his land after years of applications with various government agencies.

Fisherfolk were displaced from the island called Arecife, Mais, or Dos Palmas⁷ was constructed on a small island in Honda Bay during during the time of my fieldwork.

Int: So you were on that island?

Resp: Yes, there were fishermen and their families, only 15 houses.

Int: What happened when you had to move from the island?

Resp: We weren't paid at first. They asked us to list down the estimated values of our houses, the *sawali* [siding material], like how many pieces, you know. After that they paid us a little, we finally moved. We were the last ones to leave, we didn't want to go. There were security people there, four of them. They even helped us dismantle our houses. You should have seen the faces of the people from Mais [the island] who were asked to leave. They were crying. (*Kawawa 'yung mg taga Mais napinaalis.*) The livelihood there would have been better. Even children could find shells there to sell.

The island was once home to a number of fisherfolk families in the area of northern Honda Bay, yet after their relocation they, along with others, were told they had no rights to set foot on the island.⁸ The island had also been the site of a seaweed farm that

⁷ Most of the islands had several names.

⁸ Some of the residents of nearby barangays were even charged with illegal logging in 2000, because they were collecting wood for builders of the resort. Even a local environmentalist who works there had been in the middle of conflict about the resort's practices and levels of environmental compliance as well as legal status of the land itself.

provided livelihoods for several families. This is just one example of displacement of marginalized fisherfolk from small islands throughout Palawan, especially over the last few years, even though legal title for small islands around Palawan is rare.

The following excerpt from field notes illustrates another example of how fisherfolk are displaced.

Some of these old people started talking about really interesting topics like some land tenure and titles and about the Agrarian Reform Program. Some tenants from Villa Teresa are being thrown out of their land because they don't have any title for the piece of land they are occupying, cultivating, and claiming to be their own. The land these tenants are occupying is the Herrera's. This piece of land is quite large. That's why it was subjected to the Comprehensive Agrarian Reform Program (CARP). Under this program, large tracts of land owned individually are given out to poor farmers [and very rarely fishers] under the condition that they have to pay a minimal price for the land and for a long term of payment for something like thirty years or more. But the farmers were tricked by Herrera to waive their right to avail of this program because Herrera promised to give them the land for free. Apparently, Herrera asked them all to come to a meal and fed them and promised them that he would give them the title, but they have never received the title. If it would be given free he reasoned with them, why bother to avail of this CARP and worry about paying when somebody is giving it for free? So the agreement was made verbally and no titles were given to the farmers, just the verbal authority to cultivate the land they can work on. As if it was a forgotten closed deal until just recently, the Herreras decided they need the land to be developed... and the tenants within the area were told to leave. They had relied purely on their verbal agreement with the Herrera's, which the court does not honor under the rule of law. This is the dilemma faced by these Villa Teresa tenants... [R. Asignacion field notes 1998].

Another example of the lack of security of land tenure is illustrated by the example of an elderly man I interviewed who was a fishpond owner. Throughout the 1980s, in Babuyan (as on all of Palawan and most of the Philippines), fishpond development was legal and even encouraged by the national government. Amidst this flurry of large-scale fishpond development, some smaller fishponds were also developed, including those in Babuyan. The fishpond owner, Mr. Gauding, was interviewed about his experiences and recounted how he was encouraged to develop fishponds in his area.

He explained that later in the 1990s it became illegal to develop fishponds, but he was already making his living on his small group of fishponds. His enterprise was “grandfathered” as legal⁹, but he never retained the official documents stating that his lease was still good, or giving him legal rights to the ponds and land area he farms. Mr. Gauding is quite well informed and educated about the law and about coastal resource management as well as environmental issues, and had been promised on a number of occasions that he would receive legal title to the fishpond areas. His main concern was still that he retain title to his fishpond. He and his family explained to me that they feel a constant lack of security for their livelihoods and even their residences since they never secured any legal lease or title to the land. Furthermore, he feels the need to defend himself against the public discourse that all fishponds are “bad” because of the environmental degradation the construction of new large-scale fishponds inflict on coastal ecosystems.¹⁰

The problem of land status is further exacerbated by the occurrence of rising tides and shifting seascapes. While some of the patterns in changes of the configuration of the seashore are naturally occurring, much of the erosion that causes an increase in the high tide mark is caused by degradation of coral reefs and upland logging. Families whose homes were once 30 or 40 meters from the high tide line may have been eligible for land reform benefits. However, some high tide lines in northern Honda Bay have encroached as much as 20 or 30 meters onto areas that were previously land. Therefore, families who

⁹ On Palawan at the time of the field research, any new fishpond leases were illegal, but some small scale enterprises still existed because they were built during the time period when it was legal to develop fishponds.

¹⁰ Since the time of my field research, the concept of "mangrove friendly" fishponds has emerged in the Philippines and possibly elsewhere (Pontillas 2001).

may have lived in more or less the same place (more than 20 meters from the high tide line) for more than one or two decades found themselves (at the time of my fieldwork) actually living within 20 meters of the high tide line. This would make them ineligible for any land reform benefits because they are now technically residing on public land.

In Honda Bay, small-scale fishers often feel mistreated and are subject to being harassed by the authorities who the fisherfolk say often favor large-scale commercial fishers, even if they are conducting illegal activities. Furthermore, according to interviews, encroachment into the commonly used fishing grounds of residents of Lucbuan and Babuyan has affected the fishing catch. One frustrated fisherman described such an experience:

You know, last year – there was full operation of the illegal, the baby trawl. There was a big change. It affected our fishing, our tangkal. The fish were scared further away. The illegal fishers were trying to chase the fish away from our tangkals towards them. Their motor boats surrounded the tangkal to scare them away. It really had a large effect on our catch.

Degradation: Changes in Species Utilization, Changes in Lifeways

Despite the difficulty in reconstructing an accurate account of catches in the past, interviews have confirmed the general time periods for the decline, as well as dramatic changes in the way of life on Honda Bay. When an eleven year old boy was asked to describe the difference in life “before” (*noon*) and “now” (*ngayon*), his response was: “before there was a main dish (*ulam*).” Based on his account of remembering when there was plentiful food, information from other interviews, and observation at public meetings, it appears that the catch has declined drastically during the period from 1988 to 1998.

AN: Oh! You could catch many shrimps here only on that side [she is pointing to a spot just near the shore] ...you don` t have to go that far to fish .We can catch so much using only net, yes ! Only net and we could get as much.

INT:: What kind of net do you use?

AN: Just a simple fish net with a wooden handle plus light and the boat of course...in the evening....It will only take us an hour or less, and with that short span of time our boat can no longer contain our catch .Many varieties like crabs, shrimps and many more...

CB: ...Before, you use the hook and line for two hours, it is now equivalent to almost one day today to get an even catch. The *alimasags* [crabs] were just in the shores walking. We just use a torch or a flashlight and we get plenty and you have the luxury to choose the big and fat ones.

Another interviewee described the plentiful catch as “fiesta:”

AN: During those years, you can see many lights in the sea, as if it was fiesta. People along the shore have their own lights waiting for the boats to unload their catch.

Fishers are not only catching fewer fish; they must travel further from the shore to catch fish because of the overall decline in coastal resources of Honda Bay and throughout the Philippines. On Palawan, catch is lower during January through March because strong winds (referred to locally as *Amihan*) make it difficult to go further away from the shore to fish. *Amihan* has always been a leaner season for fishing because of the danger during the windy season when currents are strong. One significant change in Honda Bay is that previously during *Amihan* fishers were able to catch ample fish and gather shells, crabs, and shrimp just a few meters from the shore. Now, they are no longer able to catch fish or gather shells and crabs close in to the shore. One resident described her recollections of the days of plentiful catch:

[Before] you should have seen how abundant our marine resources were! When you go out there at night with a [lantern] petromax, wow, you wouldn't believe how plentiful [the crabs] were!

When I first began staying in Lucbuan, I heard many stories like the above description of the days when coastal resources seemed unlimited.

One striking example of how the practice of fishing during the windy season affected the entire community is that it became more common because of lack of food.

The following example explains how this change manifested in Sitio Kaumbal.

I had identified a few of the most knowledgeable fishers in the sitio. One of them was Jesus, the father of the community organizer. As told by the locals, Jesus was a master fisherman. I had intended to meet with him for an interview and although I met him once, I never had the chance to interview Jesus. He died while fishing in windy and dangerous conditions. February, the month Jesus died, was the time of *Amihan*. Because the small-scale fishermen often have only wind powered sailboats, fishing can be dangerous during Amihan. In this lean season fisherfolk traditionally rely on dried fish and other forms of meat and protein that they have stored for use during this time of year, or in previous years they may have sold dried fish in winter or had at least minimal cash from a good fishing season. In past years, they tended to fish during Amihan only during intermittent times of calm seas. However, according to some community members, Jesus felt pressured to provide some food for his family and set out to fish in his small sailboat during heavy winds. The cause of his death was not definitively determined to be an accident, but many believed that he was hit by the boom of the sail thrashing uncontrollably from the winds. Some said that he died of a heart attack, a possible euphemism used as an explanation to make the death seem more acceptable¹¹.

As evidenced by the example of Jesus, not only has the overall productivity of the bay declined, change in the types of species has also occurred. The changes in species

¹¹ I spent a number of days at the household of the deceased for the wake and observed discussions about the cause of death. It seemed that people were more comfortable with the thought of an accident than the idea of a master fisherman not being able to control his sailboat, or that lack of food forced him to fish in dangerous winds.

caught have resulted in people catching and eating smaller and smaller fish. During a family interview and mapping exercise where the past was compared with the present through illustration, one resident of Sitio Kabumbal spoke with her mother about the types of fish and other resources she remembers from the past:

GB: ...the *salinyasi*? That was very abundant before.

AR: that is the *tigi* but that fish is already gone. Before we still get that using the *sarap* but now no more. Kumpay Pedro used to get that in the river. That is the fish without a tongue.

GB: How about the *tamban*, that was many here before. We just use petromax to attract them.

AR: Don't forget the *sugpo* and the *kamaron* which [was] just close to the low tide area. They were many before...even the *alimasag* [was] many before compared to today.

AR: ...the *talakitok*,

GB: is it there already?

GB: yes,

AR: how about the *pawikan* ?

GB: it is there already.

AR: *pating* or the shark?

AR: Is the *lapu-lapu* there already? How about the *kugtong*?

GB: its here already.

AR: ...the *alamang* was also many here before...Even the fish *kabasi* is already gone...I don't know what happened.

GB: Yes, I remember that fish...that delicious fish. It taste like bangus or the milk fish but I don't know it is already gone. That fish has a wide body. It is similar to the bangus because it has many thorns (*tinik*).

AR: there is also a flying fish we call the *iliw*- it [was] many before but now they are few. You [could] find them in the deep sea.

As awareness of environmental degradation and destructive fishing practices has grown, so has individuals' understanding of their connections to such destruction. The following quote describes a history of community members who received handouts from large scale trawling and dynamite fishers. As the interviewee, described, at first the practice seemed to be innocent, but by the time of the interview she realized that dynamite fishing has long-term affects. She recognized that the entire coastal ecosystem is degraded and resources are no longer abundant. Mrs. Bonbon, speaking here, is an active leader of a women's organization and a participant in the CBCRM program. She is

now hoping to help restore the coastal resources of Honda Bay through the CBCRM program, but she recognizes serious damage has occurred.

She began talking about the days several years ago when large-scale trawlers using *galadgad* (a method of fishing that uses a type of trawling gear) fished freely in the municipal waters of Lucbuan. The following interview was conducted by two of us: RA (Ronald Asignacion) and RLA (Rebecca Austin):

RLA: What is a galadgad?

GB: *Lancha* [large boats] with big fishing nets

RLA: Trawlers.

GB: They go [on the] inside [of] this Island

RLA: Inside the Island?

GB: Yes!

RA: Could you see them?

GA: Sometimes at night you can't even sleep because of the noise **OF**
banyera

[a large container for fish, often like coolers], the *sapsap* (ponyfish), *alimasag* (crabs), *sugpo* (prawns), they give it free here. At first it [was] o.k. But in the long run it affected us. They thought it would be endless. There [were] no people here before...there [were] only few people you meet at the streets.

The interviewee explained that the community received free fish, crabs, and shrimp from the galadgad and other trawl operators without understanding the long-term consequences. She seemed genuinely thoughtful and remorseful to have participated in the activities, but the practice of giving out free food to community members as a way of gaining entry into municipal waters is common among large-scale commercial operators. Community members who receive the fish and other products feel obligated/indebted or “*utang*” to the commercial operators so they do not report them for illegal activities. (See Chapter 6 for an explanation of indebtedness.)

Environmental Problems

When asked what the biggest community and environmental problems are in their community, the primary concern in all of the communities is water. (See also Chapter 8 for a more complete list of environmental problems.) This also is true throughout communities on the west side of Palwan (Arquiza 1999). The lack of potable water in close proximity to their homes is a major hardship in their daily lives because they must haul it from a well two kilometers away, or pay someone to deliver it. The owners of the well have kin and long-term ties to residents of Sitio Katumbal and Milwang so it is at least ensured in these communities that water will be delivered, even during times of scarcity.¹²



Figure 5.3. Innovation for Water Collection.

¹² During 1998, El Nino caused a severe drought throughout Southeast Asia, resulting in decreased availability of water. The well used by the communities of Sitio Katumbal and Milwang was so dry that it's owners closed it for several hours during the day as a way of regulating water consumption.

In addition to major concerns about potable water, marginal fishers have come to commonly blame most of the problems of declining coastal resources on illegal fishing. They often mention that illegal fishing is the primary environmental problem that needs to be addressed immediately and that apprehension of illegal fishers should not favor anyone.

The lack of equipment and materials for fishing is another major problem mentioned by many male fishers. Most of the fishermen living in the communities of northern Honda Bay sitio do not have motorized boats. They rely on manual power or wind power. The following quote is from an anonymous fisherman in Babuyan.

The wind is a big factor in determining our catch. If strong winds come, we can't set out so we have no income. It becomes worse if you are only renting the boat. Sometimes you don't even have enough to pay for the fuel expense. Sometimes when our nets get destroyed, we have a hard time getting a replacement because we don't have enough money to purchase a new net.

Technologies, Coastal Resources, and the Question of Local Knowledge

The concept of local knowledge traditionally grew out of earlier ethnoecological studies as discussed in Chapter One. Early studies focused on *traditional societies'* understanding and classification of the natural world around them. Fisherfolk in the Philippines, for the most part, cannot be considered "traditional" in the anthropological sense. However, they do possess knowledge about their environment, fishing techniques, and environmental degradation. Their knowledge, then, is a combination of different kinds of knowledge that includes not only knowledge of technologies and local species classifications, but also knowledge of the broader forces surrounding resource use and allocation, such as illegal and destructive fishing methods, the actors who undertake such

activities, and knowledge about inequitable distribution of access to resources, including various restrictions on mangrove uses, illegal logging activities, and funding arrangements for livelihood activities. This section explains how some of these forces work, and affect the lives and resource use practices of fisherfolk. I suggest here that although local knowledge is important, in the case of small-scale fishers in the Philippines, the uses of coastal resources are inextricably tied to the political ecology of the area. It is almost impossible to look at one particular issue or feature of the coastal environment without considering the connections to other forces, as has been explained with the section on marginalization. However, for the purposes of explanation, here I provide descriptions of particular resource uses, including illegal fishing activities, while at times discussing issues related to those uses and technologies, and participatory mapping. The participatory maps provide a look at communities' resource use territories, environmental degradation, and perceived recovery.

Coastal Resource Use Activities

Introduction

Various fishing methods are practiced in northern Honda Bay. Most of the residents of Sitio Katumbal use small bancas (between 10-15 feet) for hook and line fishing that are either wind-powered, or have a small engine. Some of the larger boats can be found in Sitio Milwang (of Lucbuan) and Babuyan and are used for fishing with nets, or with a team of four to five hook- and-line fishers who set out for several days of fishing in waters further north. Some of the most common traditional methods listed by

residents of northern Honda Bay include net fishing with a variety of passive and active¹³ net types (see Table 5.1), hook-and-line fishing, crab traps, use of a longline, gathering with the use of a lantern (petromax) at night to attract crabs and other organisms, or fish traps, some of which are used for live fish. Non-traditional methods include trawl fishing, (including baby trawlers), hulbot-hulbot, blast fishing, stationary lift nets, cyanide, use of compressors (*pa-aling*) and electricity (*corriente*). Complaints by local residents of large scale trawlers, baby trawlers, and *hulbot-hulbot* fishers encroaching into their area are common. When interviewed about fishing methods, fisherfolk responded that neither baby trawlers nor hulbot-hulbot were practiced by residents of northern Honda Bay. Other technologies used by fishers in the area include: rafts with palm and debris (*balsa/payaw*) as fish attracting devices, spears (*pana*, not as common in Honda Bay as in other areas), and *bangus fry bulldozers* (see below). The division of labor between men, women, and children usually involves women helping to set up gear, preparing and marketing the products, and children assisting in various activities, such as mending nets, cleaning and fixing boats. Men practice the actual fishing, but women sometimes work on boats with their husbands or other family members. Men also sometimes go with women on their boats to other small islands for shell collecting. As stated earlier, women and children commonly practice ‘gleaning,’ the activity of gathering shells from exposed reef flats and sand beds during low tide.

Particular fishing technologies and activities are described below. It should be emphasized here that this discussion of fishing technologies and local knowledge is focused on the viewpoint and knowledge of the marginal fishers; therefore, less

¹³ Passive gear refers to gear that is stationary and not moving, such as a coral or a lift net, whereas active gear refers to moving gear, such as trawls, hook and line etc.

information is provided here on medium-scale and large-scale gears and, at times, what information there is about such technologies is from the viewpoint of small-scale fishers who oppose them.

Activities

Fishponds are present in Babuyan, but not Lucbuan. Although cutting mangroves for fishpond development is illegal, most of the existing ponds in Babuyan had been in operation since prior to the ban on mangrove cutting, which was part of the Strategic Environmental Plan. The main fish cultivated in the fishponds is milkfish (*bangus*), although one fishpond owner cultivates *apahap* (sea bass) in his pond.

Bangus (milkfish) fry collecting is common in both Lucbuan and Babuyan. All family members participate in this activity. The buying and selling process is a complex bidding process usually involving People's Organizations and regulated by the Barangay. Bangus fry collecting is a seasonal source of income occurring in March, April, and May. Translucent larvae are collected during spawning, stored and transported in large buckets or coolers and sold to buyers for production in medium to large-scale commercial fishponds. The gear used for this is a *sud-sud* (a type of pushnet, also called a bangus fry bulldozer). One resident described the process:

To catch the fry you need a partner. It's not as easy as you might think. You need to endure the cold water in the early morning otherwise you might be too late. You also need to withstand extreme heat of the sun if you stay out till mid-day. You need to be especially careful handling the fry because the fingerlings are very sensitive to heat, soapy containers, oil, coconut water. The fries can easily die; then your efforts just go to waste.

Panak is a crab trap made of bamboo and/or other local vegetation or wire mesh. The traps are placed in the seagrass beds not far from the shoreline, left overnight and

collected in the morning or after a few days. A family may have as many as 30 crab cages or more. Sitio Katumbal is known for its crabs, which are marketed in town by way of *jeepney* (the most common public transportation). Storage is not necessary since they are sent to market early in the morning on the day they are collected. One of the problems with fishers from other areas coming into the nearshore waters of Sitio Katumbal is that they destroy local crab traps. One woman described her frustration with the situation:

ZV: Of course, we have problem when our fisheries are being destroyed! If those are depleted, what will become us poor people ["Kapag naubos yan, paano kaming mahihirap"]? For example, these trawls. It is good from them who are trawling. Their boats are running. How about us who just use paddles for our boats? Like us, we use *panak* [I don't know the English]. If trawls pass through them, they carry away our panak, we have no more source of livelihood.

Our source of living is dead. Then we become poorer. Those trawling are in better position, they have pump [?] boats, and they use gasoline. They run fast. Their source of income is fast. But for us, it is just panak. If their trawls catch them, then our source of living is dead. We have no more capital to buy those [replacements]. One piece like that is pesos. It is good if ten would be enough. You need 30 or 40. So, what if they are all gone? Like some time before, we were dropping *panti*, the trawl came by, until now, no more. We became poorer because we do not have capital to buy and replace them. That is the difficult part in making livelihood from the sea. Right here [in Sitio Katumbal]...Some people were trawling one time. We had 30 panak, only 22 were left, and eight were damaged. Imagine how much the capital was for those eight panaks?...When we buy panak suppose today, we put them in place tonight, the following morning they are gone, already damaged, so is our capital. The same happens for *panti* [nets]. We drop them, the trawl comes, they get ruined.

RA: When was that?

ZV: Last year. We had to lower our production because I told my husband, we will just get poorer. We use our money to buy panak just to be damaged by the trawls! [Zenaida Valdez, interview with author 1998]

Net fishing includes several types of gill nets and throw nets, as well as some drift nets. these are used for almost all types of commonly caught fish, including rabbitfish, groupers, snappers, bream, parrot fish, mackarel, mullets,



Figure 5.4 Panak (crab cages)

trevally, and slipmouth. Nets from the shore are also utilized for beach seining, a method that requires at least two people to surround and capture the fish. Fish corrals (*baklads*) use stationary nets as well and are constructed of mangrove wood and fine mesh nets.

Hook and line fishing (*kawil*) is probably the most commonly practiced form of fishing in the communities I studied. The process is very simple, involving only a boat, fishing line, hooks and bait. The bait is often acquired from tangkal owners. Hook and line fishers often spend as many as 5 to 10 hours for only a few kilos of fish. When interviewed, fishers explained that in the past, they could bring in 10 or more kilos in only a few hours. Some hook and line fishers work in groups of 4 or 5 on boats and set out for several days together splitting their catch upon return, depending on the role of the boat owner.

Spear fishing, although not common in northern Honda Bay is one traditional method still used by some fishers from the Visayas, and Bicol. Spears can be used to catch almost any medium or larger fish, including rabbitfish, snappers, seabass, groupers, wrasse, rabbitfish, jacks, trevally, and slipmouths.

Tubli is a traditional method of fishing which involves the use of a poisonous plant. It is not widely practiced in the Honda Bay area, but it is commonly known to be practiced around Palawan. Although the method is considered traditional, it is considered destructive as it kills other forms of coastal resources and degrades habitat. There may be a variety of plants used for *Tubli*. It tends to be practiced in the inshore and reef flat areas (Arquiza 1999).

A *bubo* is fish trap that may be made from, usually, a small bamboo tube closed on one end. The smaller *bubo* can be used to capture live fish for the live fish trade if a skilled fisher engages in the practice. The tube attached to a stick and stuck into the seabottom. Bait is attached inside. After placing the tube in the water in habitat for *lapu-lapu* or *maming*, after several hours, or a night, at diver can go underwater with a mask and trap the fish.’ Although this type of trap is not common, it is important to note here that fisherfolk expressed the desire to utilize *bubo* for the live-fish trade, as an alternative to cyanide fishing and a total ban on the live fish trade. Almost none of the environmental professionals interviewed were aware of this technology.

The following chart is a list of the most common technologies used in the study communities of northern Honda Bay, as determined by the free listing exercise with key informants, and the participatory mapping exercise. Abbreviated descriptions are provided for each item.

Tangkal is a stationary lift net and fish attracting gear using light from gas lamp or a petromax. It is surrounded by a fence usually made of indigenous hard wood (*anibong*), resistant to salt water and durable enough to last more than one season. The

LOCAL NAME	GEAR TYPE/ENGLISH	DESCRIPTION
<i>BAKLAD</i>	FISH CORRAL	FISH CORRAL CLOSE TO THE SHORE
<i>BALSA/PAYAW</i>	FISH AGGREGATING DEVICE	BAMBOO RAFT WITH PALM FRONGS AND VEGETATION HANGING BELOW
<i>BITANA</i>	COMMERCIAL NET	LARGE COMMERCIAL NET REQUIRES 8 MEN AND MOTORIZED BOAT
COMPRESSOR/ <i>PA-ALING</i>	AIR COMPRESSOR	USED WITH DIVING GEAR OFTEN USED TO BLOW FISH OUT OF CORAL (PA-ALING), AND WITH CYANIDE
<i>CYANIDE/SODYUM</i>	SODIUM CYANIDE	ILLEGAL SUBSTANCE USED ON CORAL REEFS TO STUN FISH FOR LIVE FISH TRADE
DIVING	SCUBA DIVING GEAR	USE OF SCUBA DIVING GEAR: COULD BE USED WITH SPEAR GUN, COMPRESSOR, CYANIDE, PA-ALING
<i>GALADGAD</i>	TRAWL	NON-SELECTIVE TRAWL USING A BOARD WHICH DRAGS ALONG THE BOTTOM
<i>GULOK</i>	LARGE KNIFE	ALSO KNOWN AS MACHETE OR BOLO, USED FOR DIGGING SHELLS AND OTHER HOUSEHOLD AND FISHING ACTIVITIES
<i>HANGER</i>	LONG LINE	HEAVY NYLON LONG LINE USED WITH STYROFOAM FLOATERS FOR CATCHING LARGE FISH SUCH AS JACKS AND TUNAS
<i>KAWIL</i>	HOOK AND LINE	SIMPLE HOOK AND LINE OFTEN USED WITH NO MOTORIZED BOAT
<i>KITANG (KINIKITANG)</i>	TRADITIONAL BOX USED FOR LONG LINES	WOOD BOX USED TO SET UP HOOKS FOR LONG LINE
<i>KULONG</i>	FISH CAGE	FISH TRAP OR CAGE, ALSO CAN BE CALLED BUBO
<i>LAMBAT</i>	NET/INCL. GILLNET AND THROW NET	INCLUDES PANTI AND SUD SUD
<i>PAMO</i>	GILLNET	GILLNET, OR MATERIAL USED FOR GILLNET
<i>PANULO/PANGILAW</i>	LANTERN AS ATTRACTING DEVICE	PETROMAX LANTERN USED TO ATTRACT CRABS AND OTHER ORGANISMS AT NIGHT
<i>PUTOK/BONGBONG</i>	DYNAMITE/BLAST FISHING	ILLEGAL EXPLOSIVES USED TO BRING FISH TO SURFACE
TANGKAL	STATIONARY LIFT NET	STATIONARY LIFT NET OFTEN USED WITH LIGHTS FOR ATTRACTING DEVICE AT NIGHT

Table 5.1. Common Fishing Technologies in Northern Honda Bay

initial tangkal set up is expensive, and women who receive loans from various development aid and often owners of tangkals. Nets surround this square fence and the fence has an opening where the fish attracted to the light can come in. Boats come in to pick up the harvest in the morning, and often small fishers who have fished through the night and had a poor catch will ask the tangkal operators for bait fish. The primary fish caught with tangkals are dilis, a type of anchovy, and sap-sap, a ponyfish considered to be of low importance, but sold dry and used for fishmeal. Sap-sap were also made into fish meal to feed pigs and ducks, alternative livelihood activities. Since the nets are non-selective various other fish and shrimp can be caught with the tangkal.



Figure 5.5. Tangkal

Illegal and Destructive Fishing Methods

Dynamite and cyanide (sodyum) fishing are most commonly mentioned when fisherfolk are asked about destructive fishing methods. Other destructive methods mentioned are tubli, trawls (including baby trawls and galadgad), hulbot-hulbot, muro-

ami, and pa-aling or compressor. Less commonly mentioned is the use of electricity (corriente). In Honda Bay, dynamite fishing has been curtailed since the implementation of the Bantay Dagat, but cyanide fishing is still considered a serious threat to the remaining coral reefs. The overall awareness of the destructive nature of dynamite fishing reached throughout the Philippines, thanks to national education and legal sanctions minimizing the practice. However, it was not stopped entirely, especially off the coast of the northern part of the island. Cyanide, on the other hand, is still a large-scale problem throughout the country and around Palawan, and is still practiced in northern Honda Bay and further north in the Sulu Sea along the coast of Palawan.

Dynamite

In an interview with a man from Sitio Katumbal, the use of dynamite is described below:

Resp.:....and there is one more thing which I remembered to be very destructive...you know the dynamite, they light it up and the throw it into the water and it blows up. This method also causes the fish to die because of hemorrhage.

Int.: Yes, because of the extreme pressure and because of the shock?

Resp: That's why you can easily determine the fish which is caught using dynamite because the meat is loose compared to the fish caught in the net which is so stiff and it can stand on its tail. There had also been reported accidents about dynamite fishing.

Int: So it started in the 70s, we will just repeat and then that was the same time when the trawlers and the cyanide and dynamite fishing became rampant - so that was around the 70s to 75s?

Resp: Yes.

Int: Were there incidents of people blown up because of dynamite?

Resp: There had been many already and most of the victims lost their arms. I know of a person who survived an accident on dynamite but I'm not sure what exactly happened but the usual practice is - when they see a thick school of fish, they light up a stick of dynamite but sometimes it blows up in their hand even before they could throw it. That person is still alive and they call him "putol"[a name for a person who has a part of his

body cut off . He lives in Babuyan but I think he is already dead and he died single. There was also one case he [a dynamite fisher] was in his boat fixing up and loading the dynamite and it blew up even without lighting it yet... it was really an accident.

Int: That's it, friction caused it to blow up and because of the extreme heat of the sun in the open sea.

Resp: Yes, it blew up his chest and he was hit badly and the person fell to the water dead.

Sodium Cyanide and the Live Fish Trade

Sodium cyanide is used most commonly in the live fish trade. The highest class fish caught with this method is the grouper (Lapu-lapu). Cyanide was originally used to capture ornamental fish for the aquarium fish trade and eventually became commonly used for live food fish, although this is not widely acknowledged. The process usually involves diving with either an air hose or a compressor. Sometimes cyanide fishers hold their breath and use only masks when they dive. The cyanide is squirted from a plastic bottle (usually a coke or baby bottle) directly into crevices in the coral reefs to chase fish out of the reefs. The most popular live food fish are several species of lapu-lapu and maming. These are sold in the food restaurants of Manila, and other countries like Taiwan, Hong Kong, Korea and other Asian countries. They are very prized and expensive, as much as one hundred dollars each. According to interviews, the practice of picking out your own live fish from a tank in a restaurant is not only desirable, it is also considered good luck to some Chinese.

The most common effect of cyanide that coastal resource managers and marine biologists will cite is that cyanide kills the coral reefs. Other effects that cyanide has on the coastal ecosystem were learned from interviews with local fishers. According to one fisherman from Babuyan, the seaweed industry is presently dying because of the rampant use of sodium. He was hopeful that seaweed farming could be prosperous again if given

the opportunity. He said the smell of cyanide stays in the area where it was scattered or sprayed and will not go away for a long time. This forces the fish further away from the area where cyanide was used and destroys the habitat where the seaweed could grow naturally or be farmed. "Smelling" cyanide also chases the fish away from other habitats where they might otherwise be caught. This forces the fish further away from previously productive fishing areas, another factor resulting in decreased catch, more travel to fishing grounds, and less productive catch.

I once heard a case reported on the news about a woman who was arrested for transporting a large amount of sodium cyanide but later the case was dismissed. According to an interview with a local lawyer in Puerto Princesa, possession of less than 50 kilos of cyanide, which is used legally in some mining processes as part of a metal separation procedure, is legal unless it is found on a boat. Some NGO activists favor the banning of mining altogether, not only for environmental reasons related to mining, but also because of the difficulties in prosecuting distributors of cyanide for fishing. The woman found in possession of cyanide had apparently been arrested before, but her case has always been dismissed because of the legal loopholes described here. Activists and others who are familiar with her case have dubbed her the "cyanide queen." According to a number of interviews with environmental professionals who have worked throughout Palawan and the Philippines, the distribution of cyanide from the sellers is often accomplished through local government officials, sometimes the Bantay Dagat, who are paid to distribute it to small-scale fishers. These fishers earn only a fraction of the net income of the seller.

Hulbot-hulbot is a destructive fishing method that uses large weights and scarelines that, when looped through rings are attached to the weights. The weights are dropped on the bottom floor of the ocean and small boats (*bancas*) are used to pull the net and fish catch up. This method, although producing similar detrimental effects to trawl fishing is not the same as trawling. It is commonly referred to as a modified Danish seine, and can be used with boats less than three gross tons, but is most commonly associated with commercial fishing boats of more than three gross tons. According to interviews, the cylindrical weights weigh over 50 kilos. This type of gear is extremely destructive to the tropical coastal ecosystems because of the damage the large weights cause to coral reefs and the bottom shelf of the bay. The catch is non-selective and considered wasteful since it is non-selective and low value or unwanted species are often discarded. When interviewed about fishing methods, residents of northern Honda Bay did not state that anyone from their communities practiced hulbot-hulbot, but I observed large cylindrical objects most likely used as weights for hulbot-hulbot during a field visit to a community in northern Honda Bay in early 1998. Many residents complained of hulbot-hulbot, recounting the incidents of 1997 when they began seeking the assistance of ELAC and other NGOs to banish the hulbot-hulbot operators (allegedly migrants from other islands) from Honda Bay.

A *baling* is a type of gear which catches a variety of fish but most commonly caught with this method are the *dilis* [*anchovies*]. This gear requires a big boat (more than 3 gross tons) to load a long net more than a kilometer in length. They use this long net to surround a school of anchovies. They use weights in the bottom which close like a ring and scrape the sea bed, causing disturbances to bottom dwelling species. ELAC and

other NGOs and POs have written petitions opposing the use of this gear inside the municipal waters. Partially as a result of this opposition from small-scale fisherfolk and Puerto Princesa City-based NGOs, this type of boat and fishing method were banned within city waters as a result of the 1997 Basic Fishery Ordinance of Puerto Princesa.¹⁴

Baby trawls are boats three gross tons or less consisting of nets (usually conical) that drag along the bay or ocean floor, or in shallow waters. They are usually operated by two to three fishermen in motorized bancas 7 to 10 meters long, powered by gasoline engines. The most common target species are shrimps, scallops, crabs, threadfin bream, lizardfish, slipmouths, and sea cucumber (Skinner nd). The 1997 Basic Fisheries Ordinance of Puerto Princesa banned the operation of baby trawlers in municipal waters.

Another uncommon technology in Honda Bay, but worthy of mention, is the use of artificial reefs. At one time, mostly in the 1980s, the construction of artificial reefs was widely promoted. They were often made of old automobile tires and were intended to serve as barriers for floods and a base for reef organisms to regenerate. Over time, they became used as fish- aggregating devices for fishers. Therefore, they were deemed unproductive, contrary to the original purpose, and a temporary ban was in effect throughout the Philippines at the time of field research.

¹⁴ One resident had recently purchased a baling with his family prior to the 1997 ban on this gear in Puerto Princesa. During the time of my fieldwork, the boat sat drydocked for several months in the community.

LOCAL NAME	COMMON ENGLISH NAME	FAMILY
<i>Anuping</i>	KING SOLDIERBREAM	<i>SPARIDAE</i>
<i>Apahap</i>	SEABASS	<i>CENTROPOMIDAE</i>
<i>Aswang</i>	SNAKE MACKERAL [Also GROUPER, see Lapu-lapu]	<i>GEMPYLIDAE</i>
<i>Badlon</i>	MACKERAL, GOLDEN TREVALLY	<i>CARANGIDAE</i>
<i>Banak</i>	MULLET	<i>MUGILOIDEI</i>
<i>Bangus</i>	MILKFISH	<i>CHANIDAE</i>
<i>Bantol / see Lapu-lapu</i>	GROUPER/ ROCK COD	<i>SERRANIDAE</i>
<i>Bararawan/ see Samaral & Danggit</i>	RABBIT FISH	
<i>Baritos</i>	HALFBEAK	<i>HEMIRAMPHIDAE</i>
<i>Bisugo</i>	THREADFIN BREAM	<i>NEMIPTERIDAE</i>
<i>Buslit</i>	HERRING	<i>CLUPEIDAE</i>
<i>Danggit</i>	RABBIT FISH	<i>ACANTHURDAE</i> <i>SIGANIDAE</i>
<i>Dapak</i>	RED SNAPPER	<i>LUTJANIDAE</i>
<i>Dilis</i>	ANCHOVY	<i>ENGROULIDAE</i>
<i>Dugso</i>	SWORDFISH	<i>XIPHIDAE</i>
<i>Hito</i>	FRESHWATER CATFISH	<i>CLARIDAE</i>
<i>Lapis-Lapis</i>	BLUE-LINED RUNNER, LEATHERJACKET	<i>CARANGIDAE</i>
<i>Lapu-Lapu</i>	GROUPERS	<i>SERRANIDAE</i> <i>EPHINEPHELINAE</i>
<i>Maming</i>	WRASSE	<i>LABRIDAE</i>
<i>Maya-Maya</i>	SNAPPER	<i>LUJANIDAE</i>
<i>Pagi</i>	STINGRAY	<i>MOBULIDAE,</i> <i>DYASTIDAE</i>
<i>Pating</i>	SHARK	<i>SCYLIORHINIDAE</i> <i>CARCHARHINIDAE</i>
<i>Pusit</i>	SQUID	<i>UNAVAILABLE</i>
<i>Samral / see Danggit</i>	RABBIT FISH	
<i>Sap-sap</i>	PONYFISH, SLIPMOUTH	<i>LEIOGONATHIDAE</i>
<i>Sod-sod</i>	WEDGEFISH, SHOVEL-NOSED SHARK	<i>RHINOBATIDAE</i>
<i>Suno / see Lapu-lapu</i>	GROUPER	<i>SERRANIDAE,</i> <i>EPHINEPHELINAE</i>
<i>Taksay/ see sap-sap</i>	GOLDSTRIPE PONYFISH	
<i>Talakitok</i>	JACKS, TREVALLY	<i>CARANGIDAE</i>
<i>Tangigi</i>	SPANISH MACKERAL	<i>SCOMBRIDAE</i>
<i>Tamban</i>	SARDINE	<i>CLUPEIDAE</i> <i>ENGRAULIDAE</i>
<i>Mantaris</i>	GIANT MANTA	<i>MOBULIDAE</i>

Table 5.2. Common Fish Names and Scientific Family

Other Resources

LOCAL NAME	COMMON ENGLISH NAME
<i>LUMBA LUMBA</i>	DOLPHIN
<i>DUGONG</i>	SEA COW
<i>PAWIKAN</i>	SEA TURTLE
<i>BALAT</i>	SEA CUCUMBER
<i>ALIMANGO/ALIMASAG</i>	MUD CRAB/SOFT CRAB
<i>ALIPUROS</i>	SHELL
<i>BAKALAN</i>	SHELL
<i>CAMARON/HIPON</i>	SHRIMP
<i>HALAAN</i>	CLAM
<i>KAY-KAY</i>	SHELL
<i>SIKAD-SIKAD</i>	SHELL
<i>TAKLOBO</i>	GIANT CLAM
<i>TAHONG</i>	MUSSEL
<i>TIPAY</i>	PEARL OYSTER
<i>TIRIK</i>	SEA URCHIN
<i>TAYOM</i>	SHELL
<i>BABOY-BABOY</i>	SHELL
<i>BALILIT</i>	SHELL
<i>LAGANG</i>	NO DATA
<i>KIBAW</i>	SHELL
<i>BAGUNGON</i>	SHELL
<i>TALABA</i>	OYSTER
<i>SEA HORSE</i>	NO DATA
<i>LATO</i>	SEAWEED
<i>SUGPO</i>	PRAWN
<i>PUGITA</i>	OCTYPUS
<i>BANAGAN</i>	LOBSTER

Table 5.3 Non-fish Coastal Resources

Mangroves and Logging

Logging and the use of wood are not commonly associated with coastal resource management other than resource managers understanding that logging and environmental degradation cause erosion and siltation that damages coastal ecosystems. However, there

are more concerns about logging and the use of wood by fisherfolk than these. Fishers and their families utilize wood products in a variety of ways. Since Palawan was declared a Mangrove reserve, and the Strategic Environmental Law (SEP) declares the entire island as protected, any cutting of wood, other than trees that have fallen “naturally” or are already dead, is illegal. Fisherfolk have no recourse but to resort to illegal means to gather fuelwood and wood to be used in the construction of houses and boats. Hard woods are prohibited from being logged except under certain conditions as "salvage" wood, or with various stewardship agreements that give indigenous peoples and others rights to "sustainable" uses of the forests. One frustrated fisher explained his dilemma in an interview:

D: ...Concerning the mountains, that's one of the problems here too. Before it wasn't illegal to cut wood. The trees, there were still a lot of them, even here in our place, that's what we use to build our house and boats. But now, they are gone now. With the illegal loggers, they are thinking about how to get rich faster...like now they are cutting trees.

Int: You mean to say this is illegal logging?

D: Yes they are prohibiting the locals from cutting the trees, because they are the ones who will sell it in Puerto. So the nice wood is already gone.

Int: So this is your problem here for your environment/surrounding, that you can't get anymore kasko [type of wood], what else?

D: Yes. Even if we want to use it for our house (*kubo kubo*) we can't find anything...The big trees are gone.

Int: So you can't get any more big wood?

D: No, we don't have any more

Babuyan possessed more intact tracts of mangroves than Lucbuan, which had almost none because the area had been cleared for farming, homesteading, and fishpond development. Mangroves are utilized for various purposes in local communities despite the total ban on mangrove cutting. Initially many mangrove areas were killed as a result of tree bark harvesting for dyes and fishpond development either after they died from the harvesting of the bark, logging, or purposeful clearing of mangroves for construction of

the ponds, which had been encouraged in the 1970s and 1980s as government policy. With the total log ban in effect in Palawan, families automatically violate the law when they cut mangrove areas for house or fish corral construction, among other needs. As families have been pushed off of different lands they occupied, they have had no choice but to utilize mangrove products for house construction and/or homesites. Mangroves are known by many fisherfolk as a "place where fish eat," a place that provides nutrients for fish or a "shelter for fish and crabs." Some fisherfolk who have been active in community-based coastal resource management are acutely aware of the interconnection between the mangrove areas and coral reef habitats, and are very concerned about their destruction, despite their need for mangrove products. Some species of mangrove plants also have medicinal uses, but these were not commonly known. One such source was the *buton* tree with medicinal roots that can be scraped and applied to wounds or pain. Another mentioned was the *dangkalan*, which can be used as an eye cleanser. Other commonly cited purposes and uses of mangroves included: sources of wood for fishing gear, charcoal production, erosion and flood control, and habitat for birds and trees.

Resource assessments (ICLARM 1996) generally recognize only five or less genus of mangroves: *Rhizophora apiculata*, *Sonneratia alba*, *Rhizophora apiculata*, *Ceripos tagal*, *Bruguiera*. In contrast, one elderly man from Babuyan listed fifteen different tress associated with mangroves in Babuyan. These included *bakaw* (*tangal* and *tengeg* in this category), *pagatpat*, *dampol* (soft wood), *alipata* (soft wood and whitish extract), *baringbing*, *sigpet*, *buton* (medicinal), *dap-dap*, *dangkalan*, *tabique*, *alay*, *iokongfruit* (like almasiga gum), *piagao* (considered the most valuable of the mangrove wood).

Mangrove reforestation efforts were underway throughout Puerto Princesa City and around Palawan at the time of my research. However, one foreign volunteer noted that mangrove planting projects often planted mangroves in areas that may not have previously been mangrove habitat, and that non-native species were often used. As described by one woman from Honda Bay:

They planted 6,000 small seedlings, but not mangrove trees...Their mangrove area is very beautiful because the trees are really straight, almost like candles. They are different from the mangroves here that are more like large brush and have intertwining, gnarled branches. I even said I have not seen a mangrove like this before.

Fruits and Vegetables

The availability of specific vegetables over time is difficult to determine, as the year of my fieldwork was during a drought and harvests were low. Some of the most common fruits and vegetables were as follows. Fruits consisted of: star apples, bananas, cashews (*kasoy*), mango, coconut, tamarind, and jack fruit. More common vegetables included: squash, *sitaw*, eggplant, *kangkong* (native green leafy vegetable), okra, *monngo* beans (small beans resembling lentils), cucumber, sweet potato tops (*kamote*). Although I observed participatory rural assessment exercises in which community members listed substantially more fruits and vegetables, they also noted that most of them were not available anymore (as a result of the lack of funds to purchase them, or lessening harvests). Throughout the course of one year of intermittent visits to northern Honda Bay, I rarely observed people eating fruits and vegetables except during special events such as fiestas or group meetings sponsored by outsiders.

Non-fish Animal resources

Wild boars (*baboy-baboy*) are sometimes available and hunted with ground traps or dynamite traps. Domestic pigs, chickens, and ducks are also raised, but usually sold and not eaten, unless for special occasions. Traditionally many residents ate dugong, sea turtles and sea turtle eggs. Since awareness of the protected status of these marine animals is high, consumption of these resources is low, but not entirely eliminated.

Results of the Participatory Mapping

The purpose of this section is twofold: first I evaluate the potential use of local knowledge in Community-based Coastal Resources Management. Second, I evaluate the potential uses of the participatory mapping methods used. Although participatory mapping exercises have become quite common in CBCRM as well as land-based community-based management regimes, I argue that mapping results are often underutilized and could be used more effectively when combined with scientific knowledge and management strategies.

The participatory mapping exercise was conducted in August of 1998. The exercise followed the method that was promoted in coastal resources management projects throughout the Philippines at the time of the research (see Walters, Siar, Fox, CRMP 1998). I attended a ten-day session in coastal resource management that trained community organizers and other coastal managers in the mapping procedure. My version of the exercise was modified in two ways. One was that I used the free-listing method of compiling the lists to be used, as opposed to group participation methods. The other important modification that I made was to ask for three types of coral to be mapped:

dead, recovering, and live. Four groups participated in the exercise. Two groups were men from Lucbuan and Babuyan and two groups were women from Lucbuan and Babuyan/Sitio Teresa. Participation among women from Babuyan was low so the women were grouped with those from Sitio Teresa, a community south of Babuyan.

Participants were asked to map resources that had been collected in free listing exercises throughout the previous 10 months in the field. Free listing results from key informants from Lucbuan and Babuyan were compiled. Any items listed more than once were included in the lists used in the participatory mapping exercise. Men were asked to map gear types and fish. The gear types included destructive fishing methods since these had been listed as “things used to catch fish” in the free listing exercises conducted in both communities. Women were asked to map shellfish and seagrass. Both men and women were asked to map mangroves, dead coral, recovering coral, live coral, slash and burn agriculture (*kaingin*), and logging. Both men and women were also asked to map additional resources that were known to be species of concern to environmentalists, turtles (*pawikan*), and sea mammals (*dugong*). Four base maps were compiled from an artist’s reconstruction of a map of the municipality of the City of Puerto Princesa, originally produced by the City Planning Department. Four separate base maps were used, one for each group. Each group was then given instructions and codes for the various items to be drawn onto the maps. These maps are representative of the perceptions of community members regarding coastal resources and cannot be taken as purely factual representations of existing resources. However, they show important trends, including differences between communities and between men and women’s perceptions, and can be useful tools in aiding in community-based coastal **resource**

management. Although differences were noted between communities, coastal resource use territories also overlap between the two communities. The maps were digitized onto ArcView for analysis, which yielded some important trends and confirmed generalized data about the use of destructive methods and coral reef health.

Map 1 shows the composite view of all four groups. Two of the most striking trends that can be seen in the maps have to do with the central part of the bay as compared with the outer edges of the bay. Perhaps the single most important trend reflected in this map is the perceived health of mangroves and coral reefs within central Honda Bay. The other important trend is the indication of severely damaged reefs on the outer edges of the bay. Mangroves (green) appear to cover a large continuous portion of the coastline of Honda Bay. Coral reefs within the central part of the bay are shown as either recovering (purple), or live (red). Mangrove condition around the small islands also appears to be good. This perceived relative health of the mangroves may be indicative of the correlation between mangrove health and coral reef condition. The condition of seagrass is shown to cover less area than that of mangroves. I have found that the importance of seagrass is minimized as a part of community-based coastal resources management. This may be one reason for the perceived minimal presence of seagrass on the maps as compared with mangroves. Residents may not consider it as important, therefore making it less cognitively salient, and/or they may not be as concerned with its protection. Erosion may be another factor actually causing disturbed seagrass habitat. As verified by marine biological surveys in 1997, the condition of the central bay is generally good (Skinner nd, ca 1998). The designation of Bat Island in the southern bay

as a protected area may also have a connection to perceived health of the bay's ecosystem.

The coral reefs on the eastern and northeastern edges of the bay appear to be entirely dead (represented by brown). This trend may indicate some of the difficulties with the implementation of the Bantay Dagat.¹⁵ The Bantay Dagat has a station on one of the small islands within the bay and according to interviews they may have a tendency to concentrate patrols within the bay. If this is true, illegal and destructive activities could more easily occur on the outskirts of the bay where law enforcement is lax. Improved law enforcement by government, non-governmental and volunteer organizations would help to curtail illegal and destructive fishing activities on the outskirts of the bay.

The composite view map (Map 1) may also be interpreted as positive regarding the overall effectiveness of CBCRM in the central and near-shore areas, including the small islands of Honda Bay. Community awareness and CBCRM programs in effect may be partly responsible for the general health of the central bay. Overall environmental awareness programs sponsored by the city government may also aid in protection of the bay. Caution should be exercised, however, in interpreting these results and perceived trends as absolute fact. Some long-term residents and NGO workers have reported an overall decline in the health of the bay over the last five to ten years prior to my fieldwork. The perceived trend toward a healthy coastal ecosystem may be exaggerated, or there may actually be a positive trend in improved habitat of the central bay that has only recently begun. This perceived trend in improvement also coincides with the graph of reported fish catch in Chapter 3.

Another contributing factor to the bay's coastal ecosystem is the effect of tourism development on the bay. The tourist resorts on small islands within the bay have been controversial because resort owners have often displaced fishing families. Tourism can also cause damage to reef conditions as a result of careless boat anchor and snorkeling practices. Despite the controversies, resort owners have been known to protect coral reefs because of their economic value and attraction for tourists. Increased tourism may also in part be contributing to improved health of the coastal ecosystem of the bay.¹⁶

Men's Maps: 2, 3, 4

Map 2, Lucbuan men, shows this men's group knowledge regarding fish species to extend widely and towards the northeast. Lucbuan men's fishing territories are concentrated in the near-shore areas, probably due to their tendency toward having smaller boats and fewer motorized boats than residents of Babuyan. Their distribution of fish species is also more extensive than that of the Babuyan men (Map 3). Babuyan men's fishing territories appear to be further off shore, potentially as a result of their capacity to travel further. Babuyan men also plotted fewer locations of fishes. In the free listing exercises, they tended to list fewer fish than the men from Lucbuan. Lucbuan men probably have a more detailed knowledge of the coastal ecosystem of the nearshore areas because of their long-term residence in the area.

Another interesting trend in comparing Lucbuan men with Babuyan men is that Babuyan men drew several coral reefs further off-shore as dead (brown), yet they still

¹⁵ The effectiveness of the Bantay Dagat along with environmentalist and fisherfolk perceptions of the Bantay Dagat are discussed further in Chapter 8. Initially, the Bantay Dagat was effective in the early 1990s at curtailing dynamite fishing.

drew several fish species there, indicating that some life exists in those areas. The Lucbuan men did not indicate as many dead reefs; in fact, they only showed one reef as dead and the rest as recovering or live. Several different interpretations of these trends may be applied in the case of differing perceptions of the health of coral reefs on the outskirts of the bay. First, as mentioned above, Babuyan men have a tendency to fish further off shore. Many of the Babuyan fishers are from the Visayas region whose people are known to migrate and to be expert fishers. Some of the Babuyan men are long-term residents of the area, but many settled in Honda Bay one or two decades after the original Cuyonon families settled Lucbuan. The Babuyan men may have recognized the reef condition because of their knowledge of coastal resources in general, or they may be more aware because of the fishing territories extends further from the coastlines. Lucbuan men may also stake claims to near shore areas, because of their long-term residence in the area, giving them a kind of informal seniority over the near-shore areas. Another possibility regarding Babuyan men's perceptions of dead coral reefs is that they are more aware of the use of cyanide, dynamite, and the use of compressors (pa-aling) in specific locations.

An additional divergence in resource utilization between Lucbuan men and Babuyan men is that Lucbuan men plotted several shell gathering areas, even though they were not instructed to do so. This may indicate a more diverse utilization of resources among the men of Lucbuan.

The participatory exercise may have been one way for community members to let each other know that they are aware of destructive practices of other fishers, whether they

¹⁶ Resort owners in the north have also been known to feed fish, "protecting" the reefs but altering natural ecosystems.

are from their own communities or neighboring barrios. In doing so, the mapping exercise itself increases awareness and exerts pressure onto fisherfolk to halt destructive fishing activities. Map 4 shows the composite of Lucbuan and Babuyan men.

Women's maps: 5,6,7

The same clear comparisons between Lucbuan women (Map 5) and Babuyan women cannot be accomplished as with the men due to low participation of Babuyan women.¹⁷ The women's group represented on Map 6 was primarily comprised of women from Sitio Teresa, a community south of Babuyan, closer to Lucbuan. Nonetheless, some inferences can be made regarding territories and similarities among Cuyonon speakers as well as some comparisons between the two groups. The two maps show similar trends in women's shellfish gathering areas in contrast with the marked differences between the men's groups. I attribute this similarity to be a result of the fact that the residents of Sitio Teresa are primarily Cuyonon speakers, like those of Lucbuan. Map 5 also shows a wider extent of resource utilization of Lucbuan women as compared with Map 6. Lucbuan women's shellfish gathering areas extend across Honda Bay to the southern portion of the bay and across to the island to the western side into Ulugan Bay. Both groups knowledge of the presence of mangroves extends across the island to the western coastine and to the south and north of the City of Puerto Princesa boundaries. Lucbuan women's knowledge of mangroves and upland activities is more extensive than the other women's group. Both women's groups showed a greater area of the presence of mangroves throughout the area of Puerto Princesa City than men. Due to the low participation of Babuyan women,

clear differences between Lucbuan and Babuyan women cannot be inferred from the maps. Yet, a pattern of similarity between both women's groups supports my argument that communities with residents who primarily came from the same language groups will utilize similar resource areas and practices. Those from different language groups and communities will often utilize different areas. The question of cultural hybridity along with blends of languages and cultural groups has been addressed elsewhere, and I am not suggesting that each community is homogenous. However, in collecting the information in interviews and free lists, I asked each participant what language they learned to speak first; I used this, along with the ethnographic interviews, as a basis for the comparisons. Map 7 shows the composite of the two women's groups.

Communities: Map 8 and Map 9

Maps 8 and 9 show the composites of each community. Map 8 represents Lucbuan's knowledge and Map 9 represents Babuyan's knowledge. Some overall trends indicating differences in community knowledge of local resources can be seen in comparisons of these maps. Map 9 shows Lucbuan's knowledge and use of resources to be closer to the shore and more land-based. The extent of Babuyan's knowledge is represented as further offshore and less land-based. I propose that three factors may account for this difference. One is the length of residence in the area. Lucbuan residents settled the area earlier than the majority of the current residents of Babuyan. Second is consideration of the cultural traditions of each community. Lucbuan residents, originating

¹⁷ Lack of transportation and less awareness of the CBCRM program are possible reasons for minimal participation of Babuyan women. At the time of my fieldwork, the community of Babuyan was a participant in the CBCRM project for less than a year.

primarily from Cuyo, have a stronger tradition in a mixed subsistence economy, therefore making it more likely that they would travel and have knowledge of land-based resources further from their place of residence. Babuyan residents who are more likely to be from the Visayas region, have a stronger tradition in fishing, including bigger boats and the ability to travel further from the coastline. The third and potentially very significant but overlooked factor that may contribute to these differences is land tenure. Lucbuan residents, with the assistance of ELAC, the Comprehensive Agrarian Reform Act, and some homesteading agreements, have gained title to their coastal lands, thus legally reinforcing their claims to nearshore territories.

Dynamite and Cyanide: Map 10

Map 10 shows areas where both communities have plotted dynamite and cyanide fishing. Due to the sensitive nature of the subject, people were not prompted to disclose information about illegal activities. They did so of their own accord, and it is unknown whether community members' perceptions of these activities are that they are still ongoing, or if they plotted them regardless of whether the practice occurred in the past or present. Some trends indicating strong correlations between dynamite and cyanide fishing and reef condition can be noted in several of the brown colored reefs indicating dead coral. Many of these reefs are marked with cyanide fishing. View analysis of the maps (not shown) also showed the use of compressors in these areas. Another interesting point noted by view analysis (not shown) is that fish species caught in these areas are lapu-lapu, the most popular fish used in the live fish trade and commonly caught with cyanide. These representations of illegal and destructive activities indicate the strong possibility

that dynamite and cyanide fishing is still practiced on the fringes of Honda Bay. The field research including interviews with long-term residents and environmental professionals in Puerto Princesa has revealed a relatively successful history of the Bantay Dagat's ability to curtail blast fishing in Honda Bay in the early 1990s, but small-scale fisherfolk interviewed often described them as ineffective and corrupt. One possible reason for the difficulties in apprehending cyanide fishers is that the use of cyanide is more difficult to detect from the surface. Based on the information provided in these participatory maps along with ethnographic interviews, it was highly likely that cyanide fishing was most likely still practiced on the fringes of Honda Bay at the time of the field research.

Discussion of Gender Comparisons in Local Knowledge

The data collected from the men and women of Lucbuan and Babuyan/Teresa is not comparable with regard to all variables because men and women for the most part were asked to map different resources. This was based on the knowledge of a gendered division of labor with men taking part primarily in fish catch while women, although involved in marketing and preparation of fish, are more active in collecting shellfish and other resources than fishing activities. Furthermore, many of the resources that women collect, such as various types of shellfish, including crabs (alimang and alimasag), are known to occur in mangrove areas. Despite this known division of labor and assumed differences in knowledge levels, I asked both men and women to plot some of the same resources and resource use activities because I felt that the knowledge of both men and women would be relevant for these particular cases. These resources include: mangroves, live coral, dead coral, recovering coral, and other resources including sea cucumbers,

manta ray, dolphin, sea cow (dugong), and sea turtles.¹⁸ Both women and men were also asked to map kaingin (shifting/slash and burn agriculture) and logging activities.

In comparing men's maps (Maps 5,6, and 7) with the women's maps (Maps 2, 3, and 4) it is apparent that women's knowledge of the presence of mangroves is far more extensive than men's. While this is no surprise to fisheries managers in the tropics who have long known that mangroves are places where women commonly utilize resources, it is interesting to note that in comparison with men, women seem to possess a far more wide-ranging knowledge of the island's mangroves reaching beyond the areas around Honda Bay. Women's reported knowledge of mangroves extended to the western side of the island, further inland along rivers, and further north and south than that of the men, who reported mangroves more or less within the area in the vicinity of Honda Bay.

Coral reef health was another variable that differed substantially between men and women. Women reported better health of the coral reefs in the southern and middle part of the bay than did men. Overall, women did not report any dead coral, whereas both Lucbuan and Babuyan men reported a high incidence of dead coral on the outskirts of the bay and the northern portion of the bay. Women also reported live coral cover along Honda Bay further south, near Santa Cruz and Santa Lourdes. Coral reef flats can be exposed during low tides, so one possible reason for the high incidence of perceived coral reef health is that women's shell gathering areas are in these places and their knowledge of "below-the-surface" coral is still limited. Men, on the other hand, do not report utilization of the same healthy reef areas in the south reported by women so they may

¹⁸ For the purposes of this exercise, the term "resources" is more easily translated than species of concern although some of the organisms mentioned are species of concern within a conservation framework. For this reason, for the purposes of this exercise this grouping of "other resources" is directly comparable between men and women.

either be unaware of their recovery over time, or simply do not fish in these areas. With regard to the amount of dead and recovering coral reported by men on the fringes of Honda Bay, this knowledge of resources further away from land can most likely be attributed simply to men's fishing activities in these areas requiring them to be more aware of the conditions of bay's coral reef ecosystem than women. In contrast to the differences between women and men, both women and men were in agreement about perceived incidences of recovering coral near Lucbuan and Babuyan. They also reported a high incidence of recovering coral in the bay just opposite of Lucbuan and Babuyan.

Both men and women reported other resources, including sea cucumbers, manta rays, dolphin, dugong (sea cows), and sea turtles as occurring in the bay, but men reported more manta rays and dolphins than sea cucumbers, dugong or sea turtles. Women reported more sightings of dugong and sea turtles, both of which can be found closer to land.

The maps also reflect the fact that women possess more knowledge of land-based activities, such as logging and shifting agriculture further inland towards, but not along the western coastline, of Palawan. In particular women reported a higher incidence of logging activities and both men and women reported shifting agricultural practices slightly inland of the coastline of the northernmost portion of Honda Bay.

Implications of Participatory Mapping for CBCRM

Participatory mapping has become a common tool for many community-based coastal resource management programs in the Philippines. Initially, its purpose was to engage the community in an exercise that fostered participation and group cooperation in

resource management. Furthermore, while community members are aware of certain illegal fishing practices, it is difficult to criticize one's neighbor or family member for engaging in activities, that, albeit illegal, would provide much needed food for their families. With the implementation of participatory resource mapping exercises, community members are given the chance to express their knowledge of illegal activities. Even if, overtly, the blame is placed on outsiders, any community members who may still practice unsound and illegal fishing methods are likely to suspend such activities as awareness grows, especially to avoid embarrassment from peer pressure about their practices.

Unfortunately, however, despite the social awareness and effects of mapping exercises inducing peer pressure, many of the maps produced do not get utilized to their full potential. Some may be used in the production of a resource management plan, but there may not be follow up regarding the actual needs that a community might *learn* from the use of such maps. For instance, I have shown in this analysis that women's knowledge of mangroves and land-based resources and activities extends farther into the landscape than does men's. Perhaps women could become more involved in management of watershed activities and networking with other communities for a more widespread resources management plan to prevent erosion.

Coordination of community members with marine biologists, law enforcement officials and volunteers would be an appropriate way to interpret participatory mapping results. Taken on their own, the maps are not enough to warrant complete resource management plans; however, combined with scientific knowledge, environmental NGOs, and local governance the maps can serve as a useful tool in resource management. The

differences noted between communities, as well as between men and women, may be indicative of incomplete local knowledge of the bay's ecosystem that would benefit from comparison with scientific marine resource assessments. On the other hand, scientific resource assessment planning would benefit from consulting with local communities about areas that would be important to monitor, such as those dead coral and recovering coral reefs in the northern part of the bay.

The modified technique of including dead coral, recovering coral, and live coral is especially revealing and could be easily implemented with participatory coastal resource assessments. The inclusion of the upland activities in the mapping exercise did not reveal a strong correlation between upland and coastal linkages, but it did reveal that fishers have knowledge of these upland areas. This method may be further modified to develop a more complete picture of the integrated ecosystem. The results of this participatory coastal resource mapping exercise also points toward the need for increased law enforcement on the fringes of the bay.

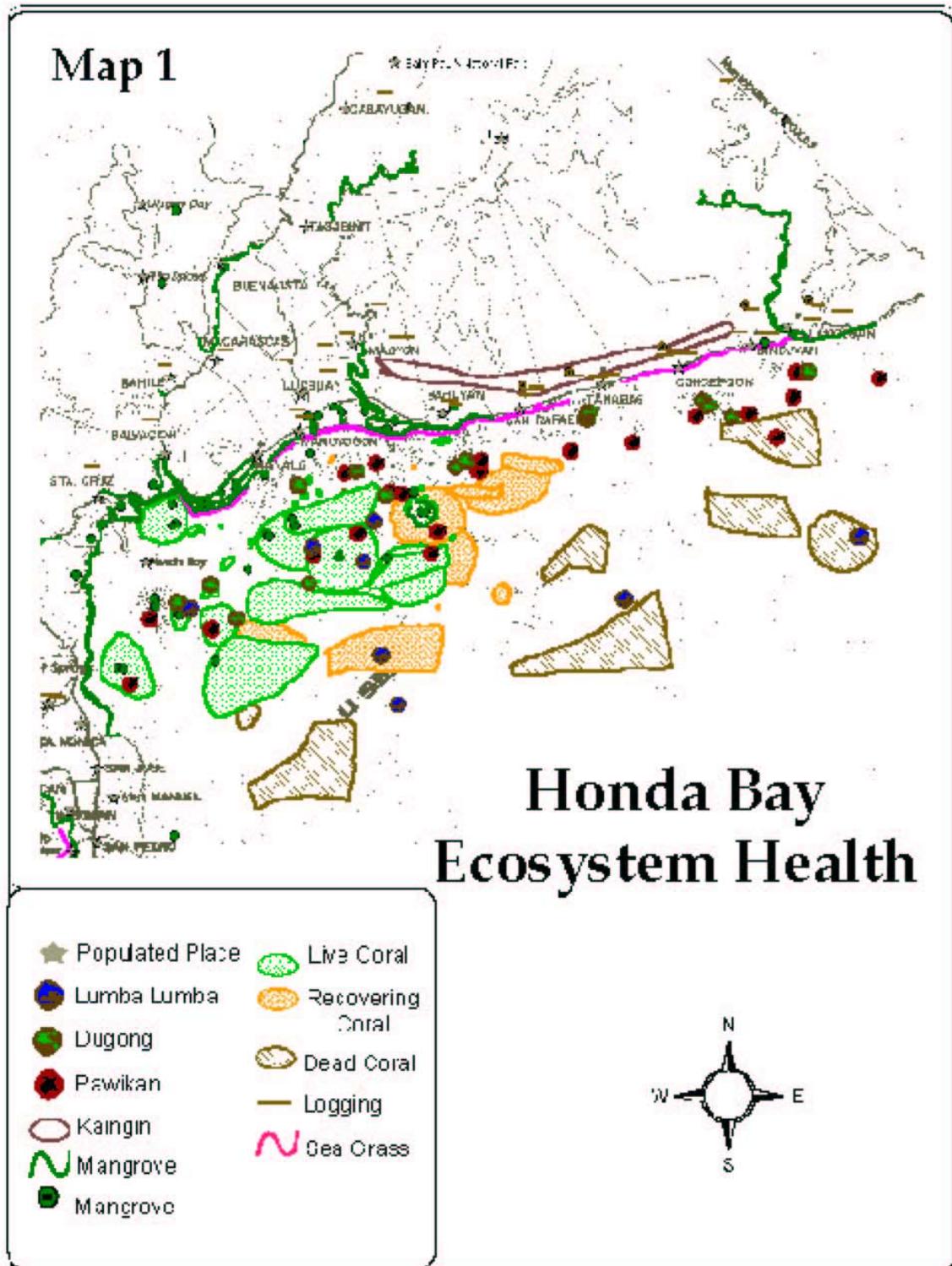
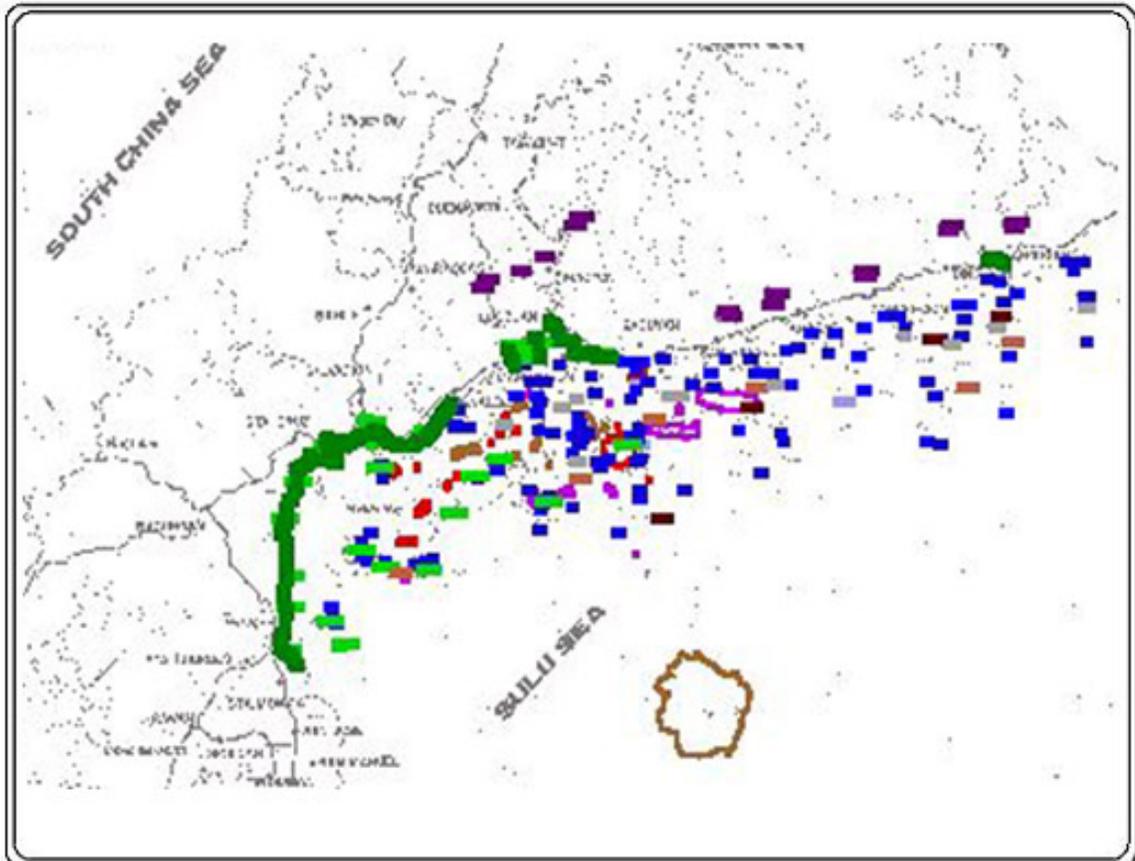


Figure 5.6. Participatory Map 1

Map 2 Lucbuan Men Composite



Map not to scale.



Sources:
Austin Study Maps;
Base Map Scanned from Paper
Print of Puerto Princesa City GIS Coverage
Dated 1996.

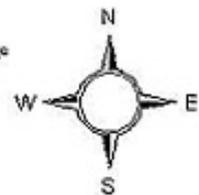


Figure 5.7. Participatory Map 2

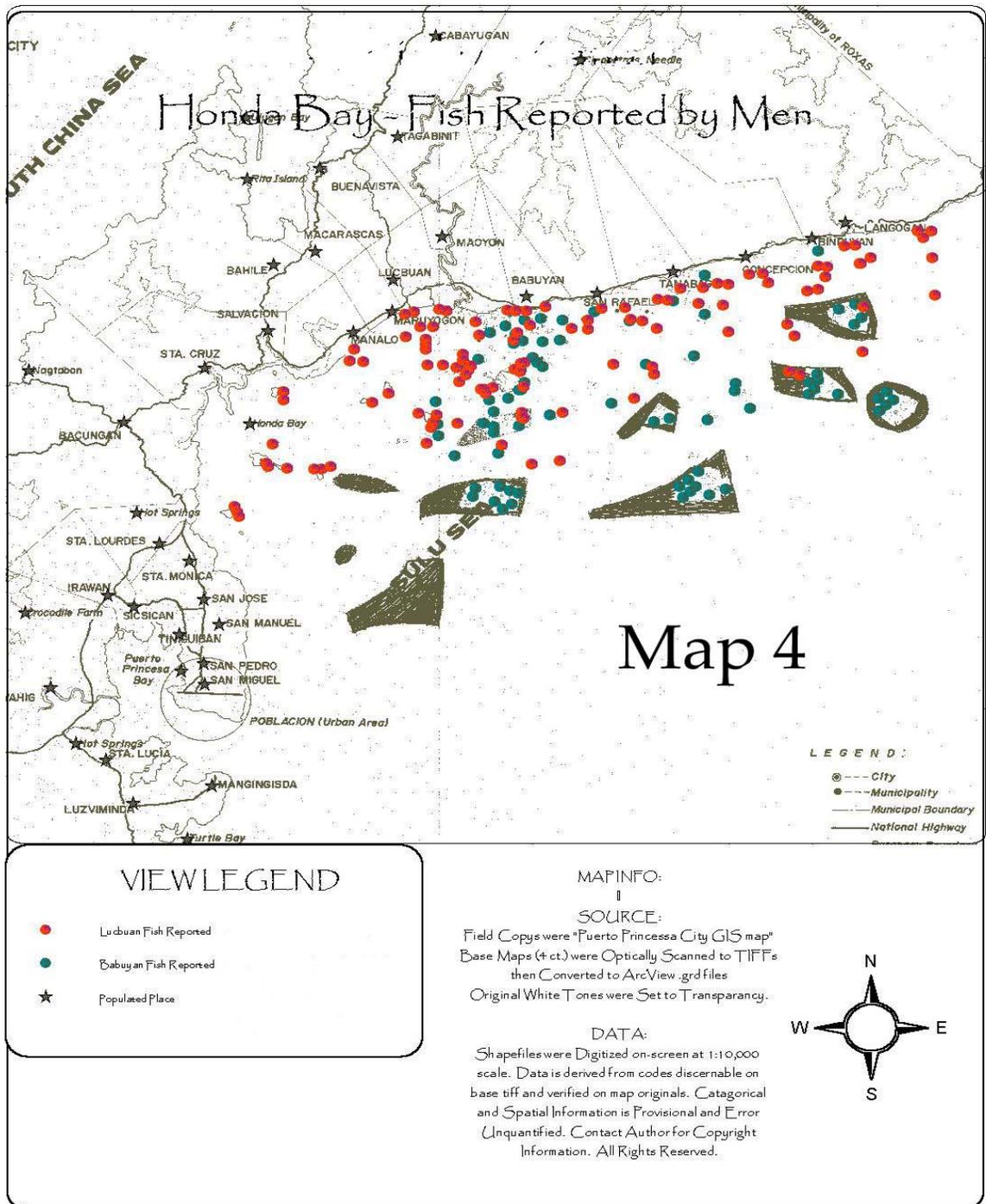
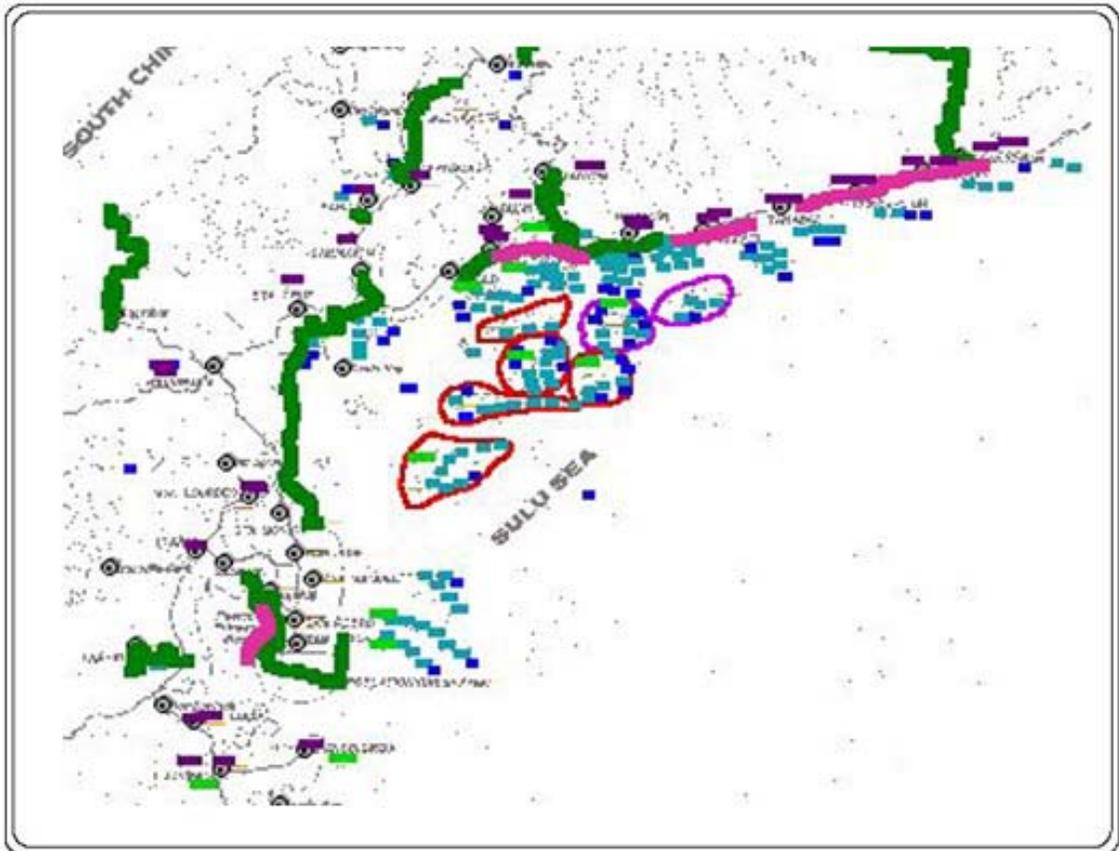


Figure 5.9. Participatory Map 4

Map 5 Lucbuan Women



Map not to scale.



Sources:
Austin Study Maps;
Base Map Scanned from Paper
Print of Puerto Princesa City GIS Coverage
Dated 1998.

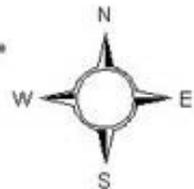
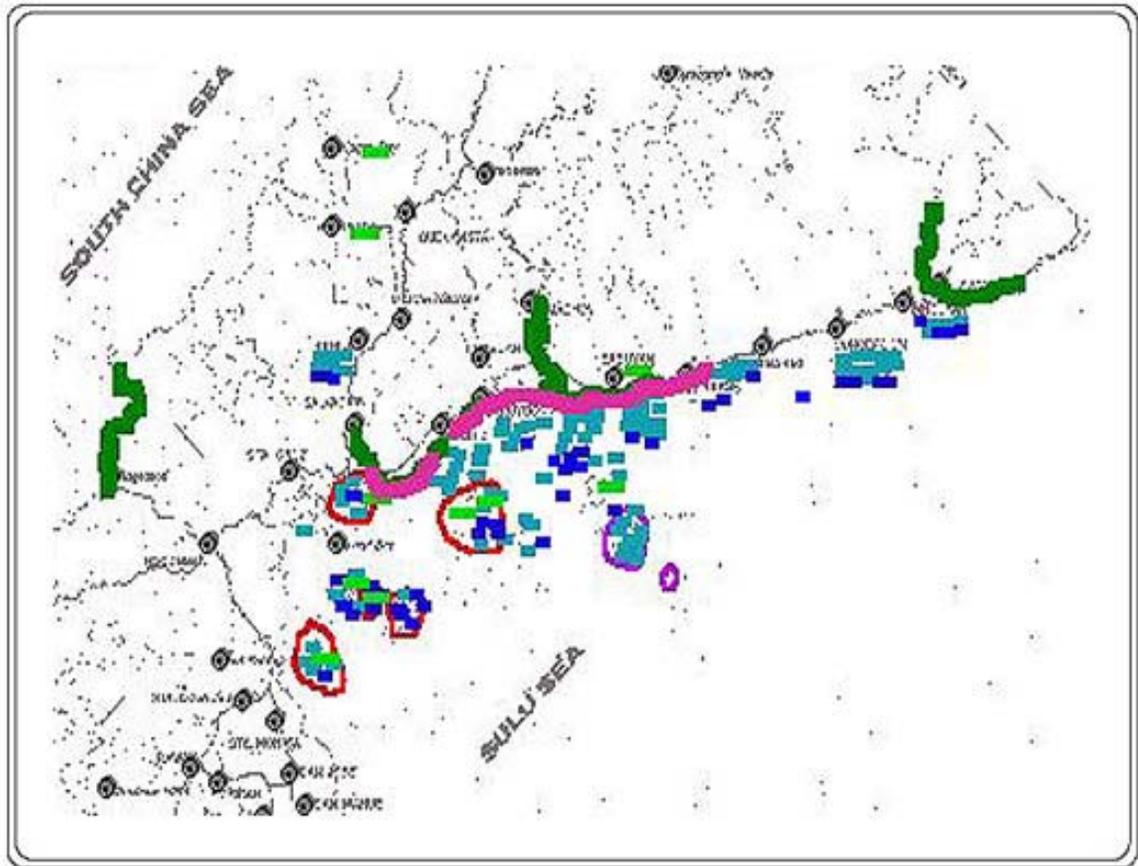
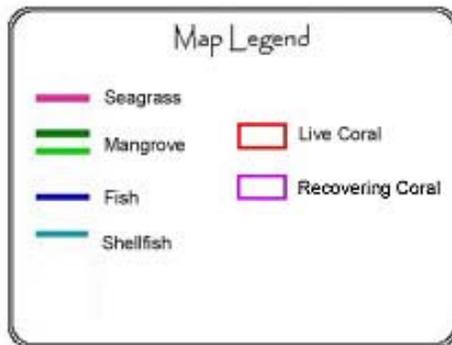


Figure 5.10. Participatory Map 5

Map 6 Babuyan/Teresa Women



Map not to scale.



Sources:
Austin Study Maps;
Base Map Scanned from Paper
Print of Puerto Princesa City GIS Coverage
Dated 1998.

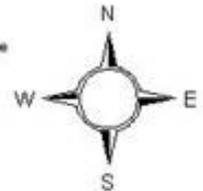


Figure 5.11. Participatory Map 6

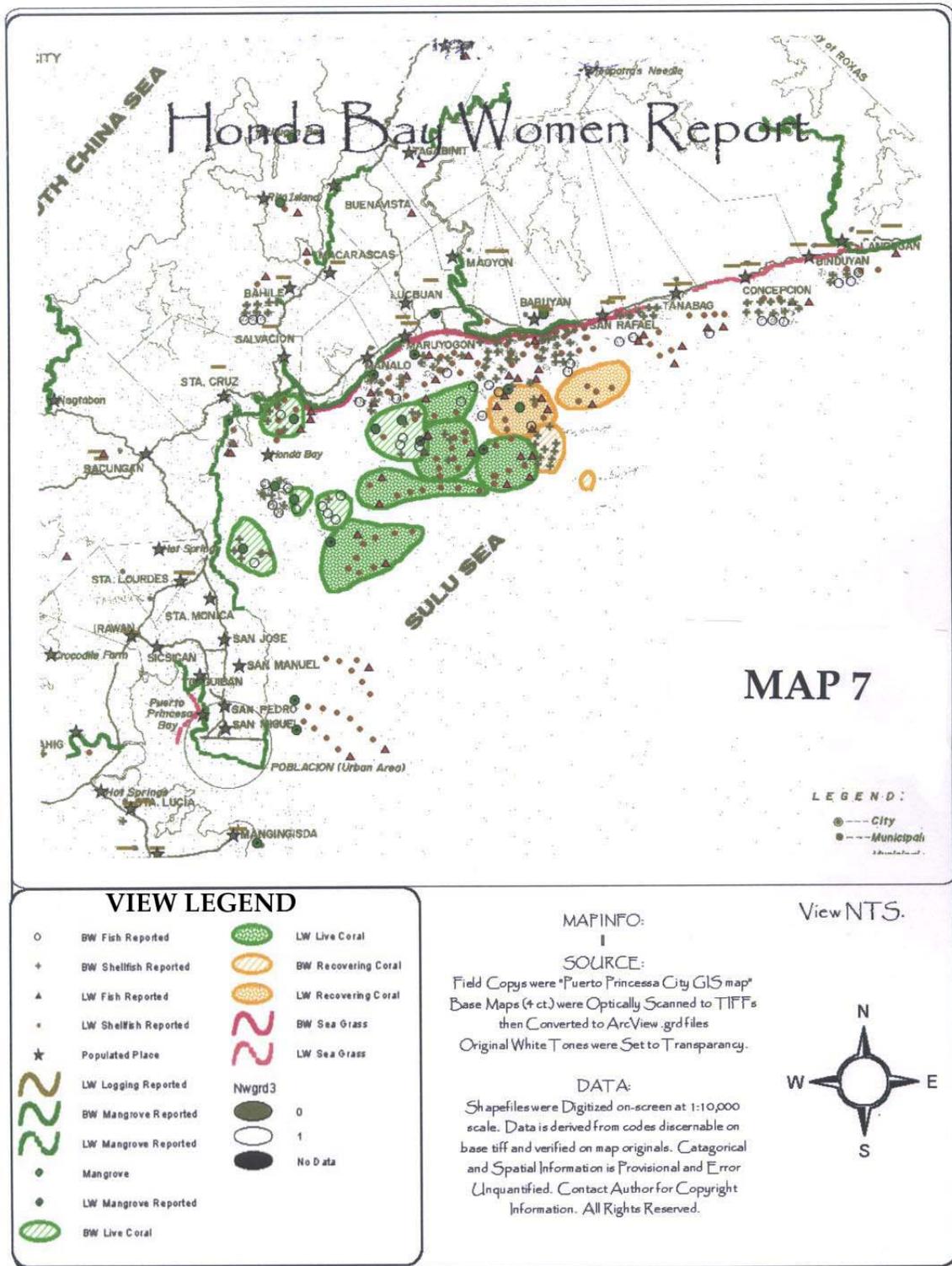


Figure 5.12. Participatory Map 7

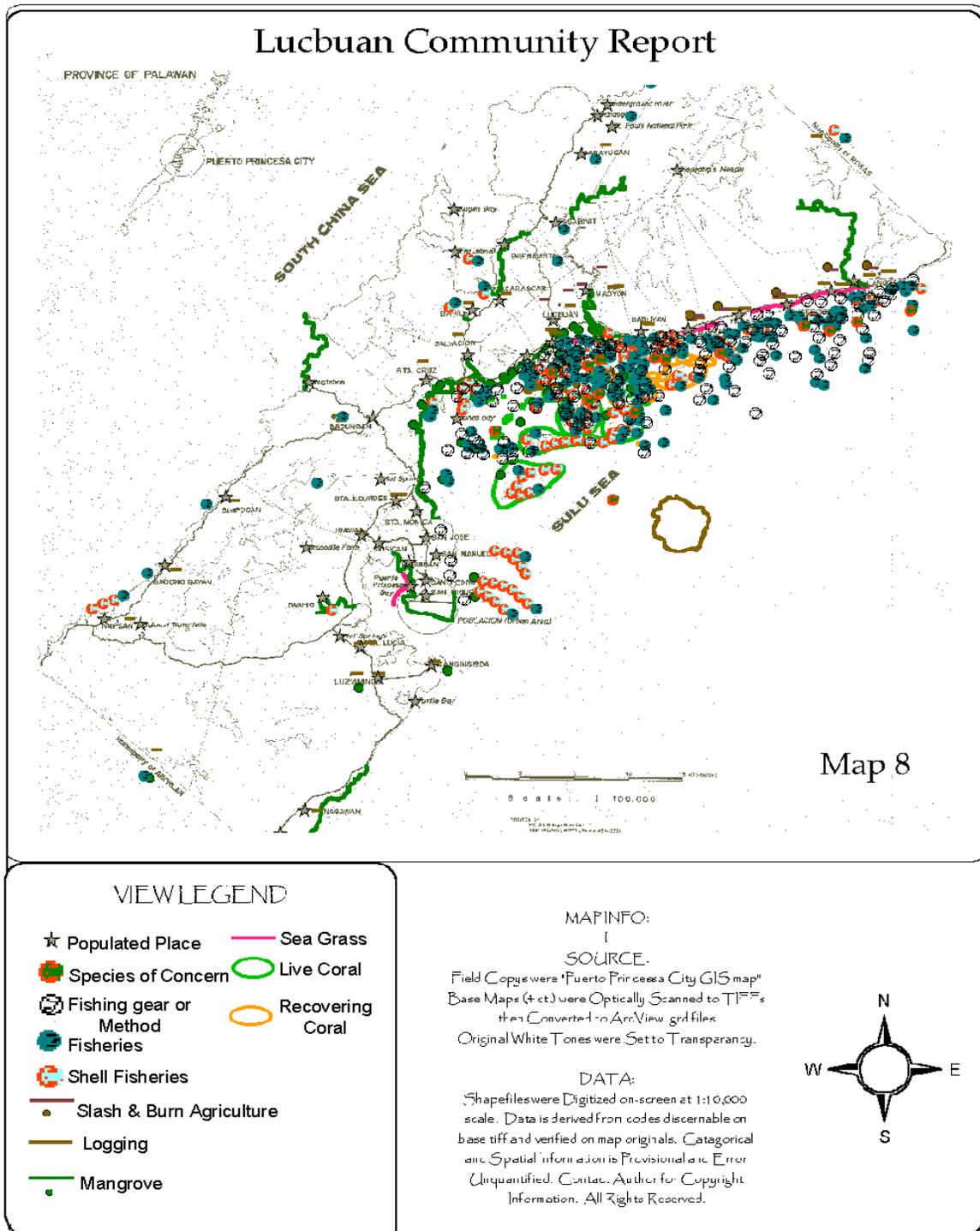


Figure 5.13. Participatory Map 8

Babuyan Community Report

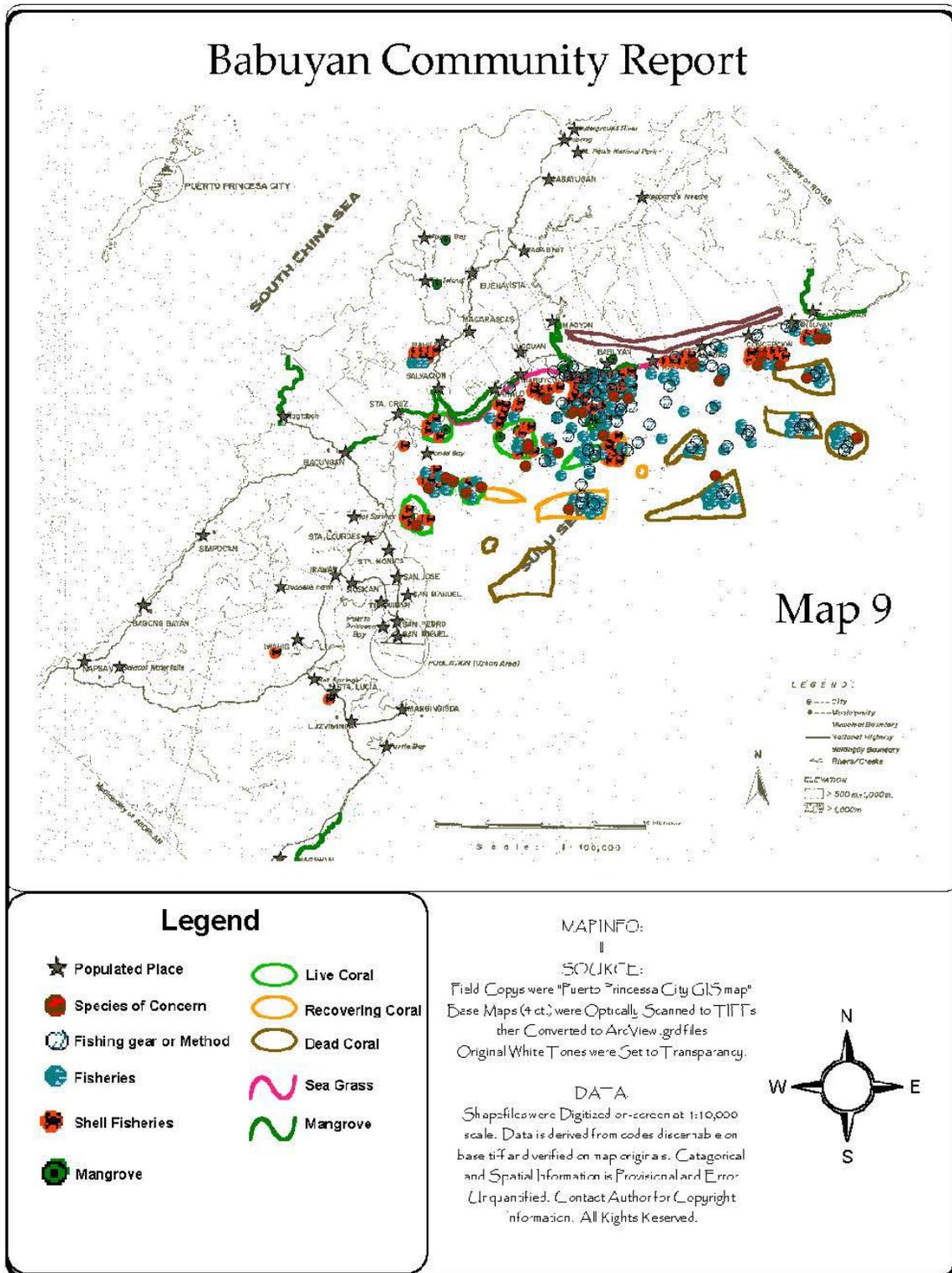


Figure 5.14. Participatory Map 9

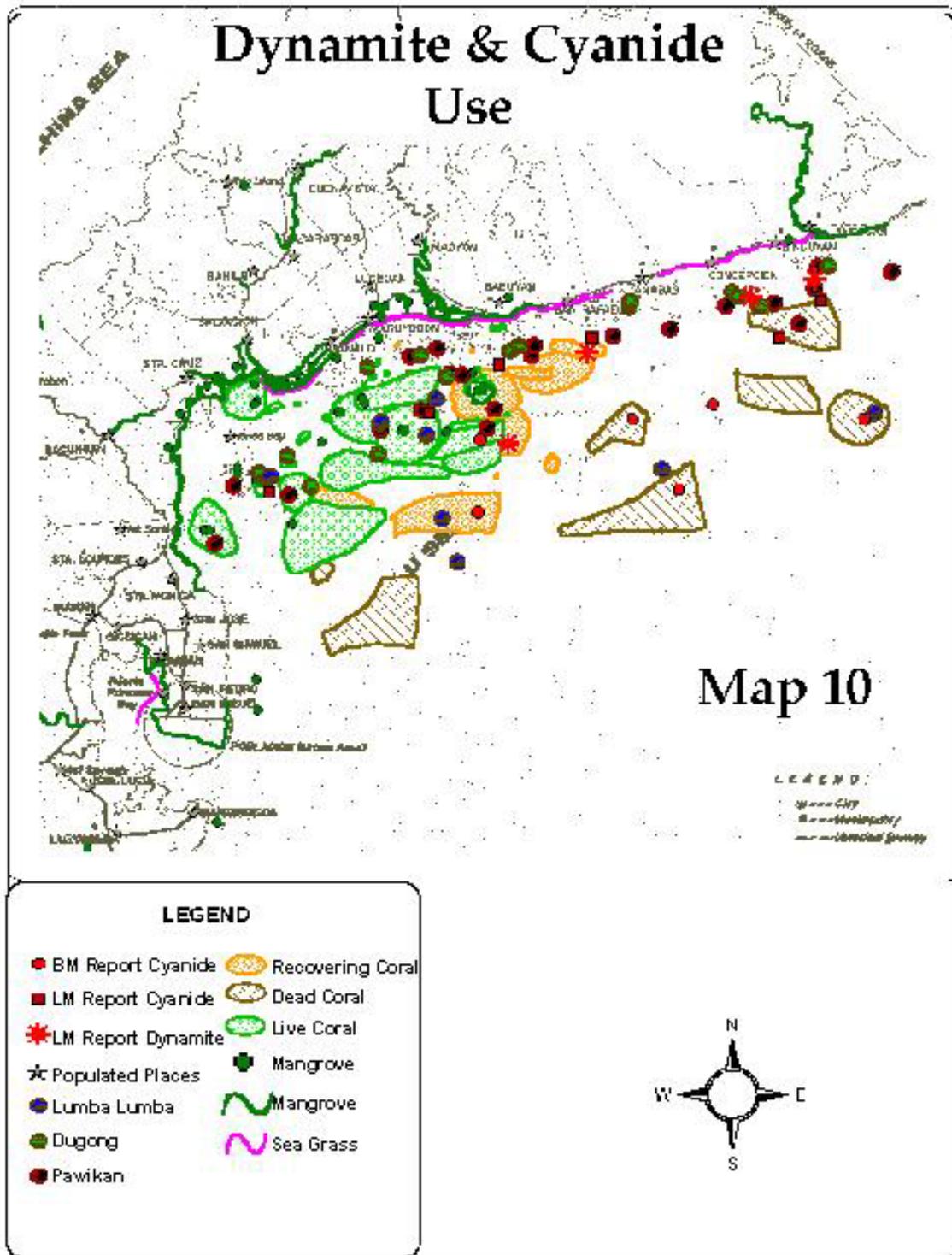


Figure 5.15. Participatory Map 10

CHAPTER 6

FILIPINO CULTURAL VALUES REVISITED

In this chapter on cultural values I provide analysis relevant to environmental movements in the coastal zone. I suggest that an understanding of the social and cultural contexts for environmentalism is of major importance in research on environmental movements and coastal resource management on Palawan. Such analyses represent broader implications regarding the recent efforts by scholars to engage in cultural critique of environmentalism. Much has been written about the concepts of Filipino cultural values in Philippine sociology, anthropology, and community development literature (Espiritu 1964, Hunt 1964, Lynch 1964, Enriquez 1994, Hollensteiner 1967). I believe that revisiting and utilizing the concept of Filipino cultural values as analytical tool in Filipino society will prove useful in my analysis of environmental movements in the coastal zone.¹ Environmental movements do not exist in a vacuum, regardless of an emerging global environmentalism. Therefore a brief overview of some of the most common key concepts regarding Filipino cultural values, and how they relate to fisherfolk and community-based coastal resources management, is provided here.

¹ Many Filipino professionals still recognize most of the cultural values described in this chapter, but at first would be unlikely to ascribe their relevance to resource management activities. The importance of personal relationships and other values regarding law enforcement was sometimes discussed by interviewees in the course of interviews.

Cultural values in Filipino society underlie potential reasons for the apparent success of CBCRM, yet they may hinder certain aspects of law enforcement, or individual participation. In other words, cultural values are manifested in behavior in CBCRM projects and may be detrimental or beneficial to project successes. The values and behaviors described here are the most prevalent, but many others are at work within the CBCRM movement. Furthermore, Filipino cultural values most often place priority on the group over the individual. The concepts of social justice and fairness are underpinnings to many of the key concepts discussed here (Enriquez 1994). Overall, cultural values can play an important role in community participation because they underlie the way that communities interact with their environmentalist counterparts and regional or meso-level institutions.

I recognize Filipino society includes overlapping cultural values inherited from Spanish and American colonialism, the Catholic Church, other Asian nations, and different regions within the Philippines. Clearly, this is not a homogeneous group. The concept of cultural hybridity comes into play throughout this dissertation, but is not the subject of this chapter. Conflicting value systems may be inherent obstacles to implementing various resource management plans and the potential successes environmental movements. While I recognize the lack of a homogenous culture in Filipino society and on Palawan, it is not my intent to include all of possible variations of Filipino culture in this analysis. The focus here is on what may be referred to as mainstream Filipino values how they are manifested in environmental movements and CBCRM on Palawan, and on potentially formulating an emerging set of environmental values in the Philippines.

That said, however, one of the more difficult tasks for an outsider negotiating their way through the NGO and fisherfolk terrain is to discern which cultural values might be at work and to understand in what situations they would be most likely to arise. Many NGO environmentalists and government employees have been educated in Western thinking and writing. These environmental professionals still have palimpsests of Filipino cultural values as well as a tendency to possess more Western values, especially pertaining to legal matters. Fisherfolk are more likely to maintain values associated with many of the core Filipino values studied and identified in the 1950s and 1960s. Both groups would benefit from acknowledging how their respective values affect environmental advocacy, education, and resource management.

During the 1950s and 1960s many American and Filipino scholars studied the concepts of Filipino cultural values. In 1964 Socorro C. Espiritu, a Filipina sociologist, and Chester Hunt, an American sociologist, co-edited a popular volume called the *Social Foundations of Community Development* that compiled articles from numerous sources published in the 1950s and 1960s. One of the major actors contributing to the paradigm of studying an overall Philippine society was Frank Lynch (see Lynch 1962). Mary Hollensteiner also wrote extensively on various aspects of Philippine society (see Espiritu and Hunt 1964). Besides Espiritu, some of the other well-known Filipino authors were Jocano (1967), Pacana (1958).

The Espiritu and Hunt volume was aimed at identifying rural and so-called traditional Filipino cultural values and other aspects of Philippine society in order to understand the "strengths and weaknesses" of Filipino society as they might be applied to modernization and community development of the 1960s. Espiritu, who by that time had

published several books on sociology of the Philippines, was also linked to the early peasant group called the Philippine Rural Reconstruction Movement (PRRM).

After anthropology rejected studies referred to as "national character" because they were thought to be too stereotypical, scholars and activists downplayed any focus on Philippine cultural values. However, throughout my fieldwork, I found that some of the underlying concepts regarding the 1950s and 1960s studies of Filipino cultural values – concepts such as fictive kin, group emphasis, indebtedness, fairness, and so forth were often still overtly prevalent in Filipino fishing communities and among environmentalists. Moreover, the emphasis on social justice (*katarungan*) as a major thrust of the Philippine environmental movement is likely directly related to group emphasis, and specifically encoded in many of the terms and cultural values explained here.

Fictive Kin

Fictive kin is a term used in introductory anthropology textbooks to describe relations among people who are not biologically related. The concept is often internalized by anthropologists and used as a kind of innate tool to decipher relationships and cultural behavior. Little mention of fictive kin relationships is found in contemporary anthropological literature, mostly likely because the concept or phrase might be taken for granted among anthropologists, or abandoned in favor of network analysis.² I propose that fictive kin relationships play a major role in the attempts to implement CBCRM in the Philippines. Relationships within fishing communities, between different fishing

communities, between environmentalists and fisherfolk, and among environmental professionals all come into play in the CBCRM movement on Palawan, not only regarding such pressing issues as law enforcement, but also in more subtle ways that involve various kinds of expectations and contacts that aid in project implementation and distribution of resources.

Classic anthropological studies on Latin America have referred to “compadrazgo” (see Mintz and Wolf 1967 for an overview), or the concept of co-parenthood and godparent relations. In the Philippines, this relationship, called *kumare* or *kumare*, also exists. The parents/family of the child being baptized are considered to be joined as family with the godparents. A relationship that is equally as important and is defined by the same kin terms is that of sponsors to a Filipino wedding. Hollensteiner describes this relationship:

Originally introduced into the Philippines as part of the Roman Catholic heritage, the compadre system was intended by Church authorities to ensure the child's education in the faith...Compadrazgo has also been extended to marriage. The bride and groom refer to the witnesses as *ninong* and *ninang* and become the latter's ' *inaanak sak kasal.*' [1967:201]

She further explains that "Compadrazgo provides a particularly effective means of incorporating persons outside the nuclear family into one's alliance system"(1967: 212).

A sponsor of a Filipino wedding carries some financial responsibility for the cost of the wedding as well as responsibility and obligation towards the newly married couple and other wedding sponsors. There can be several wedding sponsors and as a result of sponsorship, various parties become instantly related to each other. Newly married

² An exception is the work of Russell and Alexander (2000) who discuss extensively the role of informal networks in a Philippine fishery.

couples refer to the female sponsors as *ninang* and male sponsors as *ninong*. This concept seems fairly straightforward and benign if one considers only small weddings with a few sponsors of equal status in society. However, middle class couples with little financial means will often ask powerful individuals like politicians to sponsor their wedding. In this way, the web of relations becomes more complex.

One way in which these kinds of relationships are manifested in coastal resources management, for example, is in law enforcement. Law enforcement officials are often accused of favoritism in treatment of illegal fishing cases. The *Bantay Dagat* is a baywatch organization that is operated by the City Government, but is a "special" program combining volunteer and paid employees. The following is an excerpt from an interview with a PO leader explaining what happens if *Bantay Dagat* (baywatch) members "know" those engaged in illegal fishing activities:

PO leader: The only positive thing that I see from them is if they do not know the person, they really arrest him. But if they know him, well, maybe they just wink at each other ["sa kindat-kindat lang"]. Look at the arrest of one of the residents here. They were tied to the *kwan*. Just to show, they pretended to go after the other one. The one that was tied, there was actually a contract, "leave now, run away " ["Meron pala silang kontrata, umalis ka na, sumibat ka na"]

INT: So they just made a show.

PO leader: Yes, they just made a show. They apprehended him, and they pretended to be looking for the other, but that was their [agreement]. If the person does not belong to their party, not of their feather, so to speak, they really make it hard for him ["Basta hindi nila kapartido, hindi nila kabalahibo, sabi nila, talagang iipiti-ipitin"]. But if they know the person, then, "I will just go there tomorrow" [mimicking dialogue]. They drink they whole day...(Interview 1998).

Other interviews suggested that the relationship of Bantay Dagat to many of the baby trawlers was one of fictive kin, potentially kumare relations between Bantay Dagat and

baby trawler operators, and between the Mayor of Puerto Princesa City, who sponsored the Bantay Dagat, and baby trawler operators. These relationships can grow into an entangled web that encompasses many different individuals within the region. With *kumare* relationships, the assumption is that a *ninang* or *ninong* will be there to help, and do no harm to those whom they sponsor. This makes it increasingly difficult for law enforcement to be effective if an obligatory relationship exists. The potential for indebtedness of the sponsored couple to the *ninang* and *ninong* then becomes like that of a son or daughter to his or her mother, one of loyalty.

Indebtedness and Reciprocity

Loyalty is a common thread in many aspects of Filipino society and extends to the reciprocal relationship of fish buyers and fisherfolk (both can be referred to as *suki* in this relationship). Throughout my fieldwork, including participation in various conferences on fisheries, I heard that fish buyers are commonly thought of as abusive and taking advantage of fishers throughout Asia in addition to the Philippines, if not throughout the world. This is also described in earlier anthropological accounts that studied patron-client relationships (Foster 1967). While it may be true that buyers have the ability to take advantage of fisherfolk and that this type of behavior does occur, in order to understand the role of the fish buyer in *barangay* life, one must take into account that there are many different levels of fish buyers. This research is concerned with small-scale buyers and marginalized fisherfolk.

As a result of a number of informal and formal interviews and observation throughout the course of my field research as well as prior visits to the Philippines, I had

been told that buyers take advantage of fishers by not offering a fair price, thereby making the majority of the profit while fishers themselves barely get a share (see also Russell and Alexander 2000). I explored this notion of one-way indebtedness of fishers to buyers throughout the duration of fieldwork and observation of a few specific relationships.³ In contrast with the common assumption that wealthy buyers constantly abuse fishers, I found that buyers at the lower economic levels are actually becoming poorer and poorer along with marginalized fishers who are producing less catch. Meager catches provided by fishers to buyers produce less overall income for buyers who were caught in the web of lessened productivity and economic disadvantage due to declining fish catch. Low fish productivity resulting in loss of economic opportunity for buyers would be considered the most likely rational economic scenario. Less rational to outsiders would be an understanding of the relationship of the fisherfolk to their buyer, and how this can result in disproportionate losses for buyers.

At a fisherman's association meeting comprised of both fishermen and their wives, many of whom were in the fish buying and selling business, I observed that many of the women there were buyers. During an informal interview with one of them in Puerto Princesa City I asked one of the wives why she felt the need to participate in fishermen's association meetings (POs). She responded that she wanted to take some of the burden off of her and other buyers who found themselves supporting poor fishers getting poorer. She explained that as the fishers became more and more impoverished as

³ The focus of the research did not originally include a component on the suki/fisher relationship; therefore data regarding this relationship and its relationship to environmentalism and social justice is incidental, but nonetheless relevant and likely represents similar patterns worthy of further study throughout fishing communities in the Philippines.

a result of declining catch, their buyers took on responsibilities of providing extra money to the fishers for living expenses such as children's school clothes or medical costs.

I observed and interviewed another buyer a number of times. She was a former resident of Lucbuan and had moved to Puerto Princesa when the fishing became unproductive, still serving as buyers to a few Lucbuan residents with a stall in the market where she sold dried fish. She recalled how she felt about her role in the community when she lived at Sitio Katumbal in Lucbuan:

I remember how we had been so good to these people here. When somebody [was] sick, I [took] responsibility for everything. From the medicine till they get well. That's money from my own pocket...

I discussed the phenomenon of buyers taking on responsibility for fisherfolk with a Filipino colleague who once explained to me that the buyer has a moral obligation to her fishermen (Susana Siar personal communication 1998). So while the cycle of indebtedness occurs between fishers and buyers, it is not always the typical patron-client relationship given in earlier anthropological accounts of farmers and peasant labor. In other cases, the fisher may be expected to provide favors ("utang na loob,") [indebtedness] but if they do not follow through the buyer may become disappointed. One buyer described her expectation that community fisherfolk would vote for her husband as barangay captain in expression of gratitude for her having helped them: "They didn't think of such favors which I did for them. They do not have the utang na loob."

One of the prevailing themes throughout Filipino society is that of reciprocal relations. *Utang na loob* is a common Tagalog phrase used to describe lifetime indebtedness and can occur among any individuals or families who have at one time

performed favors for each other. Pacana described utang na loob aptly: "for every free service, *whether requested or not*, the recipient contracts a debt of honor towards his benefactor. He has utang na loob, or 'internal debt' towards his helper" (1964: 333). The popular descriptions of utang na loob are most likely oversimplified (Enriquez 1994); nevertheless, this concept has direct bearing on implementation of CBCRM. Utang is implicit within relationships; one wouldn't be inclined to say to another, "you owe me utang," unless in a joking way among foreigners. Many would, however, say to others that "he owes me," meaning that they intend to collect favors as reciprocal actions for the favors they once bestowed on someone. The cycle of utang runs deep into Filipino society and probably colors most aspects facet of Filipino life, especially in rural areas.

The following example illustrates the cycle of reciprocity and utang na loob in a political context. A few months prior to re-election time in 1998, a politician visited a *sitio* in northern Honda Bay and met with members of a PO. The politician asked what the most important problem was in the community and residents stated, as they had in interviews with me, that the lack of fresh water supply was the most pressing problem. The PO leader asked for a pump to be installed; implicit (or potentially explicit), was the assumption that the politician could count on the votes from this people's organization. Many would argue that this is just typical corruption in Filipino politics, or some would even call it "vote buying." Deeper patterns and values of utang na loob are at work here, patterns that may at times be considered corruption, or even bribery, but may in fact be manifestations of cultural patterns.

In considering the relationships of fictive kin as described earlier, utang na loob plays a primary role in kumare relationships by the mere sponsoring of the wedding

itself. Another example of utang na loob is that of indebtedness of fishers to buyers, or their suki. As previously discussed, this type of arrangement is constantly present and fishers may be indebted to buyers because buyers often help with financial resources, even outside of fish buying. The cycle of utang can be so embedded that relationships are entirely based on utang. Even if those involved in CBCRM do not speak of utang, a community organizer, for example, often knows instinctively whom to rely on, or whom to go see for help in arranging meetings, or organizing volunteer bay watch activities. Very rarely will someone say no to a favor when asked. Often, it is because of an utang relationship, but also at work is a deep loyalty to family, extended family, and community.

Group Emphasis

Family is seen as cornerstone to the foundation of Filipino life. Barton states: "The ties that bind each to his own family are much stronger than the ties that bind them together" (1919:25). He also noted the tendency that among the Ifugao (an ethnic group in the northern Philippines): "Kinship is so strong a mitigating circumstance as often to excuse crime altogether..."(1919:67). Another explanation of kinship is provided by Hollensteiner: "The ingroup of which the nuclear family is the core, is characterized by familiarity and ease in on another's presence..." (1964:345). Within this ingroup some relatives may be closer than others depending on compatibility. Hollensteiner further explains that:

Some friendly non-relatives may mean more to a man than the long-lost kinsman. Contrary to a popular notion, Filipinos do not indiscriminately support relatives above all others; the near-far, ingroup-outgroup dichotomies introduce limiting factors. [1964 :346]

The obligation of nuclear family siblings to each other is explained by Hollensteiner to be laden with emotional attachment that goes “far deeper than non-familial utang na loob” (1964:344). This emphasis on familial obligation could perhaps explain the apparent early success of the Honda Bay CBCRM program in Sitio Katumbal, Lucbuan. In this site, the community organizer, Rita Favila, is a native of Sitio Katumbal married to another native, Job Favila, who is one of several brothers still living in the area. The Favila family holds legal title to the area gained through the Homesteading Act. In many CBCRM programs, outsiders are brought in to organize the communities, and have no family ties. ELAC staff often use Sitio Katumbal as a model community because of the ease of organizing there and because community residents are extremely welcoming to outsiders. The use of a community organizer with strong family ties to the area may be advantageous for certain aspects of the CBCRM project. Visitors from Indonesia, OXFAM, Manila, and Bandillo ng Palawan were only a few of whom I observed at Sitio Katumbal. All of the Filipino visitors had worked in other communities around the Philippines and commented on the apparent ease of organizing meetings and high participation there.

Since family plays such a key role in Filipino lowland culture, and some family members may have spread out to other nearby barangays, the networking around Honda Bay is often centered around family ties. Even if a PO leader has a brother or sister not directly involved in fishing, the leader may request introductions to fishers living in his or her siblings’ neighborhoods so that networks can be built. Coalition building among communities can domino into a loose network of kin who bring along their extended

families to participatory rural appraisals (PRAs), community consultations, and paralegal trainings.



Figure 6.1 Group Emphasis and Networks
(Top: Peoples' Organization meeting.
Bottom: ELAC staff and fisherfolk PO leader sign an
agreement to work together.)

The most obvious disadvantage of building CBCRM through family networks is that of potential favoritism within communities among community organizers (CO) and their families. Within the ELAC CBCRM program, this has not been stated as an overt problem; however, physical proximity and personal closeness of family members to the CO tends to correlate with higher awareness of CBCRM activities. In resolving disputes between family members, smooth relations among the family can also serve as an asset in

joining of communities. Family members often seek relatives as allies in resolving disputes with outsiders (Lynch 1964:330).

The emphasis on the group over the individual takes precedence in traditional Filipino society, similar to an emphasis on family over an individual's needs. In order for CBCRM to be successful, group participation must be high. The tradition for group emphasis in the Philippines is perhaps one of the many reasons that community-based resource management in uplands as well as in coastal areas has flourished. This is not to say that individuals have no place by Filipino standards, and group emphasis is changing among more educated, urban Filipinos. However, in rural areas such as Honda Bay, group emphasis still pervades the daily existence of fisherfolk. Group orientation can be



Figure 6.2. *Bayanihan*

found embedded in traditions of group work days, friendship groups, and political groups, all of which carry Tagalog names: *bayanihan*, *barcada*, and *hakot*.

Cultural traits still pervade daily lives of Filipinos in fishing villages throughout the country and can be found as impetus for CBCRM group organizing. The *bayanihan*, for example, is a term extracted from the root “bayan,” meaning town. Townspeople working would be the most literal translation of the term. In *Sitio Katumbal* the practice of bayanihan is still alive and well practiced each Sunday. After church, if any group chores need to be accomplished, men and women will gather together for work days. The two most striking bayanihan efforts I was aware of were the rebuilding of a raft to cross the Milwang river, and the group efforts to dry dock a 3 ton-baby trawler sized boat.

The raft building efforts were planned in advance and donations were taken among people from both Milwang and Sitio Katumbal because residents from both communities needed the use of the raft. At one time the river was low enough to cross on foot during most of the day, but over time, rising tides caused erosion and the river rose high enough so that a raft became necessary for routine daily crossing. School children, especially, use the raft to come from Milwang and walk through Sitio Katumbal to get to school. The ELAC CBCRM program also assisted in the raft building bayanihan.

The bayanihan for dry docking the boat was simply driven by the lack of mechanized power, and the need to use human power to get the boat onto the shore. Although the participants were mostly men, some women also participated in moving the boat. Unlike some of the Tagalog terms that are more implicit or brought out and discussed by the researcher, or outside observer, bayanihan is a common phrase used in Lucbuan to describe each Sunday afternoon. People set aside Sunday afternoons for bayanihan even if no specific plans have been made in advance.

Barcada

Barcada is one of the most ubiquitous Filipino concepts and I believe is a key to the strength of environmental movements on Palawan. Simply put, *barcada* means group of friends. One might translate the term literally to ‘clique’ in English, but unlike the negative connotations that Americans give to ‘clique,’ *barcada* is usually considered a positive, commonplace aspect of Filipino society. The extensive use of *barcada* networks and mention of *barcada* among environmental professionals from NGOs on Palawan was one indication to me that something more than just care for the environment bonded members of PNNI together. Although there are separate or sub-*barcadas* within the member organizations of PNNI, for the most part everyone is somehow connected through *barcada* within the movement.

During a meeting with two other researchers and a well-known environmentalist in Puerto Princesa, one of the researchers asked the environmentalist if there was any resentment among local NGOs against larger international NGOs like WWF, or Manila-based NGOs. The environmentalist responded that this was not an issue because the local NGOs *are* often the representatives for the larger NGOs, and that “we are all *barcada*.” Once a person becomes employed by an NGO on Palawan, they instantly become *barcada* with their colleagues and can be seen at various social events in town, such as monthly art openings at Kamarikutan⁴.

Although some NGO environmentalists on Palawan move freely between various sub-*barcadas* (within PNNI) associated with specific NGOs, each NGO can be

⁴ An emerging phenomenon occurring on Palawan throughout the course of my field research was a local appreciation for art. The gallery *Kamarikutan* was instrumental in bringing Filipino artists from around the country to their open air art gallery and coffeehouse, constructed of native materials. The gallery,

considered to have its own sub-barcada. In some cases this can be a hindrance to effective resource management because of loyalty to ones barcada relating to project specific activities. For example, in Honda Bay, more than one NGO has worked at various sites in the bay over a period of a number of years. Lack of informal, as well as formal, coordination for wider management activities in the bay, may at times be attributed to working primarily within ones' sub-barcada, or contract within PNNI.

Hakot

I participated in a number of coastal resources management training sessions and observed the ways in which community organizing is presented and constructed. At one such training session, one speaker discussed the process of crafting and presenting local ordinances (as sanctioned by the local government code of 1991). She said that one approach community organizers can use is that of a *hakot*. This term is used collectively in political contexts to refer to people who are briefed/oriented and taken to a public meeting for the purpose of out-numbering the people against your proposed ordinance. Literally translated it means load, or the load you carry (Ramos 1971). Well-educated and experienced in various professional sectors, including those with foreigners, she even related the concept of *hakot* and constituency building through community organizing as unique to the Philippines.

In the approval of ordinances, usually, you need a "hakot."...[Your "hakot" should out-number those who are opposed to your ordinance.] While these are approaches that are used independently of each other, sometimes they tend to overlap depending on the issue. That is why even in constituency building, the best approach really is community

restaurant/coffee house became a popular gathering place for some of the environmentalists as well as resident foreigners, especially at monthly art openings that usually included performance art.

organizing. For the Philippine setting and culture - it is acceptable. But in other countries, they will say no! They don't believe it. So, on community empowerment and community organizing, it is typically Filipino.

Smooth Interpersonal Relations

Filipinos are often said to be generally “pleasant” in their modes of social interaction as compared with Americans who can be “brutally frank” (Lynch 1964:324). The tendency to maintain pleasant interactions with others has been termed by sociologists as “Smooth Interpersonal Relations (SIR)” (Lynch 1964:324). SIR defined means “a facility at getting along with others in such a way as to avoid outward signs of conflict...It means being agreeable, even under difficult circumstances.” (Lynch 1964: 325). The Tagalog word *pakikisama* is derived from the root word “sama” meaning “accompany, go along with. (Lynch 1964:325). According to Lynch (1964:325), the word is frequently translated as “good public relations,” almost synonymously with SIR. Lynch (1964:325) makes the point, however, that *pakikisama* may have an even narrower meaning, that of “‘giving in,’ or following the lead or suggestion of another’; in a word *concession*. It refers especially to the lauded practice of yielding to the will of the leader or majority so as to make the group decision unanimous.”

The concepts of giving in or following the lead or suggestion of others are important aspects CBCRM activities. *Pakikisama* alone may account for the fact that the Philippines has become a world leader in community-based activities. Group emphasis allows the easy formation of people’s organizations, organization of community meetings, participation in environmental education seminars, and pressure exerted on individuals to discontinue destructive fishing and logging practices. One is expected to

practice *pakikisama* and when this doesn't occur bad feelings and friction within a group often develop:

PF: Like in our place our Capitan does not cooperate, but our barangay is all right because we know how to get along. Our fiesta, even though we invited him, he never came invitation - meeting. He is moody (*sumpong*). He is different. We try to get along with him. We have actors and actresses there. It is very seldom that he will come. And if you get lucky, he might show up.

INT: Well what do you think, how does it affect you?

PF: It hurts. How many times have we invited him and then he will never come. I remember one time the mayor came - you were there?

INT: No, I'm not here yet.

PF: So it's sad to think. I remember when the Indonesians came, he did not come. It's sad to think, but [he should practice] *pakikisama*.

In other words, one's ability to maintain smooth interpersonal relations from within a community has disadvantages as well as advantages for community organizers. The use of a third party or "go between" in resolving or avoiding conflict is also a commonly practiced form of *pakikisama* (Enriquez 1994).

Two values that always underlie Filipino interactions and people's perceptions of each other are *hiya* and *yabang*. Community organizers who are supposed to serve the role of educators may be somewhat *hiya* (shy or ashamed) towards elder siblings or parents because of the deep respect they have for authority. If a local CO starts preaching loudly about environmental concerns, he or she may be perceived as boastful of his or her position. This would be considered to be *mayabang* (bragging) and is an extremely undesirable trait in Filipino society, especially among women.

Hiya pervades many aspects of daily behavior in the rural Philippines, and it is especially prevalent as a Cuyonon value. Throughout the course of my field research, I was told that *hiya* is more common on Palawan as compared with many other parts of the

Philippines. Hiya is often translated in casual conversation with bilingual Filipinos as “ashamed.” However, many more nuances are actually associated with hiya in everyday life. Hiya can mean simultaneously: embarrassed, shy, ashamed, and humble.

RESP: Initially the Barangay officials were afraid, were in cohort with some of the baby trawlers no, you know how things go in the community *di ba?* It's hard, if your friend is doing something illegal here, it's not normal to tell him, or stop it! I'll send you to jail; it's not normal, it's not normal. Because we are, in our culture, we *nahihya, nahihya kaming magsabe at ayaw di naming mapahiya isang tao, diba*, there are two things. I'm shy and I don't want you to be embarrassed also.

Int: Oh, you don't want to embarrass the other person *din* [also]?

RESP: Right.

Another concept relating to expectations of self and others is *kapwa*. *Kapwa* is a concept that has not been commonly referred to as an inherent part of Filipino culture, yet in contemporary analysis, Enriquez (1994:1) states: “At the core of the Philippine value system is the concept of the *kapwa*.” He defines *kapwa* as “a recognition of shared identity, an inner self shared with others” (1994:3).⁵ Enriquez contrasts the concept of *kapwa* with that of *pakikisama*, “euphemism and the use of a go-between” (1994:3). As stated by Enriquez, the concept of shared inner self is more than the common understanding of *pakikisama* or *SIR* as “means of avoiding conflict” (1994:3). Sharing of inner self “stems from the collective values shared with the whole of humanity and the deep respect for the dignity and inherent worth of a fellow human being” (Enriquez 1994:3).

⁵Many Filipino-English dictionaries give the translation of *kapwa* as both, or fellow being, but the meaning goes far deeper as a cultural value. (Calderon 1957 in Enriquez 1994:3)

The following quote is taken from a semi-structured interview with one man from Sitio Katumbal about his rationale for helping to form a local branch of a People's

Organization:

That is why it came to my mind that the Brotherhood will consider developing it as a group. I would like to spearhead a joint effort in protecting this area. We can breed crabs. It is not really difficult. Another thing is we can release some fingerlings there to grow and be harvested for the benefit of the community and not for the interest of a single family or one person. My real aim is to be of help to the entire community and not for my selfish personal intentions.

In contrast to positive influences for group CBCRM activities, *kapwa* may have negative ramifications for individuals or the nuclear family. Individuals and families may feel constant pressure to give of themselves to the entire group, whether it be sitio, extended family, or barangay. Those who may make small economic gains must share with others or risk being criticized for being selfish.

Palabas

Another interesting aspect of Filipino culture that is manifested in CBCRM and others participatory events is *palabas*. *Palabas* is often simply translated literally to mean: “show” (Ramos 1971:205) or “film” (English 1962: 941). Upon further examination, *palabas* can have a broader meaning that is essential to Filipino culture. English provides another translation to illustrate this broader usage of *palabas*: “a story acted on stage” (1962: 749). CBCRM programs in communities, and coastal management training throughout the Philippines, often incorporate activities of role playing as part of training or participatory rural appraisal (PRA) sessions. Role playing is an effective tool in these contexts because participants seem to thoroughly enjoy acting out the scene as they learn

new concepts or illustrate their lives for facilitators from outside agencies collecting data. An example of this would be a man in Lucbuan who acted out his morning routine by miming the tasks he performs each day. He pretended to wake up, cook himself breakfast, and wash the dishes for his audience. Another example of “stories acted on stage” I observed was that of “wealth ranking” in which participants from Lucbuan and Babuyan pretended to drive cars to their upper class homes they had drawn on large sheets of paper. The antics performed by the actors always invoked laughter and applause among participants who found it amusing that one of their own was pretending to be rich.

Although the term might rarely be used aside from its popular meaning for film, the concept of palabas was always present and well appreciated among my observations of group activities in CBCRM, even in formal training sessions for well-educated environmental professions from government agencies and NGOs. “Ice breakers” are another popular tool to give participants a short break and to aid in relaxation during the long days of training exercises for environmental professionals or in communities



Figure 6.3. *Palabas*

participating in PRAs. These “ice breakers” are usually short, comical performances by one or more individuals, or they involved group singing.

Although not referred to as a cultural value, *umawit*, or *kumanta*, meaning “to sing” is another common Filipino activity in fishing villages, especially among Cuyonons. Group singing in rural areas with no electricity, like Sitio Katumbal, often serves as entertainment within the community. Singing and performing of all types easily blend into the participatory activities in CBCRM projects.

Social Justice (*Katarungan*)

Throughout this discussion of cultural values the underpinning of group emphasis over the individual has been demonstrated throughout Filipino society. One final concept that re-emphasizes this in the context of how environmental movements may inherently be tied to social justice in the Philippines is *katarungan*. As stated by Enriquez:

Katarungan (social justice) is now invoked as an indispensable condition for peace in Philippine society, in the same breath as food and employment...But just as the demand for justice has increased, the debate on the nature of justice has also grown. There are those who look beyond the law and the courts in the search for the constituents of the concept of justice. [1994:8,9]

A perfect example of those who look beyond the courts can be seen in the following excerpt from a transcript of a public paralegal training in Babuyan, given by an NGO lawyer. As stated, the lawyer advocates knowledge as a means of empowerment and resource protection. The speaker promotes knowledge as a means of empowerment and more effective resource management for the poor. This includes not only knowledge of

the law, but also of the mangrove ecosystems that surround the coastal communities where the training participants live:

[“Katarungang panlipunan tayo”] we are for social justice. When implementing the law, you have to take into account at the same time the principle of social justice so that it will help also the...poor ones. It is important and we should remember because if we do not know this, we will have difficulty understanding our mangroves, lands and how to...[manage our coastal resources]. In my opinion, let us just not be acting carelessly because of course most of the citizens do not know these laws. Many of us are violating the law. I know that I cannot accuse them, especially the poor because they do not have the knowledge and money...I repeat, [“katarungang panlipunan, bibigyan ang mga taong walang kaalaman, walang lupa o likas yaman, bibigyan ng mas maraming pagkakataon hanggang dumami”] social justice, the people who have little knowledge, no lands nor natural resources will be given more opportunities until they have many opportunities. That is social justice!

In summation Filipino cultural values as described by anthropologists and sociologists throughout 1950s and 1960s are still very much alive in fishing communities and among NGO actors. Cultural values are manifested in behavior in CBCRM projects and may be detrimental or beneficial to project successes. The values and behaviors described here are the most prevalent, but many others are at work within the CBCRM movement. For example, group emphasis lends itself to easier community organizing and networking among NGOs on Palawan, while the desire to maintain smooth interpersonal relationships is counter intuitive to confrontation in voluntary law enforcement. The idea of indebtedness is also at work regarding law enforcement among fictive kin relations. The fact that the concept of social justice is embedded in language with the notion of katarungan is likely a contributing factor joining of the concepts of social justice with the environmental movements. Overall, these and other cultural values can play a central role in community participation because they underlie the way that communities interact with

their environmentalist counterparts and meso-level institutions. An understanding of cultural values in any context of CBCRM would aid in evaluating the effectiveness of such programs.

CHAPTER 7
FISHERFOLK AND NGO RESISTANCE:
RESPONSES TO MARGINALIZATION

With the encroachment of destructive fishers into inshore territories, the small scale fishers of Honda Bay have experienced rapid declines in the quality of their lives, namely food production and loss of incomes. Through the creation of community based coastal resources management (CBCRM) programs, a national movement hopes to address these issues. In this chapter I discuss the combined efforts of NGOs and local communities to respond to the ways in which fisherfolk in these communities are marginalized. Hybrid NGOs on Palawan (and likely throughout the Philippines) working in coastal resources management also participate in direct actions for environmental and social justice causes. This discussion includes a look at the mechanisms (e.g. land tenure arrangements), as well as the direct actions of local fishing communities and NGOs, to examine the partnerships between communities, NGOs and government. In doing so, it becomes apparent that the environmental movement is focused on the rights of fisherfolk.

Land Tenure Arrangements

Land tenure arrangements are not normally associated with the fisherfolk who are commonly landless in the Philippines, occupying the narrow strip of public land in the

coastal zone from the low tide line to within 20 or 40 meters inland. However, several different forms of land tenure arrangements are available to fishers, as well as farmers and indigenous peoples in the Philippines. Most NGO workers commonly call these types of agreements *tenurial instruments*. These arrangements were thought to aid in human rights causes, to give land title, or stewardship agreements to marginalized farmers or indigenous peoples. None of the various land tenure arrangements available to forest users in the uplands were designed to accommodate fisherfolk. However, several tenurial instruments could be used to aid fisherfolks in acquisition of land as stewards, or private owners. At least two of the meso-level NGOs provide education and legal assistance regarding tenurial arrangements for fisherfolk through paralegal education.

Mangrove Stewardship Agreement and Community-based Forest Management Agreements

One of the earliest tenurial instruments available to fishers was the Mangrove Stewardship Agreement. The Mangrove Stewardship Agreement was intended to provide stewardship rights to communities living in or near mangrove areas. Commercial development of the mangrove was prohibited; instead it was expected that the awardee of the stewardship agreement would utilize and manage the mangrove in a *sustainable* manner. Mangrove stewardship agreements were available in the early 1990s, but their successes were limited, and the program was terminated.

Soon after, by the mid 1990s¹ Community-based Forest Management Agreements (CBFMA) became available for forest management. CBFMAs give tenurial rights to forest communities and are promoted through CBCRM programs in Honda Bay for

¹ CBFMA is also described in Chapters One, Two, and Three.

fisherfolk living on public lands in mangrove areas and elsewhere. ELAC assisted one community in obtaining a CBFMA in Honda Bay and considered land tenure security an important part of community-based coastal resources management programs.

Another tenurial instrument that was not commonly associated with fisherfolk was the Comprehensive Agrarian Reform Program (CARP). CARP was designed for land reform after the Constitution of 1987 was implemented. It was a five-year program that expired in 1998. Under the program, intended for farmers, one had to have their name listed to become a beneficiary. If individuals or families had occupied specific tracts of land for a number of years, they would be more likely to apply for CARP.

There were five families in Honda Bay who applied for CARP with the assistance of ELAC, and entered into a waiting period of one year to allow the original land owner to protest. After a series of protests from land-owners, all five families received title to the land during the time I was conducting fieldwork. However, in another case, mentioned in Chapter Five, one landowner in Lucbuan took another tactic with fisherfolk who lived on his land. He met with them and told them that since they had been there for so long they could stay on his land, and there was no need to apply for CARP. Shortly thereafter they were relocated from the land, when he asked them to leave.

These tenurial instruments have been designed to assist farmers and others in obtaining title or stewardship to land. Since marginalized fishers have been assumed to be landless squatters, at the time of the field research no such arrangement had been specifically set-aside for them since the Mangrove Stewardship Agreements. Even the majority of NGO and government environmental professionals did not think that security

of tenure was available to fishers.² However, with creative use of the community-based forest management agreements, the Comprehensive Agrarian Reform Program some fisherfolk families in Honda Bay were able to secure land tenure with the assistance of meso-level NGOs based in Puerto Princesa City.

Tentative Partners: NGOs, Government, and Fisherfolk

As I have discussed previously (see Chapters Three and Four), the combined efforts of NGOs working with government have become more commonplace in the Philippines. Here I discuss combined efforts of NGOs, fisherfolk and government to confront illegal fishing and logging in Honda Bay.

Bantay Dagat and Deputization of Volunteers

Prior to devolution of authority to local governments as a result of the Philippine Constitution of 1987 and the Local Government Code of 1991, law enforcement in the coastal zone was under the jurisdiction national agencies such as the Coast Guard and the Department of Environment and Natural Resources. With the new democracy, law enforcement efforts to stop illegal fishing and other environmentally destructive activities were thought to be ineffective, at times corrupt, and lacking in resources. As a result of the movement to devolve authority to local communities, the nationwide emphasis on the Bantay Dagat, originally a fully volunteer effort, began in the mid 1990's as part of an emphasis on people's participation in the new democratic political space. Under this nationwide movement local communities were encouraged and trained to take part in

² Indigenous peoples may apply for Certificates of Ancestral Domain Claims (CADCI), but at the time of the field research only one indigenous group in the Philippines, the Tagbanua of Coron on northern Palawan was able to obtain sea tenure through a CADCI.

guarding their communities against illegal fishing activities such as blast (dynamite) fishing and cyanide fishing. The Bantay Dagat in Puerto Princesa was set up as a special program under the Mayor's office in the early 1990s. The program covered a large area including all of Honda Bay's barangays, not to be confused with smaller efforts of local barangays to initiate their own bantay dagat efforts. In its early inception, the program was considered successful at curtailing dynamite fishing in Honda Bay. However, over time, the Bantay Dagat from Puerto Princesa City gained a reputation as being ineffective, and sometimes corrupt. Nonetheless, the Bantay Dagat was still in operation and considered to be the main law enforcement entity for Honda Bay and is part of a larger "Bantay Puerto" Program of Puerto Princesa City³. The major objectives of the program were to

... protect, conserve, and rehabilitate the city's forest and marine resources so as to improve the quality of life of the people, and increase the city's economic contribution to the country by utilizing its resources in a manner that is ecologically sustainable, socially equitable, and economically viable. The program's key management concept is simple: protect what is there, rehabilitate what has been destroyed, and plan for the judicious utilization of resources for sustainable development. [PPC 1999]

The Bantay Puerto program began with a Bantay Gubat (forest watch) program that aimed to protect forest lands within the City's jurisdiction. When the Bantay Dagat program was established it became a special program within the Mayor's office, thereby making the individuals acting as baywatch guards regular government staff, or purely volunteer. Many of the functions of this program were to be devolved to local communities and volunteers. At the time of the field research this process had not fully been implemented and there was confusion about the roles of the Bantay Dagat and the

³ There was also a provincial program called Bantay Palawan at the time of the field research, but that program was not active in Honda Bay and is not included for the purposes of this discussion.

responsibilities of law enforcement. Plans were underway for deputization of fisherfolk who had undergone paralegal training with ELAC.

Later, in 1999, thirty paralegals were deputized to undertake law enforcement of illegal fishing, logging, and other environmentally destructive activities, by the Mayors' office. With the status of deputy community volunteer paralegals (CVP), fisherfolk were eligible to receive funds from the City Mayors' office to aid in community patrols of the areas near their barangays. This was similar to, but not an extension of the Bantay Puerto program because all of the initial preparation for becoming deputies was accomplished through training with ELAC.

Unfortunately, at the time of the field research, despite efforts to coordinate with the Bantay Dagat of Puerto Princesa City, locals from northern Honda Bay did not feel that destructive and illegal fishing had been satisfactorily stopped. The realization that volunteer law enforcement is not enough is articulated in an article by Sievert and Diamante-Fabunan (1999). Although Puerto Princesa City is considered to be environmentally aware and sensitive to issues regarding participation, especially compared with other parts of the Philippines, volunteer efforts at law enforcement are not as effective as one might wish to believe. As illustrated by interviews in Chapter 8, there is a marked difference between environmentalists and fisherfolk perceptions of the Bantay Dagat program.

During 1996, several illegal fishing operations intruded into the waters of Honda Bay. These operations were protested in the form of petitions submitted to the Mayor of Puerto Princesa City and other agencies. The petitions were written by residents of Sta.

Lourdes who sought the assistance of residents of Lucbuan. These earlier incidents were seeds for the CBCRM program initiated by Lucbuan and Sta. Lourdes residents with the assistance of ELAC staff, and eventually funded by OXFAM, United Kingdom.

When confronted with the encroachment of destructive hulbot-hulbot (a description of this method was provided in Chapter Five) and trawl fishers into the inshore waters of Lucbuan and Babuyan, the marginal fisherfolk of northern Honda Bay turned to NGOs for legal assistance in 1996. They joined forces with other communities in southern Honda Bay and petitioned the City to stop the hulbot- hulbot operations and created a task force to address the problem. National, regional, and local NGOs participated in the task force including ELAC, then a volunteer organization, and Haribon. With further input from NGOs, the Basic Fisheries Ordinance #57 of Puerto Princesa was passed into law in 1997 and banned the operation of hulbot-hulbot, among several other gear types.

Cyanide Detection Laboratory

The International Marinelife Alliance, the City of Puerto Princesa and government agencies established a cyanide detection laboratory in Puerto Princesa City in ongoing efforts to stop the illegal use of cyanide in the live fish trade. The lab has the ability to test fish that are brought in live when individuals suspect them of having been caught with cyanide. Fisherfolk trained as paralegals by NGOs are aware of the uses of cyanide at times for the live fish trade, but had little control over the illegal practices. The lab provides an outlet for positive identification of fishes caught with cyanide, but the process breaks down when fishes are identified to contain cyanide. Since the lab is partly

NGO overseen, the NGOs do not have the legal authority to prosecute those who trade in fish caught with cyanide. A report must be filed with the Bureau of Fisheries and Aquatic Resources, who can take months to process the case. Efforts to transfer the duties to prosecute cases in Puerto Princesa were ongoing. Furthermore the traces of cyanide can be so low that there are cases when the fish themselves may not test positively but the water in coolers used to transport them does test positively for cyanide. Again, as with the cases of citizen's arrest, the overall outcome is not considered fair punishment by many of the fisherfolk participating in these activities, but by becoming more involved in combating illegal and environmentally destructive activities they often begin to feel that they have more control over managing their own resources. Furthermore, once illegal fishers and loggers realize that the residents of Honda Bay and Palawan are vigilant they may further limit their illegal activities, as has been suggested by the research on increased fish productivity in Chapter Five.

Direct Action

Despite efforts to utilize government resources along with NGO and volunteer efforts, at times community members have become extremely frustrated with the lack of enforcement against illegal fishing and logging activities. Local community members of northern Honda Bay began their own efforts to police their areas because of damage that had been incurred on their gear, including crab cages and set-nets, as well as their understanding of the damage that trawlers can cause to coral reef ecosystems.

Citizen's Arrest

Citizen's arrests have been promoted nationally through Haribon since 1989. The program was created to build "the legal capacity of communities in law enforcement and policy development" (Quicho 1998). This program was also promoted by ELAC in Honda Bay. Citizens arrest incidents began to occur approximately one year after the petitions against hulbot hulbot operations had been filed in 1996. Continuing activities of trawlers in Honda Bay were known to have been occurring for some time by residents of Lucbuan and Babuayan, as well as other communities. Lucbuan residents, having learned of the right to make a citizen's arrest through paralegal trainings,⁴ initiated such an arrest. Meanwhile, many of the baby trawlers in question had alleged alliances with local officials who had continued to allow them, or possibly encouraged them, to operate in municipal waters. A variety of stories describing the attempt ranged from describing it as empowering to considering it a failed attempt because of the breakdown in the process of prosecution.

The following is one reconstruction of the events precipitating an initial failed attempt at citizen's arrest, later followed by an arrest accomplished as a joint effort by citizens, barangay officials and the Bantay Dagat. In July of 1996, a series of baby trawlers were known to be operating in Honda Bay within municipal waters of residents of the northern part of the bay. After having learned of his rights to keep these trawlers out of the area through community consultations and advanced paralegal training by

⁴ Paralegal training in the case of Philippine NGOs has a specific meaning and differs from other definitions of the term paralegal in the United States. In the Philippine NGO context, paralegal environmental trainings are vehicles by which community residents are provided education and training regarding environmental laws.

ELAC, and associations with PO leaders from Sta. Lourdes who had fought against Hulbot-hulbot operations, a PO leader of Katumbal Farm-fish Multipurpose Cooperative (KFMC) (Job and Rita Favila 1998, interview with author) went out to talk with the trawlers and from his boat, asked them to please stop operations in the area in question, the municipal waters of Lucbuan. Trawling operations did not stop at that time.

Later in July, an attempt was made to arrest the trawlers. Throughout the day, beginning in the early morning, a series of events took place that eventually led to the escape of the trawlers. The community organizer for the CBCRM program, also a long term resident of Lucbuan, was on the beach at that time monitoring the radio. She began contacting the Bantay Dagat and requesting the head to arrest the trawlers. A series of heated discussions took place over the radio, during which time the Barangay Capitan got involved in the discussion. At this point it seems that there was a series of passing responsibilities from the Bantay Dagat to the Barangay Capitan and vice versa. In other words, according to the stories reconstructed from interviews, the Bantay Dagat was negligent in pursuing the arrest. Instead, a meeting was held on a nearby island with Kagawads, the Barangay Capitan, and the Community Organizer, Rita Favila. Mrs. Favila stated that the Bantay Dagat advised the capitan to do the first step of the arrest, and claimed that if they relied on the Bantay Dagat, the probability of escape would be very high. Mrs. Favila, although unaccustomed to being out in the open sea, was determined to make an arrest of the trawlers. Accompanied by an all male group she met with the other local officials, including, the head of the Bantay Dagat on the island of Tadjao. At this point some discussion took place and they chased several boats, all of which escaped. The citizen's arrest started as group of community members who sought

the help of local officials and the baywatch authorities, and in the process they consequently failed to apprehend the trawlers.

After the failed attempt, community members, including members of the other POs, organized themselves to have volunteer boats ready in the event that they would institute an arrest. Members of the other two groups, Katumbal Women's Group (KWG), and Milwang Neighborhood Fisherman's Association (MNFA) also participated in the plan to reserve volunteer boats.

Determined to stop the illegal trawling activities in their municipal waters in Honda Bay, community members prepared for another arrest attempt. They continued to seek the assistance of local officials and the Bantay Dagat. Finally, later in August of 1997, 6 boats (baby trawlers) were apprehended. Mrs. Favila communicated by radio to the Bantay Dagat that the trawlers were there in their area again. Local residents mobilized their forces of volunteer boats. At least one *kagawad* (barangay councilman) and *barangay tanod* (local barangay guard/police) went out in the bay on their boats after the trawlers. Several boats altogether went out to apprehend the trawlers. The tanod boarded one of the trawlers by a plank, unarmed, and went aboard⁵. He stopped the engine and declared the operator under arrest. A total of 6 boats were impounded and towed to the shore, back at Lucbuan. On this occasion, the community organizer did not go out into the sea for the arrest, but stayed ashore ready with a camera to document the violators.

⁵ It was curious to me how such arrests could be made without arms. As explained by one NGO professional, "their already *takot* (guilty)" so when they see that they are caught, they apparently give in to those in pursuit of them. However, in other cases, fisherfolk expressed fears that influenced their decisions not to conduct arrests because some of the large-scale fishers are armed.

Negotiation Attempts

The boats were impounded for one day and one night. The news of the arrest reached the relatives of the suspects who then sought the help of their barangay Capitan from Sea Plane, a barangay located on Honda Bay just outside of Puerto Princesa City. The next day, the Barangay Capitan from Sea Plane, along with relatives of the arrested offenders came to Lucbuan to settle the dispute with the Barangay Capitan of Lucbuan. At first the offenders asked for forgiveness, and said they would promise not to come back to fish in their area. The Barangay Capitan of Lucbuan insisted that the trawler owners pay for damages to the affected fisherfolk. The fisherfolk who had equipment damaged such as tangkals computed a figure of 50,000 pesos to be divided among and paid by the six arrested boat owners. The trawlers complained that they couldn't afford to pay that amount and their Barangay Capitan stood by them citing forgiveness as a basic human right. He argued that it is basic human capacity to forgive. "If God can forgive, why can't you do it." The Barangay Capitan of Lucbuan agreed to an amount of 6000 pesos to be divided among the 6 trawlers. Each of the affected fisherfolk got a total of less than 200 pesos for damages. In US dollars this would translate to around \$ 6.00 US dollars.

In an interview, Rita Favila, the Community Organizer for Lucbuan, described her view of the connection between this situation, human rights, and social justice. She initially tried to explain when the perpetrators of the illegal activities thought they should be forgiven, on the grounds that they had the same rights to fishing livelihoods as others.

what he means is that every fisherman has the right to fish but he was not thinking also about the method employed for this fishing activity. They know for a fact that these trawls are already banned but they insist on

doing it, so it was really their intention to challenge the law. They had been violating the law and they know it. They abused their right to fish.

She went on to express her feelings about the event:

That's why I hate the Captain of Sea Plane, he is an advocate of evil. He is not acting in his expected role of being the head of a *barangay*. He is still favoring the negative action done by his constituents. He should be the first to discourage them from engaging in these trawling operations. We of Lucbuan have been very considerate over the years, but our hospitality has been abused at times. This event should have discouraged trawling operations within the area but it did not, instead these trawlers grew in number. They came back with more friends. One time Job argued with one of the *Bantay-Dagat* that the operating area of the trawlers is not seven fathoms⁶, which Job strongly contested, reminding the *Bantay-Dagat* that he is also a fisherman and he knows what he is talking about. Job can make a reliable estimate and he knows where these trawlers are allowed to operate. They trawl really close to the shore and that is not seven fathoms.

At the time of the field research, the events described above had not stopped the trawling activities in Honda Bay. However, in February of 1998 another arrest was made. And, this time the *Bantay Dagat* made the arrest. The February arrest again resulted in fines and a special seminar held summoned by the mayor, with the assistance of NGO facilitators. The purpose of the seminar was to educate the baby trawler operators about the ill effects of trawling in municipal waters. As a result of this arrest the trawlers complained that their livelihoods were threatened if they would halt activities and begged for forgiveness once again. The offenders were promised livelihood loans to assist them in their newer business endeavors in order to wean them from trawling activities. After this February arrest, the trawling operations decreased in Honda Bay, but they had not stopped.

⁶ One complication of the laws on trawling in municipal waters is that it is based on distance from the shore (no more than seven kilometers in this case) as well as depth of the sea. If the area is more than seven fathoms deep, then the trawlers are allowed to operate.

Marginal fisherfolk from the other side of the bay in Lucbuan, meanwhile, were still angry that the *illegalistas* seem to be getting rewards in the form of livelihood loans while the marginal fisherfolk were promised similar assistance but never received it.

By August 1998 the Bantay Dagat arrested more illegal trawlers in a nearby jurisdiction to the earlier mentioned municipal waters. Negotiation and education is ongoing with the Barangay officials and ELAC acting as the educator. Quicho (1998) has noted that since citizen's arrest cases are civil cases, prosecution falls in the hands of public prosecutors and commonly breaks down at that level. At the time of my fieldwork, research to assess these kinds of cases was being pursued by Tanggol Kalikasan, the developmental environmental law program of Haribaon.

In late 1998, another citizen's arrest was undertaken - this time of illegal loggers, in the Babuyan area. The people initiating the arrest had been recently been trained by NGOs in the practice of citizen's arrest, but had been active in environmental seminars over a period of two years.

Community members who participated in the citizen's arrest had been made aware of the support of ELAC began to feel more self-assured about exerting control over the resources they legally have accessed and have claimed territory, (some of whom had lived in the area for the last 20 to 40 years). An overall feeling of empowerment among some of the arresters had begun to arise despite the minimal success of the original arrest. I argue that such feelings, despite any bitterness about lack of penalties on the arrest, are the result of the linkages with the local NGO, ELAC who provided training for the arrest procedure as a part of their routine paralegal training. These kinds of networks have become the basis for the Honda Bay CBCRM program. Additionally, the ongoing result

is a continually dynamic and emerging social movement in which the community organizer, a long term local resident, and her friends who have also received paralegal training began to challenge even their own barangay officials' suspicious use of Barangay funds.

This form of social justice is seen at the barangay level where the movement was just evolving at the time of the field research. These kinds of complexities involving local political dynamics, meta-local politics, NGOs and governments are always at work in fishing communities and should be considered in analyses and implementation of CBCRM.

Monkeywrenching – Fishpond Dike Destruction

One of the most compelling events that occurred during the time of my field work was the effort of ELAC staff to demolish illegal fish pond dikes in a show of direct action or “monkeywrenching” (Abbey 1991, Foreman and Hellenbach 1991). ELAC had received information of illegal fishponds that had been recently constructed in an area within the jurisdiction of Puerto Princesa City. Community members complained to ELAC that the ponds were destroying the lands near their residences and that the fishpond owners were in violation of the total log ban and restrictions on mangrove cutting. ELAC staff planned to dismantle the dikes, since they were illegal and on public lands. ELAC formed a coalition of people, solicited from PNNI, who willing to participate in the demolition of the dikes.⁷ A government official who had jurisdiction in the area was also convinced to join the effort. Together the group dismantled the dikes with shovels. The government official would not have undertaken such an activity

⁷ I was asked not to attend the action for my own protection.

without the prompting of NGOs. The owner of the fishpond filed a suit against the ELAC lawyer who initiated the action. However, since ELAC was with a government official and they were responding to illegal activities, it is unlikely that the suit held up.⁸

Summary

Through the combined efforts of NGOs, fisherfolk and local governments the environmental and social justice movement on Palawan attempts to redress some of the inequities of the marginalized status of small scale fishers. Efforts to secure land tenure are one way of accomplishing this, but land tenure among fisherfolk is still uncommon. Problems with law enforcement and the delegation of responsibility are one key issue in CBCRM that would benefit from further investigation.

Volunteer efforts to protect fishing grounds and guard against illegal logging are empowering, but should not take the place of government responsibilities to enforce the law. The CBCRM program in Honda Bay is a myriad of personalities, people's organizations and relationships that began to grow as individuals became aware of the project. The fight for human right to their coastal resources was unwavering as local residents became more vigilant about rights to their livelihoods and a healthy environment.

⁸ I am unaware of the exact outcome of the lawsuit, but have been told that lawsuits regarding environmental issues and against environmentalists are common. The suits can take years to process after which the complaints are often dropped.

CHAPTER 8

ENVIRONMENTAL VALUES AND DISCOURSE

In this chapter, I analyze a number of key concepts and their influences on environmental values. In doing so, I present insights into the perceptions held by both environmentalists and fisherfolk regarding the coastal environment, community-based coastal resource management, related laws and policies, and salient environmental issues. This information was extracted through the processes of participant observation, key informant interviewing, and listening to local discussion. According to Kempton, et al., "the increase in American environmental consciousness may be observed in language" (1996: 6). I postulate that the same can be said about Filipino environmental consciousness and awareness of coastal environmental issues. The comparison of environmentalists and fisherfolk perceptions of the aforementioned issues provides some unique understanding of the ways in which scientific theories and concepts are "selected and transformed by laypeople" (Kempton et al.: 3), as well as by NGO environmentalists. Paolisso and Maloney (2000: 209) have stated "environmental anthropology can help make explicit the roles of beliefs, values, and experiences in the formation of cultural models" (see Quinn and Holland 1987). These cultural models "allow individuals to understand complex environmental problems confronting their communities and threatening their livelihoods"(Paolisso and Maloney 2000: 209). Although this analysis is not focused specifically on composite cultural models, it does seek to elicit patterns in

belief systems and levels of awareness, highlighting emerging cultural models that may be operating when both environmentalists and fisherfolk engage in decision-making processes. I focused on certain environmental terms and phrases already popularized in mainstream transnational environmentalism, as well as on various concepts unique to coastal resources management in the Philippine setting and Palawan in particular. Some of the terms and phrases utilized were based on concepts popularized in English, such as “biodiversity,” “sustainable development,” and “ecosystem.”¹ Key concepts that were related to coastal resources management included responses pertaining to environmental views and issues, as well as policy-related concepts such as the “devolution of authority to local governments,” “law enforcement,” and “marine protected areas.”

In order to better contextualize the material within this chapter, it is necessary to further explain the circumstances of the regional discussion of the described issues. Historically, although the traditional perspective of environmental preservation has logically revolved around issues pertaining to saving nature, CBCRM has tended to focus more on matters of social justice and community and has, therefore, included humans as part of environmental management. As fisherfolk and others become increasingly exposed to educational seminars, some of the previously disparate viewpoints are merging and evolving into new trends as will be discussed in this chapter. Other perceptions remain differentiated from those of environmentalists.

Part of the current implementation of CBCRM programs includes the routine conducting of environmental seminars in communities by NGOs. These seminars can

¹ Some terms were more easily translated than others, and some were not translated at all in environmental seminars, beyond explanations of the concepts. Since English phrases are commonly used, even among rural peoples who have limited English language abilities, the use of certain English language environmental terms was, therefore, appropriate.

range in length from a brief afternoon session to one, two, or three-day intensive programs and are usually held in the community, either in a community building or outdoors. Part of the training in the seminars is related to specific environmental ideas and includes terms such as biodiversity, ecosystem, coral reefs and so on.

Another important role of these seminars is the training that is related to legal matters, locally referred to as paralegal training. This type of education includes important information about various Philippine laws that pertain to the empowerment of local communities. It also relays information regarding specific laws about fishing gears and endangered species such as the sea turtle and *dugong* (sea cow). The paralegal component of CBCRM necessarily varies based on the organization that is implementing or assisting with the program. While the environmentalists interviewed came from various NGOs involved with CBCRM, all of the fisherfolk who participated in discussion for this analysis were from northern Honda Bay and were participants or residents of areas of the ELAC CBCRM program. In Palawan, ELAC and Haribon were considered the legal experts and were sometimes invited by other NGOs to co-facilitate seminars. Other forms of public meetings involved consultations with communities about their particular needs. Such gatherings generally occurred at earlier stages of development of CBCRM, but could take place at any time. Community Organizers typically work throughout the duration of the community programs on the levels of individual, family, and PO leaders. They provide education regarding environmental concerns as well as educational assistance with economic activities.

Method and Purpose of the Data Analysis

The data that illustrates emerging trends in the perceptions of fisherfolk and environmentalists about the environment is presented in three forms in this chapter. First, the comparisons between environmentalists and fisherfolk are illustrated in bar graph format. Ethnographic interviews were coded to reflect salient perceptions within categories chosen, and respondents were assigned one or two codes for each category. Since respondents were sometimes assigned more than one code for each category, percentages of responses for groups may exceed one hundred. Second, quotes from ethnographic interviews are presented to support the findings conveyed in the graphs. They also serve to illustrate in further detail the depth of the perspectives of the local participants, and provide narrative comparisons between viewpoints. Finally, analyses of perceptions of environmental problems are presented in list form to more clearly illustrate the environmentalist and fisherfolk perspectives.

Environmentalists in this research are presented in two groupings: those with a social orientation and those with a biophysical, scientific orientation. Those with a social orientation include persons with a range of non-biophysical backgrounds such as sociology, political science, community development, community organizing, and environmental law. Those with biophysical orientations have backgrounds in marine biology, fisheries, scuba diving, and environmental studies. The sample size for those with a biophysical orientation is less than half of those with a social orientation. This is due to the interesting fact that, as previously stated, the emphasis on environmentalism in the Philippines tends to revolve around social justice and the human condition and is less constrained to conservation of "nature." Because of this phenomenon, community

organizers and environmentalists from socially-oriented backgrounds are attracted to the field.

Fisherfolk are presented in groupings that are based on the number of environmental seminars attended in groups of 0-1, 2, and 3 or more seminars. The Honda Bay CBCRM program supported by ELAC had been in operation formally for only one year at the time I began my yearlong fieldwork. Thus, I had the unique opportunity of observing an emerging CBCRM program and studying the ranges of levels of awareness regarding various CBCRM sites in the communities of northern Honda Bay.

The demarcation of the fisherfolk groupings was based on the assumption that as the number of environmental seminars attended increased, so would the fisherfolk's understanding of certain key environmental concepts as well as associated laws and policies, thus bringing their perceptions closer to those of the environmentalists. In most cases this research suggests this is true. However, although the process of NGO involvement with communities is intended to be a "feedback" mechanism, NGO environmentalists had markedly different perceptions from fisherfolk (even among fisherfolk who had attended three or more seminars) regarding certain coastal management issues and concepts. Some areas in which there were greater discrepancies were in the familiarity with or knowledge of the "local government code" known regionally as "devolution" and the local *Bantay Dagat* (bay watch).

Through this comparison of perceptions between environmentalists and fisherfolk, insights are gained into the understanding of what factors are of importance in successfully implementing an emerging CBCRM program. Additionally, components that may be misunderstood by either group are examined. Taking into account that the

concept of social justice is inherent in CBCRM, these comparisons suggest the ways in which social justice is manifested, or in some cases, the ways in which it is not. It has become apparent that a rapidly evolving paradigm of coastal environmentalism is emerging throughout the Philippines, and perhaps is in greater force on Palawan. Some of the differences noted between environmentalists and fisherfolk are crucial in understanding the factors that may be useful in improving coastal resource management. Furthermore, some surprising findings indicate similarities in perceptions between environmentalists and fisherfolk, even at early stages of fisherfolk participation.

This analysis also suggests that the strong social justice orientation of coastal environmentalism in the Philippines is embedded in the transformations of interpretations of environmental language, and that perhaps scientific input is lacking in some areas. Furthermore, the analysis of policies and bay watch (*Bantay Dagat*) programs suggests that fisherfolk still perceive injustices and lack of fair treatment to be a result of ineffective law enforcement. Furthering the cause of social justice may mean different things to both groups, despite their agreement on the need for CBCRM. High levels of awareness of environmental concerns regarding destructive fishing practices, the importance of coral reefs, and the willingness to implement marine protected areas suggest that fisherfolk are ready participants in CBCRM. However, various strategies are not always easily implemented despite willingness of communities to protect their coastal resources.

Perceptions of the Coastal Environment

General Environment (Figures 8.1, 8.2)

Fisherfolk and environmentalists were asked about their perceptions of the environment and their answers were coded according to whether their explanations included or did not include humans as part of the environmental context. Their responses were broken down into three actual categories as follows: NO HUMANS (did not include people in perception of environment), MENTHUMANS (mention humans in discussion about the environment but not necessarily seen as part of the environment), HUMANS (include people as definite part of the environment).

One of the most interesting concepts that emerged from this analysis was the idea that humans were perceived as being part of the environment/nature. In other words, the environment was not seen solely as a pristine place devoid of human life.

Environmentalists, whose orientation was necessarily from a more social perspective, nearly always mentioned the presence of humans in the environment (see Figure 8-1).

They also noted the need to educate fisherfolk about the future and assumed that fisherfolk are so preoccupied with daily survival and the feeding of their families in the present that they would not be capable of thinking in terms of the future without their assistance.² By contrast, environmentalists with a biophysical orientation rarely mentioned that they felt humans were a part of the environment. 80% of those with a

² This perception may stem from the fact that some of the early CBCRM attempts were initiated in other parts of the Philippines that had been more severely degraded prior to the implementation of any coastal management efforts. Residents of Palawan, however, are in the unique position of being able to protect and regenerate their coastal resources at an earlier stage of degradation.

biophysical orientation considered the environment to be separate from humans (Figure 8-1, code NOHUMANS).

One seasoned community organizer (CO) from Haribon exemplified a common perception among COs about the environment, mentioning both its people, its destruction, and the need to save it:

The first thing that comes to mind is the future of the youth and the protection and care of the various lives in the mountains and seas... And also, for the health of people (*kalusugan ng tao*)... And I think people must be the one who will manage the environment and *kapaligiran*. That is also one of the first things that I have in mind...that people usually don't protect their environment unless they are fully aware of the effects, detrimental and adverse effects to them.

In contrast to a generalized perception that environmentalists had of fisherfolk³, it was found that some fisherfolk did consider humans as part of the environment. This tendency increased with the number of environmental seminars attended. Figure 8-1 shows that very few fisherfolk who attended one or less seminars considered humans to be a part of the environment (less than 10%). But a large majority of those who had attended two or more seminars mentioned humans (65%, code MENTHUMANS) when considering the environment. This inclusion of people usually concerned the insightful need for humans to *take care of the environment*. 50% of those who attended two seminars considered humans to be a part of the environment. For those who attended three or more seminars, 50% also considered humans to be an actual part of the environment. As the number of environmental seminars attended increased, fisherfolk began to see the environment in a different way, more similarly to the NGO environmentalists who

³ During the course of my fieldwork, and even in visits prior to that date, fisherfolk were often referred to as “squatters” and generally considered quite lowly in status. This perception has begun to shift of late. This status may be traces of pre-hispanic and post-hispanic class systems (Warren 1981, Austin 1957).

most often considered humans to be a part of the environment. In other words, it was not that the fisherfolk were incapable of moving their perspective beyond that of daily subsistence to viewing the greater picture, but merely that they had never been exposed to the discussion of the issue, as environmentalists had.

Questions regarding the condition of the environment were also probed. One fisherman, who is a PO leader, active in the Honda Bay CBCRM, and has attended more than ten environmental seminars, expressed a sense of urgency and a perception that the environment had already been ruined:

Like now, the summer (*tag-araw*) and rainy seasons (*tag-ulan*) are too long. Also, when it rains heavily, for sure there will be floods after... Some houses get carried away by the floods because there's nothing to stop the rains and water anymore [erosion]. It's such a pity...those people...not only now but in the next generations. I feel pity for our children, if we don't do something about the environment now.

One of the most common misperceptions about fisherfolk is the view that they are not forward thinking people, unable to conceive of the ramifications of the present on the future. Therefore, they are thought to be unable to conserve and understand ecosystem functioning enough to plan for the future on their own. Through extensive examination of the text of the interview transcripts, it became apparent that many of the fisherfolk who attended environmental seminars were, in actuality, very concerned about the future of the environment for their children. They expressed unease about the future, their children, and what will happen to them. As previously stated, this was more often true of fisherfolk who had attended one or more environmental seminars, but not uncommon for those who had attended no seminars. This indicates a sense of understanding about the need to protect the environment for future generations regardless of whether or not fisherfolk had attended any environmental seminars.

The same PO leader previously quoted went on to describe the following:

First, if the environment and natural resources are mentioned, I think about their continuous destruction because we are being directly affected. For example, the air (*hangin*) and the dirt (*dumi*) and trash (*basura*), especially the plastic when it's burned, the ozone layer is affected. Like right now, the sun's rays are no longer filtered as much, which is a side effect of what the people here on earth have been doing. Like the big companies who just want to make money but are ruining the environment... If this continues in the future, our children and their descendants will feel the brunt of this situation.

In summation, the lesser the number of seminars attended, and the less involved in local associations and government the fisherfolk were, the more likely fisherfolk were to perceive the environment as somewhat abstract and separate from humans. As the number of environmental seminars attended increased, the more likely fisherfolk were to recognize a sense of urgency in protecting the environment. Subsequently, they were also more likely to associate humans with the destruction of the environment, and to see the need to protect the environment even if they did not perceive humans as part of the actual environment.

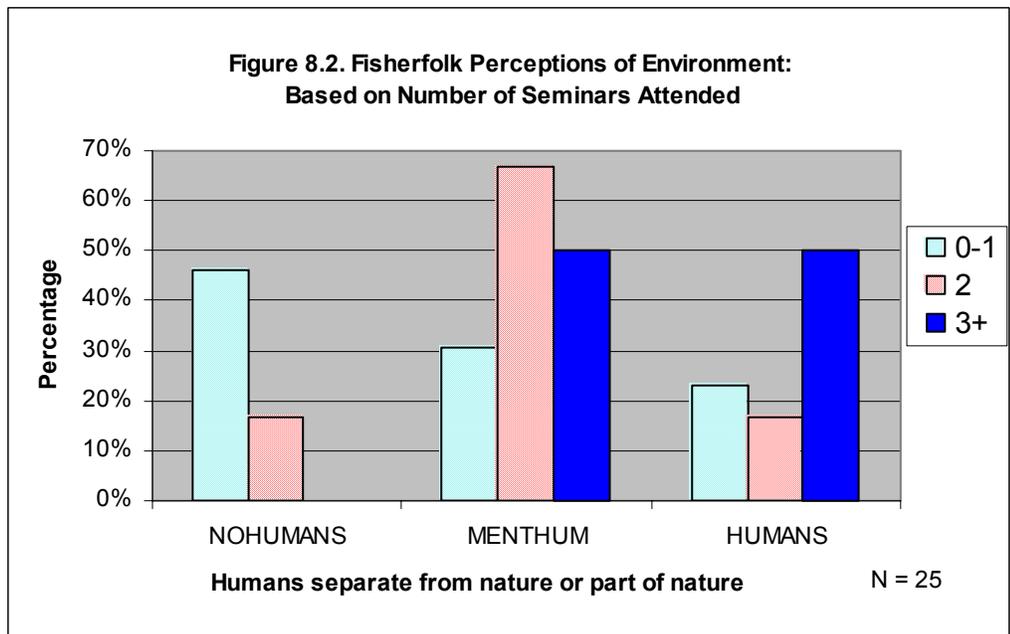
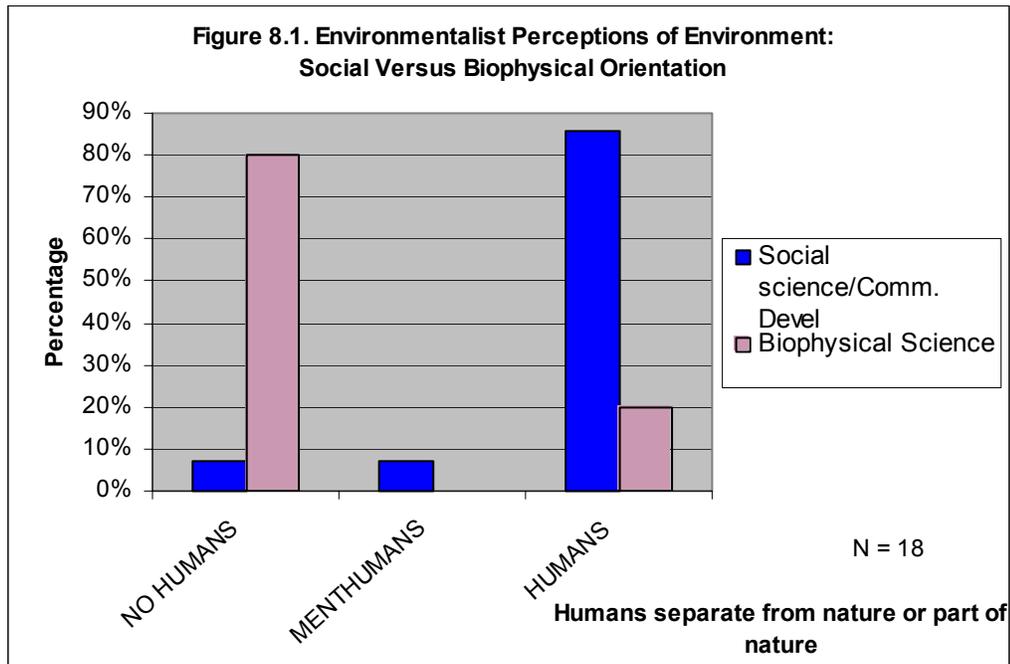
Environmentalists often expressed a sentiment that the environment was already ruined. Most of the environmental leaders on Palawan had lived through many changes in their coastal environments on Palawan as well as on other islands. Environmentalists who came from other islands but had settled on Palawan noted that on other Philippine islands, many of the places where they spent their childhoods were now severely degraded. They expressed that due to the sentiment of having seen the devastation of their childhood forests and seas, they are now intent on helping to save the environment of Palawan. Many, who came from the island of Palawan, had witnessed the changes and degradation of the Puerto Princesa area over the course of their own lifetimes, noting

such changes in the coastal ecology as decreased crabs in mangrove areas, decreased mangrove cover, and smaller fish being sold in the market.

By contrast, when asked, “What is the first thing that comes to mind when thinking about the environment?” fisherfolk often mentioned they felt the environment should be saved. Many of the fisherfolk, regardless of the number of seminars attended, did not express a sense that the environment was already ruined. They mentioned that nature should be protected, and that the environment must be saved. They expressed concern about "what will happen" to the environment, implying a subtle perception that the coastal environment as they know it, is more or less intact, often describing the environment and nature as beautiful.

Biodiversity (Figures 8.3, 8.4)

Another term that environmentalists associated with humans is biodiversity. The term, biodiversity, is often used in environmental education seminars conducted by NGOs even in among peoples who do not speak English as their first language. When asked if they have heard of this term and what it means to them, responses from fisherfolk who had attended one or no seminars differed strongly from those of environmentalists (see Figure 8-3 and 8-4). Over half of such fisherfolk had never heard of the term, including those who had attended one seminar. Approximately half of the fisherfolk who had attended two seminars gave other responses and said they had heard the term, biodiversity, but did not know its meaning. Some remembered the term from seminars or the radio but did not understand or recall what it meant. One woman even



thought she knew what its was meaning from the radio, but in her response she referred to a skin product with the name of *Bioderm*. Another man said he recognized the notion of interconnectedness from a church song.

As with the questions regarding the general environment, both fisherfolk and environmentalists were specifically asked about biodiversity and their responses were divided into the following four categories: NOT HEARD (unfamiliar with the term at all), INTERCONN (awareness of the interconnectedness of living things, including humans), DIVERS (awareness of the diversity and variety of life), and the category of OTHER.

Fisherfolk who had attended some environmental seminars seemed to fall into a continuum in their understanding of the term and often stated that biodiversity relates to the interconnectedness of life, sometimes mentioning that this includes humans. Most environmentalists with a social orientation described the interconnectedness of living things, including humans, in association with biodiversity. More of the environmentalists with a biophysical orientation stressed a definition that referred to the diversity of living things (50%), and fewer mentioned the interconnectedness of living things at all (20%). It is possible that environmentalists had learned from transnational discourse that stressed the inclusion of humans in the ecosystem that people were being included in the environmental and conservation movements. These movements tend to indicate that this view is critical, for the demise of one can affect others and, ultimately, the entire ecosystem. The common theme of humans being included in the ecosystem seems to have overflowed into the popular discourse among environmentalists on Palawan with regard to biodiversity in particular. Another potential reason for environmentalists with a

social orientation to consider humans in the biodiversity equation is their intentional thrust to advocate for the human condition in coastal environmental movements. The following excerpt from a paralegal training given by ELAC illustrates how biodiversity is explained to fisherfolk:

Speaker: ...all life forms are related. Man has a relationship with animals, be it *carabao* or whatever. And this *Pagkaka-ibaiba ng kalikasan* or what we call biodiversity is what human life is dependent on. If we don't have plants and animals, we won't have any air for breathing, because there are no more trees, there won't be any oxygen provider. The reason why we also need the animals is because animals' wastes serve as fertilizers, you see? They can also help spread seeds. They'll be the ones to spread the seeds like the animals such as birds, bee, butterflies, and so on...

One of the most striking contrasts between fisherfolks' and environmentalists' understanding of the term biodiversity is found in the importance placed on "biological hot spots." One anonymous environmentalist stated that hearing the word, biodiversity, evokes thoughts of Palawan:

INT: Okay, the next term is biodiversity. Can you tell me what that means to you?

ANS: Ahh...well...different living things?...different animals...ahh, species...I usually think of Palawan when somebody mentions biodiversity because in other places there's not much...there are more animals here....I guess because I'm so exposed to...I've been snorkeling a lot around here too. I see a lot of more different species, different colors so...I guess I think of Palawan when somebody mentions biodiversity.

INT: Really? You remember when. You remember when and how you first heard of it?

ANS: I think in environmental articles I've read. I first started writing about the environment in 1989. That was the time when I started reading more about environmental issues and I encountered that word a lot. I remember that word from the *Ten Biological Hotspots* by Norman Myers, which includes the Philippines.

INT: And Palawan is one of the main ones?

ANS: Yeah.

INT: ...Or according to Alan... the highest biological diversity for marine organisms in the world?

ANS: I think he mentioned Indonesia and the Philippines.

...That's not only according to Alan... but according to the...San Diego...there's an institution in San Diego...Oceanographic something. I forgot the name.

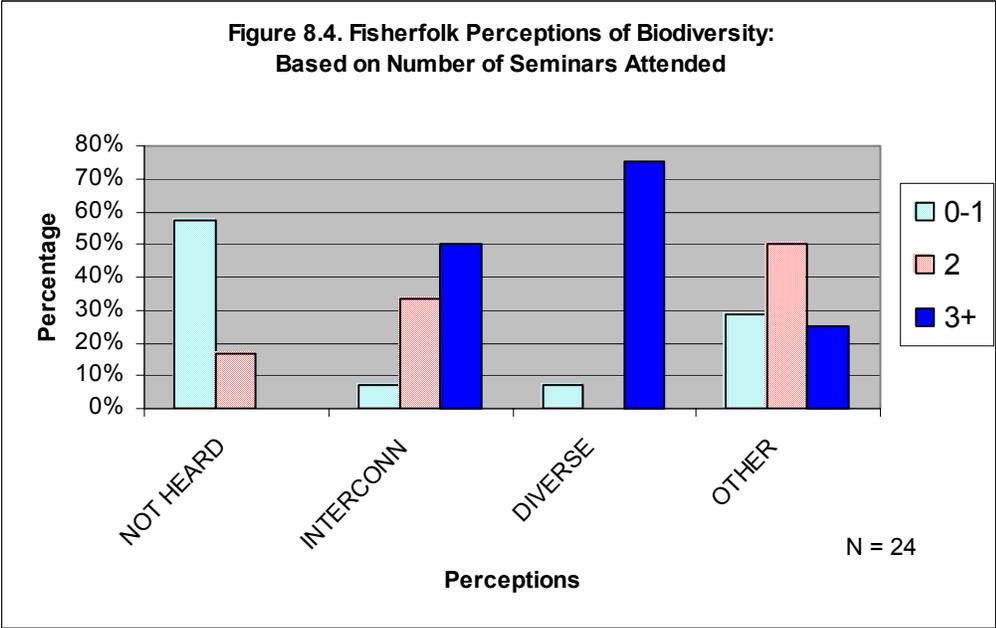
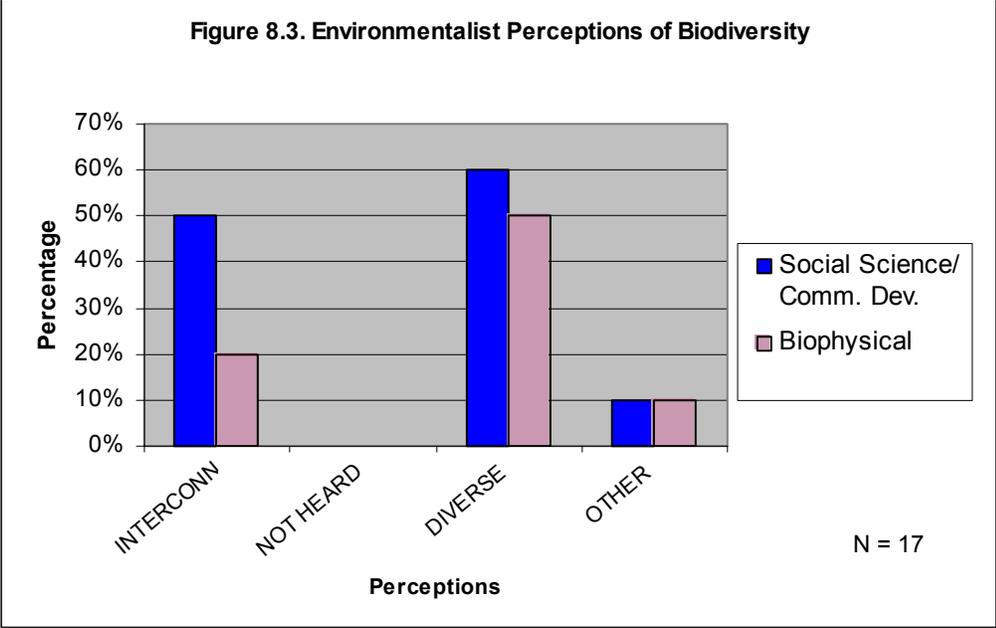
INT: Oh, not Scripps?

ANS: Scripps [Institution of Oceanography at the University of California, San Diego], yes.

As illustrated in this example, Palawan's status as a biodiversity hotspot is important not only to regional environmentalists but also to global environmentalists and oceanographic institutions. However, local fisherfolk who are primarily concerned with food security and the future of their offspring are almost entirely unaware that Palawan is rapidly attaining global significance as a frontier worth saving. Despite the lack of awareness of the international significance of Palawan as a biodiversity hot-spot, knowledge of the importance of biodiversity increased based on the number of seminars attended just as it did with the term, environment, in the previous discussion. Along with other phrases mentioned in this section that pertain more specifically to an umbrella category of "the environment," respondents also tended to group "ecosystem/ecology" into similar cognitive classes that either included humans or did not include humans. Again, as might be expected, environmentalists tended to think of an ecosystem as something related to the interconnectedness of humans and the environment.

Coral Reefs (Figure 8.5, 8.6)

Perceptions about coral reefs were studied because they play an important role in the ecology of the region. Both fisherfolk and environmentalists were interviewed about their views and awareness level of the coral reefs. Their responses were coded into



four categories including: HABITAT (house for fish, place where they live, breeding ground, place where fish lay eggs), MUST SAVE (something valuable to be protected), BIODIVERSITY (mention of biodiversity while speaking about coral reefs), and DESTRUCTION (meaning concern that they have been or might be destroyed).

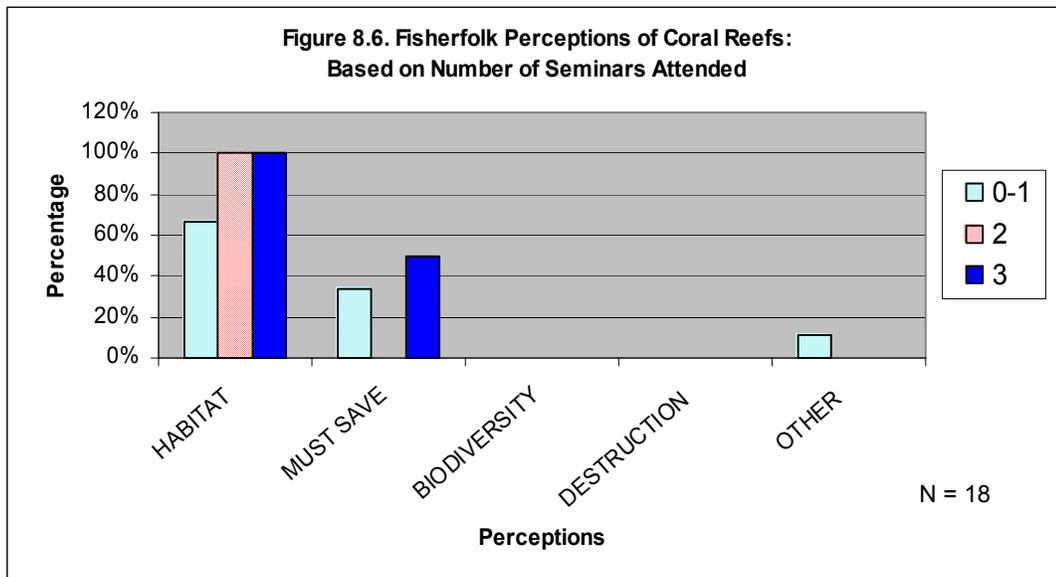
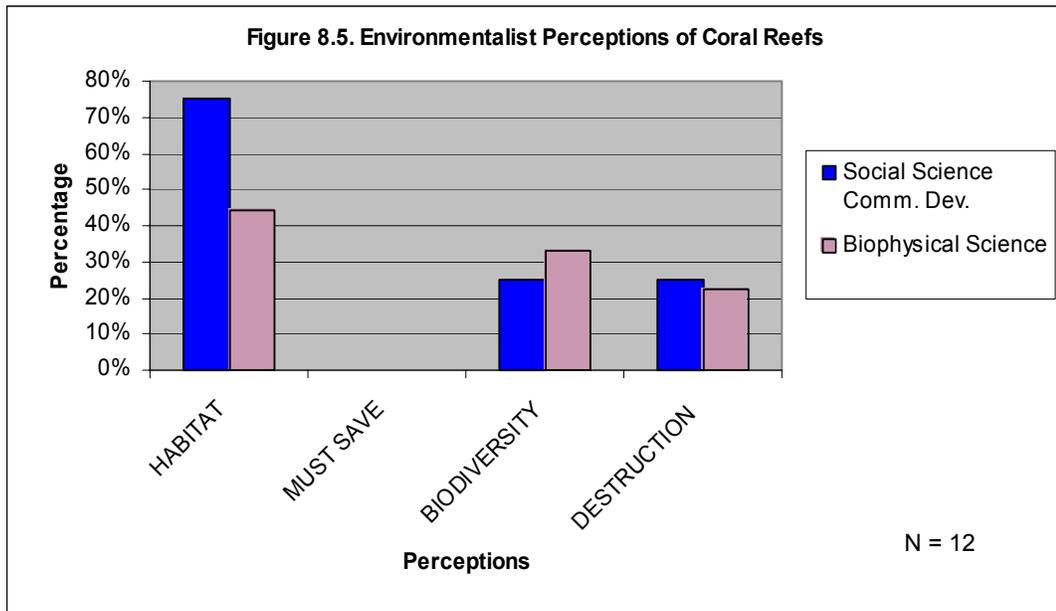
Most (75%) environmentalists with a social orientation associated coral reefs with habitat for fishes and other living organisms. However, 25 % associated reefs with biodiversity, and another 25% with destruction. Notably different from those with a social orientation, biophysically oriented environmentalists associated reefs less with habitat and more with biodiversity and destruction.

Regardless of whether or not they had attended any seminars, most fisherfolk linked coral reefs with habitat for fishes and other living things, indicating an awareness of resource availability and knowledge of the coastal ecosystem. Consciousness of coral reefs as habitat increased from 65% among those who had attended from zero to one seminar to 100% among those who had attended two or more seminars. One woman described her understanding of coral reefs and their relationship to other organisms and expressed associated concern with the damage to reefs from cyanide, a commonly used toxin in the region:

ZV: Most of the fishes are also on the corals. That is why it is usually the target of cyanide application. Like the sea urchin [*terek*], they live on the corals, right? Also seaweed is also in corals. Almost all the fishes are in the corals. Sea cucumber too. Corals have many products, different kinds [of living things]. Not just fishes.

In contrast with environmentalists who associated reefs with destruction, and associated them with habitat as well as with biodiversity, fisherfolk expressed a sense of urgency when talking about reefs (25% in the 0-1 seminar category,

and 50% in the 2 seminars category). They felt that the coral reefs must be saved and indicated a stronger concern for the utilitarian nature of coral reefs as food suppliers for themselves.



Environmental Problems

In examining all of the above issues concerning the general environment, both environmentalists and fisherfolk were found to have expressed a wide array of responses when asked about what they considered to be the main problems with the environment. This collection of concerns, based on interviews with 30 key informants (18 fisherfolk and 12 environmentalists), did not lend itself to breakdowns of codes. Therefore, the responses from both groups are presented in list form for a more facile comparison of viewpoints (see following table). Both environmentalists and fisherfolk often mentioned destructive fishing practices such as cyanide and dynamite fishing, trawl fishing, along with other forms of destructive fishing as significant detriments to the environment.

The primary difference between environmentalists and fisherfolk revolved around the perception of what were thought to be social versus environmental problems. Environmentalists portrayed few social problems, focusing principally on environmental issues. Aside from citing the real lack of fresh water supply as a main difficulty, fisherfolk had more of a tendency to list social, community, and economic problems as environmental problems. Included in these were health concerns such as alcoholism and other issues, lack of livelihood, and a preoccupation for the well-being of their children and families. This suggests the veracity of the commonly held notion (expressed to me in interviews with environmental professionals) that fisherfolk are preoccupied with daily survival.

ENVIRONMENTALISTS	FISHERFOLK
<ul style="list-style-type: none"> • Cement plants • Effects on water temperature • Effects to fish cages • Black and brown rivers • Clorox in water to “numb” fish • Color-coding of boats – doesn’t always work • Concern about coral connected to marine sanctuaries; it must be kept intact • Coral reef destruction/blasting • Corruption • Cyanide fishing • Denuded forests – conversion to farmland • Dynamite fishing • Electro fishing (<i>corriente</i>) • Endangering endangered species • Environmental problems related to marine sanctuaries • Erroneous concept that sustainable resources (as a concept) will never run out • Fishing with fine nets and subsequent damage • Illegal cutting of lumber • Industrialized consumption in 1st world • Lack of political will • Lack of toilets leading to waste water • Management of fishing efforts via: controlling migrant fishers • Marine protected areas as deterrent to more environmental damage • Overpopulation with limited natural resources • Peer pressure to do what others are doing leads to poor management • Problem with coral reefs being under water and therefore “invisible” to people who can use denial regarding their demise – prevents people from working to protect • Rampant use of fertilizer • Stunting growth of lapu-lapu • Trawling (but raises issue that if trawling is stopped that the poor might suffer economically so mixed about the issue) • Use of commercial fishing gear and subsequent destruction • Waste dumping into fishing ground 	<ul style="list-style-type: none"> • Alcoholism • Baby trawl • Baling • Color-coding of boats as bad idea • Concern about illegal fishing • Concern that children will have nothing left to enjoy: must take care of what there is • Concern that if little fish die, there won’t be regeneration • Concern that some feel resources will never run out • Corruption • Cyanide fishing • Decrease in fish catch due to dynamiting • Destruction by super hulbot-hulbot dry wells, and now must walk 1 km to fetch drinking water • Dynamite fishing • Floods • General concern for the future • Headaches, worrying about problems • Illegal fishing in general • Illegal logging • Inadequate fishing transportation • Insects • Kaingin (slash and burn/shifting agriculture) • Lack of cooperation in Barangay • Lack of livelihood • Lack of participation • Lack of permanent sources of income • Laws but no implementation • Limited livelihood • Low fish catch • Malaria • Motor boats using diesel, (crude oil), so fish and eggs dying and fish weakened • No capital for business • Problem tying trees with rope and pulling them down • Ruination of where fish lay their eggs • Trawling • Vegetable and fruit shortage • Water rationing • Water shortage • Wells drying up

Table 8.1. Environmental Problems

Key Concepts in CBCRM: Management, Enforcement, and Empowerment

Sustainable Development

One of the principle concepts in CBCRM is that of sustainable development, a term that has waned in popularity. However, in the Philippines, despite suspicion among environmentalists about misusages of the phrase, the notion that humans should be conscious of sustaining natural resources and the effects of degradation on the human environment were still an important part of CBCRM seminars and awareness-raising.

The more exposure that environmentalists had to the phrase, the more suspicious, or hesitant about using or defining it they became. Many environmentalists felt the term was overused, exploited and, at times, incorrectly interpreted. Fisherfolk who had been exposed to the phrase seemed to take into account a model of sustainable development whereby humans should "give something back" to the *yamang dagat*, or coastal resources. Overall, many fisherfolk who had attended environmental seminars seemed to have learned the general meaning of the phrase, regardless of whether or not they used the same wording, or Tagalog translation, and often had a basic understanding that the CBCRM programs should be a tool for communities to learn how to sustain their natural resources. There was agreement among fishers and environmentalists that sustainable development means that humans should care for the environment in some fashion. This included an awareness of the negative effects of "using up all of the resources," and the positive results of regenerating degraded areas.

Environmentalists however, often noted the difficulty in implementing and measuring sustainable development and often seemed discouraged with the phrase. In many cases, they became suspicious of its misuse by politicians, and in other cases they

simply noted how difficult the concept is to implement. One woman interviewed candidly shared her dilemma in the following statement:

It's a very difficult concept to...ahhh...there's a technical definition...by the...Commission...but that's easier said than done especially in a place like the Philippines where you have people thinking about what to eat today... I go to places where there are fisherfolk, upland people, tribal people and I've seen firsthand how they live and how difficult it is for them to make a living. It's not just government indifference, which is the problem but also personal aspects, the way they live their lives, for example. So I think that's when I recognized it. It's a very difficult concept, really... They really don't have that much choice... I remember this one island in San Vicente we went to. The kids are not going to school and they're already 10 or 11 years old. The school was so far. But they chose to live in that place because that's where they could get food...near the sea...plentiful... If they move to another place and be near a school, they would have less food and they would have to compete with neighbors. So, choices like that, I mean...but you know that when they grow up, they'll have more limited choices also because of lack of education.

Rebecca Rivera, Executive Director of Tambuyog illustrated the misuse of the phrase, sustainable development, in an interview:

A lot of people are using the sustainable development plan to proceed with business, economic interests over and above other interests like environmental interests.

I also observed this kind of economic slant of the meaning of sustainable development at a coastal zoning conference for the Strategic Environmental Plan for Palawan (SEP). A woman resort owner from El Nido (a world class resort area on northern Palawan) tried to convince the participants that they should be concerned with sustainability of economic development and that they should not be so stringent with restrictions for developers.

Despite frustrations with the difficulties in implementing sustainable development, as well as an uneasiness with the ways in which the term has been

appropriated by politicians and business people, NGOs continued to teach the concept in their environmental seminars. One well-known Palawan environmentalist gave this description of sustainable development at an advanced paralegal seminar geared toward fisherfolk in 1998:

SPKR: That's what it means. Sustainable development is your basis there. So if they say, why are you, *Kagawad* (councilman)...so persistent (*makulit*)? Why are you stopping us all from building *baklads* (fish corrals)? You will then answer that that's based on the principle of sustainable development. That's in the law. You can't use up (*ubusin*) all the resources from the sea (*yamang-dagat*). What is that? What does that mean? You will then explain. When you say sustainable development, you may use the sea in such a way that you will not destroy its capability (*kakayahan*) to *yamang-dagat* bear fruit (*yumabong*) again. Right? That's hard right? You should not destroy its capability to bear fruit again. It's like a person's skin. When we get wounded, there's a new skin that will grow again, right? But if you get continuously wounded and wounded and it gets cut off, it won't grow again. The *yamang-dagat* (coastal ocean) is like that. The seas are like that. The natural resources (*likas-yamang*) are like that. That is sustainable development. Is everything clear? So you should not destroy its capability to bear fruit and grow again. That is sustainable development. According to this principle, you cannot fill up Honda Bay, Puerto Bay or Ulugan Bay with *baklads* (fish corrals). It is not consistent with this [principle of sustainable development].

As an example of the ways in which one active PO leader interpreted the information presented to him at various seminars, Job Favila described his understanding of the phrase, sustainable development, and its relationship to CBCRM:

JF: Yes, for the long-term. I heard about that [sustainable development] when we had a paralegal. Everyone should benefit from the *yamang-dagat* (coastal ocean) but it should be utilized well. Even if you get something from the sea/ocean, there should be something left for later. We will not be the only ones benefiting from it, but our children, grandchildren and their descendants too. If we resort to methods like illegal fishing and what we used in the past years...dynamite (*bunbong*), trawl, baling [there won't be anything left]. Most fishermen just want to get rich quickly without thinking of their neighbors' and other people's welfare. That's when [after resources started degrading and from the seminars] we found out that you should always try to replace what you used up. If you can take care of a

specific place so the fishes will multiply, when they get bigger, they can just go to another place and that's where they can be caught. The bottom line is we should make sure that the number of fishes should not dwindle drastically. There should be a replacement for every fish that's caught (*May reserba sa bawat isda na nahuhuli.*) One example is the people from Masbate [island in central Philippines, Visayas region]... Their foremost problem is that there are hardly any yamang-dagat left in Masbate. That's why they decided to move to Palawan because of the abundance of fish. However, they're trying to do here what they're used to in Masbate. Of course, we won't let them get away with it. So that's what's been happening here. When you benefit from the yamang-dagat, you should always find a way to replace it so they won't run out.

Local Government Code/Devolution (Figures 8.7, 8.8)

The Local Government Code of 1991, commonly known as *devolution*, is well-known among educated Filipinos and serves as a global precedent for providing local communities with the legal authority to manage their own resources. It was passed in the spirit of empowerment that followed the People Power revolution of 1986 and the new Philippine constitution of 1987. It is unique to the Philippines in that it gives levels of authority to local governments to pass ordinances to manage their own affairs.

Specifically it declared all waters within 15 kilometers from the high tide line to be free of large-scale commercial fishers, referred to as municipal waters. However, the code specified that if local governments so desired, they could allow commercial fishers to operate within such waters as long as the waters were at least seven fathoms deep. This code additionally allowed communities to determine their own resource management strategies such as creating specified marine protected regions and the like.

Specific information about this topic was gathered. Again, both fisherfolk and environmentalists were asked about their knowledge of this ordinance and their perceptions were categorized into four divisions of answers: KNOW (are familiar with

the term and its purpose), SOMEIDEA (know a little about it), NOHEARD (unfamiliar with the concept), and PROBLEM (discussing problems with enforcement of this law and the like).

Of the environmentalists, 100% of those with a social orientation were aware of the code, and understood it well despite noting problems with its effectiveness (see below). The vast majority of those with a biophysical orientation also knew of and understood the code. Only a small percentage (less than 20 %) of both groups had a vague idea without full understanding of the code. These tended to be younger, less experienced environmental professionals. The resulting tabulations are not surprising since the Local Government Code of 1991 legally sanctioned the very programs that CBCRM embodies (see Figures 8.7, 8.8).

Only 36% of the fisherfolk who had attended 0-1 seminars had knowledge of the code. 54% of this group had some idea of the Local Government Code and devolution, but did not understand its meaning. Once the fisherfolk attendance at environmental seminars reached 3 or more, a full 100% were aware of the code. When discussing the topic with the interviewer, fisherfolk tended to conjure a recollection of how things had changed over the last several years, and most tended to concur that they believe that it is better to have regulations in the hands of the local authorities, such as the *Barangay Capitans, kagawads* (councilmen), and the *Tanods* (barangay guards) than with officials from Puerto Princesa City or federal agencies. Upon understanding the concept, although most agreed that it was generally a good idea, many qualified their enthusiasm, recalling and describing difficulties in resolving issues locally because violators of the law often did not receive adequate punitive consequences. This was logically of concern to many.

Some followed this line of thought with accusations of corruption within their own barangay.⁴ 100% of the fisherfolk who had attended three or more seminars and 100% of the environmentalists with a social orientation noted that there were problems with the code, regardless of whether or not they deemed it desirable in principle. The problems stated ranged from lack of resources, difficulties in implementing programs, lack of enforcement of laws related to illegal fishing and logging, as well as problems related to corruption and unfair treatment due to kin and friend relations.

Although most fisherfolk believed in devolution, in principle, many cited difficulties in achieving fairness in resolving conflicts within the barangay. One barangay official explained his understanding of the process and noted that he believed that prior to devolution some of the funds were lost in the process of transfer from the province to the barangay. He explained that each barangay has funds that are allotted directly giving them more control over their budget. He was particularly interested in the possibility that all *kagawads* might one day receive salary as civil servants.

A local storeowner in Lucbuan, (also active in community affairs) explained his understanding of devolution:

...devolution of powers has some positive and negative effects. In terms of the services, it's good; because the services are given directly to...[the] barangay, but in terms of financial capacity...[the barangay] being too independent is not really an assurance that they can make it on their own. They still need the help of the central government. Sometimes it has good side, and it has a bad side also.

⁴ The ethnographic technique of probing was used to explain the local government code if the interviewee was unaware of devolution. I am aware that the interviewee might have answered that he or she was in favor of the code in order to please the interviewer because of his or her desire to engage in *pakikisama* (described in this chapter). Regardless of this possibility, several interviews revealed that fisherfolk perceived both positive and negative effects of the Local Government Code of 1991.

In a similar vein, Attorney Julius Concepcion, who also runs a World Wide Fund for Nature Office in Puerto Princesa City, explained that an ideal goal of communities would be complete autonomy. His perceptions of devolution in some ways agree with the model presented here of fisherfolk perceptions, but the end goal is different. Whereas local residents of northern Honda Bay still believe they need links to the city for certain regulatory situations, and do not perceive of themselves as ever being entirely autonomous, many environmentalists believe differently. They feel that self-sufficient communities should be the ultimate goal and outcome of CBCRM and that this must be in conjunction with the devolution of power to local communities. The following discussion enforces this belief:

AC: Devolution?

INT: Can you just share your thoughts about the whole process?

AC: There are some powers which can be effectively [devolved] and there are some which cannot.

AC: All of them have been devolved, the problem is that...the budget. The local government unit has to provide for all the expenses for this devolution. It provides them a lot of freedom but their financial capability prevents them from using that power effectively. So I think there should be more studies on what powers can be effectively devolved or not.

When asked how he believed devolution relates to fisheries management and CBCRM, he explained the following:

AC: Devolution in that aspect is effective because usually the projects in fisheries can be supported by the local government

INT: Yeah...Or do they have the resources at this point?

AC: Yeah, at this point a lot of ...resources are available, especially in the protection of coastal resources. So the devolution there is effective but there must be some times when the local government unit must be self-sufficient and not dependent on outside funding.

INT: How could that happen?

AC: When communities are fully empowered as in we don't have to spend for monitoring because the people themselves monitor or implement the laws themselves. Right now, you need a lot of financing because you have

to hire some people. That means people don't work unless you pay them. So that means...that indicates that the political will is still very low. You need incentives other than the protection of the resources.

INT: Right.

AC: Protecting the resources is not enough as an incentive for these people. But the time will come when these people will see their full connection to the resource... I think by that time we don't need a lot of outside financing.

INT: So right now, when you say outside financing...like, for example, some of the barangays...

AC: We need a lot of financing just to have all these workshops, paralegal trainings. These are the activities that take a lot of money...cost a lot. But when people...the awareness of the people about the status of the environment has reached that level, we won't need workshops anymore. And you won't need to... Like the city government is having this Bantay Palawan when this monitoring could be effectively done by the adjacent communities to the area. We spend a lot on these helicopters and boats. It's one of the hot issues now. The acquisition of helicopters...but this time it's really needed because people in the adjacent areas don't care that some people are violating fishery laws.

Marine Sanctuaries (Figures 8.9, 8.10)

Throughout the interviews it became apparent that regardless of environmentalists' orientation or the numbers of seminars attended, the notion of marine protected areas, or marine sanctuaries in the Philippines, has come to evoke perceptions of a strategy to increase food production. In other words, at its fundamental level it has come to symbolize increased fish production. This perception is in contrast with the original purpose of protected areas of simply protecting biodiversity and wildlife. The origins of marine protected areas stem from conservation ethics, such as the Tubbataha World Heritage Site (Arquiza 1996a). However, with the advent of community-based coastal resources management programs on Palawan, and with the lessons learned from some early successes as well as failures throughout the Philippines (Alcala and Russ

Figure 8.7. Environmentalist Perceptions of Local Government Code/ Devolution: Social versus Biophysical Orientation

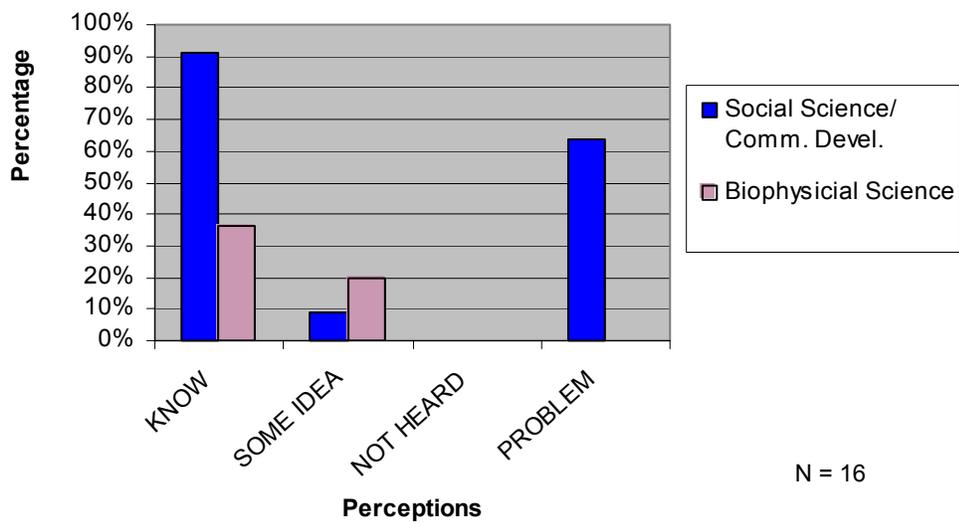
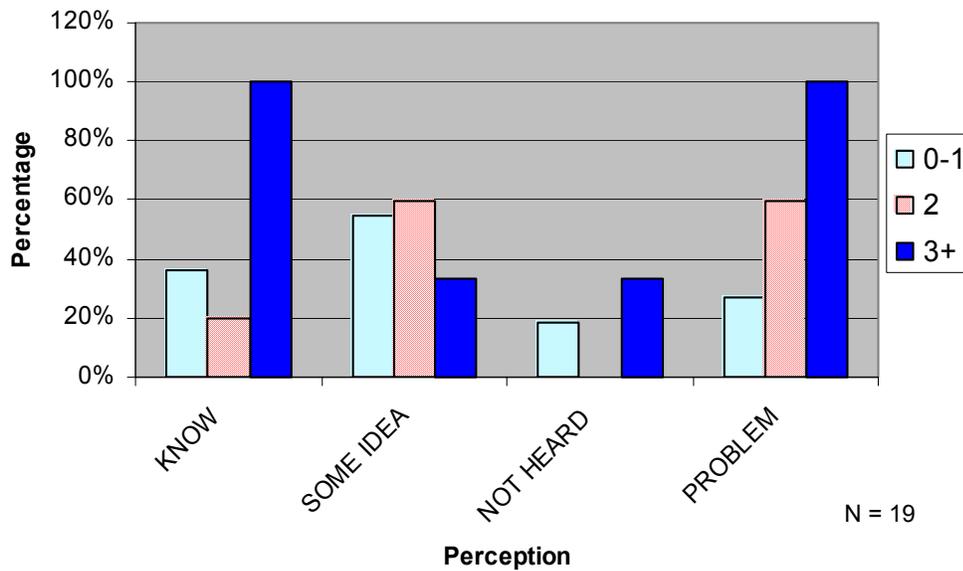


Figure 8.8. Fisherfolk Perception of Local Government Code/Devolution: Based on Number of Seminars Attended



1994), the notion of marine protected areas has begun to take on a different meaning. Inherent in this new perception is the inclusion of human needs with the implementation of marine protected areas.⁵

Data analysis of the interviews with the fisherfolk and environmentalists included divisions of perceptions about of marine sanctuaries into five categories, coded in the following ways: GOOD (meaning they could increase fish production); PEOP.CHOICE (meaning that people should be allowed to make the choice to have one and that it shouldn't be mandated); MULTI-USE (meaning that there should be allowances for multiple uses of the region or should include different zones for unique uses such as a buffer zone that restricts activities without excluding use; WEST.CONCEPT (meaning that the concept is foreign to the region); and finally, LAWENFPROB (meaning that the interviewee mentions problems with law enforcement, making the region difficult to "protect").

Environmentalists' appreciation for the value of marine sanctuaries differed only slightly between the categories of those with either social or biophysical orientations. Both groups expressed positive sentiments regarding protected areas, but both groups also shared concerns on various other levels. Biophysical environmentalists seemed more preoccupied with law enforcement and recognized the notion of a protected area as a western or alien concept. In contrast, only one of the social environmentalists raised the issue of sanctuaries as a foreign concept. 40% of those with a biophysical orientation raised the issue of law enforcement problems, whereas none of the social science oriented

⁵ One of the early pioneers in setting marine protected areas was Angel Alcala, a marine biologist formerly of Silliman University who eventually became Secretary of the Department of Natural Resources. This individual most likely had a strong influence on the transition from perceptions of protected areas being for the purpose of biodiversity to being that of increased food security.

environmentalists did. This may be attributed to the fact that biophysical science oriented environmentalists have more specific backgrounds in the creation of sanctuaries and as a result had built-in concerns about law enforcement. Social oriented environmentalists raised the issue of multiple-use of the regions more often, usually in an effort ensure the inclusion of the needs of fisherfolk. A higher percentage of social oriented environmentalists (40%) than those with a biophysical background (20%) were concerned about the sanctuaries being established according to the fisherfolk's choice (code PEOP.CHOICE). The same held true for the idea of multiple-use areas.

Environmentalists and community organizers seek to educate fisherfolk about the importance of protected areas for increased fish production as well as to include them in the establishment and management of such areas. Normally, CBCRM programs wait at least two years to broach the topic of implementing marine sanctuaries with communities because such sanctuaries are thought to be a perceived threat to fisherfolk's fishing grounds. In some areas this may be true; however, fisherfolk who were among my research participants were generally very positive about marine sanctuaries and showed a basic understanding of the importance of protecting coastal ecosystems including mangroves and coral reefs. Surprisingly, even fisherfolk who had attended only one or no seminars at all did not respond negatively toward marine sanctuaries. In fact, 80% of the fisherfolk in the grouping of those who had attended one or no seminars responded positively about marine sanctuaries. When the concept was discussed in interviews, approximately 25 % of the fisherfolk in this category expressed the idea that some fishing should actually be allowed in marine sanctuaries and that they should serve as multiple-use areas.

Although fisherfolk were overall in favor of marine sanctuaries, especially those who had attended two or more seminars, their understanding of related issues and the kinds of sanctuaries programs that were possible remained limited. Some were uncertain of their own abilities in creating or managing them. For instance, I observed a Barangay leader at a coastal zoning training comment, "We are not experts," when he felt that he was not prepared to implement sanctuaries and enact zoning ordinances.

Participants in the CBCRM programs, as well as some non-participants, demonstrated enthusiasm about the creation of sanctuaries. Among interviewees, even those who had limited exposure to environmental education had learned of the positive aspects of marine sanctuaries. When asked where they learned about marine sanctuaries, those who had not attended environmental seminars stated that they had learned about them on the radio (local or national stations), or from friends and family. This indicates a growing awareness as a result of general national discourse about marine sanctuaries. One interviewee expressed enthusiasm for the sanctuaries as demonstrated both knowledge and enthusiasm in the following conversational excerpt:

INT: When people talk about a protected area, called a fish sanctuary, what do you think they are referring to?

ZV: In my thinking, if that dream can come true, that will be a good policy. We work together with that policy. If that policy works all right, of course, we will be together in a good life. If there is laying ground, of course, there will be many eggs. Naturally, not only one person will benefit. Almost everybody will benefit.

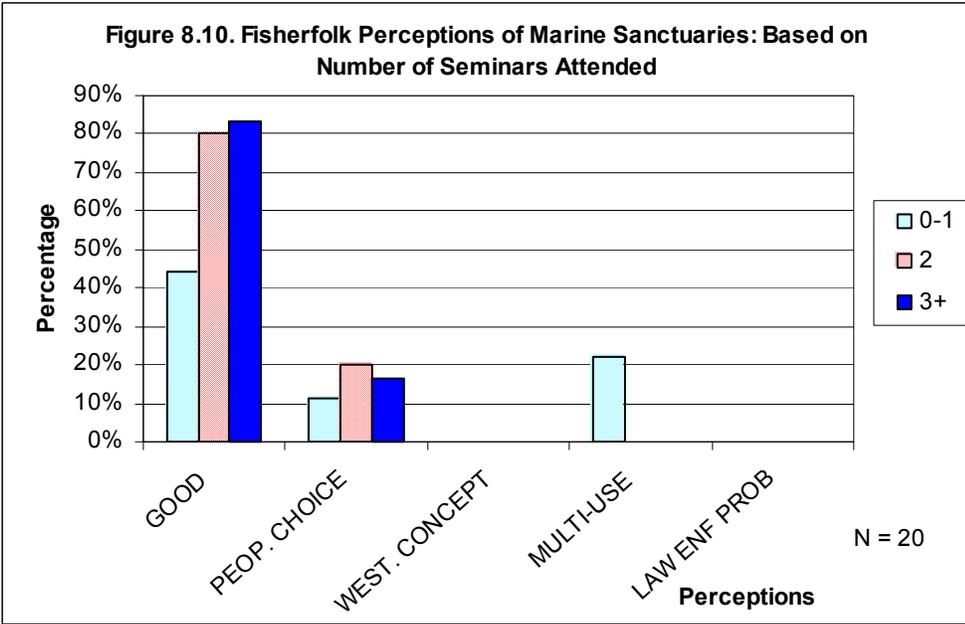
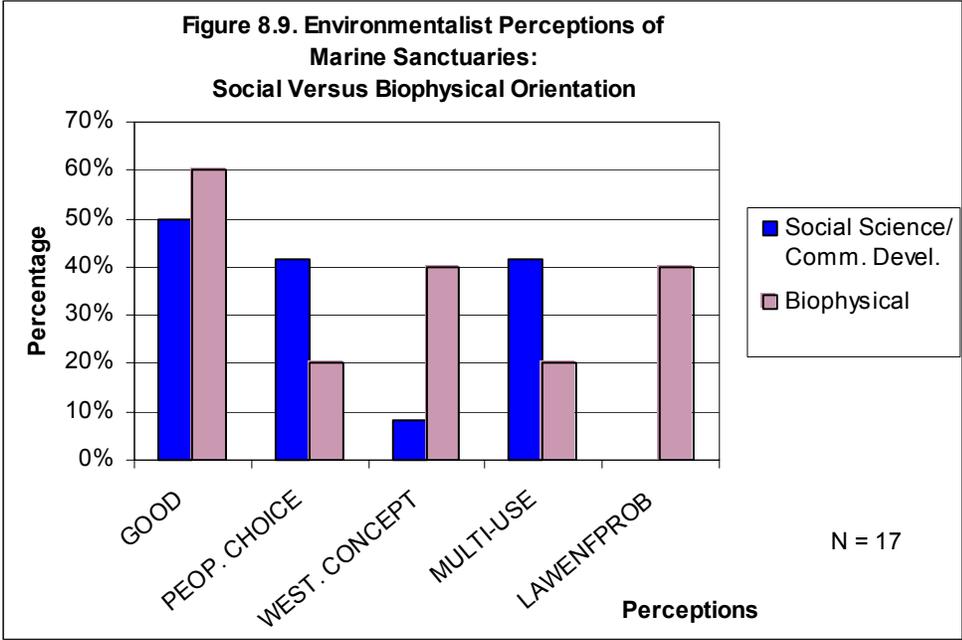
Another contrast in perceptions about marine sanctuaries is that the classic coastal management model suggests that the main target for sanctuaries should be coral reefs that are primarily intact. Some of the fisherfolk, as well as environmentalists, preferred to consider reefs and mangroves that are already partially degraded for sanctuaries in order

to allow them to regenerate. This was an area of agreement between fisherfolk and environmentalists. However, at the time of field research it was in conflict with the draft coastal zoning policies under consideration as part of the Strategic Environmental Plan (SEP).⁶ Barangay officials and other local leaders were involved in drafting the ordinance and the outcome was unknown at the time of the research. However, local communities could implement their own marine sanctuaries protecting areas partially degraded if they so chose to do so.

Bantay Dagat (Figures 8.11, 8.12)

The Bantay Dagat (Guards of the Sea, or Baywatch), as explained earlier, was initially set up as a mirror program to Bantay Gubat (guards of the forest). People and communities throughout the Philippines have engaged in a movement that encourages them to take responsibility for protecting their forest and coastal resources. Bantay Dagat programs vary. They were initially volunteer efforts intended to empower communities to protect coastal resources, but in many areas, they are now government-sponsored efforts. In fact, after several months of interviewing, I learned that the Puerto Princesa City program was actually a "special" program of the Mayor's office, making it neither a regular government entity nor a purely volunteer effort. Bantay Dagat participants received compensation for their efforts and for gasoline, but members were not considered regular government employees (according to interviews with government

⁶ ELAC began assisting POs, and other members of coastal resource management teams, in implementing marine sanctuaries in northern Honda Bay after the fieldwork for this analysis was completed. Community members will continue to need assistance for the creation of boundaries, enforcement, and funding gasoline so that community guards can patrol the sanctuaries. However, it is unknown whether or not they have received any or all of these types of assistance.



officials). Fisherfolk were unaware of this ambiguity and considered the Bantay Dagat of Honda Bay to be a government authority. In Puerto Princesa City (covering the jurisdiction of Honda Bay) in the early to mid 1990s, the initial Bantay Dagat program was successful in curtailing the dynamite fishing in the bay, but by the time of my fieldwork in 1997 and 1998, the program had gained a reputation among fisherfolk and some environmentalists as being inefficient and at times even corrupt. Blast fishing had become less common, but cyanide fishing and other illegal fishing methods were still practiced regularly without intervention of the existing Bantay Dagat.

The regional perceptions of the Bantay Dagat were elicited and examined similarly to the categories already discussed. Again, fisherfolk and environmentalists addressed areas of concern and these were coded according to the following four classifications: GOOD/EFFECT (indicating approval of them), INEFFECT (indicating dissatisfaction with the program and deeming them ineffective, useless, or corrupt), RELATION PROB (meaning that participants have kin or friendship ties to illegal fishers making it difficult to make arrests and enforce program), DIFF. TO CONTACT (indicating the challenges, such as lack of radio and apathy, to reporting illegal activities due to previous lack of responsiveness of authorities).

One area of agreement between the many environmentalists working in Honda Bay and the fisherfolk residing along the bay was that both groups considered the Bantay Dagat to be ineffective. However, a higher percentage of environmentalists with biophysical backgrounds (60%) stated that the Bantay Dagat was both good and effective (see Figures 8.11, 8.12). In expressing concerns about the effectiveness of the Bantay Dagat, issues such as corruption, laziness, and lack of resources (code INEFFECT) were

raised by nearly 40% of all environmentalists. Most of the fisherfolk also mentioned these same reasons for ineffectiveness and expressed frustration regarding the lack of efficiency of the Bantay Dagat. A high percentage (70%) among those who had attended three or more seminars expressed concern regarding the ineffectiveness of the program for the aforementioned reasons.

Additionally, cultural obstacles presented true impediments to the success and implementation of the Bantay Dagat. These included interpersonal relationships (code RELATION PROB) such as the predicament of the Bantay Dagat having kin or other relationship ties to illegal fishers, causing people to be reticent to arrest those with whom they may have personal connections or *utang na loob* (indebtedness). Fisherfolk and environmentalists also reported that other cultural values, such as the desire to avoid confrontation and *pakikisama* (desire to smooth interpersonal relations), might play an important role in the lack of effectiveness of Bantay Dagat. Among socially oriented environmentalists, success of the Bantay Dagat was commonly cited as a primary problem.

Another area where both environmentalists and fisherfolk tended to agree revolved around the lack of apprehension of illegal fishers due to the lack of enforcement of the program and resulting lack of prosecution of violators. But, the degree to which this was a problem varied between environmentalists and fisherfolk.

Environmentalists seemed to assume that handling offenses at the local level was generally more desirable than a higher-level court or legal approach. Fishers and their families, by contrast, often blamed lack of prosecution on a breakdown in the process at the barangay level. Environmentalists and fisherfolk possessed somewhat different

perspectives about the reasons for this ineffectiveness. While environmentalists often alluded to corruption among the Bantay Dagat as the main reason for its ineffectiveness, interviews with fisherfolk revealed problems in availability of resources for contacting the Bantay Dagat, again stressing concerns for the lack of prosecution of illegal fishers and loggers. The lack of resources usually meant that community members could not afford simple provisions such as gasoline, boat repairs, short wave radios and the batteries to operate them and could subsequently not report violations to other volunteers and officials.

Environmentalists with a biophysical orientation also seemed concerned with the difficulties incurred in contacting the Bantay Dagat by radio, the most common method used to reach them, when attempting to report illegal activities. The inability to reach the Bantay Dagat is also an obstacle, though not the primary one, faced by fisherfolk. For example, the Bantay Dagat uses short wave radios as their main communication device. When fisherfolk and environmentalists were asked how they would go about contacting the Bantay Dagat to report illegal fishing activities, most stated that the radio is the most common and expected means. But the majority of fisherfolk do not possess radios, although in rare cases the Barangay Captains operate them. If the Captain is not available, then no reports of illegal fishing activities can be made.⁷ Furthermore, the Barangay Captain is then expected to take action and follow up with contacting the Bantay Dagat, but this has not always occurred in neither Lucbuan or Babuyan. In an interview with a woman from northern Honda Bay who was active in CBCRM and aware of particular regulations, her frustrations with enforcement of regulations were expressed:

⁷ Scheduling conflicts and difficulties in contacting the Bantay Dagat prevented me from interviewing them.

INT: What should be done or what is the process if we need to call or contact them?

VF: It should be that there is coordination between...we the small ones report to them and they do the necessary action. There are radios, to stop those things.

INT: What they do with the radio?

VF: They inform the highest, for example, if some people use dynamite [*bungbong*]. If the Bantay Dagat connives with these people, then they will not call the higher officials... Or the barangay officials, if they are not scheming with the illegal fishers (*illegalistas*) [*sa mga barangay* officials, *kung hindi kasabwat*]. The barangay officials will be the ones to report to the higher level, isn't that right? So that those who practice illegal fishing will be told to stop. If it continues to happen, small fishermen have many losses.

Another woman from Sitio Katumbal, Zenai Valdez, articulated her experiences with the Bantay-Dagat with depth and richness:

ZV: There are so many trawls that we could not recognize them.

INT: Isn't there a Bantay-Dagat here?

ZV: There are guards, *Bantay-Takas* [run-away], right here. Bantay-takas, because if they are guarding the sea, of course, they should go there [to the sea, but they are not]. That is why we call them Bantay-Takas [because they run away], not Bantay-Dagat.

INT: Not Bantay-Dagat?

ZV: No. If it is Bantay-dagat, they should be out in the bay protecting the sea.

INT: So they do not work in the sea, they are here in the land?

ZV: They are just waiting around here in the land, looking around. Nothing really happens (*Wala rin*). If they just really implement the rules strictly, then they can really make it strict and make people obey the rules; they could do it if they want. The Bantay Dagat themselves are afraid (*Bantay-Dagat mismo, takot din*).

INT: The Bantay-Dagat is afraid?

ZV: Yes, they are also afraid of those who are trawling.

INT: Why is that?

ZV: They are also afraid. Like before, they pursued some illegal fishers by Pandan Island. When they got near, they could not come closer fearing the other party might get them first [*Baka raw maunahan sila*]. The trawlers also have arms. That is the way it is. They also do not want to take drastic actions [*Ayaw din nilang magbasta-basta*]. That is why they are Bantay-Takas.

INT: Have you witnessed any arrests here?

ZV: Yes, in broad daylight. Right there, they pursued him....

Then when they got near him, nobody wanted to get near the boat; they were also afraid that they would be hit first if the trawlers are armed. What they do is they just take the plate number of the boat. What the Bantay Dagat usually does is they also ride the boat, get close to them and get their plate number. Just that, no orders to stop them from trawling. They are also afraid to say it. They do anything else, just get the plate numbers. Then they make report. Then it will remain as a report. If ever, they are suspended a few days, a few nights, then they are back running on the sea. Nothing has changed [*Wala rin*].

INT: Nothing happens?

ZV: Nothing, it is the same [*Ganun din. Ganun at ganun*]. Because these areas near the shore are for the poor people who have no motorized boats. Of course, if they are poor [the trawlers], there are those who are even poorer like us who just use paddles. They are more fortunate that they can go to the deep areas. For us who just use paddles, naturally, we are limited to the shallow areas. But if it is like that where they take from us even the shallow areas, then there is really none for us who are even poorer than them. None, nothing left for us. We just use paddles...When the report arrives, the following morning, then they are back again. They just make them pay P1000. Actually, after one or two days, they are back again. Then they make them pay P2000 [higher the next time]. Of course, cash, they pay. Three days after, they are back in operation again.

RA: Was this Bantay Dagat the ones from the municipality or were they just volunteers?

ZV: They were just the ones from this place, the Bantay-Barangay.

RA: Does the city also have Bantay Dagat?

ZV: There are also Bantay-Dagat from the city, sometimes they come here... But that is not effective, they just give P500 or P1,000, okay you stay there[They can be bribed]. The Bantay Dagat, they are there drinking and standing around...

ZV: That is just money [*Pera lang yan. Money is all it takes*]. For example, people say, oh, there is Bantay Dagat right there. Yes, Bantay-Cash. They pretend to be strict, but you can show your money and bribe them.

Pertaining to this discussion about local communities' abilities to protect their coastal areas, one government official at the Bureau of Fisheries and Aquatic Resources (BFAR) disagreed with the notion that local communities can protect their own coastal areas. He expressed concern that they lack the necessary resources. He strongly suggested that BFAR's program of deputizing local fisherfolk to counter the problems of illegal fishing and ineffective law enforcement was not successful.

MC: The bureau has deputized what...thousands, but you know, what really is the purpose of deputizing if you can't provide a stable operations platform for these people? So they're just...we spend a lot of...we have to review first the training courses that eventually lead to the deputation of these people. Second, this has to be linked to a more formal...this has to be linked to a system. It's not just you know...that municipality "A" is requesting the bureau to hold training courses to deputize wardens...and the bureau does that so we end up with a thousand people more...

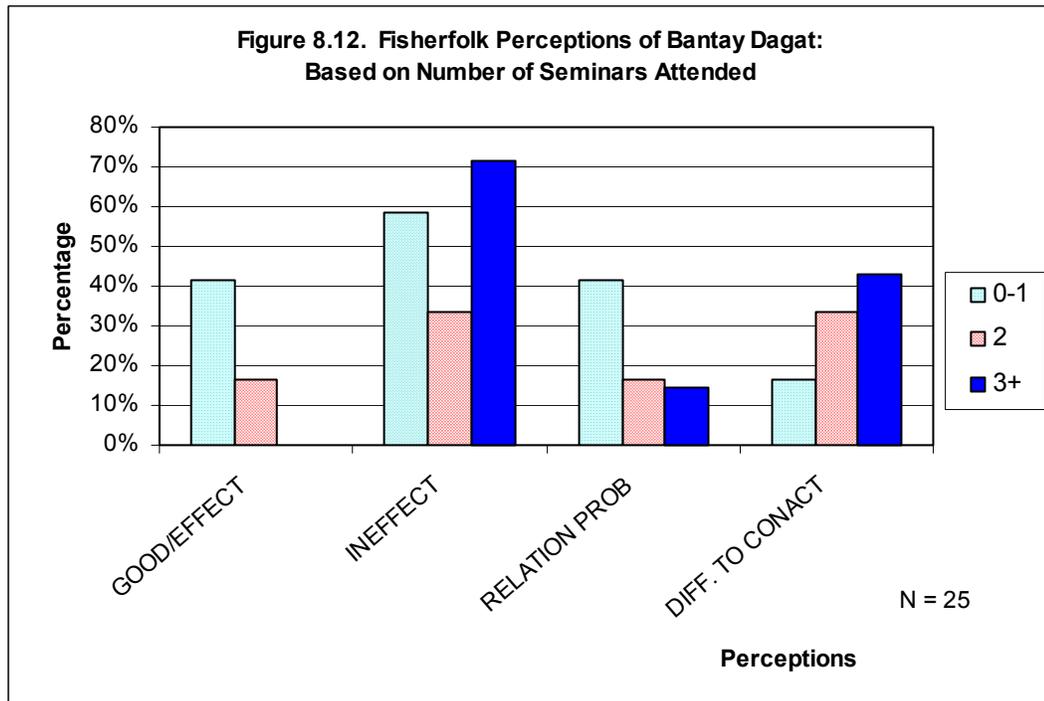
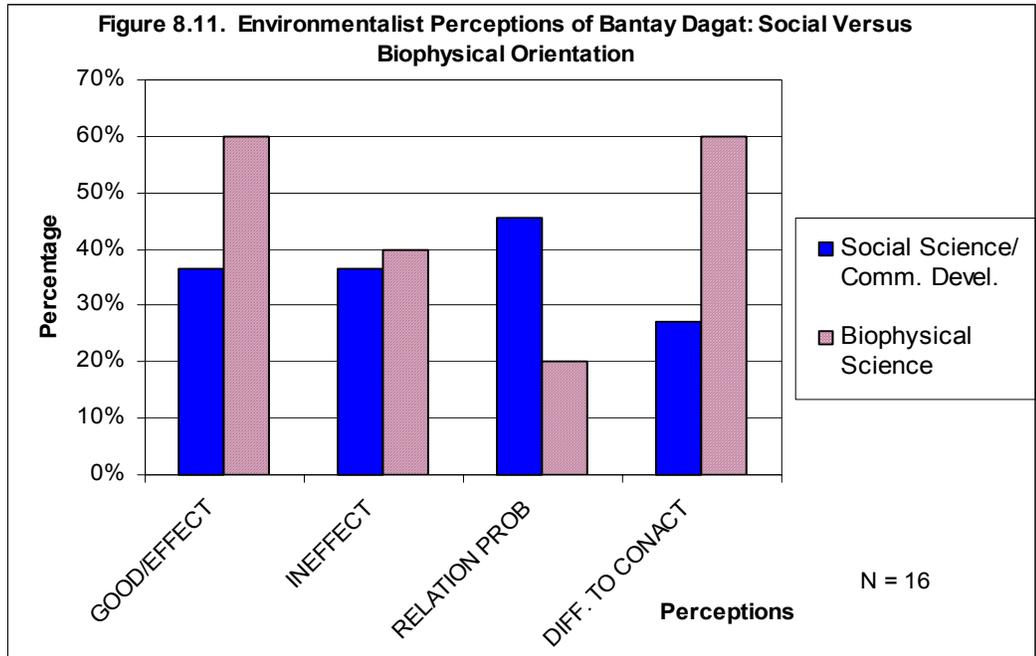
He continues:

MC: They have allowances. You see, it's not something that's regularized. You have...the money supporting Bantay Dagat comes from a special fund out of the Office of the Mayor. We think that if it's really something that's to be sustainable...when you talk about funds, it has to be a regular allocation and one of the more regular cost items. So that includes salaries, maintenance and operation costs of the patrol boats, probably even investment in equipment and later on, replacement of equipment. And also, if you want to keep this sustainable, there should be...we're looking at not only institutionalizing the activity but also making it more professional. It's a lot...if you come up even with some superficial review of all fishery violations in the cases that were filed in court and how many were thrown out, it has something to do with how...what would be the right word, unprofessional enforcement was undertaken.

People's Organizations (Figures 8.13, 8.14)

Since one of the primary mechanisms for implementing CBCRM and community organizing is that of People's Organizations (POs), also known as co-operatives, interviewees were asked to explain them. Specifically, persons were invited to discuss their expectations regarding POs or, in the case of environmentalists, what expectations they thought that fisherfolk had in joining POs,⁸ and what they thought their main purpose served. The codes for People's Organizations were broken down into two

⁸ At times, People's Organizations may embody a different meaning than that of co-operatives because they are considered to be more political. Based on my research on Palawan, in the case of CBCRM, the vast majority of People's Organizations are co-operatives formed initially for the purpose of improving livelihoods and often as a mechanism for implementing CBCRM programs, and not solely for political purposes.



categories: ECONOMIC (fisherfolk join POs as an economic strategy and to improve livelihoods), and EMPOWER/GROUP (fisherfolk join as a form of self-determination, to organize and empower people and/or to help with and be a part of the group).

Environmentalists with a social orientation were more likely to state that fisherfolk joined POs for economic reasons (83%), whereas only 50% of those with a biophysical orientation cited economic factors as the reasons that fisherfolk join POs. 100% of the social oriented environmentalists believed that fisherfolk joined POs for the motives of empowerment, self-determination or to help others. 80% of those with a biophysical orientation likewise believed that fisherfolk primarily joined POs for empowerment, to help others, or be a part of the group.

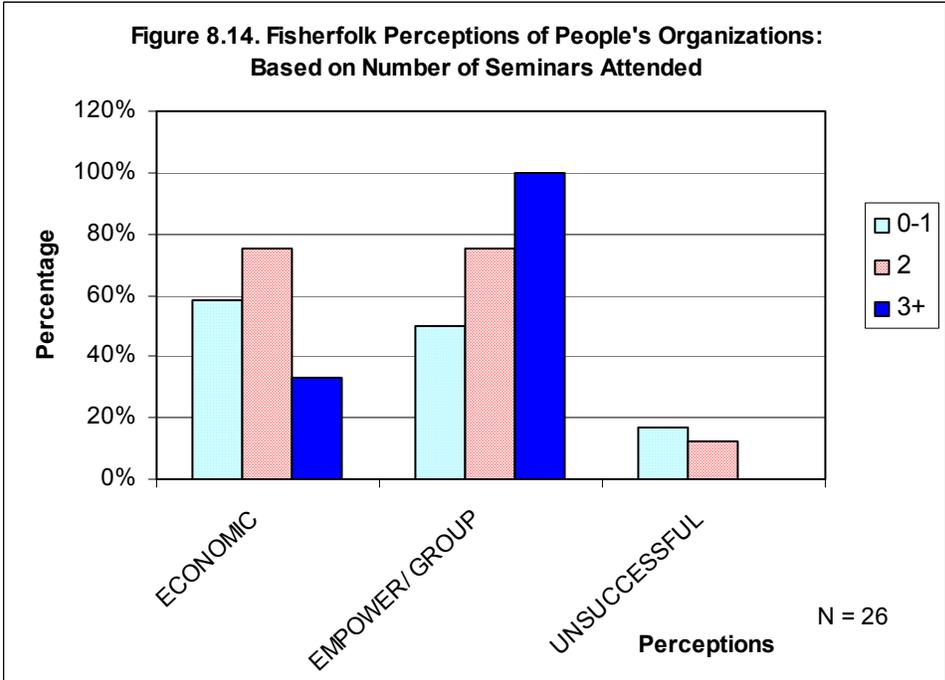
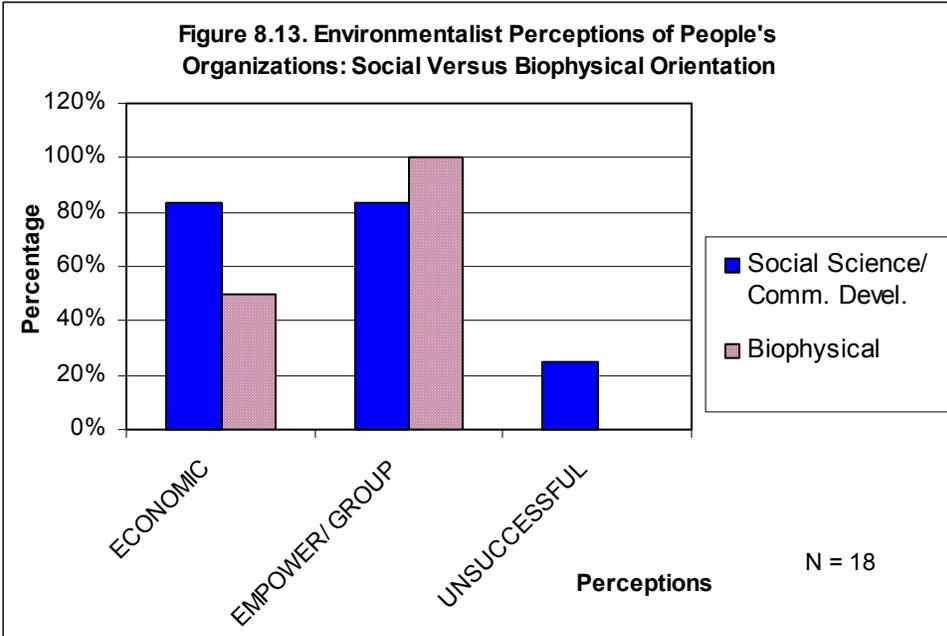
Of the fisherfolk interviewed, 58% of those who had attended one or no seminars said they joined POs for economic reasons. An interesting trend revealed among the fisherfolk interviewed was that as the number of seminars increased, their initial responses to the question about why they joined POs became more oriented toward empowerment and self-determination. 75% of those who had attended two seminars, and 100% of those who had attended three or more seminars responded in this category citing responses relating to empowerment, self-determination and the idea of helping others or being part of the group.

Regarding the relationship of POs to CBCRM and community organizing, there is an inherent assumption among environmental advocates that PO leaders will provide the leadership and education necessary among their own members. My research has demonstrated that PO leaders have a markedly better understanding of CBCRM, environmental laws, as well as of marine ecology than do their members. This is likely

because the PO leaders are more active participants in environmental and paralegal seminars. I noted that the PO leaders often did not pass information on to others in their PO unless the NGO was present, indicating a lack of “trickle down” of information regarding many aspects of CBCRM from PO leaders to members. Environmental professionals in interviews indicated that this trend may be widespread, and not simply occurring in isolated cases. They described a similar phenomenon regarding situations with POs in other areas around Palawan. Often, especially among newly forming POs, leaders and members await direction from ELAC to hold meetings or attend to business. This may signify that the process of leadership and participation in CBCRM through PO leaders is operating somewhat less than ideally, as NGO environmentalists might expect. However, the overall trend in organizing with the desired goal toward empowerment, group orientation, and social justice in the movements is evident in the data presented here.

Community Organizing

The position of community organizers (COs) has become common throughout the Philippines although their purpose and role can vary throughout community-based resource management projects. The model for community organizers in the Philippines has been to select someone from outside of the community who lives in the community three weeks out of each month. ELAC, on the other hand, has taken an innovative approach in selecting community organizers from within the community. The CO from Sitio Katumbal has long term ties to the area, accounting for her personal interest and determination in making the CBCRM project a success. This is also true of some of the



PO leaders in the project. Despite this determination, there are some individuals within each of the participating communities who do not fully understand the role of the COs.

The following is a quote from one of the fisherfolk in northern Honda Bay, exemplifying his lack of clarity regarding the function of the CO:

B: I'm a bit confused because there are many organizers here in the community. Some are organizers of the cooperative and some are working like an entire organization like us for example. We have the H-Brotherhood and I am the president of this organization.

RF: First, for myself, CBCRM, I realized lately... When [that guy who was not from here] was still the CO, CBCRM was not clear to me. Then today, that I am now the CO, it became clear to me that this CBCRM, the reason why there is this CBCRM is because it is community-based.

INT: Because you yourself are already directly involved, right?

RF: Right. It is community-based, meaning it is based in the community. Meaning, whatever needs to be done, whatever the plans are, they will come from within the community.

According to the models established for CBCRM by NGOs, a community organizer is someone who can provide education, disseminate information, and organize group meetings. But at the time of field research, community members in northern Honda Bay perceived the CO as someone who just organizes meetings, rather than someone who provides education. ELAC staff was often relied upon for environmental education, and the CO commonly organized meetings, prepared official documents, and acted as a mediator within the community. Some residents who were not directly involved in the CBCRM perceived the CO as someone belonging to a program of the city government and misinterpreted the role of NGOs.

In some cases, cultural factors, such as emphasis on the group and discouragement against *matabang* (bragging), made a CO's job more difficult, especially when the CO was a member of the actual community. In such a case the CO could find it

difficult to provide direction to his or her immediate family or community members because he or she may be *hiya* (shy or embarrassed) and not wish for others to view him or her as bragging.

As opposed to solely relying on meetings as a way of passing on information, COs are encouraged to visit with individuals and families where they can informally explain the CBCRM program and solicit involvement. My research, based on observations at countless visits in informal public places around communities and at people's homes, illuminates the fact that information exchange is commonly passed on informally (*kwehtohan*, see Chapter 6). This method of information transfer appears as important and valuable as dissemination of information through public meetings. Nonetheless, community organizing, as practiced in the Philippines, is on some level an effective means of involving locals in the resource management process. Regardless of the potential successes of particular programs, the dissemination of knowledge of environmental issues and economic strategies creates a venue for organizers in communities to provide a sense of support for marginalized fishers that would otherwise be lacking.

Alternative Livelihood

Livelihood activities have been documented in various resource management plans and reports (see ICLARM 1996, Skinner nd, Sandalo 1994) and are also discussed in Chapter 5. Various livelihood projects had been implemented in Honda Bay for over a decade at the time of this field research, so the distinction between livelihood, and alternative livelihood was not always clear. Some of the most commonly proposed

alternative livelihood projects have been hog-raising, duck-raising, mat weaving, roof piece manufacturing, and other forms of enterprise development.

As of late 1998, ELAC was already planning more marine-based livelihood projects, congruent with a national trend in CBCRM. For example, some common species are found in a variety of habitats and are already used in experimental aquaculture projects. Therefore they may be suitable candidates for fish cages in various locations of Honda Bay. Consultation with public institutions such as the City of Puerto Princesa Department of Agriculture as well as with a marine biologist and fisheries specialists was ongoing.

Seaweed farming has been proposed as one of the most potentially successful alternative livelihood projects (Manzano and Tamoria 1999), and may hold future possibilities for residents of communities in northern Honda Bay. One fisherman who had lived on Arecife Island stated in an interview that there had been a successful seaweed-farming project around Arecife Island several years ago, but that it was unfortunately destroyed by flooding.

Some community members of Sitio Katumbal mentioned that they would like to consider “home stay” tourism or “cottages” for researchers as a potential livelihood endeavor. With long term planning and adequate fund raising for the initial investment, cottages for rent or “home stay” research-tourism may be a viable alternative livelihood option. Some of the more recent alternative livelihood projects noted were as follows: seaweed farming, women who used loans from a Women in Development program to

procure fishing boats and *tangkals* (stationary lift nets), and most recently, experimentation with fish cages⁹.

Interviews revealed that there is almost unanimous agreement among fisherfolk as well as environmental professionals that economically successful alternative livelihood activities are rare. Fisherfolk cited that the most difficult barrier to their success is the ability to secure capital to begin an enterprise.

One area of differences in perceptions of environmentalists with those of fisherfolk regarding alternative livelihood is in the arena of the live fish trade. Of particular surprise was that while environmentalists were instrumental in implementing the live-fish ban, many fisherfolk seemed to be unaware of the specific requirements of the live-fish ban. When the five-year ban expired in late 1998, most of the fisherfolk interviewed in northern Honda Bay were unaware that the ban had not been renewed. Furthermore, many were unaware of exactly which species of live fish had even been banned.

In striking contrast to the popular discourse that the live fish trade is inherently bad because of its association with the use of cyanide is the fact that many marginal fishers suffer from the ban because they have no means of refrigeration to transport food fish to the market. People are so isolated and poor that they cannot buy ice to transport any fish to the in-town market. Some of the women who sell fish or who are fish buyers mentioned the lack of ice as a common problem, stating that if they could transport live fish they would be able to earn more income.

⁹ ELAC was instrumental in the formation of the Honda Bay Boatmen's Association (HOBAl) in southern Honda Bay. This PO was considered by some residents of northern Honda Bay to be a successful model, but its primary purpose was boat charters for snorkeling trips for tourists. However, tourism was an unlikely prospect for areas like Lucbuan and Babuyan due to distance from Puerto Princesa City proper.

Traditional methods such as traps (*bubo* and *sarading*), and *kawil* (hook and line), have been previously used to catch live fish and could therefore be revived to improve livelihood alternatives. While the majority of environmentalists do not consider traditional fishing techniques as a viable option for an alternative livelihood to the live fish trade, a number of fisherfolk interviewed expressed that they would like to have the opportunity to market live fish because of the high price they bring.¹⁰ Fisherfolk have knowledge about which species of fish are most able to live for extended periods of time out of the water and would thus have the best success rate. Many fisherfolk were anxious to begin through ELAC CBCRM the planned livelihood program to culture fish in cages, but as of October, 1998, they were unfortunately still waiting to raise money for materials, and lacked a suitable location as well as technical knowledge for the venture.

The problem of livelihood is a grave and difficult one. Both environmentalists and fisherfolk recognize that declining resources present a serious threat to the economic productivity of daily livelihood activities of fisherfolk. As earlier CBCRM programs attempted to introduce non-marine-based livelihood projects and found them unsuccessful (Olofson et al. 2000), my own research with NGO representatives as well as other investigations into the topic have also demonstrated that livelihood projects for fisherfolk are rarely successful. One of the main difficulties cited by both environmentalists and government representatives (who were observed at PO meetings), is the inability of the programs to repay the livelihood loans. Such loans are often made by development programs like Women in Development (WID) of the United Agency for International

¹⁰ The use of barrier nets for the live fish trade was proposed by the International Marinelife Alliance and other organizations in isolated cases throughout the Philippines as well as northern Palawan, but the technology was not adopted.

Development. Olofson et al. (2000) noted an identical problem with loan repayment for livelihood projects in central Philippines.

However, it is worth highlighting that in Honda Bay, although financial rewards from such projects were minimal, local fisherfolk did not feel that all of their efforts in participating in cooperatives were useless or that the projects had failed. Rather, they often used the borrowed money to supplement families' needs and incorporated them into a kind of local lending organization. From the outside perspective, it was often believed that these endeavors in livelihood projects had failed. Part of this perception possibly arose from the fact that only modest monetary gains were felt. Additionally, the programs had only recently been implemented in Palawan and were in incipient stages of progress, so their results were not fully determined. Perhaps given more time, they would have proved themselves successful. Regardless, the local fisherfolk perceptions of their participation in livelihood programs and co-operatives remained hopeful.

The Role of NGOs and Government

After observing the study communities for a period of several months, the notion of the role of NGOs was explored. NGO environmentalists are clear about the distinction between NGOs and government organizations, regardless of whether they perceive themselves primarily as educators or change agents. However, participant observation suggested that fisherfolk, at times, tended to blur the role of NGOs with that of the government and sometimes did not distinguish between the two at all. Residents were asked in interviews if they could name the government organizations that they were most familiar with. When asked to list the government organizations most familiar to them, or

asked if they had heard of NGOs, fisherfolk often listed a merged series of agencies and NGOs together in one list without any cognitive differentiation between non-governmental or government agencies. Those who held leadership positions, such as PO leaders or community organizers, usually had a much clearer understanding of the difference between NGOs and government organizations.

By contrast, NGO environmentalists' perceptions of themselves and their purpose was infinitely clear. One environmentalist described an important perceptual difference between working on environmental issues and projects in the role of an NGO versus that of a government employee as follows:

You know NGOs, I think ...it's a commitment right? But for people in the government, you see, it's a job. Many NGOs fill the gaps for delivery of basic services [that the government doesn't provide].

Another area that was explored in the research was the emerging role of NGOs in management. I also noted that not only were NGOs moving into the arena of management in general, but that they were also working in coastal resources management. In the past their focus had primarily been with indigenous peoples and farmers.

One NGO environmentalist described her perspective on CBCRM as a management activity.

I think CRCBM is a very new one - as I said no, its emergence of the CRCBM concept is an answer to the call out of the voice by the fisherfolk. There are some stories I have heard that are quite successful about CRCBM. But in Palawan there are few. Few success stories but it is really new. Anything that is being undertaken should be by the community because I think they have the basic belief that the community can do something about themselves... In Palawan, since the emergence of the Aquino government, for a while the focus has been with the upland and terrestrial component of an area. But more and more [we are looking at] what will happen with a coastal area.

Another NGO Manila-based NGO leader described the role of NGOs as one of a link, or conduit with communities at the grassroots level.

BR: I think the most important role of NGOs is to provide, to be the link, the conduit between what's happening at the ground level because most NGOs work at the ground level, at the grassroots level. And so to be that link...link of things that are happening at the micro level to the macro level.

RA: And you can do that through projects or...?

BR: Through projects, through the networking activities that you do, through research, through engagements with the government...

On Palawan, the interchange between NGOs and the government is fairly active, despite former and sometimes current animosities between activists and politicians. While NGOs are implementing on-the-ground projects, government agencies have come to rely heavily on the actual NGOs for certain activities because they are seen as being "closer to the people." Albeit the government-sanctioned role is desirable, expectations of a stronger role of NGOs have begun to become the norm. For example, on Palawan during the forest fires of 1998, when the government was criticized for being slow to deliver aid to victims of the forest fires, a high-ranking government official announced on radio broadcasts that the NGOs weren't doing their jobs. Furthermore, when I presented this research to a small group of Fulbright scholars and government officials, one government official was accusatory of the NGOs for not having "empowered" the people in response to my findings that stated perceptions of the ineffectiveness of the Bantay Dagat. He also charged them with "not doing their jobs," deflecting the blame back onto the NGOs and away from the government.

The shift from advocacy to management has also brought more involvement in policy matters. This has transferred more responsibilities to the NGOs to not only implement policy, but also to engage in actually writing it. Environmental lawyers

comprise a large part of the NGO population and as a result, as of the late 1990s, have been very active in policy making.

Many NGO leaders still believe that the main purpose of their role is to empower communities to become self-sufficient and they are less concerned with policy. An interviewee expressed this well:

BR: But the process is more important. A process of transparency between those external agents and the people in the community. You just have to accept that you're coming from two ends. And that to be working together, you have to go through a process that is transparent to both of you. And that it should be clear even at the start of the program, those external agents are there on a temporary basis. NGOs do not have the right to be in a community for 20 years, 30 years, and 40 years. [Rebecca Rivera, Interview with author 1998]

By contrast, fisherfolk who understand the primary purpose of NGOs as implementers of environmental programs have come to believe that, because of the lack of effort by the government, that NGOs and local communities are more or less responsible for their own environmental protection and programs:

PP: Rita is an organizer, in charge of organizing an organization where a person learns to join in the objectives of an organizer for them to join and interact towards what the NGOs are doing, to show them that we are tired of the government. When it is the government that organizes, [unclear], we are fed up of you ["sawa na kami sa inyo"].

One fisherman, and PO leader expressed a belief that the NGOs actually create and implement the law:

INT: What is the main function of the NGOs in taking care of the environment?

JF: Like they're banning the sale of live fishes, transportation of [endangered species] like birds, the peacock pheasant. It's a law but if the government, itself, will make all kinds of excuses (*palusot*), the NGOs have the right to fight them. It's a law and if they fool around with it...they should be caught. Majority of those...are government officials. [The

government] tries to go around the law. [“Sila ang gumagawa ng batas pero sila din ang gumagawa ng kalokohan.”].

Summary

Discourse can be defined as "all that is written and spoken and all that invites dialogue or conversation" (Rosenau 1992: xi). The role of environmental discourse directly relates to the consideration of emerging environmental values. As I better understood the environmental values of both the fisherfolk and the environmental professionals in Honda Bay and Puerto Princesa, I began to understand the linkage between their environmental consciousness and the larger transnational environmental discourse. For example, the PO leader who expressed concern about floods as a result of coastal ecosystem degradation related such degradation to large companies who are negligent in any sort of environmental concerns. This example represents a human rights/social justice perception that faults large-scale development as a villain of environmental health and portrays itself and marginalized fisherfolk as victims. It also clearly associates degradation of the coastal environment with the need to preserve the environment for future generations. Not only was the larger transnational discourse affecting local dialog, but also similarly, discourse at the local level was also influencing and transforming the emerging environmental discourse around Palawan and elsewhere.

Through seminars, environmental publications, and hyperspace, environmentalists have adopted and engaged in a transnational environmentalism, initially related to land-based environmental concerns. Over time, this transnational discourse entered into a coastal environmental movement that has reached and received widespread participation by fisherfolk. Conversely, the fisherfolk have also contributed to the environmental

discourse by expressing their views to environmentalists on local, national, and international levels (as in the case of foreign volunteers and Indonesian NGO visitors).

Despite the fact that many views are converging, there are still some gaps between the perceptions and values of fisherfolk and environmentalists. A major difference between them is in the perception of whether humans are viewed as being a part of the environment, or ecosystem, or not. Prior to attending meetings and seminars, fishers did not initially perceive themselves as being part of the environment. As they became exposed to more to environmentalists and community organizers, their perception changed, and they begin to view themselves as interconnected with nature.

There were also some surprising examples of agreement between fisherfolk and environmentalists at earlier stages of fisherfolk participation in CBCRM. Such agreement suggests a shifting consciousness throughout the Philippines regarding marine (*pish*) sanctuaries and perceptions of coral reefs as habitat. Although there is agreement about the need for protected areas, both groups have different ideas as to how to actualize the solution. Fisherfolk adopted the theme of the interconnectedness of various components of the coastal ecosystem once they attended more seminars and became more involved in CBCRM.

Areas of lack of agreement between environmentalists and fisherfolk primarily revolved around policy matters such as law enforcement, devolution of authority to local governments and the effectiveness of the Bantay Dagat. As previously indicated, fisherfolk also differed from environmentalists in their understanding of the role of NGOs. This may lead toward some important future considerations in evaluating CBCRM programs and call for a re-examination of the notion of empowerment. While

NGO advocates are proponents of self-sufficiency, fisherfolk seem to appreciate the connection they have with their NGO counterparts and don't necessarily perceive themselves as separate from a larger system. In the case of Honda Bay, that system includes the government of Puerto Princesa City and other communities.

I have illustrated several key concepts that may bring insight into the current and future goals of CBCRM. Environmentalists tend to adhere to an ideal, likely resulting from human rights ideologies that empower communities to manage their own resources. Local community members, in contrast, often look to the larger region or external meso-level organizations for assistance and information. Those fisherfolk who are active in CBCRM often acknowledge the benefits of knowledge gained from contact with environmental professionals from Puerto Princesa City. In many cases, this contact is perceived by fisherfolk as an ongoing relationship that will benefit the local community over time. Environmentalists value and envision self-sufficient communities, whereas fisherfolk welcome the idea that they can participate in managing their own resources, but do not perceive themselves as being completely autonomous. Ideally, they identify an advantage to having access to external resources like the assistance provided them by meso-level NGOs and actors, sometimes along with government organizations and programs. The complexities and nuances of these vantage points much be appreciated in order to fully understand the progress and challenges of CBCRM and how it relates to larger transnational environmental movements.

CONCLUSION

The relationship of humans to the environment is complex, not easily studied or understood from a single perspective. In the Philippines the relationship between fisherfolk, NGO environmentalists and the coastal environment is even more complex. This research has brought to bear various perspectives and theoretical frameworks from cultural anthropology, along with other social sciences, on the analyses of environmental movements and community-based coastal resource management on Palawan Island, the "last frontier" of the Philippines (Eder and Fernandez 1996).

Impelled by a crisis in the world's fisheries (Stonich and Bailey 2000, McGinn 1998), worldwide attention has recently turned to saving the ocean and coastal areas unlike any other time in history. This has been especially true since the late 1990s when the United Nations declared 1997 to be Year of the Reef and 1998 to be Year of the Ocean. Although the importance of protecting the oceans has gained attention from transnational environmental movements, most critiques of environmental movements are centered on land-based environmentalism, with little attention to *community-based coastal resources management within the context of environmental movements*.

The analyses here examine the perspectives and emerging environmental values of fisherfolk and NGO environmentalists, who blend social justice causes with the conservation of the coastal environment. In doing so, these hybrid NGOs maintain their

commitment to advocacy for human rights issues and environmental causes such as vigilance about illegal logging and fishing. In my research I have ventured into new terrain, that of seeking an understanding of the relationship between fisherfolk and the NGOs on Palawan who recently began implementing community-based resource management programs. Furthermore, I have explored how environmental NGOs entered into the domain of community-based coastal resources management (CBCRM), and still maintained their roles in advocacy for environmental causes and social justice. In doing so, I have sought to understand a collective effort in Honda Bay and on Palawan to protect the rights of fisherfolk to natural resources and livelihoods from fishing. Although Palawan is unique in many ways, this research provides an understanding of emerging environmental values that may be prevalent throughout the Philippines. As such, one of the most salient points about the environmental movement on Palawan is that it embodies that which the new democracy stands for – justice and the rights of communities to manage their own resources.

Environmentalists, often working for NGOs, gravitate to biodiversity hot spots; consequently Palawan Island, the least developed of all of the major Philippine islands, has become a haven for environmental programs, movements, and advocates. It was not until recently that fisherfolk became an important sector of Palawan's environmental movement.

Fisheries management, once lacking in the Philippines, has also grown in importance on Palawan. Despite the efforts to preserve and protect natural resources on the island, the people of Palawan begun to experience food shortages, particularly throughout the decade of the 1990s. In Honda Bay and elsewhere, fisherfolk in particular

have experienced such declining fish catch that children who remembered a time when they had abundant food now only eat small portions of fish with rice twice a day. Fisherfolk have recently become the focus of many community-based coastal resources management programs in efforts to alleviate poverty while simultaneously protecting and regenerating coastal resources.

Palawan is the site of many international conservation efforts, yet since the focus of CBCRM is human oriented, the integration of social justice with scientifically-based biodiversity conservation is in its infancy there. Earlier social justice CBCRM movements reacted against science as “technofacit,” thereby initially rejecting scientific interventions in favor of people-oriented solutions to the plight of Philippine fisherfolk. As demonstrated by interviews with environmentalists from Palawan and elsewhere, most of the leaders emerged from earlier human rights organizations formed during the time of former President Ferdinand Marcos and transformed since the People Power Movement of 1986 and new Constitution of 1987. These leaders felt a natural shift in moving into the environmental arena, as a result of global publications such as the Bruntland Report in the late 1980s as well as the Earth Summit of 1992.

NGOs in the Philippines are located at the juncture of a global environmental movement by virtue of their physical location as well as their location in the transnational environmental discourse. As part of the increased emphasis on the inclusion of human concerns in sustainable development resulting from Agenda 21 of the Earth Summit, community-based resource management also proliferated during the mid 1990s. Philippine efforts to implement community-based coastal resources management were among the earliest attempts at community-based management (Coward N.d., Fellizar

1993, Rivera and Newkirk 1997) with long-term efforts underway in the Lingayen Gulf region (Tambuyog 2000) and successful case studies in Apo Island and San Salvador Island (White et al. 1994). People's Organizations in the Philippines are commonplace and sanctioned by the national government, making further organizing of communities for resource management easier than in many countries because POs are often already in place and if not, the structure for an understanding of their purpose is in place. The case in Palawan is different in several ways. First, the region is not as environmentally degraded as other parts of the Philippines so its terrestrial as well as the marine areas are more intact (although without opposition degradation could continue). As demonstrated in Chapter 3, within the past decade much of the degradation of coastal resources has been noticeably alarming to central and northern Palawan residents, who have clear memories of plentiful fish catches and lush forests.

Furthermore, Palawan was the site for the initial national campaign that led to the total log ban for the island and eventually other parts of the country. Early environmental movements such as the log ban and the protests of the Tubbataha seaweed farm (Arquiza and White 1994) received national and international attention. Palawan is also a nationally protected area under the Strategic Environmental Plan for Palawan, known as SEP (1992). Finally, Palawan is of international significance for its high terrestrial and marine biological diversity.

According to interviews with key NGO leaders on Palawan, Indigenous Peoples and farmers have taken precedent in being the recipients of social justice causes such as land reform, livelihood assistance, and community-based forest management agreements that allow them stewardship over the forest. Fisherfolk, until recently, have been only

minimally involved in the environmental movement to stop upland logging and other destructive activities such as mining. CBCRM programs, although some of which were started more than a decade ago, remain few. The growth of CBCRM was in many ways a parallel evolution to the countries' and Palawan's environmental movement. On Palawan, the intertwining of both the environmental movement to protect forests and upland peoples began to merge with the CBCRM movement in the late 1990s during the time of my fieldwork. It was an exciting time to observe the emergence of an unprecedented growth in coastal environmentalism.

In the late 1990s, fisherfolk of Honda Bay, experiencing rapid declines in fish catch and productivity and increased fishing pressure from incoming migrants, began to seek out the assistance of Palawan NGOs to curtail illegal and destructive fishing. With this convergence came the evolving efforts of both groups to implement community-based coastal resources management on Palawan and concurrent recognition by international donors of the need to concentrate on conservation of marine biodiversity. The Palawan Network of NGOs serves as a resource for other NGOs and People's Organizations.

The influences of other organizations such as the international donor community also made possible the beginnings of various CBCRM projects throughout Palawan. In line with the socially oriented environmentalism as described, fisherfolk and environmentalists work to improve livelihoods for fisherfolk while simultaneously attempting to protect and regenerate coastal resources. This included environmental education seminars and paralegal training for fisherfolk.

Studying the perceptions of environmental terms taught in educational seminars supported my findings that the movement toward social justice in environmental movements and CBCRM on Palawan is equal to or even greater than the protection of "nature." NGO socially-oriented environmentalists were likely to perceive the environment or nature as inclusive of humans, as did fisherfolk who had attended more than one seminar. Interestingly, although those environmentalists with a biophysical orientation were active in or exposed to many of the human-oriented social justice aspects of CBCRM, they still did not view humans as part of nature/the environment. Fisherfolk who had been less active in CBCRM or only attended one seminar or less also did not perceive humans as being part of the environment. After fisherfolk became more involved in CBCRM they began to view humans as interconnected with the environment, likely the result of environmental trainings and discourse associated with CBCRM.

This suggests that the nature/culture divide is not as prevalent in this research setting. Thus the nature/culture divide as discussed in terms of Haraway (1992), Ellen (1996), Forsyth (1992), Proctor and Pinctel (1992) is less common in CBCRM than has been described in critiques of conservation. CBCRM as it originated stemmed from declining fish productivity affecting fisherfolk communities' livelihoods, as well as the scientifically recognized need to protect coral reef ecosystems (White 1994, De la Cruz 1994).

The theme of interconnectedness was also found in other environmentalist perceptions of environmental terms, such as biodiversity, ecosystem and sustainable development. Fisherfolk, when they had knowledge of these subjects, tended to think of them as relating to interconnected aspects of humans and nature, and with high

participation began to view biodiversity more in terms of its' scientific definition, the diversity of life. PO leaders, on the other hand, usually with high participation, tended to have a better understanding of the meanings of these terms as presented to them from environmental seminars.

In contrast to assumptions of environmentalists and others that fisherfolk would be opposed to marine sanctuaries and protected areas, the analysis of fisherfolk perceptions of marine sanctuaries showed that even prior to attendance at environmental seminars or high participation in CBCRM, fisherfolk were likely to accept the idea of small fish sanctuaries or protected areas. Environmentalists were in favor of marine sanctuaries but biophysically oriented environmentalists associated various issues related to their implementation, whereas socially oriented environmentalists had a more limited view of them as being “good.” This could indicate that marine biologists may have more knowledge of issues related to sanctuaries and may be more effective if given the opportunity to assist with establishment of protected areas. Since I have established that the primary emphasis in CBCRM is generally about social justice, I suggest that there is a *under emphasis on science* in these programs that might otherwise be appropriate.

The theme of interconnectedness of humans with their environment and of various components of the coastal ecosystems recurred throughout my field research and interviews. As demonstrated in some of the quotes from environmental seminars this theme is utilized to bring fisherfolk into the environmental movement as active partners. Fisherfolk seemed to easily assimilate this information and often related this interconnectedness to their personal livelihoods from fishing and life in the coastal zone.

One of the more interesting findings regarding agreement among fisherfolk and environmentalists was in their understanding of coral reefs. Both groups had a high percentage of responses that related coral reefs directly to habitat, regardless of orientation or numbers of seminars attended, indicating that fisherfolk and environmentalist perceptions of coastal ecosystems may be similar. Environmentalists tended to express concern about the biological diversity of coral reefs and their destruction. Fisherfolk expressed limited concern at first, but through informal observation and interviews showed that they recognized the problems associated with their destruction.

Other important components of CBCRM as manifested on Palawan are the training of citizens about their legal rights, and the specifics of various environmentally destructive fishing methods. Furthermore, those who have experienced invasion of their municipal waters by fishers from other areas have become trained in the practice of citizen's arrest. However, some residents of northern Honda Bay have questioned the effectiveness of these arrests. The level of prosecution at the barangay level is usually minimal, often because of the desire of barangay officials to avoid direct confrontation, a Filipino value that more than one interviewee suggested was operating in these situations. Areas where perceptions diverged between fisherfolk and environmentalists were regarding the Local Government Code and the effectiveness of law enforcement, which legislates devolution of authority to local communities and law enforcement. Fisherfolk, who understood the concept of devolution, were more likely to associate some problems with the implementation of the local government code. Many environmentalists also mentioned problems, such as the lack of resources available to local community

governments, but fisherfolk were concerned with the internal dynamics in local barangays concerning power and law enforcement. Furthermore, fishers often tended to blame barangay officials for being unfair in their punitive actions against illegal fishers. Whereas environmentalists felt that communities should be able to manage their own resources, local communities were often dismayed that law enforcement was not upheld by the barangay or city governments. Notions of the lack of effectiveness of the Bantay Dagat were apparent among both fisherfolk and environmentalists, although fisherfolk were more likely to blame this lack of effectiveness outright on corruption and bribery, whereas environmentalists did not usually cite such contributors to law enforcement problems openly. Critics have argued that power in the hands of micro-local officials is not always an effective management structure and that the devolution of authority to local officials in the Philippines is not always recognized or effective (McDermott 2001, Sievert et al. 1999). Despite the problems associated with devolution of authority to local communities, many of the fisherfolk and environmentalists still felt positive about the code.

Marginalization of small-scale fisherfolk is a pervasive problem, one that is exacerbated by declining coastal resources. As described in Chapter 5, the loss of fishing productivity and lack of land tenure leaves fisherfolk in an insecure (at best) position. Although rare, a handful of families held title to their land in Lucbuan. In other cases NGOs worked to help communities secure community-based forest management agreements that gave stewardship to utilize public lands, usually in mangrove forests in coastal areas.

Another important component of CBCRM is the incorporation of local knowledge in resource management plans through the use of participatory mapping exercises. I have proposed that the uses of such maps are underutilized. The intention of collecting participatory data in the form of resource mapping was initially for the purpose of producing resource management plans (Walters et al. 1998) in the absence of resources to hire marine biologists to conduct scientific resource assessments and in an effort to include local people in resource management activities. One well-known coastal resources manager stated that a main purpose of the mapping exercises was to allow people to feel as if they were participating and to bring them into the process of CBCRM through the experience. I noted that the process itself may serve as a mechanism for communities to exert peer pressure on others who may engage in destructive or illegal fishing and logging activities. Other uses of the maps could be the inclusion of more local knowledge in CBCRM, such as management of particular fishing territories by different communities, or the specific areas appropriate for women's participation in mangrove conservation. Moreover, the integration of scientific knowledge *with* the use of local knowledge could be an effective way to improve an understanding of the bay's productivity and recovery, as well as degradation. For example, community members' identification of cyanide and dynamite fishing occurring on the fringes of the northern part of the bay and their designation of some of these areas as dead coral could serve as the basis for marine biological surveys in those areas.

Another important point that is generally not considered in CBCRM is that of cultural values. Lowland Filipinos have been dubbed "a people without culture," (Rosaldo 1989) but as I have shown cultural values and traditions still permeate the daily

lives of fisherfolk. Russell and Alexander (2000), Sandalo (1994), Chaiken (1996) have identified kin and informal relations as essential factors to consider in resource management and frontier survival strategies. Yet, while some cultural values may be conducive for CBCRM, others are also hindrances. For example, the value of group orientation may be advantageous for community organizing, memberships in POs, and overall participation. However, the desire to please the group and avoid confrontation is also incongruous with effective volunteer law enforcement and local prosecution of illegal activities.

Rethinking Empowerment and Notions of Success

Fisherfolk and NGO environmentalists have begun to work effectively together to counter illegal and destructive fishing practices as well as other environmentally destructive practices such as illegal logging. An increase in fish productivity has been noted among fishers since the banning of hulbot hulbot in city waters and the implementation of the ELAC CBCRM program as well as other CBCRM programs that started on Palawan within the same time period. Awareness is growing throughout the island. However, progress is slow and fisherfolk still experience marginalized status, poverty, and food shortages. This may seem in contrast with notions of success.

While NGO advocates are proponents of the notion of empowerment as synonymous with self-sufficiency, fisherfolk seem to appreciate the connection they have with their NGO counterparts and don't necessarily perceive themselves as separate from a larger system. In the case of Honda Bay, that system includes the government of Puerto Princesa City and other communities. This research suggests that it is still too early to say

whether CBRM "works" in the Philippines or not. As opposed to being able to determine the effectiveness of individual projects after a two or three years, the movement for CBRM is a catalyst for community capacity and creation of "strategic alliances" (McDermott). These alliances, whether they are political or international-donor funded, provide mechanisms for local communities to enter into the dialogue on the politics of resource management and equitable distribution of resources. The movement for CBRM and other community-based initiatives is likely building Palawan and the nations' social capital through the creation of such alliance with other communities, meso-level NGO, and macro-level NGOs (Haynes 1999, Keck and Sikkink 1999). These alliances are empowering to fisherfolk as well as indigenous peoples and farmers and give greater force to fight against sometimes corrupt systems and issues - for example: logging and large-scale trawlers.

For example, in Honda Bay and other locales around Palawan, if a particular "program" may not have produced viable alternative livelihood programs and major increases in fish productivity within a few years, it did provide awareness to fisherfolk about their options and their legal and human rights. In many cases this resulted in some People's Organization (POs) leaders becoming rather bold in challenging their local government's leadership and allocation of resources (with the information learned from NGOs).

Pomeroy (1998 Interview with author at ICLARM 1998) stated that CBRM would be considered effective if the community was able to sustain the project without external funding for 3 years. However, I believe that communities need and want access to external resources. McDermott (1999) also suggests that more access to external

resources was as a positive aspect of her research on Palawan, despite problems with the CBRM program she studied. Furthermore, the most commonly cited successful case studies of CBRM were initially linked with outside organizations. Apo Island continued to receive assistance from Silliman University and San Salvador Island was originally assisted by ICLARM. This is not to say that these cases are unsuccessful – I propose only that we re-think our concept of empowerment. As Filipino culture is organized around relationships and information networks, the relationships established with NGOs and other outside agencies are likely to be long-lasting, not necessarily in a dependent way, but rather as an alliance. Moreover, I am not proposing simply a trend in co-management (see Pomeroy 1994), whereby communities, stakeholders and the government work together. It is the *relationships* of the informal networks that people create with CBRM that can be the strength of an environmental movement. Within these relationships are the opportunities for local communities to gain information to knowledge and discourses that can then be transformed for their particular needs. Of course, the need for balance should be emphasized so as not to encourage community dependence on NGOs or other outside agencies. The PNNI provides a forum for such linkages with meso-level institutions.

The case of Palawan may be unique because of its status as a protected area and the fact that its landscape and coastal areas are among the most pristine in all of the Philippines. However, Palawan's case may indeed be representative of the larger Philippine case where a new democracy has opened up the political space for new forms of civil society and resource management. In doing so, the role of NGOs has become recognized by the national government.

As one American fisheries researcher stated, the Philippine case is unlike any:

The Philippines is such an amazing country, you know. Just having come from India last week, I was giving a training on coral reef management and talking with people from all these...in Sri Lanka and in India. You know, I got to talk a little about the local government code, democratization and empowerment. These people were like, "Wow!" These people actually do that stuff?...

And people are just really amazed when they hear about you know, what goes on in the Philippines, how far NGOs are allowed to go in terms of doing things.¹ We start talking about empowerment. We start talking about decentralization because I've seen what those terms mean in the Philippines, and they go "How do we do these things? How do we allow this to happen in our country?" And the Philippines is really an amazing experiment. [Robert Pomeroy, Interview with author 1998]

The community organizer from Lucbuan, Rita Favila explained the way she understands the role of NGOs in the Honda Bay, Puerto Princesa City area:

Before it was like, if you are poor, you are pitiful – if you have money, you are the star. Before the NGOs were in this area, it seemed like those who had money could do whatever they wanted, whether it was illegal logging in the mountains, or fishing. No one was stopping them. No big deal [ok lang]. But later when NGOs came around with the goal of taking care of natural resources of the mountains and the seas, then things became more controlled. That's why they coordinate with the People's Organizations. So when problems come, now the community is the star. The NGOs provide backup support for us.

As an example of how fisherfolk become influenced by exposure to CBCRM and information about their legal rights, one woman from Honda Bay told about me how, after she had attended several paralegal seminars, she had confronted the Barangay Capitan about misuses of community funds and lack of support for their CBCRM project. He was unlike some local government officials who collaborate with NGOs, and complained that NGOs were too involved in his barangay. "But Cap"[Barangay Captain] she said, "It's Yuman [human] rights."

¹ He also stated that the only other country he is aware of where NGOs exercise the kind of power they have in the Philippines is Bangladesh, where the NGOs are extremely powerful.

Information and networks with other communities and NGOs that become established through CBCRM may have unanticipated and far-reaching effects, contributing toward building Palawan and the nation's social capital (Putnam 1993, 1995, Bourdieu 1983). We should not limit our evaluation of community-based resource management and empowerment to that which means only complete self-sufficiency in fishing communities. Fishers throughout Southeast Asia have always been a part of a larger political and economic system.

Initial suggestions to include communities in resource management grew out of lessons learned from many failed development projects whereby outside agencies did not adequately address the needs of local peoples. Recently, in the Philippines, resource managers, especially those with Marxist leanings, favor the empowerment of fisherfolk against the elite-controlled political system. This was assumed to be accomplished through community-based efforts. Anthropologists long ago abandoned the notion of individual bounded communities and have an innate understanding that, historically, trade and exchange networks have always played a part in human societies. The movement for CBCRM attempts to empower local fisherfolk to become self-sufficient; however, fisherfolk in the Philippines (as in most place throughout the world) do not exist in isolation. Their access to legal assistance, education, information, and other external resources is the real strength of their empowerment. In Honda Bay and Puerto Princesa City as well as throughout Palawan, the informal along with formal relationships and networks between fisherfolk, other communities, NGO representatives, government staff, and transnational donors will continue to be the driving force behind the environmental and social justice movement.

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APPENDICES

APPENDIX A INTERVIEW PROTOCOLS

Rebecca Austin, 100B Roxas St., Puerto Princesa City, 433-7900
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Fulbright Researcher

INTERVIEW PROTOCOL.

Part A: Environmental discourse

1. When you hear people talking about the *environment* (kalikasan or kapaligiron) what is the first thing that comes to you mind? Can you explain more about that?[Interviewer, probe for more discussion]
2. Have you heard of the term *biodiversity*? When and how did you first hear of it?
3. There is a lot of talk about sustaining our natural resources, or *sustainable* development. Have you heard of this? What does it mean to you?
4. What do you think of when you hear *ekolohiya* or *ecosystem*?
5. Have you heard of *community-based coastal resource management*? What does this mean to you? What does it mean to your organization or family?
6. Have you heard of the *Local Government Code* of 1991, or *devolution* of authority to local governments?.
Please explain it as it affects you and your organization or family?
7. What you think of when you hear talk of “**destructive fishing practices.**”
[Note: if interviewee doesn’t have much to say when asked about destructive practices - probe with general questions about **illegal fishing practices**]
8. I noticed the term “**livelihood**” is used quite often in community based Coastal Resource Management projects. Can you tell me what this means to you and to your organization? What do you think of when you hear people talking about “**alternative livelihood**” or “**livelihood enhancement**?”

9. Is there a ***Bantay Dagat*** here? Do you know how it works; for example, what would be the procedure if you wanted to contact them?

10. When people talk about a “***protected area***,” or a ***marine sanctuary*** what are the kinds of things that you think they are referring to. What is your opinion of this?

11. Which government organizations are you most familiar with? Which of these deal with fisheries management?

12. What do you think are the most important laws as related to mangangisda or yamang dagat ?

13. Do you have any ***Community Organizers*** here? What is their role in the community? *[Interviewer - probe with questions about anyone who might be trying to hold meetings or help local organizations (Pos). Or for community-organizers: Why did you go into this type of work? What do you like about it?]*

14. Have you joined any ***People’s Organizations***, or ***Co-operatives***? What are their names? Why did you join? What were your expectations?

15. Are you familiar with Non-government Organizations? Can you explain more about this? What is their role [in terms of environmental protection]?

16. Do you know about the procedure to acquire Fishpond leases, Mangrove Stewardship Agreement, or Community-Based Forest Management Agreements? Please explain this as you understand it.

Part B: Local knowledge

1. Can you tell us about the purpose of sea grasses and algae to the other living isda or other organisms? How about coral reefs? What kinds of fish or other animals live in these areas? Can you tell us about other habitats for the most common fish, or your favorite ***likas yamang sa dagat***?

2. What are the kinds of fishing or gleaning activities that you or your family participate in? Or: For non-residents (environmental representatives): what are the kinds of fishing or gleaning activities that community members practice?

3. What are the most important kinds of fish caught, or resources collected? What are your favorite to catch, collect, or eat?

4. Are there seasonal variations for harvests for different fish, or products gleaned? Can you explain more about this? What are the main types of fish, or shells, caught for each season?

5. Can you please tell us about the *bangus fry* season?

6. Where are the *mangroves* around Puerto/ Honda Bay. What are the main uses? How, and why?

7. Which kinds of fish are used for the *live fish trade*? What is the best way to catch them?

8. Are there any particular fish, mangrove species, or other animals or plants that are of special importance to you or anyone you know? [These will include species of religious importance to coastal residents and species of particular significance (such as endangered species) to environmentalists and conservationists.] How and why is that important, what is the practice, etc.?

9. Do you know of any areas that are spawning grounds for fish harvesting areas? Would you be willing to draw a map with these areas on it?

10. What kinds of problems with the environment./ resources are there here?

11. Can you tell us what your catch per day is now, how many hours you fish now, compared to before? When did changes start to take place?

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INTERVIEW PROTOCOL

Unang bahagi: USAPING PANGKAPALIGIRAN:/ENVIRONMENTAL DISCOURSE

1. Kapag pinag-uusapan ang *kapaligiran/kalikasan*, ano ang unang bagay na pumapasok sa iyong isipan? Maari mo bang palawakin ang iyong paliwanag?

2. Narinig na ba ninyo ang salitang **bio-diversity**? Ano ang iyong sariling pagkaintindi sa salitang ito? Ano ang kahalagahan nito sa iyo?

3. Marami nang usapin tungkol sa pagpapanatili sa ating likas yaman, at isa na rito ay ang tungkol sa "**sustainable development**". Narinig niyo na ba ang patungkol dito? Ano ang ibig sabihin nito sa iyo?

4. Ano ang iyong inisip kapag narinig mo ang **ekolohiya** o **ecosystem** ?

5. Naring mo na ba ang tungkol sa **Community-Based Coastal Resource Management** o **CBCRM** ? Ano ang kahalagahan nito sa iyo? Ano ang kahalagahan nito sa inyong samahan o pamilya ?

6. Narinig mo na ba ang **Local Government Code of 1991** ? o ang **devolution** o *pagsasalin ng kapangyarihan sa lokal na gobyerno* ? [we can explain the extent of the powers of the *barangay* has increased and the duties and responsibilities of the officials has a wider scope like the power of legislating *barangay* ordinances, the power of taxation and the power to decide on cases which could still be amicably settled thru the *Lupon Tagapamayapa*] Ipaliwanag mo ang epekto nito sa inyong samahan at sa iyong pamilya ?

7. Ano ang iyong naiisip kung naririnig mong pinag-uusapan ang mga **destructive fishing practices** o ang *mapanirang pamamaraan ng pangangisda* . [Note: if interviewee doesn't have much to say when asked about destructive practices-probber with general questions about **illegal fishing practices**]

8. Napansin ko na ang salitang *kabuhayan* / **livelihood** ay madalas na ginagamit sa mga proyekto ng CBCRM. Puwede mo bang sabihin sa akin ang kahalagahan nito sa iyo at sa inyong samahan o organisasyon? Ano ang iyong iniisip kapag naririnig mong pinag-uusapan ng mga tao ang tungkol sa alternatibo kabuhayan/ **alternative livelihood** o **livelihood enhancement** ?

9. Mayroon bang **Bantay Dagat** dito? Alam ba ninyo kung paano nila ginagampanan ang kanilang trabaho? Halimbawa, ano ang kailangan mong gawin kung gusto mo silang makontak o makausap?

10. Kapag pinag-uusapan ng mga tao ang tungkol sa **protected area/ fish sanctuary** o iyong *pinapangalagang lugar* o iyong tinatawag natin na *pangitluga* ng mga hayop at tirahan ng mga halaman sa dagat, ano sa palagay mo ang maaring tinutukoy dito? Ano naman ang iyong pananaw o opinyon tungkol dito?

11. Anong mga samahan o organisasyon ng gobyerno ang pinaka-pamilyar sa iyo? Ano sa mga samahang ito ang may kinalaman sa pamamahala o pangangasiwa sa pangangisda?

12. Sa palagay mo, ano ang mga pinakamahalagang batas na may kaugnayan sa **mangingisda** at **yamang dagat** ?

13. Mayroon ba kayong o **Community Organizers (COs)** dito? Ano ang kanyang ginagampanang tungkulin sa komunidad?

14. Sumali ka na ba sa kahit na anong "**People's Organizatio** o **kooperatiba** ? Anong pangalan nito ?[if he or she is a member] Bakit ka sumali dito ? Ano naman ang mga inaasahan mo sa organisasyong ito ?

15. Pamilyar ka ba sa **Non-Government Organizations** o iyong mga *organisasyon na hindi saklaw ng gobyerno* ? [what roles do they play in terms of environmental protection ?]
Alam mo ba iyong ginagampanan nilang tungkulin sa pangangalaga ng *kalikasan*?

16. Alam mo ba iyong proseso o paraan ng pag-aplay ng Fishpond Leases, Mangrove Stewardship, at Community-Based Forest Management, o ibat ibang titulo ng lupa/ lease agreements? Basta, ipaliwanag lang ayon sa iyong sariling pang-unawa.

IKALAWANG BAHAGI: KAALAMANG LOKAL/ LOCAL KNOWLEDGE

1. Puwede mo bang sabihin ang dahilan kung bakit may halamang-dagat at lumot at iugnay natin ito sa mga isda at iba pang mga organismo sa dagat?

Iyong bahura, anong uri ng hayop at halamang dagat ang naninirahan dito ?

Puwede ka bang magbanggit ng iba pang tirahan ng mga karaniwang isda o iyong paborito mong *likas yaman sa dagat* ?

2. Anu-anong paraan ng pagkuha o pangangisda ang karaniwang ginagawa ng iyong pamilya ? Anu-ano iyong mga paraan ng pagkuha o pangangisda na karaniwang ginagawa ng iyong komunidad ?

3. Ano iyong mga pinakamahalagang uri ng isda ang iyong nahuhuli o yamang dagat na nakukuha? Ano iyong mga paborito ninyong hinuhuli, kinukuha at kinakain ?

4. Mayroon bang kapanahunan sa pagkuha o paghuli ng isda o yamang dagat ? Puwede po ba ninyong palawakin ang inyong paliwanag ? Ano iyong mga uri ng isda o *shells* ang nakukuha o nahuhuli kada-buwan ?

5. Puwede po ba kayong magkuwento o magbahagi ng inyong kaalaman tungkol sa kapanahunan ng **bangus fry** ?

6. Mayroon bang **mangrove area** o *bakawan* dito sa paligid o sa mga lugar na pinupuntahan ninyo ? Ano ang kahalagahan ng mga bakawan ? Paano? Bakit ?

7. Nalaman namin na ang **live fish trade** o ang *pangangalakal ng buhay na isda* ay malaking negosyo dito sa Palawan.. Anu- anong uri ng isda ang ginagamit sa **live fish trade** o iyong pangngalakal ng isdang buhay ?
Ano ang pinakamabisang paraan sa paghuli ng isdang buhay ?
Ano ang iyong opinyon o kaisipan sa kasalukuyang batas na nagbabawal sa **live fish trade** sa Palawan at sa siyudad ng Puerto Princesa?

8. Mayroon ka bang alam na kakaibang uri ng isda, hayop o halaman na may di pangkaraniwang kahalagahan sa iyo o sa ibang taong kakilala mo ?

9. Mayroon ba kayong alam na lugar pangitlugan ng mga isda? Mayroon ba kayong alam na lugar pinagkukuhaan o harvesting area ng mga isda ? Puwede ba nating iguhit na mapa ang mga lugar na ito ?

10. Anong uri ng problema o suliranin na tungkol sa kapaligran o kayamanan ang kinakaharap ninyo dito ?

11. Puwede ba ninyong sabihin kung gaano karami ang huli ninyo sa isang araw ? Ilang oras kayo nangingisda noon kumpara ngayon ? Kailan nagsimula ang pagbababong ito ?

APPENDIX B

COMMON LOCAL FISH NAMES AND SCIENTIFIC DESCRIPTIONS

ANUPIN[G]

Common English: King soldierbream

Family: *Sparidae*

Genus: *Argyrops*

Species: *Argyrops spinifer*

Importance: Young fish are often abundant in shallow waters of sheltered bays. Larger individuals are found in deeper waters. This species also produces pelagic eggs. Is known to be a good quality foodfish, usually marketed fresh, but sometimes dried (Conlu:1986:258).

APAHAP

Common English: Seabass or giant seaperch

Family: *Centropomidae*

Genus: *Lates*

Species: *Lates calcarifer*

Importance: This fish species regularly migrates between freshwater and sea and is used as a foodfish (Conlu 1986).

ASWANG

Common English: Snake mackerel [also *lapu-lapu* according to local residents, but this is not verified in Conlu (1986), or Frose and Pauly (1996)].

Family: *Gempylidae*

Genus: *Gempylus*

Species: *Gempylus serpens*

Importance: Spawns year round. Foodfish, marketed fresh or dried. Adults go to surface at night only.

BADLON

Common English: Mackerel, Golden Trevally

Family: *Carangidae*

Genus: *Gnathanadon*

Species: *Gnathanadon speciosus*

Importance: Occurs in deep lagoons and seaward reefs, root for crustaceans in the sand. Juveniles are often found on reefs. Food fish. Juveniles used in aquarium trade. (Frose and Pauly 1996)

BANAK

Common English: Mullet

Family: *Mugiloidei*

Genus: *Liza*, *Mugil*, *Valamugil*

Species: *Liza subviridis*, *Liza vaigiensis*, *Mugil cephalus*, *Valamugil seheli*

Importance: Feeds on small algae, diatoms, and benthic detrital material taken in with sand and mud. Spawning occurs at sea. Juveniles may enter rice fields and mangroves. Juveniles may be used as bait fish. *Mugil* can be used in aquaculture if stock is collected at sea. (Froese and Pauly 1996)

BANGUS

Common English: Milkfish

Family: *Chanidae*

Genus: *Chanos*

Species: *Chanos chanos*

Importance: “Adults occur in small to large schools near the coasts or around islands where reefs are well developed. Eggs and larvae are pelagic up to 2-3 weeks. Older larvae migrate onshore and settle in coastal wetlands (mangroves, estuaries) during the juvenile stage, or occasionally enter freshwater lakes. Juveniles and subadults return to sea where they mature sexually. Spawns only in fully saline water. Larvae eat zooplankton; juveniles and adults eat cyanobacteria, soft algae, small benthic invertebrates, and even pelagic fish eggs and larvae. Larvae are collected from rivers and are grown in culture ponds into juveniles, which are marketed fresh, smoked, canned and frozen. Broodstocks can be raised and spawned in captivity to produce larvae in the hatchery” (Froese and Pauly FishBase 1996). Foodfish.

BANTOL / (see *Lapu lapu*)

Common English: Grouper, rock cod

Family: *Serranidae*

Genus: 5 different genera: *anyperodon*, *cephalopholis*, *epinephelus*, *cromileptes*, *plectropomus*

Species: at least 13 different species

Importance: Many species inhabit seagrass or algal beds, feed on crustaceans.

Cephalopholis miniata (miniatus) inhabit clear waters of coral reef; more often found in exposed rather than protected reef areas, occupies territories, aquarium fish trade.

Plectropopumus leopardus occurs in coral rich areas of lagoon reefs - used in cage culture, aquarium trade. Some reports of poisoning (Froese and Pauly 1996).

BARARAWAN (see *Samaral* and *Danggit*)

Importance: fairly commonly mentioned in northern Honda Bay

BARITOS

Common English: halfbeak, garfish, needlefish

Family: *Hemiramphidae*

Genus: *Hemiramphus*

Species: *Hemiramphus georgi*

Importance: Limited supply prevents them from becoming an important foodfish, but they are known to have good flavor (Conlu 1986:79).

BISUGO

Common English: Threadfin bream

Family: *Nemipteridae* (incl. *Scolopsidae*)

Genus: *Nemipterus*

Species: *Nemipterus bathybus*, *nemipterus bleekeri*, *nemipterus dalagoae*, *nemipterus japonicus*, *nemipterus*, *metopias*, *nemipterus nematophurus*, *nemipterus nemurus*

[some info. on importance not available from Froese and Pauly (1996), different listing of species in Fish Base (Froese and Pauly 1996) and Conlu (1986)]

Importance: *Bathybus* - Found on sand or mud bottoms. *Japonicus* - Very abundant in coastal waters, found on mud or sand bottoms, usually in schools. Feeds mainly on small fishes, crustaceans, molluscs (mainly cephalopods), polychaetes and echinoderms.

Marketed mainly fresh, but also frozen, steamed, dried-salted, dry-smoked, fermented or made into fish balls and fish meal. *Nemurus* - Inhabits muddy or sandy bottoms. Feeds on small fishes and larger benthic invertebrates. *Nemurus* is the most abundant species of *Nemipterus* in bottom trawl catches from the South China Sea (Froese and Pauly 1996).

All are important foodfish.

BUSLIT

Common English: Herring

Family: *Clupeidae*

Genus: *Pellona*

Species: *Pellona ditchela*

Importance: Marketed fresh and may be dried or salted. Regarded as an excellent bait in the tuna fishery (Froese and Pauly 1996).

DANGGIT

Common English: Rabbitfish, Unicornfish (*Naso*),

Family: *Acanthuridae*, *Siganidae*

Genus: *Naso*, *Siganus*

Species: *Naso brevirostrus*, *Naso lituratus*, *Naso lopezi*, *Siganus canaliculatus*, *Siganus corallinus*, *Siganus spinus*, *Siganus vergatus*, *Siganus vermiculatus*

Importance:

Naso brevirostrus -Inhabits mid-waters along steep outer lagoon and seaward reef dropoffs at depths of 4 to more than 46 m. Juveniles and subadults feed on benthic algae; adults on zooplankton. Pair spawning has been observed. Foodfish (Froese and Pauly 1996).

Naso lituratus - Occurs in areas of coral, rock, or rubble to lagoon and seaward reefs from lower surge zone to a depth of 90 m. Feeds mainly on leafy brown algae *Sargassum* and *Dictyota*. The species is very seldom poisonous. Pair-spawning has been observed. Foodfish (Froese and Pauly 1996).

Naso lopezi - Usually inhabits deeper waters, occasionally found in as little as 6 m along the vertical walls of leeward Belau. Aquarium fish (Froese and Pauly 1996).

Siganus canaliculatus - “This species seems to tolerate more turbid waters, occurring within the vicinity of rivermouths especially around seagrass beds. Are also caught in traps up to several kilometers offshore in deep, clear waters. Juveniles form very large schools in shallow bays and also on coral reef flats; school size reduces with size, with adults occurring in groups of 20 individuals or so. Herbivorous, feeds on benthic algae and to some extent on seagrass. Consumed as food although it is known to be occasionally poisonous” (Froese and Pauly 1996).

Siganus corallinus - “Occurs in coral-rich areas of lagoons. Juveniles tend to live in small schools in shallow seagrass beds and reefs; often found among acropora corals. Adults usually in pairs on shallow coral reefs and feed on benthic algae. A foodfish that is occasionally poisonous. Aquarium fish” (Froese and Pauly 1996).

Siganus spinus - “Adults found in shallow coral reef flats in small schools of usually less than 10 individuals. Juveniles migrate- usually in large numbers- onto reef flats on certain days during the last phase of the moon. Initially, they browse on fine textured, e.g. filamentous algae, switching to coarser algae with increasing size. Fry eaten fresh, pickled in brine or made into fish paste. Can inflict painful stings. Foodfish”(Froese and Pauly 1996).

Siganus vermiculatus - Juveniles live among mangroves then move out to lagoon and coastal reefs as they mature. Forms schools. Adults congregate in inshore areas in groups of several hundred to spawn in summer [not sure whose summer]. Fry and juveniles found in creeks among mangroves. Feeds on algae growing on seagrasses, mangrove roots and rocks. Its very high quality flesh commands premium prices. Foodfish. Aquarium fish (Froese and Pauly 1996).

DAPAK

Common English: Red Snapper, Maya Maya

Family: *Lutjanidae*

Genus: *Lutjanus*

Species: *Lutjanus bohar*, *Lutjanus gibbus*, *Lutjanus malabaricus*, *Lutjanus sanguineus*, *Lutjanus sebae*

Importance: Adults may grow very large.

Lutjanus gibbus - Juvenile occur in seagrass beds and shallow sheltered reefs.

Lutjanus sanguineus - aquarium fish.

Lutjanus sebae - Occurs in the vicinity of coral reefs, often over adjacent sand flats. Also trawled in deeper water on relatively flat bottoms. Small juveniles are frequently commensal with sea urchins, or sometimes found in mangrove areas. Feeds on fishes, crabs, stomatopods, other benthic crustaceans and cephalopods. Marketed fresh, dried-salted and frozen. Aquarium fish.

All *Lutjanus* species are foodfish (Froese and Pauly 1996).

DILIS

Common English: Anchovy

Family: *Engraulidae*

Genus: *Stolephorus*, *Thyrssa*

Species: *Stolephorus buccaneeri*, *stolephorus commersonii*, *thyrssa mystax*, *thyrssa setirostris*

Importance: Several additional species noted in Fish Base (Froese and Pauly 1996). Food fish and baitfish. Occur in coastal waters and deep waters. Seasonal variation for some species. Some species school near the surface.

“*Stolephorus buccaneeri* - A schooling species found inshore and in oceanic waters, hundreds of miles from land. Sometimes entering large atoll lagoons or deep, clear bays. Ranks among the most important food (bait) for tuna and other large pelagic fishes.

Stolephorus commersonii - Feeds on surface plankton, primarily copepods and prawn larvae. Used for food and fish meal. Processed into a type of fish pickle in Indochina” (Froese and Pauly 1996).

DUGSO [also *Rompe* conflict in match with scientific name - check with community]

Common English: Barracuda (Conlu 1986: 93,94); Swordfish (Froese and Pauly 1996).

Family: *Sphyracnoidae* (Conlu 1986), *Xiphidae* (Froese and Pauly 1996)

Genus: *Sphyracna*, *xiphias*

Species: *Sphyracna forsteri*, *sphyracna obtusata*, *xiphias gladius*

Importance: *Sphyracna* - foodfish, fish sauce, fermented, dried.

Xiphidae - Primarily a warm-water species. Although oceanic, sometimes found in coastal waters. Its migrations consist of movements toward temperate or cold waters for feeding in summer and back to warm waters in autumn for spawning and overwintering. Lives a solitary life upon the high seas. Adults are opportunistic feeders, known to forage for their food from the surface to the bottom over a wide depth range. Uses its sword to kill its prey. Feeds mainly on fishes but also on crustaceans and squids. Also caught with harpoons, drift gill nets and set nets by commercial fisheries and by trolling in sports fishing. A good food fish, it is marketed fresh or frozen, and can be made into sashimi, teriyaki or fillets. Large individuals may accumulate large percentages of mercury in its flesh (Froese and Pauly 1996).

HITO

Common English: Freshwater catfish

Family: *Clariidae*

Genus: *Clarias*

Species: *Clarias batrachus* (walking catfish), *clarias macrocephalus*

Importance: *Clarias batrachus* - Inhabits swamps, ponds, ditches, rice paddies, and pools left in low spots after rivers have been in flood. Feeds on insect larvae, earthworms, shells, shrimps, small fish, aquatic plants and debris. Aquaculture. Aquarium fish. Marketed live, fresh and frozen. Poisonous (venemous) (Froese and Pauly 1996).

LAPIS-LAPIS [local name *lapis*, check with community]

Common English: Blue-lined runner, leatherjacket, amberjack

Family: *Carangidae*

Genus: *Eligates*, *scomberoides*, *seriolina*

Species: *Eligates bipinnulatus*, *scomberoides commersonianus*, *seriolina nigrofasciata*

Importance: *Eligates bipinnulatus* - Usually found at or near the surface, over reefs or sometimes far offshore. Schools from the surface to depths of at least 150 m in clear offshore waters, but occasionally enters deep clear lagoons or seaward reefs as shallow as 3 m. Feeds on invertebrates, small fishes and squid. Sportfish. Good food fish and is marketed fresh and salted/dried; also frozen and used for sashimi (Froese and Pauly 1996).

LAPU-LAPU

Same species as *bantol* (Visayan term for *lapu-lapu*)

Common English: Groupers

Family: *Serranidae*, *Ephinephelinae*

Genus: Several different genus. Most common: *epinephelus*, *cephalopholis*, *variola*, *plectropomus*.

Species: 57 species listed in Fish Base (Froese and Pauly 1996).

Importance: Aquarium fish, almost all species are considered quality food fish for commercial and subsistence use. A few species are used in experimental fish culture. Found in coral reef flats, shallow coral. Some species found in silty sand of mud bottoms, and mangrove areas. Juveniles of some species found in tide pools and reef flats. Some species found in deeper waters. Selected species listed below.

Species: *Epinephelus fuscoguttatus* (*Garopa*)

Importance: Aquarium fish, cultured under experimental conditions. Some reports of ciguatera poisoning (Froese and Pauly 1996).

Species: *Epinephelus tauvina* (*Kulapo*)

Importance: Used in aquaculture. Juveniles taken from reef flats (Froese and Pauly 1996).

Species: *Epinephelus sexfasciatus*

Importance: Common on silty sand or mud bottoms (Froese and Pauly 1996).

Species: *Epinephelus merra* (*Kugtong*, *Baraka*, *Kulapo*)

Importance: Cultured under experimental conditions. Commercial aquarium fish. Common in depths less than 20 centimeters (Froese and Pauly 1996).

Species: *Epinephelus fasciatus* (*Tankuan*)

Importance: Aquarium fish (Froese and Pauly 1996).

Species: *Epinephelus cyanopodus* (*Kobe*)

Importance: Incidents of ciguatera poisoning (Froese and Pauly 1996).

Species: *Epinephelus macalatus* (Lilug)

Importance: Juveniles found in shallow coral rubble (Froese and Pauly 1996).

Species: *Epinephelus malabaricus*

Importance: Used in aquaculture. Common species, found in a variety of habitats including coral and rocky reefs, tidepools, estuaries, mangrove and sandy /mud bottoms. Juveniles found nearshore. Catch statistics poor (Froese and Pauly 1996).

Species: *Epinephelus fasciatus*

Importance: Inhabits rocky flats. Excellent food fish. Brings good price (Froese and Pauly 1996).

Species: *Epinephelus lanceolatus* (Kugtong)

Importance: Aquarium fish. Found in shallow waters to depths of 100 meters. Adults and juveniles can be found in estuaries. Can grow up to one meter long (Froese and Pauly 1996).

Species: *Epinephelus magniscuttis*

Importance: Excellent food fish. Found in deep waters near coral reefs (Froese and Pauly 1996).

Species: *Epinephelus ongus*

Importance: Inhabits inner coastal and lagoon reefs and brackish waters (Froese and Pauly 1996)

Species: *Epinephelus polyphekadion*

Importance: Used in experimental aquaculture (Froese and Pauly 1996).

Species: *Epinephelus polystigma*

Importance: Usual habitat is mangrove areas (Froese and Pauly 1996).

Species: *Epinephelus quoyanus*

Importance: Inhabits inshore silty reefs (Froese and Pauly 1996).

Species: *Epinephelus hexagonatus*

Importance: Common in exposed outer-reef areas in shallow waters (Froese and Pauly 1996).

Species: *Epinephelus macrospilos*

Importance: Occurs in waters deeper than 744 meters. Commercial importance (Froese and Pauly 1996).

Species: *Epinephelus awoara*

Importance: Used in experimental aquaculture. Can be aggressive in captivity. Juveniles common in tidepools (Froese and Pauly 1996).

Species: *Plectropomus leopardus* (Sigapo, Kaltang, Kugtong, Labungan, Suno)

Common English: Leopard coral grouper

Importance: Used in fish cage culture, commercial aquaculture, and as commercial aquarium fish (Froese and Pauly 1996).

Species: *Variola louti* (Bunahan, Lapu-lapung senyora, Lapu-lapung seniorita)

Importance: Commercial aquarium fish. Reports of ciguatera poisoning. Found in waters deeper than 15 meters (Froese and Pauly 1996).

Species: *Cephalopholis boenak*

Importance: Subsistence fish and aquarium fish. Inhabits silty dead reefs (Froese and Pauly 1996).

Species: *Cephalopholis formosa*

Importance: Prefers shallow or dead reefs (Froese and Pauly 1996).

MAMING (Mulmul)

Common English: Wrasse

Family: *Labridae*

Genus: *Bodianus*, *shoerodon*, *halichoeres*, *stethojulis*

Species: *Bodianus bilunulatus*, *bodianus oxycephalus*, *choerodon jordani*, *choerodon robustus*, *halichoeres malanchir*, *halichoeres tenuispinis*, *stethojulis trineata*

Importance: Commercial aquarium fish, often solitary, found in coral rocky areas, some species in deeper waters (Froese and Pauly 1996).

MAYA MAYA

Common English: Snapper

Family: *Lujanidae*

Genus: *Lutjanus*

Species: 21 species, all in the genus *Lutjanus*

Importance: Some species found in both deeper and coastal waters. Juveniles of several species found in mangrove estuaries. Caught in trawls. Excellent food fish (Froese and Pauly 1996).

PAGI (mantaris)

Common English: Stingray/ray

Family: *Mobulidae*, *Dyastidae*

Genus: several genera

Species: ten species

Importance: Some species of commercial importance, can be dangerous (Froese and Pauly 1996).

PATING

Common English: Shark

Family: *Scyliorhinidae*, *Carcharhinidae*, *Lamnidae*, *Sphyrnidae*, *Rhincodontidae*

Genus: several

Species: Over 50 species of sharks listed in the Philippines (Froese and Pauly 1996).
 Importance: Some species are of minor commercial importance, some are used as foodfish, some commercial use of fins. A few species used for commercial show aquarium. Many species listed of no use in the fishery.

PUSIT

Common English: Squid
 Family: (unavailable)
 Genus: (unavailable)
 Species: (unavailable)
 Importance: Foodfish, commercial and subsistence.

SAMARAL (see dangit/danggit)

Common English: Rabbitfish

SAP SAP

Common English: Ponyfish, slipmouth
 Family: *Leiognathidae*
 Genus: *Leiognathus, gazza, secuter, pentaprion*
 Species: 16 species
 Importance: Many species found in inshore areas, some in river mouths. Many species listed of no importance, however, some species sold fresh, dried and salted in markets. Also made into fishmeal, and duck food (Froese and Pauly 1996).

SUDSOD (Pating sudsod)

Common English: Wedgefish, shovel-nosed shark
 Family: *Rhinobatidae*
 Genus: *Rhynchobatus*
 Species: *Rhynchobatus djiddensis*
 Importance: Inhabits close inshore and shallow estuaries. Utilized fresh and dried/salted. Flesh with excellent taste (Froese and Pauly 1996).

SUNO (see Lapu-lapu)

Common English: Grouper
 Family: See *Lapu-lapu*
 Genus: *Plectropomus, cephalophilis*
 Species: *Plectropomus leopardus, plectropomus laevis, cephalophilis urodeta*
 Importance: See *lapu-lapu*

TAKSAY

Common English: Goldstripe ponyfish
 Family: See *sap sap*

TALAKITOK

Common English: Jacks, trevally

Family: *Carangidae*

Genus: *Seriola, carangoides, caranx, ulua, trachinotus, gnathanodon*

Species: 13 species

Importance: Found in coastal waters, some species found in deeper waters, foodfish, marketed fresh or dried. Juveniles of *Gnathanodon speciosus* found on reefs and used in aquarium trade (Froese and Pauly 1996).

TANGIGI

Common English: Narrow banded Spanish Mackerel

Family: *Scombridae*

Genus: *Scomberomorus*

Species: *Scomberomorus commerson*

Importance: “May be encountered by drop-offs, shallow and gently sloping reef or lagoon waters...A lipid-soluble toxin, similar to ciguatoxin has been found in the flesh of specimens caught on the east coast of Queensland, Australia. Taken throughout its range by commercial, artisanal and recreational fisheries. Also caught with bamboo stake traps, midwater trawls, and by trolling Marketed mainly fresh; commonly made into fish balls; also dried-salted and frozen, smoked and canned” (Froese and Pauly 1996).

TAMBAN

Common English: Sardines

Family: *Clupeidae, Engraulidae*

Genus: *Sardinella, thryssa, amblygaster, dussermerieria, sillago*

Species: 22 species found in the Philippines

Importance: Forms schools in coastal waters. Some species highly migratory. Highly commercial: marketed fresh, dried, dried salted, canned, smoked, as fish oil, fish meal, fish balls. Used as bait in tuna fishery (Froese and Pauly 1996).

MANTARIS

Common English: Giant Manta

Family: *Mobulidae*

Genus: *Manta*

Species: *Manta birostris*

Importance: “Mainly oceanic but also encountered in surface or mid-waters of lagoons, shallow muddy bays, off river mouths, and seaward reefs. Occurs singly or in small groups. Mainly plankton feeders, but may feed on small and moderate-sized fishes as well. Mantas are not aggressive but are dangerous because of their rough skin and huge size which has led to the deaths of deep-sea divers whose airlines have been entangled with these creatures. May be captured by means of the harpoon. Leaps out the water every once in a while” (Froese and Pauly 1996).