‘Pinning Our Hope on the Seas’: Conservation, Resource Depletion and Livelihood in a Philippine Fishing Village

By

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Declaration

I, Shio Segi, declare that this thesis, submitted in fulfilment of the requirements for the award of Doctor of Philosophy, in the School of Archaeology and Anthropology, Research School of Humanities and the Arts, College of Arts and Social Sciences, the Australian National University, is wholly my own work unless otherwise referenced or acknowledged. This thesis has not been submitted for qualifications at any other academic institutions.

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Preface and Acknowledgements

Throughout my academic studies, I have always been fascinated by people’s activities regarding the sea and their interactions with the coastal marine resources. As a child, I had little to do with the sea but my fascination was kindled through the great influence of marine ecologist Kenneth Ruddle who was my thesis supervisor for both my Bachelor’s and Master’s studies. Beginning in the area of Policy Studies, my interest first revolved around the relationship between policy framework and the actual management of marine resources. This relationship proved to be more complex than I had imagined as I saw that the most beautifully laid out policies often fail at the implementation stage. I became interested and wanted to look at the actual practices of those who use the marine resources which the policies are aimed at controlling. This led me to realise the importance of examining the points of view of the resource users in regard to policy and I decided to take up my PhD research in anthropology. Australia became the preferred location for my research as anthropology and other related fields there have a strong interest in marine resource management in the Asia/Pacific region, and I was already familiar with the country from my previous experience as a high school exchange student. While I had been mainly working on coastal areas of Japan in the past, I decided to follow my emerging interest in the tropics where the marine environment is more diverse than it is in temperate zones and where a large number of generally impoverished coastal dwellers rely heavily on the marine resources for both diet and cash income. As I was already familiar with the Philippines from past visits and I knew that it is one of the forerunner nations in implementing innovative coastal resource management projects in the region, there was no better place to conduct my research.

The title of this thesis, ‘Pinning our Hope on the Seas’, was taken from the verse of a song written by a local singer expressing the essence of the lives of the impoverished but hard-working fishers of Cebu Island. This research focuses on such small-scale fishers in a small rural coastal village of this island, depicting their struggles for survival as they remain highly reliant upon marine resources in circumstances where both resource depletion and resource conservation policy impinge upon their livelihood. Staying with fishers and sharing daily
activities with them for 16 months enabled me to understand how fishers perceive their livelihood, how they see the future of the resources on which they depend and their role in the decision making process for new policies and for the implementation of the coastal resource management project. It gave me an in-depth insight into the various strategies used by resource users in order to deal with resource conservation while at the same time needing to use them intensively to maintain their way of life. Becoming involved in the events and social interactions of small-scale fishers enabled me to realise the social complexity of the seemingly ordinary village and the implications of this for better resource management in light of both conservation and social justice.

My sincere and utmost gratitude goes to my thesis supervisor Professor Nicolas Peterson who has generously helped me at every stage of this research with his insightful advice. Without his support and effort, this thesis would not have been possible. Also I would like to thank my advisors Dr. Simon Foale and Dr. Deirdre McKay for their constructive comments and inspiration. I would like to thank Professor Kenneth Ruddle for his invaluable comments on drafts. I would also like to express my deepest appreciation to the Australian National University for providing me all the resources and funding necessary for completing this research, and to the selection committee for ANU Japan Alumni PhD Scholarship which offered me the generous scholarship.

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Although the individuals must remain anonymous because of the sensitivity of their positions, I am truly grateful to those crew members on commercial fishing boats who have allowed me to interview them and accompany them on their fishing trips. I would like to express my sincere thanks to all the officials and workers at the municipal office for their co-operation in my research, especially Geogenes Derama, Dr. Renato Amper who passed away during my fieldwork, Edmundo Estavilla and Acre Medida, and most importantly officers at the Municipal Agricultural Office including Dr. Eugene Matildo and Andres Pali-ing Jr. who have been extremely generous in assisting my research.

I would like to express my gratitude and thank the Philippine organizations which facilitated my research. My foremost thanks go to the Coastal Conservation and Education Foundation (CCEF) Inc. and all the crew which have facilitated my research throughout my fieldwork and generously provided me with invaluable data, particularly Atty. Rose-Liza Eisma-Osorio, Rizaller Amolo Jr., Rey Bendijo and Sheryll Tesch, for their genuine support. Danilo Delizo Jr. has helped me as a research assistant before joining the CCEF and I am indebted to his dedication and lively personality which made the demanding tasks so much easier. I would also like to thank the Maximo T. Kalaw Institute for Sustainable Development (MTKISD), especially Dr. Sixto Roxas and Joey Imson, for facilitating my research and providing me many opportunities to deepen my understanding of Philippine development projects. Also I am grateful to the University of the Philippines Center for International Studies (UPCIS) for having me as a Visiting Research Fellow especially Dr. Cynthia Zayas and Dr. Viveca Hernandez.

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Finally, I would like to acknowledge that this thesis would not have been possible without the support of my family members in Japan and Australia. My utmost appreciation goes to my parents Tokiko and Yasuo Segi, my parents-in-law Dr. Madeleine Strong Cincotta and Dr. Vincent Cincotta and my daughter Hana Segi for their full-hearted understanding and support. In particular, I am very grateful to Madeleine for her generous and committed work in editing my English during the final stage of writing. Finally, I would like to show my deepest appreciation to my wife Dr. Angela Cincotta-Segi for her unstinting intellectual and moral support, understanding and trust in me.
Abstract

This thesis is an ethnography of small-scale fishers on Cebu Island in the Philippines based on 16 months fieldwork. The fishers are situated in a rapidly changing environment characterised simultaneously by resource depletion and efforts at conservation. The thesis critically examines the impact of a community-based coastal resource management project on the fishers.

Depletion of coastal marine resources is a world-wide problem. Over the last few decades this has led the Philippine government to introduce a range of regulatory legislation in an attempt to place fishing on a more sustainable basis. Impoverished small-scale fishers face two major threats to their livelihood: the local government's attempt to increase the number of marine protected areas that ban any access to resources in the declared areas, and the impact of poorly controlled commercial fishing. This thesis illustrates how the small-scale fishers are the ones bearing the brunt of these measure in a situation leading to their marginalisation. The thesis questions the conventional image of the 'fishing community' in costal resource management projects, which usually assume the community to be largely homogenous in resource use practices and socioeconomic standing, with uniform interest in the sea space and its marine resources. By describing the social complexity and the day to day reality of this Cebu fishing community, the importance of a better understanding of the 'fishing community', for improved resource management is demonstrated.

This research describes how the small-scale fishers perceive and act from a socio-political, socio-economic, and cultural perspective in relation to conservation as realised in a municipality- and NGO-run resource management and livelihood security project. Despite a sense of powerlessness and resignation about their inability to change the situation in order to have their livelihood needs recognised, the research highlights how the small-scale fishers creatively manoeuvre through these obstacles to secure their living. Being powerless in the local political sphere, these small-scale fishers have no option but to act opportunistically to secure a viable livelihood by collaborating with illegal commercial enterprises and undermining MPA implementation. It is argued, however, that their often opportunistic responses, while ensuring their short-term survival, generally do so at the cost of long-term security.
The thesis begins with a discussion of the importance of understanding both the use and the management of marine resources at the local level as well as issues regarding the social complexity of the fishing community. A general overview of the history, natural environment and social organization of the village is provided. This is expanded by an analysis of fishing activities and the significance of fishing in the household economy of the villagers based on a survey of 180 coastal households and 12 months of daily fish-catch records for 20 fishers. Subsequently, the thesis focuses on the fishers’ interactions with the MPAs and illegal commercial fishers in order to examine their responses to these livelihood threats. First, the history of the establishment of the MPAs is outlined and then the powerlessness of small-scale fishers in the policy-making process is highlighted. This is followed by discussion of the actual implementation of the MPAs as characterised by constant compromise by both the fishers as well as by those implementing the MPAs. The relationship of the fishers with the large illegal commercial fishers is examined and the way in which the small-scale fishers’ antagonism became contained through the commercial fishers’ social network and economic activities is explored. The development of this seemingly contradictory alliance with the commercial fishers is examined. The thesis concludes by discussing the important points for improved coastal resource management from the perspective of both conservation and social justice.
Abbreviations

BFAR  Bureau of Fisheries and Aquatic Resources
CCEF  Coastal Conservation and Education Foundation Inc.
CO    Community Officer
CPR   Common property (or pool) resource
CPUE  Catch-per-unit-effort
CRMP  Coastal Resource Management Project
DENR  Department of Environment and Natural Resources
EcoGov2 Philippine Environment Governance 2 Project
FARMING Fish and Aquatic Resource Managers in North Granada
ICM   Integrated coastal management
LG CMP Local Governance for Coastal Management Project
MAFC  Municipal Agriculture and Fishery Council
MAMSA Makogihon Mananagat Sa Arbor
MAO   Municipal Agricultural Office
MFARMC Municipal Fisheries and Aquatic Resource Management Council
MPA   Marine protect area
MUSCLE Municipal Seaborne and Coastal Law Enforcement
NGO   Nongovernmental Organization
PAGASA Philippine Atmospheric, Geophysical and Astronomical Services Administration
PCRA  Participatory Coastal Resource Assessment
PO    People’s Organization
SCCRMC Southeast Cebu Coastal Resource Management Council
SWAB  Sea Warden’s Association of Boljoon
USAID US Agency for International Development
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A Fisherman’s Song

Mangingisda

Kaming mga mangingisda, kaming mga sakayanon, nagasalig lamang sa dagat, naga puyo
daplin sa baybayon. Kining kabus namong pangita panagat ragyud intawon. Ayay...ayay...
ayayay..., sa dugay na panahon

Katambak, balo, buga-ong, danggit, barangoy, banak ug kitong, tulingan, molmol, anduhaw,
barilis, lapulapu, ug bolinao. Sagad namo kini makuha ning halapad na kadagatan. Grasya
along kanamo gikan sa kahitas-an.

Ma-o daw huni saka gabhi-on, ang hinaganas sa gagmayng balod. Ang hinoyohoy sa
mabugnaw'ng hangin mo hupay sa kasing kasing. Balod among lakas lakason, unus ugulan
among antoson katugnaw among bati-on, hulga sa dagat dili balohon. Kining kabus namong
pangita, panagat ra gyud intawon. Ayay... Ayay... Ayayay..., sa dugay nang panahon.

Inig hunas na sa dagat, panginhas among bohaton. Mamaling kamig mamasul. Lab-as na isda
among sud-anon. Iparis namo sa kinilaw, linong-ag saging ug bahaw. Ayay... ayay... ayayay..., inom
dayon ug bahal.

Written by Peter Listones, a local singer in barangay Granada, Boljoon

Fishermen

We are fishermen, we are boaters, pinning our hope on the seas, living along the sides of the sea.

This, our poor livelihood is only fishing, ayay...ayay...ayayay..., for a long time.

Emperorfish, needlefish, terapon, rabbitfish, flyingfish, mullet and spinefoot, bullet tuna,
parrotfish, mackerel, tuna, grouper, and sardine. We get all these from the vast ocean. Grace
from high above.

It is like the sound of the night, the movement of small waves. The whistle of the gentle breeze
will comfort the heart. We battle with the waves, and bear with the rain and feel the cold,
reverse the threat of the sea. This, our humble livelihood, indeed, it is fishing.

Ayay...ayay...ayayay..., for a long time.
When the tide turns low, we look for shells. We pick shells and go handline fishing. With fresh fish, we make them into dishes. And pair it with *kinilaw*\(^1\), boiled banana and cold rice.

Ayay..ayay...ayayay.... then drink *bahal*\(^2\) after.

(Translated by Nomer Esmero)

\(^1\) A common dish in the Philippines prepared with sliced raw fish mixed with vinegar, sliced vegetables (such as onion and tomato), chilli, and calamondin juice.

\(^2\) A day-old fermented coconut sap called *tuba*. While fresh tuba has a sweet and sour taste, *bahal* has a bitter and sour taste, which many fishers prefer.
Chapter One

Introduction

Depletion of coastal marine resources is a world-wide problem, and the Philippines is by no means an exception. Over the last decade this has led the government to introduce a range of regulatory legislation and to work with NGOs in setting up many marine protected areas (MPAs) nation-wide in an attempt to conserve marine resources and place fishing on a more sustainable basis. While many small-scale fishers\(^1\) have been concerned about the depletion of resources as well as the role played by the larger illegal commercial fishing boats in bringing this situation about, the new regulatory regimes are now posing as big a threat to the viability of their way of life as the resource depletion itself. This thesis will examine the impact of conservation measures on fishers in a small village on Cebu Island, illustrating how they are the ones bearing the brunt of these measures in a situation leading to their marginalisation. Being powerless in the local political sphere, these small-scale fishers have no option but to act opportunistically to secure a viable livelihood by collaborating with illegal commercial enterprises and undermining MPA implementation.

Local resource depletion has been brought about because fishing in the area has been treated as *de facto* ‘open-access’ and has gone virtually unregulated while those regulations which do exist have been poorly policed. Now changes in regulations and technology are leading to constant changes in fishing practice by both small-scale and commercial fishers in the region of the village. The municipality, with support of other parties, in its implementation of the coastal resource management project along the coast of the village has been focusing on conservation and the enhancement of the local economy while ignoring to a great extent the social complexity involved in this. The programs have been implemented without good understanding of life in the fishing community, the members of which are seen as docile ‘subjects of

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\(^1\) In the literature, fishers operating on a small-scale basis are called almost interchangeably ‘subsistence’ or ‘small-scale’ fishers. Subsistence fishing refers to fishing which is ‘largely for home consumption, but also for sale or exchange in small quantities in nearby households or markets’ (Szanton 1981: 35). This notion, however, fails to
governance', homogenous in their knowledge, practice and skill, and there has not been adequate recognition of the differing place of fishing in the villagers' lives. Further, as in the literature on coastal resource management generally, inadequate attention has been paid to local power structures and politics. Importantly, not only do these factors have a negative impact on the viability of the fishers' lives but they also have a direct impact on the effectiveness of the conservation measures themselves, an impact which goes unrecognised by the NGOs and government agencies.

This thesis contends that effective sustainable regulation of coastal marine resources requires research which deals with the relation of communities to their resources, including the extent and nature of competition for fishing space, fishing strategies and the fishing economy. Further, in order to understand the complexities of the interaction between small-scale fishers and any proposed conservation project, consideration needs to be given to how people are likely to respond. They cannot be assumed to be passive acceptors of any changes introduced into their lives. Thus, this thesis posits the concept that the fishers' subjectivity plays an important role in the interaction, and situates this interaction within the larger picture of the natural, socio-political and socio-economic environment in which the fishers are located.

As a background, this chapter begins with a short story about the daily life of ordinary small-scale fishers in Granada. Fernando Cruz is the man with whose family I boarded during my fieldwork for this thesis. His story can be seen to exemplify the everyday struggle of small-scale fishers who are wedged between conservation and resource depletion.

The Struggle of Small-Scale Fishers in Granada

Fernando was born in Granada in 1945 and grew up in a farming/fishing household just like many others in the village. Though he began at a very early age going to sea to help his father, it was when he was 15 years old that he first went to sea by himself. Since then, as he described, he has been a fisherman. He married his wife Salvacion, who grew up in the mountain part of the village and they had 5 children. The couple toiled to raise them primarily on the income

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2 All names in this thesis have been changed to protect privacy.
from his fishing. Now, except for one daughter who married another fisher in the village, the children are all married and live outside the village. Unlike many others, apart from a couple of years in the 1980s when he joined muro-ami\(^3\) fishing together with friends, he has never in his life left the village or fishing, due to his minimal formal education (up to 4\(^{th}\) grade elementary school), his generally reserved character and his preference for small-scale fishing.

It was obvious from daily observation that Fernando’s household was not living the comfortable life, even by comparison with other small-scale fishers in the village, and their parlous financial state remained the couple’s major concern. Obligation to take responsibility for the four children, aged from 4 to 11, of their daughter, who works as a domestic helper in Cebu City, imposed a heavy burden on the couple. Though the daughter was supposed to send some money or food every month to help pay for their expenses, it was often delayed or even skipped. Even though the other children were sending some money to help them, this was not sufficient as the amount was barely enough to enable them to survive. One misfortune followed another. Another daughter who, of all the siblings, devoted herself most to her parents’ welfare, was sent back to Manila with a serious psychiatric illness from Singapore where she had been working as a domestic helper. Devastated, Salvacion had to go to Manila to look after her, and now it was only Fernando and the four young grandchildren left at home in the village. As Salvacion was unable to return to the village for over a year, it was rumoured among the villagers that she might have left forever because of the couple’s difficult life in the village.

It was in October 2008 when I came back to Granada to conduct the follow-up fieldwork that I learned that Fernando was still living alone with his grandchildren. Seeing that his circumstances had not improved, it did not surprise me when he told me that he had a plan to go to Manila briefly to see his family and bring back some money. His most pressing problem was

\(^3\) Granada, along with other villages in the region, saw a boom of recruitment for muro-ami fishing from the 1970s to the 1990s. Muro-ami is a Japanese-introduced drive-in net fishing technique which came to dominate in Boljoon’s neighbouring municipalities of Oslob and Santander in the 1930s (Olofson, Calizares et al. 2000). Not only was this fishing technique highly destructive to reefs as the use of scare-lines crushes the coral, but it was also known for an exploitative employment system, and an inhumane labour environment which resulted in many fatal accidents during fishing operations. Most fishers in Granada above the age of 30 have some experience in working in muro-ami fishing, most for at least a few years, though as many as 15 years in some cases, and many of them started in their early teens. This high involvement in muro-ami in Granada gradually ceased after the ban in 1989.
that his motorised boat had been out of use for quite some time due to a damaged engine and he needed to replace the coil for the engine. Wincing in discomfort, he explained how rowing the paddle boat had exacerbated his back pain and this situation made him worry that one day he might not be able to paddle due to his back. In the meantime he was waiting for his children to send him a one-way ferry ticket from Cebu City to Manila. 'But only for a short time', Fernando reassured me, making it clear that he would not remain there. As much as he looked forward to seeing his family, he also had a fear of being forced to be absent from the village for a long time and indicated that a month would be just enough. At his age and with his limited skill in Tagalog, the Philippine national language, he knew he would have little chance of getting reasonable work in Manila, where the supply of manual labour is far in excess of demand. Fernando told me the story of an old man, recently deceased, who used to live in front of the bench we were sitting on together. According to him, the old man was a lifelong master fisher but when he got older, he was convinced by his children to move into their house and live with them in Manila as there were no more of his children remaining in Granada. Like Fernando, unable to converse well in Tagalog, he spent most of his time around the house doing little and having no close friends. 'What else could he do?' said Fernando with his occasional slight stutter. He told me that he heard that the man was always crying, longing to come back to the village. Fernando told me that despite his health problem and financial struggles, he much prefers living in the village working hard and mingling with friends, rather than living in an unfamiliar city without work or friends, even if he might be slightly better off financially.

**Resources, Policies and Survival**

Among other reasons, his difficult financial situation was largely due to the unsuccessful fishing that Fernando had been experiencing. With over 45 years of experience using various types of fishing gear and methods, this was not, as other fishers would agree, the result of a lack of fishing skill. Rather it was the result of his fishing strategy for survival in a time of severe resource depletion. Catching any reasonable amount of fish was becoming harder and harder, and more and more elaborate methods and techniques were needed. Almost all the experienced
fishers perceived crucial changes in the resources over the years. Although the precise definition was elusive, all the fishers agreed that fish had been more abundant ‘before’ and sizable amounts of fish could, in the past, be harvested more easily compared to the present. Elderly fishers over 70 years old in particular held this view quite strongly and stated that when their children were still young, they used to be able to easily catch enough fish to feed a whole household with simpler forms of gear in a shorter time. Also a change in the distribution of the fish has been commonly noted. Fishers agreed that certain pelagic species have hardly appeared in the coastal waters off Granada in recent years, and only a smaller number could be found in waters further offshore. Furthermore, many fishers also recognised that the common size of fish that they catch now is generally smaller than what they used to catch. Though there is no way of assessing the accuracy of all this, these perceptions of fishers who regularly go fishing for prolonged periods of time certainly suggest severe resource depletion.

As a consequence of resource depletion, fishing with small capital using simpler types of gear and methods, such as a single hooked handline from a paddle boat in coastal waters, have become less economically viable. In order to maintain their catch level, all fishers could do was to look for better fishing grounds in waters further off-shore. The technological changes adopted in order to adapt to the resource changes, however, left small-scale fishers at the mercy of frequent technical malfunctions such as the failure of an inboard engine, as many only own a single boat, and also subjected them to increasing fuel costs4. This, in turn, also led to higher reliance on credit from formal and informal financial institutions. In a day-to-day sense, bad fishing used to mean nothing on the plate to eat with the staple rice or ground corn, but now it means not only that, but debts as well.

While resource depletion is having serious effects on the lives of fishers, conservation efforts have also affected them. As a result of the intensifying national efforts at coastal resource conservation over the last decade, new rules and regulations concerning resource use have been

4 The years of my fieldwork, between 2005 and 2008, saw the price of petrol skyrocket globally. In Cebu City, the price of unleaded petrol was about 34 pesos per litre in August 2005, it stayed in a range between 38 to 40 pesos during most of 2006 and 2007 and it reached over 50 pesos by the time of my follow-up visit in October 2008. These prices are based on Caltex petrol stations in Cebu City and it is important to note that the price is even higher (usually by a few pesos) in provincial areas where costs of transportation and services are added by retailers.
introduced and implemented. The 1991 Local Government Code (RA No.7160) authorises municipal councillors to enact ordinances to protect the marine environment by limiting destructive extractive practices as well as to collect taxes and fees. Further, the 1998 Fisheries Code (RA No.8550) specifically defines illegal gear and methods and prohibits their use, and allows local governments to delineate the boundaries of their municipal waters and to establish marine protected areas (MPAs) within their jurisdictions. In the case of Granada, these conservation measures were effectively carried out in the course of the USAID (United States Agency for International Development)-sponsored Coastal Resource Management Project (CRMP) and the subsequent projects of a Cebu-based NGO. As well as putting strong emphasis on controlling illegal fishing including commercial fishers these policy changes brought about considerable restrictions on other fishers in their daily fishing practices. Restrictions on small-scale fishers were effectively delivered. Illegal commercial fishers, however, have proliferated in the waters around Granada and this has exacerbated resource depletion as well as the deterioration of the income of fishing households.

Because of ongoing resource depletion and corresponding efforts at resource conservation, changes regarding access to coastal marine resources have greatly affected the lives of small-scale fishers in Granada. Though Fernando’s hardship started well before coastal resource management was initiated, when I saw him in 2008 he claimed that recent changes in access to marine resources had made his life even harder than before. He explained this point by giving me an example of a recent incident which angered him. While he was fishing using a legal gill net off the neighbouring municipality, something which he has been doing for many years, he was apprehended by the coastal guards on a charge of entering the boundary of municipal waters without having a permit. Guards slashed his net with a knife, confiscated his catch and warned him not to do it again. Though he knew the guards usually overlook such an offence as long as the fisher is in waters further off-shore, he had risked fishing closer to shore because he had only a small paddle boat and little physical strength.
Another crucial issue that Fernando faced was that he was forced to prioritise food security over profit-making in his fishing. Despite his rich fishing experience, because of restricted mobility in both a physical and a legal sense, he could only go to fishing grounds in the nearshore waters to catch what he could. The squid jig was his most frequently used gear, known as it is to be appropriate to a range of fishing grounds and for its simplicity. With intensified competition among small-scale fishers and an abundance of squid, lowering the market value of this catch, the squid jig was not the preferred gear type for profit making. However, because of the low capital investment needed and its durability, using this gear usually enabled Fernando to bring enough food to feed his family and a small amount of cash income even though he only went to nearshore waters, thus avoiding the higher risk of returning empty handed. Having many mouths to feed, Fernando chose to make use of this gear despite the long hours at sea necessary to make sure the family had enough to eat. However, attaching primary importance to securing food for the family meant that he had less chance to bring cash into the household. In fact, this low-risk-low-return approach resulted in a severe cash shortage, forcing him to go into debt not only to pay off emergency expenses but sometimes just because of daily expenses during a bad fishing period. This financial situation made it almost impossible for him to source enough money to get his boat fixed when it would break down. In the end, he had to pawn his boat to the village money-lender according to a catch-sharing arrangement which undoubtedly contributed to the further deterioration of his financial circumstances.

This story is not intended to suggest that all the fishers in Granada are living just like Fernando. There are same small-scale fishers who live a financially more comfortable life than he does because of more successful fishing, multiple sources of income, more substantial financial support from other family members, or fewer dependents in the household. It is also true, however, that Fernando’s case is not exceptional in the village. Most Granada fishers face some kind of financial difficulties most of the time and their struggle is exacerbated when the catch is poor or the price falls. These circumstances mean that the majority of Granada fishers have low financial resilience to changes in their fishing environment such as lowered abundance.
or limited access to resources and price variation of fishing-related costs. With only minimal savings in the bank or another financial institution, these fishers are highly vulnerable to unexpected non-fishing related expenses such as illness. As a result many fishing households are in some form of debt because of money borrowed for purposes other than investment in increased productivity. In fact, the struggle that Fernando was going through was so common that it did not even draw attention from other villagers. I heard that Fernando left for Manila a few months after my visit in 2008 and to date he has not returned to the village.

Plate 1-1: Fish indiscriminately caught by a trammel net

Studies on the Use and Management of Coastal Marine Resources
While Fernando’s story shows how the struggle of small-scale fishers is not due to resource depletion alone but also to issues of socio-economics and socio-politics relevant to the local context, this understanding has not been part of studies on the use and management of marine resources associated with small-scale fishers in the Philippines. With the exception of a few
noteworthy studies (these will be briefly reviewed below), there is, in fact, a significant lack of scrutiny of social complexity in coastal resource management studies in the Philippines context.

The early literature on Philippine fisheries started with invaluable documentation done in great detail in the different parts of the archipelago of the fishing practices of small-scale fishers. These studies by fisheries technicians from the Bureau of Science had a wide range of interests, such as fishing gear types and methods, techniques of fish preservation, fishing economy and fish biology (cf. Manacop 1937; Umali 1937; Villadolid 1937; Blanco 1938; Umali 1938; Domantay 1940; Domantay 1940). These works were often aimed at understanding local fishing practices in order to verify administrative issues and discuss the possibilities of further development or improvement of fishing industries. For example in Visayas, Martin (1938) rigorously documented the flying fishing method, from harvesting to marketing and preserving the catch, along the coast of Cebu Province. Meanwhile, Rasalan (1940), in Samar Province, focused on issues concerning the methods of preserving the fishing gear which were, then, largely made from natural substances such as cotton, abaca and bamboo. He documented different methods of enhancing the resistance to the growth of micro-organisms on the gear and argued its effect on the fishing patterns of fishers. In subsequent years scrutiny into the technical side of resource use has certainly been a major focus among scholars interested in human interaction with marine resources. Spoehr's (1980) careful and detailed analysis of the historical development of fishing gear and methods is highly valuable. Also, more recently, three volumes of edited books on Visayan fishing communities published by Filipino and Japanese scholars (Ushijima, Zayas et al. 1994; Ushijima, Zayas et al. 1996; Zayas and Ushijima 2000) were exceptional and remarkable for wider and in-depth understanding of resource-use practices and many other anthropological fields.

Between the 1960s and the 1980s, corresponding to the nation-wide promotion of fishing industry development for food security and the acquisition of foreign currency (Flores 1996: 179-181), the focus of studies moved to the economic and marketing aspects of resource use (cf. Spoehr 1968; Cuyos and Spoehr 1976; Jocano and Veloro 1976). Among a number of studies
during this period, the most significant work was the studies of David Szanton (1981) and Maria Szanton (1972) on the fishing industry in Estancia in Iloilo Province. Based on long-term fieldwork, David Szanton comprehensively observed the commercial fisheries industry which drove economic growth through adapting to constant technological innovation and socio-economic and ecological changes, and examined whether economic growth in Estancia complied with the economic model based on what the West had experienced. With evidence of disparities between the model and the actual growth pattern, he demonstrated that traditional practices in catch sharing, income distribution, labour organization, commerce, etc. through the social structure and culture shaped the economic growth in Estancia. In contrast to the case of agricultural land where the application of technological innovation was likely dominated by a few wealthy capitalists, he noted that the economic growth in Estancia ‘has been based on the nearly free access to the almost endless resources of the open sea’ and ‘even an initially poor man could, with his own labour, establish and then enlarge his own enterprise’ (ibid: 115).

Meanwhile, Maria Szanton (1972) focused on the patterns and process of distribution of goods in the market in Estancia. Seeing the marketplace as an integral part of a large socio-economic and cultural system, she argued that activities in the marketplace are largely affected by complex interpersonal relationships. Despite the relatively open and free competition of the market system, the marketplace worked to absorb labour from lower-income groups and secure them the minimal income to survive, rather than serving as a place for cultivating opportunities for large economic growth. She concluded that the marketplace in Estancia was ‘a highly patterned set of roles and relationships emphasising stability and security for the great majority of its participants’ (ibid: 141). These studies highlighted the significance of socio-economics and localised practices not only in fishing but also in the post-harvest period in order to understand the social structure of fishing communities.

From the 1990s on, the study of coastal communities saw a prominent shift in direction towards issues concerning the management of coastal marine resources in the face of the escalation of resource depletion in coastal waters because of unsustainable fisheries
development policy and the rising number of resource management projects as its countermeasure. By the 1970s, the decline in fish catch was beginning to be seen more realistically by resource users and others, including scientists (Flores 1996: 180). The country's first MPAs were implemented on Sumilon and Apo islands in 1974 and 1982 respectively (Alcala and Russ 2006) and some successful results in both conservation and social development led to active discussion and implementation of 'community-based' management of MPAs. These studies focused primarily on the biological performance of the MPA (e.g. Russ and Alcala 1996; Russ, Alcala et al. 2003; Russ, Alcala et al. 2004) and governance for sustainable management (e.g. Russ and Alcala 1999; Christie, White et al. 2002; White, Courtney et al. 2002; White, Eisma-Osorio et al. 2005; Alcala and Russ 2006).

By the 1990s, there was a greater realisation of the need for a more comprehensive approach to the recovery of resources and habitats than simply through MPA establishment (White, Eisma-Osorio et al. 2005), and by the late 1990s a number of integrated coastal management (ICM) projects were carried out across the archipelago with the assistance of foreign and international donors. As a result, practitioners and scientists raised various management issues regarding the sustainability and better governance of the projects and a considerable amount of ICM-related literature was produced from both a natural and a socio-scientific perspective. These studies extended to a more holistic analysis of the management framework. While active discussion of MPA management continued, and is still the major component of most ICM projects, many studies focused on project design, such as institutional arrangements and legal frameworks for sustainable resource management examined across multiple project sites (e.g. Pomeroy, Pollnac et al. 1997; Courtney and White 2000; Christie, Lowry et al. 2005; Eisma, Christie et al. 2005; Lowry, White et al. 2005; Pollnac and Pomeroy 2005; Pomeroy, Oracion et al. 2005). White et al (2005), for example, attempted to verify the factors which influence the

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5 These are (1) benefits to the community residents from the changes, (2) stakeholder participation in decision making, (3) improved economic return, (4) adequate legal and policy framework, (5) improved law enforcement, (6) building durable institutions, (7) involving the private sector, (8) avoiding excessive dependence on the project and the government and (9) education and awareness as the key factors which have the greatest effect on the sustainability of the project.
Introduction

success of integrated coastal resource management using a comparative analysis of the cases of the Philippines and Indonesia.

The historical development and current trend of studies on human interaction with marine resources in the Philippines illustrate the lack of intellectual links between studies on use and studies on management. Studies on the human use of marine resources only indicate resource depletion at best and hardly relate their studies to management of marine resources. While many authors observe that coastal marine resources are rarely managed by any formal entities and that human activity, together with environmental changes, has caused depletion in different locations, descriptions done by these writers are generally limited to examining the technical cause-and-effect of the issues with little or no appropriate investigation of the social contexts related to the issues. Similarly, among studies which focus on the management of marine resources, the analytical scope is generally confined within the management framework and largely neglects the actual resource-use practice of people. While these studies contribute to an understanding of the principles for better design of ICM from the national or regional perspective, they are not geared to attend to the social complexity from a more local perspective. This tendency is also relevant to more recent discussion of ecosystem-based approaches in the Philippines, which advocates an integrated approach to managing marine resources based on up-scaled transboundary and eco-regional areas (e.g. Christie, McCay et al. 2003; Christie, Fluharty et al. 2007; Christie, Pollnac et al. 2009; Christie, Pollnac et al. 2009). While some studies suggest the importance of local perspectives and contextualising to local conditions as a basis for an enlarged management framework, none of these studies attend to the local resource-use practice or explore its importance within the larger resource-management framework.

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6 In the field of natural resource management, there has been a growing interest in a more integrated approach to managing natural resources based on the up-scaled transboundary and eco-regional approach. The concept of this ecosystem-based approach was primarily developed in the planning of land management for national parks in North America, and since the late-1980s it has been one of the key concepts for natural resource management (Grumblñe 1994: 29). There is no agreed definition but following Christensen et al (1996: 668-669), ecosystem-based management is ‘management driven by explicit goals, executed by policies, protocols and practices, and made adaptable by monitoring and research based on our best understanding of the ecological interactions and processes necessary to sustain ecosystem structure and function’. The idea is that it is an adaptive and holistic approach for the conservation of natural resources while fully acknowledging the complexity and dynamics of the ecosystem in which humans are an integral part, and the geographic and temporal scale of the management is flexibly determined depending on the ecological context.
To sum up, attention to the actual resource-use practices has been and remains to be posited as only a peripheral concern in most of these studies. This situation is problematic when the use and management of marine resources are simultaneously engaged in by the same group of people – primarily small-scale fishers – in the same locality. There is nothing which separates the use and management of marine resources. Rather they are interwoven as part of people’s everyday lives. In this sense, use and management of marine resources are closely intertwined and perception and behaviour of small-scale fishers towards marine resources is largely shaped by both. Thus, the lack of this connection in studies on human interaction with marine resources restricts the likelihood of appropriately reflecting the social reality of fishing villages in management and it results in the production of somewhat fragmentary accounts of the issues in a more dynamic context.

Managing marine resources requires a good understanding of resource users’ relations to marine resources. Indeed, although coastal resource management projects commonly aim to reduce fishing efforts in order to lessen the pressure on resources, entirely banning people from fishing is usually not an option due to social justice as well as many other considerations. These projects generally aim, at least within the Philippine context, not merely to conserve the resources but also to manage the fishing and other resource-extracting activities through introducing rules and regulations concerning resource use. Thus, a detailed understanding of the use of marine resources becomes important if one wants to manage these resources effectively. Jentoft makes this clear by stating ‘...fisheries management is not essentially about the management of fish....Fisheries is an industry and fishing is a human activity, and it is through regulatory measures of fishing behaviour that we attempt to secure the viability of fish stocks. Therefore...to manage well, you need to know not only fish, but also fishers and fishing’ (1998: 182). In fact, constituents of a village where fishing is a dominant livelihood are socially diverse (c.f. Haraldsdottir 2000). As fishing is an ‘internally differentiated socioeconomic-technological system exploiting a diversified marine resource’ (Spoehr 1980: 196), the way constituents engage in using marine resources is naturally diverse due to different interests and motives.
Furthermore, fishing is not limited to those who directly harvest the fish but rather affects the lives of many others who are closely related to the activity. It is suggested that there are twice as many people involved in the post-harvest handling process than in the fishing itself (Platteau 1989). These complexities are often masked by stereotypes and inaccurate assumptions about fishing communities, as Spoehr (1980) notes:

There is some tendency for outside observers to lump Philippine small scale fishermen into a homogeneous and rather amorphous category of poverty stricken, poorly educated, individualistic producers ...There is need for well-conceived and well-executed field observations of such communities as socio-economic systems in their own right, although linked to fisheries as a whole and to the larger society by social, economic, and political ties. Such observations must deal with the relation of such communities to their resources, including the extent and nature of competition for fishing space, whether there are internal socio-economic regulators of such competition, and the kind of decision-making and fishing strategies employed. Only through such field work will the rubric ‘small scale fisheries’ be replaced by an organised body of knowledge reflecting the actuality of fishing communities and the changes they are experiencing (ibid: 198).

Despite the importance of careful analysis of fishing practices, Spoehr’s critique for outside observers of fishing communities is, unfortunately, still valid in many studies of small-scale fishers and their communities, particularly in studies of coastal resource management. Researchers fail to pay enough attention to the detailed and complex fishing activities and the social organisations in which they occur. This view has contributed to the depiction of fishers as a single homogeneous group and researchers’ speculations on fishers’ behaviour based on their untested assumptions while neglecting the fishers’ subjectivity (a similar case is seen in Cuba, see Doyon 2004). Consequently, this view creates the widely held assumption that resource users in management projects are receptive to the ideas that the project presents (Goldman
These criticisms are often associated with the fact that social science has largely been underplayed in investigating the human dimensions of coastal resource management. At a general level, social science, particularly anthropology and other associated disciplines utilising long-term field-based research, has been undervalued in the study of coastal resource management, its potential contribution largely underestimated (ibid, McCay and Jentoft 1998) This point is most strongly demonstrated in the field of MPA management (Christie, McCay et al. 2003; Mascia 2004; Blount and Pitchon 2007).

In summary, a review of the literature identifies two major issues in previous studies of coastal communities in the Philippines. These are insufficient integration of marine resource use and marine resource management in these studies and inadequate attention to the relevant social complexity. In this regard, several recent studies in anthropology and other related fields have engaged in an in-depth examination of the social reality of fishing communities in relation to coastal resource management (e.g. Sunderlin and Gorospe 1997; Austin 2003; Siar 2003; Eder 2005; Oracion 2006; Austin and Eder 2007; Eder 2008). For example, a series of studies done by Susan Russell (1994; 1997) and with Rani Alexander (1996; 1998; 2000) take social complexity into account by carefully exploring the social organizations, social structure and resource appropriation of Philippine fishing communities in a culturally informed manner. In particular, in their study of fishers' catch-sharing practices (Russell and Alexander 2000), they argue that an understanding of the informal rules and rights which govern the relationship between fishers and other community members is important for understanding how these local practices relate to coastal resource management. Another example is Seki’s (2009) study of fishers in Palawan. With careful analysis of the detail resource use of fishers and newly introduced regulations on fishing, Seki describes the concurrent process of institutionalization and contextualization of coastal resource management while highlighting the agency of fishers to rearrange their relations with marine resources to maintain their livelihoods. This thesis agrees with and is inspired by these studies because of their engagement with the social complexity of fishing communities and the human dimension of coastal resource management.
Plate 1-2: A fisher waiting for the right timing to begin his hook-and-line fishing at the sea.

Theoretical Approach
In order to engage with the social complexity of fishing communities while investigating the responses of small-scale fishers to coastal resource management in Granada, it is necessary to understand the most important medium of these projects: ‘community’. The concept of community has been a central focus in the area of conservation of natural resources across the world and conservation is often presented as a ‘community-based’ approach (Agrawal and Gibson 1999; Brosius and Russell 2003). This approach has been a popular tool advocated by international organizations and NGOs in the last few decades as a critique of the previously dominant top-down approach where state coercion had repeatedly failed. The premise is that the local population is more interested in the sustainable use of local resources, more cognizant of the complexity of the local ecology and is able to manage the resources more effectively through local practices (Brosius, Tsing et al. 1998: 158). Despite this popularity of the rhetoric of ‘community’ and its widely acknowledged crucial role in coastal resource management, the meaning of community in natural resource management is not always clear. In the field of
natural resource management in general, the issues concerning how we should approach the community have been widely discussed (e.g. Jentoft, McCay et al. 1998; Natcher and Hickey 2002).

In the context of Philippine coastal resource management, the word ‘local community’ is also used as a type of basic social unit which is expected to play an important role in jointly implementing the projects with the government or NGOs (e.g. Pomeroy 1995). It is also true, however, that ambiguity and the distorted images of community which have been applied in the projects have been an issue. Having observed one coastal resource management project in Palawan, Eder (2005), for example, argues that the community was conceptualised as a ‘territorial’ unit in the project and this was assimilated into the existing political grid in which communities of interest, whether organised or not (‘functional’ communities), were largely neglected. He claimed that because of the lack of understanding of the complex social reality, social differences were not appropriately addressed in the course of the project’s instituting of resource management (ibid: 163). As apparent in this case, the gap between how community is conceptualised by the project and what community actually is, is an important issue concerning coastal resource management projects. Thus, in order to examine the relationship between the small-scale fishers and the coastal resource management project in Granada, it is crucial to understand different views of community and how these have shaped the actions of stakeholders and affected the interactions between and among them.

One significant field that promoted the community as a locus of conservation of natural resources was the studies on common pool (property) resources (CPRs) carried out by many social scientists with a background in anthropology, geography, sociology or political science. Based on the results of empirical studies showing that some societies successfully used their

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7 Common pool (or property) resources, or sometimes simply ‘commons’, refer to a natural or man-made resource system in which (1) exclusion of potential users through physical and institutional means is extremely costly or virtually impossible (e.g. difficulty of exclusion), and, (2) exploitation by one user reduces resource availability for others (i.e. subtractability) (Feeny and Berkes 1990; Ostrom, Burger et al. 1999). Thus, CPRs include fish, ground water, irrigation, range, forest, atmosphere and so forth.
local natural resources for centuries, the studies of CPRs\(^8\) aimed to explore which traits of these communities enabled them to manage the resources sustainably while others failed. According to Ostrom (1990), these communities are often equipped with a mechanism which ensures the cooperation among participants through establishing trust and a sense of community, commitment to following the rules without outsiders’ coercion, and mutual monitoring to make sure everyone is following the rules. With the perception that community supersedes the state or private management, these studies claim that establishment of appropriate institutional arrangements to ensure that local communities have a set of principal rules\(^9\) would contribute to the lasting self-organization of resource management institutions.

As useful as these empirical findings are for the development of better institutional arrangements and their high policy applicability, they have been criticised by a number of studies for their ‘simple-minded’ image of the CPR (Sengupta 2004). Many CPR studies have inadequately posited their assumptions on the impact of market forces, development and other external factors on the local communities in relation to their resources (McKean 1997; Sengupta 2004). While studies on CPR primarily focus on establishing collective action through inter-dependency, some scholars claim that more attention is needed to the wider social contexts of the subject communities in CPR management (Peters 1987: 10). These authors call for greater

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\(^8\) Discussion of the commons was developed as a critique to Garrett Hardin’s renowned model of ‘the Tragedy of the Commons’ (1968). Postulating an imaginary pasture, he argued that ‘[E]ach man is locked into a system that compels him to increase his herd without limit—in a world that is limited. (Ibid: 1244)’. Subsequently, his view of inevitable resource depletion of the commons was challenged by many scholars from a wide range of disciplines. Many scholars (e.g. McCay and Acheson 1987; Ostrom 1990; Berkes 1999) agree that his hypothesis may be true under complete ‘open-access’ conditions, however in reality the situation is far more complicated and there are many cases where people have successfully managed their natural resources for prolonged periods of time (e.g. Ciriacy-wantrup and Bishop 1975; Netting 1976). These studies claim that there is a human capacity for reciprocity supported by the self-restraining institutions organized among themselves to manage their resources (Feeny and Berkes 1990: 12). In this sense, common property resources are not ‘everybody’s property’ (Ciriacy-wantrup and Bishop 1975: 715). Since the 1980s, there has been a large number of studies discussing the management of CPRs (Berkes 2005: 14). Noting that some groups of people successfully manage their resources while other groups fail, most of these studies focus on the collective action problems in the management of common property resources.

\(^9\) Several researchers have elaborated these design principles (e.g. Wade 1988; Ostrom 1990; Hanna, Folke et al. 1995; Libecap 1995; Baland and Platteau 1996). For example, Ostrom (1990) gave 8 principles, which are (1) establishment of clearly defined boundaries of right-holding users to use the resources, (2) establishment of context-based rules for resource extraction and maintenance, (3) implementation of collective-choice arrangements which ensure participation of the affected resource users in creating and modifying the rules, (4) implementation of monitoring by the resource users who are accountable for the status of resources and other resource users’ extracting behaviour, (5) imposition of gradual sanction for compliance to the rules, (6) devising a low-cost local conflict resolution mechanism to address the friction among resource users and with officials, (7) recognition of resource users’ right to devise and enforce their own rules, and (8) multiple layers of nested institutions at different levels of governance structure.
attention to the everyday struggle of resource users who are involved in CPR management (Steins, Röling et al. 2000: 3) and the effect of contextual factors embedded in the CPR situation (Edwards and Steins 1999). Some anthropologists have acknowledged this point and the value of an anthropological approach to this issue from the early stage of the study’s development. Peters (1987) was one of these scholars who rightly stated ‘[I]t is an error to suppose that an individual calculus can explain a commons system – rather, one has to understand the socially and politically embedded commons to explain the individual calculus... [Anthropological orientation in analysis] avoids the main elements of the two simplistic models of the commons – namely the unattached, autonomous, asocial ‘individual’ on one side, and on the other the undifferentiated, homogeneous, harmonious ‘community’’ (ibid: 178).

The image of community being spatially small, socially homogenous and having a shared norm on which many previous CPR studies grounded their assumption (Agrawal and Gibson 1999: 630) was criticised by those engaged in studies in the closely related field of political ecology. Though political ecology is originally rooted in the field of geography, it is an emerging approach to explore the relations between humans and the natural environment in the context of unequal power relations, and it has been an important subfield of study in anthropology (Little 1999: 256-257). Blaikie and Brookfield (1987: 17) explain that ‘[T]he phrase “political ecology” combines the concerns of ecology and a broadly defined political economy. Together this encompasses the constantly shifting dialectic between society and land-based resources, and also within classes and groups within society itself. In general political ecology attempts to understand the political sources, conditions and ramification of environmental change. Particularly in the third world context, the consequences of environmental degradation are unequally shared and it may increase or reduce the social and economic inequalities which may also result in a change of the actor’s power, thus environment is politicised (Bryant and Bailey 1997: 28-29). While many political ecologists focus on the link between local environmental degradation and globalism, it also calls for greater emphasis on localised issues concerning changing natural resources and the environment (McCay 2002: 379;
These political ecology based approaches certainly provide important analytical tools to examine the issue of ‘community’ in the context of Philippine coastal resource management.

Among scholars with an interest in political ecology, there has been a body of literature attempting to reconsider the issues regarding community by examining power relations in the context of natural resource management. For example, observing upland forest management policy in the Philippines and Indonesia, Li (2002) argues that while a simplistic image of community is advantageous in getting attention to historically disadvantaged and marginalised people and helping to invert their negative stereotypes, there emerges another problem. She argues that under community-based natural resource management, simplification of the community through the process of territorialisation has resulted in intensifying the imposition of rules and regulations on the resources and has increased state control over indigenous people and the local resources on which they have been relying. As a consequence, the allocation of resources has been redefined and the right of only limited land has been given to usually poor and powerless people conditional upon ‘sustainable’ use, a situation in which these people could easily be further marginalised (ibid). Eder (2005; 2008), on the other hand, criticises the simplistic image of community used in coastal resource management in the Philippines with reference to the problem of empowerment of the people. Based on unequal power distribution due to social differences in fishing communities, he observes that the ‘burden of conservation’ is unequally distributed among coastal residents and they are not rightly represented or meaningfully involved. He argues that as a result, inequity among coastal residents increases and empowerment of marginalised people remains an issue. These authors carefully examine the power differentiations and distribution which clearly exist among constituents of the community and highlight their considerable impact on the management of natural resources.

The essence of these criticisms of the image of community is that it is simplistic and largely neglects, in particular, the complexity of local politics within the community. To enable a more realistic view of the community, Agrawal and Gibson (1999) stress the importance of attending
to the multiple interests of the multiple actors who make up the community, the interaction among these actors themselves and their interaction with external actors within the larger social context, as well as the flexible institutional arrangements which structure the behaviour of actors with sets of formal and informal rules and norms. They see how politics shapes the relationship of these diverse actors with others and shapes their behaviour in using and managing natural resources. Agrawal and Gibson’s particular emphasis on the appropriate institutional arrangements is thus to constrain and facilitate certain actions in order to achieve sustainable resource use, but even with well-conceived institutions, ‘[A]ctual human behaviour...is unlikely to conform precisely to institutional contours’ as perfect implementation of institutions is impossible, thus scrutiny to power and politics is crucial for understanding the relationship between the community and the resources (Agrawal 2003: 257). In studies of Philippine coastal resource management, politics often appears in the literature exemplified in undermining factors such as nepotism or patronage which allow a group of people to engage in environmentally destructive activities (Eder 2005: 156-157), or lack of political will to push through management implementation (Sunderlin and Gorospe 1997: 341; Russell and Alexander 2000: 22). Despite the generally agreed concept that the politicization of coastal resource management should be avoided as much as possible (cf. White 1989; Russ and Alcala 1999), politics is unavoidable in the process of management (Agrawal 2003: 258).

Politics in this sense is not only limited to conventional politics associated with larger contexts such as election campaigns and government activities, but it also includes the micro-politics which take place among actors within communities. Micro-politics plays an important role in governing the access to resources among actors at the local level. In fact, micro-politics is a key to understanding social organizations. Kerkvliet (1990) examines the politics in everyday life in a rural agrarian society in the Philippine lowlands. Under distinctive division in social class and status marked by glaring socio-economic inequalities, he observes that the ‘everyday politics’ of lower-class people shapes their complex social relations with people in different social standings. For example, he describes that though the relation among poor
peasants and wealthy landlords appears to be characterised by tension and antagonism because of contending claims over the distribution of resources, social connection and linkage among these groups lead to a calmer and smoother relationship in order to obtain mutual benefits. When a society is generally characterised by a distinct divide between wealthy and poor, hence powerful and powerless, the belief that everyone has a ‘right to survive’ often transcends formal rules and regulations (Szanton 1972: 129) and, as seen in the Philippines, a close examination of the relationships among the actors in natural resource management would provide better understanding of the community.

Largely influenced by such discussion in the fields of anthropology and political ecology concerning the community and its role in natural resource management, the approach of this thesis will be to examine the power relations among the stakeholders involved in one particular coastal resource management project. By closely engaging with the micro-politics of the everyday life of villagers as well as local socio-economics, it will focus on an examination of how the government’s and NGO’s projection of community does not match with the social reality.

Field Site – Rationale for Choosing the Village

This thesis focuses on one Visayan coastal village, barangay\textsuperscript{10} Granada in the Municipality of Boljoon, which is located in the southeast of Cebu Island (Figure 1-1) in the region of Central Visayas. Based on its socio-economic and political profiles, Granada is often seen simply as an ordinary rural village. The municipality is characterised by a hilly topography where simple and classic styles of houses along with more modern structures stand, heavily concentrated on the limited flat land. People are engaged in various livelihoods such as fishing, farming, grocery retailing, handicraft production and transportation, and these activities are generally done on a small-scale. Granada is one of Boljoon’s seven coastal barangays and like the municipality, there is little to differentiate it from other coastal settlements in the vicinity. Indeed, one could

\textsuperscript{10} The barangay is the smallest administrative division in the Philippines, similar to the notion of village. In this thesis this term is used interchangeably with village, for example ‘villagers’ referring to ‘residents of the barangay’.
perhaps easily find another Granada with similar social background elsewhere along the coast of Cebu or even on other islands in the Visayan region. For most, both Filipinos and foreigners, it is just a little provincial village that one quickly passes by on a south-bound bus while travelling between Cebu Island and Negros Island. Even for the villagers of Granada, or those who lived elsewhere but learned that I was staying in Granada, it was a somewhat strange idea that a foreigner would stay in such a small all-too-common fishing village with no attractive tourism facilities, obvious colourful history or any other distinctive characteristics.

Plate 1-3: A view of coastline in barangay Granada

Its selection was, of course, strategic for several reasons. Since the research was targeted at localities where exploitation and conservation of marine resources are in conflict, Granada provided a good field site for the research. Firstly, Granada has been one of the project sites of a coastal resource management project since the early 2000s. Since this research revolves around the practices of coastal resource management at the local level, the research site had to have an on-going history of involvement with a coastal resource management project. Secondly, people in Granada are actively engaged in fishing, among other livelihoods. Fishing is widely
recognised as an important livelihood for villagers, so the two-fold pressure of depletion and conservation is a matter of concern for many. Thirdly, Granada does not have other substantial industries like tourism. While coastal resource management has prevailed all around the archipelago, among these project sites, locations with tourism activities or other significant industrial development are far less common than ones that do not as yet have them. From my own observation, these traits of Granada are common to many other small rural barangays where extra-local actors have initiated the conservation of local resources. Further, even though it cannot be stated strongly enough that local socio-economic conditions and fishing practices are unique to each place, there are nevertheless certain elements in the lives of villagers, such as concepts and ideology which are strongly influenced by cultural factors common to lowland Philippine societies. In this sense, studying Granada in addition to providing a unique case study on its own, also has general relevance to wider rural coastal villages in the Visayan region. The selection of the site was done with the help of a Cebu-based NGO, the Coastal Conservation and Education Foundation Inc. (CCEF) with which I had a research affiliation. Preliminary fieldwork looking for potential sites was carried out in August 2005 and a number of CCEF project sites were examined together with their community officers (COs). Based on the outcome of this process, I selected the Municipality of Boljoon as the base for this fieldwork. Determination of the actual field site in Granada was done returning to Boljoon for the main fieldwork in March 2006 after conducting brief research in different barangays to find the most desirable field site.

Apart from the fieldwork in Granada, some brief fieldwork was also carried out elsewhere and the data has been incorporated in this study to supplement the discussion. In relation to the activities of middle-scale commercial fishing boats, the coastal barangays of the Municipality of Santa Catalina in the Province of Negros Oriental, the Municipality of Dauis and Panglao in the Province of Bohol, and Malapascua Island, located on the northern tip of the Province of Cebu were also visited. Further, in order to deepen the understanding of the interactions between small-scale fishers and coastal resource management, brief but repeated fieldwork in
other coastal villages in Boljoon and its adjacent municipalities of Alcoy and Oslob was also carried out.

Figure 1-1: Map of Central Visayas

Methodology
This study employed anthropological research methods, primarily long-term ethnographic fieldwork where participatory observations and, in addition to other data collection methods, numerous interviews were held in order to collect the qualitative data. A preliminary three weeks of fieldwork were done in August 2005 and the main fourteen months of fieldwork were carried out between February 2006 and April 2007, with follow-up fieldwork for three weeks in October 2008. I stayed in Granada for most of the time during the total of my almost sixteen-month stay in the Philippines and attempted to participate in barangay social life as much as
possible while living there. This involved regular eating and drinking sessions with occasional singing and dancing together as well as accompanying villagers on their fishing or patrolling activities.

In order to observe the lives of small-scale fishers from close-up, I boarded with Fernando Cruz, a villager whose main source of income, as explained earlier, was his fishing. Staying in Fernando’s house provided an ideal setting for the research. It is located in the crowded centre of the settlement, where many families live close to each other and activities related to fishing and resource management are most actively done. A narrow dirt path wedged between Fernando’s house and his neighbour’s house is a main route for many villagers to access the beach, including fishers going to and coming back from fishing. Right next to his house, there was another family’s house, that of a small-scale fisher who owns a little *sari-sari* store with a small food stand and a *videoke* (*karaoke*) machine. This *sari-sari* store happens to be one of the local hubs of eating and drinking and the accompanying social interactions not only for villagers but also for temporary visitors to the village. Fernando’s house was the place where I could experience the lives of villagers in Granada through all my senses – the loud sound of negotiations between villagers, the smell of cooking and drying fish, the itchiness of bed bugs, the flavour of freshly prepared fish and the sight of proud fishers all smiles after a big catch.

In the course of entering into the social life of Granada, I relied on people’s social networks to establish and foster my relations with a wide range of Granada villagers. First, I approached the officers at the Municipal Agricultural Office (MAO), which is responsible for affairs regarding fisheries and coastal resource management and which works closely with the CCEF and the villagers in Granada. With their coordination, I was invited to the municipal session hall to introduce myself and verify the purpose of my research in front of the mayor and councillors. After official acknowledgement of my research, MAO officers introduced me to the *barangay* captain (village head), *barangay* councillors and several core members of the *barangay*-based people’s organization (PO) relating to resource management. After getting permission from the captain to reside and conduct my research within the *barangay*, I was invited to the *barangay*
council session and explained the purpose of my stay. Through people whom I met initially in this process, I gradually expanded my social network to other members of the PO and barangay councillors, and to their friends and family members. Through participating in the village social life on an everyday basis, I eventually became familiar with most of the villagers regardless of age, gender and livelihood, particularly those in the densely populated part of the barangay.

As mentioned earlier, getting people to understand the purpose of my stay was initially an issue. Despite my use of a note in the local Cebuano language describing my research, when necessary or when the occasion arose, there were some misunderstandings and wrong speculation among some villagers at the beginning of my fieldwork. I was told later that people’s suspicion could be attributed to general caution in regard to foreigners because of certain previous incidents. Firstly, there was an often implicit suspicion of Japanese nationals because of memories of the Japanese invasion during World War II. Though the southeastern part of Cebu Island, including Granada, had little experience of the Japanese occupation, there were several striking incidents which did take place in Granada during the war\textsuperscript{11} and which were still well remembered by the old villagers. This, together with an anecdote about a mysterious stranger in the town in pre-war times who was really a Japanese military officer working as a spy, some villagers, particularly the elderly ones, thought that I might be concealing my true objective. The idea that I might be looking for the corpses of my dead relatives, working for the Japanese military intelligence service or searching for the hidden

\textsuperscript{11} One common memory is that Japanese soldiers from the Municipality of Dalaguete (two municipalities north of Boljoon) came to Granada to look for guerrillas who were active in the mountain along the southern coast of Cebu. By then, many children and young women had fled to the mountain but the remaining villagers were locked up in the local chapel overnight without food or drink and compelled to tell the soldiers the location of the guerrillas while the life of one villager was threatened. Though no killing took place during this incident, or indeed throughout the war time, there were reported cases of abductions and rapes (Kobayashi 1993), and despoliations. There is also a story of a Japanese man who, allegedly, was living rough in Boljoon but became a military officer as soon as Boljoon was occupied because he was very familiar with the area and had learned the local language. Though there is no way of determining whether this story is true or not, it certainly led some old people to the belief that I was some kind of a ‘spy’, possibly working for the Japanese army and looking for a good landing point for the fleet. Later in my fieldwork, this perception of me was articulated by the local politicians with whom I established good friendship. They told me that some of them were particularly worried about me in this regard. Being aware that negative rumours could potentially interfere with my ability to conduct the research, I became particularly careful to explain the objectives of my research to a wide range of villagers whenever the opportunity arose and also through barangay councillors and other local influential figures. These conceptions eventually altered as my fieldwork proceeded.
treasure that a Japanese general allegedly buried, are among their more astounding imaginings. Another reason for suspicion related to a more recent incident which raised the hackles of many villagers. It was said that the village’s most valuable and historical landmark, the *bulwarte* (watch tower), had been privatised by a couple, a foreign man married to a Philippine woman, who bought the vast land just next to Granada where it stands. This effectively shut down villagers’ access to the landmark. This incident led to an uneasy feeling among villagers towards foreigners who they thought might illegitimately take advantage of local heritage sites which are supposed to be open for the public. These misunderstandings and inaccurate speculations were gradually resolved as my social network expanded and people had a better understanding of my research and of me as an individual, and as my ability to communicate with villagers in the Visayan language improved.

In the course of my fieldwork, I conducted countless interviews among a wide range of villagers, government officers, NGO workers and politicians. Structured interviews were employed to a limited extent in order to study such issues as villagers’ perceptions of MPAs and tourism development in Granada. On most occasions, interviews were done with clear plans and guide-lines for the interview in mind, but in an unstructured or semi-structured manner. While many of these interviews were planned with appointments in advance, many other interviews were done in a more casual and spontaneous way on occasions when people were just chitchatting at the beach hut or drinking and eating in their homes or in the shops.

To supplement the qualitative data, two sets of surveys were conducted which significantly contributed towards a deeper understanding of the social reality of Granada and of its small-scale fishers. The first one was a daily fish catch survey among 20 fishers who were randomly selected and who kindly agreed to cooperate in the research. The survey aimed to collect detailed information about each of their fishing trips within a day, asking the fishing location,

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12 There is a legend of hidden treasure often referred to as ‘Yamashita Treasure’ or ‘Yamashita Gold’. It is widely believed among Filipinos that General Yamashita of the Japanese Imperial Army hid a considerable amount of gold that had been collected from other parts of Asia at some location in the Philippines as part of a plan for a resurgence of the military. During my travelling to different islands, I witnessed several remnants of temporary structures on the coast and mountains which, it was said, treasure hunters used to use. Because of these treasure hunters’ indiscriminate search for gold among natural and historical landmarks, the Department of Environment and Natural Resources (DENR) released an Administrative Order to regulate their activities.
time and duration of the trip, the gear and boat type used, the petrol consumed, the helpers who accompanied them, the species caught and their weight (and the number of fish when possible), the quantity sold (and its price), eaten, given-away or consumed for other purposes (see appendix III for the survey sheet). The survey started in June 2006 and ended in May 2007, and it was repeated in October 2008. Among the 20 fishers with whom the survey was begun, four had to drop out as they stopped fishing for various reasons along the way. These were replaced with other fishers selected in the same way. During the period of the survey, I hired three diligent and talented research assistants, who were local youths from Granada, to help with the data collection. After I provided them with a training session on how to conduct the social survey and guidance on privacy issues, I assigned them to collect the data and had meetings with them every two weeks to follow up their activities. Further, collection of socio-economic data on fishing was also supplemented by the daily record of the largest-trading fish vendor in the barangay. This data was collected from June 2006 until October 2008.

Another survey was the household economy survey (see Appendices IV and V for the survey sheet) for all the households near the coast to which I had access, a total of 180 households. It involved questions on demographic data (such as name, date of birth, family composition, religion, educational attainment, etc.) and more specific economic activities such as sources of income in the last 12 months and details of remittances and debt. For fishing households, it further enquired about detailed information relating to their fishing and post-harvest activities such as the details of the gear that they presently use (owner, cost, durability, purchased/self-crafted and frequency of use), use history of gear types (when started and from whom learned) and seasonal change and other natural factors affecting gear types in catch (high/low seasons, lunar stages and tidal changes). This survey began in October 2006 and ended in December 2006 with several remaining households followed up in subsequent months, and it was jointly collected with three local and non-local but native Cebuano-speaking interpreters, who had high

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13 There were eight households of which I could not contact the head, or, in some cases, his or her spouse because they had an alternative residential base either in Cebu City or in the mountainous areas. There were also two cases where the respondents refused to cooperate with the survey due to no provision of financial incentives and/or for some other reason.
fluency in spoken English, so they could help ensure consistency in delivering the questions and comprehending the responses.

Apart from the first-hand data I collected, this thesis also makes use of secondary data collected by the CCEF, the CRMP, the Municipality of Boljoon, the Department of Environment and Natural Resources (DENR) and the Bureau of Fisheries and Aquatic Resources (BFAR). All the figures and tables appearing in this thesis, however, are based on original data unless otherwise specified.

Outline of Chapters
Chapter 2 gives the general background of barangay Granada. It begins by describing the characteristics of the social and natural environment with historical references mainly with a focus on the provincial or municipal level. Subsequently, the focus narrows to the barangay-level, and the ecological, socio-political and socio-economic features of Granada are explored in detail. More specifically, the chapter provides information on the local natural environment such as topographic and meteorological features and the status of the coastal marine environment in Granada. It then moves on to the social characteristics by examining the resource management institutions, demographic information, social class and livelihoods.

In Chapter 3, the focus is narrowed further to fishing activities among Granada villagers in order to understand their social standing and socio-economic and technical relations with marine resources. After demonstrating the social and economic status of fishing and local arrangements to manage fisheries, the chapter draws a detailed description of fishing practices and patterns in which two distinctive fishing gear groups are observed. The contrasting fishing patterns in terms of fishing ground and catch composition of these fishing groups are illustrated. In the subsequent section, the focus turns to the fishing economy with reference to the gear groups, and some distinctive traits in fishing income and economic efficiency across the groups and among fishers in the same group are examined. The chapter further explores the fish-marketing practices in the village.
Based on intensive examination of social contexts and resource-use practices, subsequent chapters focus on specific resource management agendas. In Chapter 4, the limited way in which small-scale fishers were involved in the establishment and management of the MPA is examined. In the course of the analysis, the historical development of MPAs in Boljoon is illustrated through a chronological examination of the significant events and discourses concerning the MPAs. This chapter shows the changing discourses concerning the MPAs and how the limited participation of small-scale fishers in the planning process strengthened the image of the MPA as serving more for tourism than for fishing. The seemingly high level of villager acceptance of the MPA is shown to have resulted largely from a sense of resignation and a vague hope for the opportunities that tourism might bring about.

In Chapter 5, the analysis of MPA management is extended to the actual practice on the ground. The chapter enquires whether villagers’ ostensible acceptance of the MPA meant their obeying of the rules and regulations imposed and whether the municipal councillors and NGO workers monolithically followed the logic and theories that they presented in public speeches and documents. The way in which these issues were constantly negotiated through both formal and informal channels and compromised in order to achieve some realistic level of success is demonstrated.

Shifting the focus from the more conflictual nature of MPA management in the relations between villagers and the municipal government, Chapter 6 examines how villagers responded to the prevalence of illegal commercial fishers against whom both they and the municipal government generally shared strong antagonism. The chapter analyses in socio-economic terms the interactions between villagers and non-local ring-netters who periodically visited the barangay. An overview of ring-net fishing in the region is provided and the relationship between these fishers and the villagers is examined. It is explained how this relationship is strengthened through daily interactions characterised by the reciprocal exchange of services and commodities. The chapter explores the logic behind this seemingly paradoxical relationship between villagers and ring-netters and fishers’ passive form of cooperation.
Chapter 7 examines fishers’ responses to the changing situation of commercial fishing in the region. After ring-netters virtually disappeared, there emerged another form of commercial fishing, bag-netters. The chapter describes the response of fishers to the emerging bag-netters—a response quite different to the one which had previously prevailed with the ring-netters—and examines their interactions through the medium of the payao (Fish Aggregating Device). The chapter shows how the establishment of favourable relations with bag-netters is likely to lead to unfavourable resource conditions in the future.

The conclusion summarises the main points of this thesis and discusses the implications for future coastal resource management in the Philippines. Finally, suggestions for future research directions in this field are provided.
Chapter Two
Granada, a Visayan Fishing Village

The quiet provincial town of Boljoon is situated on the southeast coast of the long and narrow island of Cebu, which is 250 kilometres long and 30 kilometres at the widest part and lies in the province of Central Visayas. The town is facing the Bohol Strait (sometimes called the Cebu Strait) overlooking the southwestern part of Bohol Island and it is effectively located opposite one of Bohol’s tourist centres, Panglao Island. Its location is approximately 100 kilometres south of Cebu City, the capital city of the province and one of the nation’s most important commercial centres. The town is well connected to Cebu City by the paved national highway and has been at least since the 1880s, when the road was unpaved. There are various types of south-bound buses departing from the City’s south terminal, which regularly travel back and forth between Cebu City and the island's southern tip. Boljoon is also relatively close to Dumaguete City, another regional centre and the capital city of Negros Oriental Province, which is approximately 40 kilometres away to the south southwest. It usually takes two and a half to three hours to travel between Boljoon and Cebu City by bus and an hour to an hour and a half to Dumaguete City by bus, ferry or jeepney. Despite its proximity to Dumaguete City, Boljoon has much closer attachment and ties to Cebu City not only in political terms but also in social and economic terms. The municipality of Boljoon is classified as fifth class in revenue level (average annual revenue from 10 to 15 million pesos\(^4\), equivalent to around US$188,000-282,000), which is the second lowest in the category and its 10,745 hectares of land support a population of 14,877 (National Statistics Office 2008).

\(^4\) In this thesis, the conversion rate of Philippine peso to US dollar is calculated based on US$ 1=PHP 53.255, which was the annual average at the time of this research.
History, Environment and Livelihood in Southeast Cebu

As Cebu Island was situated in the heart of the Visayan world and surrounded by a number of islands on all sides, Cebu gradually became an important centre of commerce. By the early sixteenth century, pre-Hispanic Cebu settlement was a trade centre for both interisland and international trade mainly with Chinese merchants who were then sailing between China and the Moluccas and other regions in Southeast Asia. Some archaeological findings suggest that residents of Cebu had been trading directly with southern China for some considerable time. Subsequent to Magellan’s ‘discovery’ of the island and his death in a battle with the local chief Lapu-lapu in 1521, conquistador Legaspi arrived in Cebu in 1565 and establish a colonial base, declaring the King of Spain’s sovereignty over the archipelago.

According to archaeological findings, the southeast coast of Cebu (Figure 2-1) is believed to be the area of oldest settlement on the island (Beyer 1947), and it is suggested that the area was well populated even prior to the 16th century (Fenner 1985). The first Augustinian mission outpost established in this area was in Carcar in 1599 and the second one was established in Boljoon in 1606. According to Renato Amper (n.d.), a former Mayor of Boljoon, Boljoon was discovered by Augustinian missionaries led by Fray Bartolome de Garcia as they were exploring the southeast coast looking for the best place to establish their mission in order to evangelise the inhabitants. During their expedition, the missionaries met strong winds and currents and were forced to take shelter in the inlet where they encountered local residents, led by Datu Baladian, who, legend has it, had fled from Borneo to Panay Island and thence to Boljoon. Since the locals were willing to be Christianised, Fray de Garcia decided to set up the outpost there. Boljoon was registered as a barrio (village) of the area’s main town, Carcar, by the end of the sixteenth century (Archives of the Augustinian Province of the Philippines n.d.). Subsequently, however, the Augustinians made little effort in this area because of Muslim raids from Mindanao and Sulu. In 1690, because of its vast area – it extended down to the southern tip of the island – and its growing number of parishioners, the parish of Carcar was divided into

15 According to Renato Amper, the year has been argued to be 1598, 1600 or 1606, by Augustinian archival documents.
two and the southern part became the independent parish of Boljoon. Though the record shows the first priest was appointed in Boljoon in 1692, it is reasonable to assume that the parish was not yet well established or developed. According to Cullinane and Xenos (1998: 91), even the parish of Carcar, which had much larger settlements and was more closely located to Cebu City, remained unstable until the eighteenth century, primarily because the frequent Muslim raids resulted in the administrative centre of the settlement having to be moved from the coast to the inland area.

In fact, Moros raiders frequently attacked Christian settlements in Cebu and other regions in Visayas for bounty and slave hunting until as late as the nineteenth century. The southeast coast of Cebu was a favoured place for attacks as the settlements were far from Spanish naval and military posts in Cebu City. Because of this vulnerability to attack, from the late eighteenth century to the early nineteenth century imposing stone churches were built all along this area as strongholds for defence. In Boljoon, though the original church structure was built in 1783 by Friar Otero, beginning in 1802 the subsequent parish priest Friar Julian Bermejo\(^\text{16}\) expanded the church complex and fortified it by building a massive coral stone church and enclosed the complex with a metre-thick wall and bulwarks at every corner to fight against the raiders (Amper n.d.). A large stone blockhouse with artillery fortification was also built next to the church complex to function as a fortress (RAFI n.d.: 16). Also important was the establishment by Bermejo in the early nineteenth century of a defence system against Moro raids which consisted of a string of robust watchtowers (baluarte) overlooking the sea all along the 96 kilometres from Carcar to Santander. Armed men were stationed in the watchtowers which were placed at intervals each within sight of the next so that signal flags could be used to communicate and the residents could then be warned. Around this time, a small regional fleet was organised to mobilise militia throughout the province (Cullinane and Xenos 1998: 100) in coordination with the information collected from watchtowers. On the southeast coast, Bermejo organised a small armada of 10 boats armed with falconets and other weapons for battling

\(^{16}\) Friar Bermejo was parish priest of Boljoon from 1802 to 1836, and from 1846 to 1848.
against the raiders, and this was sustained by a regular levy of food from the residents of Boljoon (Amper n.d.: 10). There are remnants of three old watchtowers in Boljoon, and one of them is located at Cayangon Point, a small sharp-edged promontory located next to the residential area of barangay Granada. The tower is made from coral stone and rubble and is castellated, which suggests small cannon might have been originally installed. After a series of successful attempts at repelling the raiders, the raids gradually vanished from the southeast coast and by the mid-nineteenth century, the Moro raids had completely ceased in that area (Cullinane and Xenos 1998: 100-101).

**Figure 2-1: Map of Southern Cebu**

The island of Cebu is not a very attractive environment for human settlement, characterised as it is with poor soil, scarce water, steep slopes and deforestation. Porous limestone underlying most of the island’s surface in combination with severe deforestation causes not only heavy
erosion, but also the absence of any constantly flowing river system. Vandermeer (1967: 1967) reported only sixty out of 420 rivers and streams carried water all year round on the island. The high slope of the island’s terrain also contributed to the majority of rivers and streams being dry during most of the year. Only 14 percent of the land has a slope less than 10 degrees, and as much as 47 percent of the land has a slope greater than 20 degrees (Cullinane and Xenos 1998: 72). Though the island receives a modest average rainfall of around 1,600 millimetres a year, this environmental setting lets the rainfall quickly drain from the steep streams with limestone beds into the sea. Further, the lack of forest also exacerbates the drainage of water. The island was once covered with forest but this was gradually cleared away for construction, fuel, and establishing human settlements and farms. Though debatable, it is argued that most of the forest all along eastern and south-western Cebu had been cut down by the time of contact with Spaniards, whereas the north and northwest retained large forest cover until the late Spanish period (Cullinane and Xenos 1998: 87). By the turn of the nineteenth century, the whole island was denuded and now with few exceptions ‘virtually no natural forest cover remains on the island’ and the upland is presently mostly covered with grasses, shrubs, and fast growing plantation tree species (Kummer, Concepcion et al. 1994: 267). The absence of forest, together with uninterrupted cultivation of crops, has caused severe erosion, making the soil thin and stony and affecting agricultural productivity (Echevarria 1974: 94).

The natural environment in Boljoon is no exception and Cebu’s rugged natural features there limit the fertile land for agriculture and the flat land for dwelling. Having moderate flat land in the middle section of the town where the town centre (poblacion) is located, most of the northern half of the town has a slope of 20 to 30 degrees and the southern half, where barangay Granada is situated, has a slope of over 30 degrees (Vandermeer 1967: 318). The terrain is characterised by undulation with many hills divided by small valleys and streams. Though there are 11 rivers and streams identified on the map, they are mostly dry throughout the year except right after heavy rainfall. According to the municipality’s land use plan (2002), a combination of brush, grassland, and shrubs comprises around 83% of the total land in the municipality and
there is scant or no natural forest covering the land. Only 15% of the land is used for the cultivation of crops and the rest is used for buildings and other establishment but has mostly remained uncultivated.

Historically, because of this environmental setting, the livelihood of most Cebuanos depended upon the farming of dry crops supplemented by fishing and hunting (Cullinane and Xenos 1998: 73). The sloping land and the scarcity of water limited rice cultivation to those small areas with sufficient water supply. Instead, Cebuanos primarily engaged in the shifting cultivation of dry crops. Around the time of contact with the Spaniards, Cebuanos grew a variety of millet as their staple along with taro, beans, bananas, coconuts and abaca\(^\text{17}\) (Vandermeer 1967: 321). Their diet was supplemented with animal protein by hunting forest animals using dogs and nets, and by fishing which was done with various types of nets, traps, corrals, hook and lines, and spears (Scott 1994: 147-148). In Boljoon, similar styles of farming and fishing were most likely practiced in the richer forest and sea, but cotton cultivation seems also to have been significant. A Spanish priest reported in 1698 that the natives of Boljoon ‘harvest some grain but the main product is cotton, from which they produce very good textiles. They are very industrious and skilful’. Cotton growing was indeed particularly prevalent in the southeast area, having begun at least three centuries before the Spanish arrival, and their woven textiles were exported to China (Echevarria 1974: 103). The existence of trading with Chinese merchants is also supported by the recent archaeological findings of Chinese ceramic bowls, along with various gold artefacts and skeletons, which were excavated from the old settlement site in Boljoon between 1550 and 1600 (Awit 2008).

As Spain started exerting its power over the land and its people, the livelihood of Cebuanos began to be transformed. Textile trade with Chinese merchants was banned by the colonial administration in order to create a monopoly over the archipelago’s exports and aim these at Mexico but the amount of trade was far smaller. This resulted in a considerable decline of cotton production in the area where farmers switched to crop cultivation (ibid: 103). Shifting

\(^{17}\) The abaca plant (*Musa纺织*) is a type of banana native to the Philippines. The fibre of its leaf was processed to produce paper, fabric and rope.
field cultivation was officially forbidden in 1874 but even before this, it was gradually being replaced by the more sedentary cultivation of crops such as corn, introduced from Mexico in the seventeenth century. As corn yielded greater quantity than millet even in the severe natural environment with little change required to existing cultivation techniques, writers assume that this was in response to an already expanding population (Vandermeer 1967: 328; Cullinane and Xenos 1998: 98).

At present, the cultivation and weaving of cotton has virtually disappeared from Boljoon, though the remaining weaving rooms in residences built in the early twentieth century suggest that it was still a significant industry during that time. The dominant cultivated crops in the town are now corn, coconut, and bananas planted mostly in fairly narrowly confined areas on the slopes. Almost all the farms are operated on a small-scale basis and grow these crops for subsistence and some small cash income. Corn is milled for making cornmeal (bugas mais) which is prepared and eaten just like rice (bugas), coconut is dried for making copra and these are the major cash crops for many farmers. Other crops such as rice, carrots, pepper, Chinese cabbages, eggplants, taro, sweet potatoes and mangos are also cultivated in mountain areas but quantities are small and often productivity is comparatively low\textsuperscript{18} due to the poor soil and water. Livestock raising is also widely practiced by both mountain and coastal dwellers, with swine and goats the most common livestock, while cattle and water buffalo (karabaw) are less common. Poultry is the most common livestock raised both for home consumption and sale.

Along with a sense of stagnation and a desire for industrial development among municipal councillors, there is also quite a move towards tourism development. In the Province of Cebu, the provincial governor is an active supporter of tourism development and she has conducted a number of tourism-related projects. For example, Suroy-suroy Sugbo, which means ‘getting around in Cebu’, is her pilot project and was commenced in 2005. In it, the governor leads foreign and domestic tourists to provincial towns and they tour together. Boljoon along with other towns is included in its ‘Southern Heritage Trail’ trip which showcases the Patrocinio de

\textsuperscript{18} Fenner compared Boljoon’s corn yields with the provincial average of Cebu in 1960. Whereas the provincial average was 8.3 cavans per hectare, it was 4.3 cavans per hectare in Boljoon. (Fenner 1985: 89)
Maria Church. This has been declared a National Historical Landmark by the National Historical Institute and a National Cultural Treasure by the National Museum. With strong financial and moral support from the provincial government, municipal councillors in Boljoon have been actively trying to promote tourism by making use of the area’s historical heritage and also its rich natural environment, which includes the sea (Amper 2005). The municipality has also launched several projects aimed at attracting tourists, such as organising a ‘Bolho Festival’ and providing free wireless internet access in the church plaza. Consequently, the municipality gradually started attracting investment for beach resorts from both foreign and domestic investors who often have strong ties to the town. Though there is no formal statistical evidence, locals believe that the number of tourists has been increasing in recent years and tourism seems to be on its way to becoming a sizable industry.

   Early Cebuano settlements first expanded from the coastal area where they had access to the marine resources and trading opportunities, to the interior where, well into the nineteenth century, permanent settlement began (Cullinane and Xenos 1998). The movement of Cebuanos to land away from the coast has been attributed to owners of fertile lowland pushing migratory swidden farmers out to the mountain side as they started cultivating cash crops such as tobacco and sugar for export (ibid: 87). In Boljoon’s case, the historical transformation of the settlement is unclear but considering that crop production was limited to the narrow area of flat land near the coast, settlements in the hinterlands may have begun in relatively early times. This limitation of land had other effects as well; it protected Boljoon from waves of development of large plantations of crops for export which in other areas resulted in many landless farmers. Large areas of agricultural land on the islands were converted to sugar and tobacco plantation in the eighteenth century, and this transformation occurred all along the southeast coast from Cebu City down as far as the town of Argao. These export crops never became significant further south on the coast, including Boljoon, because of the large areas of agricultural land needed for them as well as because of the poor soil quality in this area. As a result, unlike the situation in many other parts of the island, the land in this area remained intact in the hands of small land
holders. Fenner (1985: 130) comments that ‘the cultivators may have eeked out a marginal existence on their small plots of land, but at least the land belonged to them’ and that his elderly informants from Boljoon and neighbouring towns ‘seemed fiercely proud of the fact that people in their communities owned and cultivated their own land’.

The demography of the town can be traced through the church records and secondary source material based on them, but the information is significantly limited because the boundaries of the parish changed over time. Some archival material suggests the settlement of Boljoon had three to four hundred inhabitants by the end of the seventeenth century (Gaspar de San Agustin 1698: 495). By 1760, the priest reported that there were 3,404 parishioners in the parish of Boljoon (Amper n.d.: 4), which then included the area from the town of Alcoy to the town of Santander, over 40 kilometres of coastal line. The end of Moro raids and the shift of the staple crop to corn contributed to the steady increase in population and the development of a more stable community throughout the island. By the end of the nineteenth century, the population had reached approximately 7,700 within the present town area, and it steadily increased despite occasional decreasing periods, to a population of 9,121 in 1918’ 11,299 in 1948; 11,359 in 1975 and 14,877 in 2007.

**Geographic and Social Setting of Granada**

Granada is one of eleven barangays comprising the Municipality of Boljoon. Granada is located on the southern side of the town along the national highway which extends along the coast line, wedged between the hill and the sea. Although the size of the village area is about 430 hectares, residents’ buildings occupy only 3.5 hectares. The majority of the population is concentrated within the 0.8% of the village land which is situated on the very narrow coastal flat and extends into the adjacent fairly steep hills. As shown in Figure 2-2, Granada has four sitios (a smaller division of the barangay) along the coast, namely, from south to north: Pook, Pili, Tinaw-gan and Sela. Sittio Pook is the most densely populated area in which houses and other structures are built close upon one another on the relatively flat land, an area divided off by the cliff which constitutes a promontory referred to as Cayangon Point. The area is characterised by mostly old
houses inhabited by residents who have lived there for a relatively longer time than is the case in other sitios. The barangay hall is located in this part of the village and it constitutes the socio-economic and political centre of village life. Sitio Pili is also thickly populated, mostly in the narrow space between the shore and the highway, and the highway and the hill. Establishments include a number of old houses mixed with some new more affluent looking houses which are mostly inhabited or owned by villagers who moved in from elsewhere because of the advantageous location overlooking the sea. In contrast to the previous sitios, the housing density is sparse in the steep hills of sitio Tinaw-gan. Though the highway runs along the edge of a small cliff to the beach, several residential and holiday houses have been developed in recent years by people who live outside Granada, particularly wealthy residents of barangay Poblacion in Boljoon. Due to the limited land space, these establishments are fairly small in size but the number has been rapidly increasing. Sitio Sela is sparsely populated with old and simple houses. Because of its distance from sitio Pook and proximity to barangay Poblacion and the sitios of mountain barangays, the residents have strong ties with these settlements. This is also evident in the fact that residents celebrate the barangay Poblacion fiesta, not the barangay Granada one. The populated area of sitio Pook and Pili is customarily called Balitang. It is believed to be the original name of the settlement in this area before contact with the Spanish and often this name is used more commonly than ‘Granada’ among residents in this area.

The settlement of Granada used to cover a much larger area before its division. In the 1980s, during the Marcos regime, the southern half of the original barangay Granada became an independent barangay as a result of population growth and in the hope of having a separate budget appropriated for barangay administration. This part of Granada was accordingly established as barangay South Granada and the remaining half continues to be called barangay Granada or North Granada (though both names are equally used in the public sphere, the name ‘Granada’ is used here because it is more common among the villagers themselves in their narratives because of their claim to being the ‘original’ half of barangay Granada). Due to the shared origin, these two villages share the chapel that holds San Roque as their patron saint, thus
the celebration of the barangay fiesta is held on the same days, August 15 and 16, and other social events are also organised jointly. As often described by residents in both barangays, the significant difference is that while residents in the southern half mostly engage in farming, many residents in the northern half engage in fishing as their primary livelihood. In the north, greater amounts of coastal flatland together with severely sloping land inland attracted residents to the shore while in the south, quite limited coastal flatland but gentle slopes inland attracted residents to farming.

There is no way of knowing exactly how Granada village social life emerged and was transformed over time, as there are no written records. Only oral history, through the use of numerous interviews, can provide a glimpse of this. Exploration of the meaning of names for the location provides some image of Granada in the 'old days'. Local legend has it that 'Granada' was named by Spaniards after the pomegranate, 'granada', which grows abundantly here. Pomegranate trees are not as abundant now as they are said to have been in the past, however they are considered as an iconic local plant that some take great pride to plant in their gardens. According to some older villagers, sitios were also named for characteristics of their locations. Pook is said to derive from the word 'luok' which means 'bay' in Cebuano, Pili was a word locally used meaning 'peaceful', and Sela originated from the local term relating to flowing water. The name 'Balitang', which is the original name of the settlement, came from the name of a vine commonly called 'balagon' in Cebuano but called locally 'balit'. In fact, the area was originally thickly covered with this vine, among other types of vegetation, and this hindered settlement into the area and kept the population density relatively low until recent years.
Plate 2-1: Overlooking sitio Pook, Pili and Tinaw-gan, barangay Granada

Plate 2-2: Busy morning of fiesta in August
Figure 2-2: Map of barangay Granada (as of January 2007)
Though there are many kin groups in Granada and the number is increasing through immigration, up until now relatively few and distinctive family names characterize the majority of the village population, thus indicating little immigration from other areas in the past. As the origin of kin groups is part of living memory, it is probable that the movements which did take place have occurred in relatively recent generations, perhaps no more than two to three generations back. Among the family names, several are known to be those of families which have long inhabited coastal and inland Granada and the most prominent ones in this category are: Sesaldo, Servilla, Medalla, and Mercadal\(^{19}\). Many coastal inhabitants possess one of these names, either as a surname or a middle name derived from the mother's maiden name. Many family names such as Bequilla and Mendez are associated with their roots in mountain settlements either within Granada or adjacent barangays. Other names such as Rollon and La Cuña are from the southern part of old barangay Granada. Some names, such as Roma or Sesante from barangay Poblacion and its periphery, Romares from the neighbouring municipality of Oslob to the north, or Trapero from a coastal barangay in the Municipality of Santander, are seen to have come from locations further afield.

A more detailed account of the social setting in Granada can be traced based on the survey of 180 coastal households. The town being situated on Cebu Island, villagers indigenous to Granada are generally classified as Cebuanos, which is the major ethnic group in lowland Visayas. Many studies, however, have described the high mobility of the people in Visayas (e.g. Seki 2004) and this means that many inhabitants come from different parts of the archipelago. As Table 2-1 shows, only slightly over 60% of total household heads in Granada were born there. Over 10% were from neighbouring barangays and municipalities, and less than 10% were from other parts of Cebu Island. Around 5% of members were from either other parts of Visayas, Mindanao, or the Luzon area. The survey data, however, confirms that almost everyone speaks as their usual means of communication the Cebuano language, one of the Visayan languages.

\(^{19}\) The situation becomes even more complex when, in the early twentieth century, the village trustee, Don Eleuterio Sesaldo, asked the parish priest, Moran, to change the family name of his two sons in order to differentiate his family line from other impoverished Sesaldos. This family was given the family name of Servilla. Around the same time, a man from the Medalla family wanted to marry a woman from the same kin group. The man happened to be the brother of Don Sesaldo's son-in-law and he asked the priest to change the family name of this man to Mercadal.
belonging to the Malayo-Polynesian language group, and follows Roman Catholicism (except for two households).

There are two major patterns of migration observed across the households. The first includes people who originally had no relation with Granada but who migrate into the village through marriage. Often what happens is that a villager native to Granada meets someone from a nearby barangay or municipality (or even some more distant barangay or municipality where they may be employed) and returns to Granada with their spouse/partner. Most migrants from other towns in the Province of Cebu and different regions in Luzon fall into this pattern, having met in cities like Cebu City or Manila NCR where they worked. The other pattern includes people having their ancestral roots in Granada. Often these are second generation migrants from different parts of the archipelago who return to Granada as they inherit land or share in the land inheritance or their close family members allow them to live on the land. Although Table 2-1 shows that a high percentage of household heads come from outside Granada, many of these have some territorial connection to Granada through kinship. For this reason, except for those who married into the Granada population, most residents keep their strong ethnic identity as a Cebuano/Cebuana. Migration related to fishing is not significant but there have been several cases observed. There were a couple of households in which the husbands had met their wives during muro-amí fishing trips to Palawan in the 1980s, and the couples returned to Granada together. More recent cases are related to ring-net fishing which is being carried out off the Granada shore. Several fishers met their wives in Negros Oriental, when they were working on ring-net fishing vessels. Several women also met their husbands when they were visiting Granada during a fishing trip. Also, there was a couple from Tagbilaran on Bohol Island working with ring-net fishing vessels who took their whole family to Granada.
Granada/South Granada & 64% & 61% & 62%
Boljoon & 7% & 8% & 7%
Oslob & 2% & 2% & 2%
Santander & 3% & 0% & 2%
Alcoy & 0% & 1% & 0%
Other towns in Province of Cebu & 8% & 9% & 9%
Central Visayas & 2% & 3% & 2%
Eastern Visayas & 1% & 3% & 2%
Western Visayas & 1% & 2% & 1%
Caraga, Mindanao & 2% & 1% & 2%
Northern Mindanao & 2% & 3% & 3%
Zamboanga Peninsula, Mindanao & 0% & 2% & 1%
Davao Region, Mindanao & 0% & 1% & 0%
General Santos, Mindanao & 0% & 1% & 0%
Bicol, Luzon & 1% & 1% & 1%
NCR, Luzon & 3% & 3% & 3%
Ilocos, Luzon & 2% & 0% & 1%
Mindoro, Luzon & 1% & 0% & 0%
Central Luzon & 1% & 0% & 0%
Rizal, Luzon & 1% & 0% & 0%
Palawan & 0% & 1% & 1%
Total & 100% & 100% & 100%

Table 2-1: Birthplace of parents in household

The general educational attainment among adults (not including adult children in the same household) is at a basic level. Figure 2-3 shows that a greater number of both males and females have completed only elementary school than have completed any other level of education. As awareness of the importance of education was much lower in the past, many middle-aged to elderly villagers often had to drop out of school and give up on proceeding with their education. While many families did not have the money to send their children to secondary school, it is also true that children were considered as an important source of household labour to help out with farming and fishing, or expected to bring cash in by joining the then-booming muro-ami fishing. Another reason for the low level of educational attainment is the fact that because villagers who finish high school or above usually expect to work in salary-paying jobs in the cities, those who do attain higher levels of education do not remain in the village. Generally, becoming a fisher is not considered a desirable job for high school graduates and remains one of the few options for those who have only basic education. In Boljoon over the past few decades this situation has changed, and younger residents have begun to enrol in and even complete their secondary education (Municipality of Boljoon 2002: 1;37). While Granada appears to be
following this tendency however, there are still not a few children who drop out of education because of financial difficulties, lack of motivation or because they need to help support the household livelihood.

![Figure 2-3: Educational attainment among villagers](chart)

Kerkvliet (1990: 62-63) provides a useful approach for analysing the social structure in lowland Filipino society through the concepts of status and class. While he describes the effects of standard of living, such as types of housing and income level, on people’s status in the society, he distinguishes class from status because class depends on a household’s means of production and labour rather than merely the income derived from this. In Granada, where almost all villagers fall into the labour and fisher class and no capitalistic form of production exists, there is no substantial class differentiation (see Russell 1997: 82, for similar case in Batangas). Despite this, however, there are certainly differences in status groups among villagers because there are differences in levels of success in fishing as well as differences in the level of livelihood gained from various forms of labour. Drawing upon Kerkvliet’s approach, in

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20 Though having little actual effect on educational attainment statistics, students from Granada commonly hold bitter feelings towards other students and some teachers at the high school because of incidents of mistreatment. Some teachers allegedly treat students from Granada more harshly because they perceive Granada students as being talkative and badly behaved. Also students from Granada are often picked on by other students from wealthier backgrounds for their ragged and dark appearance, and their loud and gruff way of speaking. The choice on the part of some serious students to go to the private school in the neighbouring town of Oslob, if they could, was an attempt to escape such harassment.
order to examine the social status group in Granada, this study categorises three status groups — poor, wealthy, and intermediate — based on the survey data, observation, interviews and people’s narratives. The primary method for this categorization was based on the estimated annual income level from the survey. According to the national census results of 2006 (NSO 2007), the annual per capita poverty threshold for a family of five is set at 65,630 pesos (US$ 1,232.37) for rural Cebu Province. While this index provides a useful cut-off line for the population in general, it does not necessarily match up with the strong feeling of poverty experienced locally by Granada villagers in their daily life. Considering that the average annual family income in Central Visayas is 144,288 pesos (US$2,709.38) (ibid), this thesis uses an estimate of 100,000 pesos (US$ 1,877.76) as the appropriate threshold for the locally acknowledged concept of ‘poor’. For the wealthy status group, an estimated annual income of 500,000 pesos (US$ 9,388.79) was set as the threshold at which villagers unarguably acknowledge a household as ‘wealthy’. Households earning an annual income over 100,000 pesos but less than 500,000 pesos are grouped as ‘intermediate’. Though this categorization largely relies on the survey, the data was modified when cases were identified as requiring correction for the sake of accuracy because of contradictory data from other sources.

82.8% of households (149 households) are categorised as ‘poor’. Among these, although virtually no household has difficulty in obtaining three meals a day, families are, nevertheless, in constant financial difficulty because of their small income level. These villagers typically engage in small-scale fishing, farming, transport (as drivers) or the sale of various commodities. Most household heads in this group have minimal education, usually limited to elementary school, but some have attended high school or vocational school. People from these households commonly see themselves as poor (pobre) and uneducated (ignorante) particularly in contrast with those who are wealthy (dato) and educated (edukado). Though the degree of financial

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21 Estimated income was calculated based on all declared income sources in the 12 months prior to the survey, which included income from both regular and temporary jobs, remittances and other sources. Discussion regarding the seasonality of each type of livelihood and the regularity of remittance over time was carefully conducted with interpreters and this data was reflected in the calculation when necessary. For example, households which indicated an annual income of over 100,000 pesos were still counted as ‘poor’ households if their income was mostly from a contingent remittance which was not on a regular basis.
difficulties of course varies among households, most of them do not usually have enough savings for unexpected expenditures (such as medical bills or boat repairs). For this reason, many were indebted to formal or informal financial institutions. There are a small number of households who own the land where their houses are built, but most of them do not. Most households are financially able to send their children to high school but often not to university unless they have some financial support from other family members. Their houses are quite basic. Some houses are built with woven bamboo walls, a split bamboo floor and a *nipa* thatch or corrugated iron roof. Other houses are built with concrete blocks or cement, often using timber or bamboo walls if it is elevated, and covered with a corrugated iron roof. Floors are either vinyl-covered concrete or dirt and rarely tiled. These houses are quite small, with kitchen, toilet, and one or two bedrooms at maximum. Rooms have simple décor with old appliances (such as TV, stereo, refrigerator or washing machine) which often no longer function well. These poorer households commonly receive remittances from family members living outside the village but the amounts are usually quite limited.

There were 15% of households (27 households) categorised as belonging to the intermediate group. According to their own perception, households, particularly at the lower end of this group, see themselves as poor but they also acknowledge they are indeed financially somewhat better-off than most of the poor households. Poor households also see them in this way and this often results in their being seen as the potential source for financial assistance notably among close relatives. These households range widely from some quite successful small-scale fishers to the owners of comparatively large retail shops and other small businesses. Households having close family members working or living overseas also often fall into this category. Common cases are male family members working as sailors on international cargo ships or female family members married to foreign men and who live overseas, in both of which cases households regularly receive substantial remittances. The houses of such families are more commonly built with concrete blocks and cement but the general design and quality of them, their décor and appliances can often not be differentiated from those in the poor status group. Also noteworthy
is the fact that many household heads in this group have held some public position in the barangay.

In contrast, there were only 2.2% households (4 households) in Granada who fall into the wealthy status group. Apart from one household whose forefathers were known to be big landlords in the barangay, the rest of the households in this category are people who originally came from outside Granada, bought attractive coastal land and moved in. They commonly have their primary residence in Cebu City and either own a private business or pursue a professional occupation, so none of them stay permanently in Granada. Some visit Granada frequently and others less frequently, depending on their commitment to lives in the city. Villagers readily recognise them as wealthy people because of their appearance, wearing nice neat clothes and expensive-looking accessories, and living in conspicuously nicer houses. They usually have higher education than other villagers of the same generation and they send their children to universities in the big cities. With higher education and a wider social network, they have close family members permanently working abroad (commonly in North America) and often as professionals. Most of their houses are made from concrete and other robust materials nicely painted and they are much more spacious than other houses. Some, however, have chosen to build houses just big enough to be used as a private beach house. Premises are surrounded by tall concrete walls topped with barbed wire and steel to protect the house and car from intruders. Inside, the house usually has tiled floors, nice décor and furniture, and expensive and late-model appliances. Owning a car is another very obvious difference to other villagers. They hire villagers from their kin group, or from close neighbours, as care-takers for the house and land during their sometimes prolonged absences. Upon their return, these caretakers also take odd jobs around the house when necessary.

The relationship between wealthy and poor status groups is usually good. The wealthy residents do not exploit the poor residents, acting rather in a friendly and reasonable manner. While on the one hand, it is true that the wealthy families' interactions with other villagers is usually limited to a few close friends and relatives, on the other hand, some households from the
wealthy status group actively build good relations with many poor villagers by acts of generosity and charity. For example, one household, that of a medical doctor in Cebu City, provides free medical check-ups for all the villagers by sending a medical team once a year, while another generously offers alcoholic beverages to the villagers. There are also cases where poor households and wealthy households are related through a ‘debt of gratitude’ (*utang na loob* in Tagalog or *utang na kabubot-on* in the Visayan language). This is a practice of ‘reciprocal obligations and behavioural expectations’ (Kaut 1961: 256) common in low-land Filipino societies. A typical case is the relationship between absent house-owners and their care-takers. One example of this is the family of one fisher which takes care of a house owned by a wealthy businessman during his absence from the barangay. The fisher had a longstanding friendship with this businessman from a wealthy family and he was allowed to build a house on the businessman’s land for free. In return, family members of the fisher commit to serving the businessman’s household by helping around the house, providing fresh fish (as an accompaniment to the usual alcoholic beverages) and doing odd jobs. Apart from providing the land, the businessman, for his part, reciprocates by providing accommodation and meals whenever the fisher family drops by in Cebu City on the way to Manila or by providing a lift back to Granada if the businessman also happens to be returning there. Indeed, there is no significant tension among the three status groups and any conflicts and disputes are usually the result of strictly personal, rather than status, issues. In most cases, although it is the wealthy households who establish this debt repayment practice in a superior-subordinate relationship with the relatively small number of poor households, the relationship is strengthened over time through mutual reciprocity (ibid: 266).

In Granada, where poor households dominate the social structure, the majority of coastal resource users fall into the poor status group, only a few in the intermediate group, and none in the wealthy group. This pattern of resource users in relation to the social structure affects the village’s capability of having influence in local politics. Because most members of the wealthy households have little interaction with villagers and engagement in their everyday life, they are
usually not enthusiastic about representing the interests of the village in the local political sphere. For this reason, leaders of the village usually come from households in the slightly better-off intermediate status group, but because there is a clear distinction in the level of wealth and education, elected barangay councillors and leaders of fisheries-related associations have difficulty in presenting opposing ideas or standing up to municipal councillors when the occasion arises. This sense of unequal status between barangay councillors and municipal councillors inevitably affects the policy-making process of coastal resource management. This will be examined further in following chapters.

Economic Activity in Granada

Because of the comparatively low crop yields and limited agricultural land, many villagers have long made their living from a mixed economy depending primarily on farming but also on fishing. An elderly villager explained that in her grandparents’ time, around the turn of the century, households usually owned a relatively large house upland in which several related families could stay together near their farm lands. All the household members engaged in farming activities but male members periodically moved down to the coast and practiced fishing while staying in a simple makeshift hut built near the beach. This distinctive division of gender roles with males fishing and females farming was also shown in the results of the household economy survey, part of the present study and in which many villagers stated that their father was a fisher and their mother was a farmer. As a result, coastal lands tend to be inherited by males while farm land is inherited by females of the family. The families which do not own any land near the coast remain at their upland farms and are less engaged in fishing but they also come down to the coast quite frequently to catch a small amount of fish, sell their crops, and attend Mass at the local chapel. A significant increase in the number of households in the coastal area, however, has taken place, but this occurred no earlier than the late-1960s. Until then, there were few such houses. According to old residents, around the time of the Second World War, there were fewer than 10 houses and makeshift huts standing in sitio Pook, around 5 houses in sitio Pili, and several houses around the hill behind the shore.
The large shift from engaging in a mix of farming and fishing to a greater emphasis on fishing most likely coincided with population growth in coastal Granada. Because more effective fishing techniques became available to fishers in a comparatively resource-abundant sea, specialization in fishing provided considerable income and also a food source equal to farming crops in poor soil. As elderly villagers stated, seeing some villagers begin to succeed in fishing, many people who previously had spent more time in the mountains gradually started settling along the shore, leaving their houses in the mountains with other family members. Some people also pointed out that the importance of education became more widely acknowledged among villagers around this time and many households preferred to live closer to the shore where they had better access to the elementary school. Coastal land became subdivided into a number of small lots, new small houses were constructed, and the already-standing makeshift huts started being rebuilt or renovated. By the 1980s the area had became as congested as it is today and the residents continue the expansion towards the hillside and the coastal line.

At present, villagers in Granada engage in various livelihoods for both food procurement and the generation of cash income, and this can be seen in the survey results. Figure 2-4 shows the sources of household income or food to which villagers had access within the 12 months previous to the survey. As villagers commonly have several sources of income, the figure contains multiple income sources. Fishing dominated as the most common livelihood among the villagers – 68 households regularly engaged in this activity. It should be noted that for the villagers, fishing is even more significant than this number indicates because it does not include either casual gleaning or the fish give-away that many villagers engage in on a daily basis (For analysis of this point and detailed resource use, see Chapter 3). A large number of households engage in livestock husbandry, most commonly that of pigs, goats and poultry. This is generally done on a small scale for both domestic consumption and sale, except for one relatively large enterprise owned by a businessman residing in Manila who raises poultry primarily for sale. Consumption of these animals is mainly reserved for banquets at celebratory events such as the
barangay fiesta (the annual festival in honour of the village’s patron saint), birthdays and school graduations.

![Bar chart showing various livelihoods among coastal households.]

**Figure 2-4: Livelihoods among coastal households**

Working in large cities such as Cebu City and Manila is also a common source of income for many villagers, receiving income from outside the village. Male members of a household most commonly work as security guards, construction or factory workers, or jeepney (a type of jitney which is the most common public transportation in the Philippines), taxi or delivery truck drivers. Females often work as shop keepers, factory workers or domestic help. While these occupations are considered low-wage jobs, there is a small number of villagers engaged in more lucrative professional jobs such as medical doctors, public accountants, business people or teachers. Though much less common, some households had members who received an honorarium or salary from public service.

Locally derived sources of income include the selling of various commodities or the provision of services. Villagers sell food and dishes such as grilled bananas (banana-Q), grilled fish (sinugba) and several kinds of sweets at small stands or by walking house-to-house. Candles are another common commodity that villagers produce and sell at churches and chapels in Boljoon and other towns, particularly around fiesta time, sometimes even as far away as on
Negros Island. There are also a number of *sari-sari* stores (general grocery stores), big and small, located here and there in populated areas of the village and selling daily commodities and some cooked food. Larger shops sometimes even provide entertainment services such as *videoke* machines and pool tables. Providing transport is also a common livelihood. There is the ‘tricycle’, a motorbike equipped with a sidecar which can carry up to 6 people, and which travels on the highway and back streets within the town as well as to the neighbouring *barangays* in Oslob. There is also the *trisikad*, a bicycle with a sidecar capable of carrying two people, which travels for shorter distances. In some cases the owner and driver of the tricycle is the same person, but in other cases the owner hires a driver and there is a set income-sharing arrangement which commonly provides for equal shares after subtracting expenses (*gasto*) such as petrol.

In the field, at least for households near the coast, farming is done by many households who are almost all subsistence-level farmers who plant predominantly corn and bananas, along with some other vegetables. Another common activity in the field is gathering firewood (*kahoy*) and *lambolan* leaves (*Syzygium cumini*), called *lomboy*, for rolling tobacco. Copra making is also common. The product is sold to the local broker who brings it to Cebu City. There is only one of this type of broker in Granada who is a Chinese-descendent and his family is known to have been in this business for two generations.

Less common livelihoods (engaged in by fewer than 10 households in the village) are categorised in the survey as ‘others’. Only a small number of people are engaged in some kind of government work. These include positions such as municipal worker, police officer or *barangay* captain or councillor. Also, though it is one of the jobs most villagers aspire to, there were a few households which included a sailor on international cargo ships. There are also a few household obtaining income derived from financial activities involving informal money lending at quite high interest rates and pawn-brokerage and these are mostly operated on an on-demand basis. Other jobs include machinery or appliance repairer, boat builder, welder, hair dresser, beautician, photographer, care-taker for empty houses, necklace maker, washperson, and
carpenter. In addition, there are a number of households who have family members receiving a pension (Social Security System).

Also important to household income in Granada are remittances from outside the barangay (Figure 2-5). There are 82 households (45.6% of total surveyed households) who received some remittance from family members either in the Philippines or overseas. The amount of the remittance varied from 200 to 300,000 pesos in the 12 month period and it was an average of 29,380 pesos. On the one hand, relatively small remittances were sent from family members living in the cities, most commonly for the occasions of Christmas and birthdays, and it was common among people in the poor status group. Large remittances, on the other hand, were sent regularly by those who work overseas to parents and other family members, and almost exclusive to intermediate and rich family households. Notably, there are 14 households who are more or less entirely dependent on remittances, regardless of the amount, for all expenditures.

![Bar graph showing remittance amounts]

**Figure 2-5: Amount of remittances received by Granada residents**

In order to facilitate their economic activities or respond to urgent financial needs, there is a number of both formal and informal financial sources to which villagers in Granada have access. These sources are, however, usually selected for the amount and purpose of the money intended to be borrowed. The formal financial sources are banks, government-funded livelihood projects and micro-finance organisations, while informal financial sources include relatives, friends,
local money lenders and pawnbrokers. Villagers select the source of finances according to time and circumstances from formal and informal, with pre-arranged interest or no interest.

In the past, villagers had only limited access to formal financial institutions. Traditionally, banks represent the formal financial institution where some fishers may borrow relatively large amounts for such purposes as education and building or fishing equipment. At the branch of a local bank in Poblasion (Boljoon), however, the depositing of some small surplus of income has been far more common than the getting of a loan. In the context of a developing country, people in a weak economic situation, such as fishers, often do not have access to formal financial institutions due to their lack of collateral (Claessens 2006: 222). Often their only property is their fishing gear and that depreciates too quickly to have value as collateral, making it very difficult for fishers to access formal financial institutions (Acheson 1981: 282).

Because these informal financial institutions are often perceived as quite exploitative, however, government agencies have long tried to provide financial assistance through formalised institutions in order to empower the rural poor (Agabin 1988). In Boljoon, projects such as the Self-Employment Assistance-Kaunlaran (SEA-K) program have been implemented by the Department of Social Welfare and Development in cooperation with the municipality in order to assist the development of micro-enterprises among the poor and disadvantaged. Through this program, a number of villagers receive funds for trading fish or buying new fishing gear. Meanwhile, the rise of micro-finance for rural development and gender empowerment in the 1990s has provided villagers in Granada with more access to formal financial institutions. In 2006, there were at least two money-lending organisations actively involving villagers in Boljoon and other towns on the southeast coast. LAMAC Multi-Purpose Cooperative Inc. was a successful farmers’ organisation started in the southwest of Cebu and it has extended its financial services to the whole of Cebu Island. Another one is Taytay sa Kauswagan Inc., which is a non-profit Christian development organisation based in Iloilo City. These private organisations have been growing increasingly popular among the villagers, and
evidently a large number of households repeatedly borrow money from one of them or sometimes all of them.

While formal financial institutions have begun to provide a wider range of sources, informal financial institutions are still playing an important role in meeting the financial needs of villagers due to their convenience and flexibility, and to the fact that this is a longstanding practice (Szanton 1972; Samonte and Ortega 1992: 304-305). Particularly among fishers, informal money-lending is highly valued because formal financial institutions may have trouble accommodating the fishers' uncertain fishing success. Fishers tend to rely more on informal institutions in order to avoid debt default with inflexible formal institutions, especially when uncertainty in fishing success is greater given the largely depleted marine resources (Samonte and Ortega 1992). While borrowing money from relatives and friends at no interest is undoubtedly commonplace, there are several more socially organised informal institutions playing a considerable role. The most common of this kind of informal financial providers are fish vendors with whom fishers regularly trade and with whom they are bonded through a suki (regular buyer/customer) relationship (e.g. Szanton 1972; Pomeroy 1989). In Granada there is a mutually beneficial relationship between these two groups, helping, on the vendors' part, to maintain the quantity of the fish supply and securing financial access for the fishers. The amounts of money lent in this way are quite small, due to limited capital availability, but this arrangement provides great flexibility in the provision of cash, primarily for fishing-related needs — from buying a few litres of petrol to repairing an engine. Repayment of ostensibly interest-free credit is made at each transaction in the fish trade (at the price which the vendor sets) and a small amount is subtracted from the debtor's account. Though hidden interest charges have been observed elsewhere (Smith, Puzon et al. 1980), this was not seen in Granada, and there was certainly no evidence of exploitative patron-client relationships. Since all the fish vendors are wives of small-scale fishers and of similar socio-economic standing, and many client fishers are even blood relatives, there is a moral code in place which prohibits overtly
taking advantage of fellow fishers. Unfairness in the fish trade would easily result in a fisher's dissolution of the *suki* relationship.

The other common informal financial institution consists of the local money lenders and pawnbrokers of which better-off villagers in the intermediate status group make use. One notable example of this can be seen in the case of Alberto Zamora. Alberto was born into a land-holding farming family in a mountain *barangay* in Boljoon and moved to Granada when he was 35 years old. With over 25 years of service on inter-island ships and in business, he succeeded in accumulating a good amount of financial capital. With his friendly and accommodating character, he became the most popular money-lender and pawnbroker in the *barangay*. His regular lending is based on the 'five-six' arrangement, which is to pay back 6 for every 5 borrowed, the equivalent to 20% interest per month. However if the borrower is a fisher and he can pawn his boat, then Alberto gives a choice of either following the 'five-six' arrangement or a fish catch-sharing arrangement. The sharing arrangement is set at a one to three (1:3) ratio. That is to say, if there are 4 kilograms of catch, 3 kilograms are kept by the fisher and 1 kilogram is given to Alberto. Fishers prefer the latter arrangement for its perceived advantages. While five-six is quite a harsh arrangement which can easily trap people into considerable debt because of accumulated interest, the catch-sharing arrangement enables them to avoid this risk. Further, unlike the five-six arrangement in which the repayment process is clearly laid out, the catch-sharing arrangement is based on self-disclosure on the part of the fishers who are asked to bring the arranged share to Alberto autonomously. Although there have been cases of people who have run away from the village without returning the money to Alberto — in one instance it was over 20,000 pesos (US$ 375.55) — as a general rule, borrowers follow the arrangement. The primary motivation for people to follow the arrangement is that as Alberto has a wide network of friends among the villagers, he can easily find out who is cheating. The rumour that he has the magical power to cast a spell on cheaters and give them bad luck may also have helped inspire borrowers to follow the agreed arrangement, but more importantly, failure to repay Alberto properly can result in no further money-lending, so
borrowers generally keep faith with him. As a result of this loosely controlled repayment arrangement, a large number of fishers\textsuperscript{22} have pawned their entire boats or some parts of the boat to Alberto and live on the catch-sharing arrangement. Similar catch-sharing arrangements are also practised by other relatively wealthy villagers with varying sharing rates, but on a smaller scale. While these villagers are widely known to be engaging in money lending or pawn-broking, their operation is usually sporadic and as the occasion arises.

**Marine Environment**

Though there is no climatological data collected in Boljoon, data collected by the Mactan Cebu Station of the Philippine Atmospheric, Geophysical and Astronomical Services Administration (PAGASA) provides a good picture of the climate there because the two areas are in the same climate region\textsuperscript{23} (Table 2-2). The hot and dry summer season begins between March and April, the hot and humid wet season begins around June, followed by the relatively cool winter season in December. The wet season usually corresponds with the typhoon season which often damages the crops such as bananas and coconuts due to the strong winds and soil erosion due to the intense downpours (Municipality of Boljoon 2002: 6-7). Even during the most unpleasant sticky days, it gets quite cool during the night. Fishers usually take some kind of warm clothing, particularly during the cool season. In mountain areas, higher rainfall and lower temperature than flatland allow farmers to grow a variety of vegetable crops (ibid: 7).

\textsuperscript{22} Because of the sensitivity of the issue, I was unable to identify the exact number of boats that had been pawned to Alberto. Fishers’ description of Alberto’s boats as numerous and his own statement while pointing at the beach that ‘these boats are mostly mine’ suggest that he had some claim of ownership on at least half the boats on the beach.

\textsuperscript{23} PAGASA describes four types of climate in the archipelago. Mactan Cebu Station on Mactan Island and the municipality of Boljoon both belong to the Type III climate which is characterized by a relatively dry season from April to November and with less pronounced seasonality.
<table>
<thead>
<tr>
<th>Month</th>
<th>Mean Temperature (°C)</th>
<th>Relative Humidity (%)</th>
<th>Average Rainfall (mm)</th>
<th>Average Rainy Days</th>
<th>Mean Thunder Storms</th>
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<tr>
<td>January</td>
<td>26.9</td>
<td>81.0</td>
<td>105.8</td>
<td>11</td>
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<td>79.0</td>
<td>76.2</td>
<td>8</td>
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<tr>
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<td>55.6</td>
<td>7</td>
<td>0.8</td>
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<tr>
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<td>75.0</td>
<td>46.5</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>May</td>
<td>29.3</td>
<td>75.0</td>
<td>79.2</td>
<td>7</td>
<td>8.0</td>
</tr>
<tr>
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<td>182.7</td>
<td>13</td>
<td>12.0</td>
</tr>
<tr>
<td>July</td>
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<td>182.0</td>
<td>14</td>
<td>13.0</td>
</tr>
<tr>
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<td>148.4</td>
<td>14</td>
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</tr>
<tr>
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<td>14.0</td>
</tr>
<tr>
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<td>181.7</td>
<td>15</td>
<td>13.5</td>
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<tr>
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<td>82.0</td>
<td>170.9</td>
<td>13</td>
<td>7.0</td>
</tr>
<tr>
<td>December</td>
<td>27.2</td>
<td>82.0</td>
<td>132.8</td>
<td>13</td>
<td>3.0</td>
</tr>
</tbody>
</table>

Table 2-2: Climate in Province of Cebu (average from 1973 to 2001)

Source: Municipality of Boljoon in ‘Boljoon Comprehensive Land Use Plan’, 2003. Original data was collected from PAGASA, Mactan, Cebu.

The fishers in Granada identify six different kinds of seasonal wind and these are associated with the movement of sea currents (Figure 2-6). The amihan, the northeast monsoon, and the habagat, the southwest monsoon, are the most significant seasonal winds. While the amihan predominates between October and February, the habagat predominates from July to September. These monsoons increase the size of waves, and sometimes fishers get their boats caught in a wave when they start rowing from the beach. The kanaway blows from west to east and sometimes occurs at the same time as the habagat, and even occasionally predominates. Since the wind is largely blocked by the mountain range, however, causing it to miss the near shore waters, offshore waters become rough when it blows while near-shore waters remain calm. The salatan is the gentle wind which blows from south to north from April to June. It has little effect on the sea and the surface remains calm. Likewise, the balogo blows from northeast to southwest between July and August, especially in the afternoons, and no great effect on the waves can be observed. The dumagsa blows east to west all year around, but is particularly prominent between June and July and between November and January. It causes rough seas but blows only for a short time.

Because the direction and strength of the current is affected by these winds, this, in turn, affects the placement of fishing gear in order to maximise the catch and minimise the risk of
damage to the gear. Fishers possess great empirical and place-specific knowledge about the pattern of fish movement corresponding to the types of currents, particularly the most prominent ones, the *amihan* (north-east monsoon) and the *habagat* (south-west monsoon). During *amihan* season, when the sea rises even in near-shore waters, some reef-associated species move to the south side of Cayangan Point where strong currents are blocked by the promontory and the sea remains relatively calm. The opposite occurs during *habagat* season when the sea gets rough on the south side of the promontory and it appears that these species of fish move back to the north side of Granada. Similarly, the monsoons also appear to affect the movement of reef-associated species in the marine protected area in *sито* Tinaw-gan. Some species are known to swim along the current so that fishers will wait on the north or south boundary of the marine protected area according to the direction of the currents. This seasonal fish movement affects especially those fishers who are engaged in coastal fishing.

![Diagram of wind patterns and months]

**Figure 2-6: Directions and months of seasonal winds**

Along its 10.3 kilometres of coastline, the municipality of Boljoon has an estimated 25.28 ha of coral reefs (CCEF 2003: 25) and these are unevenly distributed in the waters off the six coastal barangays. Despite its historically intense use of the reef, Granada still retains a marine habitat environment which is comparatively good. According to the municipality’s resource
assessment carried out prior to the conservation project in 2000, the highest average cover of living hard coral in the substratum (39.9%) was found in the sampled sea area off barangay Poblasion and the second highest was barangay Granada's at 35.0% (Municipality of Boljoon 2002: 11). The data also shows that the total of living hard and soft coral coverage rate was almost the same in these two sample areas. In Granada, patches of coral reef are found all along the coast line of the village, higher concentrations seen along the coast of sitio Tinaw-gan and around Cayangan Point. Based on the subsequent survey carried out in 2002, however, the sampled substratum of the reef area in Tinaw-gan consists predominantly of non-living substrate (largely sand, rock, and rubble, but also dead coral) and sea grass, along with live coral (Tesch and Aguinaldo 2002: 16-24). Since the establishment of a 9.35 ha Marine protected area (MPA) in a part of the reef in Tinaw-gan in 2001, recent data suggests the ratio of living hard coral inside the MPA has increased sharply by 17.0% in 2002 to 33.0% in 2008, replacing the non-living substrate, while it is increasing much more slowly outside the MPA from 10.0% in 2002 to 13.8% in 2008 (ibid: 18; Apistar, Maypa et al. 2008: 7). In the reef around Cayangan Point, the substratum consists of even richer marine life, and for this reason, a second MPA was established in this area in 2006. Though there is no time-series or inside-outside MPA data available, living hard coral substrate made up 60.4% of the sea bottom sampled, and the rest was mostly covered with rubble, sand, sea grass, algae and sponges (CCEF 2005).

Regarding the fish species in the Granada reefs, the most common fish species found in the reef in Tinaw-gan were damselfish, wrasse, fusilier, fairy basslet, goatfish, and parrotfish (Tesch and Aguinaldo 2002: 19-20). In addition, the MPA area showed a much higher average density of ecologically significant target species\(^{24}\) of 190.3±137 fish per 500m\(^2\) compared to 186±215 fish per 500m\(^2\) in the waters outside the MPA in 2002. Despite coral reef recovery however, according to a more recent survey, the average fish density has even decreased to 38.7±19.2 fish per 500m\(^2\) inside the MPA area and 1.2±60.6 fish per 500m\(^2\) outside the MPA area (Figure 2-7).

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\(^{24}\) In these reports, fish density was presented and classified according to the 19 coral reef fish families/subfamilies which include target fish families (Serranidae: Epinephelinae and Anthiinae, Lutjanidae Haemulidae, Lethrinidae, Carangidae, Caesionidae, Nemipteridae, Mullidae, Ballistidae, Chaetodontidae, Pomacanthidae, Labridae, Scaridae, Acanthuridae, Siganidae, Kyphosidae, Pomacentridae and Zanclidae), used as indicators in coral reef monitoring (Apistar, Maypa et al. 2008: 3-4)
Whether this drop is temporary or permanent is not clear but it is ascribed to suspected illegal catch (Apistar, Maypa et al. 2008: 9). In the Cayangan reef, a similar composition of main fish species was found but with higher average density for target species of 646 per 500m² (CCEF 2005).

![Graph showing percentage cover of different substrate types over years 2002-2008]

![Graph showing mean fish density inside and outside Granada MPA from 2002-2008]

Figure 2-7: Changes in percentages of substrate composition and fish density per 500 m² of Granada MPA from 2002-2008


In terms of the vegetation in the coastal waters, several species of mangrove trees are found in a small area only in barangay El Pardo and across into the Alcoy area, but there is none seen in Granada. There are six species of sea grass commonly found in Boljoon waters, and a large population of cymodocea sp. and syringodium sp. can be seen in Granada (Municipality of Boljoon 2002: 10).
Coastal Resource Management

In order to respond to the widely acknowledged resource depletion in coastal marine waters, and hence to the need for conservation, a coastal resource management project was introduced in the late 1990s. This led to various programs, including the establishment of MPAs and the regulation of commercial fishing.

Under the Fisheries Code of 1998 and the Local Government Code of 1991, authority over managing marine resources has been devolved to local government units and this facilitated the higher and more substantial involvement of NGOs and People’s Organizations (White, Deguit et al. 2006: 288-289). At the municipal level, the Fisheries Code of 1998 mandated the organization of the Municipal Fisheries and Aquatic Resource Management Council (MFARMC) as a consultative body for planning and implementing the policy for management of fisheries and marine resources. The idea behind it was that, unlike previous top-down approaches in policy formulation, the MFARMC was to play a role in strengthening the co-management of the resources between the government and resource users by requiring active participation of the resource users in the decision-making process. In Boljoon, municipal ordinance requires that the MFARMC be composed of representatives of several offices and committees of the municipal government and at least 11 fishers (7 municipal fishers, 1 fishing labourer, and 3 commercial fishers) (Municipality of Boljoon 2002).

At the regional level, the area has been a project site of a USAID-supported CRMP from 1996 until 2004. After the termination of the project, a Cebu-based NGO, the Coastal Conservation and Education Foundation Inc., subsequently took over and continued the project with particular focus on the capacity building of local government units and networking among them. With the assistance of the NGO, in 2005, 8 municipalities along the southeast coast of Cebu island formed a ‘cluster’ to overcome common issues of lack of financial and technical resources and low capacity to address management problems (Eisma-Osorio 2008: 1095). The Southeast Cebu Coastal Resource Management Council (SCCRMC) was organised as a coordination body for member municipalities for fisheries and habitat management, foreshore
management and coastal law enforcement (Eisma-Osorio, Amolo et al. 2009: 298). Recent development is building the network among marine protected area managers to strengthen the capacity of managing MPAs through learning and training opportunities and collaboration in battling against the encroachment of illegal commercial fishers (ibid: 300).

Among several non-active organizations in the fisheries sector, whether officially registered or not, as of 2006 there have been three functioning People’s Organizations (POs) related to fishing and coastal resource management in the Municipality of Boljoon, namely Makogihon Mananagat Sa Arbor (MAMSA), the Fisheries and Aquatic Resource Managers in North Granada (FARMING) and the Sea Warden Association of Boljoon (SWAB). FARMING and MAMSA are the organizations of fishers in barangay Granada and barangay Arbor respectively, established by the municipality as an unofficial compensation project for MPA establishment in the hope of mobilising members to manage the area. The project aims to provide alternative livelihoods for fishers affected by the MPAs.

In the case of FARMING, the municipality-funded program provided an easier way to motorise fishing boats based on a rollover scheme at a low interest rate (2% per annum). The target of the project was to shift the fishers from using more ecologically significant coastal waters to offshore waters by providing the means. The organization was established in January 2000 but it was September 2003 when it began the motorization program. The program was started with 40,000 pesos (US$ 751.10) that the municipality funded to the organization and it was loaned to its four members to buy standard 5 HP engines. After signing the contract paper, the recipient goes to Cebu City together with the organization’s official for the purchase. Repayment was scheduled at 200 pesos (US$ 3.76) every week and interest is kept in the organization. In November 2006, the municipality decided to release an additional 50,000 pesos (US$ 938.88) from its supplementary budget, which was personally donated by the municipal mayor early on, for expanding the project. With still a long list of waiting villagers, there had been 16 engines purchased by the members as of early 2007.
SWAB, on the other hand, was established in 2002 as a sea warden (bantay-dagat) organization to protect the municipal waters from the illegal intrusion of both small-scale fishers (without the mayor’s permit to fish or using prohibited gear types), and commercial fishers. Regular patrol was held for some while but their activity was stymied due to the lack of budget for paying the honorarium to the members, and providing equipment such as a patrol boat, petrol, Global Positioning System (GPS), flash lights, and so on. While SWAB became practically inactive in the face of these difficulties, the Municipal Seaborn and Coastal Law Enforcers (MUSCLE) was established at the initiative of the SCCRMC to be a part of the cluster-wide patrolling framework for synergetic coastal law enforcement along the coast.

Conclusion
This chapter has given a general overview of barangay Granada from a historical, environmental, social and economic perspective and highlighted a number of significant characteristics of its environmental and social setting. Firstly, the people in Granada are of Cebuano ethnicity, follow the Roman Catholic religion and are characterised by a low level of formal education. Most people have a relatively low income which is derived from engaging in small-scale production and services. This, together with their low educational attainment, means that they are generally considered as belonging to a low social status group with little political power. The dynamics of this power structure, rooted as it is in the social structure, forms the important basis of this thesis as it examines the behaviour of small-scale fishers and other villagers in Granada. Also important is the fact that although fishing has been the dominant livelihood among the coastal residents, this was a contemporary phenomenon as a response to the low productivity of the land, population growth, technological advancement and easier access to fishing and a change in social values. This specialization in fishing has dramatically increased the pressure on marine resources in the last several decades and this, in turn, has had important effects on people’s fishing strategy. Before moving to examining in more detail the interactions between the villagers and coastal resource management, the following chapter will focus on the technological and socio-economic aspects of fishing.
Chapter Three
Fishing Practice in Granada

Even though fishing is the dominant livelihood of the villagers in Granada, the ways in which villagers engage in the harvesting of marine resources vary greatly. There are many factors which affect fishers’ choice of fishing strategy and method from day to day. Since the management of marine resources is ultimately a matter of managing people (McCay 1980: 36; Jentoft 1998: 178; Jentoft 1998: 5), understanding the complexities of resource use is crucial to an understanding of people’s involvement in resource management and their response to it. Taking a comprehensive approach, this chapter will examine the pattern of resource use in the village and the factors which affect everyday fishing practice and strategies. This chapter draws upon several sets of first-hand quantitative data together with ethnographic data collected during my fieldwork unless otherwise stated.

Status of Fishing in Granada
Because Boljoon lies along a resource rich coast, marine product has long been a crucial part of the people’s diet there. Although some have explained that this is less the case over the past few decades, traditionally, regardless of what part of town one is from or what social class one belongs to, people have always been involved in fishing in one way or another. Some municipal politicians from prominent local families reminisce that in their childhood they would help hauling in their neighbours’ beach seines. Even farmers who lived deep in the mountains would walk for hours down to the coast and try their luck at a few days of fishing. In recent years, seafood is becoming more and more desirable because of its health benefits\(^\text{25}\), and townspeople are beginning to value seafood more than in the past.

\(^\text{25}\) For a detailed description of the benefits and risks of fish intake to human health, see Mozaffarian and Rimm (2006) and Diaz and Hu (2009).
Boljoon is by no means a significant fishing town in the region. In a comparison among seven municipalities along the southeast coast of Cebu, Boljoon came fifth in estimated total catch per annum, and fourth in estimated total number of fishers (Table 3-1). Their comparatively low catch per fisher suggests that fishers are engaged in less efficient fishing and smaller size of production. This, however, does not indicate that fishing is less important to them: in fact quite the contrary. Unlike some other municipalities with more developed industries, apart from some emerging tourism, Boljoon does not have any significant industries other than small-scale farming and fishing. Indeed, despite the low productivity, Boljoon shows the second highest ratio of fishers to the total population.

<table>
<thead>
<tr>
<th>Municipality</th>
<th>Estimated catch (kg)</th>
<th>Estimated number of fishers</th>
<th>Total population</th>
<th>Fisher-estimated catch ratio (kg)</th>
<th>Fisher-population ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sibonga</td>
<td>1,786,498</td>
<td>334</td>
<td>38,281</td>
<td>5,349</td>
<td>0.87%</td>
</tr>
<tr>
<td>Argao</td>
<td>2,001,032</td>
<td>998</td>
<td>61,010</td>
<td>2,005</td>
<td>1.64%</td>
</tr>
<tr>
<td>Dalaguete</td>
<td>1,586,123</td>
<td>1,041</td>
<td>57,331</td>
<td>1,524</td>
<td>1.23%</td>
</tr>
<tr>
<td>Alcoy</td>
<td>573,205</td>
<td>257</td>
<td>13,497</td>
<td>2,230</td>
<td>1.90%</td>
</tr>
<tr>
<td>Boljoon</td>
<td>565,906</td>
<td>625</td>
<td>13,497</td>
<td>1,545</td>
<td>4.63%</td>
</tr>
<tr>
<td>Oslob</td>
<td>3,409,676</td>
<td>1,458</td>
<td>22,472</td>
<td>2,298</td>
<td>6.49%</td>
</tr>
<tr>
<td>Santander</td>
<td>529,123</td>
<td>210</td>
<td>13,842</td>
<td>2,520</td>
<td>1.52%</td>
</tr>
</tbody>
</table>

Table 3-1: Estimated catch and number of fishers in Southeast Cebu

Along the Boljoon coast, fishers are unevenly distributed among the population and hence the status of fishing differs from village to village. According to the Municipal Agricultural Office (MAO) in Boljoon, there were 260 ‘registered’ fishers in 2003 across the coastal barangays (Table 3-2). Barangay El Pardo, which is the northernmost village adjacent to Alcoy, had 35 registered fishers. Most of these fishers live close to the coast and engage in both farming and fishing, but some also periodically come down from the deeper mountains to fish. While farming is the dominant livelihood among them, there is said to be around 15 households that engage in fishing as their primary source of income. Barangay Arbor is another village known to be actively engaged in fishing. There are 44 registered fishers and many of them

26 According to Municipal Ordinance No. 01-2002, all the individuals and organisations that harvest the marine resources within the municipal water of Boljoon are required to register themselves, gear and activities. Based on the information provided in the ‘fisherfolk registration form’, the municipality issues fishing permits both for gear and boats once the stipulated license fees are paid by fishers. Fees range from 20 to 2000 pesos for fishing gear, and 20 to 35 pesos for boats depending on specifications. These fees are subjected to annual renewal but it did not seem strictly enforced at the time of the research.
operate drift gill nets for flying fish (pamarongoy) along with other methods. In Poblacion, most of the 57 registered fishers are concentrated along the densely populated seashore of sitio Talisay and they use a variety of fishing methods. Barangays Baclayan and South Granada have only a few registered fishers, 17 and 16 respectively, and fishing is said to be less important as a livelihood among people in these villages. Most of them engage in fishing mainly for subsistence purposes.

<table>
<thead>
<tr>
<th>Barangay</th>
<th>Registered Fishers</th>
<th>Barangay Population</th>
<th>Percentage to total registered fishers</th>
<th>Fisher-Population Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Pardo</td>
<td>32</td>
<td>2,490</td>
<td>12.3%</td>
<td>1.29%</td>
</tr>
<tr>
<td>Baclayan</td>
<td>16</td>
<td>442</td>
<td>6.2%</td>
<td>3.62%</td>
</tr>
<tr>
<td>Arbor</td>
<td>44</td>
<td>803</td>
<td>16.9%</td>
<td>5.46%</td>
</tr>
<tr>
<td>Poblacion</td>
<td>57</td>
<td>2,981</td>
<td>21.9%</td>
<td>1.91%</td>
</tr>
<tr>
<td>Granada</td>
<td>94</td>
<td>963</td>
<td>36.2%</td>
<td>9.88%</td>
</tr>
<tr>
<td>South Granada</td>
<td>17</td>
<td>795</td>
<td>6.5%</td>
<td>2.14%</td>
</tr>
</tbody>
</table>

Table 3-2: Distribution of registered fishers in Boljoon

In Granada, from my count there was a total of 94 registered fishers in 2003 and at least 100 between 2006 and 2007. Among these fishers, 67 are heads of household and 33 are other members of the household. Because of the relatively large number of full-time fishers and the amount of their catch, Granada is known as the ‘fishing centre’ of the town. As Table 3-3 shows, among head-of-household fishers, more than half are concentrated in sitio Pook and this is followed by sitio Pili where 29% of the fishers resided, and there were only a few fishing households in sitio Tinaw-gan and Sela. The figure also shows that approximately 65% of fishing households rely heavily on income from fishing, with around 18% of households being reliant on it but to a lesser degree. In about 12% of fishing households, fishing plays only a supplementary role in total household income, and fishing is done only for subsistence purposes in about 4% of households. More than 80% of these fishing households are located in the densely populated Balitang area (sitiios Pook and Pili) and again more than 80% of fishing households rely heavily on fishing for both cash and food.
<table>
<thead>
<tr>
<th>Sitio</th>
<th>Reliance on Fishing in Total Household Income</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100-70%</td>
<td>69-40%</td>
</tr>
<tr>
<td>Pook</td>
<td>27</td>
<td>3</td>
</tr>
<tr>
<td>Pili</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>Tinaw-gan</td>
<td>4</td>
<td>2</td>
</tr>
<tr>
<td>Sela</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>43 64.2%</td>
<td>12 17.9%</td>
</tr>
</tbody>
</table>

Table 3-3: Distribution of fishers and their reliance on fishing in Granada

Fishing households begin their day very early in the morning. Depending on how far they have to travel, fishers and their wives usually awaken between 4.00 and 5.00 o’clock in the morning to eat breakfast and prepare for morning fishing. In net-fishing households, children also awaken at that time as their labour is also important. After 2 to 3 hours of fishing, they return to shore before the mid-day heat to either rest until late morning, work around the house and on the fishing gear, or to socialise with friends and relatives. After lunch, taking a nap in the early afternoon is common among fishers in order to rest before their evening fishing. Around 3.00 or 3:30 p.m., those fishers who go to the offshore waters start coming out to the beach to prepare for the fishing and exchange a degree of information on their strategies for the evening. Those who fish in coastal waters come out a bit later, around 4:00 or 4:30 p.m. and likewise begin their preparations. Fishers in coastal waters return to shore usually within an hour, while fishers in offshore waters do not return until midnight. Upon their return, they first bring their catch to their fish vendors, then have dinner and go to sleep.

In general, women hold a prominent role in earning and managing the household economic resources in Filipino society (e.g. Pomeroy 1987; Israel-Sobritchea 1994; Eder 2006). This pattern holds true in the fishing households in Granada: usually it is the fisher’s wife who takes responsibility for managing the household budget in consultation with her husband. This is evident in the weekly meetings of micro-finance institutions or government livelihood programs, which are always filled with wives (or occasionally daughters) and it is often the wife’s job to take her husband’s catch to the fish vendor’s house to sell. They manage the trade and some of these wives even become fish vendors themselves. It is also the female household members’
role to take care of household chores like cooking, cleaning, child rearing, washing and grocery shopping with some help from the male members of the household. Gleaning is also a common practice among women and children in both fishing and non-fishing households. Mothers can often be seen taking small children for a walk along the beach and rocky shore at low-tide where they collect sea urchins, shellfish, and seaweed for domestic consumption. Although involvement of women in the fishing itself is not very common, some wives accompany their husbands to sea and help with fishing operations such as dropping and hauling in the net. Interestingly, some women who have grown up in fishing families and often went fishing with their fathers, now go fishing with their husbands to actually pass on knowledge of fishing techniques.

Children also have their role in fishing households. Children in the household of fishers with nets get involved with almost every part of the fishing trip. They accompany their fathers before and after school to help row the boat, place and haul in the net, swim and splash in the water to drive the fish into the net and help carry the boat between the beach and the water. Their role, particularly in driving the fish to the net, is considered an essential element for a successful catch. When fishers cannot get enough help from children, they may have to ask for help from people from other households. This is avoided as much as possible in order not to be obliged to engage in the catch sharing which such help would involve. Also, children commonly help their fathers in small ways to assemble the fishing gear, and even go fishing by themselves, using simple methods in waters adjacent to the village.

Quite a number of villagers who are not fishers are, nevertheless involved in fishing through the practice of catch sharing. In hopes of such sharing, many wander around the beach huts (payag) along the shore at the times when most of the fishers either go out or come back from fishing, even if this takes place during the night. As soon as the fishers approach the shore, they surround the outriggers and help move the boats onto the beach. If the fishers have brought back enough fish, each helper – or sometimes even those who have not been able to help – will receive a small quantity of catch. Determination of sharing undoubtedly depends on the
situation of individual fishers, however some sharing is expected as long as a glance tells the onlookers that the catch will be large enough to pay off costs. As Szanton (1972: 129) argues, catch sharing is seen as a social responsibility on the basis of the concept that '[E]veryone has a right to survive' and this 'leads to an obligation to share one's surplus with those who are in need'. Fernando Cruz, for example, explained that despite his financial difficulty, he would feel compelled to share a small amount with those in the same or worse economic standing, as long as he catches 5 to 6 kilograms of fish, around 350 to 400 pesos in value, leaving enough money after subtracting the cost of 3 to 4 litres of petrol and some cigarettes. As many fishers stated, the amount of sharing differs between adult and child, and it also depends on the closeness of the relationship between the fisher and the person with whom the catch is to be shared.

Another major reason for this type of catch sharing is as a display of the fisher's generosity and compassion which increases his prestige. It is also believed that one's good conduct in being generous and compassionate will be rewarded and that this will bring greater success in fishing in the future. Sharing fish is also an important way to smooth out relationships with others. Successful fishing with little or no sharing with others would cause the fisher to be seen as selfish (*laogan*) and stingy (*tihik*), which might well lead to feelings of envy (*kasina*) or jealousy (*silos*) towards the successful fisherman. Envy can be a major cause of friction in personal relationships and it often results in physical or verbal harassment, calumny, sabotage of fishing equipment or the practice of sorcery. Thus catch sharing constitutes an important element of post-harvest handling as a means of minimising the risk of unnecessary troubles. The importance of this customary sharing arrangement to fishers is shown by the post-harvest handling practice of four fishers engaging in different types of methods in Figure 3-1. The figure indicates that while four fishers disposed their catch for selling or eating at different ratios in accordance with their circumstances, the portion of their overall catch used for giveaway was more or less the same.

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27 All the fishing data used in this chapter are the self-reported information that was collected through the year-long daily fish catch survey conducted by the author with the assistance of several research assistants. The number described in this figure was calculated based on the sum of the shared catch and it was divided by the total catch for 12 months. All the fishers (A to D) are small-scale fishers using a similar size and type of boat but fishers A and B are mainly engaged with gill-net fishing and fishers C and D are engaged with hook-and-line fishing.
Plate 3-1: Young children helping to prepare the net before fishing

Plate 3-2: Villagers socialising at the hut (payag)
Figure 3-1: Percentage of catch sharing in total fish catch among 4 sampled fishers in 12-month period, June 2006 – May 2007

Fishing Methods and Patterns

There are at least 35 fishing methods which were identified during my fieldwork, as shown in Table 3-4 (see Appendix I for detailed description of each method). The most common gear types among fishers are multiple hook-and-line for small tuna (palangre sa tulingan) and squid jigs (ankla or pangnokos), which were used by 80% of the fishers. Other common gear types are a type of handline (pahawin, 67.7%), scoopnet (sikpaw, 55.4%), multiple hook-and-line for tarpon (palangre sa bulan-bulan, 49.2%), handline without a hook but with fabric thread (rentic, 49.2%), and multiple hook-and-line gear for hairtail (palangre sa wasnagag, 44.6%). On the other hand, methods such as fish pots (palan-an), drift gillnets for flying fish (pamarongoy), and traps for octopus (pangkogita) are used by only a few fishers.
<table>
<thead>
<tr>
<th>Gear Name</th>
<th>Category</th>
<th>Number of Fishers</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>pahawin</td>
<td>handline</td>
<td>44</td>
<td>67.7%</td>
</tr>
<tr>
<td>pasol</td>
<td>handline</td>
<td>6</td>
<td>9.2%</td>
</tr>
<tr>
<td>rentic</td>
<td>handline</td>
<td>32</td>
<td>49.2%</td>
</tr>
<tr>
<td>subid</td>
<td>handline</td>
<td>3</td>
<td>4.6%</td>
</tr>
<tr>
<td>kitang</td>
<td>longline</td>
<td>19</td>
<td>29.2%</td>
</tr>
<tr>
<td>palangre sa bulan-bulan</td>
<td>multiple hook-and-line</td>
<td>32</td>
<td>49.2%</td>
</tr>
<tr>
<td>palangre sa burot-burot</td>
<td>multiple hook-and-line</td>
<td>17</td>
<td>26.2%</td>
</tr>
<tr>
<td>palangre sa homoy-homoy</td>
<td>multiple hook-and-line</td>
<td>19</td>
<td>29.2%</td>
</tr>
<tr>
<td>palangre sa tamarong</td>
<td>multiple hook-and-line</td>
<td>9</td>
<td>13.8%</td>
</tr>
<tr>
<td>palangre sa tulingan</td>
<td>multiple hook-and-line</td>
<td>54</td>
<td>83.1%</td>
</tr>
<tr>
<td>palangre sa wasngag (also balia)</td>
<td>multiple hook-and-line</td>
<td>29</td>
<td>44.6%</td>
</tr>
<tr>
<td>panabas</td>
<td>multiple hook-and-line</td>
<td>17</td>
<td>26.2%</td>
</tr>
<tr>
<td>undak</td>
<td>multiple hook-and-line</td>
<td>20</td>
<td>30.8%</td>
</tr>
<tr>
<td>ankla/pangrokos</td>
<td>squid jig</td>
<td>52</td>
<td>80.0%</td>
</tr>
<tr>
<td>sagiusew</td>
<td>troll-line</td>
<td>5</td>
<td>7.7%</td>
</tr>
<tr>
<td>padomog</td>
<td>bottom-set gillnet</td>
<td>3</td>
<td>4.6%</td>
</tr>
<tr>
<td>panganduaw</td>
<td>bottom-set gillnet</td>
<td>11</td>
<td>16.9%</td>
</tr>
<tr>
<td>panglokihok</td>
<td>bottom-set gillnet</td>
<td>10</td>
<td>15.4%</td>
</tr>
<tr>
<td>panulid/pangsolid</td>
<td>bottom-set gillnet</td>
<td>15</td>
<td>23.1%</td>
</tr>
<tr>
<td>pamo</td>
<td>bottom-set gillnet</td>
<td>10</td>
<td>15.4%</td>
</tr>
<tr>
<td>pamarongoy</td>
<td>drift gillnet</td>
<td>1</td>
<td>1.5%</td>
</tr>
<tr>
<td>panamarong</td>
<td>drift gillnet</td>
<td>2</td>
<td>3.1%</td>
</tr>
<tr>
<td>panulingan</td>
<td>drift gillnet</td>
<td>3</td>
<td>4.6%</td>
</tr>
<tr>
<td>patolay</td>
<td>drift gillnet</td>
<td>5</td>
<td>7.7%</td>
</tr>
<tr>
<td>pamaol</td>
<td>encircling gillnet</td>
<td>2</td>
<td>3.1%</td>
</tr>
<tr>
<td>pangmalangsi</td>
<td>encircling gillnet</td>
<td>7</td>
<td>10.8%</td>
</tr>
<tr>
<td>double net</td>
<td>trammel net</td>
<td>16</td>
<td>24.6%</td>
</tr>
<tr>
<td>solambaw</td>
<td>liftnet</td>
<td>2</td>
<td>3.1%</td>
</tr>
<tr>
<td>sicpaw/sapiyaw</td>
<td>scoopnet</td>
<td>36</td>
<td>55.4%</td>
</tr>
<tr>
<td>pana</td>
<td>spear</td>
<td>18</td>
<td>27.7%</td>
</tr>
<tr>
<td>bobo</td>
<td>fish pot</td>
<td>2</td>
<td>3.1%</td>
</tr>
<tr>
<td>pamalan-an</td>
<td>fish pot</td>
<td>1</td>
<td>1.5%</td>
</tr>
<tr>
<td>polaktaw</td>
<td>other</td>
<td>5</td>
<td>7.7%</td>
</tr>
<tr>
<td>bakokol</td>
<td>trap</td>
<td>3</td>
<td>4.6%</td>
</tr>
<tr>
<td>Pangkogita</td>
<td>trap</td>
<td>1</td>
<td>1.5%</td>
</tr>
</tbody>
</table>

Table 3-4: Types of fishing methods used by fishers in Granada

Despite the wide range of fishing methods identified and the fact that individual fishers are familiar with a large number of these methods, they generally specialise in a relatively small number of gear types and do not make use of all of the many methods they know. Researchers have observed this in different parts of the archipelago. On the Zamboanga Peninsula, Randall observed that Linungan fishers chose a relatively small number of fishing methods after trying out most of the methods and although more than 40 different techniques in use among fishers
have been identified, only 5 methods were commonly practiced (1977: 243-250, 355-361). Describing commercial fishers in Bohol who specialise in fewer methods, Spoehr (1984: 34-35) notes that fishers choose fishing methods selectively according to their effectiveness in catching the target species and according to the associated costs of gear and boat. The situation in Granada is similar. Figure 3-2 looks at the methods used by two samples of fishers over a 12 month period. Despite making use of 20 different methods, one fisher made use of only 6 different methods in 90% of all fishing trips. The other used one particular method most of the time and this, along with 3 other less-used methods, made up over 90% of his fishing trips.

![Graph showing fishing methods used by two fishers](image)

Figure 3-2: Frequency of use of fishing methods by two fishers (Fisher A on top and Fisher C on bottom) in a 12-month period

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28 These methods were aglaway (multiple hand-lining), day hook fishing, quasi-drifting, drift gill-netting mackerel, and pelagic trolling.
Apart from scoop nets and trammel nets, which are both widely used among fishers because of their affordability and ease of use, it appears that fishers can be loosely divided into two groups depending on the gear they use. One group consists of a large number of fishers (49 households, or 73%) who mostly engage in hook-and-line fishing. Hook-and-line fishing refers to those gear types consisting of lines (main line, branch line, etc) and hooks, and this includes various forms of multiple hook-and-line, handline, squid jig and longline fishing. There are eight different sub-types of this method and combinations of materials, the size of lines and hooks, and the type of bait (paon) also varies from one type to another according to the target species. The other group is made up of a smaller number of fishing households (17 households, or 25%) who employ gillnets in most of their fishing. There are several types of gillnets depending on their placement under the water, these are bottom-set gillnets, drift gillnets, and encircling gillnets. A gillnet is composed of the net with a rubber float on the top and a lead sinker at the bottom, (some have stone sinkers or styrofoam floats) to keep the gear in the right position. Mesh size differs among various gillnets, again depending upon the target species. In this thesis, fishers in the former group are referred to as ‘hook-and-line fishers’ and the latter group as ‘net fishers’.

Though there are certainly cases of fishers crossing over the gear groups, they usually specialise within the two method types. The two fishers shown in Figure 3-2 represent typical cases of a hook-and-line fisher and a net fisher. The figure on the top represents the fishing pattern of a sample hook-and-line fisher. All the methods listed are various forms of hook-and-line fishing and there were only two fishing trips during which he used a trammel net (double net). The figure on the bottom represents an example of a net fisher who made use of net methods during most times throughout the year. The only times he chose to use multiple hook-and-line methods were when a large number of small tunas and scads abruptly appeared in the coastal waters of Granada and virtually all fishers went to sea to capture them. Though there appear to be cases where the distinction is not as clear-cut as it is in the case of these two fishers, fishers generally choose several methods within the same group and engage in those on most of
their fishing trips. The tendency is that while hook-and-line fishers rarely engage in net fishing, net fishers occasionally engage in hook-and-line fishing when the opportunity arises (5 net fishers also occasionally engaged in hook-and-line fishing).

This polarization of the two groups – a larger number of offshore hook and line fishers and a smaller number of coastal net fishers – can be explained by several factors. Firstly, net fishing requires higher initial capital to purchase the equipment. Whereas hook and line fishing requires gear that usually costs 50 to 500 pesos per unit and a motorised boat (pump boat) which costs around 15,000 for ordinary ones, net fishing requires gear ranging from 3,000 to 30,000 pesos per unit to assemble and a paddle boat (sakayan) which costs around 5,000 pesos for ordinary ones. Considering overall expenses, it requires less initial capital to engage in hook-and-line fishing than it does to do net fishing. This makes it even more difficult for fishers to start up as net fishers especially when knowledge and skill are not freely shared (see below). Secondly, some people perceive offshore hook-and-line fishing as more convenient than net fishing, which must be done collectively and requires the labour of the whole household. Because of increasing school enrollment as well as the smaller number of children due to the prevalence of family planning in recent years, many fishers find they lack helpers from their own households. Hiring fishing labour is avoided as it can decrease efficiency due to catch sharing and other social obligations. Thirdly, individual inclination (hilig) also contributes to the large number of hook-and-line fishers. Many fishers said they enjoy the masculine image of hook-and-line fishers battling for long hours against the tough conditions in offshore waters. Many are also loath to spend the long hours necessary for mending the net, and prefer less demanding methods.
Plate 3-3: Multiple hook-and-line (palangre) rolled up onto bamboo cylinders

The formation of these fishing groups depends on their adaptation to resource depletion and technological improvement as well as on the constraints described above. Fishers often stated that in the past, in the resource-abundant coastal waters, they were likely to get enough catch to feed their families by employing simpler fishing methods, but by the mid-80s to early-90s, because of intensified fishing practice and other land-based activities, the fish resources in the area were commonly known to be very much depleted and a distinctive change took place in villagers' fishing practice. Because of the decline in fish catch in coastal waters, many fishers chose to abandon their coastal fishing and obtain motorised boats in order to reach more resource-abundant waters. As observed in the case of San Miguel Bay (Sunderlin 1994: 225-226), a large number of fishers gradually started fishing daily in deeper offshore waters. Consequently, with much easier access to offshore waters due to motorization and the lower cost of the fishing gear used there, a relatively small number of net fishers remained in the coastal waters.
Granada fishers follow the ‘timing’ (tiyempo) learned through their own or others’ experience in order to accommodate their fishing strategies to seasonal change in fish behaviour. The timing is merely a guide, however, and fishers have the flexibility to choose the best methods for the conditions of the day. The fishing season for some species can start unexpectedly at any time if one fisher suddenly returns with a good catch. Thus, most fishing methods used in Granada are used to some degree all year around, as long as they are productive, but they are used more intensively in certain seasons. Although the start and finish of fishing seasons are not quite as clear-cut as may appear in the literature, both the fishers’ descriptions and the collected survey data do nevertheless support the fact that there are certainly distinctive fishing patterns responding to the seasonality of fish behaviour. Due to the different target species, fishing seasonality differs between hook-and-line and net fishers.

Generally, the most important season for hook-and-line fishers is bullet tuna (Auxis rochei rochei) and mackerel scad (Decapterus macarellus) season where they make use of multiple hook-and-line (palangre) methods. For bullet tuna fishing, the season is from January to July with the prime months being March, April and May. For mackerel scad fishing, the season is from September until February with the highest season between November and January. Aside from these, there are a number of major fishing seasons for various species distributed throughout the year. For example, anchovy fry and mackerel fry are caught in large numbers in the months between December and February using scoop nets (sikpaw); skipjack tuna (Katsuwonus pelamis) is targeted from November to January by a small troll line method called sagiusew; and Indian scad is harvested using a type of multiple hook-and-line called undak in the months from May to July. Common methods such as bottom-set longline (kitang), squid jigs (ankla), trammel net (double net) and spear (pana) are less subject to seasonal variation and most fishers use these all year around.

For net fishing, some bottom-set gillnets such as padomog and pamo (or pana-an) are also commonly used all year around. While these nets are used to target a wide range of species, other bottom-set gillnets mainly target specific species and the use of these nets is more
seasonal. The bottom-set gillnet which targets mackerel (*panganduhaw*) is the preferred method used from May to August and the one for scissortail fusilier (*pangsolid* or *panulid*) is used from March to June. While one type of bottom-set gillnet for herring (*pangmalangsi*) is used almost exclusively from February to May, another type which targets banana fusilier (*panglokihok*) is used year-round, the same as more generic types.

**Fishing Boats**

Fishers put a high value on maintaining their boats in order to keep fishing productive, efficient and safe. Due to a relatively large number of fishers in the limited inhabited areas, the beach is crammed with boats (called *banca* as a generic term) along with other constructions. A boat is kept in a set spot on the beach to which the fisher has easy access. Usually this means that these spots are on the fisher’s land but if not, permission must be got from the land owner. In each spot, a boat is placed on top of discarded tires to protect its expensive keel (*kasko*) from the pebbly beach. The boats are colourful and painted with individual designs, clearly identifiable among villagers and often with the name of their patron saint ‘San Roque’.

The type of fishing boat used in Granada has changed over time. In the old days, fishers used a type of boat called an *amakan*\(^\text{29}\) (lit. ‘woven split bamboo’, in Cebuano) (Figure 3-3). According to Spoehr, this double-outrigger originated in Cebuano-speaking communities and it became widely distributed on the Central Visayan coast (1980: 45). The hull was between 4 and 8 metres in length with a curved hardwood keel (*kasko*) and sides made of woven split bamboo which was water-proofed with a coal tar solution (*alkatran*) and the coating re-done periodically (once a year, reportedly). From the 1960s *amakan* boats gradually began to be replaced with wooden paddle boats and by the early 1980s they had all disappeared from Granada.

\(^{29}\) Spoehr (1980) called this boat a sakyan inamakan. Though this name must be the accurate term, it is now simply called an amakan in Granada.
A one-man paddle boat called a *sakayan* then became popular (Figure 3-4). At the time of my fieldwork, there were 32 of these simple paddle boats in Granada and several variations of the boat are also to be found. A few of the earliest form of this boat type (called *bigiw*) remain and are still used in fishing. An approximately 5 metre long hull is made from a hollowed-out log, and a plywood deck board and two bamboo outrigger booms are attached. Another type, which is a more modern version but whose basic composition is the same as the *bigiw*, has the hull made from plywood with a hardwood keel. The shape of the paddle boat varies in accordance with the method of fishing for which it will be used. While the one-man boats used for hook-and-line fishing usually have a similar shape and size as the *bigiw*, boats used for net fishing are larger. That is, with a longer, wider, and much deeper hull, in order to accommodate the larger number of fishers as well as the storage of gear. Both types are equipped with a bamboo sail-holder next to the front outrigger boom but this is seldom used in Granada. There are still a number of *sakayan* used in fishing today, especially among the net fishers who do not need to travel for long distances. This type of boat is also kept as a secondary boat for contingencies such as a shortage of petrol or mechanical trouble.
A motorised boat, locally called a 'pump boat' (Figure 3-5) is the most common type of boat in Granada at present, and there are 72 boats identified. According to Spoehr (1980: 43-74), pump boats came to be in use by fishers in Central Visayas in the 1950s and now pump boats are seen throughout the archipelago. He has called this the 'pump boat revolution' which contributed to the development of more efficient fishing operations. The first appearance of pump boats in Granada was in 1988 when a fisher crafted one by himself after he learned the technique from a friend in a neighbouring municipality. Presently, most fishers own at least one pump boat and sometimes a second one to keep as a spare or to rent out to other fishers. It has a hardwood keel and a plywood hull and deck but it is 6 to 8 metres long, which is very similar to sakayan boats but usually bigger. They have an inboard petrol engine (most commonly 5 HP but some are slightly more powerful) placed under a wooden cover and connected to the propeller with a shaft. The rudder is made of a stick of thin bamboo. Two outrigger booms are attached to bamboo outriggers but sometimes a third one is attached in the middle.
Pump boats play a crucial role particularly in hook-and-line fishing, in which many methods require fishers to manoeuvre the boat during fishing. Most multiple hook-and-line gear requires fishers to keep their boat running while they manipulate the line to attract fish. In *sagius ew* handline fishing, for example, two fishing boats need to ride simultaneously through the fish shoal at high speed and this cannot be done without the engines. Though the basic form of many fishing methods existed before the introduction of pump boats, these have contributed to increased productivity and efficiency.

![Design of pump boat owned by a fisher in Granada (cm)](image)

**Figure 3-5: Design of pump boat owned by a fisher in Granada (cm)**

**Fishing Ground**

Small-scale fishers choose very carefully where to go fishing, in order to minimise the fishing cost and maximise the catch. During the casual beach conversation before and after fishing, they may exchange some of this information about their fishing. Fishers are not completely open about this, but through such exchanges as well as attentive observation, fishers learn roughly where other fishers have gone and how much of what fish they caught. Based on the most updated information on fishing spots together with their own knowledge and experience, fishers choose the most sensible fishing ground for successful fishing. Fishing grounds are also chosen
in accordance with the target species, changing according to the time of day and the season of
the year.

In general, fishing grounds are conceptually divided into two spaces among Granada
fishers: ‘nearshore’ (piliw) and ‘offshore’ (lawod). Though there is no straightforward definition
of the distance, fishers often call waters within sight of shore ‘nearshore’, and anything further
‘offshore’. One way of specifying the location of fishing grounds is by describing the unique
physical setting of the spot, such as the ‘shoal’ (takot) where the seabed rises sharply to form an
underwater hillock, the ‘ravine’ (kimba) where the seabed drops off, and the ‘flat’ (patag) where
the seabed is relatively flat. Another way is to indicate the rough distance30 from land locations,
such as ‘2 kilometres offshore Nueva Caceres’ or ‘half-way between Malakasa Island and
Granada’.

![Figure 3-6: Major fishing grounds for Granada fishers](image)

A distinction is made between the major fishing grounds in Granada according to the fishing
methods used there. As Figure 3-6 shows, fishers nowadays move further out to sea than they do
along the coast. While fishers seldom go beyond the area between barangay El Pardo in

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30 Among small-scale fishers, both the metric system and the imperial system are used to describe the distance of
fishing grounds. Confusion between these two systems, however, are very common among fishers and this can
mislead researchers.
Boljoon and barangay Nueva Caceres in Oslob, they travel much longer distances across the Bohol Strait. As the general rule, hook-and-line fishers travel to offshore waters which take over an hour and a half to reach by pump boat while net fishers stay in nearshore waters within 30 minutes by paddle boat.

The area around Balikasag Island (locally called Malakasa) near Panglao Island in Bohol is known as a good fishing ground particularly for those who use the multiple hook-and-line method (palangre) targeting small pelagic species. In this area, there are said to be over a hundred floating Fish Aggregating Devices (FADs) called ‘payao’ mostly installed by commercial fishers to attract these species. Payaos are approximately 50cm-tall, cylinder-shaped, polystyrene foam floats connected to stone sinkers on the sea bed by ropes which can be over 500 metres long (Figure 3-7). The rope has a number of dried coconut leaves attached to the upper section which are believed to attract fish. The area about half-way between Cebu Island and Bohol Island is a frequently used fishing ground for the same type of gear but also for those using squid jigs (ankla), which fishers often combine with multiple hook-and-line fishing. In both areas, the target species are bullet tuna, mackerel scad, Indian scad (Decapterus russelli) and small squid (loligo sp.?) (see Appendix II for local names). Also, though the number still remains small, a few fishers use drift gillnets to catch flying fish (pamarongoy) in this area. These areas are used by Granada fishers almost all year around to target the above species.
In the coastal waters, on the other hand, fishers make use of a larger variety of methods. Various types of gillnets and other single hook-and-line gear, longlines, trammel nets, a few types of traps and fish pots, spears and scoop nets are used in the nearshore waters, mostly in the area very close to the shore. Major target species are primarily those which inhabit the waters around reefs or relatively shallow coastal waters such as herring (Sardinella sp.), anchovy (Stolephorus sp., Thryssa sp.), barracuda (Sphyraena sp.), parrotfish (Calotomus sp.), fusilier (Caesio sp.), goatfish (Parupeneus sp., Upeneus sp.), snapper (Aprion sp., Lutjanus sp., Pristipomoides sp.), sprat (Dussumieria sp.), emperor (Gnathodentex sp., Lethrinus sp.), trevally (Carangoides sp., Caranx sp., Elegatis sp.), mackerel (Rastrelliger sp., Scomberomorus sp.), grouper (Anoplophis sp., Cephalopholis sp., Epinephelus sp., Plectropomus sp., Variola sp.), rabbitfish (Siganus sp.), and sweeper (Pempheris sp.). One shoal (‘takot’) in an area offshore barangay Nueva Caceres in Oslob is known as a rich fishing ground for certain fish species. This ‘takot’ is said to be about 150 to 180 metre deep and it generates an upwelling current which brings up detritus and nutrients that fish are attracted to. Granada fishers rarely use nets in this fishing ground but many use hook-and-line methods for benthopelagic species. The major target species are tarpon (Megalops sp.), hairtail (Trichiurus lepturus), crimson jobfish
(Pristipomoides filamentosus), and Indian scad (Decapterus russelli). A number of Granada fishers concentrate in this area particularly in the months from November to January, when the above species are abundant.

In the coastal waters of Granada, some portions of the sea are used as customary territory assigned to individual fishers for their exclusive use. Lopez (1985: 196) noted the historical perspective of the Filipino concept of marine territoriality, based on the work of Blair and Robertson which explored Spanish archival documents. According to him, in some parts of the archipelago, at least until the mid-17th century, autonomous villages claimed the nearby sea or river as their territories for exclusive use and the tenure was leased or sold to others. Though with some exceptions (see Mangahas 1994, for example) this practice was almost completely eradicated during the time of Spanish colonisation, there are many localised and modern versions of such territorial rights. For example, Lopez (ibid: 196, 200) notes that the coastal waters in Bolinao were divided into lots by the municipal government and they were leased to fishers to operate fish corraled and net fishing (see also Ferrer 1989), and shell grounds in Bacoor are protected by de facto ownership. These exclusive use rights are aimed at limiting the fishing effort and access to the resources.

In Granada, some fishers hold customary territory for their bottom-set gillnets in the coastal waters in front of the settlement in sitio Pook and Pili (Figure 3-8). In this territory, fishers have the right to exclusive use and this privilege is mutually respected among the fishers. The nets are placed vertical to the shoreline in late afternoon, left overnight and hauled in in the early morning. Along the approximately 400-metre-long shore, which has a sandy or sea grass substrate and is wedged with reefs at both ends, there are 25 spots claimed as ‘places for netting (tak-takan)’ by 18 fishers. Like the beaching location of their boats, individual fishing territories are usually located in the vicinity of the fisher’s house or near land which he owns. While some sections have only a few of these individual fishing spots due to their perceived lower productivity, other sections are divided into spots as close as 5 metres apart because of their desirability due either to productivity or accessibility. The rationale of fishers’ claims for the
territory is their longstanding (up to 30 to 40-year) history of using the area. This is not limited to individual fishers but also to their family history. Fishers can support their acquisition of territory as an inheritance, based on the extended fishing history of their father. As long as a fisher holds the exclusive right in a particular territory, others are allowed to use the area only if they are granted verbal permission from the right holder (for detail description, see Segi forthcoming).

Though the historical development of this customary territory is not clear, it is assumed that it emerged as a counter-measure to the growing number of bottom-set gillnets in Granada. As some fishers indicated, the sense of territory became more prevalent among people in the mid-80s, at the time when fishing intensified. Since the area is quite limited in space and fishers do not like to leave the net far from home due to various risks, fishers began to claim their regular fishing spots as their territory in order to protect it from others. This territoriality also served to avoid unnecessary disputes resulting from serious gear damage caused by two nets overlapping. Such accidents increase the likelihood of costly compensation being necessary and of course they also tend to sour the relationship with other fishers. Problems caused by the congestion of nets meant that fishers needed to invent a way to control it. For this reason, the placing of these nets now has social constraints and must be done collectively. Instead of placing the net at the individual’s preferred timing, fishers first gather around the shore around 4:00 in afternoon and start placing their nets in collaboration with other fishers at around 5:00 p.m.. Strict enforcement of this customary rule is only limited to the middle area where many right-holding fishers regularly set their nets. This tends to support the idea that it is the over-crowding of fishing grounds which is the major driver for Granada fishers to restrict fishing activity. Also important is that while this territoriality works to minimise conflict over gear damage, it also limits the setting of additional nets of this type due to the absence of desirable spots.
Fishing Success
Fishing success is believed to be determined by the level of one’s fishing technique (*diskarte*) and also good luck (*suwerte*). Russell and Alexander (1996: 442-443) argue that the concept of *suwerte* in Tagalog fishing communities is more like ‘gambler’s luck’ (*tsamba*) than the Western notion of ‘chance’ but it may be also closely associated with the intervention of supernatural beings or mystical forces. In this, they argue, ‘the concept of *suwerte* (luck) and *malas* (bad luck) have many different meanings and reflect a strong sense of creative individuality’. Their analysis of these concepts is applicable to the case of Granada. Though many fishers, particularly those of the younger generation, are less inclined to profess belief in supernatural powers which affect their fishing, and assert unhesitatingly that it is ‘all about chance’ (*tsamba-tsamba na lang*), fishers nevertheless commonly perform certain rituals in order to increase their *suwerte* or clear off *malas* in order to catch more fish.

Encounters with supernatural beings are also believed to endow a fisher with *suwerte*. Demetrio (1969) argues that belief in *ingkantsos* (or sometimes spelled *engkantsos*) is common in Luzon, Visayas and Mindanao and these are thought to be ‘people not like, or similar to us’ (*dili ingon nato*). They are thought to have an attractive appearance with distinctive physical features (often associated with Caucasian features, see Lieben 1962) but they are visible only to certain
people. Also they are usually known to have a whimsical and unexpected character, and together with their extraordinary strength, this means that they can be dangerous. There are several stories of *ingkantos* commonly told by people in Granada. One of these is the story of a *katao*, a usually invisible supernatural being who, when he appears, looks like a small white-haired old man with a beard and is believed to live in the drop-off area of the sea. The story is that a fisherman, the grandfather of several fishers in Granada, made friends with the *katao* by untangling the being’s hair, which was caught in his hook\(^{31}\). Thenceforth, the *katao* and the fisherman spent all their time together and there was even a plate prepared for the *katao* at meals. With the mystical power of the *katao* behind him, this fisher always caught more fish than the others and his boat was often filled with fish, until one day the two fell out due to some incident involving physical violence\(^{32}\). Their fallout resulted not only in the end of great catches but also cursed the fisher and his offspring with physical disabilities. Though there was no fisher who claimed to be a friend of the *katao* during my stay in the village, fishers had their rituals to placate the *katao* and bring *suwerte* to their fishing. For example, when a family of hook-and-line fishers installed a *payao*, the head of the household threw a large number of 20-centavo (cent) coins into the water and this was meant to pay off the land at the sea-bottom and the fish he would catch at the *payao*\(^{33}\). There are a few other stories in Granada\(^{34}\) telling of fishers who acquired the supernatural power to catch large amounts of fish. These stories suggest that in the people’s minds, fishing success has been closely associated with the supernatural.

Apart from rituals to keep their fishing successful, fishers also avoid certain things which they believe can cause them *malas*. They believe that any substance which gives out a strong

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\(^{31}\) Hart (1956: 48-49) notes a very similar story among fishers in Siaton, Negros Oriental. In his description, *kataos* are ‘mermaid-like creatures, half-human, half-fish and including both sexes’. Their use of 20-centavo coins for payment to *kataos* also resembles what is done in Granada.

\(^{32}\) There are several versions of this story. For example, one story recounts that a *katao* disliked the fisher spending time farming so started throwing stones at him and the offended fisher hit him with a stick. The other story is that the fisher’s wife became suspicious of the *katao* because she was a woman and hit the *katao* out of jealousy.

\(^{33}\) A similar practice of paying off the *katao* was also observed in Siaton, Negros Oriental. See Hart (1956).

\(^{34}\) There are two other stories common among the fishers. One story is that in the late-1910s a fisher found a small pearl-like object under a sea turtle’s fin, invisible to everyone but gleaming only to his eyes. The fisher implanted the object into his right arm and obtained the power to dive to miraculous depths. Another story takes place in the mid-1960s when a fisher is said to have caught a woven sack (*sako*) which his mother told him would bring him *suwerte*. He kept the sack as a charm (*anting-anting*) and took it out when he went fishing. He always returned with a large catch. Both stories end with the loss of the power through the loss of the magical objects.
odour or any parts of a wild land animal’s body scare fish away and will result in ‘bad luck’ in fishing. Dogs’ urine or a chicken’s spur (‘ahod), for example, touching their fishing boats are to be strictly avoided. In the event of any incident which may cause malas, rituals to counter this effect are to be carried out. A common fumigation technique in Visayas (Demetrio 1969:34-35) is called *palina* and is widely practised for this purpose as well as to bless the equipment when they experience bad fishing or when the equipment is first used. Though obviously not a suitable practice for pump boats, puddle boats are commonly overturned and filled with sea water in order to bless them.

Actual fishing techniques are considered as important as luck for successful fishing. The way in which fishing gear is crafted and used is not a static process. In fact, it is a constant process of change (cf. Spoehr 1984). Fishers are innovative and they make use of a process of trial-and-error in order to maximise their catch in the face of a changing social and natural environment. Cañete (2000), for example, shows how small-scale fishers changed their fishing method from beach seining to *sapyaw* fishing in order to adapt to the changing socio-economic and ecological environment and cultural values. Also, as Mangahas describes, the fishers in Davao Gulf ‘engaged in a “knowledge race” pitting human ingenuity against increasingly elusive resources’ (2001: 342).

This creativity, based on an individual’s empirical knowledge, is often referred to as *diskarte* by Granada fishers. Veloro (1994) examines the concept of *diskarte* from the perspective of the ‘skipper’s effect’ in fishing communities in Palawan. According to her, *diskarte* is ‘skill, talent, cunning and savvy’ which are neither talked about nor made much production out of, unlike commonplace techniques that everybody knows (ibid: 152-153). She argues that *diskarte* refers to a more ‘mechanical view of effort and devising’ in contrast to the more mystical and passive concept of ‘suwerte’ (ibid: 152). Interestingly, Veloro found that *diskarte* was not a

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35 In Granada, there is said to be four kinds of leaves used for *palina*, and these are called locally *molsiko, majong, salapiwit*, and *tulan*.

36 The word *diskarte* is derived from a Spanish word ‘*descarte*’ which means ‘cards discarded from a hand; evasion; subterfuge; shirking’ (Paguntalan 2002).
significant concept among Quinlogan subsistence/small-scale fishers but only among commercial fishers (ibid: 155).

The case among Granada fishers appears to be different to Veloro’s observation in a number of ways. In small-scale fishing in Granada, *diskarte* is seen as both a technical skill as well as something mystical which brings good luck, and it is certainly considered to constitute one of the most important factors for achieving fishing success. Fishers are seen to possess *diskarte* in crafting and using the gear as well as in finding the location for their most effective fishing. It is their cleverness and flexibility which allows them to learn from their experience and reflect this in their fishing techniques. The ability and knowledge to craft good fishing gear, which most fishers agree is one of the most important attributes for a fisher to obtain a good catch, is the area in which fishers develop their *diskarte* most keenly. Because it is highly empirical and personalised knowledge, *diskarte* will differ from one fisher to another and it will be kept updated. For example, four randomly selected multiple-hook-and-line fishers each had his own opinion on which of four different combinations of hook size and line size was, according to their individual *diskarte*, best to catch a certain fish (Table 3-5). Nevertheless, the fishers will continue to change this combination freely until they feel they have identified the most effective combination at the time. *Diskarte* in fishing is, thus, a fluid form of knowledge which involves a continuous process of refining in order to be more and more successful in fishing.

<table>
<thead>
<tr>
<th>Fisher</th>
<th>Major components of the gear</th>
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<tr>
<td></td>
<td>Hook</td>
<td>Main line</td>
<td>Branch line</td>
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<tr>
<td>A</td>
<td>560</td>
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<td>B</td>
<td>562</td>
<td>50</td>
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<tr>
<td>D</td>
<td>560</td>
<td>40</td>
<td>25</td>
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Table 3-5: Difference of gear components for one type of multiple hook-and-line

Rituals for increasing one’s *suwerte* or avoiding *malas* in fishing also involve a kind of mystical *diskarte* which is closely associated with Catholicism mixed with the native animism, and this is seen as an important element of successful fishing. Apart from certain commonly shared beliefs, these practices vary among individual fishers and even among fishers from the
same household. Some fishers avoid sweeping the floor or striding across the gear before fishing, while others dispose of all their catch, avoiding domestic consumption for 9 days when a close relative dies. Some attach frangipani flowers (kalachuchi) to the gear facing the sea, and others attach to their boat flowers taken from the chapel. Varying manifestations of diskarte are evident among Granada fishers from on-land in the pre-harvest stage and they continue throughout the fishing operation until the post-harvest stage. Each belief has a logic and a meaning peculiar to the particular fisher and about which other fishers may not agree. These beliefs are considered to be their own diskarte which is, at least at a personal level, important for successful fishing.

Russell and Alexander (1996: 442-443) observed in Tagalog fishing communities that fishers' individual techniques are usually kept secret as the distinguishing mark of being a skilful fisher, and this gains them respect. Granada fishers, too, are usually quite hesitant to share their diskarte with others and it is considered socially unacceptable to bluntly enquire about it. This, of course, does not mean that the fishers are not interested in good techniques and useful knowledge that others have. Upon questioning as to how they learned their technique, almost all fishers responded 'just by myself' through experimenting or watching others, however direct questioning of others is usually not the way to learn. Fishers are expected to construct their own way of doing things based on keen observation of how others craft and manoeuvre their fishing gear and on the skills they acquire through experience. This is precisely why fishers name flexibility, creativity, cleverness, and diligence as the attributes of a successful fisher while being hard-headed, unimaginative, dull or lazy mean that one will not be successful.

Fishers do speak with others about techniques and other information regarding fishing methods and locations, but such conversation is usually limited in content and also in the range of people with whom it is considered appropriate. Diskarte, along with other knowledge related to fishing, is commonly handed down from a parent to a child, and a child to a grandchild. It is a 'family secret' which must stay exclusively within the family. An experienced net fisher is always willing to give a hand to his close relative, helping him to craft the net gear or teach him
how to use it. Diskarte can also be shared with certain other relatives and friends, with whom the fisher has a very close association but this is limited.

Despite the fact that privacy regarding one’s own diskarte is, for the most part, maintained, sharing diskarte with others is seen as a sign of kindness and generosity towards others, in the same way as sharing one’s fish catch. Sharing diskarte also lessens the jealousy others might feel towards a fisher who reserves special knowledge of successful fishing techniques only to himself. Further, generosity shown through sharing of diskarte increases one’s prestige. However, one fisher stated that it was important to note that fishers do not share ‘all’ of their diskarte but only ‘partial’. It is seen as the responsibility of new fishers themselves to successfully understand and integrate the diskarte into their own practice. The same story was also shared by another fisher who teaches part of his diskarte but not the ‘core’ part of it. Again, he leaves the level acquisition of the diskarte and the ability to discern the ‘core’ to the capability of the fisher.

**Fishing Economy**

As seen earlier, fishing practices vary among fishers. For this reason, the amount of production, the fishing income and the level of fishing efficiency vary greatly among individual fishers. Table 3-6 shows the summary of fishing production and post-harvest disposal by 17 Granada fishers (5 from the net fishing group and 12 from the hook-and-line fishing group) for one month in October 2006. These fishers are heads of households with an average of 7 members (6 members among net fishers and 7 members among hook-and-line fishers). They are all full-time fishers who fish daily as their main source of income. Among hook-and-line fishers the major fishing methods during this month are squid jig (ankla) and multiple hook-and-line (palangre) for mackerel scad and tarpon. Among the net fishing group, the major fishing methods during this month are drift gillnet (pamo), bottom-set gillnet (padomog) and a specialised bottom-set gillnet for banana fusilier (panglokihok). The average of total catch quantity across all the surveyed fishers was 171.5kg per month, while there were quite large variations – from 78.5kg to 375.5kg a month. Hook-and-line fishers caught over 20kg more than net fishers on average
and the standard deviation was also higher among them (65.82 for net fishers and 84.06 for hook-and-line fishers).

Catches are disposed of by being sold, eaten, shared or used for other purposes such as drying. Selling to their suki vendors was by far most frequent form of catch disposal, with an average of only about 10% domestically consumed for meals, and about 2% given to other people. There are, however, notable differences in the composition of catch disposal between net fishers and hook-and-line fishers. While hook-and-line fishers sell a higher proportion of the catch, they eat less fish and share more. Since net fishing usually requires a larger labour force for its operation, fishers often need to hire helpers from other households. In such a case, providing meals or giving a small amount of fish is a common practice at the end of the fishing trip. The involvement of multiple fishers also works to limit the opportunity for casual workers to help with boat-carrying and also participate in catch sharing, unlike the case of hook-and-line fishers, who usually need these helpers upon their departure and arrival. Also notable is the fact that net fishing tends to catch fewer relatively large fish rather than a large number of small fish. This means that an individual helper being given a fish to eat consumes a larger quantity of fish if there are no small ones to give him.

Despite the smaller fishing yield in net fishing, the sale value is slightly higher on average than hook-and-line fishing. Because of the higher food consumption, the income from selling the catch is much less in net fishing, but since major fishing grounds are located in comparatively nearshore waters, the consumption of petrol is 60% less in net fishing than it is in hook-and-line fishing. As a result, the average profit among both groups of fishers is almost the same, around 7,760 pesos a month. This can vary greatly, however, among fishers – from 3,198 to 17,011 pesos a month. As the figure indicates, while the catch volume and fishing profit varies greatly among fishers across the gear groups, there are certain distinctive patterns in handling the catch for post-harvest disposal and profit structure, and most notable is the fact that despite the differences, the average profit level between gear groups appears to be about equal.
Table 3-6: Fish production and disposal of 17 Granada fishes (October 2006)

The volume of fish catch among fishes differs throughout the year and this appears to generate significant differences in fishing outcome as a result. Table 3-7 shows the change in the monthly catch by two hook-and-line fishes, successful ‘fisher 15’ and not-so-successful ‘fisher 16’, and the result reveals quite contrasting fishing outcomes. With higher catch volume during every month and more frequent fishing trips during most months, the successful fisher actually caught 3.5 times what the other fisher caught. The crucial difference in their fishing operation was their ability to swiftly adjust to a changing environment. Taking January 2007 as an example, while ‘fisher 15’ flexibly manipulated 7 different methods in order to target difference species on a total of 39 fishing trips, ‘fisher 16’ used only 1 method on a total of 18 trips. During this month, ‘fisher 15’ caught an average of 15kg per trip while ‘fisher 16’ caught only 3kg. Again in April, ‘fisher 15’ used 6 methods on 43 fishing trips while ‘fisher 16’ used only 3 methods on 20 fishing trips. In this month, while ‘fisher 15’ caught an average of 16.5kg per trip, ‘fisher 16’ caught only 5.8kg per trip. This figure clearly indicates how greatly the volume of fish catch can be affected by differences in resourcefulness in the choice of methods, by the fisher’s tolerance of bad weather and by the effectiveness of individual fishing techniques.

Table 3-7: Annual transition of monthly catch of two fishes (June 2006 – May 2007)
Together with differences between individual fishers, the fish catch is also strongly affected by the seasonal changes in target species and the methods to catch them. Figure 3-9 shows the monthly fish catch over a 12-month period for four Granada fishers (Fishers 3 and 4 are net fishers and fishers 15 and 6 are hook-and-line fishers). For both hook-and-line and net fishers, the catch decreases in July, August and September as these months are usually the slack season, because reef fish, they explain, move to deeper water and pelagic species are heavily harvested by commercial fishers. Catches start increasing for hook-and-line fishers from October when the season for mackerel scad begins. Enormous catches of fry, as much as 370kg a night, lead the prominent jump in January. The high level of catch is maintained from March to May because of the season for bullet tuna and it marks a peak in April. Net fishers, on the other hand, show less fluctuation in fish catch than hook-and-line fishers. After experiencing large catches due to the high season for mackerel and skipjack tuna in June, fishing continues to decrease until the following year. An increasing trend is seen from January since a large number of species, like small tuna, mackerel and fusilier, are caught in nets and anchovy fry are also caught in scoop nets.

![Graph showing monthly fish catch for 12 months among 4 Granada fishers](image)

**Figure 3-9: Pattern of monthly catch for 12 month among 4 Granada fishers**

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37 Data collection for ‘fisher 6’ had to be ceased in March 2007 due to a change in his personal circumstances which did not allow him to continue his fishing.
As seen above, the quantity of fish caught is affected by various factors (fishers’ technique, luck, flexibility and seasonality), but it is the efficiency of the various fishing methods which is the crucial factor because this influences fishing strategy and the selection of fishing method. Table 3-8 shows a simplified catch-per-unit-effort (CPUE) of 13 different gear types used in October 2006 by the same 16 fishers as above. This calculation does not take the amount of labour or fishing cost into account but simply focuses on the input of time and the output of catch weight and sale value. Because of this, the numbers shown do not necessarily accurately reflect efficiency, but they indicate that the methods fishers choose, even within a single month, differ widely in their efficiency. In addition, though not the main purpose of the figure, a few major fishing methods which were not used in that month are listed for reference below the double line.

<table>
<thead>
<tr>
<th>Gear type</th>
<th>Description</th>
<th>Sale value/gear-hour</th>
<th>Weight/gear-hour</th>
</tr>
</thead>
<tbody>
<tr>
<td>Padomog</td>
<td>Bottom-set gillnet</td>
<td>151.97</td>
<td>1.85</td>
</tr>
<tr>
<td>Panglakihok</td>
<td>Bottom-set gillnet</td>
<td>194.65</td>
<td>3.27</td>
</tr>
<tr>
<td>Pangsolid</td>
<td>Bottom-set gillnet</td>
<td>17.55 (214.13)</td>
<td>0.23 (2.78)</td>
</tr>
<tr>
<td>Pana-an (ta-an)</td>
<td>Bottom-set gillnet</td>
<td>11.28 (112.80)</td>
<td>0.15 (1.46)</td>
</tr>
<tr>
<td>Pamo</td>
<td>Bottom-set gillnet</td>
<td>19.21 (223.87)</td>
<td>0.23 (2.70)</td>
</tr>
<tr>
<td>Pangbolo</td>
<td>Encircling gillnet</td>
<td>25.09</td>
<td>0.43</td>
</tr>
<tr>
<td>Palangre sa tamarong</td>
<td>Multiple hook-and-line</td>
<td>118.41</td>
<td>1.58</td>
</tr>
<tr>
<td>Palangre sa bulan-bulan</td>
<td>Multiple hook-and-line</td>
<td>103.22</td>
<td>1.41</td>
</tr>
<tr>
<td>Pangballa</td>
<td>Multiple hook-and-line</td>
<td>43.52</td>
<td>0.71</td>
</tr>
<tr>
<td>Undak</td>
<td>Multiple hook-and-line</td>
<td>51.12</td>
<td>0.71</td>
</tr>
<tr>
<td>Palangre sa wasngag</td>
<td>Multiple hook-and-line</td>
<td>20.77</td>
<td>0.31</td>
</tr>
<tr>
<td>Double net</td>
<td>Trammel net</td>
<td>12.55</td>
<td>0.22</td>
</tr>
<tr>
<td>Anila w/ blinker</td>
<td>Squid jig</td>
<td>53.80</td>
<td>1.07</td>
</tr>
<tr>
<td>Panganduhaw</td>
<td>Bottom-set gillnet</td>
<td>266.27</td>
<td>3.45</td>
</tr>
<tr>
<td>Pangmalangsi</td>
<td>Encircling gillnet</td>
<td>99.68</td>
<td>3.68</td>
</tr>
<tr>
<td>Palangre tulingan</td>
<td>Multiple hook-and-line</td>
<td>108.73</td>
<td>2.48</td>
</tr>
<tr>
<td>Pahawin</td>
<td>Handline</td>
<td>41.80</td>
<td>0.43</td>
</tr>
<tr>
<td>Sikpaw w/ petromax</td>
<td>Scoop net</td>
<td>180.91</td>
<td>9.71</td>
</tr>
</tbody>
</table>

Table 3-8: Catch-per-unit-effort (CPUE) by gear type and fishers (October 2006)

The table clearly shows considerable disparities in efficiency, volume and value of the fish catch among different methods and between fishing groups. Among methods, for example, ‘double nets’ (trammel nets) only yielded less than 7% of what bottom-set gillnets (panglakihok) yielded in catch weight and sale value within the same time period. Large
disparities in efficiency were also seen between similar types of methods such as two multiple hook-and-line methods for different hairtail species (*panghalila* and *palangre sa wasningar*). Another important aspect is that fishing methods used by net fishers are slightly higher in CPUE than those used by hook-and-line fishers (Table 3-9). While hook-and-line fishers' methods show an average of 0.86 in weight per hour and 57.63 in sale value per hour, this is an average of 1.03 and 69.96 for net fishing methods, respectively. Because CPUE takes into its calculation the whole duration of the net being underwater, the difference is even more obvious when we take 'actual' fishing effort into consideration. In the figure, the number in brackets represents the 'actual' fishing effort calculated after excluding the time that the net is in the water overnight while the fishers stay on land and eat, socialise and sleep. This is precisely what most net fishers acknowledge as the advantage of their fishing style. It involves, as one net fisher put, 'working hard for a few hours and you can relax the rest of the day'.

<table>
<thead>
<tr>
<th>Fisher</th>
<th>CPUE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sale value/hour</td>
</tr>
<tr>
<td>1  Net</td>
<td>189.86</td>
</tr>
<tr>
<td>2  Net</td>
<td>20.63 (52.43)</td>
</tr>
<tr>
<td>3  Net</td>
<td>69.48 (158.07)</td>
</tr>
<tr>
<td>4  Net</td>
<td>25.13 (305.88)</td>
</tr>
<tr>
<td>Average (Net)</td>
<td>76.28 (176.50)</td>
</tr>
<tr>
<td>5  Hook-and-line</td>
<td>88.40</td>
</tr>
<tr>
<td>6  Hook-and-line</td>
<td>50.53</td>
</tr>
<tr>
<td>7  Hook-and-line</td>
<td>79.64</td>
</tr>
<tr>
<td>8  Hook-and-line</td>
<td>127.00</td>
</tr>
<tr>
<td>9  Hook-and-line</td>
<td>68.32</td>
</tr>
<tr>
<td>10 Hook-and-line</td>
<td>121.97</td>
</tr>
<tr>
<td>11 Hook-and-line</td>
<td>59.80</td>
</tr>
<tr>
<td>12 Hook-and-line</td>
<td>55.81</td>
</tr>
<tr>
<td>13 Hook-and-line</td>
<td>55.06</td>
</tr>
<tr>
<td>14 Hook-and-line</td>
<td>22.38</td>
</tr>
<tr>
<td>15 Hook-and-line</td>
<td>181.08</td>
</tr>
<tr>
<td>16 Hook-and-line</td>
<td>40.02</td>
</tr>
<tr>
<td>Average (H&amp;L)</td>
<td>79.17</td>
</tr>
</tbody>
</table>

Table 3-9: CPUE by fishers in two fishing groups (October, 2006)

**Fish Price and Marketing**

The fish price of certain fish species is observed to have two patterns of fluctuation. First, one is a short-term pattern based on the lunar cycle. It is widely believed that many target species become harder to catch during a full moon (*daktol*) than during the new moon (*patay ang*
Granada fishers widely believe that the behaviour of species such as bullet tuna and mackerel scad is affected by the moon phase. They believe that these species will eat well when the moon is small but not when the moon is big. Also, catching small squid is known to be greatly affected by the moon largely because the blinking light (blinker) which fishers use to attract them is less effective when the moon is bright. Figure 3-10 shows the price of mackerel scad and small squid bought by one fish vendor from her suki fishers between October 22, 2006 and January 3, 2007. The figure shows the price fluctuation according to the moon phase indicated above the graph. Though the movement was not always consistent, it shows the pattern of higher price during full moon periods when the catch is said to be less.

![Graph of price fluctuation](image)

**Figure 3-10: Price of mackerel scad and small squid bought by a fish vendor in Granada, Oct 22, 2006 – Jan 3, 2007 (pesos)**

Another pattern is a supply-demand model based on the fishing seasonality. Figure 3-11 shows the fluctuation of the average monthly price over 12 months for bullet tuna and small squid which are both commonly harvested species among hook-and-line fishers. The figure

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38 This has not been verified in a statistically reliable way but for reference, the correlation has been calculated between the moon phase and the fish catch of one fisher who was involved in catching these species almost every day during the same period. The correlation coefficient was 0.11 which indicates there was no significant correlation between the two factors. In order to investigate this point further, it would require looking into the behavioural change by species as well as the level of competition among fishers in different moon phases in accordance with this belief.
reveals that there is no particular seasonality for small squid and the average monthly price remains relatively stable throughout the year (the data indicates a 0.09 coefficient of variability (CV)). On the other hand, the price of bullet tuna shows much higher variability, with a CV of 0.19. This comparatively large variance can be attributed to the seasonality of the resource together with the accompanying intensive exploitation of it. While average monthly prices are comparatively high in January 2007 when the fishing season begins, supply and price between March and June is at a much lower level. As mentioned earlier, these months are the prime fishing season for this species in this area.

Importantly, the fluctuation in price is further intensified by the actions of commercial fishers. In Estancia, where the commercial catch is mostly dried and shipped to Manila, commercial fishing has been observed to have only a slight effect on the local market (Szanton 1972: 39), but in the case of southeast Cebu, large quantities of fish are brought directly into the local markets, so their effect on the fish price is clearly substantial. Commercial ring-netters come to this area every year from other parts of Central Visayas and Mindanao to fish small pelagic species in the Bohol Strait. Granada and a few other coastal barangays have been their landing spot in southeast Cebu. During their visits, commonly from April to August, their large supply of fish to the local market in Boljoon pushes the price down. This was precisely the rationale behind the desire on the part of some municipal councillors to retain commercial fishing in the vicinity of Boljoon despite the suspected illegality of this. Further, the price of small pelagic fish such as bullet tuna is affected by commercial fishers, not only in Boljoon, but also in other locations far from there. A sharp drop in price in March 2007 was caused by excessive fish catch in southern Negros where a number of commercial ring-netters were catching tons of fish each a night. A box filled with small bullet tuna (about 40-45kg) was allegedly traded at as low as 100 pesos, and unsaleable amounts were even given to people in exchange for salt for drying. To bring the catch to the region's biggest fish market, a number of trucks loaded with boxes full of fish travelled back and forth between the southern tip of the island and Cebu City. Because of uncertainty as to potential profit and the risk of spoilage
during the long journey, these trucks also sold fish to fish vendors along the way. Being situated on this route and already known to many of these truck drivers, fish vendors in Boljoon also engaged in trade with them. This sporadic trade became a cause, along with others, of a dramatic price fall which worsened the efficiency of fishing for small-scale fishers in Granada.

![Figure 3-11: Fluctuation of average monthly price for bullet tuna and small squid, May 2006-May 2007 (pesos)](image)

The amount of fish price variation also differs among the gear groups. The graph on the left in Figure 3-12, shows the fluctuation of monthly average price for four representative species which net fishers commonly catch. The graph on the right shows those of the species which hook-and-line fishers commonly catch. Comparison of these graphs shows that the price of those reef fish species targeted by net fishers is rather steady throughout the year compared to the price of those targeted by hook-and-line fishers. Taking four fishers as examples, Table 3-10 shows the content and variation of their fish catch and its average price. It verifies the distinctive difference between the two fishing groups, namely, that net fishers catch a much larger variety of fish from reefs with higher biodiversity than hook-and-line fishers who operate in less biologically fertile deeper waters. Another difference is that the average fish price paid by the fishers’ suki fish vendors was much higher among net fishers than among hook-and-line fishers. In general, reef-associated species are highly priced because of their limited supply and high market demand in Boljoon as well as perceived better taste. Targeting those ‘first class...
fish', as described by one net fisher, advantages net fishers, who are able to sell diversified species at higher prices and select less economically valuable species for home consumption.

![Graph showing fluctuation of monthly average price for four species each in net fishing and hook-and-line fishing, May 2006 - May 2007 (peso)]

**Figure 3-12: Fluctuation of monthly average price for four species each in net fishing and hook-and-line fishing, May 2006 - May 2007 (peso)**

<table>
<thead>
<tr>
<th>Fisher</th>
<th>Gear group</th>
<th>Average price of sold fish</th>
<th>Variety of Species</th>
<th>Major harvested species</th>
</tr>
</thead>
<tbody>
<tr>
<td>3</td>
<td>Net</td>
<td>76.18</td>
<td>71</td>
<td>bigfine reef squid, goatfish, fusilier, trevally, mackerel, parrotfish, cuttle fish, needlefish, rabbitfish, etc. emperor, finny scad, mackerel, rainbow runner, trevally, ponyfish, wrasse, etc.</td>
</tr>
<tr>
<td>4</td>
<td>Net</td>
<td>74.73</td>
<td>92</td>
<td>bullet tuna, scad mackerel, small squid, Indian scad, etc.</td>
</tr>
<tr>
<td>6</td>
<td>H&amp;L</td>
<td>63.75</td>
<td>21</td>
<td>bullet tuna, scad mackerel, small squid, Indian scad, skipjack, tarpon, etc.</td>
</tr>
<tr>
<td>15</td>
<td>H&amp;L</td>
<td>58.77</td>
<td>35</td>
<td>bullet tuna, scad mackerel, small squid, Indian scad, skipjack, tarpon, etc.</td>
</tr>
</tbody>
</table>

**Table 3-10: Average price in pesos, variety, and major fish composition of the catch among 4 fishers**

In order to dispose of the catch, fishers traditionally used to give it to their wives or mothers to sell house-to-house in the village and vicinity and to sell or barter, mainly for crops. The catch was taken to the market only when it was too large to be disposed of in the village or nearby. This practice was common until extra catch began to be sent to the public market of Boljoon in the 1970s. Marketing practice saw a change in the early-90s with the emergence of specialised fish vendors who were closely connected with large numbers of fishers from different households. The advantage to this shift was that the fisher’s wife no longer risked being left with unsold fish or being forced to sell at an unreasonably low price. Nowadays, most fishers sell their catch to fish vendors with whom they are closely associated through the suki
relationship. At the time of fieldwork, there was a total of 8 fish vendors (lab-asero) for fresh fish and 2 dried fish ‘middlemen’ residing in Granada, and they were all female.

In Granada, the most prominent fish vendor, for example, operated jointly with two of her close female relatives and they regularly trade with 24 fishers in Granada. Upon delivery of the catch, they keep a record of the species, weight and price under the individual fisher’s name and store the fish in an ice box until it is brought to market. The profit that they make undoubtedly varies depending upon circumstances, however their target is to secure a profit of around 10 to 20 pesos per kilogram. Payment to the fisher is usually done after the fish is sold at the market, and a certain amount of money is deducted if there is any remaining debt repayment or other unpaid bills due.

Both fresh- and dried-fish vendors develop and maintain a wide network of fish vendors outside Boljoon. As the Boljoon public market is considered small and there is limited demand, fish vendors – this is particularly the case for fresh fish vendors – need to secure access to other markets in order to avoid the risk of fish spoiling or having to sell at a loss at the last minute. To do this, they establish a suki relationship with other fish vendors in larger neighbouring towns such as Carcar, Argao and Dalaguete, and transport an amount of the fish fish depending on market conditions to these markets by bus. This becomes even more crucial when the commercial ring-net fishers bring back large quantities of fish.

As Szanton (1972: 41) notes, fish vendors and client fishers are usually connected through kinship. In a place like Granada where almost all residents are related to all the others in one way or another, fishers thus often have multiple candidates to be their fish vendors. In these cases, fishers choose their fish vendor depending on the convenience of location. Fishers tend to choose the fish vendor in the vicinity of their own residence or on the way between their boat and home. Reliable payment to the fishers is also a factor and offering a decent price is always quite an issue. Failure in these matters can cause fishers to feel that they are being mistreated or cheated by the fish vendor, and eventually discourages fishers from continuing to trade with the vendor. Such incidents can break the suki relationship just as can fish vendors’ incapacity to
provide reasonable financial support to the fisher. Selection of a fish vendor, however, is not always simply based on personal preference. There are also moral obligations which can come into it. For example, within close kinship relationships, fishers sometimes purposely choose less successful fish vendors rather than the successful ones, just to help them out.

While fishers widely use drying (bulad)\(^{39}\) as way of preserving the fish, dried fish is mostly consumed domestically and commercial production is limited to only a few net fishers. Among two dried-fish ‘middlemen’ residing in Granada, only one vendor buys fish locally and sells in the market, while another vendor buys in the market in Cebu City and sells in towns to the south. The former vendor regularly trades with four fishers in Granada and some in neighbouring towns. Just like fresh fish, locally purchased dried fish is taken to Boljoon market as well as other larger markets and sold to other vendors. The target profit for the ‘middleman’ is 20 percent plus the 50 pesos bus transportation fee.

Despite its limited use, dried-fish making is an important way for fishers to maintain higher profitability in fishing. As seen above, based on the supply-demand model, the fish price falls when there is a large supply and this has an important effect on fishers’ profitability. This means that when normally low-priced target species are in over-supply, the price goes down unsustainably. Small herring (Sardinella sp.) for example, is normally traded at 40 pesos per kilogram but it dropped to 25 pesos per kilogram when the barangay experienced a few days of big fishing of this species. One fisher who caught over 100 kilograms found this price unduly cheap so that he sold around 20 kilograms to the fresh-fish vendor in order to earn some cash for immediate daily expenses, ate a couple of kilograms and dried the rest. After drying them for four sunny days, almost 80 kilograms of herring was sold at 50 pesos per kilogram to the dried-

\(^{39}\)The preparation of dried fish is simple. Once fish are removed from the net, they are first sorted into damaged ones and non-damaged (or less-damaged) ones. Since damaged ones lose a significant part of their commercial value and fish vendors refuse to buy them, they are taken out for domestic consumption. The fisher first removes the scales from the fish and puts a notch on both sides using a small knife. He then washes them with sea water in a bucket. After the water is drained and sea salt is added, they are mixed carefully in order to distribute the salt evenly and left in the bucket for two days. After that, the fish are set out on a table or tray and dried for three to five days depending on the weather. Members of fishing households watch over the fish while they are drying to repel insects or animals and avoid the rain. The dried-fish vendor comes around regularly to check the condition of the fish and sometimes even instructs the fishers on what to do.
fish ‘middleman’. Though extra work was required, the fisher doubled his fish price by manufacturing dried fish.

Plate 3-4: Drying the fish after a large catch

While both fresh-fish vendors and dried-fish ‘middlemen’ trade with regular client-fishers, there are ‘irregular’ fish vendors who trade fresh fish sporadically with commercial fishers who do not have suki vendors. These vendors usually have other occupations at other times and deal with commercial fishers only when they have capital. For example, one irregular vendor regularly worked as a trisikad (tricycle) driver travelling between Granada and Poblacion. His wife supplemented their income by making candles to sell at churches during fiestas in southern towns. During the commercial fishing season, the couple actively engaged in trading opportunities with commercial fishers. Starting at the beginning of the season, they came to the shore almost every morning to check the price of fish and in the hope of being given some share of the fish. Three weeks after the arrival of commercial fishers, the couple started to repeatedly engage in fish trading, using capital of 10,000 pesos which had been loaned from a government livelihood project. Purchased fish are mostly taken to the market in Carcar and sold to the local
vendors. Whereas ‘regular’ fish vendors or middlemen value the steadiness of profit making, irregular vendors look for a large profit, almost as if they were gambling on a game of chance.

**Conclusion**

This chapter has highlighted the general patterns as well as the largely heterogenic nature of fishing activities among small-scale fishers within ‘the fishing community’. Strategies in daily fishing practice are diverse. The differences largely depend upon one’s financial capacity, skill, knowledge and adaptability. This diversification, in turn, loosely form two method groups, the net fishers and the hook-and-line fishers, who share many traits of fishing within the group while differing widely across the groups. While there is not significant difference in fishing success between the fishing groups at the general level, this differs at the individual level within and across the group due to the different ways of interacting with the resources. Due to these differences, small-scale fishers face the issues of coastal resource management differently, thus their responses to them are quite complex.

With an understanding of the previously described socio-economic and historical background and the above outline of Granada’s small-scale fishing activity in mind, we can now proceed to an examination of how Granada fishers responded to coastal resource management and how differences in interaction with the marine resources among fishers influenced the strategies they used to sustain their livelihood.
Chapter Four

The Establishment of MPAs: Power, Politics and Resignation

So far, the primary focus of the present study has been on the ethnography of villagers’ harvesting and use of marine resources. Over these next four chapters, the focus shifts towards the management side of marine resources as illustrated by the implementation of the MPAs and regulation of commercial fishing in Granada. The initial response of villagers and how this was manipulated will be examined. Related resource management issues concerning the complex relationship between commercial and small-scale fishing will also be investigated. Among the small-scale fishers, net fishers and hook-and-line fishers interact with marine resources in different ways, so their respective perceptions of the issues involved, touching as they do, vital matters of the fishers’ very livelihood, were quite different. While the contraction of fishing grounds due to the establishment of MPAs in coastal waters has been a major concern for net fishers, these fishers are less affected by commercial fishers because the latter operate in offshore waters. By contrast, while severe resource exploitation of commercial fishers is a compelling and livelihood-threatening issue for hook-and-line fishers, the MPAs’ restriction of entry to a small portion of coastal waters has relatively little effect on this type of fishing. These differences in mode of interaction with marine resources are at the heart of the fishers’ differing responses to both MPAs and commercial fishing and are reflected in their everyday practice of resource use and management. This chapter and the following one (Chapter 5) examine how the MPA in Granada was introduced, planned and managed, and how fishers and other villagers responded to the change. Chapters 6 and 7 will examine how small-scale fishers attempt to maintain their livelihood through complex interaction with commercial fishers.

In early March 2006, a couple of days after I moved to Granada, a family of one village councillor offered to take me around a hilly part of the village and treated me to many fresh ripe
coconuts ready for harvest. Since the mountain encroaches on the shoreline, leaving limited space in-between, their small subsistence farming and pasture land was only 20 minutes away from their house near the beach but the way was unexpectedly steep. ‘Look’, shouted Alma, climbing ahead of me and having a view from between the large coconut trees. ‘Can you see the markers there? That’s the sanctuary’, she said, pointing at the demarcated area along the shore. There, I saw many small white buoys floating right and left on the blue sea in a wavy line pushed by the waves – it was indeed scenic. Seeing it from a distance with the whole ocean as background, I could not help thinking how small and insignificant it looked. It was such a contrast with the larger image which continuously makes its presence felt. ‘Many fishermen don’t like that one because they can no longer go fishing inside’, said Alma and she started climbing again.

Since the very beginning of my fieldwork in Granada, I was interested in the MPA because of its effect on villagers’ lives. The MPA is located along the northern half of the shoreline in the village, extending over 900 metres. Enclosed with vertical boundary lines stretching out approximately 120 metres, the MPA is an area of just a little less than 10 hectares to which access is strictly limited. This area, together with another reef located at the other end of the village, is largely covered with various corals and has higher fish density and diversity than other nearby waters. It is undoubtedly clear that restricting access to this large productive fishing ground near the village centre must have been an extremely difficult task for resource managers as they tried to uphold a ‘community-based’ approach. As Alma mentioned while climbing the hill, bad feeling and resentment towards the MPA were clearly evident among the fishers. This contentious issue made me reflect upon how the MPA was introduced, planned and implemented and how the response of the small-scale fishers was handled throughout the implementation process.

This chapter will examine how small-scale fishers were involved in the establishment and management of the MPA, with special emphasis on the perspective of people’s discourse about the MPA and its management. Brosius and Russell (2003: 53) argue that it is important to
understand 'how environment is constructed, represented, claimed and contested' by being attentive to discourses that reflect the configuration of power. Further, they suggest that we 'must more consciously examine the vocabulary with which they frame both environmental threats and solutions'. Following their argument, close attention will be paid to how the purposes of the MPA were constructed and changed through analysing the discourse of politicians presented in both the public and private spheres. The chapter will also examine the responses of resource users to such political discourse. Because the initial phases of the establishment of the MPA had begun well before my arrival to the village, this chapter will inevitably rely on interviewees' narratives of the remembered past as well as on public documents.

The chapter will examine the historical development of the MPA in Granada in chronological order, however since it is impossible to chronicle every single event, attention will be focused on several significant ones which are representative of the characteristics of MPA management in Granada. These include: the first introduction of the MPA to the municipality, the site selection through public consultancy, the political turnover during the 2004 election and the establishment of a second MPA. The chapter will give detailed accounts of these events while referring to the narratives of stakeholders. Finally, it will discuss the participation of small-scale fishers.

It must be noted that, because of its common usage in Philippine coastal resource management literature this thesis consistently uses the term 'marine protected area' (MPA)\(^{40}\). In Granada and the rest of the southeast coast of Cebu, the term 'sanctuary' is more commonly used, therefore in the following section, the term 'sanctuary' also appears as an interchangeable synonym for MPA in texts which quote interviewees’ narrative.

\(^{40}\) Other than the term MPA, the terms 'fish sanctuary', 'marine reserve', and 'marine park' are commonly used in the literature (see White, Courtney, et al 2002, also BFAR et al 2001).
**Studies on Marine Protected Areas**

Marine Protected Areas (MPAs) have been considered one of the most effective tools for conserving depleted coastal resources in tropical developing countries, such as the Philippines (Pollnac, Crawford et al. 2001:684). Since that nation's first MPA in 1974, they have been adopted in many parts of the archipelago (White, Courtney et al. 2002:3-4) and today there are said to be more than 1,100 MPAs throughout the country covering 15,000 kilometres (Lowry, White et al. 2009: 275). The term MPA refers to 'areas in the marine region, whether coastal or offshore, set aside for management and conservation measures' (White, Courtney et al. 2002: 3). The logic is that MPAs conserve the biodiversity and enhance the biomass while helping extractive activities through 'spill-over' and 'recruitment' effects, thus increasing fish stock outside the MPAs (Russ, Alcala et al. 2004:597).

In many cases, however, MPAs are not supported by the local resource users and their establishment can engender resistance or conflict, which is closely associated with the exceptionally low success rate noted in several studies (e.g. Pollnac, Crawford et al. 2001: 684). The establishment of a protected area for conservation purposes most often draws a clear
boundary for the conservation of the resources. In the Philippines, MPAs mostly enforce a ‘no-take’ rule. That is, literally no one is allowed to harvest any resources from the MPA area except for very limited purposes including research. Under this ‘fortress’ conservation style (Blaikie and Jeanrenaud 1997), among the various stakeholders it is the fishers and others who utilise any form of marine resources whose livelihoods stand to be most greatly affected and the effects are not limited only to the loss of fishing ground but may also involve disturbance to navigation and fishing around the MPA. Any perception by fishers of unequal appropriation of the marine resources or unjustifiable imposition of ‘preservation’ and ‘regulation’ may lead to resistances to MPAs (Oracion, Miller et al. 2005: 397). Thus, one of the key elements for the successful management of MPAs is solving this equity issue by sharing the ‘burden of conservation’ among stakeholders (Eder 2005: 149). ‘Equity’ in this sense should not be seen only in economic terms but also in socio-cultural terms which enable fishers ‘to continue to practice a way of life’ (Blount and Pitchon 2007: 109-110).

The MPA equity issue is closely associated with the form of participation among resource users. It is generally agreed that meaningful participation of the resource users and other stakeholders is a crucial factor for successful management, as it increases the relevance of local socio-political conditions. This recognition has led some anthropologists to examine the issues regarding participation in the process of MPA establishment and implementation. Eder (2005), for example, analysed MPA establishment primarily focusing on social differences such as class, ethnicity and gender in one fishing village in Palawan where a foreign-aided coastal resource management project was carried out. He explored how these political realities affected the establishment of the MPA and its management. He outlined how the villagers perceived the unfairness of ‘politics-as-usual’ and how they were marginalised from the management of the MPAs despite the claim of ‘community participation’. Attention to political unfairness in the decision making process as perceived by the resource users is an important aspect of this chapter as well.
Seemingly well-managed MPAs also contain many contradictions, confusions and misunderstandings which need to be dealt with through negotiation among the stakeholders, and such issues occasionally push these projects to the verge of total collapse. Noting that at present biological studies of MPAs appear to dominate the scene, some scholars are suggesting that more importance be given to enquiry into socio-economic dimensions in coastal resource management (Jentoft 1998; Symes 2006; Blount and Pitchon 2007). In-depth understanding of the complex relationship between MPA management and the affected resource users is crucial to prevent MPAs resulting in ‘social failure’ (Christie 2004). Considering the high MPA failure rate, Christie et al. (2003: 23-24) contend that greater attention is needed to the social and political dimensions of MPAs because ‘the exigencies of local situations, recognising that each location has its unique social, cultural, and ecological contexts that influence the trajectory of MPA implementation and impact’.

**Introduction of the MPA**

The idea of an MPA began to be considered by people in Boljoon around 1998, when municipal politicians and officers of the Municipal Agricultural Office were invited to coastal resource management seminars organised by the CRMP together with several government agencies in Cebu City. Through the seminars and workshops, the project which had already been working in different regions proposed that the Municipality of Boljoon, along with other municipalities, participate in their new project on southeast Cebu island. Politicians recall widely supporting the plan from its very beginning. ‘I was very positive about the proposal of the assistance from the CRMP’, recalled Vice-Mayor (Deputy-Mayor) Renato Amper, who was the mayor when the project was first introduced to the town. ‘It was mandated by the national law [to protect the natural resources within the municipal jurisdiction], but we didn’t have expertise. They could provide us the technical assistance’, explained Renato. During the preparatory period for the implementation of the coastal resource management, NGOs organised seminars regarding the methods for protecting the marine environment and implementing the regulations. They also
organised a ‘study tour’ to famous Apo Island, where the first MPA in the country was established in the mid-80s and is said to be successfully managed (Russ and Alcala 1999).

The CRMP was a 6-year project implemented in several ‘learning areas’ in different parts of the archipelago. It began in 1996 and ended in 2002 with a 2-year extension on some project sites (CRMP 2004). The involvement of southeast Cebu in the project started in 1998 and implementation of some project components was carried out a few years later. The CRMP focused on providing technical assistance and training to different levels of government and other agencies, as well as to fishing villages, in order to promote coastal resource management. The project was funded by the USAID and implemented by the Department of Environment and Natural Resources (DENR) in partnership with the Bureau of Fisheries and Aquatic Resources (BFAR), the Department of Tourism and other related agencies, with a consulting firm providing project management and technical assistance (CRMP 2000; White, Eisma-Osorio et al. 2005). After the termination of the project in 2002, it was taken over by the Cebu-based NGO, Coastal Conservation and Education Foundation Inc. (CCEF) under its Local Governance for Coastal Management Project (LGCMP) funded by the David and Lucile Packard Foundation. LGCMP was 4-year project which finished in 2006. It was subsequently followed by another project to strengthen MPA management with the assistance of the Philippine Environment Governance 2 Project (EcoGov2) at the time of this research.

In 2000, following the CRMP’s preparatory phase, the municipality decided to be involved in the implementation of the coastal resource management scheme. Municipal officials and administrators joined along with seven other municipalities along the coast in an Orientation and Action Plan Workshop organised by the project. In October of that year, based on the outcome of this seminar, the municipality then conducted the Participatory Coastal Resource Assessment (PCRA), and mobilised municipal councillors, administrators and fishers with the assistance of the DNER, CRMP and others, to collect the baseline data necessary to formulate the municipality’s Plan. The data gathered during the PCRA was combined and analysed by another municipality’s taskforce, called the Technical Working Group (TWG), and they drafted
the plan in consultation with departments of the national and provincial governments, the university and the local fishers (Municipality of Boljoon 2002: viii). The data compiled, together with the outcomes of policy discussion based on this data, was drafted into the 5-year ‘Coastal Resource Management Plan 2002-2006’ and submitted to the municipal councillors to provide a road map for the town’s policy for managing its coastal resources (2001). This document strongly recommended the establishment of an MPA in order to increase fishing productivity and conserve the resources.

The ‘Coastal Resource Management Plan’ included messages from the mayor and vice-mayor which were centred on the preservation of the coastal environment not only for the fishers but for the wider public as well. For example, in his brief statement, Mayor Derama articulated the importance of coastal resource management in terms of fisheries and agricultural development for building a stronger community. Vice-Mayor Amper, on the other hand, stated in his characteristically emphatic manner that ‘...appropriate management tools were to focus all possible interventions to save Boljoon, restructure its shredded pieces, and finally make Boljoon a home worth living in, a home worth coming home to, not only for the Boljoanon of today, but also for the Boljoanon of tomorrow...’ (Municipality of Boljoon 2002: ii).

Right from the earliest stage of the MPA establishment, politicians stressed in both public and private spheres how beneficial the MPAs would be ‘for the fishers’. This phrase was widely repeated. One municipal councillor who takes great pride in his role in pushing for the establishment of the MPA recalls that he explained again and again to coastal dwellers what an MPA could do for them. ‘I told people that establishing the sanctuary protects the marine habitat so that fish can spawn and increase their numbers’, said the councillor. Repeating what he had learned from the seminars and workshops, he emphasised that the MPA was ‘for the fishers’ to ensure that ‘their future generations’ can still make a living at sea. In these speeches, it was the increase of fish catch through the spill-over effect which was most frequently mentioned but the explanation was always quite ambiguous and not mentioning the time frame or the risk that fishers see no positive effect of this on their livelihood. Meanwhile, though the potential for
tourism development was already being considered, it was not represented as an important target, neither in the plan nor in the politicians’ narratives.

Though even at the local level the idea of having MPAs did not cause great difficulty, the selection of the MPA sites was not so straightforward, given the very limited options for these. In 2001 the municipality reorganised the inactive Municipal Agriculture and Fishery Council (MAFC)\footnote{The Boljoon MAFC was originally established as a local advisory body of the National Agriculture and Fishery Council (NAFC) to facilitate the national government’s projects and activities under Executive Order 116, 1987 Series. The MAFC in Boljoon had long been inactive until its reorganisation in 2001 and became inactive again soon after it finished establishing the MPAs in the area. (Republic of the Philippines 1987)} to serve as one of the project management units, specifically to determine the location of the MPA sites and organise their establishment. The municipality had certain requirements for the potential MPA site. The area would need to have reef which was in relatively good condition and be approximately 10 ha or larger in order to be ecologically effective (DENR, BFAR et al 2001: 78). Based on the PCRA results, the sites best meeting these qualifications were then determined at reefs situated in barangays Arbor and Granada. The rest of the shoreline is either covered by sand, rock or seagrass, or it has only sparse areas of coral reef which is already too heavily damaged for this purpose.

Selection of the specific area for the MPAs was done through public consultation organised by the MAFC in coordination with other state agencies. The site-selection committee was divided into two groups and each group took a role in consulting and organising their respective barangays. In the case of Granada, an open forum for residents of both North and South Granada was held in 2001. The meeting was organised by personnel from the MAFC and officers of the Municipal Agricultural Office (MAO), together with barangay officials and tanods (barangay guards). Marites Estrella, a grand-daughter of the village financier Alberto Zamora, was one of the young residents actively involved in public offices inside and outside Granada. Because she was young, educated, actively involved in public life at both the village and municipality levels, she was appointed as secretary of the MAFC to mediate between the municipality and the villagers, given the expected conflict over the MPAs. She recalled that ‘it was a national program to establish at least two sanctuaries in each town’ and the task of the
MAFC was to find the right location for the MPA while convincing the villagers of its purpose and potential outcomes.

There were two potential sites in Granada, Cayangan Reef and Tinaw-gan Reef, and these needed to be discussed. Initially, the municipality preferred Cayangan Reef for an MPA as both the PCRA and resource users had identified the richness of the biodiversity and the condition of the coral reef, and it was thought to be ideal for the purpose. This municipality’s site preference was presented by the MAFC at the public meeting, but this view was challenged by the resource users in Granada. ‘When we went to inquire among people living Maloko [South Granada] and Balitang [Granada], they didn’t agree that Cayangan should be a fish sanctuary’, said Marites and continued, ‘the reason was that the area was their number one source of income…it was a problem as we were going to establish a sanctuary’. During the public meeting organised by the municipality, Marites, along with other organisers from the barangay and the municipal office, was exposed to severe and even loudly vociferous criticism by villagers. ‘When we said we would make a sanctuary at Cayangan, before we explained our main target and purpose, everybody disagreed, people shouted’, explained Marites.

The locals had several reasons for their strong objection to the plan of having the MPA at Cayangan Point. Firstly, it was a place where people with little or no fishing skills are able to get food. The reef around Cayangan had always been used as an important gleaning place for most of the people in the area. Villagers in lowland Granada and South Granada, particularly women and children, would collect shells, sea urchins, sea cucumbers and seagrass by hand in the inter-tidal zone on Cayangan Reef. These organisms are harvested during low tide and they are an important source of protein for many households. Farmers from the mountains, generally considered to be more impoverished, occasionally come down to the shore and take part in some simple fishing in this area. These activities usually do not yield much but just enough for subsistence purposes. This area is seen as a place where even non-fishers can harvest something to serve as an accompaniment (sud-an) to the staple rice.
Secondly, the reef was also frequently used as an important fishing ground by fishers employing a number of different types of gear. Primarily net fishers using bottom-set gillnets (padomog) see this area as one of their most important fishing grounds for catching reef-associated species. It is not only net fishers who use this area but also some hook-and-line fishers. While some hook-and-line fishers employ single-hooked gear, such as pahawin, to target similar species, others use small nets to scoop small damsel fish to use as bait for larger fish there or elsewhere. Also, though limited to only a couple of months per year, fishers who use fish traps (bobo) have this area as their only fishing ground for that time during the season.

In addition, fishers use the near-shore reef areas as their sheltered fishing grounds for bad weather. During the monsoon or typhoon season, when the sea is too rough to go further out, fishers have no choice but to access the fishing grounds near the shore, which pose relatively less risk. In fact, typhoons, which frequently visit the area, can stop the fishers from going out to sea for several days. In September 2006, for example, when a typhoon hit Central Visayas, most of the hook-and-line fishers had to wait for 4 days until the sea was calm enough to reach their preferred fishing ground. Desperate fishers who cannot wait long enough until the sea is safe or who misjudge sea conditions often suffer tragedy. Many fishers have described life-threatening experiences resulting from bad weather, particularly during typhoons. In fact, during my fieldwork, a couple of fishers were lost at sea during the typhoon season. Despite these dangers and the fact that during such weather the catch is not as good as normal, some fishers are so desperately in need of food for the day that they will risk going out.

Focusing on the presumed very negative effect of the proposed MPA on their lives, villagers persisted in their strong resistance to the idea and the organisers’ speeches were often disrupted by loud protests. Marites recounts that the villagers repeatedly stated that the MPA would negatively affect their livelihood and worsen their economic circumstances. ‘I told them’, said Marites, ‘that we have to have one in here and another one in Arbor. If you don’t want to have it in Cayangon, then where do you want it to be?’ It was explained that establishment of two MPAs within Boljoon waters had been mandated by the municipality on advice from the
national government. This, in fact, was not actually the case. Nonetheless, it made the villagers understand that they could no longer avoid having the MPA in the village. The best they could do was to hope for an alternative site to be chosen in sitio Tinaw-gan and this is what they reluctantly proposed. In the end, organisers agreed to the villagers’ compromise proposal. Though the area was not as favourable as Cayangan\textsuperscript{42}, it was less contentious since it had been suggested by the villagers themselves because comparatively fewer people rely on that area. Upon this agreement, the ordinance (No.04-01) designating the Tinaw-gan Reef as an MPA was drafted and passed in December 2001. An area of 9.732 hectares in Granada was then officially declared as the MPA. The ordinance claimed the municipal government had taken responsible measures, in line with national government policy, to rehabilitate and protect the marine environment for the ‘benefit of municipal fisheries’. Though the idea of the MPA’s tourist potential was certainly in politicians’ minds, it was not presented to the villagers, nor was it obvious in the policy documents.

\textsuperscript{42} Underwater surveys in these two sites before the MPA implementation also supported this. According to the baseline survey in Cayangan reef conducted by the CCEF in 2005, 64 percent of the sampled area was covered with hard and soft coral (CCEF 2005), whereas it was only 29.8 percent in the current MPA in Tinaw-gan in 2002.
Plate 4-2: Reef of Municipal Dive Site at Cayangan Point

Plate 4-3: Overlooking Cayangan Point and Municipal Dive Site (the structure in the middle is the historic watchtower renovated for tourists)
2004 Election

Use of MPAs for political posturing during elections is not a new thing in the Philippines; indeed it is quite common. On Sumilon Island in Boljoon’s neighbouring Oslob Municipality, for example, an initially successful MPA failed because the newly elected municipal mayor had promised during his campaign to ‘give Sumilon Island back to fishermen’ (Russ and Alcala 1999: 310). Oracion (2006) also reported similar political manoeuvring around the MPA in the Municipality of Dauin in southern Negros but in this case, instead, the pro-MPA mayor was able to defend it. In Boljoon, strong scepticism and distrust of the benefits of an MPA for coastal dwellers persisted and this was made use of for political purposes. It became a prominent issue during the general elections which were held in May 2004 for public positions from president to barangay councillors. This was the first election in Boljoon since the commencement of the coastal resource management project and the establishment of the MPA, and the matter became an election issue raised by candidates for municipal councillor against the incumbents.

During the 2004 election in Boljoon, political opponents perceived the issues concerning the MPA as a soft target to gain popularity among coastal voters. When I was invited to the cottage of Andres Dantes in sitio Tinaw-gan, he was bitter as he explained the cause of his loss in the election. After years of service to the municipality as a councillor, he decided to run as vice-mayor against Renato Amper, after he gained the strong support of influential political allies, including Mayor Derama. Andres knew it was going to be difficult since Amper was highly popular because of his humanitarian attitude towards the poor and his intellectual standing as a medical doctor and a poet. Amper had once been described as ‘undefeatable’ but the political climate had changed. In a good financial position due to his successful business, Amper’s political opponent, Mayor Derama, was steadily gaining in popularity among the townspeople of Boljoon, and Andres was recruited as a candidate to battle alongside Derama against Amper.

Despite his strong advocacy of and involvement with the coastal resource management project right from the beginning, Amper allegedly turned against the MPA and other coastal
resource management measures during the election campaign. He informed the coastal villagers of his disagreement with the municipal ordinances which would affect them adversely. This, in turn, affected Andres, who was known to be a strong advocate of coastal resource management. Though it was beyond his normal duties, he was in favour of and actively supported the project, particularly the establishment of the MPA. This, of course, provided a good ground for Amper to criticise him while alleging that he (Andres) would cause trouble for coastal dwellers. Meanwhile, as some villagers explained, Amper, himself, actively showed his sympathy towards the affected villagers. He did not promise to abolish or alter the management of the MPA, explaining that as a presiding officer of the municipal councillors’ meeting, he did not hold the power to object, but he said he would not support the recent regulations on resource use. ‘Because of this’, Andres told me, ‘most of the fishermen [in Granada and Arbor] got angry with me’. He felt that he was seen as not caring enough about the fishers and it was this perception that lessened his vote in these two barangays and doomed his candidacy. Similar negative campaigns were waged by other candidates against almost all incumbent councillors. Another politician who lost the election was informed by his voters that some candidates told people not to vote for him as ‘he will propose more ordinances to kill you here’.

As a result, there were only two incumbent councillors out of 8 who survived the election and the rest were replaced by new councillors. This turnover of the political regime was at least in part the result of these candidates convincing fishers and other affected voters that they would do something to oppose the MPA. Fransisco, Head of the Municipal Agriculture Office (MAO), half jokingly described the then-incumbent councillors who lost the election as the ‘ultimate victims of the coastal resource management’. In fact, once the candidates became municipal councillors, they became more and more favourable to the management project. Promised changes of the ordinances were never carried out, but instead, newly elected councillors supported even further regulation of fishing. Allegedly, one candidate who was one of the most vocal candidates against the MPA during the election campaign indeed even sponsored an ordinance for a further MPA a couple of years later.
Establishment of New MPAs

Despite the political turnover, politicians, both those who won and those who lost the election, continued to actively support the MPAs and other coastal resource management programs. It was soon after the election that politicians and municipal officers initiated discussion on establishing a new MPA as well as on the establishment of users’ fees for touristic use of MPAs. This would be implemented at the end of the three years during which no activity was permitted in the MPAs (except for annual biophysical monitoring). A new ordinance for the collection of these fees was passed at the Municipal Councillors’ meeting in January 2005 (Municipal Ordinance No. 01-2005). What was not scheduled in the original plan, however, was the establishment of additional MPAs at several locations in waters along the municipal coast. Having heard that divers frequently visited certain spots of distinctive ecological interest, the municipality began to seek a way to protect these sites from inappropriate use by tourists and diving companies while effectively increasing their revenue from the tourists. Fransisco explained that regulating indiscriminate anchorage and diving activities which could cause further damage was vital. Along with a number of sites in waters off other barangays, Cayagon Reef was said to be among such diving sites. At the request from the municipality and with the support of the local diving shop, the CCEF conducted an underwater survey to collect the baseline bio-physical data in October 2005. The rich ecological status of the area confirmed the potential for even more industrialised tourism development, and the drafting a new ordinance to officially register these sites as MPAs began in early 2006.

This process was done, however, in such a way as to contradict provisions of the municipality’s community-based framework regarding collaboration with the resource users. Given that the establishment of new MPAs would undoubtedly affect the livelihood of fishers, the planning process rules required consultation with the fishers. As mandated in the Fisheries Code of 1998, the MFARMC (Municipal Fisheries and Aquatic Resources Management Council) was formed precisely to ensure the representation of fishers in the policy formulation process in order to coordinate the multiple interests over the use and management of marine
resources. This process was particularly important because the significance of Cayangan Reef for local resource users had been made obvious through the earlier consultation concerning the original MPA. However, there was no consultation or meeting of the MFARMC during the process of establishing the new MPA. Indeed, by then the MFARMC had long-since been inactivated and even the composition of members of the council was not clear. Certainly, no Granada fishers participated in any MFARMC activities during my stay, and many did not even know anything about the existence of the MFARMC, let alone its activities.

As convinced as politicians and MAO officers were of the advantages of establishing new MPAs, they were also well aware of the potentially explosive reaction to this on the part of small-scale fishers. This led them to make a compromise by keeping the area small and allowing for some fishing. They proposed a long and thin area of only 0.7 hectares, located at the northern side of Cayangan Point, and directly over the beautiful drop-off of the reef, as an MPA site. Also, whereas in the initial MPA in Tinaw-gan a ‘no-take’ rule was strictly applied, the newly proposed MPA would allow hook-and-line fishing, which, unlike net fishing, was considered less potentially harmful to resources. Further, the new MPA sites were carefully termed ‘Municipal Dive Sites’ and this was widely used in public speeches. ‘We [the municipal government] would never call it a ‘sanctuary’ because if we did, it would be very difficult for us to implement’, said Fransisco. He explained that some fishers had become very sensitive to the very idea of MPAs because of their previous experience. Thus, the term MPA and its synonyms appeared only in public documents rarely exposed to the eyes of small-scale fishers. This was thought to reduce the fishers’ association of the new MPAs – established under different rules, purposes and name – with the existing one.

While the importance of protecting the marine habitat from inconsiderate tourists and tourism operators was what was presented, there is no doubt that local politicians were clearly also motivated by the possibility of revenue generation through the ‘marketing’ of the MPAs. Based on the survey data, CCEF’s Community Officers (COs) for Boljoon and Oslob strategically (and enthusiastically) lobbied the municipal councillors to officially register these
sites as protected areas. At the First Hearing at the municipal councillors’ session hall regarding deliberation on users’ fee collection at MPAs in 2006, the NGO’s CO explained his ideas to the local politicians, using an example of how much they would be able to earn if they collected 100 pesos per user in the MPA. He said that the municipality was letting the opportunity go to waste. ‘It is more like business,’ said the CO when I asked about his strategy to convince people of the new legislation. ‘If you want to move something, you need to show them [the municipal councillors] what they get. Who would do something if they didn’t get anything from it?’ he continued. With a confident smile on his face, he did not forget to mention that ‘there was no opposition in the session hall’. Though there were different levels of support among conservationist NGOs and among individual workers within these NGOs, MPAs were often closely associated with tourism development as providing an economic advantage for both the municipality and the local resource users. The potential increase in revenue for the municipal budget, together with the potential for developing personal business opportunities through tourism, continued to keep the level of interest in maintaining the MPAs high, despite the lack of popularity among others who would be more negatively affected. Knowing that this plan would cause great opposition among Granada fishers, I was interested in how he would explain about these new MPAs to the fishers in Granada at the public hearing. In response to my question he replied, a little sourly, ‘it is just how you say things in different ways’.

In July 2006, the public hearing of the ordinance regarding the collection of user fees and the establishment of municipal dive sites was held at the Boljoon Central Elementary School. The vice-mayor and most of the municipal councillors were in attendance together with MAO officers, the coordinator and a CO of the CCEF. After prayer and the singing of the national anthem, the vice-mayor gave a preliminary talk on the purpose and mechanism of the MPAs, the problems associated with diving, and the benefits to both municipal and also barangay revenue through the benefit-sharing scheme regarding the fees collected. Subsequently, the CO took over the talk with a Powerpoint presentation. After explaining about the high coverage of hard coral in the Cayangon Reef area compared to the rest of Cebu Island, the CO made a
vigorous appeal to the audience, ‘It [Cayangan Reef] has to be protected, it has to be developed, and it has to be used to generate income for the municipality, because tourists are willing to pay just to dive at places where coral cover is excellent’. His point was strengthened by comparing Cayangan Reef to other well-known diving sites around Cebu Island and said these places sometimes had ‘only half of the resources that we have right now in Cayangan’. A week later, the municipal councillors passed the ordinance (Municipal Ordinance No. 04-2006) to officially designate three sites. Thus, in the end a portion of Cayangan Reef officially became an MPA even though it had been successfully quarantined from this in 2001 because an alternative site had been provided.

Though this public hearing was to be a chance for the ‘public’ to get involved in the policy-making process, the opportunity was not publicised among the common villagers at all. The only people who were invited to the public meeting from Granada were the barangay captain and councillors, and most of the villagers did not know about the plan to establish an additional MPA at Cayangan Reef, let alone about the meeting to discuss it. Even those who did attend, found it difficult to express their honest opinions as freely as they did to me. During the question and answer session, the only question asked by barangay councillors from Granada was one asked by a female councillor from a non-fishing and relatively wealthy household as to whether they would continue to be allowed to glean the rocky shore in Cayangan. The three fishers among the barangay councillors who attended the hearing did not make any statement at all during the session but it obviously did not mean they had no opinion. It was a few days after the hearing that one of these fisher councillors told me he did not like the idea of the new MPA in Granada and at heart he was opposed to it. The councillor told me that none of the barangay councillors supported the idea but that they were too intimidated to give voice to their opposing opinions at the meeting. In a public meeting where powerful municipal politicians, educated and resourceful NGO workers, wealthy resort owners are all present, the barangay representatives felt not only incapable of expressing their honest but opposing opinions but that it would be unrealistic and useless to do so. Despite those from similar social background agreeing with
these barangay councillors’ ideas, the chance of getting strong support from the very different audience at this meeting was slim. Positive that expressing their opinions would have virtually no effect on the decision-making anyway, they saw no point to confronting powerful people and preferred rather to keep their mouth shut and maintain at least ostensibly good relations with these people whom they might have need of in the future.

Shifting Emphasis in Discourse – from Fishing to Tourism

As the MPAs were established, the clear shift in politicians’ concept of their role as to who should be seen as the beneficiaries of marine resources became more and more evident in both public speeches and documents. For example, the two ordinances which established the MPAs both stipulate that the purpose is to protect the marine habitat and fish resources, however the crucial difference can be found in the phrases indicating ‘for whom’ the MPAs were proposed. Boljoon’s Marine Sanctuary Ordinance of 2001 (Municipal Ordinance No. 04-2001)’ reads ‘[I]t shall be the policy of this municipality to protect and manage the municipal waters for the benefit of the municipal fisheries’. On the other hand, the Objectives section of the ‘Boljoon Municipal Dive Sites Ordinance of 2006 (Municipal Ordinance No. 04-2006)’ reads ‘[T]o protect and manage the Municipal Waters of Boljoon and its coastal and fishery resources for the enjoyment and benefit of its people’ from potential damage done by tourists. While it was clear that the first MPAs specifically targeted fishers to help maintain their livelihood in a sustainable manner, the second targets the wider public and does not specify the fishers as the beneficiaries of the marine resources. This view confirms that the municipality has posited the MPA as a considerable tourism attraction by expanding its objectives from conservation to tourism development.

Promotion of tourism has been indeed done province-wide with strong support from the governor’s office. Tourism is a fast growing industry nationwide, one which recorded 2.5 million foreign tourists and 6.4 million domestic tourists travelling in the country in 2009, a 14% growth over the previous year (Alave 2010). Among the country’s tourist destinations, Cebu Island has long been the premier tourism destination for beaches, historical and cultural
monuments, and the sex industry. The recent record shows it attracted over 1.2 million tourists per year, the largest number among other destinations in the Philippines (Yap-Garcia 2009), and for three years in a row, it has been listed as the seventh best island destination in the world by a travel magazine (Codilla and Mayol 2009). The current governor, Gwendolyn Garcia, has put great effort into the tourism development of the province by restoring and publicising historical and natural tourist attractions, particularly in provincial towns. Her most iconic project is her tourism promotion project ‘Suroy Suroy sa Sugbo’ [lit. going around in Cebu]” taking local Filipino, balikbayan [Filipinos living overseas] and foreign guests all around Cebu Island and visiting tourism attractions every year since 2005. Boljoon is one of the towns visited in their ‘Southern Heritage Trail’ which has been a popular tour (Bronce 2010).

Local politicians began acknowledging more and more the importance of tourism for the vitalisation of the local economy and their support for it. This view was articulated in the ‘Boljoon Municipal Community-Based Tourism and Eco-Cultural Authority: Comprehensive Municipal Framework Plan 2005’ (Amper 2005), which was adopted as the municipality’s framework for tourism development (Municipal Resolution No. 20-2006). This plan put great emphasis on Boljoon ‘being one of the oldest towns in the Philippines’ and situated in Central Visayas, a ‘prime eco-cultural tourist destination’, as the rationale for Boljoon’s focusing on tourism development. The plan emphasised that Boljoon needs ‘the establishment and institutionalisation [of MPAs] …as a major destination in the province of Cebu for eco-cultural tourism with strong support from the municipal government, the private sector and the community’. Along with the national heritage Boljoon church, the remains of historic watchtowers and classic style houses, MPAs are listed as the ‘coastal marine attraction’ where tourists can appreciate interesting marine life (ibid). Clearly attention to the value of MPAs for tourism development was being more directly acknowledged and politicians began to display its importance in public speeches and laws.

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43 By January 2010, the tour of the ‘Southern Heritage Trail’ had been conducted 22 times in 5 years. The most recent one (in January 2010) took more than 300 guests, carried by 5 tourist buses and several other vehicles. (Bronce 2010)
Around the time of the establishment of the new MPA, local politicians’ public speeches began to give stronger emphasis to using the town’s natural resources for tourism development. Among them all, Deogenes Derama, the municipal mayor, was one of the strongest advocates of tourism development in the town. He delivered a speech in favour of tourism development using marine resources as part of the 2006 barangay fiesta in Granada, a popular social event where he and his wife were guests of honour. He spoke about how Granada had been blessed with a beautiful marine environment and said that Granada was one of the focal points for tourism development in the municipality particularly for using the MPA. His perception of the MPA as an important tourism attraction was also evident in the event where the mayor one day ordered the villagers to clean up the shore not to put off tourists. ‘Tourism is probably the only way to activate [the local economy]’, Mayor Derama stated in an interview in his busy office following the speech. During this interview he indicated that he was so in favour of using marine resources for tourism development that he might even consider further enlarging the existing protected areas. He argued that resistance from the fishers might not be of significance because fishers would benefit more from a larger-size MPA. Being known as a keen businessman, his strong enthusiasm in marine tourism in Granada even led him to purchase several properties along the coast of Granada, some of which were planned to be developed as beach resorts. This inclination towards tourism is widely shared among municipal politicians and much enthusiasm about the relationship between the development of marine tourism and the development of the local economy was expressed by some. In the interview with a municipal councillor, he explained his strong support for tourism development on the coast. He stated that Boljoon has had no substantial industry and tourism is almost the only hope to bring in some development to the town. ‘Actually our seashore is not abundant with fish, so fishing is minimal as a livelihood for people’, said the councillor. He further claimed that tourism may need to be prioritised ‘if only a small number of people are benefiting from the sea’ but ‘municipal government can generate the revenue’.
Fishers’ Responses to the Shifting Discourse of Politicians

Though the people in the barangay remembered that their initial response was quite negative, like the politicians’, their perception has also changed over the time. Together with the immediate negative effects on their livelihood, the ‘foreign’ concept of the area’s closure, which they felt had been imposed on them by outsiders, filled them with a sense of injustice and unfairness. This feeling was widely shared in the barangay, not only among the fishers but also among non-fishers who engage in gleaning and/or have close relatives or friends likely to be affected. Given, however, the background of widely perceived resource depletion in the coastal waters and the generally agreed concept of ‘conservation’ to address it, villagers gradually became more favourable towards the MPAs. Undoubtedly, responses differed too among different groups, according to their effect on different people’s livelihood. Among the villagers, those not engaged in fishing and some of the offshore hook-and-line fishers, who have the least interaction with the MPA, were the most easily influenced by the widely and vigorously disseminated idea of ‘conservation’ by local politicians, MAO officers and NGO workers. Apart from the perceived value of conservation, most of those villagers supported the MPA on the grounds that tourism development might generate work opportunities. These opportunities included being employed at the resorts or the potentially greater opportunity of selling local products, or there being a higher demand for commodities and services such as transportation. Some even went a little further by hoping that tourism might induce industrialisation of the village through attracting factories that would employ a substantial number of villagers. Further, and perhaps more realistically, having been informed that 10% of the collected fees from tourists would be shared with the barangay, many villagers reasoned that the potential expansion of the barangay budget, which was chronically under-funded, would be another important benefit of having the MPA. Also, villagers commonly mentioned their genuine interest in seeing tourists from different parts of the world and letting them enjoy the beauty of the village.
Obviously, however, not all the villagers in Granada were in favour of the MPA and some retained strong scepticism and even sometimes strong opposition. Groups of net fishers and that small number of hook-and-line fishers depending more substantially on the coastal fishing grounds were the ones who showed the lowest support for the MPA, as their fishing was the most affected. The most common reason for their lack of support was that they could not perceive any positive change in their fish catch, the most oft-mentioned benefit claimed in the speeches of politicians. A biophysical survey indeed supported these fishers’ perception that though a very slow recovering trend has been identified, the MPA had not shown substantial recovery of fish stock as yet (Apistar, Maypa et al. 2008). With no perceived improvement in their livelihood, some fishers found the MPA to be nothing but a big disturbance. In order to counteract this, the municipality provided a type of compensation project for fishers affected by the MPA. With municipality subsidies, FARMING (see Chapter 2) helped a number of member fishers to obtain engines at a low interest rate and with a generously slow repayment schedule. The newly acquired motorised boats made it easier for many fishers to travel to more distant fishing grounds and this project helped to some extent to counter the fishers’ resistance to the MPA. I partially effective was only partially effective, however, because most net fishers already had motorised boats well before the program was initiated. This meant that it mainly benefited fishers who were already engaged in fishing away from Granada coastal waters or non-fishers who saw it as a good opportunity to take up fishing.

While villagers’ attitudes towards the MPA were divided, there seemed to be a coherent resistance across the subgroups within the village towards politicians’ emerging attitude of favouring tourism over fishing. My survey results indicate that while most of the villagers support tourism development for mostly economic reasons, they oppose the proposal that a portion of Cayangan Reef serve tourists rather than local fishers. Undoubtedly, fishers – regardless of fishing method – disagreed violently because the MPAs started taking up too much of their limited fishing space. It was explained by one offshore hook-and-line fisher who supports the original MPA but not the new one that even though it would not affect him much,
he felt sorry (*looy*) for the net fishers, because the municipality was unjustifiably harassing the poor by taking the sea away from them.

As a result, the original MPA established at Tinaw-gan Reef is still in existence (at least it was in October 2008 when I last visited Granada), however the new MPA, which was to be established at Cayangan Reef has, in fact, not been implemented at all. The explanation for this was that virtually no tourist divers came to dive in this area, probably because of the combination of the difficulty of access from the large cities, the absence of locally operated fully-equipped dive shops, the lack of publicity, the fact that no significant attractions make this site stand out from other ones and also because of the comparatively higher diving fees. For this reason, despite the municipality's enthusiasm in developing marine tourism, the number of tourists using the MPA was said to be minimal and no considerable revenue was made for the municipality or the *barangay*. Likewise, although investors had ongoing plans for establishing beach resorts along the coast of Granada, there were only a few Granada villagers employed for short-term construction works at the time of the research.

**Power Struggle and Resignation**

The establishment process of the MPA in Granada, accompanied as it was by discourses shifting between on the one hand conservation for the protection of fishers' livelihood and on the other hand conservation for the provision of better tourist attractions, raises a number of issues regarding the participation of fishers in the project. In fact, fishers' participation in the planning of the MPA was limited. In the case of the original MPA, villagers were given several occasions to express their opinions to the municipality but they were told that the establishment of an MPA in their vicinity had already been mandated. This meant that the degree of their participation was limited to the mere selection between two alternative candidate reef sites. Villages were never given the chance to discuss among themselves what problems they would face or how the establishment of an MPA would benefit them. Instead, their acceptance of the project was compelled and their discussion limited to which site would do them less harm. The case of the new MPA was even worse in this regard. Throughout the planning stage and prior to
the public hearing there was no formal consultation or meeting held by the municipality to involve the fishers or village representatives. The MFARMC, the only channel guaranteed by law to let the voices of small-scale fishers be heard, was never assembled. Everything was decided at the municipal level and finally, the public hearing, to which only village councillors — and not the villagers themselves — were officially invited, was seen as a mere formality, all decisions having already been taken.

This could have been foreseen. Fishers do not feel comfortable putting forth their own opinions and disagreeing with politicians in public meetings, especially in the presence of local political leaders. As one barangay councillor said, they feel intimidated as there is a glaring difference in power because of differing social status. In the presence of these politicians who are far wealthier and more educated than themselves, fishers feel unable to say honestly what they believe when this means speaking against the politicians. The MAO officers gave this as a major reason why the MFARMC does not work in Boljoon and there is no reason for enforcing it when it would end up being a mere façade of community involvement in decision making. Abrupt confrontation with rich and powerful politicians is something that small-scale fishers desperately avoid. Building and maintaining vertical alliances with the powerful local elite is an important aspect of everyday politics for poor Filipinos in order to make their lives more secure (Kerkvliet 1990). Granada fishers fear that any public display of feelings against these politicians would affect the future granting of potential ‘favours’ when they might be needed, or might even lead to direct harassment. Indeed, participation of fishers in these meetings was largely a managerial technique to produce what could then be called ‘consensus’ (Brosius and Russell 2003: 43)

Even those limited opportunities for discussion which were provided by the state were poorly attended. Many fishers countered the perceived unfairness by refusing to attend these meetings. Many remembered that the preparatory meetings for the original MPA were mostly attended by female villagers with an exceptionally low number of fishers. The fishers claimed that their absence was due to the fact that the meetings were held at inconvenient times for them,
so they sent their wives, or that they simply did not know about the meetings. These views were
contradicted by one of the fishers who did not attend the meeting and said, ‘possibly some
fishers were busy with work but from what I know, most of them weren’t’. The fisher told me
that they purposely did not go to the meeting because they did not like having an MPA in this
barangay and they were showing their disapproval by boycotting.

People felt a sense of resignation in the face of what they perceived as ‘politics-as-usual’
unfairness (Eder 2005: 165) on the part of municipal councillors and officers who were
inflexible and unaffected by this threat to the fishers’ livelihood. Many fishers commented that
it was not fair for the municipality to prevent struggling fishers from feeding their families,
when people in the municipal government can earn enough salary to feed their family by just
sitting around. The establishment of the MPA was, for them, an unjustifiable interference by
those who can always eat in the lives of those who sometimes cannot. They felt that this was
unfair but recognised that they had no means of influencing the municipality’s decisions. An
incident involving a Catholic priest who ran a retreat house in front of Arbor MPA and who
successfully avoided the payment of the MPA users’ fee to which his guests were subject
illustrated the plight of the fishers. Claiming it as an arbitrary exercise of police and taxation
power, the man filed a case against the municipality in the regional court. Though the
municipality was confident that they had a strong case, in the end they gave in and suggested a
compromise token fee because a lengthy trial would delay the fee collection and some
politicians were reluctant to take a clergymen to court. Fishers knew that they could never
obtain this kind of compromise. The municipality’s attitude of cracking down on ‘little people’
while allowing the ‘big people’ to get away (Eder 2008: 110) did not come as a surprise for
fishers but rather re-affirmed their feelings of powerlessness and showed that the usual power
rules applied in the case of the MPA.

The fishers’ reluctance to participate in the meetings depended upon the perceived – and real
– difference in local politics between those who possess power and those who do not. ‘What can
we do about it? If the municipality wanted to put the sanctuary there, it is already there. They
would do it wether we liked it or not.’ This statement by one elderly woman represents many villagers’ views about the municipality’s imposition of the MPA and their own inability to change what the municipality wants to do. Before a fait accompli, many villagers choose to be ‘law abiding’, follow the others and, at least on the surface, agree with what the municipality has decided. Similarly, when the politicians’ discourse shifted towards tourism development, the fishers knew there was nothing they could do, so instead of fighting it, they chose to support the tourism development in order to get something out of it even though the promised resource recovery would not help their livelihood. In a sense, the growing acceptance of the MPA among fishers was a representation of a widely-held sense of resignation about politics and scepticism about any benefit to their fishing. This seemingly contradictory response made sense because of the fishers’ bleak outlook on the future state of marine resources and their lack of control over regulations imposed upon their livelihood.

**Conclusion**

The chapter examined the process of MPA establishment and shifting discourses of local politicians as to why MPAs are required in the coastal waters. It also examined how participation of small-scale fishers was taken into account during the process and how that affected the formulation of their attitudes towards MPAs. The chapter revealed that the process of MPA establishment was characterised by very weak participation of resource users in the decision-making process. Even when opportunities were given to them, resource users found it unrealistic to discuss issues freely and even chose to boycott their participation in largely polarised power relations between powerful politicians and powerless resource users. With limited opportunities for meaningful participation by the villagers, the strong emphasis on the MPA for the fishers has gradually changed to stronger emphasis on tourism development which came along with encouragement of the NGO workers and a province-wide tourism campaign.

Despite the strong aversion which arose from the perceived unequal sharing of the ‘burdens of conservation’ (Eder 2005), resignation in the face of this power struggle drove resource users, favourably in some case, tentatively or even just ostensibly in others, to accept the MPA. Over
time it has gained gradual acceptance among the affected resource users, although this is based on the belief that the government’s registration of the MPA will not be affected by resource users. Also notably, resource recovery is mostly appreciated by fishers only for the sake of tourism potential, not for its positive effect on fishing as yet. The politicians’ stronger emphasis on tourism development began to be more acceptable for resource users in a more realistic sense in the course of MPA management. The MPA is seemingly successfully managed with a certain level of acceptance from resource users, however the chapter also illustrated that resource users’ acceptance of further MPAs should not be taken for granted.
Chapter Five

Negotiating MPA Management

Chapter 4 examined the ways in which the municipality pushed through the establishment of the MPA in Granada. The MPA planning process had allowed only limited participation on the part of the resource users and they largely felt excluded, believing that their opinions and ideas would have little or no influence on the decision-making process at the municipal level. During the establishment process the tourism aspect of the MPAs in Boljoon was coming more and more to the fore, some resource users were becoming more in favour of the conservation value and others were simply resigned to their existence, adopting an attitude of passive acceptance because of their feelings of powerlessness. This was only the beginning of the story, however. Chapter 5 now looks at the way in which the MPA was actually managed once it had been established, at the interactions between politicians, fishers and non-fishing villagers and at how all of this was reflected in villagers’ and fishers’ use of resources.

MPA Management: Theory and Practice

As one might expect, things often do not function in reality the way they are intended to in theory and there are a number of reasons for this. Protected areas in general are vulnerable because of what Carrier (1998) calls their ‘virtualism’. The abstraction of the social complexity which is used in the course of the decision-making process and the model which this abstraction produces often reflect only in a very limited way people’s actual activities, practices and lives (West and Brockington 2006: 609-610). Through this almost inevitable process of simplification, any legal mechanism, policy or programs are likely to encounter serious difficulties in their implementation (e.g. Li 2002: 266). This point is also valid in the cases of MPA management in the Philippines (Christie 2004) and elsewhere (e.g. Charles and Wilson 2009) and MPA management in Granada is no exception. As will be seen, due to the somewhat naive logic
behind the MPA initiative, the expected active cooperation of 'docile' resource users who had been gradually educated to understand the purpose of the project did not, in fact, eventuate.

Another reason why the practice often differs from the theory and problems often arise during the actual implementation and management of MPAs is that the study of MPAs has traditionally been dominated by a focus on their biological significance (Christie 2004: 155). A number of social scientists have advocated, instead, that more attention be paid to the human dimension of MPAs (e.g. Mascia 2004; Charles and Wilson 2009). These studies call for a thorough examination of the diverse local contexts in order to make the theory better match the reality. In response to advocacy for a greater application of the social sciences to MPA studies, there has been a growing number of studies focusing on the issues concerning institutional arrangements and participation in the design and planning of MPAs (e.g. Pollnac, Crawford et al. 2001; Oracion, Miller et al. 2005). One way of doing this is to begin with a detailed description and analysis of how socially constructed rules and regulations concerning MPAs can be negotiated in a culturally informed manner on the ground during the course of the implementation. There can be many reasons for an MPA to fail and, in fact, this has happened frequently in the Philippines, but if a certain level of solidarity can be established and maintained among the stakeholders, there is a far better chance for success. Thus a closer examination of the gap between the plan and the reality from the point of view of the stakeholders themselves is a necessary task for study.

The implementation of the MPAs in Granada illustrates how, although all stakeholders could benefit from the MPA, their competing interests needed to be coordinated. The NGO strongly favoured participation of local resource users in MPA management. Persuading these resource users was the task of the politicians, who, leaving aside any judgement on their methods for achieving this, seemed to sincerely, if naively, believe in the benefits of the MPA. Lacking favourable data to persuade the fishers, they lured them with rhetoric, but the provision of sound explanations would have been necessary in order to link the idea of a successful MPA with the image of competent, moral and trustworthy politicians (see Oracion 2006 for the case in Dauin).
Resource users benefited from the municipality’s motorization program which had been initiated because of the MPA and it was expected that tourism development would increase both work opportunities as well as barangay revenue. A small increase in fish production was also expected. Thus, even despite the uneven power relationships, cooperation in the maintenance of the MPA began to be seen as beneficial for all the people in Granada. The potential benefits were interpreted in different ways, however, and the focus of stakeholders began to centre not on harmonising their different interests, but rather on negotiating outcomes more in harmony with their own interests.

These attempts to modify MPA management in terms of access and control according to the best interest of each group of stakeholders were not negotiated explicitly however. The process took place as part of daily life and interaction with the marine resources and was not always cooperative or peaceful. There were certainly times when stakeholders’ conflicting claims clashed and caused management problems. This chapter focuses on how such problems between the municipality’s policy and people’s everyday interaction with the marine resources emerged and how they shaped actual MPA management within the context of an uneven power distribution among the stakeholders. In particular, the chapter will examine the stakeholders’ manipulative negotiations aimed at adjusting the MPA to meet their own interests.

This chapter will follow a similar line of argument to Li (1999) who used the concept of ‘culturally intimate everyday negotiation’ in her analysis of how a poorly designed, ambiguous and contradicting Indonesian resettlement program for ‘primitive’ ethnic minorities was implemented through compromise between the government agency and project recipients. Critical of a Foucauldian understanding of governmentality for focussing only on the process of establishment of power from above, she argues that the understandings and practices carried out in contingent spaces for compromise are of more significance in actually accomplishing this than the imposition of a development scheme or other forms of disciplinary power from above. According to her, these compromises are neither an ad hoc intervention of strategic actors, nor planned action. Rather, she sees them as ‘the unintended outcome of culturally informed action,
the result of people's intimate knowledge of their own state system, which includes knowledge of "how to go on" in a variety of contexts, including when up against a problematic plan or rule (ibid: 315). Li argues further that compromise facilitates the longevity and a certain level of 'success' of the project. In this, despite there being gaps and imperfections in the project, such compromise enables stakeholders to manoeuvre in accord with the conditions they are faced with and also in accord with 'culturally intimate forms of engagement'. According to Li, in order to examine how compromise comes about during the implementation process of a project, it is necessary to examine how the objectives of the project are implemented, what the interaction is between officials and clients, what deviations there are from the plan, and what the level of enforcement is.

Her focus on negotiation as an apparatus to transform the project, and which inherently incorporates problems between plan and delivery, is useful in examining the MPA implantation in Granada. Her argument invites the question of how, in regard to the MPA, the fragile legitimacy of the municipality and the NGO as 'knowers' was redeemed in practice, and in turn, how the resource users responded to the municipality's attempt to constitute them as governable subjects. Through the focus of culturally intimate compromise, these questions will lead to the main subject of the chapter, namely, how the MPA was actually managed.

In enquiring as to how MPAs are managed in practice, particularly among fishers, an ethnographic approach involving long-term observation is useful because of its sensitivity. Understanding the actual practice of MPA management is not easy, however, as activities are often masked and stories are often not told. In Granada for example, though many were aware that there was some poaching in the MPA and these stories would occasionally appear in conversation, they would often be cloaked in ambiguity and obfuscation. As any use of the MPA area infringes the formal regulations, it is not surprising that violators hesitate to speak freely about their activities even in the most private settings. Flaunting breaches of the law is usually avoided because of the risk of expensive fines or even imprisonment, but this attitude was not limited only to the actual violators but others were also generally reluctant to detail such
activities. The fact that poaching usually takes place in the dark in order to avoid public notice also helped keep the detailed stories hidden. In short, these ‘protest’ activities were not immediately apparent and an understanding of the way they affect MPA management requires extended observation of both action and discourse and these must be seen as highly contextualised with socio-political and cultural factors (Christie, McCay et al. 2003; Christie 2005).

The present analysis will focus on two spheres of MPA management. First, the manoeuvres of the municipal government and the NGO workers during the annual MPA monitoring activity aimed at legitimising the MPA will be explained. Politicians and NGO workers used the scientific data as a tool to legitimise their ongoing commitment to pursuing the MPA while effectively dismissing any unfavourable data. At the same time, pseudo-scientific discourse was used in promoting and strengthening public support for the MPA. The next section will focus on those fishers who were well informed and provided with good scientific knowledge. While they largely agreed that the MPA’s effect on resource recovery was positive and that they could continue to live with it, they also negotiated to make it conform to their best interests. For example, MPA guards, protesting against the municipality’s idealistic approach, boycotted their responsibilities and clandestinely allowed certain fishing methods to be used inside the area. These activities were never reported to the municipality either by the guards or by others, and when some poachers were, in fact, apprehended, the municipality avoided the application of any harsh punishment. Except for the one example which was collected in the neighbouring municipality of Alcoy and with which the following section begins, all ethnographic material was collected in Boljoon.

**Planners’ Effort to Build Legitimacy**

There was a discussion between the mayor of Alcoy and NGO workers at the annual biophysical monitoring activity which took place in March 2007. The monitoring activity was organised by the NGO’s research team, which consisted of marine biologists in collaboration with the municipality, and members of the fishers’ organisation. During this discussion, NGO
workers took the initiative of involving local volunteer fishers in the underwater survey in order to enhance ecological awareness while gathering the data. This monitoring activity was important in order for everyone involved in the MPA management to be aware of any changes in its ecological status (Stepath 2000). In addition, it enabled those involved to gain or improve pragmatic knowledge of monitoring techniques in order to enable them to continue autonomous monitoring activity after the planned withdrawal of the NGO from the MPA project.

As part of the routine activity, the NGO workers provided a seminar at the MPA guard house in barangay Daan-lunsod, where one MPA is located, in order to review all the resultant data as well as previous data. At this meeting, I counted more than 30 people in attendance, including NGO workers, local fishers, municipal officers, municipal councillors and the mayor. This meeting, where virtually all representatives of most stakeholder groups (apart from the tourism sector) came together, provided the venue for both the municipality and the NGO to reinforce the legitimacy of their roles in maintaining the MPA. At the seminar, an NGO worker began by presenting a review of previous data regarding substrate cover, comparing the same monitoring in 2006 with the data from monitoring in 2005, results which had already been processed. Many figures were printed on the blackboard and an overview of the change, with particular attention to the condition of hard corals as an important indicator, was given. Known to be active and committed to the promotion of coastal resource management in his town, the mayor sat close to the black board, earnestly comparing the data and listening to the NGO’s interpretation. When the presenter had finished this briefing and the next presenter was just about to begin his talk, the mayor raised a question. He had seen what appeared to him a paradoxical result. According to the data, inside the MPA, the number of hard coral decreased slightly and the number of non-living organisms – most likely bleached coral which had recently died – increased, whereas outside the MPA, hard coral increased dramatically and non-living organisms decreased. How could the unprotected area show improvement in hard coral while the protected area showed degradation? This is in complete contradiction to the rationale of having an MPA and needed to be explained. The mayor asked what the change was in the hard coral coverage rate inside the
MPA between 2004 and 2005. The presenter replied that it was from 58% to 47%\(^{44}\) and repeatedly emphasised that 'it's only a little' and 'it is not significant'.

As discussion continued, the mayor addressed the importance of having scientific data to demonstrate a steady improvement of marine habitat as this is what underpinned the rationale behind the establishment of an MPA. As the figures presented indicated that the decreased hard coral had somehow been added to the category of 'non-living organisms', the mayor continued, 'We will be using the data that you presented to look into measures for what to do. We want to find out the root cause for reduction of the hard coral...So what caused the death of the hard coral?' This was also a puzzling result for the NGO presenters as a number of causes needed to be considered and no explanation was readily available. In the end, they insisted that it must be the effect of a sampling error. 'In my opinion I will conclude that it's the placement of the transect\(^{45}\), said a presenter and suggested that the inconsistent sampling of the substrate was the cause of this contradiction. In his explanation, he also suggested that the data from this method could be misleading due to the difference in observers' ability and subjectivity, prompting the mayor to let go of the issue with the comment, 'OK, if it's just the error then'. In the dialogue between the mayor and the NGO workers an unscientific biased approach seems to have been taken to the scientific data. The unwelcome gap in data which appears to conflict with what it is supposed to show was repeatedly minimised as insignificant or trifling in the overall picture of the MPA. In other words, data showing that the ecological status of the MPA was getting worse rather than better was automatically considered to be inaccurate due to variables such as technical difficulties, which are hard to control. However such difficulties were never raised in regard to data which gave 'good' results, that is, results which would sustain the importance of the MPA.

\(^{44}\) This was not correctly presented since 58% is the data of 3-4m depth (snorkel) in 2004, whereas 47% was the number from 7-9m depth (scuba) in 2005. The correct number was 34% in this comparison.

\(^{45}\) In the monitoring activity, the NGO uses a point intercept method in which surveyors basically record the type and quantity of substrate and fish that they observe at each 25cm interval for 3 to 5 replicate 50m transect lines (Apistar, Maypa et al. 2008).
Western scientific knowledge is often perceived as a symbol of modernity and it is closely associated with symbolic power in some non-western societies (e.g. Pigg 1996). The modern and high status associated with science gives more credence to scientifically produced data aimed at persuading fishers to cooperate in the management of MPAs (Walley 2002) and this was evident in the seminar. The data had to be interpreted in such a way as to conform to the foundation on which the legitimacy of the authorities rested. When the presenter was bewildered at the mayor’s persistent questioning which he was unable to answer, he tried to shift the discussion away to a more positive issue about how the fishers’ organization in Alcoy was actively engaging with the MPA. This made the mayor somewhat uncomfortable and caused him to explain his expectation regarding MPA monitoring. ‘But we are really after the result too’, said the mayor, and he questioned the point of having an MPA which is well organised but where there is no strong indication of resource recovery. He asserted that what the politicians need is both good organization and also results.

The mayor stressed that it was important to be objective about the MPA’s benefits for the people. Rhetoric was not sufficient. The mayor stated that they keep on saying to people that the MPA is for their own benefit, but that if the spill-over effect of the MPA is not as strong as had been promised and years later fishers start protesting against the continuing of the MPA, there must be objective facts to convince them. ‘Every afternoon, there are many fish sold at the market in Alcoy, which wasn’t the case before. But how can you prove these fish are from the MPA? We cannot, unless we have the hard data’, said the mayor. This notion of how scientific data is a requisite component of their legitimacy for keeping the MPA was echoed by politicians in Boljoon. When I had a discussion with a municipal councillor there, he explained that supporting scientific data is ‘very important so that people will have eagerness to protect’ and the absence of it may have a negative impact on MPA management. ‘That’s our reference specifically during our speeches and conversations’, said the councillor, and without such back-up, he indicated, they would lose their credibility.
An important aspect of MPA monitoring activity is the effective diffusion of data to the wide audience of stakeholders, but this is not as straightforward as it might seem. Some of the information presented at the seminar by NGO members (and its utilization in politicians’ narratives) is a product of carefully collected data. Despite some limitations or discrepancies in the collection methods, it is a genuine result and intended to be scientifically sound, but as we have seen above, bias often entered into the interpretation of this data. There was, however, yet another set of data which was also presented as ostensibly scientifically sound and it also played an important role in the MPA monitoring activity. This is the data which was produced by the fishers themselves during the collaborative data collection activity. For the former set of data, the NGO workers who are trained as marine biologists and experienced scuba divers, monitor marine life at the 7 to 9 metre deep substrate by scuba diving. This enables them to closely observe and carefully count and allows increased accuracy in data collection. On the other hand, for the latter set of data, volunteer fishers equipped only with goggles attempt the same task but by swimming in the shallower water at a depth of 3 to 4 metres. Though these fishers are usually brilliant swimmers, their physical capacity can easily interfere with the accuracy of their data collection. Another issue is a strong bias on the part of fishers who have been told over and over that inside the MPA the reef is in better condition and there are more fish. For these reasons, it is questionable whether the level of accuracy is as high as that of the NGO workers. This preconceived idea, as some NGO workers among others, have admitted, often leads to a somewhat distorted image of the MPA with overly positive data from the area which is expected to be good.

Because of scepticism about the objectivity of the fishers’ data, and the sufficiency of the data supplied by the NGO workers themselves, the former is not included in the data analysis for the formal report on the MPA’s status. As one NGO worker stated, involving the fishers in monitoring is ‘one way of having them [fishers] look at the sanctuary and having them experience how it feels to monitor’. The collected data is basically for their own use. The involvement of the fishers in the monitoring activity primarily serves to train fishers so they will
be able to conduct the monitoring by themselves after the withdrawal of the NGO. Accumulation of the time-series data through continuous periodic collection by the fishers would provide useful information to assess the status of the MPA as a baseline for analysis and, in fact, considering the favourable bias in the data collected by them, which often represented an enhanced version of what the status of the MPA really was, could have a value in disseminating a positive image of the MPA to fishers and others in the village greater than its value as a knowledge base. Since MPAs are entirely closed down, monitoring activity is the only occasion that fishers get to observe its status directly. Fishers have as their reference point degraded unprotected reefs, so undisturbed protected reefs, which are naturally in better condition and have more abundant fish, impress fishers and it strengthens their faith in the positive effects of the MPA. Indeed, this direct experience of the MPA is one of the most important purposes for involving the fishers in the monitoring activity.

Although the number of fishers volunteering to do the monitoring was small, these fishers turned out to be powerful local publicists for the dissemination of positive information about the MPA through the networks of their friends and families. Given that most villagers retain a high interest in the performance of the MPA, whether from a positive or a critical perspective, this has worked quite effectively. Numerous interviews with villagers confirmed that their perception of the MPA showing clear signs of resource recovery was largely based on the stories that they had heard from these fishers, either directly or indirectly. It was observed that upon their return to the village, the volunteer fishers were frequently asked about their findings during the monitoring. Their responses stressed the abundance of fish species and the large size of the fish not often seen outside the MPA, the good reef condition, and even the existence of seemingly tame fish unafraid of people. All of this was seen as signs of the positive effects of the MPA.

In addition to this informal diffusion of information, an abundance of ostensibly scientific – and therefore powerful – data was supplied at the seminar on monitoring day, as we have seen. Then, NGO workers encouraged fishers to organise and evaluate the data which they had
collected. This was part of the NGO program to teach fishers the data-analysis skills, but it also functioned as a way to add the power of scientific objectivity to what these fishers had intuitively felt about their own data. Working together with the fishers, NGO members assisted them in analysing the data, giving advice about constructing the table and visualising the results. Gentle corrections were made along the way in order to encourage their learning. The results were neatly plotted on manila paper and data was processed to compare the differences between conditions inside and outside the MPA.

Dialogues between an NGO worker and volunteer fishers during the data-processing activity in Boljoon in October 2008 was evidence of the bilateral character of this activity. An NGO worker reviewed the important points by involving fishers in discussion. ‘So, seeing the data that you collected, the transects done inside the MPA show larger number and variety of fish than the transects done outside the MPA, don’t they?’ the NGO worker asked the volunteer fishers. ‘Yes indeed, so much more’, replied one young fisher. ‘What if your neighbours ask you what the purpose of the MPA is?’ an NGO worker asked. Then, answering his own question, continued ‘there are more fish inside than outside, aren’t there?’ Fishers agreed and several recited almost simultaneously, ‘there are more fish inside than outside indeed’. ‘Why is that?’ asked the NGO worker and one of them replied ‘because…outside area is open for fishing and lak-lak [a method to drive the fish which often breaks coral] is always used’. The NGO worker then turned the explanation to the area outside the MPA where fewer fish were recorded. ‘They are always being a place for lak-lak so there are much less fish’, added a fisher as he looked at the charts he had just drawn. ‘It’s so clear isn’t it?’ added the NGO worker as he concluded by saying that they should share this with other people so that they will be more willing to protect the MPA.

The NGO’s informal approach to information dissemination was also done in very indirect and seemingly more spontaneous way without clearly mentioning their objectives. After each dive for data collection, NGO workers would always talk about their findings in the deeper water where the fishers had not gone, and these conversations would often involve volunteer
fishers as well. One NGO worker told me ‘[W]e also talk to them [fishers] like “Oh my God, I saw a big...blah blah blah”’, and explained that using the occasional exaggeration caused volunteer fishers to show keen interest when stories indicating the abundance of fish stock were told. So much so that NGO workers preferred to keep the actual monitoring to a minimal number of hours in a day in order to leave more time to engage the fishers in conversation. Some NGO workers even tried to familiarise the volunteer fishers with the technical terms and fish names in English whenever possible so that these fishers would better comprehend the conversation of NGO workers. These stories are commonly retold by the volunteer fishers and shared with other curious villagers. The occasional use of unfamiliar technical terms in English in their narratives is enough to impress others with their knowledge and increases the credibility of their explanations.

The uncertainty of the supporting data tended to undermine the legitimacy of both the municipality’s and the NGO’s continuing support for the MPA. Nevertheless, politicians needed scientific verification of constant improvement in order to legitimise their enthusiasm for the MPA. This caused them to sometimes manipulate data or simply not to publicise it at all when it was unfavourable, in exactly the same way that had occurred in Alcoy. The informal channels were also used to disseminate a positive image of the MPA and they contributed to gathering greater support for the MPA among the wider public. The improved condition of the MPA area was systematically articulated in both formal and casual settings to persuade fishers to continue and even strengthen their support. As often appears in the narrative of planners, these practices come down to nurturing the sense of ownership (White, Courtney et al. 2002: 15) in the hope that the MPA will be managed more autonomously so that the legitimacy of the municipality’s support would not be a matter at issue. As the result of all of this, many villagers, including fishers, grew more and more convinced of the MPA’s positive effect on resources. Although there remained a group of net fishers who were distrustful, the aim of the municipality and the NGO workers of dissipating the initial scepticism towards the MPA on the part of the public at large was succeeding. This did not mean, however, that fishers had become amenable and were
complying with the rules and regulations which had been imposed. As we shall see, despite their belief in the MPA, fishers negotiated to keep the MPA management flexible and accommodating to their livelihood. In doing so, the fishers were protesting against the monolithic and idealistic logic of MPA management which had been presented by the municipality in regard to both the guarding and the ‘use’ of the MPA.

Plate 5-1: Volunteer fishers listening to the NGO worker’s explanation before the MPA monitoring

Guarding the MPA

Defining who is responsible for guarding the MPA and under what conditions has always been a sensitive issue in Granada. The reasoning of the municipality is that the MPA should be guarded by locals since they are its major beneficiaries and that this should be done without any financial incentive but because of the labour-intensity necessary to be at the guard house and to do the surveillance, it was not easy to establish a systematic and functional guard system on a voluntary basis. This situation led to an unclear system of shared responsibility. Formally, the primary responsibility for guarding the MPA fell to the FARMING (Fish and Aquatic Resource Managers in North Granada) organization. It was intended that this organization take
responsibility for this, and the provision of boat motors was used as an incentive in order to achieve this. This did not occur, however, and the organisation's activities never went beyond its boat motorisation program, at least during the time of my fieldwork. Guarding was then done on a voluntarily basis by four villagers who were members of SWAB (Sea Warden's Association of Boljoon), an organisation which had previously been mandated to guard municipal waters from illegal fishing. This disorganised and unsystematic way of guarding the MPA, with no clear rules or precise duties, allowed only cursory guarding; and the subsequent temporary inactivation of the SWAB cast a shadow over that option as well. The absence of mutually agreed and feasible arrangements led to a situation where no one was taking full responsibility for MPA surveillance.

To counter this, in early 2006 the barangay captain, Ernesto Mercado, took the initiative of mobilising barangay councillors and barangay tanods (village guards) members to guard the MPA. Guarding was done in two-person shifts, with one councillor and one tanod on duty for each, and giving priority for female members to take the day-time shift. Since the probability of poaching was higher in the dark, the night-time shift, from 7 p.m. to 5 a.m., was more important. Throughout the night, guards were supposed to patrol the MPA using strong flashlights and taking turns sleeping. Punitive measures were put in place – a fine of 100 pesos for a councillor and 50 pesos for a tanod if found to be in dereliction of duty – in order to ensure that the job was done properly. This harsh and burdensome regime was not well accepted by the barangay councillors and tanods. When I spoke to Juan – who was a councillor and also a fisher – about his guarding activities, he complained about what hard work it was being up most of the night, especially after they were already tired from fishing or other work during the day. Though it was said that the night shift would be assigned only once a week, there were times when he had to do two nights in a row. This night-time burden also affected Juan and others who, like him, fish in late evening and early morning. Some barangay tanod told me that he was strategic about the way he chose to skip his shift in order to go fishing because he expected that the catch would easily pay off the 50 pesos that he would have to pay as a fine.
The difficult task accentuated the guards' underlying, if unspoken, question: who were they guarding it for? Quite apart from the actual workload and the burden which they had to share, there were several other contentious issues regarding the municipality's MPA management arrangements. The most controversial issue was the demand for some reasonable remuneration for their guard work. Despite the difficulties and the onerousness of the task, guards had never received any payment. Information that MPA guards in a neighbouring town were receiving 1,200 pesos made them even angrier. An officer from the Municipal Agricultural Office (MAO) explained that the reason why the MPA guards should not be paid was because the municipal government encouraged local autonomy and also that the municipality was under tight budgetary constraints. He said that the provision of a financial incentive was not a good idea because then, people might only do the task as long as payment was involved; and since it was uncertain whether the provision of such a reward could be maintained, that could jeopardise the whole program of autonomous management.

The guards were also very annoyed by the municipality's disregard of their hard work and their refusal to show gratitude even in small ways such as the provision of an occasional snack or hot drink. Such conduct frequently came up in the guards' narratives. 'No coffee, no bread, and no cigarettes', Juan and another barangay councillor said in disgust and told me it was very discouraging that they had to prepare bread and instant coffee in a thermos bottle at their own expense when they were on duty. These expenses were not negligible for small-scale fishers to pay out of their own pockets. Perhaps it could be done in the short term, but when it went on and on the guards would ask themselves how much this would cost in a year. Not only, but in Philippine society, gestures of gratitude are normally an integral part of any good relationship. Provision of snacks is one very common and frequent example of such behaviour and it normally plays a key role in reflecting a person's 'consideration' and 'respect' (Kerkvliet 1990: 150). The guards felt that perhaps the payment of an honorarium might have to be delayed but that the municipality should at least treat them to snacks and hot drinks in recognition of the
sacrifices that the guards made. The municipality’s failure to acknowledging their efforts was seen as disrespectful.

This situation led the guards to be uninterested in guarding the MPA, and one incident was the final straw which led Ernesto to take the initiative of abandoning his responsibility for daily surveillance. In September 2006, an associate of the MAO who happened to be passing by Granada witnessed Ernesto and his protégés (bata-bata) inside the MPA engaged in some suspicious activity and he reported this to the MAO. Ernesto was summoned to the office and accused of illegally entering the MPA and poaching a giant clam (takobo), which was allegedly offered for the mayor’s birthday party held on that evening. Ernesto denied the allegation and claimed that he had purchased the clam elsewhere and had simply left it in the MPA to grow bigger and now he had taken it back from the MPA. Though the MAO could not find out what really was the case, this incident motivated Ernesto not to cooperate with the municipal government in guarding the MPA. A few days after being questioned, Ernesto called the other guards and informed them that he was no longer interested in continuing this activity. The guards, who had been unhappy with the arrangement and the municipality’s treatment of them, unanimously supported Ernesto’s decision. They chose to stop paying the electricity bill at the guard house and soon the supply was disrupted. Once again, the MPA lost its guard system. Eventually, this situation forced the municipality to change their stance on giving remuneration. In early 2008, the municipality decided to compromise and formally organise the guarding system with payment of an honorarium of 500 pesos a month for each guard. Three new guards were officially assigned, two of whom – Ernesto and another fisher who resides close to the MPA and is reputed to be an active MPA supporter – had been guards previously.

This story is a good illustration of how failure to adequately examine the diverse local contexts in order to make the theory better match the reality can contribute to a failure in MPA management. According to the municipality’s idealistic reasoning, the MPA should be guarded autonomously by the villagers because it was they who stood to benefit most from the MPA. Accordingly, they attempted to nurture a sense of ownership and refrained from giving financial
incentives to the guards. Despite villagers' appreciation of the positive effects of resource recovery in the MPA, these attempts were not successful and considering the design and planning process of the MPA seen in the previous chapter, this is hardly surprising. Villagers lost interest in voluntarily guarding what had been imposed upon them. In the end, in order to manage the MPA effectively and achieve its conservation goal, the municipality had no choice but to compromise and give in to the villagers' claim.

Plate 5-2: The MPA guard house in Granada.

**Fishing inside the MPA**

Both the municipality and the NGO were strongly committed to keeping the MPA intact and safe from intrusion or any other illegal activities. All parties believed in a strict application of the no-take rule because without human interference, the marine life should recover from damage done by both anthropogenic and natural causes and this was thought to be important not only because of general concern for the sustainability of small-scale fishers' livelihoods or even because of the general value of conservation, but also because protected marine life was seen as a valuable commodity for tourism. The existence of an interesting and rich marine environment is clearly an important attribute which the municipality saw would attract more tourists and
make this area competitive with other tourist locations. Poaching inside the MPA, which may degrade the marine habitat, obviously runs counter to this view.

Although fishers were sympathetic to the conservation value of MPAs, this was due less to their appreciation of the value of conservation itself than to perceived economic advantages to their livelihood (Pollnac, Crawford et al. 2001). The spill-over effect from the MPA was the main benefit which was expected to fulfil this purpose. When this process requires a long time (Russ and Alcala 1996) and often occurs in a limited way), however this crucial feature of the MPA is a hard one to demonstrate. In contrast to the general perception, the fishers who were engaged in coastal fishing near the MPA seldom saw any positive change in their catch. This led to fishers starting to engage in some fishing activities inside the area, and claiming legitimacy for doing so. Scoopnet (sikpaw or sapyaw) was the method which they used. Scoopnet fishing, as practiced in the village, employs a 4 to 5 metre long bag-shaped net with relatively wide opening attached to a long handle of about 4 metres. It is a seasonal fishing method which is engaged in only in nearshore waters and in the evening. The net is used to scoop up a school of juvenile fish, mainly sardine and herring attracted by a kerosene lamp (petromax) (for more detail description, see Appendix I). It is one of the most widely used methods among both net and hook-and-line fishers in Granada.

The position of the scoopnet in relation to the MPA seemed to have changed over time. Scoopnet fishing was evidently not tolerated when the MPA was first established. Not long afterwards there were several cases of illegal poaching, including the use of scoopnets, which were reported to the municipality and this resulted in severe warnings. Over time, however, the regulation of this method became less strict. In fact, on several occasions I witnessed up to 10 small lights at a time floating in the dark, unmistakably close enough to cross the boundaries of the MPA. The use of scoopnet inside the MPA was common knowledge, though rarely spoken about.

Though there was no doubt that according to the rules this was an illegitimate activity, fishers claimed that they were not violating the fundamental principles of the MPA. Recalling
how he was caught for using a scoopnet inside the MPA in its early days, Jose’s resentment was obvious as he questioned, ‘how could my *sikpaw* affect the sanctuary?’ He gave two reasons why he believed that his scoopnet did not go counter to the idea of the MPA. Understanding that the MPA was to protect the reef and fish inside, he argued that species such as juvenile sardines (*kalampute*) are always swimming around the boundaries. On many occasions, he had to give up chasing them because they simply fled into the MPA, ‘as if they know the area is safe’. He saw this species as important for his fishing but explained that it was rarely discussed in relation to MPA management. While people often mention species like snapper, grouper and parrotfish, species such as sardine, which are fast growing, reproduce copiously and are thus more resilient, were rarely mentioned. His second reason regarded the way in which this fishing method operates. Because fish are attracted to the light, they are lured close to the surface of the water and they are captured there. This operation usually does not involve any damage to the reef as it only targets ‘fish in superficial water (*isda sa mabaw*)’, not demersal fish (*isda sa bato*). Unlike other methods which target the latter, he argued that scoopnet does no harm to the reef or the ‘important’ fish.

This does not mean, however, that fishers have chipped away at the MPA regulations. Application of the ‘no-take’ rule was strict. All the fishers acknowledged this and they remained frightened of the consequence of being apprehended if they broke the rule. In fact, there were cases of fishers occasionally being caught and prosecuted for illegal activities inside the MPA, but these cases usually involved methods which were more likely to destroy the marine habitat. What happened was that the fishers overrode the formal rule with informal rules based on their own reasoning about the MPA and what would be harmful to it. That is, in order to secure some access to the resources in the MPA, rather than following the rules which had been legally established, fishers began to determine what could or could not be done with reference to their own judgment as to what complies with the principles of MPA management. Another important aspect of this application of their informal rules is that it was not done subversively. Though fishers believed that these reasons justified their use of the MPA, they never made any official
claim to the municipality or the NGO. In fact, though widely known, even among the guards, the issue was almost never discussed publicly.

Even before the cessation of MPA guard activity, some poaching was being tolerated at least to some extent. Though it was even more secretive, there had been some fishing activity taking place inside the MPA and not only on a seasonal basis. After seeing lights in the MPA, I visited the house of Alberto Zamora, the village money lender, to learn more about the activities in the MPA. His house is located on the shore overlooking the MPA and it was then one of only a few houses from which residents could directly observe the sea. As I started talking to his granddaughter Marites and his daughter Maria, I learned that some engage in fishing employing harmful or ‘active gear’, but they asserted that the number was small. Maria said ‘they just come during the night but we can still see them’. As these people walk at odd times down a small path leading to the beach next to the house, it was obvious when they were going fishing in the MPA. She explained that those who fish in the dark are fishers whose family lives near Maria’s house. She socialises with them personally so that she knew that these families had been facing severe financial difficulties. One of these fishers only owned a non-motorised boat. As discussed in chapter 3, non-motorised boats limit the usable fishing methods and make the fishing comparatively less productive, in fact barely enough catch to support a family of five. Now that the most accessible fishing ground had become an MPA, his life had become increasingly difficult. He and a few other fishers occasionally came down to the sea and fished using a trammel net (double net) and some hook-and-line gear (such as pahawin) from midnight until dawn. Trammel nets in particular are considered to be quite harmful to marine life since they can easily get tangled with the coral and also the small-size mesh can catch under-sized fish.

Even though Maria knew these activities were illegal, and they might have adverse effect on the marine conservation with which she was strongly in agreement, she had great sympathy for these fishers and became complicit to some degree. ‘We keep our mouth shut because these people are just trying their best to keep their way of living’, said Marites who is also a strong MPA supporter. ‘Just imagine this’, said Maria, ‘you always swim to catch fish when weather is
good but you cannot even do that during bad weather, and you cannot go elsewhere to fish either. ‘Now, will you allow these people to die? I even say to them, “oh come on, they [guards] are not going to see you”’, said Maria and added, ‘I tell them “secret is secret”’. Her idea reflects a cultural notion which is prevalent in lowland Filipino society that everybody has the right to feed their family (Santon 1972; Kerkvliet 1990). Though their endorsement meant nothing in a legal sense, and they had no political power to influence the authorities, these words spoken by a member of a relatively wealthy and thus ‘powerful’ family in the village gave fishers engaging in this illegal activity a feeling of some sense of security. The promise not to report them to the authorities was certainly well appreciated by these fishers and occasionally they would tell Maria to ‘have some for grilled fish (sinugba)’ and they would leave her a small amount of fish as a gesture of gratitude.

Her willingness to compromise over the value of conservation when it conflicted with people’s right to survive was challenged, however, by the frequency of these activities and the size of the catch. Even though her compassion led her to turn a blind eye to the fishers’ activities, Maria thought that they should not rely on this activity. Poaching in the MPA was considered to be a last resort and not one that should be habitual. She felt that it should be done ‘only sometimes’. She believed that even when it was necessary, fishing should be done in a moderate way in order to at least minimise the negative effects on the MPA. Catching too many fish from the MPA or earning more than what they need to feed their families would no longer be seen as legitimate.

**No Reporting to the Municipality**

While people reported poachers in the MPAs in Boljoon, this happened more in barangay Arbor, where the MAO gratefully appreciated residents’ reports of such incidents in addition to the results of formal surveillance. In the case of Granada, on the other hand, residents would almost never report incidents of poaching by fishers using scoopnets or, indeed, other methods. One MAO officer stated that he could not remember anyone in Granada ever reporting a violation in the MPA. By contrast, he explained that at another MPA in barangay Arbor, reports on
poaching made by coastal residents to the MAO outnumber those by formally assigned guards. These residents are effectively enrolled as *de facto* guards who, living so close to the MPA, can easily fill the roster when formal guards are not around, and they are highly appreciated by MAO officers. For this reason, MAO officers thought that residents near the MPA in Granada could also be enrolled as *de facto* guards, but as explained previously, this had not been successful.\(^6\)

There are a number of reasons for the difference in attitude in the two barangays. It can be reasonably assumed that the geographical setting in Arbor, where the shoreline is elevated and forms a rocky cliff, is more conducive to surveillance than Granada, as it allows a commanding view of the area. It is more than just the physical setting, however. In Arbor, fishing activity was limited due to its topography and there were only a small number of villagers engaged in fishing in the coastal waters (see Chapter 3). Also, due to the scenic view of the sea, the land along the cliff has been occupied mainly by wealthy residents who can afford to build very modern and robust structures. These residents have nothing to do with fishing and generally embrace conservationist ideology and support the MPA. As there is a comparatively smaller reliance on the harvesting of coastal resources in the village as a whole, the residents were naturally more interested in looking after the MPA even without any formal arrangements. In Granada, instead, a large number of people were heavily reliant on the coastal resources, and fishing characterised the major part of life in the village. Houses were only sparsely located along the MPA and most of them were small and frugal, and the inhabitants of these houses were more socially cohesive. In some cases, the fear of potential retaliation may be the cause of non-reporting, and as Maria’s statements illustrate, the residents refused to cooperate with the municipality to bring down misfortune on poor fishers who already had such difficult lives. Ultimately, the effects on the overall condition of the MPA of this illegal poaching are insignificant and the poachers are there to catch just enough to support their families. As this type of tolerance among the poor is a

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\(^6\) This situation largely changed after development along the coastal lands facing the MPA in subsequent years. Land lots were developed for holiday or residential houses by people from different places, most notably from barangay Poblacion, who had minimal interaction with local Granada villagers in social life. As a consequence, there is said to be more active reports of these residents to the municipality.
common practice in Philippine society (Olofson and Crisostomo 2000: 13), residents take a moral stand and refrain from reporting them since the consequences of apprehension could be devastating.

This is the case even among municipal officers, the police and local guards. Even if a few fishers are caught, they are usually only given a warning. In fact, among all the cases of illegal fishers apprehended since the establishment of the MPA, there is no case of the actual imposition of the stipulated fine. There is at least one case of overnight imprisonment, but this was largely as an admonishment rather than a formal punishment, as no further legal action was taken. In most cases, a verbal warning not to do it again was given along with the threat that any repetition would lead to further action. As Olofson and Crisostomo (ibid: 13) explain, "[T]hose in power or in positions of domination...may find themselves forced to overlook or go easy...in order to avoid accusations of inhuman behaviour", this is particularly the case when dealing with the poor who are striving merely to survive.

**Conclusion**
The aim of this chapter was to judge neither the activities of the municipality, NGO workers or resource users, nor the influence of these on resource conservation. Rather, its purpose was to draw attention to the complexity of management practice, which is crucial yet often neglected in discussions on the sustainability of MPA projects. The chapter highlighted the fact that these management practices are shaped by both formal and informal negotiation even when political power is unevenly distributed. On the one side, the municipal authorities and the NGO attempted to strengthen the legitimacy of their involvement in the MPA plan in order to achieve their common goal of conservation. In doing so, scientific and pseudo-scientific data were used as the means to persuade resource users. On the other side were the resource users who, while accepting the value of the MPA and the legitimacy of the municipality's implementation of it, followed the basic management principles but only insofar as they coincided with their own interpretations of these and as a compromise. Payment for guarding the MPA became a contentious issue between the two sides. In addition, the occasional covert fishing was locally
interpreted as legitimate and was never reported to the authorities and even when poachers were occasionally apprehended, harsh punishment was always avoided. The municipality had to compromise the MPA in order to have it ‘succeed’.

While such conditions and activities may be seen as unfortunate in conventional MPA management, the above-described ‘negotiation’ among stakeholder groups represents their effort to work things out by adjusting to the reality of the situation. As a result, though there are changes which could interfere with the level of achievement, the municipality, the NGO and the resource users shared a certain success in fostering their interests. While these irregularities may be generally seen as ‘threats’ to successful MPA management, consideration of the practices observed in Granada opens the possibility of going beyond the monolithic binary of ‘success’ and ‘failure’.
Chapter Six

Socio-economic Ties with *Kobkob* Fishers

Previous chapters focused on small-scale fishers’ responses to the imposition of an MPA. As we have seen, though the MPA was imposed upon fishers and the positive effects on fishing were yet to be perceived, the fishers did accept it for its potential positive effects on their livelihood, not only for their fishing but also because of the potential for tourism. At the same time, however, they continued negotiating to gain more control over the MPA management and despite the partial acceptance, there remained a core of strong resistance. Conflict over how to secure the fishers’ livelihood frequently became an issue during the course of the planning and implementation of the MPA. Subsequent chapters (Chapters 6 and 7) will focus on how, in the face of resource depletion, small-scale fishers responded to another livelihood-threatening issue, the illegal encroachment of non-local commercial fishing vessels into municipal waters. Unlike the case of MPAs, the considerable negative effect of this commercial fishing on marine resources was widely acknowledged by fishers across the gear groups and the municipality also endorsed the fishers’ concerns. This chapter will describe how, despite the obvious negative effect on their livelihood and competing claims for the fishing ground, small-scale fishers avoided confrontation with the illegal commercial fishers and instead interacted with them in somewhat contradictory ways due to emerging socio-economic ties.

Ambivalent Feelings towards *Kobkobs*

One morning in mid-May 2006, as I was engaging in my usual roam along the shore, the empty beach began to elicit feelings of desolation, but in fact it had simply returned to its original condition. Until yesterday, the beach had been crowded with seven large ring-netters, locally called *kobkobs*, and their various accompanying boats, and swarming with all the crewmen. It was ‘like a *fiesta*’, as one villagers described. There were many colourful vessels anchored at the shore line and there were many people walking around. The *kobkobs*’ first weeks of fishing
in the area had quickly passed and now they had temporarily returned home to ports in southern Negros and Bohol to be put in dry dock. The several month long fishing season had just started in this area. The beach had recovered its usual quiet and simplicity, at least for a few more days until the commercial fishing boats would come back to resume their fishing.

As I walked along the beach, I found Rico Vicente sitting in front of his beach hut (payag). He seemed to be relaxing, taking a break from repairing his net. Born in 1954 in a village near the town of Santander on the southern tip of the island, Rico had moved to Granada in 1965 with his siblings and parents who made a living from farming and fishing. He married a local woman and they raised 12 children on the income from his fishing and his wife’s subsistence level farming. He used several types of gill net and the size of his catch was humble, usually just enough to support his family but with an occasional ‘jackpot’. His gentle and trustworthy character, his diligence in fishing and the generosity he showed by sharing his catch with others had left a good impression on other villagers. Though he was a new-comer to the village, he had been elected as a village councillor in 2001 and was serving his second term. I sat down next to him and began a conversation about the last village council meeting, which I could not attend due to another obligation. After briefing me about certain issues concerning water tank installation which they had discussed, he told me that they had agreed to make a petition to the municipal councillors to ban kobkobs anchoring off Granada and Juan, another councillor, would visit individual houses to get as many signatures as possible. He explained that the petition would be sent to every fisher in the village. Being often seen as one cause of the widely perceived resource depletion, the kobkobs’ arrival in this new season had obviously triggered a strong reaction for villagers to proceed in taking such an unusual political action. Word was out that the petition was proposed by several young fishers from the Rosales clan. As they are known to be keen and skilful hook-and-line fishers in offshore waters, they were apparently the strongest proponents of the petition against kobkobs in Granada.

Rico, however, was uncertain about the petition. When I asked whether he would sign it, he replied ‘I don’t know’. The reason for this uncertainty was his ambivalent feelings about
kobkobs. On the one hand, he held bitter feelings about them and agreed, just like many other fishers, that they had very negative effects on marine resources. He had been to several coastal resource management seminars and could not have been more convinced of this. He had often condemned the kobkobs publicly for their excessive and indiscriminate catch even though he thought that his coastal fishing was not directly affected by them. On the other hand, however, he had strong sympathy for the kob kob crew members. He had made many friends among them over the years and he knew that, like himself, they were poor fishers simply trying to make living. In fact, the beach hut where we were sitting was and had been over many years a hangout for these crew members, all from the same kob kob, which had anchored right in front of his house over the last few weeks. These conflicting emotions made his decision about signing the petition very tough.

News of the preparation of a petition to prohibit kobkobs from anchoring off the village spread very quickly among the villagers. As much as the municipal officers and councillors welcomed these fishers’ initiative against commercial fishers, who had caused problems for many years, the response of the villagers was not enthusiastic. A couple of days after the conversation with Rico, I sat on the bamboo platform with another fisher, Amado, and we talked about the petition. He explained that a year ago a similar petition was going to be drafted on the initiative of a now-deceased village councillor but he was unable to obtain a consensus. In the end, it had to be abandoned. Based on this experience, he was sceptical as to how many signatures this new petition could collect. Not only, but he also had quite a pessimistic view as to what a piece of paper could do to change this problematic situation which municipal councillors had known about for years but about which they could not do much. The petition was finally drafted in late July after some editing work done by the vice-mayor and officially submitted to the municipal councillors to be discussed. The petition was signed by 26 fishers, which was thought to be ‘only a small’ number by villagers, as it was only roughly a quarter of the fishers in Granada. Like many other fishers I spoke to about it, neither Rico nor Amado signed the petition.
What this story highlights is that despite severe competition for resources, the relationship between small-scale fishers and commercial fishers is more complex than the municipal officers had originally assumed. Competition between these two groups is common all over the world including in the Philippines, and this often contributes to further marginalization of small-scale fishers (Spoehr 1984:45-46). In the literature, however, the relationship between local small-scale fishers (as well as other villagers) and foreign commercial fishers is primarily described in terms of resource competition but other important interactions are largely ignored. It should be noted that there are often strong links and a reciprocal relationship between these groups brought about through a kind of mutual dependency. To construct a binary between ‘bad’ illegal commercial fishers and harmless or even ‘good’ small-scale fishers can be too simplistic and can have only the truth of a snapshot when other contexts are blurred like the background in a photo (Peluso 1993: 206-207). Despite severe resource competition, the relationship between small-scale fishers and commercial fishers must be seen in the light of all the other everyday socio-economic and socio-political interactions which occur among a wide range of villagers and which also affect both of these groups.

Many studies contend that the operation of commercial fishing in municipal waters has been a major concern for coastal resource managers in many parts of the archipelago (e.g. Sunderlin and Gorospe 1997; Russell and Alexander 2000; Eder 2005). Under Philippine fishery policy, the 1998 Fisheries Code (RA8550), together with the 1991 Local Government Code (RA 7160), local government units (i.e. cities and municipalities) are mandated to autonomously administer resources in accordance with local conditions within 15km of shore and within the municipal boundaries (Eisma, Christie et al. 2005). This 15km zone is demarcated as ‘municipal waters’ in which fishing is legally permitted only to ‘municipal fishers’ (small-scale fishers). This means that no commercial fishers are allowed to operate within the municipal waters and those who do are considered illegal. Nonetheless, such illegal intrusions by commercial fishing boats take place rather consistently throughout the Philippines. Most commonly the factors contributing to

47 The legal term ‘municipal fisherfolk’ refers to those fishers employing boats of 3 ton gross or less, or those having no boat at all (BFAR 1998: 8), thus it is synonymous with ‘small-scale fishers’.
its prevalence have been examined primarily from the point of view of law enforcement (e.g. White, Christie et al. 2005). These studies identify the causes of this as financial shortage preventing effective monitoring and a lack of government commitment, sometimes associated with potential collusion between government officials and commercial fishing operators (Eder 2005). While these factors undoubtedly contribute to illegal commercial fishing activities, the dynamics of factors concerning the relationship among commercial fishers, small-scale fishers and other village actors at the local level have mostly been ignored.

In this regard, Russell and Alexander’s study (2000) of the relationship between the baby purse seiners and the local people from the perspective of fish catch-sharing practice is exceptional. Focusing on the management of common property resources, these researchers took as a case study one Tagalog fishing community in Batangas Bay where baby purse seiners migrate periodically for fishing. They commented that while there was no formal or informal consensus regarding the use of local resources by outsiders, Tagalog fishers have developed de facto rules of appropriation to govern interactions between fishers in open access resources’ (ibid: 39) through a sense of non-indigenous territoriality. The relationship between local people and commercial fishers was described in terms of informal catch sharing, which was conceptualised as a kind of graduated ‘tax’ on non-local boats, and failure to conform to this norm might result in violence or the sabotage of gear. The researchers noted that such a sharing practice played an important role in arbitrating between local claims for control of the resources and the interest of commercial fishers.

With regard for the important implications of the work of Russell and Alexander, this chapter will examine the everyday interaction between local small-scale fishers and commercial fishers. More precisely it will enquire into what made many fishers reluctant to undertake political action against kobkobs, how kobkobs also manoeuvred in order to keep the relationship smooth enough to maintain their periodic fishing in foreign villages and how villagers, including small-scale fishers, responded to their actions. In answering these questions, the chapter will not be confined to catch-sharing practice but will also cover a wider range of social
interactions and economic activities which took place on a daily basis at the beach, in houses or beach huts, in stores or on fishing vessels. The chapter will begin with a general description of commercial fishing in the Philippines and then move on to a more detailed description of ring-net fishing in Bohol Strait. Then, the chapter will examine the approaches used by kobkob fishers to gain local acceptance and how villagers responded to these. It will illustrate how villagers reciprocated the ring-net fishers for their catch-sharing, consumption and job creation by providing them with a place to rest, provisions and some degree of protection. Finally, the chapter will examine the paradoxically friendly social relationship between these groups, despite underlying antagonism over resource competition and the way some fishers sought opportunities to use the relationship to win back the perceived ‘loss’ in their fishing, while accepting that preventing the ring-netters from depleting the resources was beyond them.

The Status of Commercial Fishing in the Philippines

In general, commercial fishing\(^{48}\) (defined as that employing boats weighing over 3 tons gross ) in the Philippines has steadily increased the volume of catch (Figure 6-1) and the alarming level of fish catch in recent years has raised concerns regarding resource depletion. In 2006, the total harvest from both ‘municipal fishers’ (small-scale fishers) and commercial fishers in Central Visayas was almost 202,424 tons, comprising 4.6% of the national catch (Bureau of Agricultural Statistics 2007). Figure 6-2 shows that the trend of commercial catch surpasses the catch of municipal fishers both regionally and province-wide. It also shows that the year of 2006, when this research was conducted, however, was unusual in that the municipal catch exceeded the commercial catch at the regional level. This was a result of commercial fisheries experiencing a particularly bad fishing season especially in Bohol and this unusual inversion returned to normal the following year when the fishing season was a comparatively good one. In

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\(^{48}\)According to the Philippine Fisheries Code of 1998, commercial fishing is defined as ‘the taking of fishery species by passive or active gear for trade, business or profit beyond subsistence or sports fishing, to be further classified as: 1. Small-scale commercial fishing – fishing with passive or active gear utilising fishing vessels of 3.1 gross tons (GT) up to twenty (20) GT; 2. Medium-scale commercial fishing – fishing utilising active gears and vessels of 20.1 GT up to one hundred fifty (150) GT; and 3. Large-scale commercial fishing – fishing utilising active gears and vessels of more than one hundred fifty (150) GT’. By law, kobkobs in Granada are categorized as medium-scale commercial fishing.
the Province of Cebu, the figure shows that although the difference is decreasing\textsuperscript{49}, the catch of commercial fishers still far exceeds that of small-scale fishers. Apart from the disparity between them in overall catch, what is notable is the intensity of the per vessel commercial catch. In 2000, only 94 commercial fishing vessels harvested 58% of the total Central Visayas catch, while 56,142 motorised/non-motorised boats belonging to municipal fisherfolk harvested the remaining 42% of the catch in the region (BFAR 2001).

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure6_1.png}
\caption{Commercial fish catch in the Philippines, 1948-2007 (000MT)}
\end{figure}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure6_2.png}
\caption{Commercial and municipal catch in the Central Visayan region and the Province of Cebu, 1998-2007 (MT)}
\end{figure}

\textsuperscript{49} Though it remains a matter of speculation due to the limited nature of available data, it may be due to the intensification of municipal fisheries in both number and effort. The municipal catch has, in fact, been narrowing the gap with commercial fisheries which face decreasing catch due to resource depletion in recent years. The findings of Green et al (2004) generally support this perception.
Kobkob Fishing in Bohol Strait

Ring-netting\(^{50}\) has been the most prevalent form of commercial fishing in many parts of Visayas including Central Visayas (Szanton 1981; Ushijima 1994). ‘Kobkob’\(^{51}\) is a local term used in Granada as well as in other parts of this region for these ring-netters. Frequently, it is simply called ‘lansa’, meaning a motorboat with an open deck. Kobkob fishing originated on Samar Island in the early 20\(^{th}\) century and soon after, Samar fishers spread the technology to islands around the Visayan Sea, for example to northern Cebu Island in 1925 (Ushijima 1994: 166) and to western Panay Island in the 1920s (Szanton 1981: 28). While the original form of kobkob employed two sail boats (layag), in 1950 this was improved by the use of a larger boat carrying crew and the net towed by a small motorised boat (Ushijima 1992: 166). This improved method spread to further areas beyond the Visayan Sea. Hart (1956: 71) observed its introduction in some coastal villages of Siaton on Negros Oriental from 1951 onwards. In the late 1970s, the modern form of kobkob fishing carried out by a single wood-hulled boat was identified on northern Cebu Island (Ushijima 1992: 168). In Bohol Strait, kobkobs have dominated commercial fishing since the mid-1980s (Green, Flores et al. 2004: 36) and their presence continued to dominate during the time of my research. Though there is no data indicating the number of ring-netters operating in the area, the amount of illumination used by the kobkobs, almost forming a continuous line of light which can be seen from a distance, gives some idea of its intensity. These virtual necklaces of lights suggest that there is a considerable number of light boats working intensely to aggregate fish for kobkobs to harvest at the payao (Fish Aggregating Device, see Figure 3-7).

Ring-net fishing is a legal form of fishing as long as the operators follow the relevant regulations. In fact, they frequently breached these regulations, and illegal operation inside the municipal waters was one of the most common of these breaches. In Bohol Strait, a narrow strip

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\(^{50}\) Ring-net fishing and purse seine fishing are very similar both in gear composition and fishing method. Russell (1994: 107) states that the only difference between these two fishing methods is ‘the bunt of the net is in the centre in a ring net’, whereas the bunt is located at the sides of the net in purse seine nets (Dugan et al 2003: 10;13-20). According to data from the BFAR Negros Oriental Fishery Office in Dumaguete City, commercial fishing boats coming to Granada were all identified as ring-netters.

\(^{51}\) A number of synonyms are found in the literature. For example, it is written as kobkob (Ushijima 1992), kubkub (Spoehr 1980), kubkaban (Szanton 1981), kubo-kob, and kubokoban (Dugan 2003).
of water in most areas less than 30 kilometres wide, between Cebu and Bohol, there were only small areas (2.4% of the total) of non-municipal waters. The part of the strait around Granada in particular is only about 28 kilometres at its widest, thus theoretically in fact providing no space at all for commercial fishers to operate legally. Other common infractions observed by me or reported by resource managers included 1) the use of illegally small mesh-sized net, 2) the absence of fishing registration, 3) a lack of safety equipment, 4) the lack of a properly qualified captain or diesel mechanic onboard and 5) the hiring of under-age labourers.

Kob kob outfits operating in the Bohol Strait come from other regions as a part of their seasonal migrations. In Granada alone, there are kob kob vessels and other associated boats from the southern coast of Negros Island (around Dumaguete City, Municipalities of Santa Catalina and Siaton), the mid-eastern coast of Cebu Island (around Danao City), the south-western coast of Bohol Island (around Tagbilaran City) and some even from as far away as the north-western coast of Mindanao (around the Municipality of Plaridel) (Figure 6-3). These kob kob s periodically migrate to different fishing grounds in the area following the movement of their target fish and sea conditions which facilitate safe and productive fishing. For example, one kob kob from Siaton, Negros Oriental, fishes: 1) in Bohol Strait off Tagbilaran City in Bohol from late March to October, 2) in the Mindanao Sea off the Municipality of Plaridel in Misamis Occidental from November to mid-January and 3) in the Mindanao Sea off the Municipality of Siaton in Negros Oriental from late-January to mid-March. The fishing season for kob kob s in Bohol Strait usually starts between March and April and fishing becomes most active between May and July. Because the hanging habagat (southwest monsoon) begins to prevail from July, many kob kob s move to other fishing grounds with better sea conditions (though some remain until October or November). Their target is small pelagic species but the composition of the catch gradually changes from mainly bullet tuna to mackerel scad around July. Since their home ports are hours away from the fishing grounds, these kob kob s stay in coastal villages in the area

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52 This pattern of seasonal migration is typical of kob kob s not equipped with sonar and the migration pattern is said to differ from kob kob s with sonars. There are said to be approximately 10 sonar-equipped kob kob s operating from the Municipality of Siaton to the Municipality of Santa Catalina in the Province of Negros Oriental, and crew members of kob kob s believe the number is growing rapidly.
during their migratory fishing. During their stay in these villages, they sell their catch, procure necessary commodities such as diesel, food and parts for repair, and make fishing arrangements such as contacting the owners of payao or hiring locals as labourers. Equally important is the fact that crew members are thus able to come ashore to spend their few resting and leisure hours after the hard work of their overnight fishing trips to prepare for another trip on the following night. These kobkobs do not remain in foreign ports for the whole season but return to their home ports during the full moon period. Fishing usually ceases a few days before the full moon when they cannot aggregate the fish effectively and the vessels get dry-docked for maintenance at their home ports. During this period, crew members are given several days free and the formal catch sharing is done based on their job classifications. Kobkobs return to foreign ports a few days after the full moon and stay there until the next full moon period.

Figure 6-3: Locations of the major home ports of kobkobs in Granada

Granada was one of several villages along the coast of southeast Cebu where kobkobs repeatedly returned over the years during their fishing season. Local fishers recalled that the first appearance of the kobkobs in Granada was in 1987 and after that, kobkobs began to be
encountered regularly along the shore. It was around 1992 that some *kobkobs* started to return every year to Granada together with their accompanying boats. In the 2006 season, there were between 1 and 5 *kobkobs* and between 4 and 17 light boats and carrier boats anchored along approximately 150 metres of shoreline each day. Some *kobkobs* came less frequently or stayed for a shorter period of time than others but there were two *kobkobs*, both from the southern coast of Negros Oriental, which remained throughout the whole season (i.e. from May to October in 2006).

Granada, along with several other villages along the coast, provided several advantages for *kobkobs*. First, it provided relatively calm seas during the *hanging habagat* as the small promontory blocks strong waves. This decreased the risk of damage to the vessels from the eddy flow. Second, the steep sloping beach enabled *kobkobs* to anchor in water closer to the shore. This made it easier to transport crew members and catch between the vessels and the beach. Third, Granada provided easy access to the major distribution route to the region’s biggest market in Cebu City and the sizable market in Dumaguete City. The distance from the shore to the national highway was less than 120 metres and there was an open space along the highway which facilitated the loading of catch. The distance to Cebu City was about 100 km, a trip of less than three hours by fast truck, or less than two hours to Dumaguete City by sea. Granada’s proximity to both cities with large demand for fish was highly valued by *kobkobs* and that is precisely why they did not stay in Bohol despite its vicinity to fishing grounds. The fish price in Tagbilaran City in Bohol was no better than in Cebu City, but transporting the catch across the strait increased the costs considerably because of the need to keep the fish on ice and because of the extra fuel and labour.

Another important reason for this choice of where to stay, one often mentioned by *kobkob* crew members, was the level of social acceptance of *kobkobs* in the community as well as the relationship with other *kobkobs*. For example, one *kobkob* captain told me that he avoided anchoring in a certain neighbouring village because of a recent fight between drunken villagers and his crew members. The captain believed he paid as much respect to those local villagers as
he does to other villagers where he anchored his *kob kob*, but this was paid back with 'disrespect'. As for Granada, he found locals to be respectful to him and his crew and he could remember no serious confrontation with the villagers. The problem for him, however, was harassment from crew members belonging to less successful *kob kob* who were jealous of his fishing success. This led him to stay in Granada only infrequently, mostly to shelter his vessel during bad weather.

Fishing with *kob kob* requires the collaboration of several constituent boats, thus they usually form 'outfits' with other boats. A fish carrier carrying a number of containers and ice accompanies them to transport the catch to market, making sure it is preserved safely until it is sold. In rough seas, this boat also helps prevent *kob kob* from capsizing while hauling in the nets by attaching a rope and pulling up against the gradient. Several light boats equipped with on-board and submergible lights to attract the schools of target fish also always accompany a *kob kob*. Often, these accompanying light boats are owned by the owner or captain of the *kob kob* but many are independent ones from local villages and these commonly own one or more *payaos*. Light boats owned by the owner or crew members of the *kob kob* migrate to different areas accompanying the *kob kob* throughout the year, but local light boats which are independent from the *kob kob* usually do not accompany them in their seasonal migration. These light boats stay in their localities and collaborate with individual *kob kob* to let them harvest the fish aggregated at their *payaos* during the fishing season. Because of this role, such light boats are called 'support' boats and their reciprocal relationship works to allow *kob kob* to carry out productive and smooth fishing operations in areas where they have limited social networks.

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53 There is said to be an increasing number of *kob kob* equipped with expensive sonar. Because this obviates the need for using lights to attract the fish, this new type of *kob kob* needs no accompanying light boats.

54 This term distinguishes the light boats from inside or outside the fishing organization. The captain's approval is needed for a boat to become a 'support' for a *kob kob* and once an agreement is made, these boats are obliged to reciprocate. In this relationship, *kob kob* are provided stable and productive fishing spots by 'support' light boats, and in return *kob kob* fish at these spots more frequently so that there is a larger share of the catch for the light boats. Further, though it is not always the case, the *kob kob* often provides diesel oil to these light boats at cost especially when they see high productivity in the fishing spots. Becoming a 'support' involves the establishment of a strong social and economic relationship with their client *kob kob* through both fishing and other social activities.
Kobkobs from Southern Negros Island in Granada
As mentioned earlier, the two kobkobs which most frequently visited Granada and stayed there for the longest period during the fishing season of 2006 were both from the southern coast of Negros Island and undoubtedly it was the crew members of these kobkobs who were most closely involved with villagers in Granada. These kobkobs, along with many other kobkobs which visited Granada, were from the town of Siaton, Santa Catalina or nearby, an area which accounts for 45% of the kobkobs in the province. The size of these vessels and boats varied. According to the inventory of commercial fishing boats in the Province, the average size of the 58 kobkobs listed was 20.87 tons gross, however the ones which frequently visited Granada were mostly at the larger end of the scale, at about 30 tons gross. The hull of kobkobs in this region was mostly made of wood, but there was said to be an increasing number of the newer type of kobkobs with a steel hull. The number of crew members also varied according to the size of the boat. Based on observations in Granada, 30-tonner kobkobs were usually manned by 20 to 35 crew members.

The actual fishing operation is described in the following section based on the case of the Remedios VII (Figure 6-4), one of the two kobkobs closely involved with Granada. Based on their experience on different kobkobs, several veteran crew members considered the methods and patterns of fishing operation employed by the Remedios VII as typical among kobkobs in the region. At 33.08 tons gross, the Remedios VII was built in 1974 in the Municipality of Tanjay and was sold to the current owner (tag-iya), who was originally from the Municipality of Santa Catalina but at the time of the research resided in Dumaguete City. The vessel had a wooden hull 19 metres in length, 3.5 metres in breadth and 1.5 metres deep. It was equipped with a Japanese-made 305 BHP diesel engine, marine radio and a Japanese-made fish finder. At the centre of the hull, a solid metal sinker (lingote) was attached to the crane by a pulley and it was connected to the power take-off (hugos) with a rope. The net (pukot) was carefully placed in the stern in a particular way so that it could be easily dropped into the water without getting tangled. The net had a number of yellow buoys at the upper end and metal rings and leads at the
lower end. At the bottom part of the net, there were metal leads attached to the lead line closely to each other and bridle lines with another sinker carrying the seine rings where the ring line went through. The trapezoidal net was 360 metres in length and 98 metres deep. The vessel towed a small hand boat (*tondaan*). The Remedios ‘outfit’ comprised a total of eight boats: one *kobkob* vessel, one fish carrier, two dependent light boats and four independent ‘support’ light boats from Bohol Island.


*a. bow (*dulong*) b. centre (*centro*) c. sern (*ulin*)*

**Figure 6-4: Sketch of the Remedios VII**

The labour organization on *kobkobs* is hierarchical according to functional roles and this hierarchy is reflected in the catch-sharing system. As Russell and Alexander (1996: 439) observe in baby purse seiners in Batangas Bay, crew members can be first classified into ‘regular crew’ and ‘extra crew’. Among 25 ‘regular crew’ on the Remedios, they were headed by the *maestro* (captain) who was in charge of finding fishing locations, being in command of the fishing operation, determining a location to stay, recruiting crew members and keeping records of the fishing trips and catch sharing. The *segundo maestro* (second-in-command) supported the *maestro*’s work and also took the helm of the vessel. By ringing the bell under the helm, he conveyed the *maestro*’s commands to the crew in the engine room and to other crew (i.e. one bell for ‘gear down’, two bells for ‘gear up’, three bells for ‘reverse’, many bells for ‘start engine’ or ‘idle’). Because the owner (*tag-iya*) of the vessel was not usually onboard, a

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55 In northern Cebu this hand boat is also called a ‘*bote*’ or ‘*bote-bote*’ (Ushijima 1994).
56 Composition of regular crew was 1 *maestro*, 1 *segundo maestro*, 1 ‘onboard’ (double as *makinista*), 12 *pansans*, 1 *swimmer*, 2 *seladors*, 2 *voteros*, 2 *tondaeros*, 1 *kosenero*, 1 *stitcher* and 1 *assistant makinista*.
person called the ‘on-board’ represented the owner and ran budgetary management and procurement. Decisions on the post-harvest handling of the catch (i.e. sale price, location, quantity, etc) were made by the owner upon advice from the ‘on-board’ through mobile phone text messages. Procurement of food and maintenance was also his responsibility as he controlled the allocation of the boat’s budget. Equally important was his job of also overseeing the maestro and segundo maestro.

An ordinary crew member of kobkobs is commonly called a pansan, the generic term for those who pull the net (Ushijima 1994: 175). On the Remedios, pansans were divided into two groups, those who were solely engaged in the handling of the net, and those who had other specific roles other than hauling the net. While they were both called pansan, the former group was headed by the maestro pansan (master pansan), while the latter group was further divided into several subcategories: the votero (who anchored the boat and cleaned and unloaded the catch), the swimmer (who supervised the dropping of the net), the selador (who closed and untangled the net in the water), the tondaero (who operated the hand boat), the makinista (who operated the diesel engine), the stitcher or taga tahipokot (who repaired the net), and the kosenero (who did the cooking). All the pansans were assigned either in one of the three parts of the boat – ulin (stern), centro (centre) or dulong (bow) – or in the water during the operation. In accordance with their assigned location and function, pansans were further assigned specific roles, such as hogos (who operated the power take-off at centro), batoan (who took care of the ring line and the iron weight at centro), pataw (who dropped and pulled the float line at ulin and dulong), and homon (who pulled the net alongside).

There were also a number of ‘extra’ crew or boleros who – some regularly and others occasionally – would join in the fishing on kobkobs. Around 20 villagers from Granada joined fishing trips on the Remedios as boleros and worked more or less continuously, and there were a couple more boleros who joined at a different port. While ‘regular’ crew members were formally recruited, boleros were ‘only going along (sakay-sakay lang)’ on a kob kob to get a small share of the catch. The maestro only had to give them his permission to do so and unlike
‘regular’ crew members who had specific functional roles during the fishing operation, _boleros_ had no specific set work excerpt that of helping the _pansans_ to pull the net.

Fishing always took place during the night. Prior to the Remedios’ departure, light boats would leave Granada around 3.00 in the afternoon in order to be sure to reach the _payaos_ before dusk. After dusk, the light boats would turn on their lights and begin illuminating the surface of the water. They would wait for hours until the light attracted a school of fish. The Remedios, instead, would leave the shore with its fish carrier boat between 4.00 and 7.00 p.m., depending on the position of the moon. While travelling to the offshore waters, both the Remedios and the light boats would correspond continuously by radio regarding the progress of fish aggregation. Once the fish were successfully aggregated, the Remedios would travel to the _payao_ upon request of the light boat and upon arriving there, it would first assess the estimated size of the catch and then proceed to harvest the fish if there was a sizable amount. Figure 6-5 shows the basic stages in the fishing operation. First, the Remedios scans the area around the _payao_ and the light boat with the fish finder by quickly circling the area (Figure 6-5-1). After analysing the quantity, location and species of the fish, the _maestro_ decides whether he will go ahead or not. Upon confirmation of a potentially sizable catch, the _maestro_ yells ‘_lugar!_ (spot)’ to the crew and these are hastily deployed to their assigned positions.

After the determination of the fishing spot, the first step is for the swimmer to quickly move to a hand boat and the _tondaero_ to start rowing towards the light boat. While the swimmer communicates via radio with the _maestro_ regarding the condition of the sea, the Remedios starts circling the area again at high speed in order to drop the net (_tak-tak_) and make sure the fish are all inside it. When the Remedios circles and reaches a certain position, the swimmer whistles once to signal to the _pansans_ to drop the net buoy into the water and the _seladors_ also jump into the water. A few seconds later, the swimmer again whistles, but twice this time, and the _pansans_ start dropping the net with the metal leads (Figure 6-5-2). Once the net is completely dropped, the _seladors_ close two ends of the net and a large metal sinker is quickly dropped into the water.
(Figure 6-5-3). As the rope attached to the large metal sinker runs through the seine rings at the bottom of the net, the net closes like a purse.

Hauling the net begins after the dropped metal sinker is hoisted onto the deck by the crane connected to the power take-off, skilfully operated by the \textit{maestro pansan} and a few other \textit{pansans}. The \textit{seladors} constantly look after the condition of the net and try to keep the fish in the centre so that they can be easily harvested. As the net tightens (Figure 6-5-4), the \textit{maestro} keeps his eyes on the net to maintain a well balanced shape, as failure to do this can result in a serious waste of time or even devastating damage to the net. When the net is almost completely pulled tight, the bulk of the fish is bunched up together at the bunt (\textit{bulsa}) of the net where the mesh is finer and the net is stronger (Figure 6-5-5) and it is pulled up onto the deck. The fish are put in insulated boxes (‘cooler’) roughly according to species with ice and water. The Remedios then sets out for other \textit{payaos} while \textit{pansans} place the net in the right position for the next operation and others take a rest (Figure 6-5-6).

1. 
2. 
3. 
4. 
5. 
6. 

\begin{itemize}
\item a. \textit{kobcob}
\item b. hand boat (\textit{tonda-an})
\item c. fish carrier
\item d. light boat
\item e. \textit{payao}
\item f. school of fish
\item g. net
\item h. buoy
\end{itemize}

\textbf{Figure 6-5: Procedure of \textit{kobcob} fishing}

Fish catch would vary greatly among \textit{kobkobs} and from one fishing trip to the next. Though there were times when \textit{kobkobs} came back with 2 or 3 boxes of fish, they usually caught 10 to 20 boxes of fish a night, and this was referred to as ‘only a little (\textit{dutay lang})’. Their concept of
a very good catch seemed to be over 100 boxes, and when it exceeded about 200 boxes it was a 'jackpot'. In the 2006 season, there were a few times when several kobkobs in Granada were reported to have caught about 100 boxes of fish, while the largest catch recorded by the Remedios was a little over 50 boxes. It was a common belief that catch increases when the moon is small because the lights from the light boats can effectively collect the fish, and catch decreases when the moon is big for the opposite reason, so moon phase was thought to be a great factor in the fluctuation of the catch for all kobkobs but there were several factors considered to influence the catch. The 'skipper's effect' (i.e. the skills and talent of the maestro in finding the right fishing locations, directing the operation, organising the crew members), together with luck (suwerte) were the other usual explanations of catch variation among kobkobs (e.g. Veloro 1994; Russell and Alexander 1996).

Plate 6-1: Kobkob crew hauling the net (a view from a light boat)

**Small-Scale Fishers' Antagonism towards Kobkobs**

As the incident concerning the petition clearly showed, there was strong antagonism towards the kobkobs among some groups of small-scale fishers in Granada and it was these fishers who were the key players in organising the petition. This antagonism was, however, not necessarily
shared by the rest of the villagers, and this was shown by the fact that many fishers refused to
sign the petition along with many non-fishing villagers who also had reservations about it.
Indeed, among villagers with differing interests and differing socio-economic backgrounds,
there was a range of attitudes from sharply antagonistic to more accepting of the kobkobs. The
greatest antagonism generally came from the hook-and-line fishers because of their competition
with the kobkobs for the resources. In fact, the 26 fishers who signed the petition were all hook-
and-line fishers who compete against kobkobs in daily fishing. As both kobkobs and hook-and-
line fishers target the same pelagic species in offshore waters, their fishing grounds also
coincide.

The accusations of these fishers against the kobkobs were made based on two interrelated
issues: the quantity and location of their fishing. They often described how kobkobs harvested
large amounts of fish while they harvested only a small amount. With some exaggeration,
fishers commented that the amount a kobob catches in a night alone is equivalent to what all
small-scale fishers in Granada catch for a week and complained that the kobkobs catch
incomparably more than they do themselves. ‘They will catch everything (makuha nila tanan)’
and there will be ‘no fish to divide among ourselves (wala na mi nahabahin na isda)’ were the
most frequent comments by these fishers. This excessive amount of catch was associated with
the perceived resource depletion of pelagic species and raised as the reason for the depletion.
The empirical reasoning behind this claim is the perceived decrease of catch during the kobkobs’
prime fishing season and the general disappearance of bullet tuna from the nearshore waters of
Granada, believed to be caught by kobkobs before reaching there. Another common reason
given for kobkobs being responsible for resource depletion is their use of fine mesh nets which
harvest indiscriminately regardless of size and species. To answer whether or not these
speculations are scientifically accurate and whether or not the pressures exerted on the resources
by small-scale fishers are as negligible as claimed requires further study, but there is little doubt
that kobkobs were catching excessive amounts of fish, far more than that of individual small-
scale fishers.
The location of these *kobkobs*’ excessive fish catch was certainly of significance for the small-scale fishers in Granada. Knowing that I had been closely interacting with *kobkob* crew, the wife of one fisher half-jokingly asked me to tell them to go fishing somewhere in the Pacific Ocean, far away from ‘our sea (*dagat namo*)’. Small-scale fishers clearly saw the fishing grounds offshore Granada as their own territory where they or other small-scale fishers of similar economic standing should have exclusive right to harvest the fish. This notion goes along with the concept of municipal waters in which resources are supposedly reserved for ‘municipal fisherfolks’, however their conceptual territory did not comply with the legal jurisdictional boundaries but corresponded, rather, with the realm of their livelihood. In fact, their claim over their most frequently visited ‘territory’ included the sea area belonging to the municipal waters of towns in Bohol where Granada fishers had no legal right unless they obtained a permit, something which no Granada fishers had. Their claim was based on the history (though a relatively recent one) of their use of the area and the fact that they were almost completely reliant on it to make their meagre living. *Kobkobs*, on the other hand, could go anywhere else freely without having to harass small-scale fishers, and best of all would be that ‘they go back to their own place (*pauli sila sa iyaha*)’. Clearly in small-scale fishers’ view, it was not right, though perhaps not from a legal standpoint, but certainly from an emotional one. *Kobkobs* should not catch fish in *our* territory while posing a threat to the livelihood of *us* small-scale fishers.

Despite the strong antagonism, public confrontations between small-scale fishers and *kobkob* crew members rarely occurred. Although there was said to have been one quarrel in 2005 between a *kobkob* crew and Granada fishers, which was arbitrated by the *barangay* captain, there was no fighting or quarrel observed during my fieldwork. Although it was apparent that there were unexpressed feelings of frustration and anger towards *kobkob* crew, hook-and-line fishers still generally interacted with these crew members in a friendly manner. It was common for *kobkob* crew members to spend time at a villager’s house or beach hut (*payag*) and drink with villagers, including the hook-and-line fishers. Fishers explained that these at least
ostensibly friendly interactions occurred because any antagonism towards *kobkobs* was not directed at individual crew members. When I had a conversation with the wife of one hook-and-line fisher concerning how she felt about *kobkob* crew, she stated 'we make friends with them because they are also like us surviving in life, no money to buy a fishing boat so [they can] only work for the *kobkob*. But we don’t like the one who gets so many fish, the owner [of the *kobkob*].' Even the most angry hook-and-line fishers often commented that crew members are just working on the vessel receiving petty amounts of the catch-share compared to the large quantity of the overall catch. In their eyes, these crew members were just like themselves, coming from poor family backgrounds and just trying to make a living. Antagonism was therefore directed at the usually faceless owner of the *kobkob* who was thought to thrive at the expense of small-scale fishers. Indeed, the above-mentioned quarrel in 2005 took place on a rare occasion when it so happened that the owner of the *kobkob* came to Granada. Seeing he was not willing to share any sizable amount of fish with the villagers, several hook-and-line fishers challenged him in public to give more fish or to go home. Thus, the antagonism of fishers towards the *kobkobs* was not always evident, particularly towards crew members and often it was characterised by ambivalence.

**Kobkobs’ Strategic Approaches to Increase Local Social Acceptance**

Responding to the general antagonism on the part of some villagers, *kobkobs* also tried to elaborate ways to build close social ties with the locals and obtain a certain level of local acceptance in order to facilitate their fishing. One way of attempting to do this was by sharing the catch with small-scale fishers and other villagers. Culturally, such fish give-away plays an important role in avoiding conflict and maintaining a good relationship between successful fishers and less successful fishers in the Philippine context, and also has a mystical association with obtaining a better catch.

Small examples of catch sharing based purely on friendship would usually take place on the boat or at the site of fish trading. Every morning, villagers would wait for the return of *kobkobs*
at several beach huts along the shore. When the Remedios approached the shore, stopped the engine and slowly coasted to anchor, a *tondaero* would row a hand boat to the shore and pick up the waiting villagers who would race to get aboard and the fully loaded boat would return to the vessel and bring them up on deck. Some villagers who could not fit into the hand boat, desperate to get onboard, would choose to swim or ride their own paddle boat to the vessel. The amount of fish given appeared to depend primarily on how much fish there was, and the degree of friendship between the villager and the crew members. Once on the vessel, they were curious to ask crew members about the night’s catch and to check the boxes to assess the likelihood of some give-away. If the catch was not obviously large enough for sharing, villagers would not usually ask explicitly for fish, but would hang around in the hope that some friendly crew would give them some anyway. Villagers often received a small amount of fish, anything from a single piece to a plastic bag full. The fish which was received was meant for and actually used for family consumption but when the quantity was large enough, some was also given to other friends or sold to earn a small amount of cash. Among villagers, the ones whose connection was with high-ranked crew members such as the *maestro* or the ‘onboard’ who had a larger disposable share, tended to receive more fish than the others. What is notable is that once strong friendships with powerful crew members were established, it could extend the chance of catch-sharing even after the fishing season in Bohol Strait. As *kobkobs* moved back to Negros, some villagers in Granada continued to receive fish from the trucks driving past Granada as they transported their catch to Cebu City. Villagers who had no friends among the crew members, instead, such as children or people who had recently moved to the village, might have to ask around for some share or look for some left-over fish still entangled in the net or accidentally dropped behind the fishing equipment.

Though *kobkobs* seemed to share their catch with a wider range of villagers, there appeared to be a preference for sharing with particular groups of villagers in order to strengthen their social ties. *Kobkobs* prioritised the establishment of good relationships with the ‘neighbours (*mga silingan*)’, those who lived near their anchoring points. It was their way of showing
gratitude for being allowed to anchor vessels and boats in the water in front of these ‘neighbours’ despite the occasional inconvenience which this might cause. Also, as the areas in the vicinity of their anchoring points would become their hangouts for everyday activities in the village during their stays, their social network with villagers was naturally more densely concentrated within those neighbourhoods. These networks also extended beyond these areas, particularly to relatively wealthy and influential villagers. High-ranked crew such as the maestro and the ‘onboard’ frequently visited the houses of villagers who owned large sari-sari stores or other businesses regardless of their official position. While ordinary villagers had to be on site to claim some share, crew members often had fish delivered to the houses of these relatively wealthy and influential villagers. For kobkobs, close bonding with villagers with whom they interacted most frequently or those in higher economic and social standing provided certain protection from criticism by the villagers and security during their stay.

Plate 6-2: Villagers on a kobkob vessel looking for opportunities

The practice of catch sharing was not necessarily a unilateral way of building friendship. Indeed, villagers reciprocated the kobkobs’ catch sharing with frequent invitations to their
houses for drinks or meals. Also, villagers often offered trivial but caring daily kindnesses such as letting crew members use their water for bathing, their couch or bamboo bench for taking a nap, or a TV to watch. The friendship was strengthened over time through this reciprocity. Thus, although the catch sharing was greater among some households, because fish give-away had these many different purposes, fish was distributed to a fairly wide range of villagers, both poor and relatively wealthy, fishing and non-fishing.

Another important strategy that kobkobs used to increase their social acceptance in the village was related to labour and employment. Kobkobs offered work opportunities and this certainly affected the attitude of people in the village, a place where there is a large surplus of labour but limited work opportunities. Although the amount that they earn from these small jobs is usually small, the continuous flow of extra cash income was gratefully acknowledged. One of these small jobs was to haul fish from the shore to the highway for transport. When the catch was large and the fish price in home ports slack, large amounts of fish needed to be transported to Cebu City. As soon as crew members would unload the boxes onto the beach, strong villagers would race to haul them to the highway where a truck was waiting to pick them up. A bamboo stick slipped through rope handles attached to the box would enable two haulers, one at the front and one at the rear, to lift the 50 kilogram boxes and move them swiftly. Carrying the box was rewarded with 25 pesos (US$0.47) a time for each man, considered a moderate amount for this type of work. One middle-aged and unskilled villager explained that when a kob kob came back with a big catch, he could get a chance to haul up to four times a day. Getting involved with this type of work also provided an opportunity to get close to crew members, and his work often came with some fish given by high-ranked crew members.

Fishing along with the crew was a more significant and substantial type of casual work provided by kobkobs. As mentioned above, ‘extra’ crew or boleros, as opposed to ‘regular’ crew, were allowed to get on-board and join the fishing trips. In the case of the Remedios, and presumably other kobkobs in Granada, nobody was denied the opportunity to work as a bolero in 2006: young and old, physically fit or challenged. No female bolero was observed, at least
in Granada, however, probably because fishing has always been a highly masculine livelihood rarely chosen by females. In general, since boleros were not included in the daily and monthly catch sharing of ‘regular’ crew, it was expected that they be given a small share in return for their labour pulling the net. In addition to some share given by the maestro, boleros were allowed to take the fish which were entangled in the net in front of them while pulling up the net. In order to collect the fish more efficiently, boleros usually formed small groups of two or three and pooled their catch.

In addition to these permitted ways of obtaining a share, boleros commonly stole fish. Though stealing (kawat) was not practiced only by boleros but also by other ‘regular’ crew, it comprised a more significant part of their share in relation to their limited allotments. Although stealing was not seen as a legitimate practice, the maestro explained that they were unable to stop boleros from doing it because it was done on the sly. It could be seen, however, that boleros even snatched fish rather openly even when the maestro was supervising the deck. While moving the catch from the net to the boxes, for example, one bolero could be seen randomly putting his hand into the net and taking one fish at a time. Another time, when the fish were moved from one box to another, the bolero intentionally left some fish in the box and quickly put it away as if it were already empty. Examples of their creative ways of snatching fish were numerous. ‘If you are not a snatcher, you go home (kon dili ka kawatan, pa paulion)’, said one bolero on the Remedios. He even jokingly called himself a good ‘kawatero’, a coined word humorously combining the words ‘bolero’ and ‘kawatan (snatcher)’, meaning ‘snatcher crew’. While stealing fish was a daily practice and common knowledge among all the kobkob crew members, it was understood as not entirely legitimate conduct. It was tolerated by maestros who pretended not to see them stealing as long as it was done in moderation and not too openly. Failing this unwritten rule was said to lead to confiscation of stolen fish, something which the maestro undoubtedly had the authority to do. This did not happen during my fieldwork, however. The fear of confiscation was sufficient to control any excesses by the boleros. In effect, stealing a moderate amount of fish was an important avenue for informal
catch sharing for boleros and it was seen as a form of generosity on the part of maestros, thus enhancing both their reputation among crew and the social status of their boat in the village.

Quantifying the actual amount of fish shared with boleros is an extremely difficult task since the entire catch was massed in one container and snatching fish was done quietly. One night when the Remedios recorded eight boxes of fish (360 to 400 kg) as the night’s catch, an amount considered to be fairly poor fishing, a group of three boleros managed to obtain a total of about 10 kilograms of it, which was also considered an ordinary amount for the vessel’s catch in their opinions. Upon their arrival on shore, they sold the catch and earned 230 pesos (US$4.32) each. Though it was not a large amount, it was more than some small-scale fishers earned from their fishing on the same night. In fact, one small-scale fisher ceased his fishing and started working as a bolero for a whole kobkob season and he felt that his income from the kobkob almost corresponded with his previous small-scale fishing income after expenses. Clearly the amount of share boleros would obtain depended on many variables but working as boleros could sometimes bring as much income as small-scale fishers without any financial risk or investments.

Further, becoming a bolero was not the only way for villagers to obtain fish while taking advantage of kobkobs’ fishing. Although fishers, particularly those who competed with kobkobs, retained a strong antagonism towards them, there were also some forms of passive cooperation in fishing between kobkobs and small-scale fishers. One of these was that small-scale fishers were usually allowed to take advantage of the light boats’ illumination device for attracting fish. When a light boat waited at the payao with its lights on, it frequently encountered small-scale fishers who would ask to connect their pump boats to the light boat. Small-scale fishers used multiple hook-and-line (palangre) to catch fish attracted to the light while others used squid jigs (ankla). These requests were hardly ever declined. Another example of cooperation was that if these small-scale fishers fishing at light boats possessed small drift gill nets (patulay), they could ask for permission to place their nets inside the kobkob’s net. Though it could be done only for a short while, usually less than 30 minutes, again their request was rarely denied.
In both cases, the cooperation was largely characterised by compromise shaped by what Scott (1985) called the small-scale fishers’ ‘weapons of the weak’ and kobkobs’ provision of fishing opportunities. For light boat operators not to allow small-scale fishers to use the payao could lead to retaliation by the angry small-scale fishers cutting the payao rope and this would result in permanent loss. Similarly, the maestros of kobkob vessels were afraid of ‘sanctions’ by fishers if they were selfish or ungenerous. Indeed there had been a series of incidents in which small-scale fishers who had been denied access cut kobkobs’ nets to let the fish out so they could catch them themselves. As long as kobkobs or light boats compromised to let small-scale fishers take advantage of their fishing, even though the catch represented a trifling amount, small-scale fishers refrained from such sabotage. This passive form of cooperation in fishing was based on a mutual understanding that compromise by both groups was necessary to even temporarily lessen the conflict over resource use.

**Increased Business Opportunities**

Apart from the kobkobs’ own proactive attempts to boost their social acceptance in the village, there were other factors which coincidentally had a positive effect on villagers’ perception of them. In order to carry out fishing operations, it was necessary for kobkobs to engage in various economic activities in order to dispose of their catch and to procure necessary supplies. One factor was the increased trading opportunities for fresh fish vendors. Because more fish arrived in the village, fish vendors could trade a much larger volume of fish on a regular basis than they could by trading only with small-scale fishers during the non-kobkob fishing season. One fish vendor gave me the example of her trading volume which at times could treble during the kobkob season. As kobkobs approached the shore and dispatched the small hand boat (tondaan) to pick up villagers, fish vendors along with others also scrambled to get on deck, trying to start negotiating the price before other vendors. Because unlike small-scale fishers, kobkobs did not

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57 I was told that one businessman in Bohol allegedly invested his capital to install a payao. An overseer was regularly present at this payao and he claimed a share for any fishers, including small-scale fishers, to use the payao. This caused several disputes between him and small-scale fishers. As a result, someone kept on cutting the payao even though the owner kept on re-installing it. After several re-installations, the owner finally lost interest in managing the payao.
maintain a suki relationship with fish vendors in Granada fish trade was done on a first-come-
first-served basis. In the transaction, the first fish vendor had the right to negotiate with the
kob kob crew and others could join in only when the first vendor failed to reach agreement with
the crew. Due to the lack of suki relationship, payment for the purchased fish was mostly done
by cash on site and only partial credit was accepted.

Increased opportunities for trading fish attracted a greater number of people to engage in
trading with kob kob, thus the number of fish vendors in Granada temporarily increased during
this season. Fish vendors who gathered on the beach were not only from Granada but also from
the neighbouring villages around Granada, something which would never have happened when
kob kob were not around. These fish vendors from outside Granada had the same opportunity to
trade as Granada fish vendors had when they visited other villages when the kob kob were not
present in Granada. Unlike other times, upon the purchase of a large quantity of fish (up to
about 100kg at a time), these fresh-fish vendors left only a disposable amount of fish for the
local market and transported the rest to larger markets to make a deal with their suki vendors.
The increase in the number of fish vendors was also caused by some villagers who usually
engaged in jobs other than fish vending temporarily joining fish trading during the kob kob
season. As seen in Chapter three, there were some ‘irregular’ fresh-fish vendors who only traded
fish with non-local fishers without suki relations. As they did not have access to sell retail in
public markets, they functioned as middlemen to buy fish in Granada, transport them to larger
markets and sell them to other fish vendors similar to ‘regular’ fish vendors.

Another positive factor is the sizable local consumption generated by kob kob crew members.
Given that most kob kob crew brought minimal personal belongings with them, local sari-sari
stores (general stores) enjoyed a thriving business trading with them through a suki relationship.
In mid-August when 5 kob kob, 14 light boats and 1 fish carrier anchored at the beach, two
large sari-sari stores along the highway were packed with kob kob crew enjoying singing along
with the videoke, playing pool and chatting over food and drinks. Items procured at the local
stores included not only rice and ground corn for staples, but also a wide range of supplies such
as toiletries, coffee, cigarettes, soft drinks, alcoholic beverages, snacks, vegetables, seasonings and charcoal for cooking. Among these commodities, the staple ground corn (*mais*) was of such significance that one store alone could easily sell over 50 kg a day just to feed the more than 150 hungry *kob kob* crew members during the prime season. With high demand for a wide variety of supplies necessary to crew members and also their general characteristic as spendthrifts, serving many crew members resulted in a doubling of the monthly sales for these *sari-sari* stores.

These *sari-sari* stores, however, were also occasionally faced with unexpected losses. In the Philippines, offering certain levels of credit because of *suki* is a common practice for store owners (Digal 2001: 35). As *kob kob* fishing is vulnerable to weather conditions and the prospect of successful fishing is highly uncertain, sometimes crew would start accumulating credit which was supposedly to be paid at the next ‘good’ catch. When this ‘good’ catch did not materialise, the *maestro* would decide to call off their fishing in this area and move to another location and *sari-sari* stores would face a deficit. Though there was no guarantee that these *kobkobs* would come back, or that the individual crewmember in debt would even if the *kob kob* did, store owners still saw the value of trading with *kob kob* crew members. Even though one particular *sari-sari* store owner incurred a large unpaid credit, he explained that unpaid credit is usually taken over by the *maestro* of the vessel that the crew member was on, but even if the *maestro* did not want to pay, it was still acceptable for him because being *suki* to many crew, he still made a reasonable profit from them. Despite the occasional loss, profits were generally much larger than trading only with local villagers when the *kobkobs* were not in Granada. They even found that they had a higher chance to retrieve unpaid credit from *kob kob* crew than recovering similarly large amounts of credit from villagers against whom they hesitated to act for fear of gaining a reputation as harsh and lacking in compassion.

Not only did the presence of *kobkobs* increase the size of existing businesses, but it also generated new business opportunities for the villagers. In addition to the above-mentioned ‘permanent’ *sari-sari* stores, there emerged several ‘temporary’ ones on the shore during the
kob kob season. The 'permanent' sari-sari store, on one hand, was constructed of long-lasting materials and in a way which clearly demarcated the area behind the counter from the area in front of it, it was stocked with a variety of daily supplies and it operated year-round. The 'temporary' sari-sari store, on the other hand, was make-shift, and often constructed like a beach hut with a table and chairs added. There was no strict demarcation of areas apart from a small cash box which was kept under watch. Crew, villagers and the owner lounged around. It sold only a few necessities but these were in line with the immediate demands of kob kob crews, and their operation started when a kob kob arrived and ended when they left. Because they were so conveniently located right in front of the sea, these 'temporary' sari-sari stores became the central point for kob kobs which frequently visited the area.

These stores were mostly run by female members of fishing households in Granada. One 'temporary' sari-sari store, for example, was initially started by Gina and three female neighbours but later it was co-managed by Gina and her friend Joyce. Gina, the wife of a hook-and-line fisher, and Joyce, the wife of a jeepney driver in Cebu City, ran the store in front of their houses while taking care of their young children. The items sold changed from time to time, but they usually included beer, soft drinks, instant coffee, cigarettes, bread and shampoo. When circumstance allowed, they also served rice and homemade dishes like noodles (pansit) or soup (sabaw). These were either bought at stores in Poblacion or at nearby 'permanent' sari-sari stores and sold at a price with approximately 20% profit on top. Their business began with a light boat crew in May 2006 and it was said to make an average of about 40 pesos (US$0.75) profit per day. After the crew of a visiting kob kob which enjoyed moderate success in fishing began to frequent the sari-sari store, they started making a profit of about 150 pesos (US$2.81) a day, which paid each woman about 1,000 pesos (US$18.78) a month. Though there were no more than two good months a year, they had constant income from their business without travelling or needing to leave their children to be looked after by someone else. Since their husbands had work of their own, it was a reasonable supplement to their household economy.
The household of another ‘temporary’ sari-sari store relied more heavily on their business. Norma, the wife of a fisher who engaged in both hook-and-line and net fishing, ran her store stocked with similar items to Gina and Joyce’s store. Because over the years she maintained a close friendship with high-ranking crew from the Remedios, her store became the hangout of the crew from that vessel and she began by making about 100 pesos (US$1.88) profit a day. During the peak season she could make about 200 pesos (US$3.76) a day which amounted more than 3,000 pesos (US$56.33) a month. Her higher profit was also due to the fact that the store was located in the centre of the beach so crew members from other kobkobs and light boats frequently used it. The only disadvantage was that because the Remedios anchored in the area where her husband’s netting territory was located, her husband had had to stop using his net. Even so, her husband’s lowered fishing income was supplemented greatly by profits from Norma’s store, and in the end, these amounted to a much higher income than what his household would have earned from his fishing.

Plate 6-3: Kobkob crew members resting at Norma’s ‘temporary’ sari-sari store
Business opportunities due to increased customers were not limited to trading fish or selling daily supplies but also included other small businesses such as door-to-door food vending, transportation (i.e. tricycle), washing clothes, barbering and gambling. Though quantifying the exact level of economic input of the kobkobs into the village economy is beyond the scope of this study, it is of note that many villagers acknowledged that the kobkobs brought extensive economic advantage to many of them. Though these opportunities did not provide a permanent rise in the living standards of those villagers, many appreciated the temporary improvement in their difficult financial situations.

**Political Response to Kobkobs**

In response to the complex relationship between villagers and kobkobs, the municipality also took an ambivalent approach to addressing the issues. On one hand, like neighbouring municipalities, Boljoon had a strict policy against the illegal operation of kobkobs in its municipal waters. As seen in Chapter Three, the municipality, in cooperation with the NGO and other organizations, instituted fish wardens to protect against illegal fishing. What appeared to contradict its strong messages against the kobkobs' illegal fishing was that the municipality tolerated kobkobs by allowing their operation in some parts of these municipal waters. While the 1998 Fisheries Code (RA8550) prohibits commercial fishing in municipal waters in the zone up to 10 kilometres offshore, it authorises the local government to autonomously determine its operation in the area between 10.1 and 15 kilometres offshore. Boljoon created an ordinance to permit kobkobs to operate legally within this part of the municipal waters by obtaining a Mayor's Permit (Municipal Ordinance No.01-2002). This was a somewhat unusual decision among the local governments in Central Visayas as there are reported to be only two municipalities which partially allow commercial fishing in their waters (Green, Flores et al. 2004: 97).

These rather conflicting policy approaches to kobkobs were the result of persistent political support among some municipal councillors who had been voted in by those who saw benefits to having kobkobs in the municipality. Allegedly, this ordinance was originally drafted without the
clause for permission for commercial fishing. At a public hearing held prior to the establishment of the ordinance, a group of fish vendors and store owners reportedly claimed that the ordinance would adversely affect their livelihoods. Their request not to completely ban the operation of commercial fishing was taken into consideration by municipal councillors and the exception clause was eventually added. Indeed, some politicians insisted that there were benefits to allowing kobkobs to catch fish in municipal waters in return for the provision of fish to the local market. Though this would be to the disadvantage of small-scale fishers, they saw the advantage of having cheaper fish at the local market so that 'poor people in the mountains can also afford to buy fresh fish'. In addition, some farmers acknowledged the benefit of selling their ground corn at the good price of 20 pesos (US$0.38) per kilogram when it was sold at 16 or 17 pesos (US$0.30-0.32) at public markets.

This political manoeuvring, however, was, in fact, the politicians’ way of arbitrating the conflicting opinions towards kobkobs among the people. While qualification for obtaining a Mayor’s Permit for commercial operation required compliance with all relevant laws, it was clear to everyone that many kobkobs were not eligible for a number of reasons. In addition, knowing that kobkobs disliked having to limit their mobility to within a small area because their payaos were located mostly outside the Boljoon municipal waters, municipal councillors and officers were confident that they would not go through the process of applying for permits. Their assumption was proven correct. There had been no application submitted to the municipality in four years and they continued fishing illegally anyway. Effectively, permission for commercial fishing existed only on paper. The action which the councillors took was motivated by the fact that, fearing consequences at the next election, they did not wish to be seen as being responsible for harm to voters’ businesses. Further, because there were more voters who lived on the poorer mountainsides than those in fishing communities in mountainous Boljoon, and because most councillors had strong ties with these areas through blood as well as territorial connections, it was politically astute to show their consideration for the poor in mountain areas who benefited from the kobkobs.
Contained Antagonism and Opportunism

The kobkobs' interaction with villagers and the political favour which they enjoyed affected to some degree even the response of the naturally hostile small-scale fishers, particularly hook-and-line fishers. Because kobkobs actively established close relationships with many villagers, including some comparatively influential ones, through social interactions or economic ties, small-scale fishers found it difficult to act against the kobkobs. Consideration for other villagers' interaction with kobkobs was apparently important and this could be seen when, for example, Rico and many other fishers did not sign the petition. Because fishers also had to think about their relationship with other villagers, particularly shop owners or relatively wealthy villagers with whom they wanted to maintain a good relationship, many fishers refrained from acting on their hostility though they showed strong antagonism towards the kobkobs in speeches.

Fishers were caught in the dilemma between, on the one hand, severe resource competition which negatively affected their livelihood and on the other hand, social demand to maintain interaction with the kobkobs because of the economic benefit to the villagers. Since there seemed to be no solid political unity to carry out strong measures against kobkobs either at village or municipal levels, this dilemma led many fishers to behave opportunistically and to accept, as it were, the kobkobs' tactics for conciliation, rather than firmly opposing them. The case of Gina, one of the operators of the 'temporary' sari-sari store, is a good example of this. Though Gina and her fisher husband were certainly bitter about the kobkobs, their response was to win back the loss. 'My husband strives to catch fish to feed us, educate our kids, and buy basic needs', said Gina. While acknowledging her husband's declining fish catch and the lower profit for it during the kob kob season, she expressed her resignation to the situation by stating that the 'kob kob is always here no matter what people say or do.' Despite their feelings against the kobkobs, Gina and her husband actively cultivated a relationship with crew members of several kob kob vessels and light boats. As a reply to my question asking about this ambivalent situation, she said to me 'my husband still goes fishing every day, and I am on land trying to earn what he loses at sea'. In fact, this type of opportunism was deeply rooted in the minds of
Granada fishers, and also many villagers who were concerned about the livelihood of these fishers, as long as a job was available, some fish were given, and kobkobs provided consumers for goods to be sold.

The resignation of small-scale fishers to the fact that they would not be able to control kobkob illegal fishing derived from their experience with the municipality. They acknowledged that the municipality tried to eliminate the kobkobs by conducting sporadic sea patrols, but in fact, these patrols did little to discourage kobkobs. Among villagers there was always the rumour that some coastal guards accepted bribes from kobkob operators if they were apprehended. Indeed, almost all maestros I spoke to admitted that bribery was common practice to get away with illegal actions, especially on the Bohol side of the strait. More significantly, it was an extremely difficult task to apprehend highly mobile kobkobs in the vast area in the dark and without modern technological surveillance equipment which the municipality undoubtedly lacked. Over the years the fishers saw the constant failure on the part of the municipality to restrict the kobkobs’ illegal fishing and this certainly strengthened the small-scale fishers’ perception that there was scant hope of eliminating kobkobs from their waters.

Apart from these failures, there was also another issue which caused small-scale fishers to be dissatisfied with the municipality’s surveillance activity. The municipality and the fishers held two fundamentally different views of the purpose and method of the surveillance. On the one hand, the municipality placed importance on controlling the entry of the kobkobs into their jurisdictional boundary, and its primary aim was to physically exclude them from municipal waters. For this reason, the surveillance never extended across the boundary even when a kobkob was caught fishing in close proximity to the guards. On the other hand, the fishers in Granada saw the issue in terms of fishing grounds, regardless of the boundaries of municipal waters. Since the major fishing grounds of both small-scale fishers and kobkobs were outside the Boljoon municipal waters, monitoring measures taken by the municipality did not match the expectations of small-scale fishers. Thus, though both groups simultaneously advocated the exclusion of illegal commercial fishing, fishers were always dissatisfied with the outcome of the
municipality’s efforts because they did not reach to where the problem was more significant to their everyday fishing.

**Conclusion**

This chapter examined the complex socio-economic relationship between villagers and *kobkobs*. While small-scale fishers were very much opposed to the *kobkobs*, these latter established wide social networks through everyday interaction in order to increase their general acceptance by the villagers and to keep the fishers’ antagonism under control. Also, the fishers’ resignation to the ineffective control of illegal fishing drove many fishers and their families to grasp any opportunity they could to take advantage of the *kobkobs*.

After my main fieldwork in 2007, however, the ambivalent political stance taken by the Boljoon municipal government was resolved by the intervention of the Southeast Cebu Coastal Resource Management Council (SCCRMC) through uniform policy changes within the member municipalities. These policy changes caused a drastic change in the social environment of *kobkobs* and caused a change in the landscape of commercial fishing in the Bohol Strait. The following chapter will examine how these policy changes affected the lives of small-scale fishers and how they responded in a distinctly different manner to the emergence of a new type of fishing.
Chapter Seven
Forming a Better Alliance with Commercial Fishers

The socio-economic relationship between illegal commercial ring-net fishers and villagers changed dramatically after a policy change in early 2008, which led to a drastic shift in fishing practice in the Bohol Strait. A new type of commercial fishing emerged almost immediately while kobkob fishing decreased sharply. This made small-scale fishers respond by adjusting their fishing and survival strategy to the changing social environment. As described in Chapter 6, despite small-scale fishers’ strong feelings against the kobkobs because of resource competition, the relationship between the two groups was complex, involving certain kinds of passive cooperation in fishing practice. The cooperation between small-scale fishers and the new type of commercial fishers, instead, was sometimes even quite active. This chapter will examine the seemingly contradictory alliance between small-scale fishers and the new type of commercial fishing which contrasts with kobkob fishing in a number of ways. It will explore what made small-scale fishers respond differently to an equally exploitative fishing type by focusing on the interdependence of the two groups and the benefits in fishing, production and sharing which affected the relationship between them.

Decrease in Kobkob Vessels
Technological improvements which increase the economic efficiency of fishing operation changed the dominant types of commercial fishing in the region (Spoehr 1980; Szanton 1981). Another cause of these changes was policy change. This had happened earlier in regard to the once prevalent muro-ami fishing, which came to an end in the late-1980s. So now, in the Bohol Strait, due to technologically induced economic efficiency and perhaps to an even greater extent to a new policy responding to demands to protect the resources and the livelihood of small-scale fishers, the nature of regional fishing has changed.
Municipalities along the southeast coast of Cebu shared concern about illegal fishing by commercial fishing boats, namely *kobkobs*, in municipal waters. Issues about entry, docking and anchorage of these commercial fishing boats were important agenda items right from the beginning of the SCCRMC and they had been repeatedly discussed at many meetings at different levels since 2005. Prohibiting anchorage within municipal waters was considered but it was thought to be inconsistent with the relevant law ensuring people’s right to access the beach. In addition, banning commercial fishers when they were simply anchoring in order to rest from their long overnight labours was considered somewhat inhumane, and it was thought that this would cause resentment not only among the commercial fishers but even among the locals. In order to both be consistent with other laws and also maintain high public support for its policy, members of the SCCRMC looked at the possibility of using an increase in the anchorage fee to control commercial fishing.

Fee collection for commercial fishing was not a new idea in the region. At the local level, the Municipality of Boljoon established it in its Coastal Resource Management Ordinance of 2002, according to which both *kob kob* vessels and light boats are subject to such fees. According to the ordinance, commercial fishing boats of 3 to 10 tons gross, the category into which *kob kob* vessels fall, and non-commercial boats engaged in any business, the category into which light boats and some fish carriers fall, are required to pay the municipality 50 pesos and 25 pesos respectively for each anchorage (i.e. from their return in the morning until their departure in evening). In addition to anchorage fees, the municipality has set a 5 peso tax per 40 to 45 kilogram box of fish.

The imposition of this fee was aimed at a moderate increase in the municipal budget more than anything else, but it was not strictly enforced. The municipality assigned an officer from the Treasurer’s Office as a collector of these fees but this was not functioning well. During the season of 2006, instead of patrolling the area daily, the collector was seldom seen at work on the shore. Rather, he would visit Granada occasionally and collect fees based on the self-reporting of the operators of *kob kob* vessels and other boats. Unsurprisingly, the collection usually came
quite short of what the municipality was entitled to collect, as fishing operators undoubtedly would underreport the days of anchorage and the size of the fish catch. Sometimes the collector simply failed to collect from any boat not in plain sight. The collector blamed his inability to go to Granada more regularly on the fact that the municipal office did not provide him any means of transport, thus forcing him to pay out of his own small salary. Despite his infrequent fee collection, he claimed his performance was not as poor as it seemed because his good attitude in dealing with kobkob vessels and other boats earned him a good level of trust. This could be seen in the amount of ‘spontaneous’ fish give-away from kobkob vessels. His view of reality was, however, harshly challenged by one municipal councillor who publically called him a ‘slacker (tapolan)’ at the meeting because the collector had issued an Official Receipt amounting to the somewhat suspicious lump sum of 1,000 pesos, the fees for several days anchorage. In any case, though there were some logistical issues and perhaps some motivational ones as well, the fees collected, amounting to about 9,000 pesos for the season, were largely underpaid and had little effect on the municipal budget.

By late 2006, an agreement was reached among officers in SCCRMC-member municipalities to set an exceptionally high anchorage fee in order to discourage the commercial fishers from anchoring in municipal waters, rather than directly prohibiting their anchorage. In Boljoon, although there was some talk of setting a more moderate and realistic fee, thus hoping to increase the municipal budget in case some kobkob vessels decided to return, the large increase in anchorage fees was generally well accepted by politicians. In early 2008, following the recommendation of the SCCRMC, the Municipality of Boljoon, together with six other municipalities, increased the anchorage fee to 2,500 pesos per eight hours for a commercial fishing boat with exceptions made in the case of the need to shelter during a typhoon or for urgent repairs (Municipality of Boljoon 2008). In effect, this meant that one kobkob outfit, for example, typically comprised of one kobkob, three light boats and one fish carrier, would have to pay at least 12,500 pesos for eight hours just for their anchorage. This was the equivalent of
more than 6 boxes (270-300 kilograms) of fish when the price was low. *Kobkob* vessels were highly unlikely to choose to pay this amount.

Information about this policy change was apparently disseminated quite effectively among *kobkob* vessels in the region. No *kobkob* vessels or other boats returned to Boljoon during the 2008 season or (allegedly) during the following season in 2009. Though there was no statistical data available, small-scale fishers all agreed that their encounter with *kobkob* vessels at sea decreased dramatically and they saw a smaller number of *kobkob* vessels, mostly from Bohol. Most resource managers and small-scale fishers believe that the increase in the anchorage fee drove away most of the *kobkob* vessels which had originated in southern Negros, central Cebu and northern Mindanao. According to former *boleros* who worked with *kobkob* vessels, some of the boats in southern Negros in particular were sold but most of them moved to the Tañon Strait, which is situated on the opposite side of Cebu island.

**Emergence of Bag-net Fishing in Bohol**

The change in the policy, however, caused another significant change in fishing in the region. While the *kobkob* vessels virtually disappeared from the sea, another type of fishing, bag-net fishing, began to emerge in the areas around Tagbilaran and Panglao Islands off the southwest coast of Bohol (Figure 7-1). Bag-net boats are widely called ‘*basnig*’ in the Philippines but around the Bohol Strait they are also commonly called ‘kaka’ which is a generic Cebuano term for ‘spider’ or ‘*tapay-tapay*’ which means ‘huntsman spider’, due to its morphological resemblance.

*Basnig* fishing originated from an indigenous form of lift-net in the Philippines (Spoehr 1980: 75). Its antecedent is considered to be the stationary lift-net structure which was commonly used in Malay fishing communities (Firth 1946: 97-100). Rasalan (ibid: 418) claims

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58 At the time of fieldwork (in 2008), there was a *kobkob* based in the neighbouring town of Oslob which was still operating in the Bohol Strait. The Negros-based transportation company had set up the dockyard in one coastal barangay where the *kobkob* was based. The *kobkob* was allegedly facing multiple court cases for illegal fishing operation.

59 Spoehr (1980: 75) explains the term ‘*basnig*’ refers to the bag-net and ‘*basnigan*’ refers to the boat that carries out the bag-net fishing in Ilongo. In Granada, the term ‘*basnig*’ was applied to the boat.
that in the Philippines this stationary lift-net, called ‘*bintol*’, which was widely seen in Visayas, developed into the contemporary form of the *basnig*. The first appearance of the *basnig* was on Guimaras Island and the Panay Coast of Iloilo Province in the 1930s and it became commercially important in the area as early as 1935 (Spoehr 1980: 79). *Basnig* fishing had spread to coastal communities around Visayas and the Samar Sea within a few years and to Tagalog regions by 1940. After World War II, *basnig* fishing quickly spread all over the archipelago. Visayan fishers introduced *basnig* fishing to Mindanao in the late 1950s and early 1960s and to northern Palawan in the 1960s (ibid: 80-81).

Though there is no good documentation of the development of the *basnig* in the Bohol Strait, this kind of fishing probably became popular by the late 1950s at the latest, because of its vicinity to areas where *basnig* fishing was already actively being used. From a statistical point of view, *basnig* fishing was already one of the major types of commercial fishing in the strait in the early 1960s. According to Green et al (2004: 36), *basnig* fishing was once the dominant form of commercial fishing in terms of total landings. In 1962, according to them, landings of *basnig* fishing comprised about 80% of the total commercial catch in the Bohol Strait and the Bohol Sea. As observed in many parts of Visayas and elsewhere (Spoehr 1980: 103), the catch was mostly small pelagic baitfish such as sardine, herring and anchovy. After the registered number of *basnigs* peaked at 45 percent of total registered commercial vessels nation-wide in the period between 1965 and 1967, the number decreased significantly due to overcapitalization and the emergence of other fishing types (ibid: 87). In the Bohol Strait, *basnig* landings dropped continuously from the late 1960s through the 1970s and statistically they became almost negligible by 1985 (Green, Flores et al. 2004: 36). In the course of this decline in *basnig* fishing, *mura-ami* fishing began to dominate the area in the 70s, and subsequently ring-net fishing took over from the 1980s until 2007. Survey data collected by the CRMP (2003) indicates that at that time, there was active *basnig* fishing in the Tagbilaran and Panglao areas on southwestern Bohol. According to the data, there were 20 bag-net boats in the Municipality of Dauis, 12 in Tagbilaran City and 6 in the Municipality of Maribojoc. In addition, field observation and
interviews with fishers in Bohol suggest that a good number of basnig boats continued for quite a period of time to engage in fishing baitsfih.

![Map of southeast Cebu and southwest Bohol across the Bohol Strait](image)

Figure 7-1: Map of southeast Cebu and southwest Bohol across the Bohol Strait

Despite the lack of statistical data to verify the increase, a number of basnig fishing operators as well as small-scale fishers often commented on the rapidly increasing number and size of basnig boats in the Bohol Strait, which corresponded with the decline of kobkob fishing in the area. Located on the opposite side of the strait from Granada, basnig operators in barangay Bingag in the Municipality of Dauis went through this change and it is likely that fishers in this area too experienced a similar one. Bingag is a small fishing and farming village which has several beach resorts occupying the coastline facing a coral-rich MPA. With good fishing grounds in relatively nearby waters, fishing has certainly been an important livelihood among villagers. Along with small-scale fishing and light boat operation, there were a number of basnig boats which comprised a large part of fishing activities in Bingag. In recent years, however, basnig fishing saw a big change and the number of basnig boats increased sharply. This was particularly the case with a new type of basnig boat which is larger than the previous one and is equipped with a different type of net. According to several local basnig operators, there were 7 of the smaller basnig boats and 1 of the larger kind in the village in 2004, but by
October 2008 there were 10 of the small *basnig* boats and 19 of the larger ones to be found on the shore. In addition, it is noteworthy that both Bingag *basnig* operators and Granada fishers thought there were roughly two hundred of the larger *basnig* boats in the area at the time of this research.

This rather drastic change in the number and size of *basnig* boats in Bingag was brought about due to the conjunction of several factors. An improvement which increased *basnig* fishing was actually introduced to this part of Bohol several years before the decrease of *kobkobs* in the area. As mentioned earlier, *basnig* fishing in Panglao was originally done with smaller boats equipped with fine mesh nets primarily catching sardine and anchovy in nearshore waters. In the mid-2000s, a new technology in boat building and net making for *basnig* boats was introduced, allegedly by a man from Iligan, Mindanao, to sitio Manaol in barangay Tabalong, which is next to barangay Bingag. With this technology, the size of the boat was enlarged to target other larger pelagic species such as bullet tuna. The method quickly spread around sitio Manaol including Bingag from where several local fishers came to visit Manaol and learn the techniques for this larger *basnig*. At the same time, when the *kobkobs* in the Bohol Strait began to disappear in 2008 and there was no large amount of commercial fishing, there remained hundreds of *payaos*, many of which were installed by Bohol-based light boat operators, still floating in the sea. Since there was no prospect of an immediate re-emergence of the *kobkobs*, many of these light boat operators decided to catch fish themselves by shifting to this new type of *basnig* fishing. Some of them bought new *basnig* boats on their own while others had to find a wealthy relative or friend as an owner and work as crew for him/her.\(^60\)

The emergence of *basnig* fishing in the strait was also accelerated by its economic advantage. Many new *basnig* operators found their fishing more profitable than previous operation as light boats for *kobkobs*. Evidently, the same shift from *kobkob* to *basnig* fishing observed in waters near Estancia in the 1930s was also due primarily to this advantage (Szanton 1981: 30). Not only is the overall cost for the construction of a *basnig* boat 3 to 4 times less expensive than for

\[^{60}\text{In order to avoid confusion, in the following sections the word 'basnig' will refer to the larger *basnigs* unless otherwise specified.} \]
a *kobkob* vessel, the daily expenses such as fuel and food are much smaller in *basnip* fishing. Consumption of diesel oil alone, for example, based on the cases observed in Granada and Bingag, differs significantly because *basnip* fishing usually consumes only between 30 to 40 litres a night while *kobkob* fishing required 100 to 120 litres a night. This difference was due not only to the size of the boat but also to the fact that *basnip* boats are situated closer to the fishing grounds while many non-local *kobkob* vessels have to travel long distances to reach them. Considering their frequent travelling to their home port in Negros and the provision of diesel oil to their ‘support’ light boats, the difference in fuel cost, especially when the price of petroleum was increasing sharply, was considerable. Also important is the *basnip*‘s simpler fishing method and catch-sharing arrangement which allows them to retain the catch themselves. By contrast, *kobkob* fishing has a more complex fishing method and catch-sharing arrangement which make it more dependent on other parties. These points will be examined in more detail in a later section.

**Basnip Fishing in Panglao**

According to Spoehr (1980: 97), *basnip* boats in Panglao can be classified as a variation of the ‘Manila Bay’ type, which lacks the sweeping bow and stern projections but is equipped with one tall mast and two short masts and distinctive ‘horns’. The structure of the boat is very similar to smaller *basnings*, except that it is made for larger-scale and more efficient fishing operation. Though individual boats obviously have different specifications, one *basnip* boat in Bingag operated by Eric Rivera and his associate provides a typical image of this type of boat. As shown in Figure 7-2, the length and width of the hull are 23 metres and 1.8 metres, respectively. It is equipped with a 120 HP diesel engine as the main engine and an auxiliary 45 HP diesel engine to provide electricity for the lights. Both inboard engines and a fuel drum are mounted in the stern. A long bamboo tiller is attached to the rudder. There is a total of 6 long bamboo booms fixed in the bow, mid-ship and stern, and they are connected to the midsection of the central mast with ropes that run through pulleys. Beside the central mast, there is a dual wheel that rolls up the ropes attached to 6 points of the net. There are 3 300-watt bulbs attached
on each side of the hull over the central outrigger booms to illuminate the water and 2 auxiliary lights at the central mast to provide visibility during operation. The boat has spacious deck space where the net and other fishing equipment is kept. There are also several large platforms extending from the hull on which a small cooking place is arranged. The boat is usually manned by five or six crew members.

![Diagram of Basnig Boat]

**Figure 7-2: Typical structure of a basnig in Panglao Island, Bohol**

*Basnig* boats usually leave the shore between 3.00 and 5.00 pm depending on the moon phase and the distance to its fishing *payao*. Good visibility in order to more easily identify the
location of the payao is also an important reason for leaving early. Upon its arrival at the payao, the crew first connects the boat to the payao and waits for dusk. Then they turn the six fishing lights and one submergible light on to start aggregating the fish. The operation starts at any time after this, as long as they confirm the good size of the fish shoal which has gathered, but it usually takes several hours. Usually, the fishing operation takes place between 10.00 pm and 2.00 or 3.00 am. While waiting, some crew members use a type of multiple-hook handline gear (undak) to catch fish for dinner and others cook rice. Once the fish is successfully aggregated – this is seen by the presence of an identifying ‘gamao’ (churning with bubbles) – the net is dropped from starboard and set underneath the boat (Figure 7-3). When the school of fish comes within the net, the crew quickly lift it using a manual winch. The rope runs through a pulley attached to 6 projecting ‘horns’ which suspend the quadrangular net as it scoops up the fish. Subsequently, the crew members start pulling the net manually from starboard and gradually move the catch to one portion of the net. While pulling the net, crew pound the net to shake off any fish entangled in it or manually untangle the gill and throw the fish into the net, in order to gather all the catch in one place. Once the whole net is pulled up, the catch is moved to cooler-boxes. This operation usually takes up to an hour at a time and is done once or twice each night (for further technical descriptions, see Spoehr 1980; Dugan 2003).

Figure 7-3: Basnig fishing with a payao
Although fishing at payaos is the preferred method, there are occasions when basnig boats also fish without the use of payaos and they do this in two different ways (Figure 7-4). In one method, called pasabal, the basnig boat brings a floating sinker device. The device has a float connected to the rope which holds about 10 kilograms of stone as a sinker. The rope has 4 to 6 dried coconut leaves attached in a way that makes it resemble a payao and this is believed to attract fish. Because the device is not fixed, it drifts slowly together with the boat. In the pondo serado method, on the other hand, the basnig drops a stone anchor attached to a float all the way down to the sea bottom. As it can be up to 600 metres deep, thick rope is used and the device fixes the position of the boat. Despite the availability of these methods, basnig operators understand fishing at payaos is much more promising and it is more than ‘all about luck (paswerte lang)’ like the other two methods. Thus these methods are used as temporary measures when payaos are not available or not aggregating fish well for some reason.

![Figure 7-4: Two methods of basnig fishing without a payao (left: pasabal, right: pondo serado)](image)

Most people considered the volume of fish catch of basnig boats to be fairly large but not as large as that of kobkob fishing. During their prime fishing season from March to May, however, the catch could go as high as 150 boxes (up to 6.8 tons) of fish per boat in one fishing trip, which indeed holds its ground against a ‘jackpot’ of kobkob fishing. Though this is considered an extraordinary catch, within a year or two of fishing, many basnig operators would
occasionally experience catches between 70 to 100 boxes (2.8 to 4.5 tons) on a single trip. Usually 5 to 10 boxes (200 kg to 450 kg) of fish for a trip was considered reasonable by *basnig* operators in Bingag and 20 boxes (up to 900 kg) was seen as a good catch. Though the amount of catch an individual *basnig* boat can harvest at one time may be smaller than what *kob kob* vessels can, an increase in boat numbers can intensify the resource exploitation. In the end, as *basnig* operators commented, the sum of all *basnigs* in the area and their intense operation has the potential to lead to a similar level of harvest to what *kob kob* fishing used to catch.

As for its legal status, based on the 1998 Fisheries Code these *basnig* boats in Panglao are also generally considered illegal. Common explanation for their illegality is that 1) their use of strong halogen lights or *super lights* of up to 5,000 watts (Green, Flores et al. 2004: 27) to aggregate the schools of fish is banned, 2) the *basnig* boat exceeds the allowable size to operate within municipal waters and 3) *basnig* fishing is specified as one of the ‘active gear’ types. Indeed, these are the same reasons why the fishing of *kob kob* outfits is illegal. Despite the illegality of *basnig* fishing, law enforcement on the Bohol coast is said to be weak. Surveillance activity is only sporadically carried out and even then, concentrated only in some seasons, and coast guards of different authorities allegedly take bribes to turn a blind eye to their fishing. Despite the social and ecological connectivity across the strait, the municipal governments on the Cebu side have no authority in controlling the activities of *basnigs* as they are based and fish within the Bohol side of the strait.
Plate 7-1: Basnig boats anchored at the beach of Bingag

Cooperation and Generous Catch Sharing

Despite their illegality and the large quantity of their fish catch, small-scale fishers in Boljoon generally showed favourable attitudes towards basnig fishing and unlike the case of kobkobs concerns about further resource depletion did not lead them to act against them. Quite the contrary, while small-scale fishers’ antagonism towards kobkobs was obvious in their lobbying for banning them from Boljoon coasts, these same small-scale fishers went so far as to approach the MAO in an attempt to obtain a fishing permit for one basnig to operate in Boljoon’s municipal waters. Though this did not eventuate, MAO officers observed that basnig boats were far better accepted than kobkobs, even to the extent that they could mobilise local fishers to take political action favourable to them. In Granada, small-scale fishers showed their positive feelings about basnig fishers, spoke of their close association with basnig fishers and referred to them as their ‘friends (mga amigo)’. What was most notable was when this occurred among hook-and-line fishers, those who are supposedly most affected by commercial fishers’ large fish catch, and who, for that reason, were once so implacably opposed to kobkobs.
Granada fishers’ positive image of basnigs came about through interactions between the two groups of fishers and also because of small-scale fishers’ understanding of some characteristics of basnig fishing. Most important was the basnigs’ proactive approach of involving small-scale fishers in their fishing as payao guards (bantay payao). The position of payao guard is filled by small-scale fishers who take care of the basnig operators’ payaos while they are not around. More specifically, payao guards are expected to protect the payao from damage or misuse by other fishers. Guards are required to be around the payao and prevent any suspicious activity, such as other fishers attempting to destroy it or use it without the consent of the owner. Another important duty is to check whether the payao has attracted a good number of fish by looking for gamao, as mentioned earlier. Upon identifying these incidents, guards are expected to report to the basnig operators and, when necessary, follow their instructions. These activities are done at the same time as the fisher-guard is involved in his usual hook-and-line fishing. While it is still light, the fisher works in the vicinity of the payao so that he can quickly respond if some concern arises. When it is dark, guards can go a little further out since attempts to cut the payao are less likely in the dark because it is physically very difficult to locate and also because it is obvious when the payao is being misused because the lights would be on.

The contribution of payao guards to keeping the basnig fishing running smoothly and economically is significant. Maintenance of payaos is a great concern for basnig operators, not only because fishing at the payao is an important factor for successful fishing, but also because the payao is a valuable asset. Basnig operators invest large amounts of capital to install payaos in their fishing ground. Assembling one payao can easily cost 7,000 to 10,000 pesos (US$ 131.44 to 187.78), a sum representing the monthly salary of many people working in the public or private sectors. Needless to say, the crafting and the actual installation also require considerable time and labour. Despite their importance to successful fishing and the high investment of both financial and human resources, payaos can easily be lost (See Chapter 6). Slashing the rope connecting the float and the sinker means a permanent loss of the payao and expenses which cannot be recouped. Assigning a guard to avoid the loss of payaos enables
basnigs to lessen this risk. Importantly, the assignment of payao guards can also avoid unnecessary travelling and the concomitant waste of expensive diesel oil, or preserve the opportunity to fish elsewhere in cases where the basnig owns more than one payao. Basnig boats usually try the nearest payao first and ones further away are left, depending on reports from payao guards.

Though payaos are also used for kobkob fishing, there is a significant difference in how they are paid for and maintained. As the kobkobs usually do not own payaos in the Bohol Strait because they migrate seasonally to different places, they use ones which are owned by local light boat operators or other local payao owners. For this reason, the maintenance of payaos is more of a concern for the local owners than it is for kobkobs as they have a large number of alternative payaos elsewhere in the strait. In the case of basnig fishing however, they need to be more attentive to the maintenance of the payao because they are the owners, payaos are crucial to a good catch and, obviously, the more payaos they can choose from, the more chance they have of a sizeable fish catch. For this reason, basnig fishers feel an urgency about replacing a lost payao as soon as they can. Furthermore, replacement of payaos is usually considered the responsibility of crew members, just like fixing a damaged net for example, and the burden of associated costs is shared equally among crew members. With its high cost, the burden of reinstalling lost payaos is certainly not negligible for basnig fishers.
Plate 7-2: Payao floating off Balikasag Island

In the case of Granada and Bingag at least, the recruitment of payao guards was almost always done on the initiative of the basnig operator through observation of the fishing pattern and personal character of the candidates. Basnig operators first carefully observe the small-scale fishers who fish in the vicinity of their payaos to determine how frequently they fish in that spot. Most commonly, the basnig operator calls on the fisher who frequently comes to the spot and they have a chat. The basnig operator assesses the fisher, his character, friendliness and trustworthiness. The conversation leads to a gesture of catch-sharing. After repeating these small interactions for a while, the basnig operator finally recruits the fisher as a guard and allows the guard to board the boat to eat and drink together as a gesture symbolic of their now close relationship.

The small-scale fishers in Granada often recount their own personal stories of the above-described interaction. Carlo Rosales, for example, was one of the payao guards for two payaos belonging to different owners. He explained his relationship with one of the basnig operators. They would often catch sight of each other when he would use a particular payao owned by this
basnig. One night in March 2008, he was called by the basnig operator who asked him for some fish to go with his rice because they had had a bad catch. After the same incident was repeated several times, the basnig operator said to him ‘you watch the payao, my friend (ikaw bantay ang payao, bai)’ and gave Carlo his mobile phone number. This place being his fishing ground almost every day, he accepted the request. Around the same time, Carlo’s younger brother Albert was recruited as a guard for Eric Rivera’s payao. One night Eric was having trouble placing his net in the right position under water because of unusual currents. Eric and his crew members decided to wait until the currents would change but they did not have enough fish for dinner. Then Eric saw Albert who always fished near his payao and asked if he had any fish to share. As his gear was not affected by the currents and he had already caught a few kilograms of fish, Albert gave them about 10 pieces of mackerel scad. Eric invited him aboard the basnig boat and asked him to join them for dinner and to drink tanduay (a local rum). Because the area had been a major fishing ground for hook-and-line fishing for Granada fishers, many fishers encountered basnig operators during their fishing and began to serve as payao guards. While there were no fishers working as payao guards in Granada when kob kob fishing was flourishing, there were 13 hook-and-line fishers working as payao guards for different basnig boats in October 2008.

The primary reason for small-scale fishers cooperating and maintaining good relationships with the basnig operators by serving as a payao guards, despite the potential negative effect on their livelihood, is the excessively generous catch-sharing practice of the basnig operators. While there is no set amount arranged, basnig operators usually share quite a considerable amount of fish, or the equivalent in money, when their catch is large enough to leave a good excess after paying off the expenses and shares for their own crew members. A somewhat extreme example is that Carlo once received 118 kg of bullet tuna when the basnig caught 50 boxes (2 to 2.2 tons) of fish. Indeed, they offered him even more fish to take home but he had to turn it down as his small pump boat might have sunk if hit by a big wave while so heavily laden. Though there is no quantitative data available to compare these shares and the actual fish catch
of payao guards from their own fishing, payao guards stated they generally receive such a good share that at times it can easily exceed their usual catch for a night. Further, to receive their share, payao guards do not necessarily need to be on-site while the basnig is fishing. Sometimes the operators simply contact the guards to come to the boat to receive the fish or they pay in money when they see the guards on the following nights.

This generous catch-sharing is reciprocated by guards not only in their work as guards but also by offering generous help to the basnigs. Even after becoming a payao guard, each time he sees them, Carlo does not forget to offer the odd kilogram of fish for crew to have with their rice as he knows they appreciate the fresh fish. After dining together on Carlo's fish, Carlo engages in his own squid jigging from the basnig but once basnig fishing begins, he quickly joins in by setting up and hauling the net and transferring the catch to boxes, just like other crew. At other times, he gets a mobile phone call from the basnig which is at the payao and even if he is resting or sleeping at home, he travels more than an hour and a half to bring the crew drinks (usually a local rum or tuba, which they pay for). On evenings like these, Carlo usually spends the whole night at sea with them drinking. Through these repeated exchanges of favours, they gradually cultivate their friendship and in some cases the networks are further strengthened by establishing godparent (compadre) relationships.

In order to protect the payao and facilitate their fishing, basnig operators attempt to establish and strengthen relationships not only with the payao guards who will physically monitor the payao, but also with a wide range of other small-scale fishers. During basnig fishing, there are sometimes up to 20 small pump boats which stay in the vicinity of the basnig and the payao in order to take advantage of the fish gathered there. These boats are allowed to connect to the basnig by ropes and catch fish as they like. These boats usually stay with the basnig until it finishes in the hope that there will be some catch sharing with them. When fishing is successful, these bystander fishers also receive a share. Though they certainly get less than that shared with the payao guard, many fishers acknowledge that it is a relatively generous amount, particularly in comparison with the amount kobkobs would share. ‘How many fish would kobkobs give to
you? 5 pieces? That's only 1 kilogram!” said one Granada fisher, explaining that he can get more than 3 kilograms of fish if the basnig’s catch is even just moderate. Indeed, their generous sharing is one of the positive attributes of basnigs which is most commented-upon not only by payao guards but also by bystander fishers in Granada.

While the generous catch sharing in general suffices to counteract small-scale fishers’ potential accusation that they are ‘greedy (laog), basnig operators still need to be attentive to often capricious bystander small-scale fishers who may feel that they are not getting enough. To minimise the risk of dissatisfaction, some basnig operators involve their payao guards in this practice. For example, when Carlo was helping basnig fishers move the catch from the net to the boxes, the operator said to him ‘friend, give those to nearby fishers! (bai, tagay sila kana me dool nga mananagat!).’ Not knowing how much fish the operator wanted him to share with them, he was told it was up to him. When the fish catch is small, it is more likely that bystander fishers will understand that their share will be small or even non-existent, however when the catch is sizeable, their expectations are hard to gage and there could be a higher chance of not meeting them. Carlo explained that if the basnig operator is the one to give the fish, he has to face any criticism for not giving enough, but if Carlo is the one to give the fish, the basnig will not be blamed if the share is judged to be too small. On the other hand, if the fishers are happy with the share, the basnig operator will get the credit for being generous. By having another small-scale fisher as the middleman, the basnig effectively avoids any dissatisfaction while getting all the credit from the surrounding small-scale fishers.

**Socio-economic Advantages of Basnigs**

Despite the fact that both basnigs and kobkobs engaged in intensive and illegal fishing, basnigs were favourably accepted by small-scale fishers due to their overt display of generosity through catch-sharing practice. Kobkobs, instead, were perceived so negatively that fishers decided to create a petition. This does not mean that kobkobs were not aware of the significant role of catch sharing in shaping the attitudes of small-scale fishers. As seen in Chapter 6, it was in fact quite the contrary. Kobkobs were well aware of the role of catch sharing and they did practice it with
villagers, including fishers, the best they could. Given that the catch per boat is larger for kobkobs, the question then arises as to what enabled basnig fishers to be more generous in their catch sharing than kobkobs? Obviously, the generous catch sharing of basnigs was motivated by the greater importance for them of the payaos which had a direct impact on their fishing, but more fundamentally, there were socio-economic factors which greatly affected fishing efficiency and thus the amount of catch available for give-aways. In order to understand this, it will be necessary to look at the difference in organisational structure as well as the catch-sharing arrangements among crew members and also at how both these factors contributed to the basnigs’ rapid growth in the strait.

What characterises basnig fishing, particularly in comparison with kobkob fishing, is that it is done on a much smaller scale, requiring only 5 to 6 crew members, and there is no distinctive hierarchical organizational structure. With some variation noted, on the basnig boats in Bingag there are most commonly only three classifications among crew members: tag-iya (owner), maestro (captain) and kauban (literally ‘companion’ used for ordinary crew members). It is also common for owners to remain on land and provide the economic backing while appointing a friend or relative as the maestro. Such land-based owners are often local business people (Spoehr 1984) but also commonly seafarers on international ships and government workers. The maestro is in charge of the entire fishing trip. It is he who decides when to depart and where to fish, lists the catch and expenses, and arranges the distribution of catch among crew members as well as the catch sharing with small-scale fishers. Important procedures during the operation, such as the timing of dropping and raising the net, are often performed by them or done under their careful supervision. Kaubans are to haul the net and do odd jobs around the boat including catching fish with handline gear or cooking rice for dinner. A mechanic who requires specialised skills is also included as a kauban without any distinction from the rest of crew. In the case of Eric’s boat, the boat was owned by his cousin who worked as a seafarer and it was managed by two captains sharing these responsibilities. The captain is appointed by the owner
and the crew members are recruited by the captain from the same village, from both inside and outside their own kin groups.

Though the details of the arrangement may differ from boat to boat, the catch-distribution arrangement among basnig crew members is simple (Figure 7-5). Catch distribution is done on two occasions: after the night’s fishing and at the end of the lunar cycle. After the night’s fishing at their own payao, the maestro first distributes a small but equal portion of the catch to himself and to the kaubans for their daily expenditures. The remaining is listed as gross sales (komon) and the net income is calculated after various operational expenses (gasto), such as food and diesel oil, are deducted. At the full moon period, other expenses such as maintenance are deducted. This computed net income (limpyo) is then divided into two, and one half is given to the owner and the other half goes to the rest of crew members. The crew’s share is equally divided among members regardless of their classifications and any cash advances are deducted from the individual’s share before payment.

Though it happens rarely, the distribution arrangement changes when other parties join in the fishing. Again, using Eric’s basnig as an example, when the basnig fishes at other people’s payao, the basnig owner gives one quarter of the net income from this payao to its owner and the rest is shared among the basnig owner and crew as explained above. Another instance, which is even more rare, occurs when a light boat working for one of the remaining kobkobs asks the basnig boats to catch the already aggregated fish, in which case the basnig owner gives one third of the net income to the light boat and the payao owner (often the same person), and the basnig keeps two-thirds. Although these rates provide a guideline, they are flexible and are arranged through on-site negotiation. The shared amount is usually paid in cash on the following day.
Basnigs also have informal catch sharing which is kept off-book. Indeed, the above-mentioned catch sharing with payao guards and bystander small-scale fishers is sourced from off-book catch which does not appear in the formal record. For crew members, when the catch is sizable, the maestro and the kaubans take some portion of catch (up to roughly one-fifth of the total catch on Eric’s boat, for example) as a ‘small gift (gagmay grasya)’ and it is informally shared among them in an equal manner. Individual crew members, however, generally do not snatch fish as a way of obtaining a reasonable share because they believe they are treated fairly and such behaviour would be considered disrespectful to other crew members in this context. In a similar manner, the maestro informal keeps some portion of catch aside and this is given to the payao guards and bystander small-scale fishers.

The basnig’s catch-sharing arrangement contrasts with that of kobkob vessels where uneven catch sharing is largely concentrated between the owner and a small number of high-ranked crew members through formal and informal channels based on highly complex arrangements. This has also been observed by others (e.g. Szanton 1981; Ushijima 1994). In the case of the Remedios VII (Figure 7-6), for example, 10% of the total catch is given to the fish carrier boat and some fish for food and daily expenses (sapo) are given to all crew members at the end of each fishing trip. The rest is recorded as gross sales (komon) and net income (limpyo) is calculated after subtracting expenses (gasto) and commissions. From the net income, one-third of the amount is given to the partners (light boat and payao owners) and paid within a few days after the fishing and two-thirds is kept as the share for the kobkob. At the full moon period, one-half of the calculated net income is given to the owner and the other half is shared among the crew (pinansanan). Sharing rates among crew members vary in accordance with their
classifications. While some receive a fixed salary for their specialised skills, most receive a percentage. According to the general rule in this catch distribution, the owner takes by far the largest share and the maestro, segundo maestro and ‘onboard’ are given much larger amounts than the rest of the crew, who generally only receive a relatively small amount.

Figure 7-6: Formal catch-sharing arrangement of kobkob fishing (Case of Remidios VI)

‘Off-book’ informal sharing is widely practiced among virtually everybody involved in fishing on the Remedios VII. Apart from daily share of fish (sapo), the maestro gives a small amount of fish to ‘extra’ crew (bolero) at his discretion. He gives a more substantial amount to light boats which have contributed to the outcome of the night’s fishing by filling up their dip nets (sibot) with fish. When the catch is large enough, this sharing is expected to extend to other light boats which did not contribute to the catch. Because of the small share for ordinary crew members in the formal arrangement, the crew members are permitted by the maestro to keep the fish that they untangle from the net and, though this is not stated explicitly, snatching small amounts of fish from the vessel’s catch is also widely tolerated. These informal types of sharing are by no means, however, limited to ordinary crew members with limited shares. A more secretive form of ‘informal’ sharing, which has an even more profound effect on the actual overall distribution of the catch, takes place at the hands of the owner and high-ranked crew members. The owner of the Remedios VII was alleged to engage in a form of profit skimming
by manipulating the expenses and his ‘hidden’ share rate, while underpaying the crew and the partners. In addition, the *maestro*, the *segundo maestro* and the ‘on-board’ were also alleged to shrewdly conspire to routinely and by a considerable amount under-report the catch to the owner.

Because of their smaller scale but more self-contained style of production and simple organizational structure, *basnig* fishers have an economically more efficient operation than *kobkob* fishers. The more equal catch-sharing arrangement provides a greater portion to rank-and-file crew members and this dissuades them from seeking dishonest ways to further supplement their income. This enables *basnig* fishers to keep more of the daily fish catch which can then be shared with small-scale fishers. In turn, in the face of largely depleted resources and fewer and fewer sizable catches, the exploitative catch sharing and high operational costs make *kobkob* fishing unable to share any sizable amount with fishers beyond their regular crew.

**Being a ‘Small Fisher’**

Though perhaps not as significant a factor as the generous catch-sharing practice in the higher acceptance of *basnig* fishers by small-scale fishers, also important is the fact that they were seen as more ‘eligible’ to catch fish in the small-scale fishers’ ‘territory’. In the narratives of small-scale fishers talking about the eligibility of using their ‘territory’, distinction was made by the phrase ‘small fishers (*gagmay nga mananagat*)’ referring to small-scale fishers who have the right, as opposed to ‘big fishers (*dagkong mananagat*)’ referring to commercial fishers who do not have the right. The distinction refers to the difference in the scale of fishing and to their socio-economic and political situation but there are other connotations. The phrase ‘small fisher’ connotes poverty and marginality in social status, whereas the phrase ‘big fisher’ connotes wealth which brings about higher social status and more political power. While owners and operators of *kobkob* fishing, or any other large and well-capitalised fishing, were widely considered to belong to the category of ‘big fishers’, this was not so clearly the case for *basnig* fishers in the eyes of both small-scale fishers and the *basnig* fishers themselves.
While many basnig boats fall into the legal category of commercial fishing (over 3.1 GT in weight), some operators see themselves more like ‘small fishers’ than ‘big fishers’ on several counts. For one, being an owner of a basnig boat does not require as much capital as being an owner of a kobkob vessel. At the time of this research it was said that a fully equipped kobkob vessel in good condition cost around 2 million pesos (US$ 37,555.16) on the local second-hand fishing equipment market, while a similar basnig boat cost around 400,000 pesos (US$ 7,511.03). Purchasing a kobkob vessel is obviously out of the reach of most small-scale fishers, however it is not impossible for some successful ones to own a basnig boat. One middle-aged basnig operator from Bingag explained why he was really a ‘small fisher’. Born in a poor small-scale fishing household, he started fishing as a ‘small fisher’ but his diligence and good fortune over many years enabled him to own a light boat. Working closely with a kobkob vessel, he managed to accumulate more capital, which he invested in installing several payaos. When kobkob fishing began to decline in the area, he eventually gave up operating the light boat and joined in the basnig fishing as an owner and maestro. According to him, he is not an exception. There are many others he knows who, just like him, started their fishing as small-scale fishers and rose to the position of basnig boat owners. Despite their success, this basnig operator said ‘[W]e are always the same small fishers looking for a way to make a living’.

While acknowledging the difference in catch quantity, small-scale fishers sympathised with this claim of being ‘small fishers’. Apart from the negativity associated with large resource exploitation, villagers often look with suspicion at the owners of kobkobs and their high-rank crew members and see them as being dishonest, untrustworthy or corrupt. This image is largely constructed from a combination of facts with speculation about such matters as the permitted catch-stealing which is widely seen as immoral, the exploitative sharing arrangements among crew members and the acquisition of large amounts of capital which is often almost blindly associated with illicit activities. Due respect was given to the maestro for taking charge of a large vessel and crew, and there was usually some reserve due to this sense of awe. However, there was nevertheless some distrust in villagers’ attitudes towards kobkob fishers, and this kept
a certain distance between them in their social interactions. Because of this, while it was common for villagers to call ordinary crew members of *kobkobs*, with whom they interacted on a casual basis, ‘friends’, this occurred less frequently in regard to owners or high-ranking crew members. Most villagers saw these latter as ‘big fishers’ with whom they had a friendly relationship but whom they saw as in some ways crucially different from small-scale fishers. *Basnig* operators, instead, were not seen this way. Their reasonable catch-sharing arrangements among crew members, their honesty and the fact that far less capital was required, made small-scale fishers able to easily identify with them and establish some sense of intimacy with them.

The operators of *basnig* boats were respected but in a more genuine and unreserved manner and without the distrust felt towards ‘big fishers’.

This attitude on the part of small-scale fishers towards *basnigs* was reinforced by the technological limitations of their nets. Often *kob kob* fishing was condemned by small-scale fishers for their indiscriminate catch, basically harvesting everything within the net. Although *basnig* fishing is highly efficient, their fishing was seen as more selective in catching fish. Primarily due to the size of the boat, the perimeter of the bag-net is much smaller than the ring-net. This comparatively smaller net size unavoidably limits the extent of the area from which their net can catch fish. Also, and more importantly, *basnig* boats are incapable of catching fish species which inhabit relatively deeper waters. The bag-net reaches only 15 metres in depth, which is deep enough to catch bullet tuna, which usually appears in depths of up to 10 metres but not deep enough to catch other commercially valuable species such as mackerel scad, which usually appear at depths of up to 40 metres (Smith-Vaniz 1986; Collette 1995). Although these limitations were obviously not intentional on the part of the *basnigs*, they were nevertheless seen by small-scale fishers as yet another, if *de facto*, catch-sharing arrangement and valued as such. Granada fishers explained that this meant that small-scale fishers could still catch moderate amounts of fish by shifting their target species even when *basnig* boats were catching large amounts of other species. This, together with the generous catch sharing from *basnig* boats, meant that small-scale fishers were not as badly affected as they had been by *kobkob* fishing.
Conclusion

As we have seen, the relationship between small-scale fishers and commercial fishers is not necessarily as antagonistic or exploitative as is widely imagined. Despite the fact that the Catch-per-unit-effort of basnig fishing is smaller than that of kobkob fishing, overall pressure on marine resources certainly remains very high due to the increasing number of basnigs operating in the strait, particularly for one of the species which is commercially significant for small-scale fishers (bullet tuna). For this reason, although there is no statistical data available to verify the intensity of fishing and the impact of basnigs on resources, small-scale fishers generally do not perceive that they have a positive impact on marine resources, at least in terms of conservation, based on the turn-over of the commercial fishing in the strait. This, however, does not lead small-scale fishers to act against basnigs as they did against kobkobs. Rather, they see basnigs in a favourable light and actively cooperate with them despite their competition for resource use. Basnig fishers successfully gained a certain level of popularity among small-scale fishers by being seen as generous and non-exploitative fishers through lavish catch sharing, friendliness and their limited impact on resources. Basnig fishers began to be seen as more ‘eligible’ resource users in the area which small-scale fishers claim for their exclusive use. Although it remains to be seen whether this collaboration and friendly relationship between small-scale fishers and basnig fishers will continue, there is certainly an alliance between them based on reciprocity which has benefited both types of fishers.

This favourable relationship, however, is fragile. In fact, some fishers in Granada who are payao guards commented that they would not mind so much if basnig fishing were strictly regulated by the government. They explained that their responses would be to simply follow the government’s decision and they would keep concentrating on their own fishing. As many other fishers also indicated to me, ultimately their concept of the ideal status of a fishing ground is one that is free of any type of commercial fishers and where their fishing allows them to make a living in a sustainable manner. Reality, however, does not seem to allow this to occur. Evidently, as soon as one type of exploitative fisher is driven out, it is replaced with another type of
exploitative fisher. Persistent pressure on resources has kept pushing the lives of small-scale fishers to the edge while the outright elimination of commercial fishing is virtually impossible.

Undoubtedly, small-scale fishers in Granada are well aware of the negative impact of basnigs' exploitation of resources on both the resources themselves as well as on their livelihood, however when law enforcement to control commercial fishing is unreliable or small-scale fishers feel the issue is far beyond their control, they face the need to compromise their concept of the ideal fishing ground. Small-scale fishers widely acknowledge that their fish catch has been decreasing, so there is a strong motive for them to act opportunistically in order not to draw the short straw. In this sense, unlike the case with kobkobs, it was a logical choice for small-scale fishers to ally themselves with friendly and comparatively less exploitative basnig fishers who were willing to generously supplement their fish catch.
Chapter Eight

Conclusion: Community, Participation and Conservation

Small-scale fishers in Granada were situated in a fast changing environment characterised simultaneously by both over-exploitation of resources and efforts to conserve them. On one hand, due to decades of severe resource exploitation by small-scale and commercial fishers in both the coastal and offshore waters of Bohol Strait, all small-scale fishers without exception were well aware of the great degradation of the marine habitat and resource base. To make up for the decreased catch, small-scale fishers were using more advanced technology or had intensified their fishing by capitalising further or by elaborating more effective techniques. Meanwhile, commercial fishers continued their excessively efficient fishing, thus keeping the fishing pressure high. To counter the environmental concerns, the local government and NGOs supported by domestic and international donors invested in extensive efforts to mitigate the damage through a coastal resource management project. Various programs were carried out to facilitate resource conservation and rehabilitation during the course of the project, and small-scale fishers were expected to take a proactive role in its implementation. Caught between the conflicting goals of conservation and necessary intensive resource use, fishers faced the dilemma of choosing, as it were, between making a living and sustaining resources.

Summary of the Thesis

This thesis has focused on the relations between small-scale fishers and a coastal resource management project in a rural village on Cebu Island and examined small-scale fishers’ complex responses to that project as they sought to protect their livelihoods. Here, impoverished small-scale fishers faced two major threats to their livelihood: the local government’s attempt to increase the number of marine protected areas which ban any access to resources in the declared area, and the impact of poorly controlled exploitative commercial fishing. This research has
sought to understand from a socio-political, socio-economic and cultural perspective the small-scale fishers' perception of the situation and their consequent actions in terms of coastal resource management and livelihood security. Despite a strong sense of powerlessness and resignation to their inability to change the situation so that their livelihood needs would be recognised, the small-scale fishers creatively manoeuvred through these obstacles to secure their living. The thesis has argued that their often opportunistic responses, while ensuring their short-term survival, generally do so at the cost of long-term security.

The thesis has demonstrated that the practice of resource use and management in the fishing village is much more complex than what a conventional conception of 'fishing community' would postulate. It has argued that resource use practices among villagers in Granada were diverse and heterogenic and that distinctive gear groups have been formed over time, although fishers at times alternate different gear types. Fishing was originally a supplementary livelihood for agriculture in Granada and it was done using simple methods mostly in nearshore waters. The specialization in fishing which took place in relatively recent years led the villagers in Granada to engage in more elaborate fishing methods and to spend longer times at sea, and their diet as well as their economy became more dependent on marine resources. Subsequent resource depletion in coastal waters, however, together with availability and easier access to technological advancements, led many fishers to engage in offshore hook-and-line fishing while others remained in coastal waters engaging in net fishing and other relatively simple methods. With limited sharing of techniques and knowledge and the need for large investment for equipment, the separation of fishing gear groups has been rather static.

These differences in resource use practice are closely associated with different responses to the perceived threat and the level of potential impact of this threat on the individual Granada fishers' livelihood. Right from the beginning, the fishers responded differently to the establishment of the MPA depending on how important they perceived the coral reefs to be to their fishing activities. As reef areas in coastal waters are the major fishing ground for most net fishers, these fishers could foresee a considerably negative effect because of the fishing ground
which would be taken away for the MPA. Meanwhile, hook-and-line fishers saw the MPA as having only a limited effect on their daily fishing since they fish primarily in waters further offshore. This difference in fishing practice led net fishers to show stronger opposition to the establishment of the MPA since it meant that the burden of conservation impacted more greatly upon their livelihood, while hook-and-line fishers generally favoured the MPA because of its conservation value and its potential to provide the opportunity for tourism related income. The regulation of commercial ring-netters, or kobkobs, on the other hand, caused the opposite response. Because kobkobs competed in resource use at the same offshore fishing grounds, hook-and-line fishers were negatively affected not only by the quantity of fish catch but also by the lower fish price due to kobkobs excessive and illegal fishing, so they were very much in favour of such regulation. Net fishers, instead, showed perhaps an ambivalent but a comparatively more neutral attitude towards the kobkobs as they perceived less effect on their fishing, an effect which, furthermore, was partially compensated for by benefits in running small businesses and by fish give-away and also by friendship cultivated through social interactions.

The thesis has also shown how fishers in Granada feel they have no substantial political power to influence the formulation of marine resource use and management policy. Despite the national government’s effort to encourage the participation of small-scale fishers in the policy making process, the MFARMC, the avenue for them to do so, became dysfunctional and remained a mere façade in Boljoon. Neither the municipal government nor small-scale fishers saw the use of maintaining this committee because of the clear differences in social standing and because of this there was little prospect of small-scale fishers participating in any meaningful way. In Philippine society, where lower social groups generally hesitate to confront those of higher social standing, and opt rather to seek linkages with them (Szanton 1981: 95), ‘poor’ and ‘uneducated’ fishers were not capable of expressing their ideas honestly. Even when this was necessary, they felt unable to stand up against ‘wealthy’ and ‘educated’ politicians.
This has meant that these fishers have only sporadic and informal access to the policy making process when the opportunity arises. Public meetings were held prior to the establishment of MPAs but many fishers decided not to attend because they felt that their concerns would not be taken seriously into consideration in the municipality’s plan which, they felt, had already been decided upon within the impenetrable political structure. The initial success in preventing one particular coral reef from becoming an MPA site was turned to failure when the municipality introduced a series of new MPAs in subsequent years. Even when barangay councillors were invited to the public hearing before the establishment of new MPAs, they hesitated to defend the villagers’ concerns for their livelihoods despite being well aware of these and holding similar views themselves. With general distrust that politics would ever favour the lives of the poor, perceiving themselves as powerless to change policies which they saw as deleterious to their everyday lives, the fishers simply gave in to the municipality’s decisions about the use of their resources. Preparing a petition can be effective, but only when what is asked is precisely what the politicians want to happen anyway, not as a way to change policy in favour of the small-scale fishers.

The fishers’ sense of powerlessness was also demonstrated in their relationship with commercial kobkobs. Despite the kobkobs’ negative impact on fishing and on future resources, many fishers hesitated to stand against them while other villagers went so far as to act favourably towards them. Many of the villagers, even including fishers, interacted positively with kobob fishing crew members by providing goods and services and in return, the crew members provided work opportunities and catch sharing and became customers for villagers selling daily necessities to them. The logic behind this reciprocal relationship was the villagers’ belief that due to the difficulty of enforcement as well as corruption, the kobkobs would always get away with their illegal fishing regardless of any actions that small-scale fishers might take. Though not entirely in their own interest, it was logical for fishers to at least tentatively accept the economic benefits of kobkobs in the face of declining livelihood rather than missing out on both counts.
As a response to feeling powerless to manage the marine resources on which they were reliant, fishers sought ways to ensure their survival in a creative but often opportunistic manner. Once the MPA was firmly established in their previously valuable fishing ground, fishers manoeuvred to retain a certain level of control over its management and ensure that they had access to some immediate benefits. Boycotting the surveillance, poaching inside the prohibited area, reinterpreting or neglecting rules and non-reporting any unlawful activities were practiced as their 'weapons of the weak' (Scott 1985). In the interaction with commercial fishers, small-scale fishers claimed the right to take advantage of their fishing. These rights were presented on the basis of their territorial claim over the fishing ground where only small-scale fishing should be allowed. In their perception, if commercial fishers were in this territory they had to be generous to small-scale fishers. Opportunities to take advantage of these commercial fishers were sought while at the same time looking for opportunities for sabotage by cutting the payao or damaging the gear. Despite their concerns over resources, small-scale fishers pursued a degree of cooperation in fishing with kobkobs which allowed them to harvest extra fish. Meanwhile the relationship with basnigs involved more active cooperation and provided small-scale fishers with more substantial catch sharing by facilitating basnig fishing.

While these creative yet opportunistic responses helped small-scale fishers to obtain extra fish and cash and ensure their daily survival, it remained questionable whether these responses could help in the medium- to long-term. Encroaching into the MPA area using trammel nets in shallow reef areas and in the dark undoubtedly puts the corals at considerable risk of destruction. The more frequent use of scoop-nets may not itself have a serious negative impact on the marine environment, however it may tend to further legitimise the expansion of other supposedly harmless gear types and methods for use inside the MPA area (cf. Russ and Alcala 1999 for the case of Sumilon Island). In the case of commercial fishing, provision of the space, goods and services for kobkobs facilitated their exploitative fishing by increasing the economic viability of their operation and generally made their operation more convenient. Similarly, building an alliance with basnigs ensured they could fish more efficiently and sustain their operations. This
opportunistic behaviour, which villagers saw as legitimate because of their right to survive, in
fact risked leading them into an even more difficult situation for their fishing survival.

**Conservation vs. Social Justice**

At the general level, the coastal resource management project implemented in Granada has, at
least so far, provided several notable positive outcomes for promoting resource conservation.
Before the project started, there had been virtually no control over resource use and it was said
that there had been considerable depletion of marine resources through excessive and
destructive resource use practices. Despite the fact that steady and enduring resource recovery is
yet to be seen, the present coastal resource management project has undoubtedly made
significant achievement in increasing the awareness of the potential negative impact of some
resource use practices on the marine environment on which everyone relies. Through seminars,
workshops or other informal channels, resource users have begun to understand the
consequence of using fishing methods which are destructive to the marine habitat and of
excessively efficient methods on the fish population. They have learned about the ecological
vulnerability of endangered and prohibited species and how this is related to their everyday
fishing practices. This heightened awareness has certainly altered many fishers’ ways of
interacting with the marine resources in order to more be protective of the marine environment
and more conscious of their potential impact on it. Most importantly the fishers perceive the
value of conservation in relation to their present and future lives and they are proud of being
sensitive to the marine environment.

The project has also made several notable achievements. Specifically: though there were
some upheavals in management, the community-based MPA is still being robustly looked after
by assigned local guards. Its conservation objective in rehabilitating the reef ecology has shown
a slow but steady recovery trend as evidenced by the reef monitoring data. A heightened
awareness of conservation along with the commonly held value of being law-abiding citizens
have led most fishers to hold firm to their commitment to sustain the MPA. Illegal resource
extraction activity inside the MPA still occurs sporadically, however these activities are
assumed to be minimal and have little effect on the overall ecological condition of the MPA. As
the land along the MPA has been developed and the population there has increased, the
surveillance level has also increased to include spontaneous oversight by the new coastal
residents, and this further discourages many fishers from intruding. Meanwhile, regulating the
kobkobs operation inside the municipal waters has resulted in notable success. Stronger
surveillance and an increase in the anchorage fee along the coast has led many kobkobs to lose
interest in fishing in the Bohol Strait. Although these above-mentioned achievements are only
transitional results in a long process and whether they will be persistent remains to be seen, they
mark significant progress in bringing about positive change and in protecting marine resources,
given that MPA management and the regulation of illegal commercial fishers are notoriously
challenging tasks with many failures elsewhere in the country. Clearly, these achievements owe
a great deal to the consistent and strenuous efforts of those in both the municipality and the
NGO who have been involved in the various stages of the project implementation.

As seen from Granada, however, the outcome of the coastal resource management has not
been all positive in relation to the lives of resource users. There are several crucial issues
regarding the project which have impacted on the lives of small-scale fishers and which require
attention not only because of this impact but also for the future effectiveness of the project.
Most importantly, the project gave little empowerment to the resource users even though this
had been raised as an important target by the initial CRMP (2004) and subsequent
LGUMP(CCEF 2003), along with the national policy indicated in the Fisheries Code of 1998
(RA8550). Local resource users are largely situated on the periphery of the policy-formulation
process and their lives are often disregarded in the political manoeuvring. In the case of the
LGUMP project, which took place during my fieldwork, while it has carried out many programs
to increase governance capacity at the municipal level, the meaningful empowerment of local
resource users largely slipped off their radar. Their approach was limited in providing the
pragmatic skills in monitoring the MPA or policing the waters and there was no substantial
empowerment through improving the socio-economic or political standing of the resource users to enable them to carry out more autonomous resource management.

The imposition of various regulations upon small-scale fishing has also negatively affected the livelihood of fishers. The most notable change derived from the coastal resource management effort over the last decade has been the demarcation of the sea space to regulate fishing activities. Delineation of municipal waters in a way which does not necessarily match with the resource use patterns of small-scale fishers has caused disputes over fishing grounds. This has resulted in a situation where many fishers are exposed to further fee payments which exacerbate their already difficult financial situation. If they do not pay the fees, then they are exposed to the risk of being illegal fishers crossing the boundaries without permits, and this can result in harsh penalties. In addition, the establishment of a series of MPAs has deprived small-scale fishers of access to productive fishing grounds in the most accessible coastal waters. The current trend of expanding the areas of MPAs increases the intensity of the effect on the lives of small-scale fishers. This together with the remaining intensified fishing pressure caused by commercial fishers in the area, makes economic viability more and more difficult for many small-scale fishers.

There has been no means to adequately address these negative impacts on the lives of small-scale fishers or to compensate them for the unevenly distributed burden of conservation which falls upon them. The strongly advocated economic benefits of the MPA have not yet been perceived by most of the resource users as there is no evident improvement in fish catch or generation of work opportunities and no notable increase of barangay revenue through tourism has yet been observed. The spill-over effect and business development may take time, however these issues have not been explained to the resource users in comprehensible terms. The only alternative livelihood program provided by the municipality as a response to the establishment of the MPA was the motorization program for the boats but it has had little impact on those who were most affected by the MPA. Further, the program only shifted fishers from coastal waters to further offshore areas or other coastal areas where the resource competition is also high and
resources are already largely depleted. In the end, the motorization program offered little to improve the lives of small-scale fishers.

The core of coastal resource management in the Philippines, like all natural resource management, comes down to the frequently clashing values of conservation and social justice. There is virtually no room for doubt about the serious resource depletion taking place in the coastal areas of the Philippines. Myriad academic studies, government or non-government organizations’ reports, fishery statistics and stories of resource users almost without exception point to the rapid disappearance of marine resources, and the major causes of this depletion are considered to be overfishing and habitat destruction. The depletion of marine resources is problematic because they provide many people, particularly small-scale fishers living on the coast, an important source of animal protein and cash income to maintain their well-being. These people generally belong to the lower stratum of society, are in highly vulnerable financial conditions, and their livings are highly susceptible to resource depletion due to their limited capacity to swiftly respond to it. Marine resources are also seen as a highly valuable economic commodity under the green neo-liberal government. It provides the potential for tourism development which would increase the governmental revenue and can benefit the wider public through public welfare services. Committed and effective conservation effort is thus clearly necessary.

In order to achieve the conservation of marine resources, intensive habitat protection of ecologically significant areas is crucial. These areas include coral reefs, mangrove and sea grass areas where productivity of marine resources is high through providing the ideal environment for fish and invertebrate species to grow and spawn. As many studies show, the establishment of MPAs by preventing human access is a powerful tool for protecting these areas. Although we know it is not a panacea and that it is a daunting task to tailor MPAs to the local context and make them self-sustaining (e.g. Pauly, Christensen et al. 2002; Kaiser 2005), we are dependent on the continued establishment of such MPAs. The areas covered by MPAs will need to be
increased for more effective conservation because higher productivity is expected when larger sized areas are protected and when these MPAs are biologically well connected to each other.

At the same time, in order to make more sense of habitat protection, increased control over fishing pressure needs to be carried out. Stronger habitat protection may have only a limited impact on resource recovery if the increased biomass is continuously harvested because of a high level of fishing pressure. Although its unpopularity makes it a challenging task, stronger control of fishing pressure is unavoidable if the resources are to be ‘managed’. This inevitably requires further regulation of the fishing practices of all fishers and small-scale fishers cannot be excluded. As a trend, disparity in the volume of total landed catch between commercial and small-scale fishers is rapidly decreasing in recent years in Central Visayas and perhaps also in other regions. This clearly indicates that small-scale fishers are indeed the major resource users not only measured by the number of fishers but also according to the catch quantity, thus effective conservation of marine resources cannot be achieved without them. Reducing fishing pressure means to control the fishing effort: the number of fishers, boats and gear, as well as the method in order to control the quantity of the fish catch. More specifically, although introducing control over the fish catch (i.e. output) may not be suitable in countries like the Philippines where the collection of reliable quantitative data is difficult, stronger emphasis on more comprehensive and strictly enforced regulations on resource use practices (i.e. input) may be more pragmatic and effective. Regardless of the method, it is urgently necessary to reduce fishing pressure in order to slow down the pace of resource depletion and allow habitat protection be more effective in resource enhancement.

While resource conservation is clearly necessary, there is a need for social justice towards small-scale fishers who are vulnerable both to resource depletion as well as to further resource conservation. Enforcing stricter regulation over small-scale fishing inevitably means taking away from poor fishers, at least temporarily, the opportunity for making a living at sea. Unlike large commercial fishing boats, these fishers are heavily reliant on the marine resources in limited local areas and as individuals they need to catch relatively small amounts of fish. Their
catches are generally only enough to obtain food and a very small cash income for their families, to educate them, obtain medical treatment and fulfil other basic needs for them. At times they fail to achieve even these limited goals. Further regulation of the productive fishing grounds, effective fishing methods or target species would exacerbate their struggle, and make them unable to continue small-scale fishing.

It is obvious that further regulation of small-scale fishers of marine resources would certainly not contribute to increasing their well-being in any way. With stable employment opportunities apart from fishing highly limited in local provincial areas, these fishers would be forced to look for opportunities elsewhere, most likely in the big cities. Jobs paying enough to support the family in the city, where living expenses are so much higher than in the provinces, would require at least a high school diploma, but these fishers generally have minimal formal education. In many cases, they have only finished primary school and some not even that, so they have no professional skills other than fishing and simple manual labour. Because of this, and as can be seen by the stories of many fishers who once moved to the cities, they are only able to work in factories or on construction sites and earning minimal wages. Also, as commonly acknowledged by older fishers in particular, many fishers favour continuing their lives in the village despite the financial struggles. They have indicated that the freer, more accommodating and self-sufficient work environment there, with no harsh or abusive treatment by supervisors and no exploitative payment style is preferable to jobs in the cities. Further, as seen in Fernando’s statement, the village way of life, living close to friends and families, being able to work with dignity and enjoy the rewards of village life are seen as important aspects of well-being for fishers.

Obviously there is no simple answer to solve the dilemma of the conflict between conserving marine resources and securing the livelihood of vulnerable small-scale fishers. Answers would vary depending on individuals’ perspectives and there is certainly no easy solution to this problem. At best, the most realistic approach needs to consider how to minimise the negative effects on the vulnerable resource users while maximising the positive effects on the marine
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deco-system. This requires an approach which produces policies attentive to maintaining a fine balance which neither over-rides the importance of conservation nor that of social justice. In order to attempt to achieve this balance, there are a number of issues which need to be adequately addressed.

The first issue is to adequately enquire into the social complexity of the target community. Resource use practice is heterogenic within the community due to the differentiated socio-economic and technological conditions at the individual and household levels. The responses of small-scale fishers to coastal resource management projects are thus also heterogenic as these responses are largely affected by their interpretations of such projects’ burden on their livelihoods, which as we have seen, is unevenly distributed. These responses are also shaped by social and economic relationships with other actors in resource use, particularly in terms of livelihood security. Insufficient attention to the social complexity of the target community in the project would likely result in marginalising some groups of resource users and generating a strong sense of unfairness, which, in turn, would discourage cooperation by those negatively affected and undermine the project’s effectiveness and durability. Scrutiny of the effects upon the community constituents is thus an essential procedure for assessing the balance of conservation and social justice as well as the potential success of the project.

This point is also highly relevant to the current direction towards ecosystem-based management where a more top-down style of control from national agencies is favoured (Christie, Fluharty et al. 2007: 241). The emerging and critical concern about ecosystem-based approaches is that they can lead to even less attention to the social complexity crucial to both biological and social success of conservation projects as projects target larger geographic areas. Brosius and Russell (2003) caution of the risk of these approaches because they are not able to adequately address the complex behaviour and activities of human populations in the project due to their common methodology. According to them, placing the spatial model of species population and their movements as the basis for planning, these approaches require rapid, formalistic and easily-operatable methods of assessing the human systems and their interaction
with the ecosystems, methods which are not suitable for the purpose. Simplified schematic designs and plans that many ecosystem-based approaches find more attractive because of their convenience are prone to fail as they tend to overlook localised practical knowledge. It is precisely this knowledge, together with informal processes of negotiation and coordination, which facilitates the smooth implementation of rules (Scott 1998: 309-341). This is particularly so in many developing countries in the tropics where formal institutions are relatively weak.

The second point is that providing resource users with an avenue to meaningfully participate in the resource management decision-making process, while also remaining attentive to potential conflicts, is essential to implement projects. Clearly this needs to be done based on an in-depth understanding of the complex reality of the community. Meaningful participation requires that different groups within the community be represented and their opinions can be freely expressed without any feelings of timidity or threat. It also requires that these opinions be capable of influencing policy formulation. This must be grounded on a thorough investigation of the power relations among stakeholders in the project (such as resource users, government officers, politicians, NGO workers and business owners) while focusing on the micro-politics. By resource managers ensuring participation in a way which adequately addresses the issues relating to power differences, fishing rules and regulations which make sense to the stakeholders can be discussed and the livelihood concerns of the resource users can be assuaged. Measures which negatively affect resource users' livelihood may be necessary, but strenuous negotiation has a far greater chance of finding pragmatic solutions in the form of financial compensation, the generation of alternative livelihoods, or another alternative than does mere imposition of preconceived solutions.

In order to bring about meaningful participation by resource users, suggestions made by Agrawal and Gibson (1999) for institutional arrangements have important implications. The gist of their suggestion is to ensure that the function of 'checks and balances' works, and that management structures lead local communities (and presumably other interest groups) to unite in order to negotiate with government agencies in a more equitable manner and thus be able to
reflect the diversity of community opinions. Agrawal and Gibson stress the importance of the representative organization of such united communities being run democratically and being accountable to their constituents, as well as being allocated enough funding for their operation (ibid: 640-641). In this, the institutional arrangement should ensure the participation of representatives from various interest groups from multiple sectors such as fisheries, tourism and aquaculture. Particular attention should also be given to the adequate representation of small-scale fishers who are the major users of the marine resources yet usually less powerful in the political arena. Equally important is to include the commercial fishing sector, which usually has a significant effect on resources (cf. Israel 2001). Their illegality may pose an impediment to representation in the formal arrangement, however using informal arrangements, such as channelling through the representative of legal actors (such as payao owners or fish traders in the case of the Bohol Strait) may provide a pragmatic solution.

The third issue relates to the determination of the right geographic scale for the efficiency of coastal resource management. As coastal resource management should aim to maximise resource recovery while minimising regulation, careful assessment of geographic scale to carry out projects is necessary. This requires a holistic view which is attentive to the dynamic function of the ecosystem regardless of political boundaries, particularly when the management problem is transboundary. Although they can have negative social impacts if carried out without sensitivity to local social contexts, ecosystem-based approaches are particularly useful in addressing this issue by determining the appropriate geographic scale to address the problem. In the case of the SCCRMC, while its management is effective on the Cebu Island side of the strait, it has offered no effective means to control the Bohol Island side. As seen in Chapters 6 and 7, commercial fishers are most active outside the jurisdiction of the SCCRMC, yet the living of small-scale fishers from southeast Cebu Island is directly and adversely affected. This requires the development of networks with other similar organizations in the wider region or institutional refurbishment in order to establish more consolidated management to include both sides of the strait. This case suggests that while the existing management framework which is often
grounded in political jurisdiction provides a good basis to initiate the ecosystem-oriented management structure, it may require further scaling-up if the purpose of the organization is realistic yet effective resource management, especially when the waters include multiple areas such as bays and straits.

The fourth issue is the openness and accountability to the resource users who would be most affected by the management of coastal resources regarding its objectives, goals and progress. This requires detailed and realistic work plans and serious engagement in clarifying the relevance of the expected outcome of the management to the lives of the resource users. In the process of doing this, resource managers also need to clarify the projected timeframe for achieving the objectives, including the possibility of these objectives not being met, and they must provide convincing rationales if they are to continue the management project. These issues need to be clearly presented to the resource users in order to avoid false expectations or over-credulity which may lead to misconceptions (for example, simply keeping the MPA is not enough for substantial resource conservation). Ambiguity in this can easily evoke suspicion and scepticism on the part of resource users, which can lead to opportunistic behaviour to take advantage of short-term profit. Generation of project ownership among resource users is an important element for project sustainability, and it cannot be done if the commitment to ensuring the transparency of project implementation is half-hearted.

**Conclusion**

In managing any natural resource, the conservation burden is always borne by local resource users, who are often socially and economically marginal, while the government and NGOs get on with what they are mandated to do. There exists a severe conflict between the value of conservation and that of social justice for those who suffer because of conservation. Despite the decades of strenuous effort made in the area of coastal resource management in the Philippines, which has provided considerable development in theory and pragmatic knowledge, these efforts have not yet provided effective and widely applicable approaches to reconcile this inherent
conflict in realistic terms. Without a pragmatic approach to seriously address this issue, any coastal resource management will be undermined by the non-cooperation of resource users.

What is essential for implementing coastal resource management which is attentive to the balance of conservation and social justice is good social research for building a solid foundation. This is even more the case when resource management is increasingly inclined to take ‘ecosystem-based approaches’ which cover wider transboundary regions. With conservation programs based on sound ecological data, adequately acknowledging the social complexity and reflecting it in project design would contribute to improving the ecological and social status of coastal areas. Simultaneous achievement of these elements is the most promising way forward for effective and durable management. Thus, scrutiny of the socio-political, socio-economic and technological dimensions of the target community which brings better understanding of the complex reality of the community should always be the basis for any coastal resource management regardless of its management scale or geographic area.

In this sense, anthropology and other associated disciplines, which are geared to holistically investigate social complexity through ethnographic research methods, have considerable potential to play a significant role in further scholarly and practical development of coastal resource management in the future. Long-term fieldwork which nurtures wide and deep social networks with local residents who actually use and manage resources brings rich and invaluable information which cannot be collected through simplistic quantitative methods or rapid techniques with small sample sizes. As this thesis has shown, there are many issues which remain hidden because of unequal power relations, because of natural reluctance to speak of sensitive concerns, or because of complex realities which require a holistic view in order to grasp the overall picture. Local residents in the community must not be viewed as mere governance subjects. Their subjectivity requires further attention and it needs to be addressed in the process of resource management. Despite its relatively slow process of data collection and analysis, an anthropological approach has considerable value in providing a realistic image of the community for the management framework. Future studies should take advantage of these
strengths of anthropology and associated disciplines to bring about pragmatic and feasible solutions to the above-mentioned issues.
Appendix I

Fishing Methods in Granada

Fishing methods employed by small-scale fishers may differ between localities even when they are called by the same name, and sometimes even among fishers within the same locality. There are many examples of this and from time to time it can be quite confusing when attempting to comprehend the variety and specifications of gear types used by Granada fishers. As seen in Chapter 3, fishing gear is subject to constant improvement informed by fishers’ knowledge and experience. Descriptions of fishing gear provided in this section are based on first-handed data obtained from interviews with and observations of Granada fishers, however they should not be seen as fixed definitions as they may vary among fishers. Thus, the descriptions below are the common understanding of gear types shared by Granada fishers, but they are constantly subject to modification in order to improve effectiveness.

It must be noted here that the measurement of length in the description is converted to metric units from the local measurement units. Dupa is the most common unit used by fishers to describe the length of the line or depth of waters. A dupa is the length from the fingertip of the right hand to the fingertip of the left hand of a man with arms outstretched, thus it is commonly translated as a ‘fathom’.

While according to the definition of length set by the International System of Units (SI) this is 182.88 centimetres, in course of my research I determined that the actual length referred to by Philippine fishers is, in fact, approximately 150 centimetres. Dangaw is another unit commonly used and it represents the length between the middle finger and thumb when the hand is formed into a fist but only these fingers outstretched. This unit is calculated at 15 centimetres.

Multiple hook-and-lines (Palangre)

The word palangre is a Spanish term referring to the longline gear, but it is used among Granada fishers to refer to gear with many hooks, specifically multiple hook-and-line gear. A
different word is used for longline gear. It consists of the mainline (*bahayan*) and multiple branch lines (*kolambot*) attached with hooks (*taga*). The material and size of the line (generically called *fisi*) and hook vary from one type to another in accordance with the specific target species. There are at least eight different types of *palangre* observed in Granada, mainly targeting *tulingan*, *tamarong*, *wasngag*, *bulan-bulan*, *homoy-homoy*, *tabas*, and *burot-burot*. While most subtypes of *palangre* are commonly called by a name which combines the prefix ‘*palangre sa*’ (lit. multiple hook-and-line for) with the name of the main target species as the suffix, such as ‘*palangre sa tulingan*’, *panabas* and *undak* are exceptions. Among some fishers, some of these subtypes are seen as the same gear while others differentiate them into smaller categories according to the materials used to craft the gear.

![Diagram of palangre](image)

**Palangre sa tulingan (Panulingan)**

This gear primarily targets *tulingan* but is also effective in catching *tamarong* and small *borot-borot*. It consists of a primary mainline connected to a second line attached to several lead balls through swivels, then to a secondary mainline with a number of branch lines with hooks, and to the line attached to the metal lead. The gear is commonly used at dawn or dusk near *payaos* (FADs) close to the Bohol shore. The primary mainline is held at around a 25 metre point from the first swivel and as the boat travels the fisher pulls the line rhythmically to attract the fish to the hooks. The gear is also used to catch another commercially valuable species called *tamarong*. 

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**Common specification**
- Primary mainline: Monofilament PA No. 10
- Secondary mainline: Monofilament PA No. 10/12
- Branch line: Monofilament PA No. 06
- Hook: No.570/571, 60-240 pieces
- Sinker: Metal lead weighs 0.5-1.0 kg
- Bait: Green and silver fabric thread

**Palangre sa borot-borot (Pang-borot-borot)**
This gear mainly targets *burot-burot*. The basic composition of this gear is the same as the *palangre sa tulingan*, except for the pink colour of the fabric thread which is thought to cause the fish to mistakenly perceive it as krill. Likewise, the basic technique is similar but this gear cannot be used around *payaos* in waters close to Granada.

**Common specifications**
- Primary mainline: Monofilament PA No. 10/12
- Secondary mainline: Monofilament PA No. 10/12
- Branch line: Monofilament PA No. 05/06/12
- Hook: No.570, 80-240 pieces
- Sinker: Metal lead weighs 0.5-1.0 kg
- Bait: Pink and silver fabric thread

**Undak**
The *undak* is used to target other species but also for *burot-burot* when they are of a larger size, and it is most commonly used at the *takot* (shoal). The line is dropped vertically in 60 to 120 metre deep water and the fisher jerks on it while the current drifts the gear slowly.
Common specifications
- Primary mainline: Monofilament PA No. 40
- Secondary mainline: Monofilament PA No. 20
- Branch line: Monofilament PA No. 20
- Hook: No.562, 80 pieces
- Sinker: Bottle filled with sand weighs 1.0kg
- Bait: Sliced bullet tuna, mackerel or squid

Panabas (Palangre sa tabas)
The panabas mainly targets tabas along with diwit-diwit, wasngag, balila, and bulan-bulan.
The basic composition of the gear is similar to undak but it is usually the secondary mainline is
usually shorter. Comparatively fewer hooks are used but they are bigger and lines are much
sturdier. It is dropped down to 90 metres depth and rhythmically pulled with a jerk (bolos). The
gear is used most frequently at the shoal (takot) but is also commonly used other areas in the
coastal water.

Common specifications
- Primary mainline: Monofilament PA, No.100/150
- Secondary mainline: Monofilament PA, No.60
- Branch line: Monofilament PA, No.30
- Hook: No.559, around 30 pieces
- Sinker: Bottle filled with sand weighs 2.0-2.5kg
- Bait: fabric thread
**Pang-balila (Palangre sa balila)**

Employing a similar method to the *panabas*, this gear is specialised for catching *balila*. The most distinctive trait of this gear is each hook is connected to the 0.3 metre long wire (*asero*) with a small ring on the top and the wire is attached to the monofilament branch line. This device enables fishers to minimise the risk of the lines being cut off by the strong and sharp teeth of the fish. Again, this is commonly used at the shoal but also in other coastal waters.

![Diagram of Pang-balila fishing method](image)

**Common specifications**
- Primary mainline: Monofilament PA, No.100/150
- Secondary mainline: Monofilament PA, No.60
- Branch line: Monofilament PA, No.30
- Hook: No.01/02, around 30 pieces
- Sinker: Bottle filled with sand weighs 2.5-3.0kg
- Bait: fabric thread

**Palangre sa bulan-bulan (Pang-bulan-bulan)**

The main target species for this gear are *bulan-bulan*, *borot-borot*, *tabas* and *balila*. During the operation, the primary mainline is kept between 30 to 67.5 metres from the first Styrofoam buoy which marks the location of secondary mainline starts. It is also exclusively operated at the shoal. Some fishers use multiple units (up to 6 units) simultaneously and they wait up to 2 hours after dropping the line before pulling it up. Because they are used in a small fishing area, entanglement is a common problem. In order to avoid this, fishers normally line up in parallel and move in the same direction. In case of entanglement, the fish caught in the entangled line is divided equally.
Common specifications
- Mainline: Monofilament PA, No.40
- Branch line: Monofilament PA, No.25/30
- Hook: No.560/562, 45-60 pieces
- Sinker: Bottle filled with sand weighs 1.0-2.5kg
- Bait: fabric thread

Pang-homoy-homoy
This gear mainly targets homoy-homoy along with other species such as bulan-bulan, balila, wasngag and tabas. Like some other gear types, it is almost exclusively used at the shoal. The line is first dropped to the bottom of the sea (at the top of the shoal) and it is lifted about 1.5 metres. Then the fisher slowly lifts and lowers the line (bolita-bolita) every 5 seconds. This movement continues for up to 2 to 3 hours until the fishing operation ends.

Common specifications
- Primary mainline: Monofilament PA No.40/50/60
- Secondary mainline: Monofilament PA No.15
- Branch line: Monofilament PA No.15
- Hook: No.563/564/565, around 25 pieces
- Sinker: Bottle filled with sand weighs 1.0-2.5kg
- Bait: sliced bullet tuna, mackerel, or squid
Palangre sa wasngag (Pang-wasngag)

The main target species of this gear are wasngag, balila, diwit-diwit, lingko, pinya-pinya and iho.

Similar to pangbalila, a part of the branch line is made from wire but it is connected to dual hooks, called ‘slicers’, in which one hook hangs a centimetre down from the other one. The main fishing ground for this gear is the takot and the line is dropped to over 200 metres deep and the line is held steady.

Common specifications
- Primary mainline: Monofilament PA, No.150
- Secondary mainline: Monofilament PA, No.80
- Branch line: Monofilament PA, No.60 and wire No.08
- Hook: Slicer No.04, around 35 pieces
- Sinker: Bottle filled with sand weighs 5kg

Sagiusew

Unlike other multiple hook-and-line gear, the sagiusew is operated by two boats to catch lamongan and sambagon. The hook and the attached light blue coloured lure are covered with a narrow plastic tube which is cut obliquely at the bottom. The movement of the hooks going up and down and the bubbles that this device generate when trolled resemble the small fish which attract the target species. Two boats as a pair first look for a school of fish in nearshore waters. Once the school is identified, both fishers hold the ends of the mainline and troll the line at the high speed in the opposite direction to which the fish are swimming. The distance between the boats varies depending on the condition of the sea and the fish but it is usually kept in the range of 30 to 75 metres. Sagiusew is, however, known as a ‘drive-in gillnet’ operated by two boats in the neighbouring municipalities.
Common specifications
- Mainline: Monofilament PA No.60/80
- Branch line: Monofilament PA No. 60/80
- Hook: No.57/60/559 in the plastic tube, 25-30 pieces
- Bait: fabric threads

Ankla (Pang-nokos/Pang-lumayangan)
The name ankla is derived from the similar word for anchor in Spanish (ancla). This multiple-hooked inverted umbrella-shaped device, commonly 5 to 7 centimetres in length, targets exclusively small squid in a wide range of areas during the dark. To attract the squid, lighting devices are always employed. The kerosene lamp (petromax) was commonly used until the early 2000s when it was replaced by a lighting device sealed in plastic tubing and powered by a motorcycle battery and called a ‘blinker’ because the light blinks (the left light in the diagram). In 2006, this was again replaced with a less expensive small lighting device that has the small batteries built-in and is called a ‘kipat-kipat’. This was introduced by small-scale fishers from Baliri, a municipality located the other side of the island (the right one in the diagram). To use this gear, the fisher drops the line attached to the jig approximately 5 to 10 metres (depending on conditions), together with the lighting device (if that is separate) to above the ankla. The line is moved up and down to attract the squid. This technique is known to be one of the easiest fishing methods, a desirable method for beginning fishers.
Common specifications
- Mainline: Monofilament PA No.10
- Hook: Moulded lead jig
- Bait: Usually no bait, sometimes with a slice of squid

Longlines (Kitang)
The longline consists of the buoy line, a mainline, and a branch line, technically called the ‘snood’. Buoys are connected to the mainline through the buoy line in order to keep the mainline afloat and they are placed at specific intervals. At the bottom of these buoy lines, there are sometimes a sinkers to keep the gear in position. In between buoy lines, there are a number of snoods connected to hooks with bait. As the name indicates, the mainline is quite long.

Kitang
This gear targets various reef-associated or demersal species such as pogapo, mamsa, lagao, lapis, sagisihon, lawig and pagi. There are two types of kitang employed in Granada. One is drift longline and the other one is bottom-set longline. While the drift longline floats in a relatively shallow position in the water, bottom-set longline is set at the sea bottom with stone sinkers and this is the type more commonly used by fishers. Though it varies, the gear has a mainline of up to about 1,800 metres with 600 to 1200 snoods. The size of the hook also varies, but in general the smaller the size of the hook, the more hooks are used with shorter intervals in between. The gear is normally used in coastal waters with sandy substrate near the reef and reefs are avoided for potential damage to the gear.
Common specifications
- Mainline: Monofilament PA No.40/50
- Buoy line: Monofilament PA No.60
- Snood: Monofilament PA No. 10/15/30
- Hook: No.559/564/568, 600 to 1,200 pieces
- Sinker: Stones weighs 0.5-1.5kg
- Bait: sliced bullet tuna, mackerel or squid

Simple handlines (Pasol)
Because they are cheap to buy and easy to craft, simple handlines have been one of the most common gear types used by villagers, particularly by those who engage in fishing only occasionally. The gear is composed of a handline and a device to catch the target species which varies from gear to gear. Within this category, there are several types commonly used in Granada.

Pahawin
This gear targets various reef-associated species such as rompe, iho, mamsa, ingatan, haan, dogsok, lobon, lapu-lapu and tangigi using a simple hook-and-line device with a small metal lead between primary and secondary mainlines. It is used in coastal waters in the day or the night, from either a boat or while swimming.

There are some subcategories in this gear type. For example the kawel is used in deeper waters, over 200 metres deep, and made with a much larger-sized line and a hook. It is equipped with a metal bait line which holds a whole fish in order to target large species. Tawa is another type which also employs slightly larger-sized line and hook but it is used from the shoreline.
**Common specifications**
- Primary mainline: Monofilament PA No. 50
- Secondary mainline: Monofilament PA No. 50
- Hook: No.564
- Sinker: Small metal lead weights approx. 0.2kg
- Bait: fish or sliced fish meat

**Rentic**
Unlike other handline gear types, this gear does not have any hook attached to the line. Instead, it is equipped with 4 to 5 centimetre long fabric thread to target balila which has pronounced sharp teeth which can be easily entangled in the thread. The colour of the thread varies among fishers and may be green, pink or a mix of both colours. Fishing is done in coastal waters by dragging the line while the fisher paddles the boat. The durability of the threads is low so this gear requires more frequent maintenance to replace it. Because of this, together with the relatively low cost for crafting, fishers with less capital make use of this gear while ones with more capital usually choose other methods to catch balila.

**Common specifications**
- Handline: Monofilament PA No.8
- Bait: Synthetic fibber thread
**Tolawog**

This gear targets species like bolatok, maya-maya, haan, lobon, lapu-lapu, pagi, iho, diwit-diwit, wasngag, lingko and pinya-pinya. The primary mainline is connected to a curved metal bar using a swivel and a metal lead in the middle. This is connected to the secondary mainline which then splits into two branch lines with a hook on each end. It is used in the coastal waters and is held stationary during operation once the gear is dropped into the water. It can be used both during the day and at night and fishers recently have begun to use kerosene gas lamps when it is used in the dark.

![Diagram of Tolawog gear]

**Common specifications**
- Primary mainline: Monofilament PA No.60
- Secondary mainline: Monofilament PA No.60
- Branch line: Monofilament PA No. 60
- Hook: No. 01/05, 2 pieces
- Sinker: Metal lead weights 0.75-1kg
- Bait: sliced fish meat

**Gill net (Pokot)**

The gill net is the most commonly used category of net gear among Granada fishers and there are many different types which vary according to the target species. The basic composition includes a net made from monofilament PA or nylon monofilament with a number of rubber floats attached on the top side and metal lead sinkers on the bottom side. Depending on the position of the gill net in the water, some have styrofoam buoy or stone sinkers added. By setting the net to block the direction that the fish travel, the gill net catches the fish by getting their gills entangled in the net. Gill nets have long been used in Granada and they were made with dried fibres produced from magay (maguey, Agave Americana) up to the 1940s, but
now all components are purchased from a specialised shop in Cebu City and fishers only assemble them. Locations for using these nets are often in the individual’s netting territory (See Chapter 3).

**Pamo**

Bottom-set gillnets made from nylon monofilament are used to target a wide range of neritic and pelagic species such as borot-borot, tulingnan, anduhaw, tamarong, langoso, kalantasik, lapis and nokos piliw. In Granada, this gear is used in adjacent coastal waters, no further than 30 metres away from the shore, and placed in the fisher’s usual allocated location more or less vertical to the shore. They are usually used for overnight setting (pana-an) where the net is placed between 5.00 and 6.00 in evening and hauled in between 5.00 and 6.00 the following morning.

![Styrofoam Buoy and Gillnet Diagram](image)

**Common Specification**
- Net material: Nylon monofilament (PAmo)
- Mainline: Multifilament PE No. 5-10
- Mesh size: No. 5
- Float: Styrofoam and rubber
- Sinker: Stone and metal lead

**Pang-anduhaw**

This gear is a bottom-set gill net mainly targeting anduhaw along with species like kolantasic, langoso and lapis, and operated by 3 to 4 fishers. Firstly, fishers look for a school of fish by identifying the location of bubbles (bula). When the location of the fish is confirmed, fishers quickly drop the net (tak-tak) in a semicircular shape starting from the direction of the current. Once the net is completely dropped, one fisher remains in the boat and the rest jump into the
water and placing themselves at set intervals between two styrofoam buoys. The fishers then start splashing the surface of the water (kapa-kapa) while slowing swimming towards the net to drive the fish into the net. Once the fishers reach the net, they board the boat and start hauling in the net.

**Common specifications**
- Net material: Monofilament PA
- Mainline: Multifilament PE No. 5-10
- Mesh size: No. 6
- Float: Styrofoam buoy and rubber
- Sinker: Stone and metal lead

**Panulingan**
This drift gill net targeting tulingan is really a floating version of the pang-anduhaw. The difference between these gear types is that this gear does not have stone sinkers to hold the net vertical. It is used in offshore waters near the payao (FAD) and placed linearly waiting for the fish shoal to get entangled.

**Common specifications**
- Net material: Monofilament PA
- Mainline: Multifilament PE No. 5-10
- Mesh size: No. 6
- Float: Styrofoam buoy and rubber
- Sinker: Stone and metal lead

**Padomog**

This bottom-set gill net is characterised by a relatively short height and is used in rocky substrate in shallow water close to the reef targeting reef-associated and demersal species. It is operated by 3 to 4 fishers during the day time. Fishers first look for big rocks on the sea bottom of the desirable fishing spot, and then place the net to snake along following the location of rocks, while making sure the net does not get entangled with them. After placing the net, the fishers jump into the water and drive the fish into the net by using their arms and legs. The net is hauled in once fishers come back to the boat.

![Diagram of Padomog fishing method]

**Common Specification**
- Net material: Monofilament PA
- Mainline: Multifilament PE No. 5-10
- Mesh size: No. 8
- Float: Rubber
- Sinker: Stone and metal lead

**Pang-malangsi**

With its relatively short width and smaller mesh size, this gear mainly targets *malangsi*. Similar to the method employed for the *pang-anduhaw*, fishers first look for the location of the fish shoal by identifying the bubbles or difference of water surface colour (distinctively darker), and put the net in a semicircular shape in order to block the fish. Fishers then drive the fish into the net by splashing the water and wait for the fish to get entangled. This gear is used preferably in the reef area or its vicinity.
Common Specification
- Material: Monofilament PA, No.4
- Mainline: Multifilament PE No. 5-10
- Mesh size: No.12
- Float: Styrofoam buoy, rubber
- Sinker: Stone and metal lead

Pamarongoy
The *pamarongoy* is a drift gill net which is specialised for catching *barangay* and operated by 2 to 4 fishers. While there are quite a few units found in other *barangays*, there is only one unit in Granada. It is operated in the area located a few kilometres offshore *barangay* El Pardo. Because of the distinctive length of the net, a flag is used to mark the dropping point in order to avoid damage to gear by unwary seafarers. The net is placed in a zigzag manner to enhance the possibility of catching the fish because when approaching the net from either side, the fish change direction as soon as they detect it in front of them. By placing the net in zigzags, the fish are caught by either side of the net, no matter which direction they turn. After placing the net, fishers go back to the other end of the net and wait for 30 minutes before they start hauling it in.

Common Specification
- Net material: Monofilament PA
- Mainline: Multifilament PE No. 5-10
- Mesh size: No.9
- Float: Styrofoam buoy and rubber
- Sinker: Stone and metal lead

**Pang-solid (Panulid)**

This bottom-set gill net mainly targets solid. It is usually placed vertical to the shoreline along the sea slope in the fisher's individually assigned territory in the adjacent water. The net is set at 5.00 in afternoon for an overnight set and hauled in between 5.00 and 6.00 the following morning. When it is placed, the line connected to the beginning of the net is tied to some part of an immobile object on shore such as a tree or a building in order to keep the net steady.

**Common specifications**
- Net material: Monofilament PA
- Mainline: Multifilament PE No. 5-10
- Mesh size: No. 8
- Float: Styrofoam buoy and rubber
- Sinker: Stone and metal lead

**Pang-lokikhok**

This gear is a bottom-set gill net which mainly targets *lokikhok* and a wide range of other species such as *anduhaw, solid, tabanko, mol-mol, tinbongan, lapis, malangsi, hawol-hawol* and *tuloy*.

The net is used by 3 to 4 fishers in coastal waters where the water is relatively shallow. The net is placed starting in the area where the water is around 6 metres deep and the sea bottom slopes upward, and continues until it reaches a depth of about 3 metres and the sea floor begins to slope downward until it reaches 6 to 8 metres deep. There, the net is swerved into a hook shape towards the shallower area. After it is placed, fishers jump into the water and drive the fish into the corner of the net by splashing. In order to increase efficiency, this net is often made with a combination of nets of differing mesh size. The corner of the net is made with smaller mesh size.
to catch *lokihok*, among others, while the path is made with larger mesh size to catch other species which behave differently.

**Common specifications**
- Net material: Monofilament PA
- Mainline: Multifilament PE No. 5-10
- Mesh size: No. 8/10/11/12
- Float: Styrofoam buoy and rubber
- Sinker: Stone and metal lead

**Pamalo (Pangbalo)**
This gear is categorised as an encircling gill net which is specialised for catching *balo*. It is used in coastal waters approximately 0.5 to 1 km from the shoreline. Once the school of fish is identified, the fisher sets the net facing the direction of the current in a semi-circle around the fish. He then closes the net by manipulating the rope attached to the one end of the net and hauls it up into the boat. The operation is commonly done in the dark using a kerosene gas lamp to aggregate the fish.

**Common specifications**
- Net material: Monofilament PA
- Mainline: Multifilament PE No. 5-10
- Mesh size: No.8
- Float: Styrofoam and rubber
- Sinker: Stone and metal lead

**Trammel net**

**Double net**
The double net used in Granada is the double-layered trammel net and it is the only type of trammel net found locally. They are mostly ready-made products sold even at the local general stores at a relatively reasonable price. The net actually consists of two nets of different mesh size on top of one another, a configuration which increases the chance of catching both smaller and larger species. It has rubber floats attached to the top of the net and metal lead sinkers attached to the bottom, both at intervals of 40 to 50 centimetres. It is used in the shallow waters around 1 to 4.5 metres deep at the reef and indiscriminately catches a variety of fish such as *lalas, mol-mol, malawis, kitong* and many others. Operation can be done during the day and the night as long as the sea is calm (otherwise it easily gets entangled with corals) but it is preferred in early morning (from 4.00 to 6.00 am) or late afternoon (from 5.00 to 7.00 pm). The common method is for the fisher to place the net parallel to the waves and to drive the fish towards the net by hitting the water with the hands or with bamboo sticks or by throwing rocks. After about 10 minutes of this action, the fisher pulls the net out of the water and collects the catch. This can be easily done by one person but is often done by a group of people. Because of its easy accessibility and simpliceness of use, this gear is widely used by beginner fishers and people who do not consider fishing as their livelihood.
Common specifications
- Net material: Monofilament PA
- Mainline: Multifilament PE No. 5-10
- Mesh size: No.7 and No.12
- Float: Rubber
- Sinker: Metal lead

Lift net

Solambaw
This small-meshed lift net gear is used in shallow waters around the reef to catch small fish like *palata*. Once rowed to a favourable spot, the fisher goes into the water wearing goggles and looks for an aggregate of the target fish while swimming on the surface. When it is found, the fisher slowly lowers the net and places it beneath the aggregate, supplying chewed fish as bait. As soon as the fish get attracted to the bait, he gradually lifts up the net and once the fish are inside, he quickly pulls it all the way up.

Common specifications
- Net material: Knotless multi PA
- Handline: Multifilament PE No. 5-10
- Mesh size: No.14
Scoop net

Sikpaw (Sapyaw)
The *sikpaw* is a type of scoop net to catch fingerlings such as *kalamputi* (the juvenile of anchovies) and *kalugmatay* (the juvenile of mackerel). The net which has a perimeter of around 1 metre and a height of 4 to 5 metres is fine-meshed and it has a 2 to 3 metre long bamboo handle. The gear is used in coastal waters very close to the shoreline. It is only operated in the dark using a kerosene gas lamp. Starting from adjacent waters and gradually moving to areas farther away, the fisher first looks for bubbles to identify the location of the fish. Once identified, the fisher further aggregates the fish using the lamp and then scoops them up when enough fish are aggregated together.

![Diagram of Sikpaw](image)

Common specifications
- Net material: Knotless multi PA
- Mesh: Fine-mesh

Fish Traps
Fish traps are stationary gear made from both natural and artificial materials. They are set under the water at the preferred locations, with devices to stabilise their movement, and left for some period of time until the fish are caught. There are a number of types of these traps found in the Philippines each with a different shape, size and method of use. They are not popular methods among Granada fishers at present: only two types have been identified there. The general explanation for their unpopularity is that fishers have difficulty accessing the bamboo, there is a perceived low catch efficiency as well as a lack of skills to craft them.
Bobo

The *bobo* is a basket-like square fish trap which catches a variety of reef-associated fish. It has a small opening on one lateral surface and it is connected to a channel which narrows towards the end, making sure no fish gets out from the opening. They are traditionally made from thinly-cut bamboo lattice for all surfaces, but nowadays some fishers use ready-made plastic screens for the top and bottom sides. There are several stones attached to the bottom of the gear to let it submerge. The construction of each *bobo* takes 1 to 2 weeks by two men working several hours a day. It is claimed by elder fishers that *bobos* were not used until a family of fishers migrated to Granada from the Municipality of Santander (two municipalities to the south of Boljoon) in the 1960s. The small number of fishers who use the *bobos* are the descendents of this family.

After performing a *palina* ritual (see chapter 3), a group of fishers (at least two) load the *bobos* onto the boat and move it to the preferred fishing location to sink. They first look for a remarkable rock or massive coral on the sloping sea bottom in relatively shallow waters to tie the rope attached to the *bobos* so that it will not be lost. Once the suitable location is found, the fisher measures the direction of the current to make sure the *bobos* will sink to the deeper water. A fisher jumps into the water and ties the rope. Then another fisher moves the boat to the deeper water area and drops the *bobos* into the water. The location is remembered by triangulation using buildings and distinctive geographic features on the shore as markers. After a week or so, the fishers come back to collect the catch. A fisher jumps into the water and brings the rope back to the boat while other fishers pull the *bobos* until they lift it up onto the boat. After the fish are taken out, it is lowered into the water again.

Notably, the *bobos* is known for its potential negative impact on the coral reef. Since water action often cuts the rope that ties the *bobos* to the coral or rock, many *bobos* are left floating in reef areas. Misplacement or dumping is also common. This can cause damage to the reef when the *bobos* are left on top as they reduce its exposure to the light. Another problem is that the abandoned *bobos* can keep catching fish for no purpose until the lattice eventually gets broken down.
Common specifications
- Material: Bamboo, plastic screen and Monofilament PA
- Weight: Stones

Pamalan-an
Another type of fish trap found in Granada is called the pamalan-an. This is also made from thinly sliced bamboo lattice but in a different shape and size. It has an opening at the top which leads the fish to enter into the trap. Edges of the lattice randomly extend a few centimetres outward for putting stones on to stabilise the position of the gear. Crushed sea urchin (tuyom) meat and moss (certain species called lanay poko harvested from fresh water in the neighbouring barangay Nueva Caceres in Oslob) are mixed and tied with string onto a small rock as bait, and a couple of these small rocks are placed inside the pamalan-an. A number of these pamalan-an are usually placed at one time.

When fishers go to a suitable fishing ground, they first check the sea bottom topography and depth of the water. Preferred fishing grounds are 7.5 to 10.5m deep with a rocky bottom as the target species are said to be abundant in such areas, whereas the sandy bottom is avoided. Areas with a seagrass bottom are second favourite and places with a coral bottom can be used as long as fishers can find a flat area with no coral branching out. Before setting the gear, fishers first use triangulation noting remarkable objects on the sea bottom to mark the starting point of setting the pamalan-an. Once the location is set, the fisher jumps into the water and places the gear with small rocks around it in a zigzag manner. The gear is checked at 2 to 3 hours intervals, about 5 to 6 times a day.
Common specifications
- Material: Bamboo
- Weight: Stones

Spear gun
The spear gun is one of the most popular gear types in Granada. It is employed by villagers who have less fishing skill and because of its affordability it is also used by those with fewer financial resources for fishing.

Pana
There are two types of pana found in Granada. One is a type of spear gun which has a groove on the top of its barrel in which the spear is placed. The spear is set in the trigger device made from wood and elastic rubber which propels the spear. When it is used, the trigger is pulled and it pushes the spear forward by releasing the taut rubber. The other type is in much simpler form in which the propelling device is attached to the spear itself. It has one or two barbed tips on one end and the elastic rubber on the other end. When used, the fisher uses one hand to hold the device while putting a thumb through the hole in the elastic lever and uses the other to draw the rubber through. In Granada, the latter type was more common among the villagers. Both types are used in reef areas targeting various species such as kitong, mol-mol, balo, lingko, suno and lapis.
Common specifications
(Rifle type)
- Material: Wood, metal stick, rubber, and multifilament PA
(Spear type)
- Material: Metal stick, rubber, and synthetic fabric band and Multifilament PA

Other gear
There are a few other less commonly used gear types observed in Granada. These methods are used by only a small number of fishers.

Bakulkol
The bakulkol is a type of trap consisting of two hooks through branch lines attached to the mainline which is tied onto stones. After bait (slices of fish or octopus meat) is attached to the hooks, the device is placed on the sea bottom in water 4 to 8 metres deep and the line extends as the current moves. When one hook catches a fish, then the caught fish shakes the other hook and this attracts other fish. Around 40 to 60 bakolkols are randomly placed on either rocky or grassy substrates which can be easily identified (e.g. near a certain shape of rock at the sandy substrate). Also for easier identification, naturally white-coloured stones are preferred to hold the gear but white-painted stones can be used when naturally occurring ones are not available. Once the gear is placed, the fisher checks the catch every 5 to 10 minutes. The short interval for checking is to avoid the caught fish being eaten by bigger fish. It is used at any time of the day but the time during the tidal change is preferred because of the effect of this on the movement of the hooks.
Common specifications
Hook: No.563
Mainline: Monofilament PA No.20
Branch line: Monofilament PA No. 20
Weight: White stone

Panglaging
This gear, with two small pieces of dead coral tied onto the mid-section of the line to its end, is used to catch a small octopus called 'tamala'. Coral fragments coloured white and brownish and thus resembling the colour of the octopus are chosen. It is used in very shallow water during the lower tidal period, when the depth of water is around 30 cm. The fisher throws the line 5 to 6 metres away and gradually pulls it towards himself. This movement attracts small octopuses hiding around the rocks and induce them to latch onto the gear. This fishing gear is often used to obtain the bait for bakolkol.

Common specifications
Mainline: Monofilament PA, No.15
Bait: Dead small coral branch
Palaktaw

The *palaktaw* is a kind of gear composed of a line about 45 metres long with a hook wrapped with line around a small square-shaped piece of styrofoam. In operation, the fisher puts bait (such as *palata*) onto the hook, stretches the line for about 1 metre and lets it float in the sea. Around 20 pieces of *pakaktaw* are used at a time, placed at about 10 metre intervals in a straight line for easier control of the gear, however this gear is known for being easily lost. A fisher stays close to the gear and attentively observes the movement of the styrofoam and also the remainder of the line, which are both indications of a fish being caught. This gear is believed to have been brought to Granada by a fisher who learned it from fishers in Moalboal, which is located the other side of the island.

![Diagram of *palaktaw*](image)

**Common specifications**
- Float: Styrofoam piece
- Mainline: Monofilament PA
- Hook: No.565

Pangkugita

This is a type of gear to lure octopus using a device which resembles a crab or octopus attached to the handline. The device is either made from metal or a large shell filled with cement, weighing around 0.75 to 1 kg, and it has four arms which what look like thin shiny metallic fragments attached. A red device is believed to be seen by the octopus as a crab, a shellfish on which octopus prey, and a brown one is seen as another octopus, which the octopus will attack to protect its territory. The device is equipped one end with several thorns to hook the catch when the line is pulled up. The fishing is done in areas of 8-15 metre deep water over sandy or muddy substrate near a rocky area inhabited by octopus, but the rocky substrate is avoided.
because the device can get stuck and the catch can be lost because the octopus would have more to hold on to escape). The fisher first looks for a suitable fishing ground by bending over the side of the boat and using goggles to peer into the surface of the water. Once the fishing ground is identified, the fisher drops the device to the bottom and observes it. When octopus is found near the device, the fisher pulls it up 20cm to attract the octopus. The fisher quickly pulls the line to the boat once the octopus is latches on the device.

![Diagram of fishing device and octopus]

**Common specifications**
Mainline: Monofilament PA
Weight: Metal or cement-filled shell

**Poison Fishing**

Neither dynamite nor poisonous substances for fishing is used any longer in Granada today, however the use of poison extracted from the root of the *tubli* (*Derris elliptica*) and seeds of the *lagtang* (*Anamirta ciocculus*) are known to be one of the ‘traditional’ gear types. Seeds were first fried in a pan, cracked to take the flesh of the fruit out, mixed with sliced fish meat such as *bolinao* and they were thrown into the sea. The fisher would manually collect the floating fish which would be stunned from the poison. Allegedly this was commonly practiced until the late-1980s but it became less common when more efficient gear became accessible.

The use of potassium cyanide was only temporarily practiced by a small number of households in Granada in the mid-1980s. The technique was brought to Granada by aquarium fish collectors from Olanggo Island near Cebu City who used to visit Granada and other nearby *barangays* every year to collect fish. They used the compressor to supply air through a rubber tube to the diver who was collecting the fish withby dispersing potassium cyanide under water. This technique was transmitted to some local fishers in Granada and they tried it out only for
Appendix I – Fishing Methods in Granada

food procurement. Cyanide fishing was said to be practiced for a few years during this period only, however the perceived low efficiency of the method meant that it did not last.

Dynamite fishing
Dynamite fishing was allegedly practiced in Granada for around 30 years. The use of dynamite in fishing started in the 1940s in the nearshore waters of Granada, and it was done mainly by fishers from other places such as the Municipality of Alcoy or barangay Poblacion in Boljoon though some fishers from Granada did join them in order to help with their fishing. The prime fishing ground was around Cayamong Reef. The dynamite fishing was practiced in the area around a 15-metre deep coral reef in which the fish population was very dense. A lit explosive device was thrown into the water and fish stunned by the explosion were manually collected by a group of fishers. After a while this method slowed down and ceased until a villager new to Bohol, having married a local girl, resumed it in the mid-60s. It was operated only occasionally and it stopped completely again by the late-70s.
## Appendix II

### List of Fish Species

<table>
<thead>
<tr>
<th>English name</th>
<th>Scientific name</th>
<th>Local name</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anchovy</td>
<td>Stolephorus sp., Thryssa sp.</td>
<td>bolinao, kalamputi (fry)</td>
</tr>
<tr>
<td>Anemonefish</td>
<td>Amphiprion sp.</td>
<td>bantay bot-bot</td>
</tr>
<tr>
<td>Angelfish</td>
<td>Chaetodontoplus sp., Genicanthus sp., Pomacanthus sp., Pygoplites sp.</td>
<td>kadlo</td>
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<tr>
<td>Banana fusilier</td>
<td>Pterocaesio pisang</td>
<td>lokihok</td>
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<tr>
<td>Batfish</td>
<td>Platax sp.</td>
<td>bayang</td>
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<td>Bigeye</td>
<td>Priacanthus sp.</td>
<td>baghak</td>
</tr>
<tr>
<td>Black-barred halfbeak</td>
<td>Hermirampus far</td>
<td>balaban</td>
</tr>
<tr>
<td>Blackspine unicornefish</td>
<td>Naso minor</td>
<td>kalangkang</td>
</tr>
<tr>
<td>Bream</td>
<td>Nemipterus sp., Pentapodus sp., Scolopsis sp.</td>
<td>lagaw, suwa-suwa, sulong, gapas-gapas</td>
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<td>Bullet tuna</td>
<td>Auxis rochei rochei</td>
<td>tulingan, pirit-pirit (s)</td>
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<td>Butterflyfish</td>
<td>Chaetodon sp., Chelmon sp., Forcipiger sp., Heniochus sp., Parachaudodon sp.</td>
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<td>Cardinalfish</td>
<td>Apogon sp. Cheliodipterus sp. Fowleria sp.</td>
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<td>Common dolphinfish</td>
<td>Coryphaena hippurus</td>
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<td>Crimson jobfish</td>
<td>Pristipomoides flexuosus</td>
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<td></td>
<td>Abudefduf sp.</td>
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<td>Damselish</td>
<td>Amblyglyphidodon sp., Dascyllus sp., Dischistodus sp., Neoglyphidodon sp., Pomacentrus sp.</td>
<td>palata, sob-sob</td>
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<tr>
<td>Delicate round herring</td>
<td>Spratelloides delicatulus</td>
<td>malangsi, kalugmatay (fry)</td>
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<td>Drummer</td>
<td>Kyphosus sp.</td>
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<td>English name</td>
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<td>Flatfish</td>
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<td>Flounder</td>
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<td>Flying fish</td>
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<td>Mackerel</td>
<td>Rastrelliger sp.</td>
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<td>tangigi</td>
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<tr>
<td>Manta ray</td>
<td></td>
<td>tamarong</td>
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<td>Marr's fusilier</td>
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<td>Mene sp.</td>
<td>bilong-bilong</td>
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<td>Moorish idol</td>
<td>Zancius sp.</td>
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<td>Needlefish</td>
<td>Strongylura incisa, Tylosurus crocodilus crocodilus</td>
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<td>Octopus</td>
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<td>Parrotfish</td>
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<td>Red-bellied fusilier</td>
<td>Caesio cuning</td>
<td>ulan-ulan</td>
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<td>Roughfir scad</td>
<td>Decapterus tabl</td>
<td>burot-burot pula ikog</td>
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<td>Shark</td>
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<td>Skipjack tuna</td>
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<td>Spiny rabbitfish</td>
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<td>Dussusmeria sp.</td>
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<td>Squid</td>
<td>Loligo sp.?</td>
<td>lumayangan</td>
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<td>Sepioteuthis sp.?</td>
<td>nokos piliw</td>
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<td>Stingray</td>
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<td>Sweetlips</td>
<td>Diagramma sp., Plectorhinchus sp., Pomadasys sp.</td>
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<td>Tangue sole</td>
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<td>dali-dali</td>
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<td>Tarpon</td>
<td>Megalops sp.</td>
<td>bulan-bulan</td>
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<td>Terapon</td>
<td>Peates sp., Terapon sp.</td>
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<td>lapis, kalbasahon, mamsa, ingatan, lawagan</td>
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<td>English name</td>
<td>Scientific name</td>
<td>Local name</td>
</tr>
<tr>
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<td>------------</td>
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<td>Triggerfish</td>
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<td>Naso sp.</td>
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<td>Whaleshark</td>
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<td>Anampses sp., Halichoeres sp., Hemigymnus sp., Macropharyngodon sp., Novaculaichthys sp.</td>
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<td>Yellowtail scad</td>
<td>Chelinus sp.</td>
<td>maming</td>
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<tr>
<td></td>
<td>Atule mate</td>
<td>carbalias</td>
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## Appendix III

### Fish Catch Survey Sheet

(Front page)

<table>
<thead>
<tr>
<th>Fisherman's Name</th>
<th>Vendor:</th>
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<tbody>
<tr>
<td>Date Collected</td>
<td>/</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Collector's Name</th>
<th>Location</th>
<th>Encircle the area on a map</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fishing Date (m/d)</td>
<td>/</td>
<td>Time started (or set): am/pm</td>
</tr>
<tr>
<td>Time came back (or hauled): am/pm</td>
<td>Number of people boarded</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Type of boat used</th>
<th>Sakayan</th>
<th>Pumpboat</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Consumed gasoline</th>
<th>Liter(s)</th>
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<table>
<thead>
<tr>
<th>Fish name (local name)</th>
<th>Total Amount</th>
<th>Sell</th>
<th>Eat</th>
<th>Give-away</th>
<th>Other use</th>
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<tbody>
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<td>number</td>
<td>kg</td>
<td>number</td>
<td>price/kg</td>
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<tr>
<th>Fishing Date (m/d)</th>
<th>/</th>
<th>Location</th>
<th>Encircle the area on a map</th>
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<tr>
<td>Time started (or set): am/pm</td>
<td>Time came back (or hauled): am/pm</td>
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<tr>
<td>Name of gear</td>
<td>Number of people boarded</td>
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<table>
<thead>
<tr>
<th>Type of boat used</th>
<th>Sakayan</th>
<th>Pumpboat</th>
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<tr>
<th>Consumed gasoline</th>
<th>Liter(s)</th>
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<thead>
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<th>Fish name (local name)</th>
<th>Total Amount</th>
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<th>Eat</th>
<th>Give-away</th>
<th>Other use</th>
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Appendix IV

Household Economy Survey Sheet

MGA PANGUTAN US KASAYURAN SA KAGASTUHAN SA MATAG PANIMALAY

**Kasayuran kabahin sa panimalay**

1. Unsay imong pangalan? (What is your name?)
   (husband: ) (wife: )

2. Kanus-a ka natawo? (When were you born?)
   (husband: ) (wife: )

3. Kinsa ang imong mga kauban sa panimalay ug pilag isang mga edad? Unsay liang gipangbuhat? (Where were you born? If you were NOT born in North Granada, please specify your birth place and reason(s) for moving here.) *panginabuhin=occupation

<table>
<thead>
<tr>
<th>ngalan</th>
<th>adlaw natawhan</th>
<th>relasyon</th>
<th>panginabuhin</th>
<th>lugar</th>
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<tbody>
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4. Kinsa mga suod nimo na paryente? (Who are your relatives that you feel close to?)

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5. Asa ka natawo? Kung wala ka natawo sa North Granada, isulat asa ka natawo ug ang rason nganong nabalihin ka diri sa maong lugar. (Where were you born? If you were NOT born in North Granada, please specify your birth place and reason(s) for moving here.) *nataawhang lugar=birth place

(Nataawhang lugar: )
(Mga rason o rason: )

6. Unsay imong tinuohen? (What is your religion?)
   ( )

7. Asa ka taman naka eskwela (unsang eskwelahan ka ni-gradwar ug pilay imong edad?) (What is your education background? What school did you graduate from at what age?)
   (husband: )
   (wife: )
Appendix VI – Household Economy Survey Sheet

1. Unsang imong panginabuhian (trabajo nga gianghaunan sa adlawong gastohonan ug dugang pang side line)? Palihug paghan-ay sa pagbutang basi sa importansiya nga imong gabi. Unsang gibu-yanon o percentage sa kada usa para maka total sa tibuok nimong abot o panginabuhian? (What are the sources of income (primary work and side lines)? Please put them in order corresponding to the importance that you feel. Also, what percentage does each make up of your total cash income?)

(1.) (Percentage: %)
(2.) (Percentage: %)
(3.) (Percentage: %)
(4.) (Percentage: %)
(5.) (Percentage: %)

100 %

2. Unsang mga trabaho o panginabuhian sa imong amahan? (What are/were your father’s works?)

( )

3. Makadawat ba ka kwarta gikan sa laing myembro sa pamilya? Pia ang imo madawat sa usa ka higayon ug kapila sa usa ka tiug ka makadawat? Asi gikan giradala ning kwartahan? (Do you receive any money transferred from other family members? How much do you receive by one time and how often in one year: Where is the money sent from?) *kantidad=amount, higayon kada tiug=times/year, gapada=sender

(kantidad: )
(gapada: )
(relasyon: )

4. Manghulam ba ka kwarta para pagpailit ug gamit para pangisda ug uban pang gastohonan? Unsang kundisyon sa paghulam ug kwarta? (Who do you borrow money for fishing gear or other expenses? What is the condition of borrowing money)

(ngalan: )
(relasyon: )
(kondisyon: )

Pagpamahala sa Sanctuary

5. Gipanagutan ba ninyo saunang dapit kung aha gihimong sanctuary karon? (Were you using the current sanctuary area before the establishment of sanctuary? How did you use?)

Oo / Dili

(Gunsan: )

6. Nakakita ba ka mga kausahan human sa pagsimo ug sanctuary ug balao ninii base sa imong personal nga pagkasiniat niini? Kung nai, unsa man kining mga kausahan nga imong nakita? (Do you see any change after establishing the MPA as your personal experience? If yes, what changes do you see? *kausahan=change

Oo / Dili

(kausahan: )

7. Unsang mga positibo ug negatibo nimong nakita sa pagsimo ug sanctuary kun naa man galing? (What are the positive things and negative things about the MPA if any.) *positibo=positive, negatibo=negative

(positibo: )
(negatibo: )

8. Unsang opinyon nimo sa pagsimo sa gobyerno sa kayagon point nga usa ka lugar nga maka dive ka ug pagpalambo sa turismo dinining kapita? Uyon ba ka sa maong proyekto? Palihug hitag sa imong mga rason base sa imong pangilantaw. (What do you think about the LGU establishing new dive sites in Kayagon point and development of tourism here? Do you support the idea? Please give your reasons for your position.)

Oo / Dili

(mga rason: )

Note: In addition to asking percentages of income derived from different sources at question 1 on page 285 above, the author asked respondents to estimate the amount of income derived from each source. In the case that the respondent could not provide an estimated amount for every source of income, missing amounts were calculated using the percentages given for each source by the respondent. For the fishers who participated in the daily fish catch survey, the data on their monthly income from fishing was also used to enhance the accuracy of the estimate. Estimated income from items were given on the basis of a year, season or month depending on the respondent’s practices and seasonality was also taken into account based on the detailed interviews.
Appendix V

Fishing Methods Survey Sheet

Mga kalihukan sa pagpangisda

   Who do you sell your fish or fish product to (both fresh fish and fish products)? What are the relationship: (blood, friend, etc) you have to these vendors?

   (mamaligya para prosekong isda: ) (relasyon: )
   (mamaligya gikan sa produktong isda: ) (relasyon: )

2. Kinsay imong mga kauban sa pagpangisda? Unsay relasyon nimo nila? Unsang mga higayona gikanahang lan nimo ang mga kauban? Uns a o pilay bahin sa imong mga kauban? Kanus-a o pila mo ka higayon mangisda? (Who are the partners for your fishing? what kind of relationship do you have to them? In what occasion do you need the partners? What is the share for your partners? How often do you go fishing together?) *pangalan=name, higayon=occasion, kapila=frequency, kasabutan nga makuha=reward

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4. Unsang gamit sa pangisda nga gigamit nimo sa una? Pila ka tuig nimong gamit? Palihug pagtubag sa linya nga nagpamatuod sa gidugayon nimong paggamit. (pwede nimo gamiton ang tuig) (What gear have you used in past? For how long? Please answer in time series.)

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5. Pila kabuck ug unsang mga klase sa sakayan ang naa nimo? Kinsay tag-iva sa maong mga sakayan? (How many and what type of boats do you have? Who is the owner of the boat?) *gidadghanon sa sakayan=number of sakayan, gidaganon sa pumpboat=number of pumpboat, tag-iva=owner

(gidadghanon sa sakayan: ) (tag-iva: )
(gidadghanon sa pumpboat: ) (tag-iva: )
6. Usaam gamit sa pangisda/panagat ang gigamit nino sa kada bulan basi sa panahon na daghan o gamay ang pangisda? (What gear do you use by months? Please specify the months if you think there is "high season" and "low season" for the gear.)

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