

~~PN-ACS-840~~
106406

**FORMATIVE RESEARCH IN SUPPORT OF
PILOT ENVIRONMENTAL
COMMUNICATION CAMPAIGNS**

**GreenCOM Project
Philippines**

by

**The Rudolf Rahmann Research Center
University of San Carlos
Cebu City**

November, 1996

*The Rudolf Rahmann Research Center
is the research unit of the faculty of the Department of
Sociology-Anthropology and invited researchers from other social science
departments at the University of San Carlos. The world-renowned
ethnologist, Dr. Rudolf Rahmann, SVD, was the first president
of the university. He established anthropology at all
degree levels. The center specializes in social,
cultural, and development-related research.*

TABLE OF CONTENTS

	Page
Acknowledgment	i
List of Tables	ii
Executive Summary	iii - vii
Glossary of Acronyms	viii
CHAPTER ONE. <u>The Research Design</u>	
Introduction	1
The Conceptual Framework	2
Objectives of the Study	6
Methodology	8
Constraints and Limitations of the Study	17
CHAPTER TWO. <u>Lapu-Lapu City and Cebu City LGU Officials on The Environment</u>	
The Respondents	20
A. Environmental Conditions and Problems	21
Analysis	23
B. Perceived Participation in Environmental Affairs	24
Analysis	31
C. Knowledge and Enforcement of Policies	33
Analysis	40
D. Perceived Benefits and Barriers	41
Analysis	46
E. Needed Skills, Technology and Support Services	48
Analysis	50
F. Summary Analysis	51
CHAPTER THREE. <u>Lapu-Lapu City and Cebu City Opinion Leaders on The Environment</u>	
The Respondents	59
A. Environmental Conditions and Problems	61
Analysis	78
B. Knowledge and Enforcement of Policies	85
Analysis	91
C. Perceived Participation in Environmental Affairs	95
Analysis	104
D. Perceived Benefits and Barriers	107
Analysis	110

d

E.	Needed Skills, Technology and Support Services	112
F.	Comparison of Responses of Lapu-Lapu City and Cebu City Opinion Leaders	115

CHAPTER FOUR. Community Members on The Environment

	The Community Members	124
	Perceived Community Problems	126
A.	Worldview of the Environment	127
	Analysis	128
B.	Environmental Conditions and Problems	131
	Analysis	139
C.	Knowledge and Enforcement of Policies	142
	Analysis	144
D.	Perceived Participation in Environmental Affairs	145
	Analysis	147
E.	Perceived Benefits and Barriers	148
	Analysis	150
F.	Needed Skills, Technology and Support Services	151
	Analysis	152
G.	Traditional and Folk Beliefs	153
	Analysis	155
H.	Sources of Information	156
	Analysis	159

CHAPTER FIVE. Views of the Sanctuary

	The Olango Island Wildlife Sanctuary	168
	Olango Island Community Members	169
	Lapu-Lapu City LGU Officials and Opinion Leaders	181
	Summary of Issues	187

CHAPTER SIX. Summary, Conclusions and Recommendations 189

APPENDICES.

E

ACKNOWLEDGMENT

The Rudolf Rahmann Research Center expresses its deep appreciation and gratitude to Profs. Rebecca Pestaño-Smith and Felisa U. Etemadi who worked very closely with the RRRC research team in restructuring and streamlining the research output, in pointing out the data gaps, and in providing helpful insights for more systematic and appropriate analyses of the data. Feliz Etemadi made painstaking effort in putting together a comprehensive summary of findings which has been incorporated in the final chapter of this report.

This research output would not have been made possible if not for the support of the University of San Carlos administration in providing the facilities, most especially to Fr. Theodore D. Murnane, SVD, for the motivation given to researchers to effectively perform their tasks.

Finally, we are grateful for the trust and confidence given us by the GreenCOM/USAID Philippine Team, headed by Bette Booth and Ed Douglass, in awarding the Cebu-Mactan area of the formative research to us.

We are proud to have been part of this undertaking.

LIST OF TABLES

1.	Identification of Interviewed LGU Officials	20
2.	Frequency of LGU Respondents, by City, Sex, and Selected SocioDemographic Characteristics	55
3.	LGU's Characterization of Factors That May Help or Hinder Their Involvement	56
4.	Summary of Trends by LGU's of the Characterization of Factors That Could Help or Hinder Their Involvement	57
	Matrix on the Roles that can be Played by Various Sectors	58
5.	Identification of Interviewed Opinion Leaders	59
6.	Frequency of Opinion Leaders, by City, Sex, and SocioDemographic Characteristics	120
7.	Opinion Leaders' Characterization of Factors That May Help or Hinder Their Involvement	122
8.	Summary of Trends by Opinion Leaders of the Characterization of Factors That Could Help or Hinder Their Involvement	123
9.	Frequency Distribution of the Sample of Community Members, by Doers and Non-Doers, Barangay, Sex, and Selected SocioDemographic Characteristics	160
10.	Frequency Distribution of the Sample of Community Members, by Doers and Non-Doers, Barangay, Sex and Primary Occupations	162
11.	Frequency Distribution of the Sample of Community Members, by Doers and Non-Doers, Barangay, Sex and Secondary Occupations	163
12.	Community Problems in Barangay Sabang	164
13.	Community Problems in Barangay Santa Rosa	165
14.	Community Members' Characterization of Factors That May Help or Hinder Their Involvement	166
15.	Summary of Trends by Community Members of the Characterization of Factors That Could Help or Hinder Their Involvement.	167

EXECUTIVE SUMMARY

1. Comparison of Doer and Non-doer Responses on the Level of LGU Officials and Opinion Leaders.

The preconception of Cebu City as a doer community and Lapu-Lapu City as a non-doer community is substantially borne out by the present study. This is especially true for the subject of the current supposed devolution of the functions of the national line agencies down to the level of the Local Government Unit (LGU), through the enactment of appropriate ordinances and the institutionalization of appropriate offices, particularly in the area of environmental affairs. LGU and opinion leader respondents see little progress in this area in Lapu-Lapu City, and among them there was a decrial of resort hotel development near the Olango Island Bird Sanctuary which the city council of Lapu-Lapu City had favored. Accomplishments in Cebu City are noted to have been so far much more substantial. The environmentalist roles of NGOs and POs were also often noted to be much more active in Cebu City than in Lapu-Lapu City. Cebu City opinion leaders seem to be much more critical of the LGU there which they see as in favor of business against the environment, but this may be due to the higher expectations of the Cebu City respondents, revealing greater environmental concern on their part.

It is recommended that environmental communication shall first work to encourage the LGUs in both cities to recognize its new roles and to enact the full range of ordinances, and put into place the full range of offices, needed to carry out environmental conservation.

2. Comparison of Male and Female Responses in the Opinion Leader Interviews.

Female respondents clearly make responses not on the basis of gender perspectives but, just as men do, on the basis of their occupational statuses and as concerned citizens and professionals. It is recommended that an environmental education campaign take a correspondingly appropriate approach to their self-perceptions.

3. Comparison of Doer and Non-doer Responses on the Level of Focus-Group Discussants.

These categories of respondents, as pre-classified by key and esteemed informants in their barangays, do not differ significantly in their answers to any question. Both are knowledgeable on the declining resources in their nearshore waters and the behaviors that continue to cause this decline, know what in general are the relevant environmental ordinances in their community, share a belief that they are themselves following the ordinances as best as they can, and know the difficulties faced by both ordinary citizens and barangay officials in enforcing the ordinances. They equally claim to be active in verbally admonishing those who disobey the ordinances. They share the feeling, however, that they cannot do anything more than this in a tolerant culture which holds that the poor have a right to earn a living for their dependents even if by illegal means. Therefore, they hope that authority figures coming in from outside the local community will carry the burden of enforcement for them.

They see a need for a local catalyst with adequate resources to begin to set appropriate examples for others below them in environmental affairs. They equally profess to be able to allocate personal time and labor to environmental activities, but cannot afford to donate money and materials.

It is apparent that media interventions based on the distinction between doer and non-doer community members will not be of much relevance for Olango Island. Also, special environmental communication needs to be addressed to the level of the local catalysts who need to be encouraged to become more active in setting the example.

4. Comparison of Responses of Lapu-Lapu LGU Officials/Opinion Leaders with Responses from Community Members.

Some official/influential respondents demonstrate agreement with certain community-member responses in the recognition of the plight of the local barangay official who is faced with the task of enforcing ordinances. The barangay official is in an intercalary position where he is subject to criticism both from above and from below. While the higher-level LGU officials are widely seen as lacking the political will to enforce ordinances or to effect environmental legislation vis-a-vis industrial, business, and tourism expansion, because they must first preserve their bases of political support, the barangay official at his level is seen as lacking political will to enforce ordinances vis-a-vis his moral hesitancy to prosecute his poverty-struck neighbors because of their means of earning a livelihood. This is a catch-22 both for those officials and for environmental communication.

While it is clear from the data that community members do understand the ordinances and the need for them in a general way, and that they are fearful of the well-being of the following generations if something is not done, it is believed by the other categories that they do not understand them. These categories are in this way out-of-touch with their community-member constituents. But all categories see a need to understand better the workings of the ecosystems in their environments so that they can better communicate to and persuade others about environmental issues and problems. This is an opening for environmental communication/education.

5. Comparison of Male and Female Responses in the Community-Level Focus-Group Discussions.

a. Both men and women profess to listen to their battery-powered radios everyday, especially early morning and early evening news broadcasts and commentaries on current issues. However, women also tune in to soap operas (This is not mentioned by the men).

b. The Cebuano word most preferred for "environment" by both men and women is palibut, "surrounding." Women, however, tend to talk about their activities with regard to caring for the environment in terms of their immediate neighborhood, or from the perspective of their own nearshore collection activities which are now restricted by the Olango Island Bird Sanctuary. This is not to say that they are not fully aware of the problems faced by the fisherfolk at sea as a result of declining fish stocks.

The men, on the other hand, see palibut as going beyond their immediate surroundings.

c. While men and women tend to put the mantle of responsibility upon those in authority, women display a particularly conscious need for more sensitivity and better intra-community understanding and cooperation as a means to more harmonious human-environment relations and environmental improvement.

d. Women tend more to see humankind as to be identified with environment and standing in a part-whole relationship with it. Men see humankind and environment more as different entities, with the former dependent on the latter.

GLOSSARY OF ACRONYMS

PAMB	-	Protected Areas Management Board
PAWB	-	Parks and Wildlife Bureau
PWCF	-	Philippine Wetlands Conservation Foundation
SNS	-	Save Nature Society
NORFIL	-	Norwegian-Filipino Foundation
AWB	-	Asian Wetland Bureau
MCWD	-	Metro Cebu Water District
CENRO	-	Community Environment and Natural Resources Office
PENRO	-	Provincial Environment and Natural Resources Office
WBSJ	-	Wild Bird Society of Japan
CITOM	-	Cebu City Traffic Operation Management
FORWARD	-	Federation of Women's Organization
KAKAO	-	Kapunungan Alang sa Kauswagan sa Olango
SWCF	-	Soil and Water Conservation Foundation
RAFI	-	Ramon Aboitiz Foundation, Inc.
CVRP	-	Central Visayas Research Project
PNP	-	Philippine National Police
ENRC	-	Environmental Natural Resource Council
CUSW	-	Cebu Uniting for Sustainable Water
CPDO	-	City Planning and Development Office
HLURB	-	Housing and Land Use Regulatory Board
CCHDP	-	Central Cebu Hillyland Development Project
NIPAS	-	National Integrated Protected Areas Systems
MEPZ	-	Mactan Export Processing Zone
USC - WRC	-	University of San Carlos, Water Resources Center

CHAPTER ONE

THE RESEARCH DESIGN

Introduction

In May 1996, GreenCOM Philippines subcontracted The Rudolf Rahmann Research Center (RRRC) of the Department of Sociology-Anthropology, University of San Carlos to undertake formative research in support of Pilot Environmental Educational Campaigns based on a research design formulated by GreenCOM. RRRC's involvement is part of a larger study done simultaneously with other research units in Davao and Palawan.

The study calls for eliciting information from three sets of respondents in two pre-identified sites -- Lapu-Lapu City and Cebu City. These respondents are classified into three sectors: a) officials of Local Government Units (to include officials from national line agencies whose mandates demand close interaction with LGUs); b) opinion leaders (influential persons) from the private sector who are perceived to entertain environmental concerns and who have insights into the intricacies of the workings of the LGU; and c) community residents of two purposively-selected barangays in the island of Olango, Lapu-Lapu City, classified by sex and by a set of criteria identified by GreenCOM dichotomizing them into "doers" and "non-doers" (see Appendix A for a brief description and map of Olango Island). Given this framework, two sets of variables are seen as having a bearing on the involvement or non-involvement of people in environmental affairs: the effects of external and internal factors; and of "doer" and "non-doer" stances.

Conceptual Framework: A Model for Behavior Change

This present study is based on GreenCOM's Behavior Change Model, presented thus:

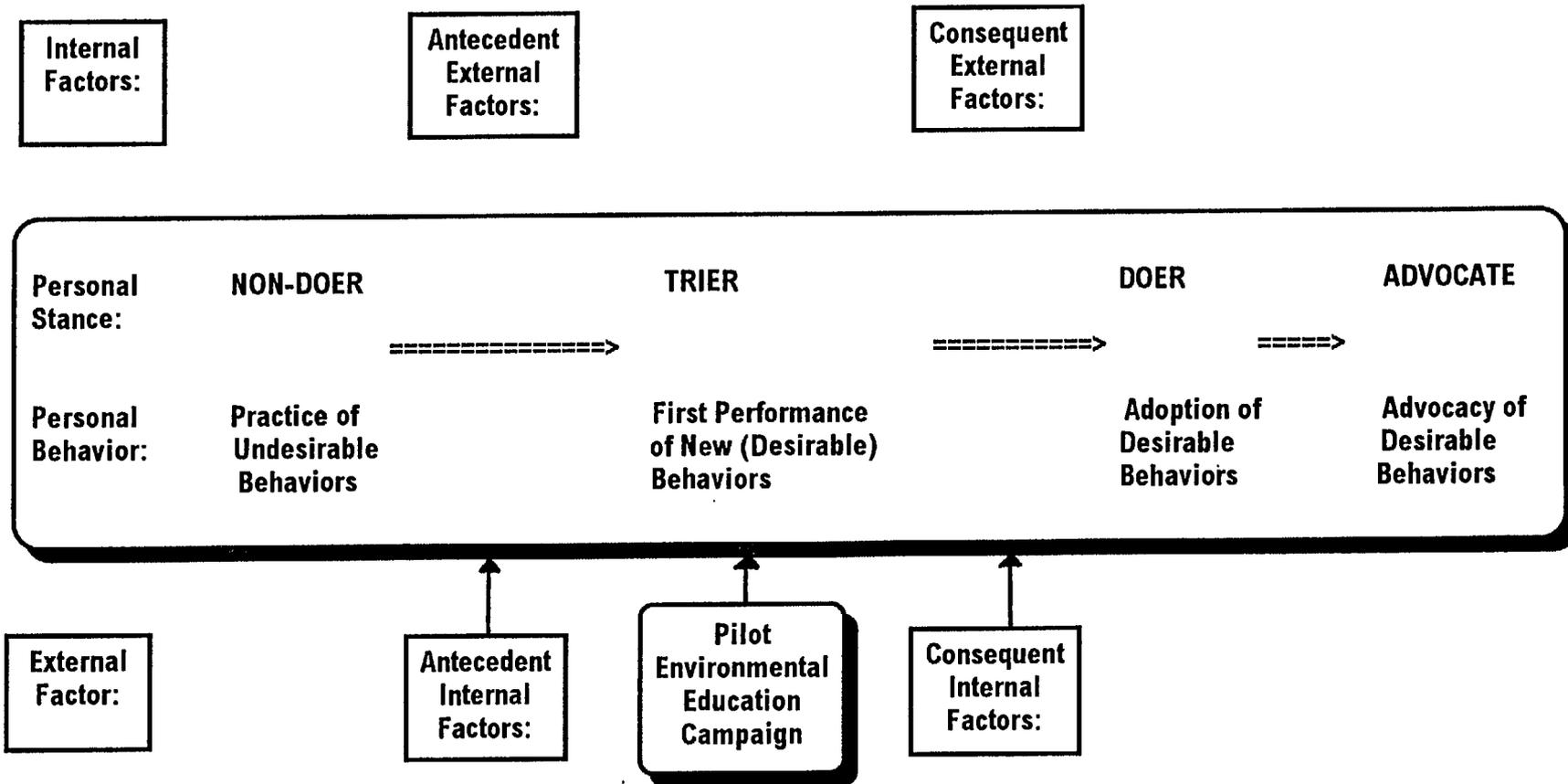


Figure 1. Behavior Change Model.

1. People's behavior with regard to their environment is influenced by external and internal factors. These factors are in fact used to structure the interview schedules devised for the study. They can be thought of as follows:

Internal factors are those values, beliefs, concepts, knowledge and perceptions which people use to characterize their environment and their relations to it. They include:

- Knowledge about the condition of the environment in which they live;
- Local language concepts used to conceptualize the environment;
- Social rules, values, and norms of behavior which define how they can or must relate to the environment;
- Traditional beliefs about the environment; and
- Perceptions about how their actions bring about certain environmental consequences, including the effectiveness of their actions to bring about environmental conservation and regeneration.

Under this heading, considerations of gender are taken into account as a distinction between males and females. The study assumes that males and females are equally likely to be doers or non-doers. But differences may exist in terms of insights and stance that they have on environmental issues, and their personal involvement or non involvement with them, given their different perspectives.

External factors are those that exist in the social, cultural, or even national context which individuals and communities share with others. These factors include:

- Policies, laws, and ordinances at all political levels that are meant to influence the environmental behaviors of individuals and communities, and the degree of their enforcement;
- The empirically visible behaviors that people are engaging in to promote environmental concerns, such as their allocation of personal time, energy, money and materials to give evidence to their commitment;
- The availability of supports coming from the outside, such as alternate appropriate technologies, information, services, finances, and skills training to increase the quality of contribution of individuals and communities to environmental management and;
- The sociodemographic situation that characterizes the actors' households, communities, and regions.

The conceptual framework assumes that it is the combination of these factors that make a difference in peoples' environmental behavior. These factors would have to be those that are taken into account by any individual in his/her analysis of a decision tree to decide whether or not to be involved in environmental affairs.

2. A second set of variables must be introduced to recognize the different ways that people, or even the political units to which they belong, have actually made the decision, at any one point in their individual life histories and in the histories of their communities, to involve themselves or not in working on behalf of their environment. In such context, the distinction between a doer and non-doer can be introduced.

2.1 The passage of the Local Government Code, which devolves some functions from the national government to the local government, has made the Local Government Unit the key political unit in the Philippines. Based on previous workshops conducted by GreenCOM, an LGU and/or its collective officers, can be considered doers if it has:

- Drafted and actually implemented its own environmental management plan, or continued or improved a plan initiated with outside assistance;
- Passed ordinances in support of the plan;
- Enforced its ordinances through (a) budgeting for and actually supplying necessary manpower and equipment, and (b) by making actual arrests and convictions for the violation of ordinances if necessary; and c) used its own LGU funds to do the above.

For the purpose of this study, an LGU is a "non-doer" if it has not met any of the criteria mentioned above.

2.2 Among community members and also the influentials and opinion leaders among them, the doer is:

Vocal about environmental concerns by (a) participating in debates and decision-making processes about them, and (b) monitoring for him- or herself the actions of other individuals and groups--their behaviors--with regard to the environment; and seeks objective and accurate information about the state of his environment near and far.

A non-doer opinion leader or community member is a person who does not do these things.

Objectives

1. General Objectives.

The study has three general objectives: (a) To identify current knowledge, beliefs, and practices of “doers” and “non-doers” in relation to the ideal behaviors; (b) To identify the factors that have influenced the adoption of those behaviors; and (c) To identify the most effective (trusted) and efficient (preferred and currently used) channels to communicate information about the environment.

2. Specific Objectives.

(a) In order to arrive at the general objectives, the specific objectives are conceptualized as a set of issues that need to be understood. These issues are the following:

- 1) What current knowledge, practices, and values motivate community-level doers to take positive action in relation to the environment, and community-level non-doers to be passive or to take negative actions in relation to the environment?
- 2) Does a better understanding of environmental laws and regulations facilitate the performance of ideal behaviors toward the environment?
- 3) What impact does knowledge about a depleting natural resource base have on LGU officials and community members for performance of the ideal behaviors?
- 4) What role does social pressure play in the behaviors of doers and non-doers?

- 5) What salient beliefs about benefits and barriers are motivating LGU officials, opinion leaders, and community members with regard to the performance or not of ideal behaviors?
- 6) What skills are necessary for LGU officials and community members to perform the ideal behaviors?
- 7) How do Lapu-Lapu City and Cebu City LGUs differ in some factors that motivate or hinder environmental action?
- 8) Are factors that motivate action different for men and women community members?
- 9) Which Cebuano language understandings of concepts of "environment" and "sanctuary" might be most useful in environment education campaigns?
- 10) What are the most popular channels of communication now being used in the community and how might they be better used to persuade men and women to take action on the part of the environment?

(b) In addition to addressing these questions, the study team makes comparisons between doer and non-doer among the following sets of respondents:

- LGU officials of Lapu-Lapu City and Cebu City;
- Opinion leaders of Lapu-Lapu City and Cebu City; and
- Community members of Olango Island.

(c) Gender differences in the opinion leader and community member respondents are taken into account. Although gender concerns are also considered in the LGU set of respondents, actual positions however, are filled up mostly by males.

Methodology

A. Site Selection

In applying the set of criteria determined by GreenCOM, the city of Cebu turned out to be a "doer" municipality and Lapu-Lapu City, a "non-doer" municipality.

Two sets of interviews are conducted in both sites--the Local Government Unit officials and selected opinion leaders (influentials). Community members of two barangays in the island of Olango, Lapu-Lapu City (Sabang and Santa Rosa) are also interviewed. These two other sites are selected on the basis of their proximity to the Olango Bird Sanctuary, the observed propensity of local landowners to sell their property to outsiders (especially beachfront properties), and most especially the fact that both barangays are above the mean population of the nine barangays on the island. These two barangays are the sites for focus group discussions for male and female "doers" and "non-doers" and accounting for a total of eight focus group discussions.

B. Background Information on the Research Sites

CEBU CITY

The city of Cebu is one of five component cities on the island province of Cebu. It is the hub of trade and industry not only of the province but of the Visayas region in general. Its

central location in the Philippine archipelago gives it a built-in geographical advantage and has, in fact, made the city the center of the shipping industry in the Philippines.

This primacy in trade and industry in central and in Southern Philippines has its downsides, however. In the past 30 years, intraregional migration has brought about congestion in the narrow coastal areas and has pushed population and development farther inland into the city's hilly lands; causing further degradation of the upland environment. It may be pointed out in this regard, however, that the forest resources of the island had been depleted by the turn of the century and whatever sparse stands of natural forests there are had been cut down by 1988 (Barroso 1993). In several studies done on Cebu, the island has often been referred to as a "desert island" owing to its sparse vegetative cover.

The city is comprised of eighty (80) barangays spread out over an area of 245.45 km². This area carries a total population of 605,000 (1990), two-thirds of which is residing in the forty (40) lowland barangays along the narrow coastal plain which accounts for only eight per cent of the total land area giving these 40 barangays an arithmetic density of 17,500/sq.km. Conversely, the upland barangays (50%) which cover 92 per cent of the total land area has an arithmetic density of 1,000/ sq.km., placing these under the classification of "urban" areas.

The city's topography, population distribution, and its premier position as a hub of trade and industry have combined to put a serious strain on the environment which has only been recognized and given attention to in the more recent past. In the 1970's, there were hardly any moves for environmental advocacy except for some "voices in the wilderness" warning of a water crisis and carrying out small-scale appropriate upland technologies, e.g., USC-WRC and World Vision.

The first tangible steps taken towards environmental activism may likely be placed around the mid-1980's with the implementation of the Central Visayas Regional Projects (CVRP I), a World Bank-assisted resource management project for upland and nearshore

areas. The project's two pilot sites in Cebu spurred the Cebu Provincial Government to replicate the CVRP-I concept in the other towns of the province and created the Cebu Resource Management Project (CRMP) in 1986. This initiative was picked up by later provincial administrations renaming the project first as the Cebu Resource Management Office (CRMO) and eventually into its watered-down version, Cebu Development and Outreach Program (CDOP).

Towards the end of CVRP's project life (1989), funds were channeled by CVRP to the City of Cebu for the city to undertake a resource management program in the hilly lands. Thus did the Central Cebu Hillyland Development Project come into existence.

The CVRP initiative was, by no means, the only instigator of environmental activism. With the more liberal atmosphere which came after the 1986 EDSA revolution, more and more NGO's with pronounced environmental mandates emerged. On the forefront were the Philippine Business for Social Progress (PBSP), the Soil and Water Conservation Foundation (SWCF), the Mag-uugmad Foundation, and the Ramon Aboitiz Foundation Inc. (RAFI). Big business also came into the picture with the active involvement of the San Miguel Foundation. These NGO's were active primarily in promoting appropriate upland technology and reforestation programs.

In the 1990's, water became the hottest environmental issue. The boom in development projects which Cebu City is now experiencing has led not only towards the reclamation of nearshore areas but also the encroachment of subdivisions and other infrastructure development in the upland areas, including critical watersheds. These thrusts resulted in conscientizing the influential private sector to advocate for environmentally-sound approaches to development especially when these potentially impinge on the city's watersheds. This particular concern on Cebu's watersheds caused the creation of the Cebu Uniting for Sustainable Water (CUSW), a multi-sectoral group which is now working hand-in-

hand with the LGU to formulate a development master plan that would ensure the integrity of the city's groundwater aquifer.

These initiatives now undertaken by the city with the active support of the private sector have shown indications of picking up as more environmentally conscious POs and NGOs have become vocal and insistent on giving environmental concerns a higher priority.

LAPU-LAPU CITY

Across the narrow Mactan channel from Cebu City is the island of Mactan, the largest of component islands of the City of Lapu-Lapu. The city has a total land area of 59.23 km², which figure includes the outlying islands of Olango, Caubian, Pangan-an, and Caohagan. All are low islands and of coralline origins.

All 29 barangays which comprise the city (including eleven which are situated in the outlying islands) are classified as urban, having an average arithmetic density of 2,458.7/km². The city's total population is 145,627 (1990).

Despite its proximity to Cebu City, Lapu-Lapu City (locally called "Opon") remained in the backwaters of economic development until the end of the 1960's when the Cebu-Mactan bridge was completed and the Mactan International Airport became operational. The most significant booster to the city's economic growth, however, came in the 1980's with the establishment of the Mactan Export Processing Zone (MEPZ).

These, as well as the natural attractions which the city offers to the tourist industry, have combined to bring about the rapid economic growth of the city as well as a gamut of the attendant social concerns. This is well illustrated in its intercensal growth rates. Between 1970 to 1980, the population increased by 41.95 per cent and between 1980 to 1990, 41.11 per cent. Undoubtedly, these developments would exert a pronounced pressure on the environment.

Given the city's relatively recent surge of growth, environmental activism has yet to emerge. It is not surprising that the earliest indicator noticed as an environmental problem is garbage disposal, which is easily the most visible. NGO activities in the city have not been very visible and are quite limited in their scope of activities and presence in the city.

OLANGO ISLAND

The island is located approximately three nautical miles due east of Mactan island across the deep Hilutungan channel.

Despite its relatively small area (18.2 km²), the island is divided into eight barangays with an average arithmetic density of almost 2,000/sq.km. (see Appendix A for a more detailed description of the island).

The poor and highly irregular transportation linkages to and from the island in the 1970's had isolated the island from the mainstream of the city's economic growth--a condition which had spurred islanders towards self-sufficiency. However, with improvements in linkages in the 1980's, islanders began to be drawn more and more into the money economy especially with the growing demand of marine products for the export industry.

Interestingly, environmental activism on the island goes back further in time than on the main island of Mactan. In the late 1970's, a mangrove reforestation project was launched on the east side of the island by the Department of Environment and Natural Resources (DENR). In 1987, the University of San Carlos - Water Resources Center (USC - WRC) implemented the Olango Water Resources Management Project with funding from PACAP (Australia) and Oxfam (Canada). While this project was basically to provide a water system to be managed by the target communities, it branched out into mangrove reforestation under DENR's ISF program and community sanitation through the introduction of biological (compost) latrines.

Also, in 1987, the Asian Wetlands Bureau (AWB) began the initial spadework for the bird sanctuary at the southern end of the island. This eventually led to a Presidential Proclamation declaring 920 hectares as a protected area and later, international recognition of the sanctuary as a Ramsar site. Most recently, the city of Lapu-Lapu created (under the aegis of the DENR) the Protected Areas Management Board (PAMB), a multisectoral body charged with the task of monitoring all protected areas and recommending to the Lapu-Lapu City council appropriate steps which ought to be taken for environmental enhancement. Its latest accomplishment was the completion of the Nature Center which is located at a strategic point in the bird sanctuary. The center is conceived as a receiving and instructional facility for visitors to the island's bird sanctuary.

Presently, the Save Nature Society (SNS) is physically present in Suba, Barangay Sabang, and is active in promoting the interests of the bird sanctuary through grassroots information campaigns and community organizing. It has managed to create a people's organization (PO) known as Kapunungan Alang sa Kauswagan sa Olango (Society for the Progress of Olango) or KAKAO. SNS has established networks with other NGOs, notably the Philippine Wetlands Conservation Foundation (PWCF) and the Wild Bird Society of Japan (WBS). The latter, in particular, has assisted SNS in its information campaigns through the publication of brochures on the sanctuary.

C. Selection of Respondents

The target informants for this study are classified into three main groups: Local government officials, opinion leaders, and community members. However, since two sites have been identified for the study, separate sets of 10 LGU officials and 10 opinion leaders each are identified for Cebu City and Lapu-Lapu City. The original target respondents for the LGU are:

- 1) Mayor
- 2) Councilor-in-charge of Environment
- 3) City Agriculturist
- 4) City Planning and Development Officer (CPDO)
- 5) City Health Officer
- 6) City Engineer
- 7) President, Association of Barangay Captains (ABC)
- 8) Environment Officer (CENRO or PENRO)
- 9) DILG Officer
- 10) PNP Commander or City Schools Superintenden

For the opinion leaders, the following categories were originally identified:

- 1) Broadcast Media
- 2) Academe
- 3) Church
- 4) NGO Leaders
- 5) Print Media
- 6) Business
- 7) Civic Organization Leaders
- 8) Quasi-Government Agencies
- 9) Traditional Leaders
- 10) Former Government Officials still wielding influence

The choice of influential respondents is based on sectoral representations to capture as wide a range of insights as possible. Therefore, no attempts were done to pre-classify these respondents as “doers” or “non-doers.” Rather, selections were made on the basis of how each respondent is likely to exert an influence over his community, given his/her position of prominence.

The final lists of respondents are given at the beginning of the chapter relevant to their classifications. Letters requesting interview appointments were sent to each of the identified respondents and followed up for verification (see Appendix B).

The identification of focus group discussion participants was carried out by the principal investigator of the study through a "triangulation" method. This involved, firstly, the

identification of three key informants in each of the two target barangays who have been perceived by the principal investigator as having active links with the community and, preferably, esteemed by the community.

Secondly, each of the three respondents were asked to list down the names of between eight to ten respondents for each focus group discussion, classified by sex and according to the criteria set for "doers" and "non-doers," as identified by GreenCOM.

Thirdly, the listings were collated and cross-checked with one another for names most frequently mentioned in each of the lists. The final list of respondents for each focus group discussion was then drawn up based on the consensus of the three informants. Invitations to attend the focus group discussions (which were held in the Barangay Hall with the consent of the Brgy. Captain) were personally delivered to each participant, duly signed by the barangay captain (see Appendix C). Follow-up reminders were done one or two days before the scheduled focus group discussion. To ensure a reasonably good attendance, focus group discussions were held on Saturdays and Sundays.

D. Preparation and Pre-Testing of Interview Instruments

The preparation of the three interview instruments was carried out by representatives from each of the groups contracted by GreenCOM, guided by three locally -based GreenCOM consultants. The preparation of the instruments (originally in English) hewed closely to the major interest points as mandated by GreenCOM. The finished instruments were then translated into Cebuano, paying careful attention to use terms which most closely translate to their English equivalent.

Pre-testing of the instruments followed. Two pre-tests were done for the FGDs in two pre-selected barangays in Cebu City (earlier identified as having been organized by NGOs), one for female "non-doers" and one for male "doers." Only one pre-test was done for the LGU and opinion leader instruments as these are very similar in construction. The instruments were then revised, taking note of more logical sequencing, avoidance of redundancy, substitution of terms deemed misunderstood by respondents, and length of the interview sessions. Two weeks were needed to get the instruments ready for field use.

E. Field Work, Quality Control, and Data Processing

Six field specialists were assigned to handle the one-on-one interviews of LGU officials and opinion leaders. Two field specialists handled the eight focus group discussions in Sabang and Santa Rosa, Olango Island. For better rapport, the female field specialist facilitated the discussion for female participants and the male field specialist facilitated the focus group discussion for male participants. Each took turns at documenting the proceedings, aided by a tape recorder. On the average, each focus group discussion lasted for two hours.

After each interview (LGU officials, opinion leaders and focus groups) each respondent or discussant was asked to characterize each of thirteen factors that would either positively or negatively affect their participation in helping to stem environmental decline in their community or city. In Tables 3, 4, 7, 8, and 14, these factors are listed in the column on the left-hand side. Each factor could be considered either absolutely crucial for them to be able to participate, important but not crucial, helpful (but not crucial or important), a barrier to their involvement, or absolutely not relevant. The results were then tabulated separately for

LGU officials, opinion leaders, doers, non-doers, males and females.

As each interview was completed, field specialists rewrote the answers clearly onto the interview schedules and, after conferring with and editing by the principal investigator, the data were immediately inputted in a pre-determined format, for ease in collation and synthesis of responses (see Appendices D, E, G, and H). It is to be noted that each field specialist was required to assess the conduct of the interview/discussion according to guidelines designed by the consultants and principal investigator. This was done to provide the content analyst with the facility to assess the validity of responses and insights into the attitudes of respondents towards the issues contained in the study (see Appendices K, L, and M).

The principal investigator then wrote a topical summary of the data of all the interviews according to grouping and passed these on to the content analyst for the writing of the draft.

During the entire process of data processing, regular consultations with field specialists were held to clarify hazy issues and, whenever necessary, conduct callbacks. At this stage the principal investigator and the content analyst collaborated closely to avoid misimpressions and, consequently, misinterpretations of the data.

Constraints and Limitations of the Study

A. Study Sites and Identification of "Doers" and "Non-Doers"

The choice of "doers" and "non-doers" in the Olango communities was less than ideal as the study team lacked the material time to allow for verifications and observations of identified participants. Information from key respondents, while truly helpful, needed to be objectively verified.

It was also observed by the study team that a strict dichotomy of “doers” and “non-doers” is not possible, both for community members and between municipalities. All respondents exhibit a broad spectrum of levels of activity such that “non-doers” are not strictly so, while among “doers” we also find among respondents less than the ideal levels of activity.

Given this observation, it will be appropriate for the user of this study to think of “non-doers” as less active and “doers” as more active.

B. Substitution of Respondents

Some of those who were originally identified as target respondents were often unavailable for interviews, or declined to be interviewed for various reasons. The mayors of the two cities, for instance were not available as one was ill and the other was abroad. Although difficulties were encountered as to scheduling, locating, and eliciting responses from the targetted respondents, substitutes were however, obtained so as not to alter the texture of the respondents' profile.

C. Length of Interviews

The study team generally felt that the interview instruments were extremely long, requiring at least two hours to complete. This is a serious limitation especially with regard to the one-on-one interviews of the LGU and influentials. It was noted that the start of the interview usually generated interest among respondents but, as the interview dragged on, respondents started giving cryptic answers and drifting off to DK (don't know) answers. The length of the interview lent itself naturally to interruptions, given that our respondents usually chose to give their interviews in the course of a busy day at the office.

D · **Uninvited Presence in FGDs**

In one of the focus-group discussions, the barangay captain (who lived a mere two houses away from the FGD venue) dropped in unannounced. This did not, however, disrupt or alter the tenor of the participants' responses as he stayed only briefly and was escorted by one of the facilitators who engaged him in a conversation outside of earshot.

In some FGDs, women tended to bring children along. This did not, however, pose a serious problem as the children generally went about their business of playing outside the venue.

CHAPTER TWO

LAPU-LAPU CITY AND CEBU CITY LGU OFFICIALS ON THE ENVIRONMENT

The Respondents

The Lapu-Lapu City and Cebu City LGU officials are identified in Table 1 below by position (personal names are not included). An identifying code is attached to each one (LGU1, LGU2, etc.).

Table 1. Identification of Interviewed LGU Officials.

LGU OFFICIALS			
LAPU-LAPU CITY		CEBU CITY	
LGU 1	City Planning & Dev't. Officer	LGU 1	City Planning & Dev't. Officer
LGU 2	City Agriculturist	LGU 2	City Agriculturist
LGU 3	City Health Officer	LGU 3	Chair, Committee on Health
LGU 4	City Engineer	LGU 4	City Engineer
LGU 5	Chairman, Bantay Dagat	LGU 5	CENR Officer
LGU 6	V - Pres., Ass. Brgy. Cpts.	LGU 6	President, Ass. Brgy. Captains
LGU 7	City Councilor	LGU 7	City Councilor
LGU 8	DILG Officer	LGU 8	Project Director, MCDP
LGU 9	PENR Officer	LGU 9	Member, Regional Dev't Council
LGU 10	Chief of Police	LGU 10	Regional Project Manager, DENR

Sociodemographic Characteristics of the Respondents

Table 2 displays the sociodemographic characteristics of the respondents. Ten respondents each were interviewed from Lapu-Lapu and Cebu City.

Interviewed LGU officials from Lapu-Lapu City were all males; the mean age of whom was 51. All of them were married and all were Roman Catholic. On the average, LGU

respondents from Lapu-Lapu City have finished College. Majority of them held public office for less than 16 years.

Among the LGU respondents in Cebu City; only one of them was a female. The mean age of the sample was 50. All but one of them, a widow, were married. All but two, who were male Protestants, were Roman Catholic. On the average, LGU respondents from Cebu City have graduated from College. Four have advanced education, with two having a medical degree. Majority of Cebu City sample also held public office for more than 16 years.

A. ENVIRONMENTAL CONDITIONS AND PROBLEMS

1. Assessment of Present Environmental Conditions

For Lapu-Lapu City, assessments made by respondents were generally ambivalent with at least four respondents saying that "everything is fine" (Okay ra man, wala ma'y problema) except for a few illegal fishers. Others could not make up their minds. Almost half zeroed in on the coastal environment, saying that it is in a general state of deterioration (guba na kaayo/da-ot na kaayo) due mainly to effluents from factories, indiscriminate dumping of garbage and, to some extent the unabatement of illegal fishing methods, e.g., the use of dynamite (tiro) and cyanide (koskos), and trawl-fishing (baling).

For Cebu City, respondents focused on the uplands and all were in agreement that they have deteriorated due to continued decline of vegetative cover. Two respondents, however, saw that this condition is already beginning to turn around since "many people are beginning to plant trees." Concern was likewise expressed by respondents who said that coastal areas are polluted and dirty due to effluent from factories and improper waste disposal

from industries. Only one respondent said that deterioration of the coastal areas was “very minimal...not suitable for fishing (dili maayong pangisdaan),” or “its waters are muddy (lapukon),” or “it has no mangroves, no marine areas for development.”

2. Factors Causing the Situation

For Lapu-Lapu City, the causes that brought about the overexploitation of resources were mainly poverty, lack of education among the people and the weak enforcement of laws, which address not only fishing practices but also those laws that affect the control of pollution from industries. Only one respondent noted the rapid industrialization of the island and the resulting conversion of land use to either industrial estates or subdivisions as causing environmental problems.

For Cebu City, the most frequently-mentioned causes were the people's various pursuits of livelihood, including the illegal cutting of trees for firewood, squatter settlements along the coast, the scramble for meager resources brought about by excessive population growth, continued practice of kaingin in the hillylands, and a preference for cash crops over trees by hillyland farmers. Another set of causes had to do with industries which failed to adopt measures to contain pollutants. Finally, respondents pointed to the perceived ineffectiveness of the government to implement laws due to lack of budget and consequently, personnel.

3. The Degree of Seriousness of the Situation

Most LGU respondents were unanimous in saying that the situation in both coastal and upland areas was serious, saying that this condition is evidenced by the depletion of marine resources, the destruction of coral reefs, and pollution. But three from Lapu-Lapu City

downplayed it, saying that the situation is manageable, that "it is just a perception of the people (panan-aw ra na sa tawo); there is no environmental problem here," or "because we have made some headway in the campaign to stop illegal fishing," or "the problem is not that serious at the moment because authorities can still do something to mitigate the situation."

Cebu City respondents were unanimous in saying that the condition of both upland and coastal areas is bad. This is evidenced by "depleted, degraded marine resources," "flooding will be more serious in the future and there will be massive erosion of our top soil," and "if no immediate intervention is done, damage may become irreversible." Despite these perceptions, some respondents said that the situation, however, is starting to make a turn-around because "so many activities are being conducted to improve our forestry," and "forestry has a bright future because people are aware that we need forests."

- ANALYSIS

It is important to note that Lapu-Lapu LGU officials confine their assessments primarily to the coastal and marine environments. This is understandable due to the fact that the city of Lapu-Lapu has basically no uplands and the marine environment is perceived to create the most visible impact upon the lives of its citizens.

On the other hand, although much concern was elicited from Cebu City respondents on the situation of the coastal areas, there seems to be a general acceptance among respondents that the nearshore of Cebu City is beyond resuscitation given that its waters primarily provide a commercial seaway for shipping. Hence, pollution is seen as difficult to contain. This may be interpreted as a recognition that the coastal waters of Cebu City are no longer depended upon as a source of food and livelihood. Conversely, the greatest concern of

these respondents is focused more on the state of the uplands which are seen to have a greater impact upon the city itself.

In terms of the seriousness of the environmental situation, Lapu-Lapu City LGU respondents are ambivalent in their assessments while Cebu City respondents showed more consistency in their responses by zeroing in on the severity of the degradation of both the marine and upland environments.

It may be interesting to note that despite the fast pace of industrial development in Lapu-lapu, only one respondent appreciates the problems that are normally attendant to rapid industrialization. This may be due to the perception that, insofar as pollution and waste management are concerned, the Mactan Export Processing Zone (MEPZ) is not within the jurisdiction of the local government unit but under the Philippine Export Processing Zone Authority.

B. PERCEIVED PARTICIPATION IN ENVIRONMENTAL AFFAIRS

1. Personal Participation of Respondents

Lapu-Lapu City

Many respondents referred to current projects that have been initiated by the City Council or the respective local government agencies they belonged to. While most expressed personal concern for the environment, they were frank about the limitations of their respective offices. One respondent mentioned a project facilitated by his office involving a five-star resort hotel and fisherfolk in Mactan. Another respondent, on the other hand, stated that all he could do was to request for an increase in the number of garbage compactors to manage the disposal of waste. Another one talked about the ordinances that had been passed to

protect the coastal and marine resources. At least two respondents frankly said that the problem was not within the jurisdiction of their work.

In terms of environmental projects that they have directly initiated, most mentioned "tree planting," particularly in the "Clean and Green Project" of the city mayor which they saw as successful. The Olango Bird Sanctuary, meanwhile, was seen to have been initiated by the city mayor, the PAMB-DENR, and by "Presidential Proclamation." The role of the Asian Wetlands Bureau and the cooperation of the local islanders were not mentioned at all.

Various other projects were mentioned (apparently according to the respondents' official functions) such as the provision of rainwater collection cisterns, shallow fish corrals, water-sealed communal toilets, the integrated social forestry programme, and mangrove reforestation.

Except for mangrove reforestation (30% successful) and the cistern project (uncertain), all were judged to have been successfully implemented. The reasons for the success of these undertakings were attributed to:

- a) Cooperation among participating government units;
- b) Cooperation of residents; and
- c) Full logistical and manpower support from the national government.

Cebu City

Most of the respondents from Cebu City pointed to urban as well as upland projects and tree planting schemes that were initiated by their LGU. These projects took the form of contract reforestation by cooperatives, watershed conservation and management, and tree planting programs involving elementary schoolchildren. One respondent mentioned sponsoring an ordinance creating an Office of the Environment as a response to the problem.

Another talked about her involvement with an NGO involved in environmental advocacy, basically concerning waste disposal practices of a giant national hamburger/food chain with branches in Cebu City. Finally, the construction and maintenance of barangay roads was one respondent's way of addressing the environmental problem in the city.

When asked about specific projects undertaken, many respondents mentioned reforestation projects under various programs ("Urban Reforestation, Contract Reforestation, Industrial Reforestation, Watershed Management, even "backyard reforestation"). Three remembered the establishment of a sanitary land fill in Barangay Inayawan. There was also mention of the construction of 75 gabion dams, drainage system, trainings, community discussions, and forest protection. All were deemed to have been successfully implemented except that follow-up activities have not been successfully pursued for most. Only one project was an outright failure (forest protection) because of the manpower to area ratio of one to 4,000 has.

The reasons given for the success of most of these projects was the cooperation between and among LGU, the community, and the NGOs.

2. Groups Supportive of LGUs' Efforts in Solving Environmental Problems

Lapu-Lapu City

Four mentioned the barangay officials and residents. Three mentioned specific groups. These were Metro Cebu Water District (MCWD), Water Resources Center (WRC), Rotary Club, Mactan Jaycees, Norwegian-Filipinas Foundation (NORFIL), and the Department of Environment and Natural Resources (DENR).

Cebu City

The following were mentioned: Ramon Aboitiz Foundation, Inc. (RAFI), USC-WRC, Cebu Uniting for Sustainable Water (CUSW), Soil and Water Conservation Foundation (SWCF), Rotary Clubs, farmer groups, DENR, barangay officials, Knights of Columbus, Lions, Kiwanis, and cooperatives.

3. Groups Least Supportive of LGUs' Efforts in Solving Environmental Problems

Lapu-Lapu City

Only four respondents from Lapu-lapu City said there were "none." However, six respondents mentioned the business sector, squatters, illegal fishers and suppliers of illegal fishing paraphernalia.

Cebu City

Only three respondents said "none." Others mentioned landowners, the business sector, LGU officials because environmental considerations cause delay in implementation of Projects, some mountain barangay officials, and dwellers in timberland areas.

4. Organizations Most Responsible in Solving Environmental Problems

Lapu-Lapu City

Most respondents said the government itself, particularly Local Government Units, Bantay Dagat, PNP, and the DENR. Only two respondents mentioned NGOs and other civic-religious groups.

Cebu City

Two said that it is best if NGOs were given a free hand and all the support they needed to tackle environmental issues, adding that NGOs have more "credibility." The rest of the respondents gave primary responsibilities to the government. The national government agencies (DENR and DA) were especially named. Only one respondent singled out the LGU, adding that it needed the support of NGOs, POs, and other religious-civic groups. Two mentioned that all sectors of society have this responsibility.

5. Roles That Can Be or Are Being Played by the Various Sectors in Environmental Protection and Management (pls. see matrix on page 58)

Lapu-Lapu City

On the LGU:

1. Bantay Dagat (10)
2. Dissemination of information (8)
3. Passed environmental laws/ordinances (7)
4. Allocation of budget (4)
5. Resolution of conflicts (1)

Only four of 9 items were frequently mentioned. Also mentioned were resolution of conflicts, establishment of monitoring systems, and organization of forest guards and public hearings.

On NGOs:

1. Mangrove reforestation
2. Livelihood
3. Information dissemination
4. Wetlands Bureau, apparently in reference to the role of the NGO in establishing the bird sanctuary.

On Pos:

Only one answered "information dissemination."

On Community Members in General:

Answers were given by only 4 respondents, mentioning the following:

1. Support for LGU programs (whatever this meant)
2. Information dissemination
3. A campaign against indiscriminate dumping of garbage
4. Tree-planting activities

On the question of **what the community members could do**, only two said, "we should have a dumpsite," and "educate members for them to take the initiative....should have active information drive."

On Civic-Religious Groups:

Only two respondents gave answers:

1. Tree planting
2. Information dissemination

On Private Business:

Only three respondents gave answers:

1. Pollution control
2. Provide waste disposal systems
3. Information dissemination

Three respondents said that the following should be done:

1. Continue the work to ensure the monitoring of pollution
2. Continue the drive for cleanliness
3. Sponsor symposia; invite LGUs to attend discussions; follow requirements strictly (e.g., building clearance, environmental assessment)

Cebu City

On the LGU:

1. Allocation of Budget (6)
2. Dissemination of information (6)
3. Holding of public hearings (6)
4. Resolution of conflicts (6)
5. Passage of laws/ordinances (6)
6. Establishment of monitoring systems (5)

On NGOs:

1. Reforestation
2. Assistance in formulation and implementation of environmental policies
3. NGOs should be the spark plug.

On what else they could do:

1. NGOs should assist LGUs in environmental concerns
2. Expand coverage in upland and lowland areas
3. Conduct community organizing and information dissemination
4. NGOs should be the lead agency in environmental affairs
5. Advocacy

On POs:

Respondents had no clear idea of POs and tended to confuse them with NGOs.

On Community Members:

Only two responses were obtained for this question:

1. Should be self-disciplined to attend to their environment
2. Work with NGOs in such activities

On "what else could be done," the following answers were elicited:

1. Be concerned for the common good
2. Be participative in environmental activities

On Civic/Religious Groups:

Only one answer was related to the groups:

1. Providing guidance to community members.

On "what could be done," the following answers were elicited:

1. Plant trees and help finance environmental programs
2. Assist NGOs in environmental education

On Private Business:

Only two answers were elicited ("made aware of their social responsibilities;" and "San Miguel Corporation") both of which were off-tangent.

On the issue of "what could be done," the following were given:

1. Upland tree-planting
2. Serious compliance of ECC (Environmental Compliance Certificate)

- **ANALYSIS**

The general perception among Lapu-Lapu and Cebu City respondents is that there are offices in government which are directly mandated to oversee environmental concerns. Thus, as individuals and by themselves, there are hardly any attempts on their part to "meddle" in such concerns unless their official capacity calls for it. Thus, the City Agricultural Officer, mentions interventions among fisherfolk; the City Councilor notes the passage of ordinances; the City Engineer talks about garbage and dumpsites; and the Bantay Dagat is limited to

going after illegal fisherfolk. Curiously, some LGU respondents think of environmental concerns as being outside their spheres of jurisdiction. They do not show any evidence of personal commitment to the issues of the environment. And so environmental thrusts are fractioned among the different offices without a need being seen to coordinate their activities to achieve a synergy in the struggle against environmental decline.

The data regarding the respondents' perceptions of the level of participation of the LGU and other sectors in environmental protection suggest a stagnated, piece-meal approach to managing the environment. Thus we elicit responses about tree planting, reforestation and pollution control---things which have become household words, more like catch-phrases, for some time now. It is observed that there is a pronounced lack of creativity in initiating environmental protection and management programs/activities.

It is significant to note that while many of the respondents perceive a large role for the LGU and NGOs, POs as well as civic/religious and business groups do not appear to figure in the whole scheme of involvement in environmental affairs. When asked what all the sectors could still do, one finds numerous suggestions for the LGU and NGOs, but none for POs and business groups and almost none for civic/religious groups. Insofar as NGOs and POs are concerned, this may be due to the confusion between them. A more encompassing reason may be, to add to an earlier observation, that exposures of the LGU officials to activities other than those within the government are limited. Again, the result is fragmentation of job functions with minimal linkages among them. Such explains the sparing observations that LGU officials have with respect to PO and NGO activities.

In terms of differences between doers and non-doers across the two sites, the responses of non-doers clearly show a lack of awareness of environmental projects. One respondent even mentions the construction of roads as a way of solving environmental

problems! Doers, on the other hand, see solutions to environmental problems to lie along commonly held approaches like reforestation and proper waste disposal management. Again, responses of doers are limited to the positions they occupy in the local government. This is consistent with the answers of non-doers --- they occupy positions that they perceive as having nothing to do with solving problems of the environment.

C. ENFORCEMENT OF ENVIRONMENTAL POLICIES AND LAWS

1. Implementation of the Local Government Code

Lapu-Lapu City

While some respondents said that "everything has been devolved now," most respondents said that these have not been actualized except in the case of the City Health Department and the City Agriculture. On the issue of environmental concerns, not one respondent was ready to say that the city had been active. They noted no Community Environmental and Natural Resources Office (CENRO) or environmental agency had been created by the city.

Cebu City

Cebu City respondents were generally of the opinion that many functions of the national line agencies had been devolved, some of which had actually been operationalized. To cite some: (1) the institution of requiring permits for the extraction of sand and gravel (CPDO); (2) and land development permits (HLURB); (3) upland development projects (CCHDP); (4) participation in the process of issuing an environmental clearance certificate (ECC); (5) the creation of the CENRO; and (6) the creation of the City Health Office (CHO).

2. National Environmental Laws/Policies Relevant to the Municipality

Lapu-Lapu City

Only four laws were prominently mentioned by LGU respondents: anti-pollution laws, laws against illegal fishing, the requirement of an Environmental Clearance Certificate (ECC) prior to undertaking any project, and RA 1586 (NIPAS Act).

Cebu City

The following were mentioned: (1) ECC Requirement; (2) Barangay Clearance prior to the issuance of an ECC; and (3) the National Environmental Code of the Philippines.

3. On Local Environmental Ordinances Passed

Lapu-Lapu City

Six respondents either answered "I do not know," or "ask the Sanggunian about it," or "ask the Secretary to the Mayor." Only three had specific answers. Cited were ordinances that penalize the extraction of sand and corals, dynamite fishing, dumping of garbage; the creation of the Bantay Dagat, the requirement of an ECC; and the creation of the Environment and Natural Resource Council (ENRC). This last one, though, had never been actually constituted and is inoperative.

Cebu City

Only three mentioned the following: (1) Ord.#1483 regulating the extraction of sand and gravel, boulders, earth and quarry resources; (2) Ord. #1527 requiring real estate developers in the hillylands in the city to dump the loose earth moved by them into pre-

designated dumping sites; and (3) the requirement for the treatment of sewage; and (4) the creation of the Cebu City Hillyland Resources Development Commission.

4. Community Responses to Environmental Ordinances

Lapu-Lapu City

Lapu-Lapu City respondents believed that the general community consensus is that these laws are needed. However, the real problem was in convincing people that the government means to punish violators. They could do so effectively now because of social and political pressures.

Cebu City

Of ten respondents from Cebu City, six either declined to answer or professed that they did not know. Only two said that the community generally supported these environmental ordinances.

5. Enforcement and Effectivity of These Ordinances

Lapu-Lapu City

The Lapu-Lapu City LGU entrusted the enforcement of environmental laws to the PNP, the Bantay Dagat, and barangay officials and the barangay policemen. The effectiveness of enforcement though was thought to be very poor. The Bantay Dagat, accordingly, is not clothed with "police power" and the PNP is too undermanned to pursue effective operations. Only one LGU respondent said that their operations were effective.

It was also cited by respondents that the enforcement of the law is lax. According to one, however, there was already a memorandum of agreement that sought to coordinate the activities of the Coast Guard, the Maritime Police, the PNP, and the LGU through the Bantay Dagat in the enforcement of laws against illegal fishing.

Cebu City

Majority of respondents mentioned the need for authority to enforce laws. Aside from the PNP and barangay officials/and police, specific LGU offices were mandated to make apprehensions, e.g., the City Planning and Development Office, the CITOM, and the Department of Public Service.

6. Sectoral Involvement in Enforcing/ Respecting Local Environmental Ordinances

Lapu-Lapu City

On the LGU:

Respondents considered the LGU to be active in this regard except for one who confessed he did not know and another who said "not so active." The reasons given out were: (1) that everyone is cooperating to make Lapu-Lapu City a clean place in which to live; (2) that everyone is involved in environmentally-sound activities and; (3) that the Bantay Dagat is well-organized in coastal communities.

On the Community:

The consensus in Lapu-Lapu City appeared to be that the community in general is not active owing to the fact that there is an appreciable lack of awareness of environmental issues.

On NGOs:

Only two respondents from Lapu-Lapu City considered NGOs active citing mangrove reforestation activities and other NGOs undertakings related to livelihood programs. The rest of the respondents either had no opinion or viewed NGOs as inactive.

On Pos:

Pos were perceived by four LGU respondents to be inactive in enforcing environmental ordinances because “they are mostly involved in livelihood” and “ their work does not involve the environment or they are not concerned about it.” However, two respondents noted POs to be active, saying “cooperating to make Lapu-Lapu a clean place to live in” and “involved in protecting the environment and helping us in the tree planting program.”

On Civic/Religious Groups:

Only three respondents assessed civic/religious groups to be active, saying “they are all cooperating to make Lapu-Lapu City a clean place to live in,” “they are involved in protecting the environment and helpful in tree planting.” Three rated these groups as inactive with one saying “lip-service only.”

On Business Groups:

Only two said that private business is “active” saying that some businesses are “involved in protecting the environment and helpful in the tree-planting program.”

Cebu City

On The LGU:

Cebu City respondents viewed their LGU as active, with two dissenting opinions and one with no answer. The dissenting voices noted that inconsistent enforcement of

laws is the major constraint.

On the Community:

Cebu City respondents look at the community general as inactive, with one respondent citing that many people violate the rules.

On NGOs:

A more positive view was elicited for NGOs, with the Ramon Aboitiz Foundation, Inc. (RAFI) and Philippine Business for Social Progress (PBSP) being mentioned. Their roles were associated with the initiation of environment-related projects and support for the government in some of its programs.

On POs:

People's organizations were perceived as active in reforestation projects (although not on a sustained basis) and in monitoring projects.

On Civic/Religious Groups:

Five answered that they are "active" in advocacy, and in monitoring projects.

On Business Groups:

Half of the Cebu City respondents considered business as "active" (in reporting violations, initiating their own environmental activities, pollution control, and maintaining their own environmental programs). Contract reforestation in Cebu Province had reportedly been carried out by many Cebu City small and big businesses and businessmen.

7. **Obstacles/Barriers Encountered and Mitigation Made in the Enforcement of Ordinances**

Lapu-Lapu City

Five respondents did not see any barriers or obstacles. The other five mentioned (in order of frequency) the following:

1. Limited manpower
2. Insufficient budget
3. Time constraints for the community in general as well as personally for LGU officials
4. A lack of interest and support by the local government in the operationalization of the ENRC

Cebu City

In the order of frequency, the following were perceived to be barriers:

1. Lack of political will/politicking
2. Lack of discipline/attitude/commitment by both LGU and the community at large
3. Lack of personnel/financial constraints
4. Conflict of interest among some LGU officials
5. Absence of regular dialogues between LGU and NGOs
6. Government bureaucracy ("the government still wants to control everything")
7. Poverty

Only one respondent (from Cebu City) offered some mitigating actions, calling for intensified information drives and involve barangay officials more in government programs (apparently to address manpower shortage).

8. **Laws or Policies that Run Counter to Sound Environmental Management**

Lapu-Lapu City

Seven respondents said that they knew of no such law. Two respondents said that it is difficult to say at the moment as many functions of the LGU have not yet been devolved to

them. Only one mentioned the law that allows the conversion of mangrove areas for industrial or commercial use (reclamation).

Cebu City

Five of the responses were not related to the question and three answered "none". Two respondents mentioned the ordinance which sets aside 200 meters on each side of the transcentral Highway, which passes over the Cebu uplands, for commercial use.

- **ANALYSIS**

While there is appreciation for the provisions of the Local Government Code, it would seem that there are still inadequate ordinances that would allow for the actual implementation of some devolved functions. In both groups, there is no mention of the devolution of the authority to enact fishery laws. In Lapu-Lapu City, however, Bantay Dagat is mentioned as a devolved function and has been perceived to be active. The responses from both Lapu-Lapu and Cebu cities are equally limited in terms of respondents' knowledge of national environmental policies. Considering that both doers and non-doers across sites share this same characteristic, it is apparent that national policies do not figure in the everyday activities of the respondents. Whether doer or non-doer, laws and policies are not fully grasped.

The data also show that enforcement across the sites has always been a problem.

When looking at respondents' awareness of other sectors' involvement and participation in the enforcement of laws, there is ample data to show that knowledge of what these sectors are doing is limited to doers. Non-doers do not seem to know what other sectors are doing. Within doers, themselves, however, knowledge of the participation of other sectors is also limited.

D. PERCEIVED BARRIERS AND BENEFITS

1. Identified Barriers/Obstacles

Lapu-Lapu City

1. Lack of education of fisherfolk
2. Lack of budgetary resources vis-a-vis growth of population
3. Rapid industrialization and land conversion as a consequence of the government's thrust for Philippines 2000
4. Lack of equipment
5. Social pressure probably also not to arrest violators or at least to be lenient with violators

Cebu City

1. People's attitudes (esp. landowners) which make them resist government programs whenever the use of their properties is impinged upon. Lack of concern among the people regarding government environmental programs.
2. Environmental concerns have low priority with the LGU. Politicians are more interested in infrastructure because these are most visible to their constituents.
3. Misconceptions exist among people living in timberland areas that once they plant trees, the government will take over their land--rumored to be an idea propagandized by leftists.
4. A top-heavy bureaucracy; it is hard to get things done.
5. Financial/Budgetary constraints
6. Lack of coordination between the government and other sectors. Particularly cited is MCWD's plan to uproot the narra trees planted along the boulevards as they threaten the PVC waterpipes underneath. This suggests a lack of coordination between government and public utility services.

2. The Advantages/Disadvantages If There is Strict Enforcement of Environmental Laws

Lapu-Lapu City

On the LGU:

Cited as advantages were the following:

1. The city is free from any kind of pollution, and people are not prone to have health problems because of pollution.
2. Disease-free environment, clean water.
3. Aside from their (LGU officials) being recognized, it will not only be the LGU that will be advantaged. It is actually the community that will reap the advantage. We will have a better city and a clean environment. All else follows, e.g., health and sanitation, etc.
4. At least we would be able to protect the environment. We will have contributed to the world campaign for the environment.
5. It would redound to the enhancement of small fisherfolk.
6. More income from collection of taxes through the tourism industry.
7. Lesser politics.

On Community Members:

Aside from responses like "the air would be clean," "clean environment," "healthy world," only two responses reflected carefully thought-out answers. These were "the community will benefit in terms of the volume of fish caught; this will result in reduced prices;" and "better environment and more employment opportunities, e.g., for tour guides."

Nine respondents saw no disadvantages while one claimed that people "could no longer expand their claims over an area." apparently referring to the fact that business groups would find it impossible to put up commercial establishments/resorts just about anywhere they want to.

On NGOs:

The only answer that dwelled on the issue of "advantages" was given by one respondent who said that NGOs "will attract more foreign funding and enable them to expand their operations."

On POs:

Only one discussed advantages saying that POs will "grow in strength" and be more capable of managing their own resources. The rest gave answers that were not related to the given category.

On Civic/Religious Groups:

All answers were not directly related to the subject.

On Private Business:

With regards to disadvantages, only one respondent said that private businesses would no longer be able to do what they wanted as they will be strictly subjected to existing laws, rules, and regulations.

Cebu City

On the LGU:

All were general answers that had very little direct bearing on the LGU, but rather on the community as a whole. This was illustrated in the following responses:

1. Improve environment, increase productivity in agricultural and aqua products.
2. Preserve our natural resources, healthy environment, continuous supply of water.
3. If not minimized, full control of soil erosion will be achieved; control of flash floods; sustain life in our watershed areas...more water for the people.
4. Attain a balance between environmental programs and controlled development.

Some disadvantages perceived were:

1. Additional cost to LGU as more people need to be hired
2. Implementation of projects will be delayed
3. Loss of some votes/loss of political leverage
4. Restricted economic growth of the community; loss of income

On the Community:

Nine gave answers like "we will have a better place to live in;" "it will be a healthier community." Only one said that "there will be a balance between environmental concerns and development."

For disadvantages: One feared that environmental policies might be construed by some people as a "form of taxation," that the government is trying to make money out of them. Three others mentioned that some people will suffer a loss of income (referring in particular to

charcoal-makers and fly-by-night lumber dealers).

On NGOs:

Three relevant answers were elicited on the issue of "advantages." These were: (1) more support for on-going environmental programs; (2) more involvement in environmental projects unhampered by bureaucracy; and (3) more effectiveness in organizing communities.

The only disadvantage seen by one respondent was "loss of income."

On POs:

Advantages seen were "more support for PO-initiated environmental programs;" "more involvement less hampered by bureaucracy."

On Civic/Religious Groups:

Answers on advantages were the same as for NGOs and POs.

On Private Business Groups:

Answers ranged from "there will be adequate water supply," "there will be more support for on-going environmental programs," to "the community will have more respect for the environment."

Only two respondents offered any answers on "disadvantages." They said that strict observance of environmental laws translates into more expense and increases their operating costs, thereby affecting income for private business.

- **ANALYSIS**

In looking at the barriers that are perceived as constraints to positive environmental action, both sets of respondents see the problem as coming from both the community at large and from the local government unit itself. The major stumbling block insofar as the LGU is concerned is invariably associated with budgetary constraints which translate to a lack of equipment and a paucity of manpower to implement and monitor environmental programs.

Cebu City respondents as compared to Lapu-Lapu City respondents, however, go beyond mere budgetary constraints and criticize the bureaucratic procedures that make it difficult to get things done. Furthermore, they decry the inability or lack of enthusiasm on the part of the LGU to establish meaningful linkages with other sectors, especially with the NGOs. There is also the interesting insight provided by one respondent. It is said that politicians are more interested in carrying out infrastructural projects because these are most visible and therefore, most helpful in building up political image. In this sense, environmental projects therefore have low priority.

The community at large is also seen by respondents as contributing to the difficulty in carrying out environmental programs mainly because of attitudes associated with low education. This makes them vulnerable to misinformation that may lead to misconceptions about the effects that environmental projects may have upon their lives. Straddling both the community and the LGU is also the barrier borne out by respondents' observation that social pressures exerted by the community upon LGU officials and the LGU's willingness to accommodate these pressures have led to leniency in the enforcement of environmental laws.

On the issue of advantages vis-a-vis disadvantages that may accrue from the implementation of sound environmental programs, respondents are unanimous in saying that advantages far outweigh whatever inconveniences that various sectors are subjected to. A limited number of quantifiable advantages are cited by respondents such as generating more income from taxes through an expanded tourism industry (for LGUs) and attracting foreign funding (for NGOs). Most other responses elicited as advantages are in the area of health and the well-being of the community in general. The emphasis that LGU respondents here place on unquantifiable advantages either implies that they do not see very clearly the direct relationship between environmental improvement and the concrete and quantifiable benefits that such a condition brings; or, it may be that they do place a premium on the well-being of the community in general which eventually will translate into concrete benefits in the future.

Only two sectors are perceived to feel inconveniences if environmental laws are strictly enforced. The LGU is perceived to experience some decrease in its income as a consequence of a slowdown in industrial growth arising from stricter restrictions imposed on industries. Also, some LGU officials could be personally affected in the loss of political leverage. Budgetary allocations would also need to be increased in order to hire more qualified people to implement and monitor environmental programs. The business sector is likewise seen to suffer some consequences in terms of reduced profits and delays in the operation of their businesses. Nonetheless, these are generally seen to be a short-term problem and will eventually be rectified in the course of time.

E. NEEDED SKILLS, TECHNOLOGY AND SUPPORT SERVICES

1. Skills Needed by LGU Officials

Lapu-Lapu City

Respondents gave importance in communicating to people at a level to which they can relate (proper information dissemination) education and trainings to environmental protection.

Nurturing positive personal values was stressed. These were honesty, dedication, sincerity, commitment, and industry. Three mentioned environmental monitoring capabilities, management skills, and deeper knowledge of proper environmental management. These were illustrated in the following quotes: "knowledge regarding the advantage of environmental protection;" "education, leadership, motivation skills to encourage people in the community;" "there should be no fear or favor in enforcing laws...honest, determined and devoted to the work that they do;" "management skill and environmental monitoring."

Cebu City

Similarly, Cebu City LGUs followed the line of thinking of Lapu-lapu respondents, adding values formation and enhancing livelihood activities.

Answers elicited focused on desired values such as firmness (no accommodations given), political will, and a sense of urgency. Educating LGU officials on environmental concerns through workshops or seminars, and the willingness to draw in technical experts, were also mentioned.

2. Technology and Support Services Needed by the LGU

Lapu-Lapu City

1. Garbage trucks
2. A dumpsite
3. Money and equipment
4. Compactors
5. Seacraft
6. Information materials and appropriate technologies
7. Skills in monitoring

Cebu City

1. Skills in imparting environmental education
2. Budgetary support
3. Resource management technology
4. Livelihood skills for the people

3. Factors Impinging On Involvement of LGU Officials In Community Environmental Affairs

As shown in Table 4, the LGU officials of the two cities considered five factors as important in motivating people to get actively involved in environmental activities: understanding of environmental laws, consistent enforcement of these laws, LGU support, access to technical support, and existence of environmental laws.

In Cebu City, respondents rated understanding of environmental laws as crucial and considered the following factors as important: consistent enforcement of environmental laws, existence of environmental laws, and LGU support. Values, beliefs and practices are also rated important, in lieu of access to technical support.

- ANALYSIS

Both doers and non-doers appear to have some small grasp of the skills needed by officials in the pursuit of environmental management. But the answers they give are general and are applicable not just to environment-related activity. There is an apparent vagueness in the way both groups across sites perceive skills that are ideal in dealing with the environment per se. The answer to this vagueness may lie in the honest assessment of the respondents of their own need for deeper understanding of ecological concepts through seminars and other forms of information dissemination. These responses seem to imply that there is an unspoken admission that many LGU officials are less than committed, honest, and sincere in the performance of their functions. On the other hand, this might also be an indication that our LGU respondents have never really given serious thought towards positive environmental action on their part that would have made them realize that certain concrete skills are needed to actualize programs.

It is when looking at needed technology that one can see the differences between a doer city and one that is a non-doer. Respondents in Lapu-Lapu City tend to mention needed equipment while those from Cebu City have technical needs that appear more profound and long-term. Although this may be construed as an indicator that Lapu-Lapu City LGUs are really non-doers because of their propensity to look for a convenient and verifiable excuse to skirt responsibility, this may, on the other hand, be a truly felt need.

Cebu City LGU officials tend to identify relevant technological techniques maybe because of their longer experience in promoting environmental protection, eg., The Cebu City Hillyland Development Project (CCHDP) and are therefore more aware of shortcomings in the delivery of services.

Five factors are rated important by both groups. This means that, in general, these factors must be seen to be "right" or in place for LGU officials to make the decision to be personally involved and active in environmental affairs.

- **SUMMARY ANALYSIS**

There are some noteworthy similarities in the responses of the two sets of LGU officials.

The officials interviewed in each city, in response to the question "what have they done to address the problems of environmental degradation?" show little personal commitment or concern regarding environmental issues. In making responses, each stays within the area for which he or she has an official responsibility, and tends to limit answers to that area.

With regard to barriers or obstacles inhibiting the LGUs in their dealing with environmental problems, officers in both cities point to insufficient budgeting. This means that the manpower and equipment needed to fight the battle against environmental deterioration (such as the seacraft and crews to service the operations of the Bantay Dagat) are not present. This is particularly dire in view of the fact that the context, which is overpopulation, mentioned by some officials, continues to worsen.

Another problem, noted by respondents in both cities under the different headings, is the lack of political will to respond forcefully to the situation. When citizens do not cooperate, barangay officials are blamed for not responding, or when someone is apprehended in the violation of an environmental ordinance, barangay officials are lenient

with the offenders. There is social pressure to be lenient. It is interesting to note that this perception of the officials is quite consistent with what community members told us over and over again in the focus-group discussions. The barangay official, who fills an intercalary status, is blamed, then, both from above and from below. At least the community members tend to find it unfair that all of the burden should rest on him. Now, when asked to rate the level of activity of the LGU in terms of several thrusts presented to them for consideration, Lapu-Lapu City officials always hold up the Bantay Dagat as being "very active" in its area of responsibility. This judgment might then be questioned. For how can the Bantay Dagat be expected to continue to make an effort when the violators which they seize are simply apprehended and then let go to continue their illegal methods? Or, as focus-group discussants say to agree with the LGU respondents, there is an inadequate budget for the Bantay Dagat. Bantay Dagat must be getting discouraged and lax in their commitment.

In the matter of how active the sectors are in the enforcement of and respect for environmental ordinances, community members are judged by officials in both cities to be "not active." In Cebu City, this is due to their constant violation of the rules, say the officials. In Lapu-Lapu City, they say it is because community members are "not aware of environmental issues." We can say, then, that the LGUs in Lapu-Lapu City are out of touch with the community members. A study of the responses of focus-group discussants, in Chapter Four, indicates that they are by now well aware of the environmental problems and the difficulties confronting their solutions in their local communities.

The responses of the LGU officials in both cities under several headings suggest to us that they generally have a low awareness of environmental problems and attempted solutions, but that the situation is much worse in Lapu-Lapu City. Whereas in Cebu City many answers tend to be sometimes vague or superficial, in Lapu-Lapu City, respondents frequently cannot

give any response at all to many questions. Thus the Lapu-Lapu City LGU could indeed be considered a "non-doer" LGU, and at least by comparison, Cebu City LGU can be fairly considered a "doer." In this way the responses of the two sets of officials show differences.

This distinction is particularly manifest in response to the question about the implementation of the Local Government Code. It is claimed by some respondents in Lapu-Lapu City that there has been no devolution of the many functions of the national line agencies to their LGU. At least there are hardly any ordinances, in their awareness, that have been passed to actualize this, and therefore, little is being done on the issues of the environment by the LGU. In Lapu-Lapu City, for example, there has been no establishment of a CENRO or environmental office, say the respondents. Devolution has occurred only to the City Health Office and to the Office of the City Agriculturist.

In Cebu City, however, respondents claim that many functions have been devolved and some actually operationalized. They can cite a number of ordinances in the form of necessary permits for certain activities, upland development projects, the creation of a CENRO, and the creation of a City Health Office.

The comparison is confirmed under two other headings. In response to the question about "how active are the sectors in the enforcement of or respect for environmental ordinances," local NGOs are considered inactive by two LGU respondents from Lapu-Lapu City, but the others have no opinion about them or are unaware of their activities in that city. From the perception of LGU respondents, we can infer that they are not familiar with the activities of NGOs, POs, or of other sectors, suggesting that minimal linkages among them exist. In Cebu City, however, RAFI and the PBSP are well-known by respondents as NGOs that have even initiated many environment-related projects in support of government programs. Under another heading, the question "what groups have been supportive of

environmental protection?" Lapu-Lapu officials can name only 4 NGOs, while in Cebu City they name 10 of them.

The same result is obtained with regard to POs. In Lapu-Lapu City nothing is known about them by the respondents. In Cebu City, they are known to be active in upland reforestation projects and in the monitoring of environmental projects.

The general conclusion is that there is little cooperation among the LGU offices, between them and the other sectors, and among the sectors in general, to achieve an integrated, holistic, or synergistic advance in saving the environment.

Table 2. Frequency of LGU Respondents, by City, Sex and Selected SocioDemographic Characteristics.

SocioDemographic Characteristics.	Lapu-lapu City			Cebu City			Total
	Male n=10	Female n=0	N 10	Male n=9	Female n=1	N 10	
1. Agegroup							
31-35	-	-	-	1	-	1	1
36-40	-	-	-	1	-	1	1
41-45	2	-	2	-	-	-	2
46-50	2	-	2	3	-	3	5
51-55	4	-	4	2	-	2	6
56-60	2	-	2	-	-	-	2
61-62	-	-	-	2	1	3	3
Mean Age=50 (Both Sexes)							
2. Civil Status							
Married	10	-	10	9	-	9	19
Widow	-	-	-	-	1	1	1
3. Highest Educ Attainmnt							
High School graduate	-	-	-	1	-	1	1
College Undergraduate	1	-	1	-	-	-	1
College graduate	5	-	5	5	-	5	10
Master/Law	2	-	2	2	-	2	4
Doctorate (Ph.D.)	1	-	1	-	-	-	1
Medicine (M.D.)	1	-	1	1	1	2	3
4. Religion							
Roman Catholic	10	-	10	7	1	8	18
Protestant	-	-	-	2	-	2	2
5. No of yrs in Public Off.							
1-5	-	-	-	-	1	1	1
6-10	4	-	4	1	-	1	5
11-15	2	-	2	1	-	1	3
16-20	1	-	1	2	-	2	3
21-25	-	-	-	2	-	2	2
26-30	3	-	3	1	-	1	4
31-35	-	-	-	1	-	1	1
6. Membership to Org.							
Yes	4	-	4	6	1	7	11
No	6	-	6	3	-	3	9

GreenCOM Study, LGU Respondents, Lapu-Lapu City and Cebu City, May 1996.

Table 3. LGU's Characterization of Factors That May Help or Hinder Their Involvement.

Factors	Characterizations				
	Crucial	Important	Helpful	Not Relevant	Barrier
1. Values, beliefs, practices	9	4	4	1	2
2. Understanding of environmental problems	10	9	1	--	--
3. Existence of environmental laws/ordinances	4	12	4	--	--
4. Consistent enforcement of environmental laws/ordinances	7	9	4	--	--
5. LGU Support	6	11	3	--	--
6. Access to appropriate technology	3	14	3	--	--
7. Access to technical support and training	7	8	5	--	--
8. Access to credit	3	5	12	--	--
9. Personal investment in terms of time, money and materials	1	8	9	1	1
10. Approval/support from family and influential persons	--	6	11	3	--
11. Maintenance of smooth interpersonal relationships in the community	2	10	8	--	--
12. Increased family income	3	10	4	2	1
13. Traditional folk beliefs	1	1	4	6	8

GreenCOM Study, LGU Respondents, Lapu-Lapu City and Cebu City, May 1996.

Table 4. Summary of Trends by LGUs of the Characterization of Factors That Could Help or Hinder Their Involvement.

Factors	Summary of Trends	
	LGUs	
	Lapu-Lapu City n=10	Cebu City n=10
1. Values, beliefs, practices	H	I
2. Understanding of environmental problems	I	C
3. Existence of environmental laws/ordinances	I	I
4. Consistent enforcement of environmental laws/ordinances	I	I
5. LGU Support	I	I
6. Access to appropriate technology	I	H
7. Access to technical support and training.	I	H
8. Access to credit	I	H
9. Personal investment in terms of time, money and materials	H	H
10. Approval/support from family and influential persons	H	H
11. Maintenance of smooth interpersonal relationships in the community	I	H
12. Increased family income	I	H
13. Traditional folk beliefs	NR	NR

GreenCOM Study, LGU Respondents, Lapu-Lapu City and Cebu City, May 1996.

C = crucial, I= important, H = helpful, NR = not relevant, B=barriers.

**MATRIX ON THE ROLES THAT CAN BE PLAYED OR ARE BEING PLAYED BY THE
VARIOUS SECTORS IN ENVIRONMENTAL PROTECTION AND MANAGEMENT**

	LAPU-LAPU CITY	CEBU CITY
<u>ON THE LGU</u>	Bantay Dagat dissemination of information passed environmental laws allocation of budget resolution of conflicts	allocation of budget dissemination of information holding of public hearings resolution of conflicts passage of laws/ordinances establishment of monitoring systems
<u>ON NGOs</u>	mangrove reforestation livelihood information dissemination Wetlands Bureau	reforestation assistance in formulation and implementation of environmental policies NGOs as catalysts
<u>ON POS</u>	information dissemination	
<u>ON COMMUNITY MEMBERS</u>	support for LGU programs information dissemination a campaign against indiscriminate dumping of garbage tree-planting activities	should be self-disciplined to attend to their environment be participative in environmental activities
<u>ON CIVIC-RELIGIOUS GROUPS</u>	tree planting information dissemination	providing guidance to community members
<u>ON PRIVATE BUSINESS</u>	pollution control provide waste disposal systems information dissemination	

CHAPTER THREE

LAPU-LAPU CITY AND CEBU CITY OPINION LEADERS ON THE ENVIRONMENT

The Respondents

The position of Lapu-Lapu City and Cebu City opinion leaders are identified in Table 5 and an identifying code (OP1, OP2, OP3, etc.) is attached to each one.

Table 5. Identification of Interviewed Opinion Leaders.

OPINION LEADERS			
LAPU-LAPU CITY		CEBU CITY	
OP 1	Businessman, Olango	OP 1	Spokesperson, SUPAK
OP 2	Member, PAMB	OP 2	Dept. Head, MCWD-EWR Dept.
OP 3	Planning Manager, Schema Konsult Inc	OP 3	Director, Street Children Foundaton
OP 4	Field Operation Manager, NORFIL	OP 4	President, KPB
OP 5	City Councilor, Medical Doctor	OP 5	Parish Priest, Cebu
OP 6	Mayor's Consultant, Lapu-Lapu	OP 6	Executive Director, Lihok Filipina
OP 7	Parish Priest, Olango	OP 7	Manager, CVRP-Dept. of Agriculture
OP 8	In-charge, Bird Sanctuary	OP 8	Head, Consultancy Firm
OP 9	Parish Priest, Lapu-Lapu	OP 9	Deputy Director, USC-WRC
OP 10	Manager, MEPZ	OP10	Pres., Cebu Chambers of Commerce and Industry

Sociodemographic Characteristics of the Respondents

Table 6 identifies some sociodemographic characteristics of the opinion leaders in our sample. It shows that 10 respondents were located for each community, with six males and four females in each sample.

The mean age of our Lapu-Lapu City opinion leaders sample was 50. There were six respondents who were married and four were single. A majority of them were either college graduates or hold a Master's or Law Degree. Only one Lapu-Lapu City opinion leader was not able to graduate from college. Six respondents have been involved in community, civic or development work for more than 15 years, and four respondents have been involved for less than 15 years. With respect to their involvement in environmental work, seven respondents were involved for a varied range of years, while three respondents noted they had no involvement in environmental work, whatsoever. All of the Lapu-Lapu City sample claimed to be members of a professional or civic organization.

For Cebu City opinion leader respondents, the mean age was 44. There were more respondents who were married (8) than single (2). Likewise, all of them were either college graduates or hold a Master's or Law Degree. Respondents were mostly involved in community, civic or development work for 11-20 years. Eight respondents were involved in environmental work for a varied range of years, while two respondents noted they had no involvement in environmental work. All of the Cebu City City sample also claimed membership in professional or civic organizations.

A. ENVIRONMENTAL CONDITIONS AND PROBLEMS

1. Assessment of Present Conditions

Lapu-Lapu City

Nine out of ten respondents perceived the environment to have deteriorated saying that “resources have been depleted/destroyed,” “polluted seas,” and “tragic in some areas (Olango) where seashells are vanishing.” Another mentioned that while pollution may be a growing threat, “it is still manageable.” He added that such pollution is easily detected as “eyesores” (referring to solid wastes that are dumped just about anywhere). One aberrant response to this question was noted, however. One respondent saw that “there is an improvement in terms of marine resources...like an increase in fish caught daily.”

A wide array of causes was identified by respondents as having brought about this situation. These were, in order of frequency:

1. **Illegal Fishing Practices.** Opinion leaders blamed dynamite fishing, cyanide (kuskos), push-net (sudsud), and trawl fishing in nearshore areas.
2. **The Proliferation of Marine Resource-Based Businesses.** Under this category is the collection of tropical fishes for export (“people are taking out seedlings of fish for export”), corals, shells, starfish, seaweeds and *salarian* -a species of sea grass (“people take out the sungasid which causes the water to malubog (turn muddy) and cause death to marine life.
3. **The Building of Permanent Structures Along The Shoreline.** This has to do with what was perceived as a lack of “effective planning and documentation by the local and provincial governments.” Furthermore, it was perceived that the entry of private businesses in the area as a consequence of Mactan’s being declared a “tourism zone” has abetted and aggravated the situation. This, apparently, is closely related to the perceived growing problem of pollution. Also, related to this is what one opinion leader saw as mismanagement by the LGU, stating that, “they lack the mechanism to check the waste of factories” and “the local government has given priority to tourism development like big hotels and construction in coastal areas without proper waste disposal and pollution controls.”

4. **Poverty and The Lack of Alternative Means of Livelihood.** One respondent explained that “people are forced to do illegal fishing to earn a living....small fishermen lacking (lack) traditional (non-destructive) fishing gear.” This condition was perceived to be also responsible for the cutting of mangroves for firewood and fencing/building materials.
5. The illegal extraction of sand along the shore (either for sale as filling materials to beach resorts or for the “making of hollow blocks.”
6. Pollution caused by the waste from factories and city garbage “are carried by the sea current.” One respondent added that “there is dirt and plastic everywhere....no proper disposal of garbage, both solid and toxic.” Also, “waste from septic tanks are dumped in the sea.”
7. The “mushrooming of subdivisions; agricultural areas are being converted into residential areas.”
8. Overpopulation. “Too many people extract resources.” People on the island generally do not have toilets and “human wastes are found along the shore causing air and water pollution.”
9. People’s Lack of Understanding of The Ecosystem and Environmental Awareness. “Olango islanders in particular lack guidance and education about marine life forms and coastal resources.”

Cebu City

Respondents decried the poor state of both upland and coastal environments and cited that “there are no forests to speak of,” “the city’s sewage is polluting the seas from Talisay to Mandaue,” “there is a decrease in water supply” and the “forests are very degraded while coastal areas are quite silted and polluted.”

The identified causes for this situation were various. Hereunder, in the order of frequency are what have been perceived:

1. **The Impact of Development On The Environment.** Land development by industrial estates and subdivisions was seen as “having degraded the uplands and caused siltation in the coastal areas.” Industrial pollution arising from effluents from factories and oil spills were also seen as having damaged the environment. One respondent labelled this as “development aggression.”

2. Poverty and its attendant effects, e.g., illegal fishing practices (dynamite, poison, kobkob (trawl) fishing, excessive cutting of trees for lumber, firewood, and charcoal, occupation of timberlands by squatters, upland farming which leads to denudation of the uplands and eventually siltation in the nearshore areas. Also associated with poverty was the perceived ignorance of the people. This, it was said, has led to a "lack of awareness of the importance of resources to our lives." Thus, "abuse of forests" and improper garbage disposal result from these.
3. "The lack of political will from agencies tasked to enforce environmental laws."
4. The rural to urban migration was also seen as having aggravated poverty and brought more pressure upon the environment.

2. The Degree of Seriousness of the Situation

Lapu-Lapu City

Seven respondents judged the situation to be serious mainly because environmental degradation has aggravated social problems like prostitution and beggary and many people have been displaced by the proliferation of hotels, industries, and subdivisions. The depletion of the marine resources upon which many people depend on for a living has aggravated poverty in coastal communities while the sharp rise in rural-urban migration and the rise of industries has strained the communities' water resources. Also, they realized that the severity of the situation could decrease fish populations which in turn would adversely affect the people's livelihood. One respondent added that "it takes time to restore the natural ecosystem." Another noted that some species have become near extinct, e.g., gasang (corals) and taas nga lusay (tall sea grasses).

Conversely, three respondents did not consider the situation to be serious because population pressure is not so severe as many city residents work elsewhere, industries in

Mactan "are not highly pollutive," and the "Mactan Master Plan has been approved". The Plan provides for zoning regulations and sets parameters for industries especially in so far as environmental impacts are concerned.

Cebu City

Opinion leaders in Cebu City were one in saying that the situation is very serious and "adversely affects the lives of the people". To stress the severity of the situation, some respondents said "if nothing is done, Cebu will desertify and the coast will turn into a lifeless garbage dump," "children may not see a firefly or a tree when they grow up" and environmental decline "has fully marginalized the already marginalized." High erosion rates, it was added, have resulted in very low productivity. This, they said, has resulted in the severity of floods, water shortage, and pollution (especially by non-biodegradable garbage).

It was thought that the situation is not irreversible but, if not given proper attention, it could become so.

3. Interventions Done to Solve These Problems

Lapu-Lapu City

All respondents claimed to be engaging in proactive interventions for environmental rehabilitation in various ways as befitted their individual positions and professions. Those in education claimed to be involved in mangrove reforestation, information and sanitation campaigns and dialogues with fisherfolk during Parent-Teacher Community Association (PTCA) meetings.

Respondents from NGOs were active in tree planting, cleanliness drives, construction of biological toilets, sanctuary protection, community and youth organizing, and basically, environmental education campaigns. Other activities mentioned were the drafting of the Mactan Master Plan, construction of artificial reefs, and garbage and effluent management.

Cebu City

Similarly, proactive interventions from Cebu City respondents reflected their occupational biases. Such activities ranged from advocacy (dialogues with the LGU), information drives, community organizing, reforestation projects, airing of radio spots and programs for environmental protection under the aegis of the Kapisanan nga mga Brodkaster sa Pilipinas (KBP), garbage recycling, provision of technical assistance and consultancy. One respondent added that she has been involved over the past eight years in community-based environmental rehabilitation and further added that the experiences and findings gathered in these activities have been considered as a basis for other projects under the USAID.

4. Intervention Undertaken by the LGU

Lapu-Lapu City

Given a set of nine criteria for the evaluation of LGU interventions, Lapu-Lapu respondents rated eight of them at various levels of activity. Receiving the most mentions was the organization of the Bantay Dagat which was rated as "active" or "very active" by five but "inactive" by four. Inactivity was believed to be caused by a lack of PNP support, logistics, and firearms.

Rated second was the passage of environmental laws or ordinances. Five rated this as "active".

Dissemination of information and resolution of conflicts, rated "Active" by four.

The establishment of monitoring systems were mentioned by four who rated this as "active." On the holding of public hearings, only one out of four who mentioned this rated it as "active."

The hiring of environmental officers was mentioned by only one and this was rated as "active".

It was felt by the respondents that beyond these ideal interventions, the LGU ought to:

- 1) Encourage/require barangay officials to report environmentally-related problems to the City officials so that hearings on these problems can be done at the level of the affected communities;
- 2) Provide livelihood alternatives to fisherfolk to disengage them from illegal activities; and
- 3) The mandate of the Bantay Dagat should be expanded and given police power (both in principle and practice).

Cebu City

In assessing LGU activities for Cebu City, allocation of budget, dissemination of information, and the holding of public hearings were mentioned by at least three opinion leaders. Three other items were each rated "active" by one respondent each. These were environmental monitoring, resolution of conflicts, and organization of Bantay Dagat.

All other items were either not mentioned, or rated as "inactive." These activities were generally deemed critical by the respondents and should be seriously addressed by the LGU.

Other than the criteria offered to the respondents for assessment, they generally felt that the LGU could do more. Mentioned were:

- 1) Government could join NGOs, POs, and church-based groups in educating people toward environmental consciousness;
- 2) It could put up environmental project "showcases" to encourage peoples' involvement;
- 3) It must be firm, honest, and sincere in upholding environmental laws; and,
- 4) Must hire people skilled in environmental endeavors.

5. **What Has Been Done and What More Might Be Done by Community Members, NGOs/POs, Civic-Religious Groups, and the Business Sector**

Lapu-Lapu City

Only two NGOs were mentioned by the respondents --- Save Nature Society (SNS) and the Norwegian-Filipinos Foundation (NORFIL). Of these two the SNS was seen as the more active in environmental protection, particularly in the Olango Island Bird Sanctuary. Their activities ranged from sanctuary monitoring, community development, information dissemination, cleanliness and beautification projects, and livelihood programs, to issues advocacy. It might be noted here that information on NGO activities was provided mainly by the women respondents. It was also generally felt that NGOs could be more effective in their mandates if they establish working linkages with the LGU.

POs, on the other hand were not very well understood by the majority of respondents, with 6 declining to give an opinion. Nonetheless, of the remaining four, POs were seen to be inactive in the sense that they have not been visible at all in environmental activities. Indeed, one respondent stated that they can only be activated if "there are people who lead." In this regard, the respondent felt that POs ought to be actively linked with government agencies or programs and be capacitated to formulate their own program of activities.

The Catholic Women's League (CWL), the Knights of Columbus, and the Catholic Christian Movement were mentioned by only one respondent as civic-religious groups that could play a proactive role in environmental concerns. However, they were viewed as inactive. Respondent had almost nothing to say about their present involvement, but it was generally felt that they could be effective in monitoring environmental programs that are undertaken by environmental groups and by the LGU. They could also play a strong role in environmental advocacy as well as initiate livelihood programs.

The business groups were perceived to be contributing very little to environmental concerns, e.g., "donating trash cans," although it was felt that they could generate a strong statement for the environment by providing funding and appropriate resources for environmental projects and, especially, policing their own ranks for violators of environmental laws.

Cebu City

Respondents mentioned a number of NGOs that are active in environmental thrusts. Named were the Aboitiz Foundation, Federation of Women's Organizations (FORWARD), Philippine Business for Social Progress (PBSP), and Soil and Water Conservation Foundation

(SWCF). They were perceived as active in income-generating projects, reforestation, education campaigns, advocacy ("support and urge the government about the need to take necessary action on environmental issues"), and the provision of technical services. NGOs could be more effective if they establish closer links with the LGU, POs, and Church-based organizations and participate in the planning and implementation of environmental projects for a more coordinated impact.

Although, not much was said about PO activities and opinion leaders' responses were either "Don't Know" or "None," a few ventured to say that POs could be involved in "planning," "community action," and "construction of artificial reefs and mangrove reforestation."

The community at large was perceived to be uncaring and uninvolved. Respondents stressed the need for the community to develop a heightened awareness and be "educated on environment conservation." They also need to learn to "recycle garbage" and "follow environmental ordinances." One suggested the community "should be deputized and help in monitoring environmental concerns."

Church-based groups such as the BEC were said to be involved in parish-initiated "greening" projects. The Roman Catholic Church itself was seen as taking environmental concerns beyond the pulpit to the ground. Still, it was felt that these activities are too disjointed and unsynchronized to have an appreciable impact. It was suggested that these groups ought to "work together to develop a higher awareness level among the public," "provide funding for various environmental projects," and develop greater "civic commitment, coordination, assistance, and develop a monitoring system." One respondent said, that "the Catholic Church is influential," hence it must use this influence on environmental concerns.

Private business was viewed by respondents to be quite visible and active. Especially cited were SMC and the Norkis Group of Companies. Many companies are now seen to be

seriously undertaking steps to minimize pollution and have come out openly for environmental conservation. The most valuable contributions of business in this regard were in providing funding for environmental projects.

6. **Who or What Organizations Should Be Most Responsible In Addressing Environmental Problems**

Lapu-Lapu City

Respondents placed the burden squarely on the shoulders of the LGU and government agencies in general (8 out of 10). They saw the government as possessing not only the mandate and legal authority but also the resources and structure to implement programs. This is seen in such statements as: "the LGU, since they have the power and authority to govern;" "The LGU, since they have the power to create ordinances and incentives;" "The city government should provide livelihood alternatives such as employing the residents to watch for illegal activities because without such, they will be so busy with their own livelihood."

Only two respondents mention that "everyone...is responsible for protecting the environment." They see environmental concerns as too pressing to be entrusted only to the government.

Cebu City

In contrast, only two respondents for Cebu City see the problems as the responsibility of government. One says that the LGUs should bear the burden because "they deal directly with the people in their locality."

Seven respondents say that all sectors of society must altogether address the problems although LGUs and national government agencies should be more active as they have the mandate. One should realize that although government agencies have specific mandates, "the job is so huge that they are overwhelmed." This respondent further proposed the creation of a multi-sectoral body to see to it that environmental laws and problems are attended to. In sum, these respondents saw the pressures on the environment as everyone's concern.

In this regard, one respondent gives an interesting comment. He said that "there must be a rebirth of environmental advocacy by small groups (POs) since they are the ones most affected by these problems because of development." He added, "Poverty is the result of development."

7. Groups Perceived to be Supportive and Groups Opposed or Least Supportive of Environmental Programs

Lapu-Lapu City

The Lapu-Lapu City government was generally regarded by at least seven as supportive through the passage of ordinances that promote environmental concerns. The barangay officials, health officers, the Bantay Dagat, the Sangguniang Bayan (City Council), and the DENR were seen to support and encourage people "to undertake cleanliness and sanitation campaigns" and "conduct seminars on environment concerns." Some associations of professionals were also mentioned as having collaborated in environmental projects. These were the Philippine Medical Association and the Philippine Medical Women's Association. A respondent who represented an NGO added that they have mobilized

cooperatives and SEC-registered POs to participate in environmental activities. NGOs and the academe were especially seen as spearheading environmental campaigns. Singled out were the SNS, the Philippine Wetlands Conservation Foundation (PWCF), and the Wild Bird Society of Japan (WBSJ). For the academe, the University of San Carlos (especially the Biology and the Marine Biology Section) and public school teachers in general have been perceived as deeply involved.

On the other hand, respondents were able to identify several sectors that they thought unsupportive or least supportive. Although earlier seven respondents had identified the LGU as "supportive," while two respondents blamed the LGU in particular for adopting programs that run counter to good environmental management. They cited, for example, the city government's approval given to the Alenter Group to develop a resort close to the sanctuary area. They felt that development projects which are encouraged in the name of "economic boom" are not well thought-out in terms of their economic impact on the environment. One opinion leader especially noted the helplessness of the LGU in preventing developers from proceeding with their programs inspite of their not having obtained an Environmental Clearance Certificate (ECC). The DENR, although mandated to pursue sound environmental interventions, was considered to be "weak" and some extension personnel "lack the know-how of the ecosystem." The respondent said, "they allowed construction without an ECC...." and "planted mangroves in the wrong place."

The islanders of Olango themselves were generally seen as among the least supportive of environmental concerns. At least three respondents pointed them out for their unabated illegal and destructive practices, although they rationalized this behavior as being caused by poverty and the lack of alternative and gainful undertakings.

Finally, developers in general, companies and industries are seen by at least five respondents to be unsupportive of sound environmental action as they do not want "to spend extra" for waste disposal, and the ECC requirement only delays project implementation. One said that there is "inadequate environmental management of subdivisions," which are not provided with proper drainage.

Cebu City

Big business groups were prominently mentioned by opinion leaders , especially the San Miguel Corporation and the Norkis Group of Companies. MCWD was also seen as contributing to environmental concerns primarily through its Environment Section that supports tree-planting programs.

Among the NGOs, PBSP and RAFI were ranked highly in proactive environmental programs especially in Cebu City's hillyland areas.

Community organizations and even individual families, e.g., the Gullas' Family, were also mentioned as being not only supportive but proactive as well.

On the issue of opposition or non-support, five respondents could see none. Others, however, criticized a few land developers as "only concerned with capital returns." Because of this, there "is inadequate environmental management of subdivisions."

For the community-at-large, some respondents had this to say: "Timberland occupants who claim ownership over project (protected?) sites are not vacating those areas;" "folks have a 'here-and-now' mentality;" and "people lack awareness" of what must be done to survive.

The LGU and the business sector were not spared from these criticisms. They were accused of nurturing "wrong concepts of development.....equated with economic gains (stated only in terms of GNP growth)."

Finally, one respondent added that politicians are the least supportive because proactive environmental advocacy might imperil their political survival.

8. Barriers and Obstacles Faced in Addressing Environmental Problems

Lapu-Lapu City

Respondents zeroed-in on people's poverty and the lack of alternative livelihood programs for them. This has forced them to violate the laws. Coupled with poverty is the perceived "materialistic values" that people hold as well as the general ignorance prevailing among the masses. On materialistic values, one respondent had this to say: "People see the extremes in the ways of life here. There are secret millionaires made rich from exports of aquatic resources. People would like to do the same to get rich." Associated with this attitude was what one respondent perceived as "The lack of concern by people who indulge in gambling activities. People do not see the problem holistically. What matters most is their own interest." One opinion leader remarked that people have a "resigned attitude" to present-day developments and have the propensity to sell their property to outsiders for whatever developmental purposes.

Other barriers identified were a lack of financial resources to pursue projects and see them through to the end. Mentioned also was "development policies of the LGU which do not conform to environmental laws." Finally, there was political intervention which abets the

continued practice of unsound environmental activities.

One respondent considered people's traditional beliefs as "functional for environmental protection." This has effectively prevented people from having their way with the environment in the belief that there are areas which are naturally protected by (taw-an) who are reported to be heard singing and playing at night when there is a full moon. Or, what seemingly is the trunk of a tree can suddenly transform into a monster known as Tambaluslus. There is also the generally-accepted belief in the Santilmo (St. Elmo's Fire) "that roams the place."

Another respondent also saw traditional beliefs as environment-friendly. People avoid cutting trees like akasya, dakit (a fig species) or sambag (tamarind) in the belief that these are inhabited by spirits (taw-an). Similarly, rocky coastal areas are consciously avoided for the same reason.

Cebu City

People's attitudes were claimed to be a major obstacle in environmental protection. The emphasis that people tend to put on "the here-and-now rather than on the future" has led people to be unconcerned with the environment. In addition to this, the feeling that there are "others who will take care" was seen to be the prevailing attitude.

Ignorance and lack of understanding of environmental concerns was also considered to have contributed to the difficulty as people tend to misunderstand environmental interventions as something that would adversely affect them. As cited by one respondent, "people occupying timberland areas feel that reforestation would mean their eviction from the area."

Poverty was also seen as a "vicious cycle" that can harden a peoples' attitudes and prevent them from adopting alternatives.

Finally, there was the perception that there is a conflict of interest between environmental concerns on the one hand and the economic and political on the other. One respondent summed up these barriers thus:

- 1) From industry: reluctance to put up facilities for pollution control;
- 2) From government: lack of political will to enforce the law; and
- 3) From the people: Poverty and lack of awareness.

9. Environmental Projects (Coastal, Forestal, or Urban) That Have Been Implemented

Lapu-Lapu City

Tree-planting activities carrying various project titles e.g. Halad sa Apo, were the most commonly-mentioned among the respondents. These were initiated and carried out largely by NGOs, the DECS, and some civic organizations like Soroptimist International. Among the NGOs, NORFIL and Island Ventures (RAFI) were mentioned. DENR's Mangrove Reforestation Program (ISF) was especially mentioned for Olango Island. These were generally deemed to have resulted in alleviating environmental deterioration and affording project participants with a more sustainable source of fuelwood in addition to "enhanced source of oxygen.....a cooler environment." The mangrove reforestation project was also mentioned as having provided a "sanctuary" for the fish and has "helped in the people's livelihood." (It is not clear, however, how this relates to mangroves. Whether this has reference to improved fish catch or as a source of income through the future sale of mangroves as firewood is unclear.)

Other projects cited were "an awareness program on proper garbage disposal" (Phil. Medical Association), "a cleanliness drive promoting plastic bags recycling" (SNS and DECS), "sanctuary management, monitoring and research" (AWB, PWCF, SNS, and WBSJ), "marine research and monitoring" (USC Marine Biology Section), and "solid waste/garbage collection"

(MEPZ). The Department of Agriculture was also given some visibility through their livelihood program for fisherfolk, specifically a fish-trap dispersal program which was seen to have weaned fisherfolk from destructive methods.

Respondents, however, could not categorically say that all of these undertakings were pursued successfully as most of these are ongoing. However, as far as initial implementation is concerned, most of these were rated as "successful."

Cebu City

Foremost among projects mentioned was reforestation undertaken either independently or in collaboration among NGOs, the government, and the private sector. Regarded as most active were SWCF, FORWARD, PBSP, and RAFI (particularly the USAID-assisted ECOSYSTEM PROJECT), among the NGOs. The local government was also perceived to be active in this regard through the activities of the Cebu City Hillyland Development Project (CCHDP), which adopts a holistic approach to upland community development. The city was also reported to have implemented environment-friendly programs through the Cebu City Parks and Wildlife Commission.

Finally, the DENR was seen as actively pursuing reforestation projects under different programs, e.g., Contract Reforestation, and Integrated Social Forestry (ISF).

The assessment given by respondents on the various reforestation activities were, however, uneven with some saying that these were either failures or they did not know their current status. On the other hand others saw these interventions as successful and having led to qualitative benefits ("clean and green surroundings, less pollution, and fewer floods," and "increase in people's environmental concerns") as well as the quantifiable benefit of

improving people's incomes through "more sources of food," a more "sustainable agricultural system," and "gained income from the fruit trees."

Apart from reforestation, other activities mentioned were "beautification of the city's parks" by the LGU, Church campaigns to "Plant and Save a Tree," cleanliness campaigns under City Ordinance No. 1361, and anti-pollution drives undertaken by the CCCI with technical assistance and funding support from the German Agency for Technical Cooperation (GDS). One other activity deserved mention: Advocacy. This thrust was reportedly adopted mainly by NGOs like Cebu Uniting for Sustainable Water (CUSW) in its advocacy of a coherent and workable master plan for Cebu's water concerns. All were thought to have been successfully being pursued.

- **ANALYSIS**

It is obvious from the data presented above that the opinion leaders have a better grasp of the environmental situation in their cities than do the LGU officials interviewed. Except for one aberrant response from Lapu-Lapu City, all respondents are agreed that there are clear indications of environmental deterioration as evidenced by decreasing fish catch, flooding, and a diminishing supply of fresh water. It is generally understood as having been brought about by unsound environmental activities which themselves are traceable to poverty, population pressure due to rural-urban migration, and unrelenting conversion of lands by developers without regard for the critical location of these developments. The bottom line, all respondents seem to agree, is poverty itself which leaves people with very few alternatives to pursue an environmentally-sound practice. Poverty is a culture all its own together with the attendant values that narrow down a people's perspectives to focus only on self-preservation

and, hence, survival. Thus, the paucity of alternative livelihood opportunities is seen as having driven people to overexploit resources to the extent of using all effective means, whether legal or illegal.

Perhaps, what is perceived as a "lack of political will to enforce" by those entrusted with the authority to do so may very well go beyond a political motive and may in fact be a latent recognition of the hardships of survival. Indeed, what is seen as a "lack of understanding of the ecosystem" among the islanders may not, in fact, be an accurate critique to explain why people persist in doing environmentally-destructive activities since community members are generally aware of the consequences of their actions. They may only be forced to it by the pressures of poverty.

The responses obtained from the respondents also clearly indicate a dilemma that explains the ambivalent stance of many respondents on the issue of economic development. While on the one hand they recognize the need for economic growth and the attendant infrastructural supports, they also decry the havoc wrought upon the environment by loosely-controlled development.

However, the two sets of respondents do not look at the environmental situation with the same degree of severity. Although it is quite clear that the situation is generally regarded as serious, some respondents for Lapu-Lapu City see that the situation is manageable mainly because the industries put up on the island are "non-pollutive," and in fact most businesses cater to the tourist trade which by its nature is environment-friendly.

Environmental pressures seem to be more heavily felt in the more populous and crowded Cebu City and respondents have a unanimity in assessing the situation as serious though it has not yet, it is felt, reached the point of irreversibility. On this note, there is some optimism among respondents that the situation is not hopeless.

All respondents claim to be doing their share for the environment. These activities are understandably varied and are limited to conform with their occupational focuses, e.g., education and information campaigns for those in the academe, and among NGOs, providing technical assistance and consultancies on a free and voluntary basis. Technical assistance, though, is more pronounced in Cebu City where many of the NGOs and much of the talent are based. This is well-illustrated in the case of CUSW, an NGO that is made up of volunteers across several sectors that afford a wide array of expertise.

On the question of the LGUs' range and level of activity regarding environmental concerns, our opinion leaders of Lapu-Lapu City (supposedly a "non-doer" community) surprisingly recognized eight of nine possible activities suggested to them as those that could be done, as actually having been attempted in their city. At first glance, it might then seem that the Lapu-Lapu LGU is very close to what the ideal LGU should be. However, what becomes clear is that although many of the activities are mentioned as having been tried, most of these are regarded as now dormant or "inactive" by at least half of the respondents.

On the other hand, respondents for Cebu City (considered as a "doer" community), make mention of only five of these activities having been initiated, and only a minority of the respondents rate these as still "active."

An interpretation is that this comparison is simply an indication that Cebu City influential respondents have higher levels of expectation of their LGU, given its greater access to resources and talent.

Another difference that can be observed from the responses is the emphasis placed by Lapu-Lapu City respondents on alternative livelihood programs that should be carried out by the LGU to mitigate the pressure exerted upon the environment, apparently referring to the fisherfolk's plight and reliance on marine resources.

Although poverty is a similarly perceived cause of environmental degradation among Cebu City respondents, alternative livelihood programs are not prominently mentioned by them. Instead emphasis is given to the need to intensify LGU-NGO-PO collaboration as well as firmness, "honesty and sincerity in upholding" the law. What this means is not exactly clear but the responses for Cebu City could indicate that much environmental degradation is brought about mainly by "development" activities of the rich and powerful who are prone to use violence to get their way and which the LGU finds difficult to contain. Apparently, this problem is perceived to be of a lesser magnitude in Lapu-Lapu City where the finger is pointed at marginal fisherfolk who provide a convenient scapegoat. If this interpretation is correct, we might as well note also that the LGU officials and opinion leaders/influentials in Lapu-Lapu City are thus avoiding or are unaware of the issue of the rich and powerful owners of trawlers whom the Olango discussants fear will use violence against them if they try to interfere in their illegal encroachments toward the nearshore.

In the area of activities undertaken by the other sectors (NGO, PO, Business, etc.), very little is said by Lapu-Lapu respondents. The activities of these sectors seem not very visible, or the majority of the respondents are not aware of even the existence of these groups. Indeed, information on NGO activities is available almost exclusively only from respondents who represent NGOs themselves.

Cebu City opinion leaders are quite aware of sectoral activities on environmental issues. NGOs are said to be highly visible in these undertakings. This fact simply indicates that the NGOs in Lapu-Lapu City have not made as much of an impact as they have in Cebu City.

It is interesting to note that as far as support for environmental thrusts are concerned, the majority of Lapu-Lapu respondents perceive that the LGU is highly supportive with only

three coming out with dissenting opinions and blaming it for adopting and promoting environmentally unsound programs in the name of economic development. Conversely, respondents for Cebu City see the LGU as the least supportive and private groups as being the most active. The perceptions given for Cebu City, it should be cautioned, do not necessarily point out the "inactivity" or "ineffectiveness" of the LGU. Rather, they might indicate an impatience on the part of the respondents who seem to have much higher expectations of their LGU. They might also translate to a statement that, given the seriousness of environmental problems in the city, LGU officials cannot and should not be pussyfooting where it comes to environmental enhancement, and ought to cooperate more with activists in other sectors.

Given the avowed concern of these respondents for the environment, they feel that they are faced with constraints in pursuing what they feel should be done. A prevailing theme that runs across all opinion leaders is the general uncaring attitude of the community abetted by what they perceive as ignorance, individualism, cynicism, greed, the general inability to see beyond the here-and-now, and the tendency to put responsibility in the hands of others where and when a problem situation is confronted. The bottom line, it appears, is that these are manifestations of poverty -- not only the material and moral poverty of the poor, but also the intellectual and moral poverty of some politically powerful rich. Thus many people feel helpless and resigned to powerful capitalistic forces with which they find difficult to cope. Nonetheless, they must find a niche for themselves within the system, by hook or by crook.

Corollarily, this apathy would be also interpreted as a protest against an establishment that they feel is appropriating the lion's share of resources and leaving the rest to fend for the crumbs. Hence, people would feel that the burden of responsibility falls on the shoulders of the establishment to repair the damage.

Cognizant of this, Lapu-Lapu City respondents tend to place the burdens of the environment upon the Local Government Units as they must feel that the LGU has the capability and authority to mitigate the burden of the poor. This is also seen by one Cebu City opinion leader when he criticizes government as "having a distorted sense of development." He adds that the tendency of government is to push more people towards marginalization given the LGUs bias for industry and big business. This amounts to a conflict of interest between officials' concerns to enrich themselves through industry and their responsibilities with regard to the environment. Their contradictory position results in a lackadaisical set of environmental priorities.

These observations fail to help us establish a clear-cut dichotomy between Lapu-Lapu City and Cebu City, respondents as non-doers and doers, respectively, as their responses run along the same lines. However, it may be noted that:

1. Lapu-Lapu City respondents see environmental problems as more closely associated with the marine environment while Cebu City officials offer a wider perspective of environmental problems. This is, of course, understandable as Lapu-Lapu City has always been associated with the sea and it is only quite recently that Lapu-Lapu City has begun to flex its economic muscles. On the other hand, Cebu City has had a longer history of dynamic economic activities and has a more diverse environment which includes the uplands and its watersheds. Consequently, environmental problems are seen as more acute and complex.
2. Most Lapu-Lapu City respondents take a more parochial and superficial view of the impact that environmental degradation brings. The Cebu City set of opinion leaders see more complex and interrelated impacts that degradation brings about, citing numerous effects that translate not only into a felt scarcity of resources but also into social problems.

3. The paucity of responses regarding NGOs in Lapu-Lapu City point to either of two things: There are not enough of them operating in Lapu-Lapu City; or these NGOs keep such a low profile that their activities are not appreciated and the impact made is hardly felt. A case in point is NORFIL. Only one respondent from Lapu-Lapu City makes mention of it and, at that , he was himself the head of office of NORFIL for Lapu-Lapu City.

This is not the case in Cebu City where opinion leaders are able to name several NGOs and even venture into some assessments on the impact that these have made upon the environment. Similarly, the intervention of the business sector is not all felt in Lapu-Lapu City while this is keenly appreciated in Cebu City. Again, this is not to be construed as faulting the Lapu-Lapu City respondents for a low level of awareness of business. It is likely that this apparent lack of awareness could be indicative of the fact that big business is not seen to be doing enough for environmental concerns.

4. The general tenor of responses for Lapu-Lapu City points to the LGU as primarily responsible for the environment while the stand of the majority for Cebu City is that the environment is the concern of all and must be actively pursued by all sectors in cooperation.

This could be interpreted to mean that in Lapu-Lapu City, there is a more pronounced patronage system and, hence, reliance upon authority while the more complex and cosmopolitan character of Cebu City tends to promote a sense of independence and self-reliance.

Among opinion leaders, we can hardly isolate any responses between males and females that might point to any differences in their perceptions regarding the issues just presented. We find that all responses tend to reflect the professional or occupational biases of the respondents. Those who represent NGOs, for instance, present their opinions in ways that reflect their mandates and as buttressed by their own experiences encountered in the performance of their functions.

B. KNOWLEDGE AND ENFORCEMENT OF LAWS/POLICIES

1. The Devolution of Functions Under the Local Government Code

Lapu-Lapu City

Respondents reacted to this question in either of two ways: "Very poor" or "not clear." However, one mentioned that the LGU has proposed to "establish/create environmental committees and to issue clearances before developmental projects are undertaken in the area." Another said that the LGU "has the desire to implement, but this desire and willingness has been overtaken by other interests of the city, e.g. economic and industrial plans."

Cebu City

The issue of devolution was addressed by respondents as problematic. At least four opinion leaders focused on the "tug-of-war" between the DENR and the LGU. It was observed that devolution cannot be effectively completed due to:

- a) The LGU's lack of necessary skills to take over functions originally handled by line agencies.
- b) LGU's lack the budget secure the services of experts on the environment.

- c) The provision of the local government code regarding devolution "was vague" and national line agencies were perceived as unsupportive of devolution.
- d) "LGUs are still in the process of understanding the functions that are devolved and therefore are not ready with regards to operational costs and appropriate manpower."

2. The Involvement of NGOs and POs Under the LGC

Lapu-Lapu City

The general opinion here is that NGOs and POs have not been meaningfully integrated in the planning and formulation of policies. Some observations made in this regard were:

- a) "There is no strong partnership between LGUs and NGOs/POs.....no formalized partnerships between these groups."
- b) "NGOs here are strong, but in policy-making and implementation of environmental protection and management, coordination with the LGU is weak....POs and NGOs are seen as barriers by some LGU officials."
- c) NGOs and POs are not really consulted in the way they should be.

Despite these negative observations, however, one opinion leader mentioned the recent creation of a multi-sectoral group with wide representation from government, NGOs and local officials. This is the Protected Areas Management Board (PAMB) which is given a strong mandate for environmental concerns. The respondent, however, could not say exactly if the PAMB is a policy-making body mandated under the LGC.

Cebu City

A similar negative perception was observed for Cebu City although two respondents stated that there is some collaboration between the LGU and NGOs. Some negative responses were stated thus:

- a) "NGOs and POs complain that they are not invited to take part in the process of policy-making.....consultations are not real as they only serve as venues for selling already determined government policies."
- b) "NGOs and POs are not consulted....they are used by some political and business interests..," also, "some NGOs are not sincere as they are in it only for the money."
- c) "Very little, we talk more than we do."
- d) "Zero....because of LGU's resistance regarding the entry of NGOs and POs.....it is okay for them to get involved in local affairs as long as there is no semblance of power given to them."

To balance things, we need to mention here that two respondents had a more positive appreciation of LGU-NGO collaboration. for example, one stated that "NGOs and POs are actively involved with the LGU" citing the close collaboration of the LGU and Cebu Uniting for Sustainable Water (CUSW) in preparing a master plan for the rehabilitation of Cebu's watersheds and the formulation of policies regarding the sustainable use of Cebu City's water supply. He, however, tempered this observation with the remark that "the extent of devolution cannot be easily gauged yet, since we are just starting."

Another respondent agreed with him saying, "there is a slot for NGOs in the Local Development Council. There is also an increase in public hearings related to local environmental legislation."

3. **Primary Roles That Can Be Played In Environmental Management by Various Sectors**

Lapu-Lapu City

The LGU should:

- a) Strictly implement environmental laws "no matter who gets hurts."
- b) Undertake programs "with the participation of NGOs and POs."
- c) Hire environmental officers.
- d) Allocate a budget for environmental concerns.
- e) Provide livelihood activities related to fishing.
- f) Conduct information dissemination and public hearings.

NGOs should:

- a) Be active members of local special bodies or development councils.
- b) Introduce livelihood projects which are environmental-friendly.
- c) Organize and educate community members on environmental concerns.
- d) Have a bias for the marginalized and uneducated.

POs should:

- a) Establish linkages with "other agencies or government programs and activities."
- b) Be active in special bodies or development councils.
- c) Get involved with the community's campaigns.
- d) Initiate their own program of activities and "not wait for policies to push them to act."
- e) Report cases of violations of environmental laws.

The Community-at-Large Should:

- a) Take the initiative in reporting cases of environmental abuse.
- b) Act as a partner for environmental protection.
- c) Sustain activities and see them through.
- d) Possess an understanding of environmental relationships.

Civic and Religious Groups Should:

- a) Be more active in monitoring activities.
- b) Be part of a network for collective action.
- c) Play the "catalyst" for environmental protection.

Private Business Should:

- a) Provide financial support for environmental projects.
- b) "Police their own ranks" and impose disciplinary measures on errant colleagues.
- c) Act as a support group.

Cebu City

The LGU should:

- a) Establish monitoring systems. In this connection, it was suggested that the LGU should organize a multi-sectoral body to oversee the implementation of environmental laws.
- b) Put up showcases to encourage people's involvement and promote environment-related education.
- c) Hire people who are trained and have the skills needed in environmental matters.
- d) Be strict in implementing laws and ordinances.
- e) Organize a system of community-based forest monitors (Forest Guards).
- f) Allocate a budget for environmental actions.

NGOs Should:

- a) Link up with the LGU and "coordinate efficiently."
- b) Act as a "watchbody."
- c) Expand activities to rural areas where there is need for greater environmental awareness.
- d) See to it that they have "more participation in the planning and implementation" of projects which are projected to have an environmental impact.

POs Should:

- a) Coordinate their activities with NGOs.
- b) Initiate home-based or barangay-based environment programs in coordination with NGOs and the LGU.
- c) Be active in advocacy and exert pressure on the LGU to take necessary action on environmental issues.

The Community-at-Large Should:

- a) Follow environmental ordinances.
- b) Act as deputies and assist in monitoring activities that create an impact on the environment.
- c) Develop an awareness of environmental issues.

Civic and Religious Group Should:

- a) Use its influence (referring to the Church) for environmental concerns.
- b) Link up with other sectors for coordinated action.

Private Business Should:

- a) Provide financial contribution through foundations.
- b) Hire people dislocated by watershed projects.
- c) Police their own ranks for violators.
- d) Be active in sustained environmental campaigns and act as role models.

4. Law Enforcement Procedure and Effectivity

Lapu-Lapu City

Respondents in Lapu-Lapu City viewed enforcement of laws as the domain of the LGU, assisted by the PNP, special bodies like the Bantay Dagat and, on the barangay level, the elected officials and the tanod.

However, eight of these opinion leaders assessed enforcement as very weak and therefore, ineffective. They explained this condition as being caused by "no clear ordinances," "lack of manpower and logistics," "inconsistency of enforcement," and "lack of coordination" among agencies entrusted with this responsibility.

Cebu City

Identified as the lead agencies in the enforcement of environmental laws were the DENR, the LGU, the PNP and City Traffic Operations and Management (CITOM), in that order.

Except for one respondent who declined to make a comment, all nine assessed enforcement as "very poor" or "a failure." The causes for this ineffective implementation were identified as being brought about by the "LGU-DENR conflict" (apparently in reference to the unclear guidelines by which the DENR was to devolve some of its functions to the LGU), by the "DENR not doing its job.....many of its people are corrupt," and by laxity on the part of the LGU in enforcing laws upon regard to the private business sector.

- **ANALYSIS**

It is clear from the responses of the two sets of respondents that devolution as provided for in the LGC has not been realized due to a perceived confusion in procedure, reluctance of

line agencies to pass authority on to the LGU, and, in a way, the hesitance of the LGU to assume responsibility due to a lack of skilled manpower and the necessary budget to go with it.

The information obtained for Lapu-Lapu City, however, seems to indicate that the devolution at whatever extent has not taken place at all, whereas, for Cebu City, there has been a limited delegation of authority from the DENR to the CPDO in the area of sand-and-gravel concessions.

Reactions among respondents in this regard suggest a difference in the stances of "doers" and "non-doers." While those from Lapu-Lapu City indicate a kind of "understanding" of the LGU's situation and tend to be apologetic about the matter, those from Cebu City are more sharply critical of both the LGU and government line agencies. This can be understood from such statements about the "LGU's lack of necessary skills" and "failure to appropriate a budget," and the "tug-of-war" between the LGU and the DENR. Generally, line agencies are regarded by Cebu City opinion leaders as "unsupportive of devolution."

Closely related to devolution is the expected involvement of NGOs and POs in certain areas of policy-making as provided for under the LGC. However, in both study sites responses indicate that these groups have never been meaningfully integrated in the planning and formulation of policies, environmental or whatever. It is the opinion of almost all that POs and NGOs are seen as barriers by some LGU officials and that the LGU is resistant to the active involvement of NGOs or at least takes on a tongue-in-cheek attitude. In the words of one respondent, "...it is okay for them to get involved as long as there is no semblance of power."

In fairness to the LGU, however, it is worth noting here that two respondents for Cebu City look at NGO/PO participation with some positive observations. They say that the LGU

has been taking steps to involve these groups in planning and policy-making, citing CUSW as an example. One further says that there is actually a slot for NGOs in the Local Development Council. These moves by the LGU to involve NGOs has resulted, it is observed, in more frequent public hearings on issues related to the environment. In this regard, it would appear that Cebu City, as a "doer" community, is exhibiting more responsibility and indicates a willingness towards addressing this concern. The cynicism exhibited by most Cebu City respondents on this issue, on the other hand, might simply reflect an impatience at the slow pace by which these groups are being integrated.

A common theme is perceivable in both study sites on the issue of the roles which ought to be played by the various sectors of the community on environmental management. It is felt that all sectors are not doing enough to address environmental issues. Apparently, both groups of opinion leaders see environmental concerns as playing second fiddle to more pressing economic concerns. Thus, one respondent says that we "talk more than we do." These reactions could be indicative of a general impression that these sectors are quite lackadaisical in implementing their mandates.

To place these reactions in context, one must hark back to an earlier section where respondents were asked to assess the activities of these sectors. It will be borne out in that section that more activities are done by these groups in Cebu City when compared to those of Lapu-Lapu City. Taken in the light of this observation, the unfulfilled expectations of Cebu City respondents may be explained perhaps by a more demanding attitude on their part, given their wider perceptions and grasp of current issues.

Law enforcement procedures and, consequently, their effectivity, is seen by both groups of respondents to be sorely inadequate. While they place much of the blame on the

LGU and government agencies entrusted with the authority, what is readily apparent is not so much the lack of laws or of the logistics needed to pursue enforcement as the inconsistency and laxity of enforcement for political or pecuniary considerations.

This section may be summed up according to the following points:

1. The common perception is that devolution has not been actualized. If steps in this direction have been taken by Cebu City, transfer of authority is far below the level of what has been provided for.
2. This situation is explained both by the perceived incapacity of the LGU to assume some authority from line agencies as well as hesitance on the part of line agencies to give up some of their functions to the LGU.
3. The inclusion of NGOs and POs in positions of consultancy and in certain areas of policy-making remains problematic although in Cebu City, there have been some attempts to consult them. Some opinion leaders adopt the cynical view that the LGU really does not want this actualized as they do not wish to give NGOs a "semblance of power."
4. A common theme runs through both study sites on the issue of roles which ought to be played by the various sectors. The general feeling is that all sectors are not doing enough.
5. Law enforcement is seen to be very ineffective in both sites. While reasons like lack of manpower and logistics are advanced to explain the situation, the message really seems to be the lack of will to enforce the laws due to factors like patronage, pecuniary interests, and the fear of losing political support.
6. Opinion leaders from Lapu-Lapu City seem to exhibit a kind of "understanding" the LGUs' position in refraining from full devolution due to lack of skills and resources. On the other hand, Cebu City respondents sharply criticize the LGU for their tongue-in-cheek and half-hearted moves towards devolution as respondents believe that the city has the resources to make full devolution a reality.
7. NGOs and POs in Lapu-Lapu city are not seen as being consulted by the LGU in key environmental decisions. On the other hand, some limited involvement by NGOs have been implemented, albeit far from being satisfactory.

C. PERCEIVED PARTICIPATION IN ENVIRONMENTAL AFFAIRS

1. Parameters For a Community to Be Considered Active

Lapu-Lapu City

The "Active" community was understood to be in force when people (In the order of frequency of mentions) do the following:

- a) "Create/Plan programs and projects and policies" (5).
- b) "Have internalized the importance of environmental protection..." or "consciousness of environmental issues" (4).
- c) "Participate in affairs of the government..." or "participate in local government councils" (3).
- d) "Help disseminate information on the state of the environment" (2).
- e) "Follow policies and guidelines" (1).
- f) "Take action against those who would destroy the environment" (1).

Given these criteria, six rated the community as "inactive," two gave a rating of "active," and two declined to give an opinion.

Cebu City

Respondents identified the parameters for the "active" community thus (in the order of frequency):

- a) "When there is sufficient awareness manifested through actual involvement with environmental conservation," "planning for environmental action," "when people write down their own laws, enforce them, and define sanctions" (4).
- b) When they "advocate" for environmental protection (1).
- c) When they exhibit "a high level of environmental awareness" (1).

Some respondents tended to equate "active" with the objectively verifiable effects of an activity rather than by setting down criteria for "active." To illustrate, three opinion leaders said "when there is no more problem with sanitation and garbage, and people are conserving water..." or, when there is a "clean and green environment," or "when the community is clean and green, (has) proper drainage, and breathing space."

Considering these parameters, four respondents saw the community as inactive, citing the absence of verifiable indicators that result from positive environmental action. Another reason given was that community members are generally "too busy making a living."

Only one respondent said that the community is "active" because of the presence of "environmentally-inclined groups such as CUSW, RAFI, etc.," and because "people have realized that a healthy people constitute a healthy community."

Three respondents were ambivalent in their assessments saying that "Cebu City residents are experiencing a growing awareness and concern, but they have not yet translated them into action..." or "We are starting, but it is still a long way to go for Cebu City..." or, "Cebu City shows efforts but lacks meaningful realization."

2. Respondents' Assessment of Themselves on the Issue of Being "Active"

Lapu-Lapu City

Nine respondents rated themselves either as "active" or "very active," supporting this with the following reasons:

- a) Leads information-dissemination campaigns (3).
- b) Monitors environmental activities (2).
- c) Organizes communities for positive environmental action, e.g., tree-planting, garbage-collection (2).
- 4) Participates in planning (1).

It should be noted here that most respondents rated themselves active, but did not cite specific activities to support this. Instead, they mentioned why they needed to be active. The following quotes illustrate this:

- a) "As a commitment to humanity as a physician and as a mother."
- b) "Because there is no sustainable development if there is no action taken."
- c) "Because I see the necessity of environmental conservation."

Only one respondent said she was "inactive" because although she initiated and implemented environmental interventions, she cannot see or assess the result at all. To quote, "I did much initiating and implementing but I can't assess the result."

Cebu City

All ten respondents considered themselves active. However, only three cared to mention exactly what they did. One said "I engage in environment protection campaigns in radio broadcasts, i.e., Kapihan Forum." A priest said that environmental issues are woven into his homily. Again the rest explained why they needed to be "active." Two said, for instance, that it is the "nature of my work." One suggested, from his response, that it was a personal commitment to "call for a counter-development/counter-learning process, i.e., development should not be equated with economic gain."

3. Individuals Who Have Given Encouragement

Lapu-Lapu City

Four said that no individual, in particular, except himself, has given encouragement, suggesting that motivations came from an innate awareness of and a personal concern for the

environment.

Another four said their motivation came from exposure to seminars, conventions, trainings, and pastoral programs.

Two said their professors or their heads of office gave them inspiration.

Cebu City

Opinion leaders here likewise give a variety of responses ranging from personal realization to training programs and exposures, positive reactions by communities, and by the Church itself. Some names were mentioned here. These were Tomas Osmeña, Atty. Tony Oposa, Fr. Herman van Engelen, and Mrs. Josephine Booth. In this regard, only two respondents named names.

4. Ideal Behaviors of the Various Sectors

Lapu-Lapu City

LGUs Should:

- a) "Incorporate environmental issues and concerns in all aspects of local governance."
- b) "Enforce the law no matter who gets hurt."
- c) "Have the strong will to lead, be responsible and knowledgeable about the local environment."
- d) "Possess a vision for the future."

A Community Should:

- a) Be "involved and initiate actions with sustained interest."
- b) "Create vehicles for projects...to protect the environment."
- c) "Recognize the environment as part of their lives."
- d) "Cooperate with the LGU in observing environmental laws and policies."

NGOs Should:

- a) "Be friendly and sympathetic to the needs of the people in the community."
- b) Possess a "sense of volunteerism."
- c) Be active in terms of formulating development plans/projects.
- d) "Be Credible, have a (genuine) concern for developing people, be devoted and committed."
- e) "Take the lead, secure support and create a network."

POs Should:

- a) "Assist, suggest, and work with others in the community."
- b) "Possess a mission-vision (goal) for environmental protection."
- c) "Be militant, ready to act, and openly discuss issues."
- d) "Be responsive...as partners in (formulating) environmental laws and policies."

An Individual Should:

- a) "Be responsible for his actions and cooperate in community activities."
- b) "Be willing to share knowledge of and concern for the environment with others."
- c) "Be willing to learn."

Cebu City

An LGU Should:

- a) "Should strictly enforce environmental laws."
- b) "Draw up policies with corresponding programs and a budget to implement environmental activities."
- c) "Be vigilant about the situation and make available the necessary resources."
- d) "Initiate environmental conservation programs responsive to community needs."
- e) "Reformulate environmental policies to favor the poor or the marginalized."

A Community Should:

- a) Possess an "awareness of issues."
- b) "Respect the environment as a source of life and well-being."
- c) "Be organized and understand 'cooperation' in a community."

An NGO Should:

- a) Relate economic issues to environmental ones."
- b) "Should be open-minded...instead of thinking that they know everything."
- c) "Advocate and do what it advocates," "be militant and continue pressuring government on issues."
- d) "Coordinate with the LGU."

A PO Should:

- a) "Be militant and continue pressuring the government on environmental issues."
- b) "Look for solutions at its own level."
- c) "Initiate home-based or barangay-based environmental programs."

An Individual Should:

- a) "Be responsible and cooperative."
- b) "Share a part of his time and income for environmental concerns."
- c) "Practice environment-friendly activities."
- d) "Develop consciousness of environmental issues and concerns."

5. Individuals/Institutions Who Are Highly Credible and Influential

Lapu-Lapu City

LGU:

- a) Mayor (6)
- b) Domingo Rama (2)
- c) Elected officials (2)
- d) Dr. Alexander Gestopa (2)
- e) Efren Herrera (1)
- f) Martin Sagarino -Brgy. San Vicente (1)
- g) Adolfo Eyas - Brgy. San Vicente (1)
- h) Rosario Sagarino - Brgy. San Vicente (1)
- i) Alex Berdin (1)

Community Members:

- a) Raymundo Bayno (PTCA Pres.)
- b) Arnulfo Melencio (Member, Bantay Dagat)
- c) Roger Lim (Timex)
- d) Ben Cañete (PTA)
- e) Maximo Jumao-as (San Vicente)
- f) Raping Patigdas (San Vicente)
- g) Erlinda Eyas (Principal Teacher, San Vicente)
- h) Diding Suello (Brgy. Sabang)
- i) Igmidio Ybañez (Brgy. Sta. Rosa)
- j) Evelyn Jumao-as (Principal Teacher, Sabang)
- k) Lourdes Lood (School Supervisor)

NGOs:

- a) Save Nature Society (3)
- b) NORFIL (1)
- c) Island Venture (RAFI) (1)
- d) KAKAO (1)
- e) Lihok Filipina (1)

POs:

- a) Canjulao Multi-Purpose Cooperative
- b) Mothers' Club
- c) Youth of Olango (Sabang)

Civic/Religious Groups:

- a) Rotary Club of Mactan
- b) Patricia Butalid (Catholic Women's League)
- c) Inocencio Inoc (Knights of Columbus)
- d) Fr. Antonio Damalerio (Santa Rosa Parish, Olango)
- e) Ladies Auxilliary Group
- f) Lion's Club

Private Business:

- a) MEPZA Officers
- b) TIMEX
- c) Chinese Chamber of Commerce

Others:

- a) Raymond Houscht
- b) Philippine Tourism Authority
- c) Media
- d) Dr. Labi (School District Superintendent)

Cebu City

LGU:

- a) Mayor Alvin Garcia (1)
- b) Tomas Osmeña (1)
- c) Ann Cabigas (1)

Community Members:

- a) Norberto Quisumbing (1)
- b) Mrs. Josephine Booth (1)

NGOs:

- a) Basic Christian Community (BCC)
- b) Mr. William Granert --SWCF (2)
- c) Beling Gochinghay --FORWARD (2)
- d) Water Resources Center
- e) CUSW
- f) Tessie Fernandez --Lihok Filipina

POs:

- a) San Nicolas Urban Poor Organization

Civic/Religious Groups:

- a) Cardinal Vidal (4)
- b) Gus Go
- c) Sr. Sonia Aldequez
- d) Fr. Silva
- e) Fr. Herman van Engelen
- f) Missionaries of the Sacred Heart
- g) Priests

Private Business:

- a) Christine Matriano --San Miguel Corporation (2)
- b) Hernan Streegan --Rhine Marketing
- c) Aboitiz
- d) Norkis Group of Companies
- e) General Milling Corporation

6. National and Local Celebrities as Spokespersons for Environmental Protection

Lapu-Lapu City

Three opinion leaders (all males) did not think that celebrities can be useful in the promotion of environmental programs. One said, "Environmental concerns are a fad nowadays...it doesn't matter who talks about this." Another said, "They are only good for attracting people but they are not credible."

Of the seven who felt that tapping celebrities can be helpful, three (all women) said that local radio personalities should be tapped for the promotion of environmental concerns. Mentioned especially were Manny delos Santos-Rabacal (Bombo Radio dyMF), and Jane Paredes (dyRC). In addition to radio, two of these women respondents mentioned further that the potentials of TV should be exploited as "it would be nice if people can see pictures of the environment." One other male respondent shared this view. Mentioned as credible were channel 7 (especially the program hosted by Melva Java), ABS-CBN (especially the programs of Noli de Castro and Dong Puno), Teodoro Benigno and Inday Badiday.

Three respondents singled out actresses, namely, Sharon Cuneta, Nora Aunor, and Vilma Santos. Only one respondent said that the First Lady, Mrs. Ming Ramos, is highly respected and can be effective in the promotion of environmental concerns.

Cebu City

Three respondents were clearly against using celebrities for environmental campaigns as "they will only artificialize the situation."

All others approved of using celebrities but with reservations. It was suggested that celebrities should be chosen on the basis of their credibility and, by inference, their being non-controversial. Mentioned were Fernando Poe Jr., Boots Anson-Roa, Gary Valenciano, and Sharon Cuneta. While one respondent said that comedians should not be tapped, another said that humor in the campaign (making mention of Dolphy) could make a strong statement.

Only one respondent made mention of local radio personalities such as Serge Remonde (dyLA), Leo Lastimosa (dyAB), Inday Nita Daluz, and Rosemarie Holganza Borromeo (dyAB-Channel 3).

- **ANALYSIS**

Three levels of being "active" can be concluded from the responses of both sets of respondents. In the order of their perceived importance these are: Concrete, quantifiable actions; understanding and appreciation of environmental concerns; and, observance of laws.

Both Lapu-Lapu (7) and Cebu City (4) place a high priority on concrete and quantifiable or verifiable interventions for environmental enhancement which, in turn, can be classified into three levels: Creating or planning programs and projects; participation in policy-making; and, advocacy for environmental concerns manifested through the creation of pressure groups and dissemination of environmental information.

Awareness of environmental issues is ranked second for Lapu-Lapu with four (4) mentions while Cebu City ranked this third. This could suggest that respondents feel that

people in Lapu-Lapu City are less cosmopolitan and have less access to environmental information than those in Cebu City. This could also be taken to mean that, perhaps, environmental pressures are not yet as acutely felt by the people as they are in Cebu City, as evidenced by the more visible activities of environmentally-oriented groups in the latter.

Again, a note of cynicism emerged from the responses of Cebu City when, instead of citing criteria for being active, three informants instead enumerated verifiable indicators of the effects of being active, e.g., "when there is no more problem with sanitation and garbage and people are conserving water," or "when there is (already) a clean and green environment." This could underline a feeling of exasperation at the direction things are perceived to be going.

Given these parameters, the general impression is that both Lapu-Lapu City and Cebu City are considered "inactive" by the respondents themselves. Only two in Lapu-Lapu see these criteria as being met and, at that, to a limited extent. Similarly, Cebu City respondents do not see any concrete and verifiable indicators that would reflect the results of the activity, although one cited that Cebu is "active" as evidenced by the dynamic interventions of NGOs like CUSW, RAFI, and PBSP.

Apart from these responses, and objectively speaking, there are in fact quite a number of environment-related projects going on in Cebu City. That most respondents choose to ignore this is perhaps another indication of impatience on their part or a skepticism that many people are actually doing something concrete.

In assessing themselves on their personal involvement, 95% of all respondents rated themselves as "active" with only one (from Lapu-Lapu City) who said she was inactive because she was not able to follow through the activities she had initiated. It may be that this last respondent equates activity with getting tangible results.

It is worth noting that only roughly 20% of all respondents could cite specific activities that fall within the criteria that they had enumerated, and, at that, these were always work-related. Instead, most of them cited why they needed to be active. This is revealing as this could be that most respondents, in fact, do not really go out of their way to be "active" and only pursue environmental activities when the nature of their work calls for it. In this sense, perhaps, the only real "doer" is the respondent who branded herself as "inactive."

Almost all opinion leaders seem to hedge on the question of "who encouraged them to be active." Rather than give names, they tend to present a picture of themselves as self-motivated individuals who, out of personal concern for the environment, did what they had to do such as attending lectures and seminars to enhance their awareness.

In assessing the ideal behaviors of various sectors, both groups of informants are agreed on the following points:

- a) The LGU must incorporate environmental issues in all its concerns which suggests that it must possess the knowledge, the skills, and the budget needed to pursue its programs. Another important point is the political will to do what is right and apply the law seriously.
- b) The community-at-large should have the realization that they are intimately linked with the environment and therefore should initiate pro-environment actions, preferably in cooperation with the LGU.
- c) NGOs as well as POs must be militant, credible, and committed to the cause of the environment. They should possess an open mind in order to facilitate cooperation and collaboration among the sectors. They must also relate economic concerns to those of the environment.
- d) It behooves the individual to learn and share knowledge, time, and resources with others. He must possess a sense of responsibility for his actions.

In this regard no difference is seen between those of Lapu-Lapu City and Cebu City.

The issue of marshaling celebrities to espouse and push for positive environmental action is generally received with caution by respondents. While they agree that they can effectively draw crowds, there is the danger that they might not be taken too seriously by the audience given their world of make believe. As one respondent put it, they might "artificialize the situation." This is not to mean though that they could not be effective spokesmen but rather, the choice must be limited to those who, in real life, are least controversial.

More importance is attached by respondents to serious TV hosts or newscasters as they seem to have respect and credibility.

More sober radio personalities are also mentioned as being effective spokesmen. It is significant to note that the radio personalities were never mentioned in the focus-group discussions. The focus-group discussants display a preference for the more bombastic, flamboyant, and aggressive styles of some commentators while opinion leaders tend to favor the more sober, controlled, and intellectual approach to issues.

The fact that women respondents of Olango Island (3) rated radio as highly effective is merely a recognition that the radio is the most common source of information on the island and therefore not related to any gender issue.

D. BARRIERS AND BENEFITS

1. Barriers Faced by Sectors and How They Are Mitigated

Lapu-Lapu City

Five respondents singled out "political attitudes or politics itself." This was associated by them with the lack of political will to enforce the law, the failure of the LGU to provide

adequate support and logistics to barangay officials and special bodies (referring to the Bantay Dagat) mandated to enforce it, and what was perceived by one respondent as a distorted sense of priorities which favor developers and sacrifices the integrity of the environment.

All five of them said that this barrier is the most difficult to mitigate because as one respondent put it, "functions are personalized/feeling is personal." By this statement, she referred to values that most politicians hold and therefore are difficult to turn around. Another respondent, however, took the bull by the horns when she related some actions undertaken to overcome these barriers. These were:

- a) Advocacy through "lobbying and protest action."
- b) Intensification of "education campaigns directed at the people to explain to them the need to cooperate."
- c) "Engaging in dialogue/confrontation (with LGU) to express our viewpoints."
- d) Undertaking research "for data that will strengthen our stand enough to convince other sectors."

Other barriers identified were:

- a) Lack of financial resources and manpower; this was reported to be mitigated by the "encouragement of volunteerism."
- b) "People's indifference to environmental concerns."
- c) Inadequate dissemination of information; this could be addressed by:
 - i) "hiring of environmental officers,"
 - ii) "Creation of a Committee on the Environment," and
 - iii) "Information advocacy by NGOs/POs."
 - iv) "Conducting research regarding the possible effects of the proposed 'islands'." ("islands" here refer to the proposed development of the Alenter Group to build artificial islands in the reef bank in the vicinity of the sanctuary)

Cebu City

Politics was similarly rated by respondents as a serious constraint, citing the unenthusiastic and loose enforcement of laws, one reason for which was "political patronage, hiring people who are not supposed to be there and don't have the real commitment." Closely related to this was the perceived graft and corruption pervading the system which was also translated into ineffective enforcement of the laws.

Another constraint mentioned was the people's seeming lack of concern about the environment. To mitigate this barrier, one respondent with tongue in cheek, said, "hold seminars on environmental protection." He added that, "if this does not work, we might as well ignore the environment."

One respondent summed up the general tone of cynicism through a frank statement: "It is difficult to mitigate a situation where economic realities, like poverty, become barriers...especially in a poor country like the Philippines."

2. Perceived Benefits and Disadvantages to the Community If Active Enforcement is Carried Out

Lapu-Lapu City

The following were identified (according to frequency):

- a) Improvement in the local economy as a consequence of "the influx of investors," "generation of employment," and "livelihood from tourism" (6).
- b) Decreased Health Problems due to a "clean environment" (5).
- c) An increase in food supply (2).
- d) People will be "more disciplined, educated, and united" (1).

On the other hand, some respondents also anticipated some difficulties that can come about with active enforcement. Mentioned were:

- a) The value of real estate might go up such that people will no longer be able to purchase lands.
- b) In the short-term, there will be resentment from people most affected by the strict enforcement of laws.

Cebu City

In order of frequency, the following benefits were identified:

- a) Improved environment translates to enhancement of well-being and better health (5).
- b) Enhanced livelihood opportunities and increased food supply (3).
- c) A better supply of water (2).

No disadvantages were perceived by the informants.

● ANALYSIS

In both sites, informants single out politicians and their political agenda as the most difficult barriers to overcome given that the priorities of politicians are perceived to run at cross-currents with environmental concerns. Such agenda are seen to be influenced by patronage, personal commitments, graft and corruption, and the strong bias for the business sector among the policy makers of the two cities.

While the two sets of informants agree on the difficulty of overcoming this barrier, the opinion leaders of Lapu-Lapu City still seem to hold on to the possibility that the situation can still turn around as evidenced by some activities which are perceived to mitigate the situation.

Cebu City respondents, on the other hand, show a strong streak of cynicism suggestive of being resigned to the fact that politicians will always be politicians and no "seminars" or "training programs" can make them abandon their political agenda. Even the perceived "lack of financial resources" or the "inadequate dissemination of information" which makes enforcement of laws difficult are, in fact, manifestations of the low priority that environmental concerns have in the agenda of both cities.'

It is admirable that in a "non-doer" community such as Lapu-Lapu City, opinion leaders still see the situation as far from being hopeless. Thus, there seems to be the "trust" that the city's leaders will see the light and do what must be done. Again, we see here a latent indication of dependency.

Conversely, for Cebu City, respondents seem to have been enured to a fact that they have to live with. It is perhaps this realization that propels individuals and private groups to be more active and do what they have to do in spite of an "immovable" barrier that does not seem to respond adequately to felt environmental needs.

All respondents are one in saying that tremendous benefits will be enjoyed by the community if laws on the environment are seriously implemented. These are an improved economy, enhancement of the community's general health situation, a more sustainable source of food and water, and the abstract benefit of promoting a more disciplined and unified community. It bears emphasizing here that Lapu-Lapu rates improved economy through increased livelihood opportunities quite highly (6 respondents) while Cebu City rates this only second to health and enhanced well-being brought about by a clean environment. This, of course, need not be interpreted that Cebu City has plenty of livelihood opportunities and that Lapu-Lapu has none. What is indicated by this difference in priorities may be the fact that the

environmental situation in Cebu City is perceived to be in such a serious decline that this has been manifested through an increase in health hazards caused by improper environmental management.

**E. NEEDED SKILLS, TECHNOLOGY AND SUPPORT SERVICES
(ENABLING FACTORS)**

1. Needed Skills and Knowledge by Community Members

Lapu-Lapu City

Only three items were identified by Lapu-Lapu City opinion leaders. These were "basic knowledge and understanding of environmental issues," transfer of skills for livelihood in order to ease pressure on the environment (stated by one respondent as "any livelihood project that promotes environment conservation"), and the development of "listening and communicating skills" to enable community members to express themselves.

Also identified as needed skills were garbage management, "environment-friendly agricultural techniques," and the use and formulation of "natural pesticides."

Cebu City

Informants emphasized the need for providing the community-at-large with a comprehensive picture of the critical levels of environment degradation through a simplified presentation suitable to the masses' level of understanding. No specific skills were mentioned by any informant.

2. Knowledge and Skills Needed by The LGU

Lapu-Lapu City

On the whole, respondents considered the following important:

- a) The most basic thing is for LGU officials to have a clear understanding of the "morality of the crusade for environmental conservation."
- b) It must possess readily-available expertise tasked to plan, implement, and monitor projects/programs that affect environmental integrity.
- c) LGU leaders need to be trained to view things objectively and see the environment from a holistic point of view.

Cebu City

Opinion leaders saw the following to be necessary:

- a) A realization of how the "poor and the marginalized" are affected by development.
- b) The initiation of an "environmental summit" among LGUs, NGOs, and POs to address environmental issues that would be affected by development.
- c) An understanding and appreciation of environmental laws.
- d) Law-enforcement skills.

3. Factors Impinging on Involvement of Opinion Leaders in Community Environment Affairs

It is interesting to note that both sets of influentials rated all factors as either important or crucial. Only three factors in both sets were seen as crucial, and in both sets these were "values, beliefs, and practices," "the understanding of environmental problems," and "the consistent enforcement of environmental laws/ordinances." LGU support and existence of

environmental laws were rated as important by Cebu City respondents. The opinion leader respondents in Lapu-Lapu City also rated existence of environmental laws as important but tended to emphasize access to technical support, in lieu of LGU support. It may be surmised that lack of access to technical support may discourage opinion leaders in Lapu-Lapu city from participating more actively.

It is odd that the "enforcement" of ordinances was seen as crucial by both sets of respondents, whereas their "existence" which is a necessary precondition to enforcement, was seen as mostly only "important." Perhaps, the message here is that if ordinances are already in existence, they might as well be consistently enforced.

We find, again that as with LGU officials, opinion leaders noted all of those factors as at least important for them to be personally involved in environmental affairs.

COMPARISON OF RESPONSES OF LAPU-LAPU CITY AND CEBU CITY OPINION LEADERS

Both sets of respondents unanimously decry the poor states of health in the environments of their respective cities. Each set provides an equally varied proliferation of causes of this situation. One theme, however, runs through the Cebu City responses and sets them apart from the Lapu-Lapu City responses, and it is the idea of "development aggression." This is a more sophisticated view and a criticism of the fact that "development" itself is not always good, especially where the environment is concerned. This higher level of sophistication of answers in Cebu City may relate to the closer daily relationships these people can have with academics, researchers, and their institutions and libraries.

The two sets of respondents thus show a tendency to differ on the seriousness of the situation. Cebu City opinion leaders unanimously agree that the situation is very serious, whereas half of the Lapu-Lapu City influentials say that the situation is not yet serious, one implying that this is merely because the Mactan Master Plan "has been approved," as if thereby the problems were immediately solved.

To solve environmental problems, respondents in both cities tend to favor advocacy, followed up with more direct action and intervention. Whereas in Lapu-Lapu City the LGU, community associations, and the academe are seen as supportive in this way, in Cebu City mention is made much more of the business sector. But if the Lapu-Lapu City government comes in for praises, it is also blamed by two respondents for the blunder of having given approval to the hotel of the Alenter Group to be constructed on the Olango reef bank. In the same vein, two respondents criticize the Cebu City LGU's promotion of economic development at any cost and its tendency to equate development with GNP. Several times throughout the

data base for opinion leaders, politicians also come in for criticism when they hesitate on environmental concerns because they feel their advocacy might imperil their political survival. In both cities, political intervention and favoritism as a part of the workings of patron-client relationships act as obstacles to environmental management. From the point of view of the community, and as interpreted by some respondents, obstacles lie in poverty, and in the lack of alternative livelihoods in less environmental damaging occupations (here the Opinion leaders agree with the Olango Island community members), and the fact that most ordinary people lack any concern for or awareness of environmental needs. In Cebu City it is mentioned more than once by opinion leaders that most businesses are uncooperative because they fear that environmental controls will lead to expanded costs and limits to their profits.

The two groups of opinion leaders differ markedly on the subject of who should be most responsible in attacking environmental problems. In Lapu-Lapu City it should be government, in Cebu City it should be mostly done through the working together of all sectors, according to the respective samples of opinion leaders. But in both sets there are always some respondents who claim that everyone, especially community members and small groups of community members, must also take responsibility.

Lapu-Lapu City opinion leaders are more aware of past and on-going environmentalist projects than the LGU officials are. In Cebu City, on the other hand, mentions tend to be limited to projects having to do with upland farming techniques, watershed management, and fresh water problems.

The two groups of opinion leaders are almost equally critical about the implementation of the devolution of government agency responsibilities down to the city and municipal levels. Both complain equally about the gap between LGUs on the one hand and the actions of NGOs

and POs on the other. These are confronting rather cooperating with each other on environmental matters. But while Lapu-Lapu City respondents have scanty knowledge of the actual activities of NGOs and POs, in Cebu City NGOs and some POs are seen to be very active in environmental concerns, with POs needing to strengthen their linkages with NGOs and the LGU. Both groups about equally claim that religious groups, like the Roman Catholic church and its various organizations, have been quite active in environmental concerns.

In Lapu-Lapu City, again, the business sector is seen as insincere with respect to environmental concerns, while in Cebu City the positive contributions of a few businesses make it seem to some Cebu City respondents that the business sector is quite active, especially in the provision of financial support. In Lapu-Lapu City, the enforcement of ordinances is seen to rest squarely on the shoulders of the LGU, while in Cebu City the situation there is seen as so environmentally complex that many sectors and agencies, it is felt, must be active in this regard. And yet the ordinances are seen as poorly enforced in both cities, often due to the lack of provision of necessary facilities, equipment, and manpower by the LGUs.

The opinion leaders in both cities see that the enforcement of environmental laws by the LGUs will have long-term advantages but also short-term disadvantages and repercussions. The last are commonly seen to include a slow-down in economic growth, and for Lapu-Lapu City, the end of political careers and their attendant patron-client relationships. In both sets of respondents, it is felt that the expansion of the business sector will be initially curtailed. Enforcement is seen as being good for the work of the NGOs, and for the most part, of the POs, the community in general, and for civic-and-religious groups, by both sets of respondents.

On the subject of when a community could be considered active in environmental protection, three Lapu-Lapu City opinion leaders have a well thought-out set of criteria, most of which in general harmonizes with the statements of the Cebu City opinion leaders. But when they take all of the criteria into account, neither group sees their respective communities as especially active, although the respondents may see themselves as active. This suggests that they may be getting rather impatient with their community members.

Ideal behaviors for the LGUs are also well articulated by opinion leaders from both cities. Important among them are the concepts of political will, setting the example oneself by direct empirical action, and taking a proactive stance regarding the promotion of environmental awareness and the prediction of environmental impacts before they arise.

Some influentials from both cities share in an expectation they have for the "community-at-large," namely, that it should be able to take independent action without constant prodding from the other sectors. This should include the ability to formulate and influence the passage of laws and ordinances and then enforce them. A similar stance is taken with regard to people's organizations. An opinion leader in Cebu City says that they should not be wholly dependent on other sectors (especially on the authorities) and should be able to come up with solutions by themselves. In Lapu-Lapu City, stressed for POs is the rather more realistic idea of their networking with other sectors with whom they act as partners. This networking, especially with the LGUs, is also recommended for NGOs by both sets of opinion leaders.

Both sets of influentials are uncertain about the use of celebrities as spokespersons for environmental protection. They may be useful to catch the attention of the mass devotees of popular culture, but their controversial life-styles apparently make them not credible morally,

and their play-acting professions make them seem superficial.

The opinion leaders in both communities are able to formulate a number of interesting factors that would enable their communities to become more active in environmental affairs. Among the most relevant are (1) better knowledge of causes of environmental degradation and the actual states of their own local environments through simplified presentations that all can understand; (2) the growth of awareness that it is development itself that degrades the environment and this leads to poverty and marginalization, and that the community needs to undertake collective mass actions to counter this trend; (3) the understanding among LGU officials that the crusade for environmental conservation is a moral one; and (4) the realization, again especially among government officials, that the environment should be understood objectively (not only in terms of their own individually self-centered interests) and as a whole (which includes them).

It should be noted that the respondents, especially in Cebu City who tended to see their cities and community members as being "inactive," did not demonstrate much awareness of the environment-related projects that are on-going, or that have recently been going on, in their localities. While this may be due to skepticism, it could also be due to a general lack of knowledge, or appreciation on their part of these many efforts.

Finally, no gender-related nuances could be gleaned from the responses of all. This is explained perhaps by the fact that the opinion leaders (who were chosen from as wide a range of professions and occupations) tend to assess situations within the ambit of their own professional trainings and occupational biases.

Table 6. Frequency of Opinion Leaders, by City, Sex and Selected SocioDemographic Characteristics.

SocioDemographic Characteristics	Lapu-lapu City			Cebu City			Total N 20
	Male n=6	Female n=4	N 10	Male n=6	Female n=4	N 10	
1. Agegroup							
31-35	1	-	1	-	-	-	1
36-40	-	-	-	1	1	2	2
41-45	1	-	1	2	2	4	5
46-50	2	2	4	2	1	3	7
51-55	1	-	1	1	-	1	2
56-60	-	2	2	-	-	-	2
61-62	1	-	1	-	-	-	1
Mean Age= 47 (Both Sexes)							
2. Civil Status							
Single	5	1	6	2	-	2	8
Married	1	3	4	4	4	8	12
3. Highest Educ Attainmnt							
High School graduate	-	-	-	-	-	-	-
College ndergraduate	1	-	1	-	-	-	1
College graduate	1	1	2	3	3	6	8
Master/Law	3	2	5	3	1	4	9
Doctorate (Ph.D.)	1	-	1	-	-	-	1
Medicine (M.D.)	-	1	1	-	-	-	1
4. No. of yrs in Developmental/ Civic/ Community work							
1-5	-	1	1	-	-	-	1
6-10	1	1	2	-	1	1	3
11-15	1	-	1	2	1	3	4
16-20	1	-	1	2	1	3	4
21-25	3	-	3	-	1	1	4
26-30	-	-	-	2	-	2	2
31-35	-	2	2	-	-	-	2
36-40	-	-	-	-	-	-	-

SocioDemographic Characteristics	Lapu-lapu City			Cebu City			Total
	Male n=6	Female n=4	N 10	Male n=6	Female n=4	N 10	
5. No of yrs in Environmental Work							
None	2	1	3	1	1	2	5
-1	-	-	-	1	-	1	1
1-5	1	1	2	2	1	3	5
6-10	2	-	2	-	-	-	2
11-15	-	1	1	1	-	1	2
16-20	-	1	1	-	2	2	3
21-25	1	-	1	1	-	1	2
26-30	-	-	-	-	-	-	-
31-35	-	-	-	-	-	-	-
36-40	-	-	-	-	-	-	-
6. Membership to Org.							
Yes	6	4	10	6	4	10	20
No	-	-	-	-	-	-	-

GreenCOM Study, Opinion Leader Respondents, Lapu-Lapu City and Cebu City, May 1996.

Table 7. Opinion Leaders' Characterization of Factors That May Help or Hinder Their Involvement.

Factors	Characterizations				
	Crucial	Important	Helpful	Not Relevant	Barrier
1. Values, Beliefs, Practices	12	7	1	--	--
2. Understanding of environmental problems	10	10	--	--	--
3. Existence of environmental laws/ordinances	8	7	5	--	--
4. Consistent enforcement of environmental laws/ordinances	12	7	1	--	--
5. LGU Support	9	7	2	1	1
6. Access to appropriate technology	10	6	3	--	1
7. Access to technical support and training.	8	6	6	--	--
8. Access to credit	5	6	8	--	1
9. Personal investment in terms of time, money and materials	7	9	4	--	--
10. Approval/support from family and influential persons	7	5	8	--	--
11. Maintenance of smooth interpersonal relationships in the community	7	5	8	--	--
12. Increased family income	6	8	4	2	--
13. Traditional folk beliefs	6	7	3	1	3

GreenCOM Study, Opinion Leader Respondents, Lapu-Lapu City and Cebu City, May 1996.

Table 8. Summary of Trends by Opinion Leaders of the Characterization of Factors That Could Help or Hinder Their Involvement.

Factors	Summary of Trends				
	Opinion Leaders				Results
	Male n=12	Female n=8	Lapu-Lapu C. n=10	Cebu C. n=10	
1. Values, Beliefs, Practices	C	I	C	C	C
2. Understanding of environmental problems	C	C	C	C	C
3. Existence of environmental laws/ordinances	I	I	I	I	I
4. Consistent enforcement of environmental laws/ordinances	C	C	C	C	C
5. LGU Support	I	I	I	I	I
6. Access to appropriate technology	I	I	I	I	I
7. Access to technical support and training.	I	I	I	H	I
8. Access to credit	I	I	I	I	I
9. Personal investment in terms of time, money and materials	I	I	I	I	I
10. Approval/support from family and influential persons	I	I	I	I	I
11. Maintenance of smooth interpersonal relationships in the community	I	I	I	I	I
12. Increased family income	I	I	I	I	I
13. Traditional folk beliefs	I	I	H	I	I

GreenCOM Study, Opinion Leader Respondents, Lapu-Lapu City and Cebu City, May 1996.

Key: C=crucial, I=important, H=helpful, NR=not relevant, B=Barriers

CHAPTER FOUR

COMMUNITY MEMBERS ON THE ENVIRONMENT

The Community Members

This section provides information on some sociodemographic characteristics of doer and non-doer community members in Barangays Sabang and Santa Rosa, on Olango Island, Lapu-Lapu City.

As can be gleaned from Table 9, the proportion of males (12) in the doer group was equal to that of females (12). The mean age for both sexes was 48. All of the female doers (12) were married while only one among the 12 males was single.

In terms of education, four respondents from both sexes in the doer group finished five years of elementary education and three earned an elementary school diploma (6 grades completed). Only one male had no schooling whatsoever. About eight of them (5 females and 3 males) attended to some level of college education, five of whom obtained a degree and one female earning a master's degree. On the average, male and female doers attained two years of secondary education.

Doer respondents, on the average, had lived in their present barangays for 41 years.

With respect to place of origin, 23 of them were born on Olango Island, 12 of whom were males and 11 were females. There was only one female from Barangay Sabang who was born off-island.

Among the non-doers, there were more women (16) than men (11); and the mean age for both sexes was 43. Eleven of them finished five years of elementary

education and nine graduated from elementary. Only one female from Barangay Sabang had never gone to school. None of them proceeded to college. On the average, male and female non-doers attained six years of elementary education.

The non-doers, on the average, had lived in their present barangays for 34 years. About 20 (9 males and 11 females) were born on Olango Island and seven were born off-island.

The primary occupations of doer and non-doer community members included in our sample are shown in Table 10. The table shows that fishing is the most common primary occupation among the community members. Of the 24 doers, five females claimed to be housewives without cash income while among the 27 non-doers, one male and six females also claimed to have no source of income. The primary occupations of both groups include fishing, shell-stringing, tricycle driving, farming, fish vending, shellcraft making, swine raising, aquarium fish collecting, sari-sari store keeping, laundering, eatery, buy and sell, middlewoman, dive guide, teacher, carpentry, Catholic Lay minister, barangay secretary, barangay police, and government employee.

Table 11 presents the secondary occupations of doers and non-doers in both barangays. It shows that most had not been able to find an additional line of temporary, part-time or seasonal work. These jobs range from shell-stringing, fishing, shell gleaning, teacher, chief investigator, boatman, aquarium fish bagger, fish vending, vending, government employee, and lampshade making.

Among the doers, about 14 claimed to have no secondary jobs, six of whom were females and eight were males. Among the non-doers, about 19 claimed to have not been able to find secondary jobs, 11 of whom were females and eight were males.

The data indicated that in the matter of finding secondary work, there is not much difference between doers and non-doers.

Perceived Community Problems

Table 12 presents the most pressing community problems faced by doer and non-doer community members in Barangay Sabang. Of the 80 multiple responses tabulated, 19 problems were covered. About 20 per cent of both sexes listed "noelectricity" as the most commonly perceived problem, followed by "rampant theft of livestock" (16 %). Environmental problems mentioned were surprisingly very few (2.5 %): "destruction of marine resources" (1) and "scarcity of fish" (1); the former being mentioned by a female doer and the latter by a male non-doer.

The tabulation of the responses of Santa Rosa doers and non-doers is shown in Table 13. The table indicates that there were fewer responses (56) though more community problems (28) were mentioned by Santa Rosa discussants than by those in Sabang. The "high prices of commodities," which was mentioned only by non-doer females, and "lack of toilet facilities" were the most frequently noted problems. Only 1 female doer included in her list an environmental problem--"the illegal extraction of white sand."

A. WORLDVIEW OF THE ENVIRONMENT

1. The Cebuano Term *Kinaiyahan* ("Environment")

Both doers and non-doers, male and female, when asked to say how they understood the term kinaiyahan, generally agreed about its meaning in such a way that it could be taken as one counterpart to the English word "environment."

The community members defined the term by citing some of the things that are associated with the environment. For example "the sea," "trees," "fish," and "weather," and more generally, "natural resources," "all things we see around us," "nature," "all things made by God."

A synonym for the term kinaiyahan, they said, is palibut, "surroundings," and it is perhaps on the basis of this synonymy that some non-doers defined it as "happenings" and "day-to-day activities," which they sensed as occurring in their neighborhood or proximal environment.

A few community members from both doer and non-doer groups, however, defined it as "attitudes," referring to one's relationship or dealings with other people. A male non-doer said that kinaiyahan is a deep term (lawum nga pulong) that is difficult to define.

2. Views on Humankind's Relationship to the Environment

Two themes that would explain humankind's relationship with the environment emerged, as perceived by both doer and non-doer community members.

Implied in one theme is that humankind is what the environment is, that humankind is to be seen as sharing an identity with the environment in a part-whole relationship when they said the following: "If the environment is clean, the people are also clean (kung limpiyo ang kinaiyahan, limpiyo usab ang mga tawo), "If the environment flourishes, life also improves, or if the environment develops, so does life" (kung molambo ang kinaiyahan, molambo usab ang kinabuhi), "If the environment has no problem, we also have no problem" (kung wala'y problema ang kinaiyahan, wala'y problema ang mga tawo).

Both doers and non-doers also saw the relationship between humankind and the environment as one of dependence, with humankind dependent on the environment for food and livelihood. They added, humankind must thus "take care" of it.

With respect to gender differences, more females than males saw humankind as one with the environment while more males than females saw humankind as dependent on the environment.

- **ANALYSIS**

Although only a few defined kinaiyahan as "attitudes," the Cebuano word that is more appropriate to use for "attitudes" is kinaiya. John Wolff's Cebuano dictionary defines kinaiya as the personal characteristics or habits of a person. It is not difficult to see how a person's attitude(s) or posture toward the world could also be a personal characteristic or kinaiya. This posture has to do with a person's "nature,"

and thus we see the root of the problem in the confusion between kinaiyahan and kinaiya.

Interpreting further, using Wolff's glosses, a similarity between kinaiyahan and kinaiya can be detected, and this suggests a difference between kinaiyahan and "environment."

Kinaiya seems to be a word that points to the basic personal or physical traits of someone, as in the English phrase, "Well, that is just the way he is!" The word kinaiyahan also refers to basic nature. It is made up of the pronoun iya, "of his, her, its" plus the affix kina-an. This affix is attached to iya by prefixing kina- and suffixing -an to the root morpheme iya. Wolf defines this affix as implying a sense of "the heart of," "the center of," or as we might say "the essence of." It can give either an empirically spatial or a very abstract sense of "nucleus" or "core" to the root word.

Kinaiyahan is literally "the essence of it" or the "heart of the matter." This word has come to be synonymous with what we mean by "environment" in spite of the fact that it points to the inherent or basic nature of things. These things are "out there," and kinaiyahan is the ultimate phenomenological nature that lies within them. Kinaiyahan is a word better suited to philosophical discussion.

Kinaiyahan is a deeper concept than "environment," which does not carry the same meaning. Indeed, one discussant recognized its depth and difficulty. "Environment" more simply refers to those natural things that surround us, but not to the inherent or essential nature of them. Therefore, in one way the term is probably too difficult to use as a translation for "environment," and palibut may be simpler and better. In another way, the term kinaiyahan is in a better position than "environment" to begin to encourage discussion inwardly to the topics of morphology or atomic

physics, on the one hand, or outwardly to ecosystems, on the other. Neither kinaiyahan nor palibut, however, are able to carry the meaning of "the context in which living things develop," which has come to be, in Anglo-American culture, associated with "environment."

Another, perhaps better translation of "environment" into Cebuano is the word kalibutan, "the earth, the world." Both terms have to do with what is "around" us.

The English "environment" comes from the French environ meaning "around" or "about." The ultimate source is the Latin viron, "circle" or "circuit." The Cebuanokalibutan is similarly built up from the word libut, "surround." To libut, the affix ka -an has been attached, with ka - as a prefix attached to the front of libut, and an as a suffix attached to the end.

While the word palibut (pa + libut) means "surroundings," it refers only to the near or proximal environment. Kalibutan is a more meaningful or universal word as it includes also the environment which we cannot see, the far or distal environment, as in the title of Rachel Carson's classic, The Sea Around Us.

Generally, all respondents agree that there is a relationship between the environment and humankind; that humankind is dependent on the environment for survival or that humankind is one with the environment. The former view signifies that the relationship seen by the discussants is like that of a new-born physically dependent on its mother, that humankind is dependent on the environment, but the environment in its turn must be taken care of by the people. The latter implies that discussants see humankind as having an identity with the environment in a part-whole relationship. They see the relationship as like that of an unborn child sharing an

identity with his/her mother; that life is "a part of" (tipak) nature and that humankind is a part of the environment. Thus, the nature of man's existence is determined by the state of the whole; that is, if the environment is in a state of well-being, the people living in it are also in a state of well-being.

Genderwise, the difference in perception is that women community members as compared to men are much more likely to illustrate their views with reference to the situation within the immediate neighborhood. They were the ones who mostly defined kinaiyahan as "day-to-day happenings in our surroundings."

B. ENVIRONMENTAL CONDITIONS AND PROBLEMS

1. Assessment of Present Environmental Conditions

The doers when asked to assess the present environmental conditions of their respective communities, complained of scarcity of fish (isda), decrease in seashells (kinhason), sea urchins (suaki or saluwaki), and cowrie shells (sigay), the last of which they use (most especially among the women) to make shellcraft for sale as home decor and necklaces. The females in particular claimed that when they were younger, shells and fish were abundant in the area. Today, they added, "even corals and rocks are hard to find." One female also mentioned a growing scarcity of other things besides fish and shellfish, like algae, crabs, green algae (lumot), and edible algae (guso) as well.

The doers mentioned that the depletion of coastal marine resources in both barangays is a result of illegal fishing methods using cyanide (koskos) and dynamite (tiro), and the destructive collection of cowrie shells using the scissor-shaped push-net (sudsud). They noted that the latter indiscriminately catches female cowries (baye

nga sigay) as well as male ones. The fine-meshed gill-net (pukot) has led to the decline of fish (through indiscriminate capture of young and undersized fish). The use of cyanide has also caused a decline of shellfish. Even sea urchins, they noted, are being depleted. The extraction of corals for construction purposes and stonecraft has led to the destruction of the habitat of fish. Finally, they mentioned that trawl-fishing (baling) is illegally over-fishing the nearshore waters. It was also claimed that fish catch has been so inadequate that people are not able to sell any fish or shellfish, since all must now be used for home consumption. The problem with the trawlers was noted mostly by Sabang community members who could observe at closer range--given that the edge of Sabang's reef bank is not as far out as Santa Rosa's.

The abovementioned assessments were cited by both sexes.

The non-doers, male and female likewise stated that life is more difficult now because of the scarcity of fish and shellfish. For example, they said: "no matter how heavy the downpour, people insist on fishing from six o' clock sunset to dawn, yet they still have a small catch;" "because there is such a heavy reliance on the sea, its resources are being depleted;" "the fine-meshed net is not as bad as trawl-fishing which uses the sonar ["fish-finder"] to locate fish;" "trawl-fishing is done by people not coming from Olango Island;" "people in the government are themselves perpetuating these problems by exonerating their own people who are caught dynamite fishing." One other cause mentioned by community residents relative to depletion of natural resources is increased population growth.

It was noted by all respondents that the local catch has declined. Women fish vendors reported that they no longer rely on the island's fish catch to sell in the

markets; they would now have to import fish from the Pasil fish market in Cebu City. There was anxiety among them over the fate of the next generation "if these things are not taken seriously." One female doer recalled that all one had to do in the 1960's was to wade ankle-deep into waters with a machete and be assured of a more-than-sufficient catch. Now, those who are not receiving any cash incomes have to depend solely on maritime resources for survival.

All discussants assessed the situation as serious saying that the people are primarily dependent on the sea for livelihood and daily subsistence (Seryoso ni nga problema tungod kay ang pagpangisda maoy panginabuhi sa kadaghanan).

2. What Had Been Done By:

2.1 Community Members

All respondents made reference to actions taken relative to illegal or destructive fishing and collecting methods. Generally, they said they can only "reprimand" (badlungon) or "tell" (sultian) illegal fishermen or destructive collectors with regard to their activities.

A female doer said, they are not listened to because their "good intention is taken as bad" (...Dili man mi nila paminawon, lainun man hinuon nila pagsabot!). She added, it is best to wait and let the barangay captain or the government "call their attention" (pahimangno) or intervene against illegal fisherfolk or destructive collectors.

Both doer and non-doer groups cited that if violators are reprimanded, they refuse to listen because fishing is their only course for the present (...mao ra'y ilang

panginabuhi). One female doer commented, "it would be just like stealing (gikulban ug kulon) their means of survival from them." It is best, implied a male doer, to continue with a "to each his own" (iya-iya or idya-idya) attitude.

For trawlers, both groups pointed out the difficulty of apprehending them because their activities are usually done at night and in the deep sea. In addition, many expressed fear that trawlers may carry firearms, and probably have licenses to show anyway. Blast fishers posed a physical danger to anyone who would try to interfere with them (Lisod kaayo na sa among bahin ang pagpaundang kanila, kay pareha anang mga trawlers nga adunay mga pusil, unsa ma'y among ikasukol? O kadtong mga maniniro nga mosukol kung imong badlungon, manlabay man og dinamita! ...) (It is difficult on our part because trawlers, for example, may carry with them firearms! Who would dare call their attention? ... There was an instance when dynamite fishers hurled dynamites to people who reprimanded them.)

All respondents suggested that it would be best for the government; the Bantay Dagat, or barangay captains to handle these problems-- anyone with authority (....kadtong ana'ay katungdanan).

A non-doer, however, said that simply capturing and reprimanding violators and releasing them is not enough because they have the tendency to return to their destructive methods.

2.2 What the LGU Has Done

The doers pointed out that LGU officials have the same difficulties and feelings as the community members in stopping illegal fisherfolk and destructive collectors. A male barangay official discussant noted that they are hesitant (maikog) to strictly

implement the laws and actually punish violators, specifically those who are engaged in cyanide and dynamite fishing (...Maglisod kami sa pagpadakop kanila. Malu-oy kami kay nakasabot kami nga ang pagpangisda og ang pagpanguha og sigay panginabuhi sa kadaghanan og kanang mga tawhana aduna'y mga pamilya....) (We have difficulty in apprehending them. We pity them because we understand that fishing or gathering cowrie shells are sources of livelihood of many residents and besides, we understand that they too have families.) One male doer, in fact, used the phrase "for humanitarian reasons" (the English was used). Furthermore, the male and female doers noted that since alternative livelihoods are not being offered to the fisherfolk, even barangay officials cannot rightfully put them in a position where their families will go hungry (...Wala man sila'y laing kapaingnan gawas sa pagpangisda) (They have no other means aside from fishing.)

The non-doers stressed more the fact that the punishment of violators cannot be done because they cannot be caught, operating as they do at night and on the deep sea and, because if they are detained, reprimanded, and then set free, as would usually be the case, they return to the same activities.

2.3 What the NGOs and POs Have Done

Few among the respondents were aware of any NGOs or POs in their communities. For the discussants in both barangays, the foundation headed by Sister Ester Paredes in Barangay Sabang was viewed as having the objective of "taking care of the bird sanctuary" and "implementing its rules." They said that her work had nothing to do with the community residents' real problems.

2.4 What Civic and Religious Groups Have Done

The doers, male and female commented that the church "had nothing to do with environmental problems." One Santa Rosa male doer, however, remembered the parish priest to have talked about the environment in his homilies, and pointed out that the church can accomplish a lot in this area of concern if it wished to.

Non-doers, male and female, on the other hand, viewed the church or any religious organizations as only concerned with convincing people not to change their religion.

2.5 What Private Businesses Have Done

Only the private business of aquarium fish collection was specifically alluded to by the community members.

Only the females from both groups pointed out that the aquarium fish collectors in Olango Island were once engaged in cyanide fishing to stun aquarium fish. Respondents, however, observed that aquarium fish collectors no longer do this. The latter was noted to be presently using the scoop-net (sapyaw) because foreign buyers do not like fish caught with cyanide.

Although aquarium fish collectors did help in reprimanding violators, male non-doer community members claimed that the former can do little to address the issue of illegal fishing practices since they have no authority (katungdanan) to do so.

2.6 What More the Sectors Can Do to Solve Environmental Problems

The doers suggested the following: Firstly, concrete action should be undertaken not only by barangay officials but more importantly by the city government; secondly, the government should be able to provide alternative livelihoods to those community residents engaged in illegal fishing and destructive collection methods; thirdly, it is important for all community residents, including the fisherfolk, to be united in stopping illegal fishing activities in their areas; and lastly, doers suggested that an anti-trawling petition letter be sent to the mayor of Lapu-Lapu City.

The non-doers, on the other hand, also gave some suggestions: Firstly, the LGU and Bantay Dagat should get more striking power by being given enough vessels that would allow them to patrol the seas for twenty-four hours a day. Secondly, the presence of illegal trawlers could be reported to a public radio station, which would air this as news. Thirdly, the manufacturers and vendors of illegal fishing substances and gear should be arrested. And fourthly, factories should be located in rural areas that could offer work to otherwise destructive fisherfolk.

2.7 Organizations/Sectors That Should Be Most Responsible

The doer discussants readily placed responsibility on the shoulders of the LGU and, especially, the military since most violators are armed. Also, they claimed that the local government should take more active steps in curtailing illegal activities for the people have placed their "trust" (pagsalig) in them.

The non-doers likewise most emphatically pointed to those with authority (e.g., Bantay Dagat, barangay captain, barangay officials, mayor, those in the government) as responsible for reprimanding and for solving these problems, all the way up to the city mayor.

2.8 Environmental Projects Implemented on Olango Island

The male doers of Sabang mentioned a mangrove and Gmelina reforestation program initiated by the DENR in 1992. However, they could not say if this has had a positive effect upon the residents yet.

The women doers of Sabang, on the other hand, mentioned the bird sanctuary, which they saw as having been initiated by barangay officials but now carried on by Sister Ester.

The Santa Rosa doers also mentioned the bird sanctuary and recalled the projects undertaken by the University of San Carlos in 1986-1991. While the male discussants had a hazy recollection about the nature of the projects, the women's groups exhibited more knowledge by remembering the construction of compost toilets, mangrove reforestation, and attempts at dike construction (to convert a shallow bay into a freshwater pond). The latter was remembered to be a failure as the tide waters invariably washed away the dikes.

The Santa Rosa non-doers were also aware of the bird sanctuary in Sabang. The males, in particular, recalled some comments made by Sabang community residents about it, that it has, for instance, put some people there into economic difficulties (... Ang pagdili sa pagpamutol og kahoy og pagpanguha og sigay sa maong lugar nakaapekto sa ilang panginabuhi. Kana lisod kaayo sa kadaghanan kay mao ra

man intawon kana ang ilang gisaligan...) (The prohibition to cut mangroves and gather cowrie shells in the area has an effect on the people's livelihood/economic life. Such is difficult for many residents because they are largely dependent on these activities.) They, too, remembered the USC projects, in particular the water system leading from a solar-driven pump well in their barangay, and the construction of compost toilets (of which there were twelve).

- ANALYSIS

Doers and non-doers show no differences in their degree of awareness of problems in the coastal environment. Both groups seem to have an understanding of the many natural resources that are in danger due to illegal fishing methods being practiced. The coastal maritime resources, in particular, are perceived to be in a state of decline. On the whole, the females in both groups tend to provide more interesting details on these matters. This implies that females are more perceptive in this regard probably because of the fact that most of the marginal marine resource collection activities are carried out by them and their children.

In terms of actions taken by community residents against environmental decline; the position of both doer and non-doer, male and female community members, on the whole, is that very little can be done except to "remind," "tell," or "reprimand" violators about the ordinances which they are violating. They feel half-hearted (duha-duha) and hesitant (maikog) about interfering with the efforts of poor fisherfolk who must have some way to support their families in a situation of apparently irreversible decline of resources; attempts to stop them without offering them an alternative livelihood

seem unfair and may arouse their anger (or as one female discussant said, invite their insults). They realize well that it is not enough just for authorities to capture, admonish, and then release illegal fisherfolk, who will just return to the same undesirable behaviors.

The "to each his own" attitude, as mentioned by a male doer, can be best interpreted as minding one's own business and letting others do what they have to do to survive, since a prevailing value is that everyone has a right to earn a living, both for themselves and their family dependents, and that everyone has the right to feed his family as best he can and should not be interfered with. Another behavioral norm in this community, as well as in all Cebuano communities is the one of taking a confrontational approach as rarely as possible.

In both barangays, doers and non-doers recognize that the LGU, referring to local barangay officials and the Bantay Dagat, are in a difficult position. For one thing, fishing has been the traditional source of livelihood, and the collection of cowries a main source of income, for many families. On the other hand, there is no alternative livelihood being promoted for them into which they can go. In many instances, barangay officials are reluctant and they sometimes ignore the dire environmental situation since, for "humanitarian reasons," they cannot afford to punish violators. This suggests that infractors can be reprimanded but may continue with their destructive behaviors when they find the opportunity.

The data indicate that both groups do not recognize anything that has been done by the church or any civic or religious group to prevent environment deterioration. Nor are they certain that the church should do anything more than attend to the spiritual

needs and problems of the people. Generally, the males and females, doers and non-doers, do not see the state of health of the environment as within the responsibility of the church or of other religious groups.

Both doers and non-doers stress that community members themselves alone cannot stop the illegal fishing activities of their neighbors, particularly just by "calling their attention" to their undesirable behaviors. They must have the support of the mayor, the barangay officials, the LGU in general, and even the military, to enforce penalties or to provide alternative livelihoods. In the case of trawl-fishing which is viewed as depleting the nearshore waters, solutions must come from still higher levels since trawler vessels often do not originate in the city. While this last point is true, there seems to be a too-ready tendency to put responsibility in the hands of "government" as a fuzzy, generalized abstraction, and thus take it well away from living individuals engaged in local action.

From their responses, it is safe to assume that community members in general are not willing to shoulder the mantle of responsibility and would rather have this burden placed upon those in authority. They have the tendency to believe that only those in real authority might not feel inhibited to be more forceful, and that they must come from outside the local community and exert a will to apprehend and punish violators. This is not only reflective of a pronounced paternalistic culture but also of an easy way out of a predicament that could put them at odds with some other members of the community.

On the whole, the situation is like a catch-22 for both groups. They realize that environmental decline will continue "if more drastic or definite actions are not taken,"

but officials and citizens are reluctant to take steps because no one has the right to interfere with how others earn their living, and so illegal occupations continue to be tolerated.

C. KNOWLEDGE AND ENFORCEMENT OF POLICIES/LAWS

Most prominently mentioned by both groups is the ban on illegal fishing methods (cyanide, dynamite, fine-mesh nets, the use of the push-net, and trawling in nearshore waters). The cutting of trees, mangroves in particular, was emphasized as a strict ban. Also cited was DENR's prohibition against the cutting of mangroves (even among planters) unless the harvester plants a new one for every one that is cut. Killing birds and catching undersized (young) fish were also mentioned as prohibited.

A local ordinance which requires the tethering of livestock was mentioned by one female doer. She was particularly distressed by the fact that many residents break laws with impunity. For example, she said that by allowing their goats to stray, or by tethering their cattle too near the garden of their neighbors, they damage the crops. This situation, according to her, discouraged residents from farming.

1. Level of Activity in Enforcing Local Ordinances

For doers, the LGU was generally perceived to be doing its duty but only to the extent of reprimanding violators.

Non-doer responses were similar to doers in that the LGU was likewise seen as trying to reprimand violators but that there was laxity in the strict enforcement of the

laws. The LGU was therefore paid no attention to by recalcitrants who invariably continued to pursue their illegal methods. Both law-abiding community members and the LGU were thus seen to be in a helpless position.

There were mixed reactions among doers on the issue of the community members being active. In general, community members were deemed active in the sense that there was a satisfactory observance of the bans on cutting trees and killing of birds in the sanctuary. But, as far as coastal activities are concerned, they saw a lack of concern. One observation by a male doer was that people in the community who tend to be more active are those who are gainfully employed and therefore not dependent on livelihood from the sea.

Most other sectors like the church or the religious organizations, and businesses (i.e., collectors of aquarium fish), were perceived by both groups to be not doing anything in relation to environmental management.

2. Obstacles to Enforcement

Doers and non-doers were both able to list a number of factors that hindered the enforcement of environmental ordinances. These included poverty (it is difficult for people to make a living on Olango, and illegal fisherfolk and collectors, who only have fishing as a source of sustenance, are given no alternative than to proceed with short-cut methods to feed their families); hesitance (pagpanagana) on the part of officials to interfere with the right of the poor to earn a living in any way possible; and the undisciplined and disunited nature of the people.

3. Existing Ordinances that Run Counter to Sound Environmental Management

As previously noted, non-doers and doers alike agreed with the environmental ordinances. They said for example, kaning mga balaura gihimo alang sa kaayuhan sa tanang molupyo (These laws have been made for the good of everybody). However, in so far as the sanctuary is concerned, the prohibitions enforced were not seen as good environmental management as these interfered with some people's right to earn a living.

- ANALYSIS

Both doers and non-doers demonstrate an understanding of environmental laws presently enacted in their locality. All these laws and ordinances are generally well-received by community residents and, in fact, it is hoped that they will be implemented to the letter. Community members deplore the laxity on the part of the LGU about more strict enforcement, the recidivism in illegal fishing, and the fact that some violators intimidate the LGU officials. The Bantay Dagat and the LGU, although mandated to enforce, are seen as not so effective because of the ato-ato system (just among ourselves) or tayo-tayo system (when infractions are overlooked perhaps as a personal favor for political or fraternal considerations). Most community members feel that outsiders (not from Olango), such as the mayor, would be more effective in carrying out the law. Here, again, is the readiness to delegate responsibility to others as an easy way out.

The tendency for those who are not directly affected by the ordinances is to agree with them, stating that they have been made for the good of everybody. But when certain individuals are directly circumscribed in their behavior by an ordinance (e.g., the ordinance that prohibits the cutting of mangroves and the gathering of cowrie shells in the sanctuary) they tend not to agree with or support it. The implication perhaps is that sound environmental management should never totally inhibit at least some form of use within the managed area.

Given the situation, the community members are implying that the people's participation in environmental protection is at odds, because of the combination of three factors: population increase, extreme resource decline, and Cebuano "norms of behavior" (for one example, hesitancy to enforce the law to the letter, inhibition to reprimand others with regard to how they earn a living).

D. PERCEIVED PARTICIPATION IN ENVIRONMENTAL AFFAIRS

1. When It Can Be Said That People Are Active In Environmental Affairs

The male doers used such words as "being aware" of responsibilities, "following" the rules, and "helping in reminding others." For the women, "following the laws," "reprimanding" people, "protecting" the environment, "having self-discipline," were cited, though such, they added, must be coupled with action, and most especially "setting oneself up as an example."

The responses of the male non-doer community members focused on "following the laws," whereas the women pointed to "reprimanding" violators.

Both doers and non-doers therefore equated their being active with obeying rules and laws and with reminding or reprimanding those who violate them.

Doers of both sexes also mentioned they are learning to return spawning fish and female cowries back to the sea. Furthermore, the women noted that their children have to be taught to overcome their laziness and do the same.

With respect to the participation of the LGU, all respondents tended to perceive the them as likewise active, but only in the same way as themselves, by "reprimanding" and "telling," and only rarely by arresting illegal fisherfolk.

On the matter of who prompted them to be active, both groups mentioned encouragement from God, their concern for their children (Unsa may ilang kaunon ugma damlag kung wala na'y isda nga madakpan?) (What will they eat in the future if there is no more fish to catch?), and themselves because "we understand the need to put spawning fish back into the sea."

2. Actions Undertaken By Discussants That Show Environmental Consciousness

For the doers, they have "reminded" (nagpahinumdum) people not to engage in cyanide, dynamite, and trawl fishing. They "called for discipline," and "explained to violators the possible consequences of their actions." In terms of harder empirical behaviors, they "threw spawning female fish back into the sea" and "planted mangrove propagules."

One male who was engaged in aquarium fish collection claimed that he now throws unwanted or "reject" fish back into the sea, as a personal effort in time and labor.

Women doers mentioned the following: "tell" (pag-sulti) her children to return female cowries into the sea, "reprimand" (pagbadlong) people who use fine-meshed fish nets, "clean" surroundings, "scold" (pagpangasaba) children who steal flowers from the garden, "plant" trees, "apprehend" (pagdakop) grade school students who hunt birds, "call the attention of" (pag-sulti) people who violate the fishing laws.

Male non-doers usually claimed to be active. They considered the following as actions in which they were engaged: "Reprimanding people who engage in illegal fishing," "following all the environmental laws," "passing an environmental resolution" (as a barangay official), "planting mangroves near the house and taking good care of them."

Some female non-doers also considered themselves active, for example: "I did not cut mangrove trees which protect my house from strong wind," "plant trees," "tell people not to cut mangrove trees because they can protect us from typhoons," "reprimand people who cut down trees," "follow the laws."

- **ANALYSIS**

Although both doer and non-doer groups consider themselves active, it is to be noted that the general concept of being "active" is largely limited to giving reprimands and obeying the laws rather than taking more concrete actions that could have a direct impact on the environment. This is not to say, however, that concrete actions are never undertaken.

When asked to say who or what prompted them to engage in environmentally conscious activities, e.g., encouragement came from within themselves or from God. It is possible that no one has received encouragement from specific sources, such as the LGU, schoolteachers, or any environmentalist campaigners, other than admonitions and reminders from their neighbors.

E. PERCEIVED BENEFITS AND BARRIERS

All the community members were unanimous in saying that benefits can be reaped by being active, not necessarily only for themselves but for future generations, the community, and the country as a whole. They were aware that if illegal fishing practices are stopped and mangroves are propagated, there will be more fish and cowries for everyone and houses will be protected from typhoon winds.

When asked whether their being active has affected their incomes, male doers predicted a short-term decrease in their incomes if they manage the environment properly. They will be constrained to reduce their present catch, by avoiding spawning fish and female cowries. However, they saw this as a temporary situation, for in the long-term, their restraint would pay off with a more bountiful catch in the future.

Non-doers, on the other hand, did not comprehend the short-term effects of their being active on their income, but they did understand that in the long run, there will be multiplication of fish and cowries.

In terms of disadvantages to them from being environmentally active, doers had experienced disadvantages that are related to social norms. Their expressions in favor of the environment have gotten them into trouble with some illegal fisherfolk. They

noted that they are challenged by illegal fisherfolk to provide the latter with an alternative livelihood or be the one to take care of the latter's families. They said, they received insults (insulto), mockery and ridicule (bugal-bugal), and damage in their relationships with their neighbors.

A few non-doers noted that they have also experienced mockery from violators. There was one female who said that she is bothered when people do not listen to her advice.

All respondents noted no benefits from not being active. They said, for example, that the deterioration of marine resources would continue if people are not active. Indeed, a female doer confessed she would have guilt feelings if she were not active in environmental management.

Both doers and non-doers felt that they could not allocate money or materials to environmental conservation. The only resource they were willing to part with is time.

For information regarding environmental concerns, the DENR was mentioned by both groups followed by LGU officials and, for some, the church, notably Cardinal Vidal. One woman doer, however, said, "even Cardinal Vidal (after his recent visit to the fish sanctuary near Hilutungan Island) was not able to convince the people to refrain from illegal fishing practices." The female doers also noted the DECS and male doers pointed to the University of San Carlos as the ones who are expected to provide them with the information they need.

Curiously, no mention was made of any radio and TV personalities whom both groups listen to everyday. Some respondents thought that priests, actors, and even policemen are not good sources of information about matters that are not in their line of work.

Among the doers, it was pointed out that the most formidable barriers toward positive environmental management are: a) the lack of political will on the part of the LGU to enforce the law, and b) the lack of cooperation among residents to observe the law. Barangay officials were perceived to be maximally tolerant, and ordinary people take pity (malu-oy) on violators.

It was also noted by male doers that the burgeoning population of the island is exacerbating the situation as more and more people demand a share of dwindling resources.

The female doers focused their attention on the financial difficulties that many families have to face, and also on the laziness and self-interest of individuals.

The problem of illegal trawling (which is trawling within 12 kilometers from shore) was seen by both doers and non-doers to be a much more difficult problem to solve as the vessels are owned by influential people who have access to the seats of political power and who come from elsewhere, therefore the problem should be the responsibility of the city mayor.

- **ANALYSIS**

What one can infer from the responses is that a majority of the community members are aware that the degradation of the environment would slow down if they were active in environmental management. It should be recalled, however, that being active to them usually means simply refraining from doing what is illegal and reprimanding violators.

Given the economic conditions of most Olango islanders, it is understandable why many can only give time but cannot allocate money nor materials for environmental protection. It should be remembered, however, that this is a good deal for poor people, since time given or contributed is equivalent to free labor.

Doers worry about the lack of political will of the LGU to enforce positive environmental ordinances, and a lack of cooperation among community residents in observing the same. Such a finding indicates that community members feel that nobody seems to be doing anything serious about the trawlers and people engaged in illegal fishing or destructive collection methods.

F. NEEDED SKILLS, TECHNOLOGY, AND SUPPORT SERVICES

Doers and non-doers both had relevant inputs to make on the issue of skills needed to to be active. Some clearly identified the need for leadership and persuasion skills, adding that they "need somebody with such skills to make people understand environmental issues, somebody who is doing the right thing himself, an upright leader who is willing to finance (e.g., snacks) community meetings on environmental matters" (Nagkinahanglan kami ug usa ka tawo nga aduna'y katakus sa pagpasabut kanamo mahitungod sa kinaiyahan; Usa ka tawo nga aduna'y maayong binuhatan; Usa ka lider nga mohatag ug suporta (e.g., painit) kung aduna'y panagtigum-tigum).

Table 14 presents the responses of doer and non-doer community members with respect to 13 factors that may influence community members' involvement in environmental protection.

Doers and non-doers rated the following factors as important: consistent enforcement of environmental laws; values, beliefs and practices; approval/support from family and influential persons; increased family income; and maintenance of smooth interpersonal relationship in the community.

The data indicate that doers tend to be motivated by the following factors: existence of environmental laws; consistent enforcement of these laws; values, beliefs and practices; understanding of environmental laws; and access to appropriate technology. The non-doers also rated values, beliefs and practices as important. They, however, tend to emphasize increased family income; personal investment in terms of time and effort; approval/support from family and influential persons; and LGU support. One could infer that the absence of these factors might discourage non-doer community members from actively participating in environmental management.

Turning to a comparison between males and females, both rated values, beliefs and practices as important. The males also considered LGU support; existence of environmental laws; and increased family income, while the females emphasized consistency in enforcement; personal investment in terms of time and effort; and approval from family members.

- **ANALYSIS**

The aforementioned data suggest that the community members need a person(s) who will act as a catalyst for change; a person who engages in the desirable behaviors himself/herself; one who would take the lead to help and support them. Such a catalyst must also be someone who is respected in the community and has the

financial resources to support community gatherings. Such findings signify that in a small community like Olango Island, relics of patronage still exist and should be given important consideration for people to be concretely active in environmental management. This is borne out by a previous perception of community members when they pointed to those in authority as most responsible in solving environmental problems.

Although results in Table 14 should not be considered an adequate substitute for making a decision, it probably reflects reality well. The data suggests that those factors which have been considered important by both males and females must be put in place before anyone can decide to support environmental causes.

The data also indicates that the males see concrete interventions as vital requirements in promoting environmental management.

G. TRADITION AND FOLK BELIEFS

The most common beliefs and practices described by male doers and non-doers had to do with rituals (palinaan, paasuhan) and animal sacrifice (e.g. dabbing the blood of a newly slaughtered rooster on a fishing boat). Either of the two practices was done upon the first use of a new paraphernalia or craft to be assured of an abundant catch. According to the community members, these customs are still being practiced by older fisherfolk.

One respondent in each group also mentioned the throwing of coin offerings(pahinungod or bayad sa dagat) into the sea to appease the "unseen spirits" (ingkanto) of the sea. Only male doers added that food and drinks (pahinungod sa dagat, promisyas) are set adrift also to appease the spirits. Such offerings, they said, are rarely practiced today.

The women doers, on the other hand, had a number of practices to recount, but those most frequently mentioned had to do with land activities. They noted the offering of cooked food to the nature spirits (diwatahan) in the farm after harvest. Various taboos having to do with times of weeding and picking fruits were likewise noted. The offering of unsalted, cooked chicken or pork to spirits of a tree that one wishes to cut was also mentioned by them.

The non-doer women mentioned that spirits in the trees are the "people not like us" (dili ingon nato), and the offering of food to the tree spirits is still called pahinungod. They said, it is taboo to touch anything in the sea with which one is not familiar because it may be protected by a "mermaid" or "merman" (sirena or okoy). They noted, however, that these beliefs and practices are no longer held by many, most especially by young people.

Both non-doer males and females also knew of such "enchanted spirits" (ingkanto) whose permission must be asked before making changes in their territories or else they could cause one illness to human beings. But there was always someone in each group who took care to point out that the people of today perhaps do not believe in them anymore.

- ANALYSIS

Both doer and non-doer groups know about ritual behaviors that used to be carried out to appease the spirits of the sea and ensure a good catch. The beliefs and practices of both groups can be characterized as then being directed at spiritual beings or nature spirits. Community residents feel the need to appease what they perceived as "those who are not like us" in order to avoid curses (buyag), illness, and bad luck (malas), and instead ensure good results, for example, a good catch (buwenason) of fish.

Appeasement shows respect and recognition for environmental spirits (ecospirits). They feel that these spirits are the caretakers of natural resources and think that if anyone wishes to take something from it, he or she must be able to repay or recognize the spirits' stewardship over its resources.

Indeed, this shows that there is some kind of a reciprocal exchange relationship (give and take) going on between humankind and environmental spirits; with the coin offerings, for example, coins are being thrown in exchange for the fish.

Implied, however in this practice, is not that if people do not carry out the appropriate rituals, the environment will deteriorate, but that spirits will not give humankind the bounty of nature.

These spirits are, however, more relevant to a bygone age when the environment was abundant, and not to present times when the environment has degenerated. No continuing appeal to spirits which no longer have the option to give or withhold, because the fish resources have so declined, can be expected to work today. Obligations of the people to the environment must be rephrased in operationalizable terms.

Therefore, today, the fact that "tradition and folk beliefs" are not considered by discussants as relevant to people's involvement in environmental protection, in contrast to the perceived importance of current "values, beliefs, and practices" (e.g., kaikog, kalu-oy, ato-ato) among all groups, suggests a recent shift in value orientation (see again Table 14). Certainly, the fact that they still observe some of these traditional beliefs and rituals shows a persevering recognition of and respect for "environmental spirits." However, their more serious present-day concern with immediate and concrete results in fishing tend to mask their deep-seated convictions, thus, relegating the spirits to the level of non-importance. For example, the use of dynamite as a drastic new technology to remain competitive as a fisherfolk in order to at least get enough to feed the family can not possibly be considered respectful to environmental spirits.

H. SOURCES OF INFORMATION

1. For Radio Listeners

The battery operated radio was found to be the most common source of information among doers and non-doers in Barangays Sabang and Santa Rosa.

They claimed to favor the same radio channels: dyMF, dyHP, dyRC, and dyRF.

They claimed to listen to the radio everyday, during rest hours, before going to bed, for as long as they have money for batteries, or for as long as their available batteries last.

Therefore, today, the fact that "tradition and folk beliefs" are not considered by discussants as relevant to people's involvement in environmental protection, in contrast to the perceived importance of current "values, beliefs, and practices" (e.g., kaikog, kalu-oy, ato-ato) among all groups, suggests a recent shift in value orientation (see again Table 14). Certainly, the fact that they still observe some of these traditional beliefs and rituals shows a persevering recognition of and respect for "environmental spirits." However, their more serious present-day concern with immediate and concrete results in fishing tend to mask their deep-seated convictions, thus, relegating the spirits to the level of non-importance. For example, the use of dynamite as a drastic new technology to remain competitive as a fisherfolk in order to at least get enough to feed the family can not possibly be considered respectful to environmental spirits.

H. SOURCES OF INFORMATION

1. For Radio Listeners

The battery operated radio was found to be the most common source of information among doers and non-doers in Barangays Sabang and Santa Rosa.

They claimed to favor the same radio channels: dyMF, dyHP, dyRC, and dyRF.

They claimed to listen to the radio everyday, during rest hours, before going to bed, for as long as they have money for batteries, or for as long as their available batteries last.

Female non-doers mentioned listening to the radio while they are doing household chores or while stringing shell necklaces.

Both doer and non-doer groups usually listen to news, weather reports, and political commentators, but only the females from both groups included soap operas (drama) and those especially on dyHP and dyRF. One female non-doer, however, pointed out that she arises as early as 4 a.m. to get a tip on jai-alai (masiao).

Mentioned by both groups are the names of Mon Chavez, Bobby Nalzar, and Nanding Celeste (Andoy Purdoy) as their favorite radiopersonalities. The others included Jane Paredes, Max Andrino, and Virgie Sanchez (a news reporter).

All respondents liked the way their favorite commentators deal with issues and events (mga panghitabo) and how they try to deal with the problems of the poor (problema sa mga pobre). They said that these commentators tend to discuss political issues, especially graft and corruption, fairly and without fear (wala'y kahadlok), that they have no reservations in criticizing the government, and that they are helpful to the poor (matinabangon sa mga pobre) in dealing with their personal sufferings and difficulties (kalisud).

The women of both groups also noted that they like the portions of their program dealing with public service.

2. For TV Watchers

Very few among the doers claimed to have access to battery operated television. However, those who had, noted listening to the news on Channels 3 (The World Tonight, TV Patrol and Noli de Castro's Magandang Gabi Bayan) and 7 (News on 7).

Also, many of the non-doer community members had access to battery operated television. Both men and women liked to watch the news portion on Channels 3 (TV Patrol, Magandang Gabi Bayan) and 7 (Saksi, Ernie Baron's weather report). The women, in particular, stated that they prefer to watch only in the evenings in order to save batteries.

Interestingly, the female non-doers compared to the doers were able to name a number of Filipino drama series on Channel 7 e.g., Kadenang Kristal, Mara Clara, Villa Quintana, and Milyonaryong Mini).

3. For Newspaper Readers

Newspapers (i.e., The Philippine Star) were mentioned as being read only by one Santa Rosa male doer who buys them on the "mainland" when he goes there daily to work.

- **ANALYSIS**

It is not surprising to note that the battery-operated radio, among any other medium of communication, is the most commonly available to both doers and non-doers in Barangays Sabang and Santa Rosa. This points to the fact that it is what most residents can readily afford to buy given their meager income, even in some areas that have electricity.

Doer and non-doer community members both do understand the need to keep abreast of current issues and events. For radio listeners, community members feel a sense of gratification when they are able to listen to radio commentators who aggressively deal with political issues and corruption. This is an indication that they view their status in the country as akin to being helpless, hence, they feel that they need people who can protect and stand by them. But no commentators, apparently address crucial environmental issues in which the listeners are themselves involved.

Listening/ watching soap operas is a favorite activity of most females, especially the non-doers. The women are able to vicariously situate themselves in theatrical roles which they feel are, or could be, similar to their own. They empathize with the leading characters (e.g., a poor man or woman deprived from his/her basic human rights, a battered wife, a physically and emotionally abused child,...) portrayed by their favorite actors and actresses.

The challenge for the environmental education campaign here is to twist the plots of such dramas in an environmentalist direction without removing the dramatic themes and value which gather the listeners' attention.

Table 9. Frequency Distribution of the Sample of Community Members, by Doers and Non-Doers, Barangay, Sex, and Selected SocioDemographic Characteristics.

Selected SocioDemographic Characteristics	DOERS							NON-DOERS						
	SABANG			SANTA ROSA			Total	SABANG			SANTA ROSA			Total
	Male	Female	N	Male	Female	N		Male	Female	N	Male	Female	N	
	n=6	n=7	13	n= 6	n= 5	11	24	n=6	n=7	13	n=5	n=9	14	27
1. AGE GROUP														
21-30	1	-	1	-	-	-	1	2	-	2	1	1	2	4
31-40	1	3	4	1	2	3	7	1	4	5	-	3	3	8
41-50	2	1	3	3	1	4	7	1	3	4	1	2	3	7
51-60	1	2	3	1	1	2	5	2	-	2	1	2	3	5
61-70	-	1	1	1	1	2	3	-	-	-	2	1	3	3
71+	1	-	1	-	-	-	1	-	-	-	-	-	-	-
Mean Age (both sexes) = 45														
2. MARITAL STATUS														
Single	1	-	1	-	-	-	1	1	-	1	-	-	-	1
Married	5	7	12	6	5	11	23	5	7	12	5	9	14	26
3. HIGHEST LEVEL OF SCHOOLING														
No schooling	1	-	1	-	-	-	1	-	1	1	-	-	-	1
Elementary grades (1-5)	-	3	3	1	-	1	4	1	4	5	3	3	6	11
Finished elementary	3	-	3	-	-	-	3	3	-	3	2	4	6	9
Secondary level (1-3)	1	3	4	1	1	2	6	-	1	1	-	1	1	2
Finished secondary	1	-	1	1	-	1	2	2	1	3	-	1	1	4
1-3 years college	-	-	-	1	1	2	2	-	-	-	-	-	-	-
Finished college	-	1	1	2	2	4	5	-	-	-	-	-	-	-
Master's Degree	-	-	-	-	1	1	1	-	-	-	-	-	-	-
Mean = 1st yr. HS (both sexes)														

Selected SocioDemographic Characteristics	DOERS							NON-DOERS						
	SABANG			SANTA ROSA			Total	SABANG			SANTA ROSA			Total
	Male	Female	N	Male	Female	N		Male	Female	N	Male	Female	N	
n=6	n=7	13	n= 6	n= 5	11	24	n=6	n=7	13	n=5	n=9	14	27	
4. LENGTH OF STAY IN THE BARANGAY														
5-10	-	1	1	-	-	-	1	-	1	1	1	2	3	4
11-20	-	3	3	-	1	1	4	1	-	1	-	-	-	1
21-30	2	-	2	-	-	-	2	3	-	3	-	3	3	6
31-40	-	1	1	1	1	2	3	-	4	4	-	2	2	6
41-50	2	1	3	3	1	4	7	1	2	3	1	2	3	6
51-60	1	-	1	1	1	2	3	1	-	1	1	-	1	2
61+	1	1	2	1	1	2	4	-	-	-	2	-	2	2
5. PLACE OF ORIGIN														
Olango Island	6	6	12	6	5	11	23	5	6	11	4	5	9	20
Samar	-	1	1	-	-	-	1	-	-	-	-	-	-	-
Bohol	-	-	-	-	-	-	-	1	-	1	1	1	2	3
Masbate	-	-	-	-	-	-	-	-	-	-	-	3	3	3
Carcar, Cebu	-	-	-	-	-	-	-	-	1	1	-	-	-	1

GreenCOM Study, Olango Island, Lapu-Lapu City, May 1996.

Table 10. Frequency Distribution of the Sample of Community Members, by Doers and Non-Doers, Barangay, Sex and Primary Occupations.

PRIMARY OCCUPATIONS	DOERS					NON-DOERS					Total
	SABANG		SANTA ROSA		N	SABANG		SANTA ROSA		N	
	Male n= 6	Female n=7	Male n=6	Female n=5		Male n=6	Female n=7	Male n=5	Female n=9		
None	-	4	-	1	5	1	4	-	2	7	12
Fisherman	2	-	1	-	3	3	-	1	-	4	7
Shell-Stringing	-	2	-	-	2	-	-	-	2	2	4
Tricycle Driver	1	-	-	-	1	-	-	2	-	2	3
Teacher	-	-	1	2	3	-	-	-	-	-	3
Farmer	-	-	1	-	1	-	-	1	1	2	3
Fish Vendor	-	-	-	-	-	-	2	-	1	3	3
Shellcraft	-	-	-	1	1	-	-	-	1	1	2
Eatery	1	-	-	-	1	-	-	-	-	-	1
Carpenter	1	-	-	-	1	-	-	-	-	-	1
Swine Raiser	-	-	-	-	-	1	-	-	-	1	1
Catholic Lay Minister	1	-	-	-	1	-	-	-	-	-	1
Buy and Sell Chicken	-	-	-	-	-	1	-	-	-	1	1
Buy and Sell	-	-	-	-	-	-	1	-	-	1	1
Dive Guide	-	-	1	-	1	-	-	-	-	-	1
Aquarium Fish Collector	-	-	1	-	1	-	-	-	-	-	1
Barangay Secretary	-	-	1	-	1	-	-	-	-	-	1
Barangay Police	-	-	-	-	-	-	-	1	-	1	1
Middlewoman	-	1	-	-	1	-	-	-	-	-	1
Government Employee	-	-	-	1	1	-	-	-	-	-	1
Laundry Woman	-	-	-	-	-	-	-	-	1	1	1
Sari-sari Store	-	-	-	-	-	-	-	-	1	1	1
TOTAL	6	7	6	5	24	6	7	5	9	27	51

GreenCOM Study, Olango Island, Lapu-Lapu City, May 1996.

Table 11. Frequency Distribution of the Sample of Community Members, by Doers and Non-Doers, Barangay, Sex, and Secondary Occupations.

SECONDARY OCCUPATIONS	DOERS					NON-DOERS				Total	
	SABANG		SANTA ROSA		N	SABANG		SANTA ROSA			N
	Male n= 6	Female n=7	Male n=6	Female n=5		Male n=6	Female n=7	Male n=5	Female n=9		
None	4	5	4	1	14	6	7	2	4	19	33
Shell-Stringing	-	2	-	-	2	-	-	-	2	2	4
Fishing	1	-	-	-	1	-	-	1	1	2	3
Teacher	-	-	-	2	2	-	-	-	-	-	2
Shell Gleaning	-	-	-	1	1	-	-	-	1	1	2
Chief Investigator	1	-	-	-	1	-	-	-	-	-	1
Boatman	-	-	1	-	1	-	-	-	-	-	1
Aquarium Fish bagger	-	-	-	-	-	-	-	1	-	1	1
Fish Vendor	-	-	-	-	-	-	-	-	1	1	1
Vendor	-	-	-	-	-	-	-	1	-	1	1
Government Employee	-	-	1	-	1	-	-	-	-	-	1
Lampshade Maker	-	-	-	1	1	-	-	-	-	-	1
TOTAL	6	7	6	5	24	6	7	5	9	27	51

GreenCOM Study, Olango Island, Lapu-Lapu City, May 1996.

Table 12. Community Problems Mentioned by Community Members in Barangay Sabang.

COMMUNITY PROBLEMS IN BARANGAY SABANG	DOERS			NON-DOERS			TOTAL	RANK
	Male	Female	N	Male	Female	N		
no electricity	2	7	9	3	4	7	16	1
rampant theft of livestock	3	4	7	2	4	6	13	2
lack of livelihood opportunities	2	1	3	4	2	6	9	3
no proper roads	2	5	7	1	--	1	8	4
unemployment	1	5	6	1	--	1	7	5
lack of toilet facilities	1	--	1	--	4	4	5	6
lack of medicines	--	2	2	--	2	2	4	7
alcoholism/drunkenness	--	1	1	--	3	3	4	
access to water	--	3	3	--	--	--	3	8
unfinished chapel	--	2	2	--	--	--	2	9
no market place	1	--	1	--	--	--	1	10
destruction of marine resources	--	1	1	--	--	--	1	
gossip/backbiting	--	1	1	--	--	--	1	
lack of schools	--	1	1	--	--	--	1	
lack of education	--	1	1	--	--	--	1	
dilapidated community stage	--	--	--	1	--	1	1	
scarcity of fish	--	--	--	1	--	1	1	
high prices of commodities	--	--	--	1	--	1	1	
rampant gambling	--	--	--	--	1	1	1	
Total							80	

GreenCOM Study, Olango Island, Lapu-Lapu City, May 1996.

Table 13. Community Problems Mentioned by Community Members in Barangay Santa Rosa.

COMMUNITY PROBLEMS IN SANTA ROSA	DOERS			NON-DOERS			TOTAL	RANK
	Male	Female	N	Male	Female	N		
high prices of commodities	—	—	—	—	8	8	8	1
lack of toilet facilities	1	5	6	—	2	2	8	
lack of access to water(no MCWD)	3	2	5	—	—	—	5	2
lack of education	2	1	3	—	1	1	4	3
no proper roads	1	—	1	2	1	3	4	
unemployment	1	2	3	—	—	—	3	4
no electricity	3	—	3	—	—	—	3	
no college or vocational schools	2	—	2	—	—	—	2	5
small road leading to coastway	2	—	2	—	—	—	2	
health and sanitation	1	1	2	—	—	—	2	
economic problems	—	1	1	—	1	1	2	
poverty	—	1	1	1	—	1	2	
lack of communication facilities	1	—	1	—	—	—	1	6
lack of law enforcers	1	—	1	—	—	—	1	
illegal extraction of white sand	1	—	1	—	—	—	1	
lack of hospitals	1	—	1	—	—	—	1	
lack of proper drainage	1	—	1	—	—	—	1	
no livelihood programs	1	—	1	—	—	—	1	
untethered livestocks	—	—	—	—	1	1	1	
dynamite fishing	—	1	1	—	—	—	1	
family upbringing	—	1	1	—	—	—	1	
rampant gambling	—	1	1	—	—	—	1	
no market place	—	—	—	—	1	1	1	
lack of education	—	—	—	—	1	1	1	
lack of medicines	—	—	—	1	—	1	1	
alcoholism/drunkenness	—	—	—	1	—	1	1	
gossip/backbiting	—	—	—	1	—	1	1	
land problems	—	—	—	1	—	1	1	
Total							56	

GreenCOM Study, Olango Island, Lapu-Lapu City, May 1996.

Table 14. Community Members' Characterization of Factors That May Help or Hinder Their Involvement.¹

Factors	Characterizations				
	Crucial	Important	Helpful	Not Relevant	Barrier
1. Values, beliefs, practices	15	28	8	1	2
2. Understanding of environmental problems	12	21	21	--	--
3. Existence of environmental laws/ordinances	21	9	18	--	6
4. Consistent enforcement of environmental laws/ordinances	22	14	16	--	2
5. LGU Support	17	17	18	1	1
6. Access to appropriate technology	14	15	23	1	1
7. Access to technical support and training	12	13	19	7	2
8. Access to credit	12	14	19	7	2
9. Personal investment in terms of time, money and materials	13	23	17	1	--
10. Approval/support from family and influential persons	12	20	18	3	1
11. Maintenance of smooth interpersonal relationships in the community	10	25	15	--	4
12. Increased family income	16	13	10	2	1
13. Traditional folk beliefs	4	4	16	14	16

GreenCOM Study, Olango Island, Lapu-Lapu City, May 1996.

¹ In the face of indecision, some members entered more than one rating for a particular factor. Thus, the figures here will not often total the same as the number of respondents in the community members' category.

Table 15. Summary of Trends by Community Members of the Characterization of Factors That Could Help or Hinder Their Involvement.

Factors	Summary of Trends				Results
	Doers (n=24)	NonDoers (n=27)	Males (n=23)	Females (n=28)	
1. Values, beliefs, practices	I *	I	I *	I *	I *
2. Understanding of environmental problems	I *	I	I	I	I
3. Existence of environmental laws/ordinances	I *	I	I *	I	I
4. Consistent enforcement of environmental laws/ordinance	I *	I	I	I *	I *
5. LGU Support	I	I *	I *	H	I
6. Access to appropriate technology	I *	I	I	H	I
7. Access to technical support and training	I	H	I	H	H
8. Access to credit	H	I	I	H	I
9. Personal investment in terms of time, money and materials	I	I *	I	I *	I
10. Approval/support from family and influential persons	H	I *	I	I *	I *
11. Maintenance of smooth interpersonal relationships in the community	I	I	H	I	I *
12. Increased family income	I	I *	I *	I	I *
13. Traditional/folk beliefs	NR	NR	NR	NR	NR

GreenCOM Study, Olango Island, Lapu-Lapu City, May 1996.

* Factors which appear to be the most important based on the computed average.

C= Crucial, I = Important, H = Helpful, NR = Not Relevant, B = Barrier

CHAPTER FIVE

The Olango Island Wildlife Sanctuary

The Olango Island Wildlife Sanctuary is a 920-hectare mudflat situated at the southwest end of Olango Island. This is bounded by two peninsulas at the western and eastern sides of the island and a number of small islands situated south, east, and west of the sanctuary. These are Hilutungan, Caohagan, Pangan-an, and Sulpa.

In 1987, a team of researchers from the Asian Wetlands Bureau (AWB) discovered the location to be a feeding and roosting area of a wide variety of migratory birds originating from Siberia, Northeastern China, and Korea. Here they would rest for a few months (beginning August of every year) before proceeding on their journey. This discovery prompted AWB to lobby with the local government of Lapu-Lapu city and the national government, through the DENR, to have the area declared as a protected zone.

In 1992, the national government responded through the promulgation of Presidential Decree 903 declaring the sanctuary as a protected area. This was further strengthened by the passage of the National Protected Areas System (NIPAS) Law.

Together with 80 other countries, the Philippines became a signatory to the RAMSAR treaty (Convention for Protecting Wetlands of International Importance Especially as Waterfowl Habitat). This led to the declaration of the Olango Island Wildlife Sanctuary as a "RAMSAR Site" on November 8, 1994, elevating the sanctuary to a site of international importance.

**VIEWS OF THE SANCTUARY:
OLANGO ISLAND COMMUNITY MEMBERS**

The Purpose of the Sanctuary

Male and female doers had much to say on the purpose of the sanctuary saying that here, "birds are not to be killed," "it was established for tourists to come to Olango" and that "it is where you can find birds coming from China as they stop here for food since there is plenty of food in this area." One group added that the sanctuary was "discovered by foreigners ... reported it to the government... which then declared the area as a sanctuary so that birds can be protected," and "to attract tourists."

Non-doers of both sexes on the other hand had very sparing answers to the question simply saying that "it is a place for the birds" or "it gives beauty to our island." Two of these non-doer groups said that they do not know and that they simply remember that "the DENR came here and told us not to touch the birds" and that "it was Sr. Ester Paredes who initiated it first."

It is worth noting that none among the eight groups mentioned that the sanctuary protects red-listed or rare birds in danger of becoming extinct because of the loss of habitats like the sanctuary. Obviously, there has not been a thorough education campaign on this issue. This is also borne out by the fact that no one is quite clear on when the sanctuary was actually established.

From the answers elicited it is clear that doers exhibit a deeper awareness of the sanctuary's purpose than non-doers. Genderwise, there is no appreciable difference in perceptions.

Personal Opinions About the Sanctuary

The answers elicited from this question generated a wide gamut of opinions that show no distinctions between doers and non-doers. However, at least two male groups of doers were cynical and suspicious about the real intention of the sanctuary saying, "Well, if it is already declared a sanctuary, then I guess there's nothing that residents can do about it." Or, "I do not believe that foreigners would invest their money in the sanctuary if they do not have something in mind.... they want these birds to stay there to attract more tourists. Any capitalist who would come to the Philippines could think of investing in the sanctuary because they are sure of the benefits they could reap in the future."

Aside from the observed cynicism, some respondents in at least two groups exhibited a suspicion that once the sanctuary becomes fully operative, "We will be ejected from the area" or "we will no longer be allowed to go there.... as the whole place will be guarded."

Some individuals in practically all groups were openly against the sanctuary saying that, "it affects my livelihood," or "we are not free to use the resources of our place."

On the other hand, there were also responses that were positive for the sanctuary saying that "It is proper to make some areas of Olango a sanctuary because this can attract tourists to come to our place and generate jobs," "there are many prohibitions in the sanctuary but these are justified since they are part of preserving nature," or "I think it's a good law because ever since the area was declared a sanctuary, you have not been able to see anyone killing the birds....because the birds are protected and trees as well."

Finally some exhibited a note of resignation without necessarily being for or against the sanctuary saying, "Since the sanctuary is already there, I have no qualms about it...I will just agree with whatever laws there may be."

These personal opinions across groups and within groups clearly illustrate a pronounced ambivalence on the issue of the sanctuary. There are clearly no distinctions to be made between doers and non-doers or between sexes. However, what is demonstrated from these responses is the apparent misinformation of the respondents on the issue as observed from their fear of eviction or that foreign capitalists are behind the establishment of the sanctuary for pecuniary considerations. The issue of possible reduction of opportunities for livelihood is also clearly underlined.

Even among those who were openly in favor of the sanctuary none offered the categorical opinion that the birds need to be protected or to have roosting sites as the primary reason for the existence of the sanctuary. Instead, they wander off to the more abstract reason of "protecting nature" or that tourism can generate income for the locals.

The Cebuano Term for "Sanctuary"

No focus-group discussant offered a Cebuano term equivalent for sanctuary other than the Visayanized English for sanctuary which is sangtuwaryo.

This, perhaps, may be an indication that the concept of sanctuary does not exist in the local culture and could be one reason why it is difficult to get the concept across to the local population. The prevailing sentiment was that people's interest should come first before those of the birds. This was articulated in a question asked by one discussants;" "Why do birds need to be protected at the expense of people's means of livelihood?" This observation is particularly relevant when we consider the livelihood pressures that islanders are subjected to as resources continue to diminish and as more and more people demand a share of them.

Laws or Ordinances Regarding the Sanctuary

Doers and non-doers of both sexes enumerated specific prohibitions within the sanctuary. Most prominently mentioned were:

1. "ang pagpamusil/panirador ug langgam (the killing of birds);"
2. "pagpamutol ug bakhaw/tongki (the cutting of mangroves);"
3. "pagpanudsud ug sigay (the gathering of cowries);" and
4. "paggamit ug pukot nga gagmay ug mata (the use of fine-mesh gill nets [pukot])."

No opposition to these prohibitions were mentioned except in one group of female non-doers where an open negative reaction was elicited: "These laws are not fair (dili makatarunganon) because the people depend on the sanctuary for their livelihood."

This statement is debatable because it is not only within the bounds of the sanctuary that marine resource collection takes place. Indeed, one doer respondent said that there are other areas where the same gleaning activities can be pursued. This negative reaction may have been a spontaneous indication of a latent resentment towards interference from outsiders.

It is notable that at least in one group of male doers, some ventured to say that cutting of mangroves is prohibited as they are "where fishes stay and birds eat some small fish." This is suggestive of a higher level of awareness of the interrelationships at play in the ecosystem.

How Big is the Sanctuary

None of the respondents could say exactly how extensive the sanctuary is. Some guesses were given, though, ranging between 60 to 93 hectares. What was however made clear was that it "covers a wide area." (The area in fact is 920 hectares.)

This is indicative of the inadequacy of information dissemination that has possibly given rise to much misinformation among the locals.

Responsibility for and Effectivity of Enforcing Sanctuary Laws

All groups placed responsibility squarely on the Local Government Officials, making mention, especially, of the mayor, the barangay captains, the barangay police, and even the Bantay Dagat. Prominently mentioned also was Sister Ester (of the Save Nature Society) who was seen to be active in enforcing the prohibitions in the sanctuary.

Similarly, all groups agreed that the enforcement of the laws regarding activities in the sanctuary have been very effective citing for instance, that "you cannot see anyone killing birds anymore," "because authorities (local) now reprimand (badlong) people...," and "there are no more people cutting down trees."

Indeed, these groups cited that there are some exceptions since every now and then a few people do manage to violate laws in the sanctuary. They reasoned that necessity has caused them to willfully violate these prohibitions. This was also a view shared by the respondents which is aptly summed up thus: "You cannot prevent people from gathering shells because it is a source of income and food for their families."

It is observed from these responses that effectiveness of enforcement is equated with refraining from violating regulations but not necessarily with proactive undertakings that

positively enhance the sanctuary's ecosystem.

In this respect, no differences are noted between doers and non-doers as well as between sexes.

Obstacles and Barriers to Enforcement

The most commonly perceived obstacle by these groups was that these laws are seen as inhibiting the people's right to livelihood, hence, survival.

Interestingly, at least one group (male doers) saw that some local officials are not consistent enough in implementing the law. The mayor himself was seen as "not strong enough to impose the law." Although the words "not strong enough" were used, this can be taken to mean a lack of political will on the part of LGU officials probably due to patronage or to ensure political survival.

These responses are to be construed as real concern for a most basic right - survival. This gives us a window into the islander's psyche to see that where survival is concerned, people (including those officially entrusted with enforcing the law) tend to look the other way. This is a dominant theme across all groups.

Organizations That Can Best Promote the Interests of the Sanctuary

Both male and female doers suggested the DENR, "the government," and "the Church." Conversely, the non-doers had nothing to say on this question.

This is an indication that doers are more familiar with sources of services and assistance that may be availed of by the community while non-doers may be unknowledgeable or unsure about them.

Advantages to Having a Sanctuary

Doers saw positive benefits that can come out of the sanctuary as illustrated in the following quotes:

"Kon ang mga turista mo-anhi sa among isla, ma-arang-arang ang pangihabuhi sa tanan (When tourists come to the island, life will be easy for everyone)."

"Mo-umentong gagmay nga negosyo..., ang imong paliton ug P 1.00, mahimo nga mahalin ug P 20.00 (Smalltime businessman will be able to earn a lot, e.g., if you buy something at P1.00, you can sell it for P 20.00)."

"Mapanalipdan ang mga langgam (The birds are protected)."

"Ang mga kahoy sa sangtuwaryo makapanalipod sa among balay sa bagyo (The trees in the sanctuary can protect our houses from typhoons)."

"Bisan pa sa kalisud nga nahatag kanamo sa sangtuwaryo, nalipay lang gihapon ako kay nakakita ko ug lain-lain nga mga tawo (Despite the difficulties brought about by the sanctuary to us, I am happy because I get to see other people)."

"Ang atong mga bisita dinhi makatabang sa atong pangita. Nahinumdom pa gani ako nga ilang gipalit ang tanan nakong chandeliers nga nabuhat. Mao nga ang sangtuwaryo makabuhat ug pangita (These visitors can help us augment our income.... I can recall the time when they bought all the shell chandeliers I had made. Thus the sanctuary can create (generate?) income)."

Only one group among the doers (male) expressed some doubts about benefits saying, "We are not aware of any benefits" or "For now, there are no benefits yet.... I don't know about the coming years."

Similarly non-doers identified positive benefits that can come out of the sanctuary, suggesting that as "foreigners come to our place, tricycle drivers can make money.. ." or "the various kinds of birds can give beauty to our island."

These responses reveal a streak of opportunism and almost all translate benefits as tangible income for the islanders. Doers appear to have a broad perspective of benefits by considering that a wide range of people will enjoy a boom in business. On the other hand, non-doers only see tricycle drivers as benefiting the most. Apparently the other opportunities that come can with the tourist trade are lost on them.

One cannot, however, help but notice a note of skepticism or cynicism that runs through all groups. This is evident from such remarks as "I think the sanctuary is only for tourists and not for us residents of Olango Island."

It is perceived that such benefits can only be realized after a long time. For whatever it may indicate, the female non-doers of Sabang did not give a verbal response to the question but rather, after some pause, greeted the question with laughter.

Disadvantages to Having the Sanctuary

All groups saw the prohibitions put forth by the ordinances around the sanctuary as the only disadvantages that people will have to put up with. These were aptly summed up by such statements as, "Our livelihood is at stake;" "We are deprived of gathering sea shells."

One doer and one non-doer group (both females) did not perceive any disadvantages. Indeed, "there are also other places aside from the sanctuary where we can gather seashells."

While there is a shared view of the disadvantages that accrue with the sanctuary, doer groups tend to weigh disadvantages vis-a-vis advantages and to look for alternatives.

This is evident from doer statements as “it is affecting some people’s livelihood,” or “the livelihood of the people....that’s why they cannot see the meaning of putting up the sanctuary.” Conversely non-doer groups often use the first person in addressing this question saying, “We are deprived of gathering sea shells; where shall we go to obtain food,” or “We cannot get fish from the sanctuary.” Perhaps this has to do with the fact that most of the doers do not have a heavy dependence on the nearshore marine resources as a means of subsistence. Conversely, non-doers say that they themselves will feel the disadvantages, which implies that they have a heavy dependence on this resource.

There appear to be no difference in perceptions, genderwise.

LGU, NGO, PO, and Community Moves to Make People Accept the Sanctuary

The general perception in this regard was that not much has been done by all four sectors other than reprimanding (badlong) violators. Only the SNS (of Sr. Paredes) was mentioned as promoting a better understanding of the sanctuary. Barangay officials have not been very active in this regard and have not really apprehended (dakop) violators. Given the prohibitions that come with the sanctuary, it was felt that the LGU should make moves to promote alternative means of livelihood.

By these responses, we can easily conclude that the general populace on the island do not see the relevance of the sanctuary to their lives, judging by the consensus of the group that very little positive activity is being undertaken to enhance the people's understanding of it.

Knowledge of Development Plans for the Area

The male doer groups were not very categorical in their answers, passing on rumors about impending Japanese investments. On the other hand, female doers and all of the non-doers were very definite in saying that there are plans to develop resorts and hotels on and around Olango. They made mention of an adjacent island already purchased by investors and soon to be developed.

Most were in favor of such development as long as they generate jobs and alternative livelihood opportunities for the islanders. They voiced fears, however, that such development would further restrict their access to the sea and its resources, as hotels tend to fence off their properties and prevent access to adjacent areas.

Also, more people will be forced to engage in risky deep-sea fishing as restrictions in nearshore areas are expanded.

These groups expressed some ambivalence and uncertainty about the impact these developments may have on the sanctuary. Some predicted that pollutants might be released through improper waste disposal. Also, so many people visiting the sanctuary and staying so close "will scare (away) the birds (maidlas ang mga langgam)."

These reactions indicate that there is a general acceptance of development on and around Olango for as long as it will translate to improved opportunities for livelihood and that for this to be realized, the birds should not be disturbed in the process as the sanctuary will attract the tourists in the first place.

The community's responses obtained for this section are summarized thus:

1. The sanctuary is already taken as a fait accompli and therefore people are expected to respect it.
2. Most people do not understand the rationale for the sanctuary especially the priority given to birds over people.
3. The sanctuary is generally seen as an inhibiting factor in the pursuit of day-to-day livelihood activities of marginal fisherfolk.
4. Laws and ordinances are seen as necessary in order to sustain the thrusts of the sanctuary. However, enforcement is seen as lackadaisical due to cultural inhibitions and lack of political will of those entrusted to implement these.
5. On the whole, advantages are perceived to have the edge over disadvantages in terms of possible new sources of income that may be generated from the tourist trade. It must be stressed, however, that these advantages are of the material kind rather than for a more sublime purpose of enhancing environmental concerns. It is generally felt also that it will be some time before concrete advantages are realized. In the meantime they have to put up with the limitations to their livelihood imposed by the sanctuary.
6. The general consensus is that future development projects on and around Olango Island can bring direct benefits to islanders in terms of employment opportunities as well as informal opportunities for income. In this regard, they consider the sanctuary as a sort of magnet that can attract more visitors to these resorts. There is however, apprehension that these development projects could disturb the sanctuary as well as to further delimit their access to marine resources. The possibility of improper waste disposal is also regarded as a very real threat.

Differences Between Doers and Non-Doers

Doers seem to be more vocal and exhibit a wider range of perceptions than non-doers. They tend to look at consequences as lying beyond the individual and parochial levels and to affect the community as a whole. They also exhibit have a deeper understanding of the sanctuary as a concept. Indeed, this group appears to be more emphatic in support of development on Olango as perhaps it is felt that they would have first crack at possible benefits.

Non-doers, on the other hand, seem to have a limited and quite parochial view of the sanctuary's impact on their lives. This impact is equated in terms of how it affects the individual rather than the community as a whole. Also, there is the greater concern for the short-term benefits rather than hazy long-term advantages which still have to be demonstrated.

VIEWES OF THE SANCTUARY:

LAPU -LAPU CITY OFFICIALS AND OPINION LEADERS

Awareness of the Bird Sanctuary

Both the Lapu-Lapu LGU officials and opinion leaders exhibited a well-informed awareness of the purpose for which the bird sanctuary was established, although not all of the respondents (Both LGU and Opinion Leaders) have personally visited the site. Only one respondent (OP8 who heads the foundation that monitors the sanctuary), however, can relate the beginnings of the sanctuary with authority, citing the NIPAS Law (National Integrated Protected Areas System) as having made possible the activation of the sanctuary. Other respondents gave various dates for its establishment, ranging from 1986 to 1992. Most respondents were too far off the correct year (1992) when Pres. C. Aquino proclaimed the sanctuary a protected area.

Cited by respondents as the purpose of the sanctuary were:

"to provide a space to stay"

"a habitat"

"to rest for a certain period"

"to provide a haven"

"to provide nesting areas"

"to rest temporarily from the climate in their places of origin"

"to take food"

Interestingly, one metaphorized the birds as tourists saying, "They are on vacation here from winter in their countries".

While most respondents expressed favor over the sanctuary, citing benefits like "attract tourists," "educate people to preserve wildlife," "contribute to environmental preservation," OP1 seemed to have guarded opinions on the sanctuary. She said that "there is no proper understanding with regard to the purpose of the sanctuary.... not understood by the people, even myself: why the birds must be protected and given preference over people in this area..."

The Cebuano Equivalent of "Sanctuary"

Three officials and eight opinion leaders could not offer a Cebuano term that approximates or translates to "sanctuary." The general tendency was to Visayanize the English term as sangtuwaryo.

Nevertheless, some terms were offered as equivalents such as pahulayan (place of rest), dangpanan (a place or even person to which/whom one resorts to for refuge), Puluy-anan (residence), and tagu-anan (hiding place).

The difficulty with which respondents searched for an appropriate equivalent of the word may indicate that the concept of "sanctuary" is alien to this culture and the native idea of the "commons" (komun, para sa kadaghanan) conflicts with it. This harks back to an experience which USC researchers faced back in 1987 in relation to a water conservation project on the same island. When the USC project proposed to close off an inland bay to minimize saltwater intrusion, it was met by strong opposition by the islanders arguing that their source of water has always been fresh and that "God will provide."

The suggested terms kadangpan or dangpanan are usually taken in the context of a person to whom one seeks refuge or alleviation from personal difficulties and hardly as a place

(unless taken in the context of one who is a fugitive).

Nonetheless, these two terms appear to be the best choices for "sanctuary." Or, perhaps, sangtuwaryo is the only word that captures the meaning of the English word for "sanctuary" which comes from a Latin origin and gave rise to "sanctify" and "saints." None of the Cebuano words have such sacredness implied in their etymologies. A sanctuary was originally a place of safety because it was in a church or in a holy place protected by a saint. This fact has been lost in the English-speaking environmentalist's idea of "sanctuary," which has been desanctified. With this desanctification, most of the force has unintentionally been taken away from the word "sanctuary," in this context, its mystical power to protect. Perhaps it is time to put the protection of the birds under saints like San Vicente (of Poo or more recently, Brgy. San Vicente) and San Isidro (of Brgy. Sabang).

Laws and Ordinances Regarding the Sanctuary

Opinion leaders were able to cite specific laws and ordinances that relate to the establishment of the sanctuary (NIPAS, Pres. Proclamation 1831, PD 704, Ordinance NO. 8, and RDC Executive Order No. 53). On the other hand LGU respondents were unable to cite specific laws, mentioning vaguely instead "a presidential proclamation" or "a law signed by Mrs. Aquino in 1988 or 1989."

Nonetheless, all were aware that there are now in place laws that regulate all human activities in the sanctuary and further agree that it is the city government that should enforce these laws.

It was the general consensus of both groups of respondents that laws and ordinances are observed and followed in the sanctuary. It was added, however, that this should not be taken to mean that there is general acceptance of the sanctuary.

It was perceived that violations are still committed both by locals (for food) and by visitors from Mactan and Cebu City (game hunting).

Of the total number of respondents, seven were able to give the correct hectareage of 920.

We can fairly conclude that there appears to be a higher level of awareness among opinion leaders than LGU officials regarding the sanctuary, as a whole, on the issue of laws and effectivity of enforcement.

Barriers to the Acceptance of the Sanctuary

Twelve of 20 respondents saw no obstacles to the successful operation of the sanctuary, and these were almost equally divided between opinion leaders and influentials.

On the other hand, the other eight respondents saw the following as obstacles:

1. The failure to effectively communicate to the people the rationale behind the sanctuary;
2. The unclear regulations regarding the collection of marine resources in the area;
3. Applicants for fishpond concessions;
4. Lack of personnel to effectively monitor the area; and
5. Conflict of interest between the sanctuary and encroaching development in the area.

They suggest here that LGUs and NGOs must undertake the following interventions directed to residents to make very clear the rationale for the sanctuary and to clear up misconceptions that residents have associated with it (e.g., "that they will be evicted from their domiciles," etc.). A nagging question voiced out by an opinion leader may very well lie at the

bottom of the issue: "Why give priority to birds over people?" Also, it is gleaned from the responses that clear-cut guidelines on the limits imposed for human activity in the sanctuary should finally be issued.

Advantages and Disadvantages That Accrue with the Sanctuary

Economic benefits were mentioned as primary considerations citing that the sanctuary will induce greater tourist traffic that can open up added opportunities for livelihood, both formal (employment in resorts) and informal (cottage industries such as seashell handicrafts).

Both the LGU officials and opinion leaders of both sexes also saw the added advantages of "appreciation of the beauty of migrant birds," "I enjoy looking at the birds and appreciate them," "It is a treasure here," and "protection of endangered species and maintenance of environmental integrity."

These advantages, though, were seen to come about in five to ten years.

Only one among the LGU and four among influentials saw some disadvantages both temporary and long-term.

Mentioned were:

1. "Temporary displacement of people living in salvage areas (zones) because of the influx of development/tourist projects."
2. "This sanctuary area is the only place where people can gather something for food during a kulyada (bad weather)."
3. "Social problems (like prostitution) will occur when tourists come to the area, especially with the establishment of business firms."
4. "Temporary discomfort brought about by restrictions (on activities in the sanctuary)."

Clearly, advantages are seen mainly as translating into economic benefits, suggestive of a general perception that present opportunities on the island are quite limited. This is to be understood also as a major force that could take some pressure off of the marine environment.

On the disadvantage side, most respondents do not see any long-term problems except for the fact that a few see that the influx of tourists could magnify some social ills such as prostitution. One woman's response, that the sanctuary is one place upon which people depend on in times of bad weather to glean for food, is thought-provoking.

On the whole, it may be safe to conclude that respondents see the advantages as outweighing the disadvantages.

LGU, NGO, and PO Activities to Promote the Sanctuary

The activities identified by the respondents were a series of consultations, dialogues, meetings and/or information campaigns held with community members by the City Council with the help of NGOs (most likely the Save Nature Society and the Asian Wetlands Bureau). These were meant to counteract misinformation and soften local objections to the sanctuary. In addition to these, the SNS, with the assistance of the Wild Bird Society of Japan have published materials in Cebuano which are intended to educate children about the sanctuary.

One informant, however, was in a way critical of the way by which these campaigns were conducted. She said that those campaigns focused more on the prohibitions rather than the rationale for the sanctuary's establishment. In her words, "People never understood the "why's." LGUs and NGOs must give information dissemination not only of the plans and laws but the why's."

Proposed Development Plans and Their Probable Impacts on the Sanctuary

Respondents were clearly divided on the issue. Both groups saw development as carrying with it tangible benefits to the people but at the same time expressed real concern about its effects on the sanctuary, as increasing human activity that might disturb and scare the birds away.

One respondent made mention of the Mactan Master Plan which regulates the establishment of infrastructures which may be too close to the sanctuary. Similarly, another one made mention that such establishments may be erected at least 500 meters away from the sanctuary.

Another respondent saw the encroachment of development on the island as tempting landowners to sell their parcels of land to outsiders and eventually displace themselves from their inherited land, adding, "Since people are in need of money, selling of lands has become a practice..."

Summary of Issues

1. The purpose for the establishment of the sanctuary is well-understood by LGU officials and opinion leaders although some expressed reservations regarding the local community's understanding and appreciation of these purposes, for example, the "whys" of protecting birds versus the continuing resource extraction of the people. This is seen as a major obstacle to community acceptance of the sanctuary. While all agree that there have been many dialogues and consultations with the community, it is however felt by most opinion leaders that these have not adequately addressed the core of the issue.

2. The Cebuano term which most closely approximates "sanctuary" is dangpanan or kadangpan.
3. Although roughly one-half of the respondents have not been to the sanctuary, all expressed an awareness of the laws creating the sanctuary as well as the laws regulating human activity therein.
4. Advantages that may be obtained with the presence of the sanctuary are deemed to outweigh the inconveniences that the sanctuary may bring about as these are seen as temporary in nature. Such advantages, however, are generally construed in terms of material economic benefits.
5. The majority of the respondents (especially from among the LGU) view development plans in Olango positively, seeing that this would be the vehicle to bring about economic benefits on the island. However, the consensus is that these should be situated not closer than 500 meters from the sanctuary. A master plan that would strictly monitor such developments is mentioned as having been approved. Also, two resort projects were mentioned as being already in the pipeline (Canton and Alenter). These are to be situated near the opposite east-west ends of the sanctuary and, locals believe, connected by a waterway to be deepened along the northern edge of the sanctuary so that tourists can go back and forth to see the birds. This waterway is bound to damage corals and mangroves.

CHAPTER SIX

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

A. SUMMARY OF FINDINGS

1.0 The Local Government Officials in Cebu City and Lapulapu City

1.1 Perception of Environmental Conditions and Problems

The officials of local Government Units (LGU) in Cebu City and Lapulapu City are aware of the conditions, problems, causes, and severity of the degradation of coastal and upland resources in their respective municipality.

However, the greatest concern among the LGU officials in Cebu City, the "more active" municipality is the deterioration of the upland due to the vanishing vegetative cover. This focus could be explained by the growing concern over the water issue generated by recent multi-sectoral discussions on the need to ensure a sustainable supply of water for residential and industrial uses in this highly urbanized and burgeoning city. On the other hand, the local officials seems to have accepted the fact that the nearshore, polluted by effluents from factories and improper waste disposal for many years, is beyond resuscitation. The coastal waters have long served as commercial seaway for shipping which accounts for the City's trading prominence and are not depended upon as a source of food.

Since Lapulapu City practically has no upland, the LGU officials in the "less active" municipality confine their assessment primarily to the coastal and marine environment of this limestone island. The respondents attributed the depletion of

coastal resources to overexploitation and illegal fishing practices such as dynamite and cyanide fishing and trawl fishing. Despite the fast pace of industrial development in Lapulapu in the last five years, only two respondents made references to the mushrooming industrial estates and subdivisions for causing environmental problems. The fact that the Mactan Export Processing Zone (MEPZ), the hub of industrial development, is not under the jurisdiction of the local government but the Philippine Export Processing Authority could provide an insight to this kind of assessment.

1.2 Knowledge and Enforcement of Environmental Laws and Regulations

Although respondents from both municipalities are familiar with a few national environmental laws, they are more knowledgeable about local environmental ordinances which have been passed in Cebu City and Lapulapu City, respectively. Cebu City LGU officials cited the regulation of sand and gravel extraction, land development, dumping of loose earth to pre-designated sites, treatment of sewage, and organization of the Cebu City Hillyland Resource Development Project. Local ordinances passed in Lapulapu City include the creation of Bantay Dagat (Sea Guards), monitoring pollution in the channel, illegal extraction of corals and sands, and illegal extraction of ground water.

As a matter of fact, both groups pinpointed to existing ordinance in their respective municipality which ran counter to sound environmental management. Lapulapu City is said to allow the conversion of mangrove areas for reclamation while a Cebu City ordinance permits 200 meters on each side of the Transcentral Highway

which falls within the watershed areas for commercial use.

Enforcement of environmental laws/regulations or ordinances was perceived to be weak in both municipalities. The LGU officials in Lapulapu underscored the lack of logistics and coordination on the part of the authorities--Bantay Dagat, the Philippine National Police (PNP) coast guard, the Maritime Police and the LGU, as well as the low level of environmental education among the people. Cebu City officials tend to emphasize the political dimensions of the problem. They decried the lack of political will and conflict of interest among LGU officials on one hand, and the lack of cooperation among community members on the other.

1.3 Perceived Participation in Environmental Activities (Self and Others)

The LGU officials in the two municipalities agree that participation goes beyond appreciating, understanding and analyzing environmental concerns. They place a high premium on concrete actions on the part of the LGU and other sectors of the community including the community members.

Of the nine (9) criteria developed by GreenCOM, both groups confirmed that their respective LGU has undertaken the following six (6) activities--disseminated information, passed environmental ordinance, allocated budget, held public hearings, established monitoring system and resolved conflicts.

While Cebu City has created the City Environment and Natural Resources Office (CENTRO) as mandated by the Local Government Code, Lapulapu has not done so though it has organized the Bantay Dagat. Furthermore, Cebu City has been implementing the Cebu City Hillyland Resource Management and Development Project

(formerly the Central Cebu Hillyland Development Project) in the upland areas. Neither municipality mentioned the creation of Forest Guards in their respective locality.

The general perception among the respondents in these two municipalities is that there are offices in government which are directly mandated to oversee environmental concerns. Thus the government was perceived to have the primary responsibility over the environment. As LGU officials, they tend to limit their response within their respective area of responsibility or their official functions. As individuals or by themselves, both groups admitted that there were hardly any attempts on their part to "meddle" in concerns unless their official capacity called for it.

The LGU and the NGOs were perceived by both municipalities to be more active than other sectors in society which include the academe, business, civic and religious groups. This is even more pronounced in Cebu City where GO-NGO collaboration in social service delivery has been undertaken by the LGU. However, respondents from the two cities have a hazy idea about people's organization (POs) in their locality and tend to perceive the business sector in the negative light. Both groups pointed out the need to strengthen linkage among concerned sectors.

1.4 Behaviors Expected of Self and Others

Cebu City respondents expected the city government to address the problem of flooding, to regulate pollution of industries, and to allocate a bigger budget for environment. The Lapulapu City government was expected to hire an environmental officer, establish a monitoring system, and allocate budget to sustain environmental projects.

The officials in the "more active" municipality has higher expectations from community members in a cosmopolitan setting. Community members were expected to be self-motivated working for a higher goal. Self-disciplined, community members must take it upon themselves to attend to environmental activities, work with the NGOs in pursuing such activities, and be concerned with the common good.

Those in the "less active" municipality expected community members to support LGU programs, disseminate information, and campaign against indiscriminate dumping of garbage.

1.5 Current Knowledge, Beliefs and Practices

The respondents were able to identify environment and/or environmentally-related projects and activities in their respective locality. In Cebu City, the activities vary from reforestation to watershed conservation management, solid waste disposal and environmental advocacy. Activities undertaken in Lapulapu City are mainly concerned with mangrove reforestation, coral rehabilitation, and the bird sanctuary in Olango.

1.6 Perceived Benefits

Perceived benefits reflect the specific needs of respective locality. The LGU officials from the two municipalities projected a better environment. Cebu City respondents looked forward to increased agricultural productivity apparently in the upland development project, continuous water supply, and a balance between the environment and controlled development. Lapulapu City officials expected more income from eco-tourism, livelihood opportunities for its fisherfolk, and better health, and sanitation.

1.7 Perceived Barriers

Cebu City and Lapulapu City respondents pointed out that the greatest barrier is posed by cultural factors such as attitude of the people, apathy, misconception, non-cooperation and social pressure. Budgetary constraints also hampered environmental management efforts.

Both groups were concerned about the disadvantages that would be experienced by the LGU itself and the business sectors once environmental management is in place. Cebu City officials were apprehensive that a slow down in industrial growth would reduce the income of the city while Lapulapu City officials contended that environmental management would require more budgetary allocation from the LGU to implement and monitor environmental programs. At the same time, the former claimed that business would have to increase its operating cost thereby reducing income. The latter asserted that the business sector could no longer do as they please (with their development projects) since they would have to be subjected to environmental rules and regulations.

Furthermore, the LGU officials of Cebu City lamented that in most instances, LGUs give low priority to environmental concerns. They opined that politicians are more interested in infrastructure since these are highly visible to their constituents and would bolster their political image. Besides, politicians could be personally disadvantaged by participating actively in environmental activities which could erode their political leverage.

1.8 Effects of Social Pressure/Social Norms

Both groups recognize that social pressure plays an important role in social relations. Barangay officials in Lapulapu City were perceived to be lenient with offenders apparently for fear of "damaging human relations". On the other hand, Cebu City respondents decried the lack of political will purportedly due to politicking and lobbying by "vested interests in the private sector."

1.9 Sense of Power to Influence Improvements in the Environment

In their capacity as LGU officials, respondents from both municipalities perceived themselves as being bound by their official functions. For instance, officials in Cebu City and Lapulapu City have been involved in the "Clean and Green" project and have passed environmental ordinances.

On the LGU level, the LGU is regarded by both only as a component of a larger entity--the government which comprises the national line agencies concerned with environmental management, and the LGUs down to the barangay level.

However, the "more active" municipality emphasized that as the lead agency, the national government should be supported by the LGUs which in turn must network with other sectors particularly the NGOs. Such efforts also need the participation of community members.

In addition, Cebu City LGU officials repeatedly stressed the need for political will as a pre-condition to sound environmental management.

1.10 Perceived Skills, Technology and Other Support Services Needed

Both indicated the need for values formation/information dissemination and environmental management skills. Values formation include nurturing positive personal values and educating LGU officials to forge political will. Education must be carried out at the level people can relate to. Environmental management skills pertain to deeper knowledge on the environment, resource management technology, and environmental monitoring capabilities.

However, the LGU officials in the "more active" municipality showed a keener sense of technological requirements needed for environment compared to the "less active" municipality which tend to emphasize equipment and logistics.

The need to organize was also recognized. The former targetted the community members in general while the latter specified the formation of community monitors coming from different sectors of the society.

1.11.1 Factors Which Tend to Motivate Those Who Are More Active

In general, the LGU officials from both municipalities considered five factors as important in motivating or influencing people to get involved in environmental activities. These are: (1) understanding of environmental laws, (2) consistent enforcement of these laws, (3) LGU support, (4) access to technical support, and (5) existence of environmental laws.

Those from the "more active" municipality rated understanding of environment laws as crucial and considered the factors namely, consistent enforcement of environmental laws, and LGU support as important. Also rated important are values, beliefs and practices in lieu of access to technical support.

1.11.2 Factors Which Tend to Discourage Those Who Are Less Active

The general trend also applies to the LGU officials from the "less active" municipality except one factor--the existence of environmental laws. Instead, they tend to recognize the importance of maintaining smooth interpersonal relationship in the community. It could be deduced that social pressure tends to discourage those who are "less active" from participating more actively in environmental activities since they have to maintain smooth interpersonal relations with the constituents including the violators.

1.12 Gender Differences on Environmental Issues

The data did not provide any basis for gender analysis since there was only one female respondent. This does not mean, however, that gender consideration was not taken into account in the sampling of respondents. Most of the positions were actually occupied by men.

1.13 Views about the Sanctuary

Both the LGU officials and opinion leaders in Lapulapu City are well-informed about the sanctuary and the rationale behind its creation. Opinion leaders cited specific legal instruments (PD 1831, PD704/Ordinance No.8/Resolution 73-88, and RDC Executive Orders 53) while LGU officials referred in general terms to "a presidential proclamation" or to "a law signed by Mrs. Aquino in 1988 or 1989".

The consensus is that the LGU actively supports the sanctuary, and that the laws and ordinances are generally observed by the local people did not accept the sanctuary but they were eventually convinced after the LGU officials conducted a series of consultations and public hearings.

In the overall perception of the LGU officials and opinions leaders, the benefits outweigh the disadvantages in establishing the sanctuary. Economic benefits are seen in terms of job generation and income opportunities for the islanders. Ecologically, the sanctuary ensures the protection of endangered species, and environmental protection and observation in general. However, they expressed concern over the conflict of interest between the sanctuary and the development encroaching into the area. They are apprehensive that promotion of tourism could adversely affect the area. Toxic waste discharged by construction near the area could poison the sea grass. The opinion leaders were more keen about the displacement of people in the area as a result of development projects, and the social problems that might arise because of influx of tourists.

1.14 Perceptions of Development Projects/Plans

Two development projects, one by Alenter and the other by Canton, are in the pipeline. Majority of the LGU officials and opinion leaders indicated they are not in favor of these projects because of the negative effects. Commercial use of the area as a tourist spot/hotel could destroy the ecosystem and displace the people. The increasing population and noise might even drive the birds away.

A few LGU officials were however open to the idea of development in the area provided development is undertaken 500 meters away from the sanctuary. In contrast, some opinion leaders specified that development should take place outside the buffer zone.

1.15 Persons or Organizations that Support the Sector's Environmental Protection Efforts

The following were considered supportive of LGU's efforts in environmental activities in Cebu City:

The Ramon Aboitiz Foundation Inc. (RAFI)	Knights of Columbus
Water Resource Center (WRC), USC	Lion's Club
Cebu Uniting for Sustainable Water (CUSW)	Kiwanis
Soil and Water Conservation Foundation (SWCF)	Barangay Officials
Rotary Clubs	Farmer's Group
Department of Environment and Natural Resources (DENR)	Cooperatives

In Lapulapu City, the following were considered supportive:

Metro Cebu Water District (MCWD)	Norway-Filipina
WRC, USC	Foundation (NORFIL)
Rotary Club	DENR
Mactan Jaycees	

2.0 The Opinion Leaders in Cebu City and Lapulapu City

2.1 Perception of Environmental Conditions and Problems

According to the opinion leaders from both Cebu City and Lapulapu City, environmental degradation in their respective locality is clearly indicated by decreasing fish catch, flooding, and diminishing fresh water supply. The poor state of the upland and the coastal areas is generally attributed to unsound environment activities (illegal fishing and destruction of forest) which were perceived to be caused by poverty, population pressure due to rural-urban migration, and development in the area particularly unrelenting land conversion undertaken by developers. The bottom line is poverty. In the absence of alternative means of livelihood, people who lack skills often resort to environmentally-unsound practices.

However, the "more active" municipality showed a more complex understanding of its diverse environment and impact compared to the "less active" municipality which associated the environmental problems more closely with its marine environment.

In addition, the opinion leaders from the two municipalities differ in their assessment of the gravity of environmental condition. Environmental pressures seem to weigh more heavily in Cebu City which has undergone an intensive economic development in the last decade. Thus Cebu City respondents assessed the situation as almost irremediable but not entirely hopeless. On the other hand, Lapulapu respondents regarded the situation as manageable because the industries set up in the island were considered non-pollutive. They also noted that most businesses cater to the tourist industry which they assumed to be environment-friendly.

2.2 Knowledge and Enforcement of Environment Laws and Regulations

The opinion leaders in both municipalities share the perception that devolution has not been fully implemented in their locality. The situation is a consequence of the perceived limited capacity of the LGU to assume the function of the lines agencies on the one hand, and the hesitation on the part of the latter to transfer its functions to the former, in the other hand. The general opinion in both municipalities is that the NGOs and POs have not been meaningfully integrated in the planning and formulation of policies.

Despite the negative observation, they noted a positive development. The "more active" municipality cited the close collaboration between the city government with the Cebu Uniting for Sustainable Water (CUSW), an NGO-initiated multi-sectoral coalition, in preparing a master plan for watershed management. Likewise, the "less active" municipality noted the creation of the Protected Areas Management Board (PAMB), also a multi-sectoral group consisting of representatives from the GOs, NGOs and local officials.

Both groups indicated that law enforcement was weak. Cebu City respondents were vocal, about unclear guidelines in the devolution of environmental functions from the Department of Natural Resources (DENR) to the LGUs, conflict between the DENR and LGU, and corruption in the DENR. Lapulapu respondents clarified that enforcement is hampered by lack of logistics and coordination among the authorities.

2.3 Perceived Participation in Environmental Activities (Self and Others)

All respondents claimed to be engaging in proactive interventions for environmental rehabilitation in accordance with their position or profession. Involvement in environmental activities depends on one's expertise. The opinion leaders in both municipalities revealed that they have taken the lead or been involved in activities such as dissemination, environmental monitoring, organizing communities, water/liquid waste management, and networking. It is interesting to note that a respondents in the "more active" municipality who has initiated and implemented environmental interventions would not consider herself active because her efforts have not produced tangible results as yet.

Reason for active participation vary. The opinion leaders in the " more active" municipality explained that they are driven by personal "innate awareness". They are also motivated by other factors such as the positive reactions from communities, and exposure to seminars, trainings and pastoral programs. Respondents from the "less active" municipality claimed they are committed to environmental conservation and sustainable development for the sake of humanity.

Both groups are aware of environmental activities undertaken by the different sectors in society which reflect occupational differentiation. For instance, the academe was observed to be engaged in education and information campaign while the NGOs provided technical assistance. Respondents in both municipalities are not familiar with the POs however. They all perceived a potential role for the business sector which is to provide funds and resources for environmental projects.

A striking difference between Cebu City and Lapulapu City respondents is that the opinion leaders in the "less active" municipality placed the burden of responsibility on the shoulder of the LGU and government line agencies in general. They reasoned that the government possessed not only the mandate and the legal authority but also the resources and structures as well to implement programs. In contrast, the respondents in the "more active" municipality opined that while LGUs and the national agencies have the mandate, all sectors must do their share in addressing environmental problems. They asserted that pressures on the environment are everyone's concern. Moreover, the opinion leaders in Cebu City were more knowledgeable about NGOs' participation in environmental activities.

2.4 Behaviors Expected of Self and Others

The parameter of an active LGU are common to the opinion leaders in both municipalities. Both consider an LGU as active if it incorporates environmental issues and concerns in its administrative agenda, formulates policies, initiates environmental programs which are responsive to community needs, hires environmental officers, allocate budget for environmental activities, and establishes an environmental monitoring system. Both repeatedly stressed the need for sincere leadership.

The opinion leaders in Cebu City added that the LGU must set up environmental project "showcase" to encourage people to get involved. It should also organize multisectoral body to oversee the implementation of environmental laws. In fact, laws must be implemented "no matter who gets hurt". On the other hand, Lapulapu City respondents emphasized the need for LGUs to provide livelihood opportunities.

Based on the common criteria established by both groups, community members are considered active if they internalize the importance of environmental protection, get organized, initiate action for environmental protection with sustained interest, follow environmental ordinances/policies and guidelines, take action against those who would destroy the environment, and advocate for environmental protection. In addition, the "more active" municipality included a very stringent qualification. Active community members are expected to write down their own laws, define sanctions and enforce them too.

2.5 Current Knowledge, Worldview, Belief and Practices

The opinion leaders enumerated a wide range of environmental interventions in their respective locality which include information dissemination, technical assistance, consultancy, advocacy, waste management, integrated social forestry, soil conservation, mangrove reforestation, sanctuary protection, and pollution control. However, opinion leaders in Cebu City are more critical in assessing the performance of their LGU. This could imply that opinion leaders living in this highly urbanized metropolis are more politicized and more exposed to environmental issues.

Both groups share the view that a symbiotic relationship exists between man and nature. Man must recognize the environment as part of their lives and respect the environment as a source of life and well-being. To internalize the importance of environmental conservation is a sine-qua-non to becoming an environmental activist.

An opinion leader in Olango Island, Lapulapu cited a few beliefs prevalent among the people which she considered as generally good for environmental

protection. The community believes that the Protected Area is *taw-an* (inhabited by spirits). They also believe in *tambaluslus* (spirits residing in tree trunks who watch over the area). Another beliefs is *santilmo*, the spirits of the deceased appearing in the form of light which roams around the place. Because of these beliefs, many residents were allegedly afraid to cut the mangroves.

2.6 Perceived Benefits

Both municipalities foresee long-term benefits for the LGUs and the community. The LGU could regain public confidence. People would enjoy better health and livelihood opportunities. Eco-tourism would flourish in Lapulapu City while Cebu City would enjoy a better supply of water.

However, some disadvantages may be experienced in the short run. The "more active" municipality anticipated some resentment from people who would be most affected by strict implementation of environment laws. The "less active" municipality projected an increase in real estate valuation to the extent that ordinary people could no longer afford to purchase land.

2.7 Perceived Barriers

Both agree that the barriers are systemic, political and cultural in nature. Cebu City respondents pointed to the conflict of interests between environment and politics, and Lapulapu City respondents decried political intervention which has abetted unsound environmental practices. The latter also identified poverty and lack of alternative livelihood as another barrier.

The prevalence of cultural barriers is similarly observed by both groups. The "here and now" orientation, the "others will take care" attitude, the materialistic pursuit of wealth by the rich, the ignorance and apathy of the people, and the misperception that environmental intervention would adversely affect the people--are all counter-productive to environmental management.

Lapulapu City opinion leaders also considered the lack of financial resources to pursue and sustain projects as a constraint. A few respondents in Cebu City complained about corruption in the government system implying that some officials might have compromised environmental concerns in exchange for material gains.

2.8 Effects of Social Pressure/Social Norms

The opinion leaders in Cebu City and Lapulapu City repeatedly chided their LGU for lack of political will. The "less active" municipality spoke against political intervention. The "more active" municipality made reference to "conflict of interests", "political accommodation" and "patronage". LGU officials could not enforce environmental laws effectively precisely because of the political cost that would entail.

2.9 Sense of Power to Influence Improvements in the Environment

The respondents in the two cities expressed the view that one's expertise can make a difference in the general efforts toward environmental conservation. As a matter of fact, they indicated that they are engaged in proactive environmental activities in line with their occupational pursuit.

They are optimistic that the LGUs and community members can play an active role in environmental management provided the LGUs can muster enough political will and the community must internalize their environmental consciousness.

To the "less active" municipality, the prime responsibility still rests on the government. The "more active" municipality recognized, however, that the government may have the mandate to anchor an environment management program, but all sectors of society must be involved to address environmental issues and concerns. Accordingly, people have to be organized and mobilized for environmental action.

2.10 Perceived Skills, Technology and Other Support Services Needed

Both underscore the need for communicating skills in disseminating information. The opinion leaders in Cebu City specified that environmental education should be suitable to the level of understanding of the masses while Lapulapu City respondents included listening skills. The latter also indicated the need for technology transfer and skills training for livelihood projects.

2.11.1 Factors Which Tend to Motivated Those Who Are More Active

The opinion leaders in the "more active" municipality are motivated by the following factors: (1) values, beliefs and practices, (2) consistent enforcement of environmental laws, (3) understanding of environmental laws, (4) LGU support, and (5) existence of environmental laws. The first three factors were considered crucial and the last two as important.

2.11.2 Factors Which Tend to Discourage Those Who Are Less Active

The respondents in the 'less active' municipality show almost the same pattern. However, in lieu of LGU support, they tend to emphasize access to technical support. It may be surmised that lack of access to technical support may discourage opinion leaders in the "less active" municipality from participating more actively.

2.12 Gender Differences on Environmental Issues

The opinion leaders in Cebu City and Lapulapu City were chosen from a wide range of professions. They tend to assess the situation from the perspective of their occupational background, professional training, and previous experiences. Responses from women opinion leaders do not reflect any pattern or trend that would distinguish them from the men. Rather, women opinion leaders in both cities are observed to express their viewpoints on the basis of their occupational background and involvement.

2.13 Views About the Sanctuary

Both the LGU officials and opinion leaders in Lapulapu City are well-informed about the sanctuary and the rationale behind its creation. Opinion leaders cited specific legal instruments (PD 1831, PD704/Ordinance No. 8/Resolution 73-88, and RDC Executive Order 53) while LGU officials referred in general terms to "a presidential proclamation" or to "a law signed by Mrs. Aquino in 1988 or 1989".

The consensus is that the LGU actively supports the sanctuary, and that the laws and ordinances are generally observed by the local people. Initially the people did

not accept the sanctuary but they were eventually convinced after the LGU officials conducted a series of consultations and public hearings.

In the overall perception of the LGU officials and opinion leaders, the benefits outweigh the disadvantages in establishing the sanctuary. Economic benefits are seen in terms of job generation and income opportunities for the islanders. Ecologically, the sanctuary ensures the protection of endangered species, and environmental protection and conservation in general. However, they expressed concern over the conflict of interests between the sanctuary and the development encroaching into the area. They are apprehensive that promotion of tourism could adversely affect the area. Toxic waste discharged by construction near the area could poison the sea grass. The opinion leaders were more keen about the displacement of people in the area as a result of development projects, and the social problems that might arise because of influx of tourists.

2.14 Perceptions of Development Plans/Projects

Two development projects, one by Alenter and the other by Canton, are in the pipeline. Majority of the LGU officials and opinion indicated they are not in favor of these projects because of the negative effects. Commercial use of the area as a tourist spot/hotel could destroy the ecosystem and displace the people. The increasing population and noise might even drive the birds away.

A few LGU officials were however open to the idea of development in the area provided development is undertaken 500 meters away from the sanctuary. In contrast, some opinion leaders specified that development should take place outside the buffer zone.

2.15 Effective Communication Channels

The opinion leaders in the two municipalities are likely to listen to news and commentaries on the radio and TV talk shows. As indicated by their choice of local radio commentators and national television personalities, they tend to favor the more sober approach to issues.

While both groups identified a few actors and actresses as potential sources of information, they cautioned against the use of celebrities. Celebrities are to be chosen on the basis of credibility, the "more active" municipality suggested.

2.16 Credible Sources of Information About Environmental Matters

Cebu City

LGU: Mayor Alvin Garcia, Former Mayor Tomas Osmeña, and Ann Cabigas of the Cebu City Hillyland Resource Management and Development Project
Community Members: Norberto Quisumbing and Josephine Booth

NGOs: Basic Christian Community (BCC), William Granert (SWCF), Beling Gochinghay (FORWARD), WRC, CUSW and Tessie Fernandez (LIHOK-PILIPINA) and RAFI

POs: San Nicholas Urban Poor Organization

Civic/Religious Groups: Cardinal Vidal, Augusto Go, Sr. Sónia Aldeguer, Fr. Francisco Silva, Fr. Herman Van Engelen and Missionaries of the Sacred Heart

Private Business: Christine Matriano (SMC), Herman Streegan (Rhine Marketing), Norkis Groups of Companies, and General Milling Corporation

Lapulapu City

LGU: Mayor Wiegel, Domingo Rama, elected officials, Dr. Alexander Gestopa, Efren Herrera, Kagawad Martin Sagarino (San Vicente), Barangay Captain Adolfo Eyas (San Vicente), Kagawad Rosario Sagarino (San Vicente), Councilor Alex Berdin (Lapulapu City)

Community Members:Raymunda Bayno (PTCA President), Arnulfo Melencio (Bantay Dagat), Roger Lim (TIMEX), Ben Canete (Philippine Tourism Authority), Maximo Jumao-as (San Vicente), Raping Patigdas (San Vicente), Erlinda Eyas (Principal/Teacher, San Vicente), Diding Suelo (Brgy. Sabang), Igmidio Ybanez (Brgy. Sta Rosa), Evelyn Jumao-as (Principal/Teacher, Sabang), and Lourdes Lood (School Supervisor)

NGOs: Save Nature Society (SNS), NORFIL, Island Venture, KAKAO and LIHOK-PILIPINA

POs: Canjulao Multi-Purpose Cooperative, Mother's Club, and Youth of Olango (Sabang)

Civic/Religious Groups: Rotary Club of Mactan, Patricia Butalid (Catholic Women's League), Inocencio Inoc (Knights of Columbus), Fr. Antonio Damalario (Sta. Rosa Parish, Olango), Ladies Auxillary Group, and Lion's Club)

Private Business: Mactan Export Processing Zzone (MEPZ) Officers and TIMEX

Others: Raymund Houscht, PTA, media, and Dr. Labi (School District Supervisor)

2.17 Persons or Organization that Support the Sector's Environmental Protection Efforts

Cebu City: Philippine Business fo Social Progress (PBSP), RAFI, San Miguel Corporation, and Norkis Group of Companies.

Lapulapu City: Lapulapu City government, SNS, Philippine Wetlands Conservation Foundation (PWCF), Bantay Dagat, Sangguniang Bayan (local council), USC (Biology and Marine Biology), and Wild Bird Society of Japan.

3.0 The Community Members in Olango Island

3.1 Perception of Environment Conditions and Problems

Both the "more active" and the "less active" community members similarly consider the declining marine resources in their locality, Sta. Rosa and Sabang in Mactan Island, as serious.

The scarcity of fish and shellfish, and decrease in seashells, sea urchins and cowrie shells were perceived to be caused by illegal fishing practices such as dynamite, cyanide and trawl fishing.

They conceded that environmental decline would worsen unless drastic and definite actions are undertaken.

However, they pointed out that officials and community members are reluctant to take concrete steps because no one has the right to interfere with how others earn their living. Thus, illegal occupations continue to be tolerated.

3.2 Knowledge and Enforcement of Environment Laws and Regulations

Both groups reflect a general understanding of laws applicable in their locality. They cited the ban on illegal fishing, cutting of trees and mangroves, killing of birds, and catching of fry. In fact, they even wished that these should be implemented to the letter.

According to the respondents, fishing has been a major source of income. Despite the depletion of marine resources, majority of community members continue to depend on marginal fishing and collecting marine resources because of poverty. While laws were perceived to be necessary, the community members commented that

problems arise when enforcement of these laws directly circumscribes the behavior of marginal fisherfolk and ordinary citizens. For instance, prohibition enforced in the sanctuary were not perceived as good environmental management since these interfere with some people's right to earn a living.

Both the "more active" and "less active" community members stated that it is the responsibility of those in authority to solve environmental problems. The LGU was perceived to be doing its duty but only to the extent of reprimanding. Laxity in enforcement was attributed to the fact that the officials themselves were hesitant to interfere with the right of the poor to earn a living, given the cultural context and existing realities. Lack of discipline on the part of the people was seen as another reason for weak enforcement.

3.3 Perceived Participation in Environmental Activities (Self and Others)

Active participation is understood by both to be largely confined to two activities- obeying the laws, and reprimanding and/or reminding those who violate them. The "more active" community members have "reminded" people not to engage in cyanide and dynamite fishing. They "called for discipline" and "explained the possible consequences to violators for their actions".

In addition, they substantiate their involvement by taking concrete actions. They mentioned about returning spawning fish and female cowries back to the sea, and planting mangrove propagules.

Even the "less active " ones claimed to be as active. They reported likewise that they planted mangroves and did not cut mangroves.

On why they are active, both groups mentioned encouragement from God, their concern for their children, and their understanding of the need to return spawning fish back to the sea.

Both groups considered their respective barangay as active only to the extent of reprimanding violators. It is worthwhile to point out that a "more active" respondents revealed that a police officer himself ordered the use of dynamite. This isolated report could serve as an eye-opener. Though not openly admitted until proven by investigation, it is public knowledge that some politicians and officials are suspected of being involved in undesirable activities, as in the case of trawl fishing in Olango island.

3.4 Behavior Expected of Self and Others

The community members share the opinion that the LGU should be able to provide alternative livelihood to community members who are engaged in illegal fishing and destructive collection of marine resources.

Community members are expected to be united in stopping illegal fishing activities.

3.5 Current Worldview, Beliefs and Practices

People living in subsistence in Olango Island are vulnerable to the vagaries of nature. Isolated from the mainland, the community is parochial and personal. A number of attitudes, values, beliefs and practices concerning the relationship between man and the environment on the one hand, and relationship among community on the other hand, could provide better understanding into the behavior of the people.

Both groups subscribe to the view that there is a relationship between man and the environment. Humankind is dependent on the environment for survival. In turn, the environment must be taken care of. Another prevailing attitude is that humankind is one with the environment. It is understood that since the nature of man's existence is determined by the state of the whole, the well-being of the environment determines the well-being of the people living within it.

A prevailing value shared by both groups is that everyone has a right to earn a living for himself and his family. Since fishing has been a traditional source of livelihood of marginal fisherfolk and collectors, any attempt to prevent or stop them without offering them an alternative livelihood is considered unfair.

Community members also treasure the maintenance of smooth interpersonal relations in the community. They would rather avoid taking a confrontational approach toward others.

In addition, there is a tendency among community members to show *kalu-oy* (compassion) towards fellowmen, the less fortunate of the downtrodden. Hence, violators in both municipalities are not supposed to be punished even when they are apprehended.

Community members are also governed by the *ato-ato* or *tayo-tayo* system (the "we" syndrome). The system connotes "informality" as against professionalism. It implies the granting of favor to "in" group members either to facilitate a request or to resolve conflict internally with the least hassle without invoking the authorities. Infractions are thus overlooked because of fraternal considerations and possibly for political reasons.

It could also be deduced from the responses of community members that they adhere to the view that sound environmental management should not totally prohibit but should allow some form of use within the managed area instead.

3.6 Perceived Benefits

The community members were unanimous that benefits could be reaped by being active, not only for themselves but for the future generations, the community, and the country as well. If illegal fishing were stopped and mangroves were propagated, there would be more fish and cowries for everyone, and that their houses would be protected from typhoons.

3.7 Perceived Barriers/Disadvantages

The "more active" respondents identified three most formidable barriers. These are lack of political will on the part of the LGU to enforce the law, the lack of cooperation among the residents towards law enforcement, and the prevailing social norms.

Both groups mentioned the problem of illegal trawling (which is trawling within 12 kilometers from the shore) which is believed to be operated and owned by influential people who have access to political power. Since the trawlers come from other areas, the problem is difficult to solve at the barangay level.

In terms of disadvantages, both "the more active" and "less active" respondent have similarly received insults, mockery and ridicule from violators. The "more active" community members have even been challenged by illegal fisherfolk to provide the latter with alternative livelihood or to take care of their families.

3.8 Effects of Social Pressure/Social Norm

While the community members "remind" or "tell" violators about the ordinances they are violating, they are hesitant to interfere with the effort of poor fisherfolk who must have some means to support their dependents.

Even LGUs that are mandated to look after the environment are placed in a difficult situation. In many instances, they tend to ignore the dire state of the environment and are reluctant to punish violators for "humanitarian reasons".

3.9 Sense of Power to Influence Improvements in The Environment

The community members realize that they cannot stop the illegal fishing activities of their neighbors simply through verbal admonitions. They pointed out that they need the support of the mayor, the barangay officials, the LGU in general, and even the military to enforce penalties. Alternatives livelihood must also be provided.

In the case of trawl fishing which is perceived to be depleting the nearshore waters, both groups opined that solutions must come still higher authorities. Trawl vessels do not originate from the locality and trawlers are often armed. Considering the threat posed by trawlers as perceived by community members, such response is natural. But it could also be reflective of the paternalistic culture prevalent in the community and the Filipino society in general.

The fact that community members enjoy listening to commentators who tend to discuss political issues especially graft and corruption without fear, may suggest that the people tend to perceive themselves as helpless or marginalized. Hence, they feel they need people who can protect them and stand by them.

3.10 Perceived Skills, Technology and Other Support Services Needed

Both groups identified the need for leadership and persuasion skills. A leader is defined as an upright person who could make the people understand environmental issues. At the same time he/she must be willing to finance community meetings on environmental concerns. In other words, he is perceived to be a catalyst as well.

3.11.1 Factors Which Tend to Motivate Those Who Are More Active

To community members in general, the following factors are important : (1) consistent enforcement of environmental laws, (2) values, beliefs and practices, (3) approval/support from family and influential persons, (4) increased family income, and (5) maintenance of smooth interpersonal relationship in the community.

The "more active" community members tend to be motivated by the following: (1) existence of environmental laws, (2) consistent enforcement of these laws, (3) values, beliefs and practices, (4) understanding of environmental laws, and (5) access to appropriate technology.

3.11.2 Factors Which Tend to Discourage the Less Active

Compared with the "more active" respondents, the "less active" ones also rated values, beliefs and practices as important . However, they tend to emphasize the following factors: increased family income, personal investment in terms of time and effort, approval/support from family and influential persons, and LGU support. It could be inferred that the "less active" community members could be discouraged from

participating actively in activities that would not improve family income, especially if these would require personal investment in terms of time , money and efforts as well as approval from family members. The absence of LGU support could also be a deterrent.

3.12 Gender Differences on Environmental Issues

Distinctions between male and female community members can be gleaned from their position on some points regarding their understanding of environmental conditions, their worldview, reasons for being active, factors that motivate environmental participation, and radio program preference.

Since women and children do most of the marginal collection of marine resources, women tend to provide more specific details about the environmental conditions and problems in their locality. The women could also remember the environmental interventions that have been introduced in their locality much better than the men.

Genderwise, the women tend to emphasize the part-whole relationship between man and the environment. On the other hand, the men tend to stress man's dependence on the environment.

As shown in their understanding of the Cebuano term "kinaiyahan" (environment), female community members are more likely to refer environment to the situation within the perimeter of their neighborhood or their immediate surroundings.

The tendency to define the environment in term of their parochial settings is again reflected among the "less active" females who claimed that they also take concrete environmental actions. Such reasons as " I did not cut mangrove trees which

protect my house from strong wind." and "(I) tell people not to cut mangrove because they can protect us from typhoons" seem to suggest that they get involved because of perceived personal benefits. In contrast, the male respondents are more likely to understand the long-term benefits such as bountiful catch" and "multiplication of fish and cowries".

Both male and female community members rated values, beliefs and practices as one of the important factors which motivate environmental participation. While the males also considered LGU support, existence of environmental laws, and increased family income, the females emphasized consistency in enforcement, personal investment in terms of time and effort, and approval from family members.

The fact that the women prefer soap operas in their choice of program is revealing. This could imply that women tend to situate themselves in theatrical roles which resemble their own status or plight. When the lead character transcends against all odds, they too feel liberated or vindicated. This association or identification could reflect a subconscious sense of inadequacy or lack of empowerment on the part of community members. Unlike the women, the men tend to listen to news and commentaries.

3.13 Views About the Sanctuary

While the "more active" community members seem to be more knowledgeable about the sanctuary and have a better grasp of interrelationship in the ecosystem, both groups lack a thorough understanding on the rationale behind the establishment of the sanctuary.

Though ambivalent toward the sanctuary, most community members are against the sanctuary primarily because it affects their livelihood. They suspected the motives of foreigners who have provided funds to support the sanctuary. They were also apprehensive that they could be ejected.

Nevertheless, they claimed to observe the prohibitions against the killing of birds, cutting of mangroves, the gathering of cowries and the use of fine-mesh fish nets. In the assessment of both "more active" and "less active" respondents, the laws and ordinances have been enforced effectively. However, the "more active" respondents had a better idea of the authorities responsible for enforcing the laws and organizations that can promote the interests of the sanctuary.

Although the community members seem to understand the advantages of having the sanctuary, both groups tend to focus on the material gains and overlook the ecological impact. Verbally, the benefits were perceived to outweigh the disadvantages. However, the cynicism, resignation and sarcasm of community members are expressed in such statements as "since the area is declared a sanctuary, the residents cannot do anything about it", and "the sanctuary is only for the tourists and not for the residents". Moreover, comments like "(we) cannot see the meaning of putting up a sanctuary" and "why birds are given priority (over the marginal fisherfolk)" are indeed telling.

3.14 Perceptions of Development Plans/Projects

Some were in favor of development in the area as long as it could generate employment and promote livelihood opportunities. However, majority were apprehensive that development could restrict people's access to the sea and

resources. This insecurity may not be unfounded. It has been observed that in many areas in Lapulapu City, developers tend to fence off their properties and prevent access to adjacent areas. In addition, the respondents were anxious that more people would be forced to engage in deep sea fishing which they considered risky.

The respondents sighed with the same frustration. "Since the (developers) already own the land, there is nothing we can do." "If we do not agree that hotels will be built near the sanctuary, what can we do when we are only ordinary citizens?"

3.15 Effective Communication Channels

The radio is the most common source of information among the community members, the "more active" and the "less active" alike. Both indicated that they listen to the radio everyday during their waking hours provided they have money to buy batteries and for as long as the batteries could last. Both groups keep abreast with current issues and events including commentaries and weather reports. DYMF, DYHP, DYRC and DYRF are their preferred radio stations. Apparently, none of the commentators they listen to tackle environmental issues with audience participation.

All respondent relish the fact that their favorite commentators do not seem to have any reservations in criticizing the government and that they tend to deal with the sufferings and difficulties of the poor.

Only a handful claimed to have access to battery-operated television. The "more active" respondents watch "The World Tonight", "TV Patrol", "Magandang Gabi Bayan" and "News on 7". Aside from "TV Patrol" and "Magandang Gabi", the "less active" also tune in to "Saksi" and "Ernie Barons Weather Report".

Access to newspaper is practically nil.

3.16 Credible Sources of Information About Environmental Matters

The community members named four credible sources of information. These include Cardinal Vidal, who visited the sanctuary recently, the DENR, the Department of Education Cultural and Sports (DECS), and barangay officials.

3.17 Persons or Organizations that Support the Sector's Environmental Efforts

Aside from family members (husband and children), Sister Paredes of SNS, and the USC researchers of GREENCOM's formative research were identified as the persons who encourage them to participate in environmental activities.

B. CONCLUSIONS AND RECOMMENDATIONS

In this chapter we address the questions presented in Chapter One in order. We first marshal the findings that allow us to come to some conclusions about each answer. Then, for each question, we recommend one or more paths an environmental education pilot campaign might take to address the issues brought up in those answers.

1. **Current knowledge, practices, and values which motivate/retard positive action in relation to the environment at the community level.**

In terms of knowledge, doers and non-doers evince no differences in their high degree of awareness of problems in the coastal environment. They both have a good grasp of what are the many natural resources that are in danger and why, such as increasing population and poverty. Both doers and non-doers also demonstrate a good grasp of what behaviors have been prohibited in their locality by laws and ordinances, and they accept them equally quite well. They both are able to list a number of factors that hinder the enforcement of these ordinances.

In terms of practices, both doers and non-doers equally claim to be environmentally "active" and equate their being so with obeying rules and laws and reminding or reprimanding verbally those who violate them. They both understand that obeying the ordinances will lead at best to long-term benefits for their children, in increased catches of fish and increased availability of edible shellfish and cowrie shells used in craftwork, for example. They agree equally to promise to devote time and labor to achieve environmental conservation, but are one in saying that they cannot

afford to donate money or materials. But they cannot interfere any more than by giving verbal admonishment in the activities of other poor people who support their families through illegal methods. This must be done by "those in authority" taking the burden of enforcement off them. Those in authority should best come from outside the community. If they are not successful due to a weakness of political will, community members can do nothing but feel sadness about it and worry about the future of their children.

With regard to beliefs, both doer and non-doer groups tend to identify mankind with the environment as in a part-whole relationship. They also see mankind as being apart from the environment although dependent upon its natural resources. The dependency is, however, seen as mutual since the environment needs to be "taken care of" (galamon) by man.

The females in both groups believe that good relationships with one's neighbors are needed to ensure good relationships with the environment.

All respondents hold in similar strength to a belief in environmental spirits to whom offerings must be made in order to ensure success in activities regarding the use of natural resources.

Recommendation 1. Doers and non-doers among community-members, whether male or female, tend to have similar kinds of knowledge, beliefs, and practices. We suggest that media interventions based on the distinction between doer and non-doer will not be of much relevance for Olango Island. Both categories, as classified by

key and esteemed informants in their barangays, see themselves as somewhat knowledgeable and as "active" as they dare to be in defending and promoting environmental ordinances.

2. Better understanding of environmental laws and regulations as facilitating ideal behaviors.

For the community members, it was already reviewed above that they know well the problems in their local environment and on a very general level they understand the need for the present ordinances and to which behaviors and activities they apply. However, while most are supportive of the Olango Island Bird Sanctuary, they see this as limiting their field of resource-collecting activities. It is obvious that the depth of their knowledge is not great.

Recommendation 2a. We suggest that an educational campaign is needed to teach the people more about the ordinances applying in their community. They need to know better their official numbers, their content, the spirit lying behind them, and especially why they have been formulated. As one urban respondent pointed out, community members need to have environmental problems explained to them at a level which they can understand.

With respect to the bird sanctuary specifically, it is suggested that it would be better understood if someone had made a previous effort to educate the islanders about it. As it stands now, they simply say they see no relation between it and their problems connected with the depleting resource base. They need better to understand

the history of its establishment, how it originated in an international treaty co-signed by the Philippines and supported by a presidential proclamation, a republic act, and by regional, city, and barangay ordinances; which agencies worked hard for its creation (the Asian Wetland Bureau); what is its size and exactly where are its boundaries; why the birds need it; what activities the birds do there; why the mangroves are needed by the birds; how the florescence of the mangroves can resuscitate the marine and nearshore ecosystems of Olango Island; and why endangered birds should be spared, and thus also the other birds with which they are found in the sanctuary.

From the view point of the opinion leaders, the answer to the question above would be "no," because the political will to enforce the ordinances among the LGU officials is lacking. To the opinion leaders, the political will must be present a priori in order for the ordinances to be enforced.

For the LGU official respondents, we find that maybe many of them know the laws and ordinances, but even if they do, they will not concern themselves with what lies outside of their individual areas of jurisdiction. They compartmentalize too much; whereas environmental affairs are equally and personally of significance to everyone, these persons do not concern themselves with them if they are themselves not in an environment-related position.

Recommendation 2b. Re-orientations are needed to reinforce the positive attitudes and political wills of LGU officials.

3. Impact of social pressure and knowledge of natural resource depletion on ideal behaviors of LGU officials and community members.

Olango Island community members, situated as they are right in the local scene next to the depleting marine resources, have the best of the people's attitudes and behaviors regarding them. They understand, too, the difficult positions of the LGU officials who are their own barangay captains and councilors and who are supposed to enforce the ordinances. The LGU officials share with them the same plight, the same culture, and largely the same relationships.

Knowledge about a depleting natural resource base can have little impact on behavior that leads to the enforcement of or obedience to ordinances, largely because of, first, the economic situation of the local people, which is one of increasing poverty, perhaps even now leading to increasing malnutrition, with few or no alternative livelihoods available to fisherfolk, and, second, the dilemma faced by a culture which puts a high value on tolerance (ang pag-aguanta) and avoidance of confrontation (paglikay sa kasamok).

Community members and local LGU officials find themselves in a "catch-22" situation with regard to the conflict between environment and culture. They are well aware of the seriousness of environmental degradation and know that this could seriously affect the welfare of the next generation, but feel a social pressure to go easy on violators which makes them hesitant (maikog or managana) to have them arrested and prosecuted to the fullest extent of the law. An important value is that all persons have a right to earn a living for themselves and their dependents. This extends to the poor who know no other line of work than the one in which they cut legal corners in

their food-getting or cash-earning activities. Respondents feel that the dependents of illegal fishing practitioners might well perish if they are not allowed to continue. It may be the case now on Olango Island that even illegal fishermen are not able to catch enough fish both to consume at home and sell for cash even, as one informant said, if they stay all night out on the fishing ground.

Although tolerance might be used by some as an excuse to avoid interfering with desirable actions done by others, some respondents say that all they can do about the situation is feel sad and worry about what will happen to their children. They do not see politicians as helping them, for they go easy on their own clients and constituents who are apprehended, so as not to endanger their own political careers, and some of them may be behind illegal trawling operations in Olango nearshore waters.

Recommendation 3a. Community members need to be made aware of a flaw in their thinking. Individuals are sensitive to the plight faced by others (poor fisherfolk) in their community, and are able to place themselves in the position of the illegal fisherfolk who has many dependents to feed. But these individuals are unable to objectively evaluate their own position vis a vis the illegal fisherfolk, as follows. They must learn to see that dynamite fishers and collectors using cyanide are interfering with their right -- everyone's right-- to earn a legal livelihood from the sea. And that politicians who refuse to act against illegal fishers and for the environment are doing the same: They are not taking measures to insure that anyone's right to earn a legal livelihood is protected. For it seems rational that formerly legal fisherfolk may have been forced

into using illegal methods in order to remain competitive. As one female doer said, she is half-hearted about reprimanding illegal fishermen because it is just like attempting to steal (gikulban ug kulon) their means of survival from them.

Recommendation 3b. Some of the burden of social pressure can be counteracted by the application of religious pressure. Respondents feel that perhaps religious functionaries could do much toward increasing environmental involvement, and in fact, have done much already. On Olango they know of the parish priest's references to the environment in his homilies, the work of Sr. Ester Paredes in Sabang to organize the youth and monitor the bird sanctuary, and the visit of Cardinal Vidal to the fish sanctuary near Hilutungan Island. Perhaps, though, the Church can do more, in a more systematic way, through the communication media, to present its stance on the environment. Documentaries and spots on the air could occur more often to inform people of the stance of the Roman Catholic church toward the environment and give evidence of the things many of its functionaries are doing on behalf of the environment. At the same time, priests could do more in their homilies in a creative way to make a plea for ideal environmental behaviors.

Recommendation 3c. There is the untapped potential of mysticism. We recommend that saints be appointed to watch over the environments that are endangered. This would also lead to the creation of religious events in which the environment is promoted. Saints could be appointed as guardians over fish and bird sanctuaries and forests, as a substitute for a lack of or a decline in cultural traditions of nature spirits

who do this. The involvement of the saints in environmental protection would give them "meaningful work" to do, appeal to the folk religiosity of the people, with which such a move would be consistent, put the "saint" back in the sanctuary as in Medieval Europe, and create the need for processions as local media events that will commemorate these saints and the environments over which they watch. The institutionalization of such saints might be somewhat artificial at first, and have to be singlemindedly promoted by local priests for the first years, but eventually the people would come to see such a saint and his or her celebration as a part of their culture, and so also the piece of the environment over which the saint is given jurisdiction.

4. Salient beliefs about barriers restraining LGU officials, opinion leaders, and community members with regard to the performance of ideal behaviors?

A consistent finding holding for all categories of respondents has to do with the roles of politicians. They are that:

a.) There seems to be only a weak political will to attack problems in the environment. This is evidenced not only in failures to arrest and punish, but also by not building the institutions needed to address environmental concerns and environmental protection. If there were adequate political will, there would be the necessary setting aside of funds to achievethese needs.

b.) Favoritism and leniency is shown by LGU politicians who protect clients and constituents who engage in undesirable behaviors and thereby hope to ensure their own positions. They place their own self-centered political careers

above the needs of the environment and the mass of people dependent upon it.

c.) Politicians and other powerful people are even themselves selfishly engaging in undesirable behaviors. This is highly suspected, for example, in the case of trawl fishing around Olango Island, and is elsewhere known in the public domain in the case of muro-ami fishing.

Recommendation 4. Think seriously about how media can change this political culture.

5. Skills deemed necessary for LGU officials, community members and opinion leaders to perform the ideal behaviors.

Community-level respondents ask for leadership and persuasion skills. Opinion leaders say that community members (and they probably include here barangay officials) need factual scientific information about environmental conservation that is presented to them on a level which they can understand. We see these two recommendations on the part of our respondents to be related to each other. To be able to be skillful persuaders and thus good leaders, barangay officials and local influentials need to be able to understand, discuss, and impart ecological and environmental principles more effectively.

Furthermore, we have noted that opinion leaders especially in Cebu, do not seem to be much aware of the many past and present projects in the area of environmental conservation that are known to have been attempted in Metro-Cebu.

They need to become more aware of these efforts.

LGU respondents from both municipalities underscore the need for communicating skills in disseminating information. As with the opinion leaders, the doer municipality specified that environmental education should be suitable to the level of the understanding of the masses.

Recommendation 5a. To help meet this need, we recommend that well-illustrated Cebuano language textbooks be created that refer specially to the place-names in the local environments of Olango Island, at the level of elementary and secondary grades. Although referring in such a text to the specific local environments of the students meant to study them might lead to an expensive project if this were to be repeated for many communities, a pilot project where such textbooks were designed by GreenCOM to fit each of its campaign sites might lead to interesting results. The localization of the texts would enhance students' feelings that the texts are relevant to them. They will be educated about their home town, and develop empathy for the solution of local environmental problems. The texts could lay-out a number of field trips they could take and a number of projects they could do right in their local settings. Each chapter in such a textbook could be designed by an expert on the local environment which the chapter covers, such as a hydrologist for a chapter on water, and so on for terrestrial vegetation, marine vegetation, marine life, marine geology, and so on. Even the environmental history of the community in relation to the community's population growth, the coming to it of capitalist enterprises that are destructive to the environment, the traditional world-view of its culture toward the earth, the need for environmental management, the projects that have been tried or could be tried---all

could be included in such a textbook.

To enhance the relevance of such information materials, knowledgeable islanders could be consulted and even made co-authors of these, especially in the areas of environmental history and traditional world-view. Indeed, these materials could highlight the environment-friendly activities done by the locals.

Recommendation 5b. An environmental education campaign in Metro-Cebu could begin with reminding people of all of the current and recent projects on environmental conservation that have been tried in its cities and towns. With this awareness is their interest and enthusiasm could be whetted, especially as they realize the creativity, range, and relative success these have actually had; but also, they would become more precisely aware of problems that arise and which yet need solution --to give directions to further efforts.

Recommendation 5c. The production of video materials which are site-specific and which feature local residents who could be role models ought to be explored. These could be important adjuncts to the printed materials. The potentials for video are almost limitless. Such productions could:

1. present actual environmental conditions on land and underwater;
2. be used to relate environmentally-unfriendly behaviors to practices that are generally considered repugnant by the community, e.g., relating destructive fishing methods with stealing; and

3. stimulate the community's creativity by producing their own productions which address environmental concerns.

6. Differences between Lapu-Lapu City and Cebu City LGUs on factors that motivate or hinder environmental action?

Respondents inform us that the Lapu-Lapu City LGU has not yet put in place the ordinances necessary for devolving the functions of the national line agencies down to the local government. This means that many ordinances and institutions necessary for proper environmental management have not been activated and operationalized. Thus, in Lapu-Lapu City, an Environment and Natural Resources Council, which exists only on paper, has never been activated. Cebu City, on the other hand, has the CENRO, the Community Environment and Natural Resources Office, and its chief officer.

Recommendation 6. Put pressure through media on the target LGUs to systematically formulate and institute all relevant environmental ordinances and the departments needed to make them effective.

7. Gender-related differences in factors that motivate to action.

The responses of men and women, whether they are doers or non-doers, do not seem to be markedly different. They are about equally given to verbally admonish those who they see as engaging in undesirable behaviors. They equally see the

difficulty of stopping illegal activities without the intervention of authority that emanates from outside of the community -- they cannot do it by themselves. They are similar in paying attention to, or for some not believing anymore in, environmental spirits.

Significant differences seem philosophical in nature. Women are more conscious of a need for understanding, sharing, and cooperation in the community, probably to avoid the negative feelings that might otherwise arise, as a response not to a question about what can be done to improve inter-personal relations, but, interestingly, in response to a question about what can be done to improve community-to-environmental relations.

Women also tend to see the human community as something which is to be identified as within or part of the environment, such that the welfare of the human community is coterminous with that of the environment. Males tend to see human beings as standing apart from the environment, dependent upon it for their natural resources and survival, but needing to take care of it.

For opinion leaders, it is quite clear that female opinion leaders did not make responses on the basis of their gender or gender perspective but as occupiers of certain positions as concerned citizens and as professionals. Thus, their responses showed no patterns to differentiate them from males respondents.

Recommendation 7a. Female stances with regard to the environment might prove useful in environmental education, partly by messages that convey that a community is a part of its environment, and that by taking a united stand in favor of its environment, a community is simultaneously taking a united stand in support of itself. This part-whole

perspective seems more a feminine perspective concerning humankind in relation to the environment, at the level of the barangay.

Recommendation 7b. It is recommended that environmental education directed toward professional female opinion leaders might be considered slighting if it is addressed to them as women, and so it must be phrased in terms of their capacities as professionals, highly educated persons, and concerned community leaders, rather than as females.

8. **Cebuano language understandings of concepts of "environment" and "sanctuary" might be most useful in environmental education campaigns.**

Olango island community members, as well as Lapu-Lapu City LGU officials and opinion leaders were asked to give their understanding of the word kinaiyahan as the counterpart of the English word "environment." Olango Island community members as well as Lapu-Lapu City LGU officials and opinion leaders were asked to give a Cebuano term for the English "sanctuary."

Our finding is that community members tend to find the concept of kinaiyahan too ephemeral and loose. One respondent said that it was a very deep word that was hard to explain. Respondents frequently confuse it with the word kinaiya, a Cebuano term for "trait.". Many prefer the simpler palibut, which is merely "surroundings."

As for "sanctuary," more sophisticated LGU officials and opinion leaders offer good translations, one of which, dangpanan, can be used for "place of refuge" or "place or person of last resort." Olango Island community members only know a Visayanized

version of the word "sanctuary," sangtuwaryu.

Recommendation 8. While sangtuwaryu is quite adequate especially if the idea of using saints as a mystical force on behalf of the environment takes hold, we feel that dangpanan ought to be the first choice as this has greater relevance and impact upon the community. The dominant patron-client syndrome which leads community members to seek "refuge" of their patrons when hard times fall on them could also be easily related to birds who similarly seek "refuge." The patron-client relationship could still be at work here with the community as the patron and the birds, the clients.

9. **Most popular channels of communication now being used in the community and how might they be better used to persuade men and women to take action on the part of the environment.**

Because of the inadequacy of electrical power service throughout Olango Island (with the exception of a few privately-owned generators), the people are restricted to the use of the radio, when they have or can afford batteries. They like to listen to radio commentators for their public services, bombastic approach, aggressive attacks against political corruption and against those in political power, and their concern with political issues. But none of these commentators ever mentions environmental concerns. The community members also like to listen to radio news and radio soap operas (especially the female "non-doers").

Recommendation 9. It seems appropriate, therefore, to develop environmental commentary, environmental news, and environmental drama. If this is done, environmental commentary probably cannot hold attention all by itself. It will have to be fused into other issues and it will have to retain the aggressiveness listeners like in assaulting the "high and the mighty." Environmental dramas, to be effective, will have to guard against boredom by getting the listeners emotionally involved. Most promising is environmental news. A way must be found to get local people involved by getting them onto the radio. Such news also needs sensationalism. Appropriate might be the bantay-radyo style of reporting which comes right from the spot and interviews local people who can then hear themselves on the radio. In this mode, community members could be involved in the reportage of illegal activities happening in their area, such as the appearance of trawlers which they spot as coming near to Olango Island, which they might be able to identify on the air by name.