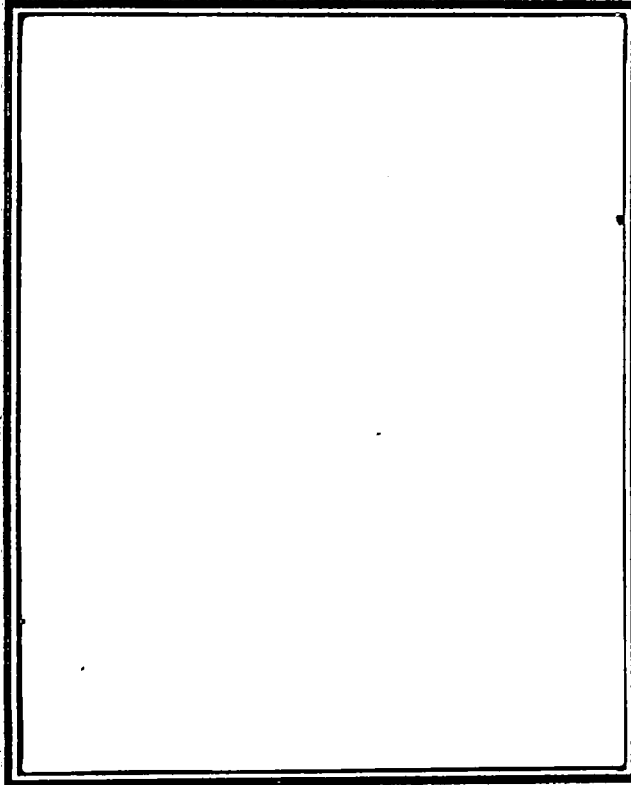


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**RESEARCH REPORT**

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Fisheries

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Co-management

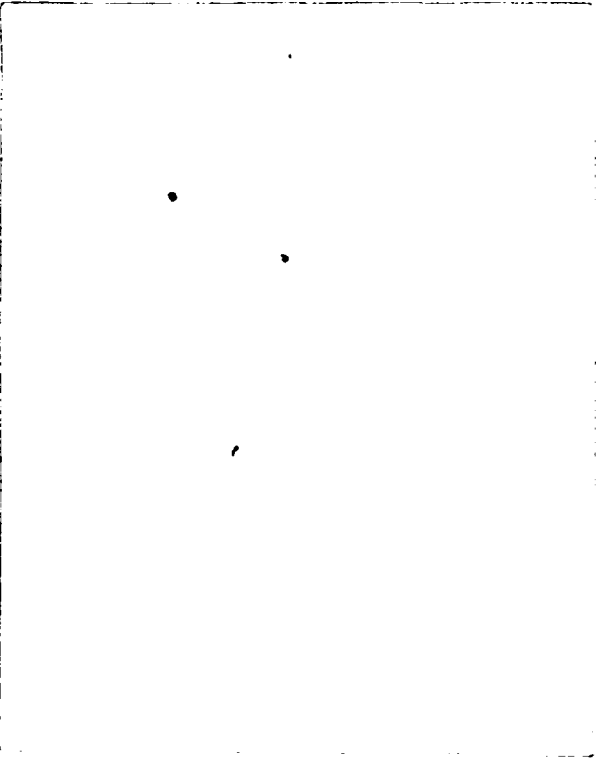
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Research

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Project

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With funding from the Danish International Development Agency (DANIDA), a five-year collaborative research project was initiated in 1994 involving the International Center for Living Aquatic Resources Management (ICLARM), North Sea Centre (NSC), Hirtshals, Denmark, and National Aquatic Research Systems (NARS). The collaboration is based on a mutual interest to gain practical experience in research in fisheries co-management, to demonstrate its applicability as a sustainable, equitable and efficient management strategy, and develop models for use and adoption by governments, fisheries communities, NGOs and others.

The Fisheries Co-management Research Project conducts research in coastal, coral reef, lake and river/floodplain aquatic resource systems in Asia and Africa. The overall purpose of the project is to determine the prospects for successful implementation of fisheries co-management strategies. General principles and propositions which facilitate successful implementation of fisheries co-management strategies are being identified.

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**Fisheries Co-management Research Project publications include Research Reports, Working Papers, Project Documents and Reprints.**

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**Study on the Management of  
Fisheries/Aquatic Resources  
at the Local Level in the  
Philippines**

*Local Government Center  
College of Public Administration  
University of the Philippines*

RR No. 7

August 1996



**STUDY ON THE MANAGEMENT  
OF FISHERIES/AQUATIC RESOURCES  
AT THE LOCAL LEVEL**

**LOCAL GOVERNMENT CENTER**  
College of Public Administration  
University of the Philippines

**August 1996**

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# **PART 1**

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**STUDY ON THE MANAGEMENT OF FISHERIES/AQUATIC  
RESOURCES AT THE LOCAL LEVEL**

**Chapter 1. INTRODUCTION**

**Perla E. Legaspi\***

The Local Government Code of 1991 has provided avenues for promoting the establishment and operation of POs and NGOs as active partners of the local government units (LGUs) in the pursuit of local autonomy. Specifically, it has provided opportunities for LGUs to enter into joint ventures and other cooperative undertakings with POs and NGOs in the delivery of basic services; capability building and livelihood projects; and in the development of local enterprises designed, among others, the promotion of ecological balance for the well-being of the community residents. It is in this context that the role of the LGUs in the maintenance and sustenance of activities for the promotion of ecological balance, particularly in the protection and management of the environment, is brought into sharp focus.

Since the passage of the Code in 1991, a lot of questions has been raised regarding the role of the LGUs in environmental management and protection. Have the local units promoted the establishment of NGOs/POs concerned with environmental management and protection, particularly with the management of fisheries/aquatic resources in the community? What kind of collaborative undertakings have been pursued by the LGUs with local NGOs/POs in the management of fisheries and other aquatic resources in the community? What supportive systems have been extended by the LGUs in the management of such resources?

In response to the above questions, the Local Government Center of the College of Public Administration, University of the Philippines conducted a study on the management of fisheries/aquatic resources.

Generally, the study was aimed at documenting the existing fisheries management systems at the community level. Specifically, the study was directed towards the achievement of the following objectives:

1. To document the implementation of the Code by assessing the extent to which the LGUs have implemented the codal provisions concerned with the management of fisheries/aquatic resources in the community;

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2. To identify critical issues and problems relative to the management of fisheries/aquatic resources at the community level and to problems involved with the Local Government Code provisions; and

3. To offer policy proposals that would strengthen existing fisheries/aquatic management systems at the local level.

### **Significance of the Study**

The fast degradation of the environment is alarming. How to address this problem is one, if not the foremost, concern of the present political and administrative leadership. This study is highly significant in terms of coming up with policy proposals to address such concerns. Based on the results of the study, the research specifically came up with recommendations on how best to manage community resources, focused on the fisheries/aquatic resources.

### **Study Design and Framework**

The descriptive study utilized the case study approach. It focused on two areas/levels:

#### **1) Local Government Level**

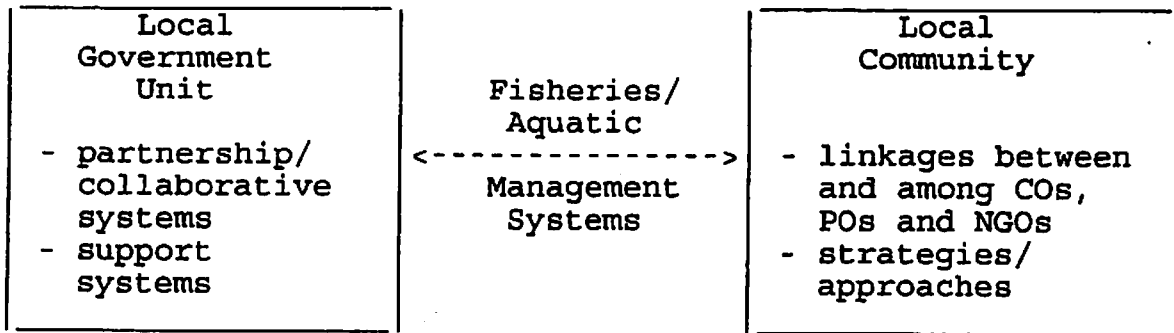
This part assessed the extent to which the provisions of the Code on the devolution of the functions pertaining to the fisheries/aquatic resources management have been implemented. Specifically, it examined the various activities/policies pursued by the local unit in promoting the establishment of NGOs/POs concerned with the management of fisheries/aquatic resources in the community; determined the collaborative and supportive systems extended to the community organizations (COs), nongovernmental organizations (NGOs) and people's organizations (POs); and identified the critical issues and problems impairing such kind of management systems.

#### **2) Local Community Level**

This section looked into the existing community management systems of fisheries/aquatic resources. This examined closely the established linkages between and among the COs, POs and NGOs and the strategies or approaches used in the management of fisheries resources.

The diagram below depicts the relationships between two development actors: the local government units and the community through the COs, POs and NGOs, in the management of fisheries/aquatic resources. The developmental role of each has to be interrelated or interfaced with one another to effect more responsive and effective systems of managing fisheries resources at the local level.

**Relationships of the Two Levels  
Covered by the Study**



The LGUs act as partners of the national government and the COs, POs, and NGOs in the management of fisheries resources. The kind of collaborative and supportive systems that the LGUs would extend to the community in the management of such resources would spell out the relative "success" of such efforts in co-managing fisheries resources.

The kind of strategies/approaches that the local community (POs, COs and NGOs) adopts in the management of fisheries resources could spell out the kind of interaction patterns between and among the national government, the local government units, and the community organizations involved. Understanding such patterns would lead to the identification of more effective management systems in the community. Still, this would point out the support systems needed for more sustainable co-management systems of resources.

Collaborative/partnership systems are seen in terms of the joint programs/projects being undertaken by the LGU and the COs or NGOs operating in the community; in terms of joint membership in organizations and structures established purposely for managing fisheries resources; and in terms of planning and implementation of activities concerned with the promotion of fisheries/aquatic resources management.

Supportive systems are measured in terms of the policies (executive orders, administrative orders, ordinances) of the LGU towards NGOs or COs in promoting the management of fisheries/aquatic resources; and in terms of the kind of technical assistance and financial resources extended to the NGOs or COs. Technical assistance and financial resources would take the form of extension of technical advice or expertise on managing fisheries/aquatic resources as well as manpower, facilities, equipment and funds allocated for the promotion of said management of resources.

Linkages between and among COs, POs and NGOs are seen in the organizations/structures established among the associations for the promotion of fisheries/coastal resources management. These linkages are also seen in their joint planning and implementation of programs/projects/activities and the sharing of resources between and among the organizations in their field operations.

The kind of strategies and approaches used takes the form of participative management where all sectors of the community (LGU, barangay residents, national government agency representatives, and NGOs/POs) are involved in the planning and implementation of programs/projects/activities concerned with the management of fisheries/aquatic resources.

Given the above framework and variables, the specific questions addressed by the study are the following:

#### **Local Government Level**

1. What are the pertinent provisions of the Code on the devolution of functions pertaining to fisheries/aquatic resources management?
2. To what extent have the said provisions been implemented?
3. What policies have been promulgated by the LGU in regard to fisheries/aquatic resources management? In particular, are there legislative measures (ordinances, resolutions passed by the Sanggunian), executive orders or administrative issuances prepared by the LGU executive branch, for the establishment and/or promotion of fisheries/aquatic resources in the community?
4. Has the LGU established linkages with the NGOs, POs, and/or COs concerned with the management of fisheries/aquatic resources in the community? Are these organizations represented in the local boards and other local special bodies?
5. Has the LGU extended any logistical support to those organizations involved in the management of fisheries/aquatic resources? What kind(s) of support systems have been extended by the LGU?
6. What problems are faced by LGUs with Local Government Code implementation in fisheries management (administrative, personnel, financial, etc.)?
7. What are the areas for improvement/change/strengthening of the Local Government Code for fisheries management?
8. How different LGUs have interpreted the Local Government Code provisions and implemented them?

9. What are the relationships of the different government levels and agencies under the Local Government Code framework for fisheries management (i.e., national, provincial, municipal)?

10. What technical assistance is needed to implement the LGC in fisheries?

#### **Local Community**

1. What are the existing organizations in the community concerned with the management of fisheries/aquatic resources?

2. Are there linkages between and among the said organizations?

3. Do the activities of the said organizations pertaining to the management of fisheries/aquatic resources complement and/or supplement the activities of the other organizations? In what way(s)? What about the activities of the LGU in regard to the said resources?

#### **Methodology and Implementation Strategy**

Utilizing the case study approach, the Local Government Center collaborated with some provincial-based state universities/colleges in conducting the research. The sample areas covered by the study with the cooperating institutions are the following:

	<u>Sample Area</u>	<u>University/College</u>
1.	Puerto Princesa City, Palawan	Palawan State University
2.	Tabaco, Albay	Bicol University
3.	Batan, Aklan	U.P. Iloilo
4.	Carigara, Leyte	U.P. Tacloban
5.	Kolambugan, Lanao del Norte	Mindanao State University
6.	Malalag, Davao del Sur	University of Southeastern Philippines

A case study guideline was prepared together with an interview guide which was used by the case study writers. Key informants included the mayor, municipal administrator, municipal planning and development officer, and officials of community

organizations in the selected municipalities involved in the management of fisheries resources.

An analysis of documents, reports, and other written materials was also undertaken.

### **The Local Government Code**

The Local Government Code has brought about changes in the delivery of services at the local level. Services which are traditionally delivered by the national government are now devolved to the LGUs. Among the devolved services is agriculture which includes the provision of services related to fisheries/aquatic resources management.

Section 17, (b) (2) of the Code stipulates that:

"extension and on-site research services and facilities related to agriculture and fishery activities which include dispersal of livestock and poultry, fingerlings, and other seeding materials for aquaculture" are the responsibilities of municipalities and cities.

In managing the above services, the LGUs can link up or may enter into joint ventures with NGOs or POs. This is specifically provided for in Sec. 35 of the Code which states that:

"local government units may enter into joint ventures and such other cooperative arrangements with people's and nongovernmental organizations to engage in the delivery of certain basic services, capability-building and livelihood projects, and to develop local enterprises designed to improve productivity and income, diversify agriculture, spur rural industrialization, promote ecological balance, and enhance the economic and social well-being of the people."

LGUs on the strength of their existing resources and capabilities may also provide assistance to POs or NGOs. Sec. 36 of the Code stipulates that:

"a local government unit may, through its local chief executive and with the concurrence of the sanggunian concerned, provide assistance, financial or otherwise, to such people's and nongovernmental organizations for economic, socially-oriented environmental or cultural projects to be implemented within its territorial jurisdiction."

Aside from the extension of assistance to POs or NGOs, the LGUs may provide services or exercise functions relative to fisheries/aquatic resources management through the Office of the Municipal/City Agriculturist. As provided for in the Code, the position of an agriculturist shall be optional for the city and municipal governments.

The city/municipal agriculturist is considered to be the main actor in the delivery of basic agricultural services. He/she also serves as the advisor of the local chief executive in matters relative to agriculture and aquaculture.

As provided for by the Code (Sec. 482), the city/municipal agriculturist shall, among others, discharge the following duties and responsibilities:

- "1) Ensure that maximum assistance and access to resources in the production, processing and marketing of agricultural and aqua-cultural and marine products are extended to farmers, fishermen and local entrepreneurs;
- 2) Assist the mayor in the establishment of demonstration farms or aqua-culture and marine projects;
- 3) Enforce rules and regulations relating to agriculture and aqua-culture;
- 4) Coordinate with government agencies and non-governmental organizations which promote agricultural productivity through appropriate technology compatible with environmental integrity;"

Another officer who plays a critical role in the management of fisheries/aquatic resources is the environment and natural resources officer. The position of the said officer is considered to be optional in the sense that the LGU may or may not appoint an environment and natural resources officer, depending on the needs of the local unit.

As provided for in Sec. 484 of the Code, the environment and natural resources officer shall head the office on environment and natural resources and shall perform, among others, the following duties and functions:

- "1) Formulate measures for the consideration of the sanggunian and provide technical assistance and support to the local chief executive in carrying out measures to ensure the delivery of basic services and provision of adequate facilities relative to environment and natural resources services;
- 2) Establish, maintain, protect and preserve communal forests, watersheds, mangroves, greenbelts, and similar forest projects;

- 3) Render assistance for natural resources related to conservation and utilization activities consistent with ecological balance; and
- 4) Coordinate with government agencies and NGOs in the implementation of measures to prevent and control land, air and water pollution with the assistance of the DENR."

The Code has also recognized the importance of financial resources for the implementation of projects/activities concerned with the management of fisheries/aquatic resources. The municipal/city governments are given authority by the Code to charge fishery rentals, fees and charges. Sec. 149 states that:

"(a) Municipalities shall have the exclusive authority to grant fishery privileges in the municipal waters and impose rentals, fees or charges therefor in accordance with the provisions of this Section.

(b) The sangguniang bayan may:

- (1) Grant fishery privileges to erect fish corrals, oyster, mussel or other aquatic beds or bangus fry areas, within a definite zone of the municipal waters, as determined by it: *Provided, however,* That duly registered organizations and cooperatives of marginal fishermen shall have the preferential right to such fishery privileges: *Provided, further,* That the sangguniang bayan may require a public bidding in conformity with and pursuant to an ordinance for the grant of such privileges: *Provided, finally,* That in the absence of such organizations and cooperatives or their failure to exercise their preferential right, other parties may participate in the public bidding in conformity with the above cited procedure.
- (2) Grant the privilege to gather, take or catch bangus fry, prawn fry or kawag-kawag or fry of other species and fish from the municipal waters by nets, traps or other fishing gears to marginal fishermen free of any rental, fee, charge or any other imposition whatsoever.

- (3) Issue licenses for the operation of fishing vessels of three (3) tons or less for which purpose the sangguniang bayan shall promulgate rules and regulations regarding the issuances of such licenses to qualified applicants under existing laws:

Further provisions state that the sanggunian shall pass an ordinance "penalizing the use of explosives, noxious or poisonous substances, electricity, muro-ami, and other deleterious methods of fishing and prescribe a criminal penalty therefor in accordance with the provisions of the Code." The Code has also given the sanggunian the authority to "prosecute violations of the provisions of applicable fishery laws."



**Chapter 2. MANAGING FISHERIES/AQUATIC RESOURCES  
AT THE LOCAL LEVEL: A COMPARISON  
AMONG SELECTED LGUs**

**Perla E. Legaspi**

This chapter attempts to compare the experiences of some LGUs i.e., Puerto Princesa, Tabaco, Batan, Carigara, Kolambugan, and Malalag in managing fisheries resources at the community level. The discussion centers on: 1) the extent of implementation of the Codal provisions; 2) problems encountered in the Code's implementation; 3) programs/projects in promoting the establishment of NGOs/POs concerned with management of fisheries/coastal resources; 4) collaborative support systems extended to NGOs/POs; 5) critical issues/concerns in improving fishery/aquatic resources management; 6) linkages among agencies and NGOs/POs; and 7) strategies/approaches in the management of fishery/aquatic resources.

**Extent of Implementation of the Codal Provisions**

**On Extension and On-Site Research Services and Facilities**

Among the six LGUs, the municipalities of Batan, Aklan, Kolambugan, Lanao del Norte, and Malalag, Davao del Sur have provided extension and on-site research services and facilities as provided for by the Code (see Table 1). It is quite interesting to note that Puerto Princesa which is the only city among the group has not provided such services. Tabaco which is a third class municipality in terms of income has not also implemented such provision of the Code. And yet, these two LGUs are relatively richer in terms of resources. Perhaps, this could be attributed to the priority concerns of the said LGUs where extension and on-site services are not placed highly in their development agenda.

Apparently, the other LGUs have considered extension and on-site research services as very important based on their locations and/or situations. Kolambugan, for instance, which has the largest number of coastal barangays in the province of Lanao del Norte has to depend on fishery/aquatic/coastal resources. In this regard, the need to extend services to the coastal barangay becomes imperative. Thus, the municipality has gone into seaweeds and tilapia fingerlings dispersal. The same case is true with Batan, Aklan. The municipality has a project on the dispersal of bangus fingerlings and has extended support to demo farms and provided assistance for farm inputs such as fertilizers.

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The author acknowledges the assistance of Ms. Elisa Valeroso, University Research Associate of the Local Government Center, CPA-UP, in preparing the comparative tables.

**TABLE 1. EXTENT OF IMPLEMENTATION OF CODAL PROVISIONS**

	<b>PUERTO PRINCESA</b>	<b>TABACO, ALBAY</b>	<b>BATAN, AKLAN</b>	<b>CARIGARA, LEYTE</b>	<b>KOLAMBUGAN, LANA O DEL NORTE</b>	<b>MALALAG, DAVAO DEL SUR</b>
<b>Extension and On-Site Research Services and Facilities</b>	- not implemented	- does not provide	- extends support for demo farms - provides assistance for farm inputs such as fertilizers - dispersal of Bangus fingerlings	- none	- dispersal of seaweeds and tilapia fingerlings	- the Office of the Municipal Agriculturist and Env't. Officer provides the extension and on-site research services and facilities.
<b>Enforcement of Fishery Laws</b>	- Baywatch or Bantay Dagat conducts 24-hour patrols and monitors the movement of every seacraft	- irregular Bantay Dagat patrols	- creation of multi-sectoral task force on illegally constructed fishponds - designation of some municipal employees to serve as Fish Wardens - designation of municipal, barangay officials, DA personnel and PNP members as Deputy Fish Wardens	- Bantay Dagat Program was adopted	- the Municipal Fishery Law Task Force was organized	- Barangay Resource Mobilization Board to monitor and prevent use of deleterious methods of fishing as one of its activities
<b>Joint Ventures with POs/NGOs</b>	- not implemented	- none	- none	- joint venture with LABRADOR-CABDEC in the management of fishery resources	- coordinates with the Federation of Cooperatives in managing the Fishery Sector Program	- collaborates with NGOs/POs in managing the fisheries/aquatic resources

**TABLE 1. EXTENT OF IMPLEMENTATION OF ... (CONTINUED)**

	<b>PUERTO PRINCESA</b>	<b>TABACO, ALBAY</b>	<b>BATAN, AKLAN</b>	<b>CARIGARA, LEYTE</b>	<b>KOLAMBUGAN, LANA O DEL NORTE</b>	<b>MALALAG, DAVAO DEL SUR</b>
<b>Provision of Assistance to PO/NGOs</b>	- provides financial assistance	- provided fishermen as part of its assistance to the fishery sector	- provides a Livelihood Assistance Program	- MAO extends technical assistance to LABRADOR-CABDEC	- loans were offered to marginal fishermen to finance alternative means of generating income	- provides technical assistance and a financial facility which provides loans to cooperatives
<b>Grant of Fishery Privileges to Marginal Fishermen</b>	- none	- none	- none	- Ord. No. 3 cooperatives of marginal fishermen shall have the preferential right to fishery privileges	- marginal fishermen can gather fry or catch fish without any imposition except in marine reserves	- Sec. 18 of Fishery Code mandates granting of preferential right to cooperatives of marginal fishermen

**TABLE 1. EXTENT OF IMPLEMENTATION OF CODAL PROVISIONS (CONCLUDED)**

	<b>PUERTO PRINCESA</b>	<b>TABACO, ALBAY</b>	<b>BATAN, AKLAN</b>	<b>CARIGARA, LEYTE</b>	<b>KOLAMBUGAN, LANA O DEL NORTE</b>	<b>MALALAG, DAVAO DEL SUR</b>
<b>Passage of Ordinances Penalizing the Use of Deleterious Methods of Fishing</b>	- Ordinances imposing fines and penalizes illegal fishing	- SB passed Ord. No. 8 (1993) prohibiting deleterious methods of fishing	- Ordinances imposing fines and penalizing illegal fishing	- the SB has passed on 3rd reading Ord. No. 3 (1995) regulating fishing in the municipality of Carigara (penalizes use of deleterious methods of fishing and issues license for the operation of fishing vessels 3 tons or less)	- New Basic Fishery Ordinance	- Ord. No. 21('93) amended the Mun. Fishery Ord. banning commercial fishing trawls, etc. & fishing methods w/ compressors & prohibits destructive methods of fishing
<b>40% LGU Share of the National Gov't. Collection from Fishery Charges</b>	- none	- none	- none	- none	- none	- none
<b>The Creation of the Office of the Municipal Agriculturist and its Functions</b>	- provision of assistance/access to resources in the production, processing and marketing of marine products (1.5M)	- does not provide assistance/access to resources in the prod'n., processing and marketing of marine products	- the Office of the Municipal Agri. Officer was created to provide technical assistance, extension services and livelihood assistance to fishermen; implement the fishery sector program and enforcement of environmental protection/fishery laws and construction of artificial reefs	- The Agricultural Officer extends technical assistance to LABRADOR-CABDEC	- Office of the Municipal Agricultural Services which takes charge of dispersal of fingerlings and other seeding materials for aquaculture; water resource utilization conservation projects; and enforcement of fishery laws	- the Office of the Mun. Agri. & Env't. Officer was created integrating the functions and authority of the Agri. and Env't. and Natural Resources Officer
<b>The Environment and Natural Resources Officer</b>	- there's an appointed officer	- OIC	- none	- none	- CENRO who is in-charge of mangrove rehabilitation	

### **On the Enforcement of Fishery Laws**

As shown by Table 1, all the six LGUs have adopted and established some measures to enforce fishery laws in their respective localities. Puerto Princesa, Tabaco, and Carigara have their Baywatch or Bantay Dagat patrols which monitor the movement of every seacraft and the use of illegal fishing methods. Meanwhile, Batan, Kolambugan, and Malalag have organized their own task forces or boards to perform the same function. Batan particularly has designated some municipal employees to serve as fish wardens and likewise designated some barangay officials, Department of Agriculture personnel, and PNP members to act as Deputy Fish Wardens.

The above measures imply the awareness of the LGUs about the strong need to protect their coastal resources and to regularly monitor activities in their municipal/city waters.

### **On Joint Ventures with NGOs/POs**

Surprisingly, not all of the sample LGUs have established some joint ventures with NGOs/POs with respect to fishery/coastal resources management. As indicated by Table 1, three of the sample LGUs have some collaborative undertakings with certain NGOs/POs. Carigara, for example, has a joint venture with Leyte-Samar Rural Development Worker Association-Carigara Bay Development Center (LABRADOR-CABDEC) in the management of fisheries resources. Kolambugan coordinates with the Federation of Cooperatives in managing the Fishery Sector Program and Malalag collaborates with certain NGOs in the management of fisheries/aquatic resources in the community.

### **On Provision of Assistance to NGOs/POs**

It can be noted from the same table that the LGUs have established collaborative linkages/joint ventures with NGOs/POs. They have also provided some assistance, i.e., technical, funds and loans, to said NGOs/POs. Nevertheless, two other local units, Puerto Princesa and Tabaco, have extended assistance to the fishery sector despite the absence of joint ventures with NGOs.

### **On the Grant of Fishery Privileges to Marginal Fishermen**

Based on the same table, three local units have not granted fishery privileges to marginal fishermen while the other three LGUs have. Carigara and Malalag for example, have passed an ordinance and Fishery Code respectively which specifically grants preferential right to cooperatives of marginal fishermen. Kolambugan has also granted the said right and privilege to marginal fishermen to gather fry and catch fish in the municipal

waters. Apparently, the latter three local units have recognized the need for marginal fishermen to have access to such right and privilege. As a sector, they could not compete with the "big" fishermen who have all the resources to pay the charges imposed by the local government.

#### **On the Passage of Ordinances Penalizing the Use of Deleterious Methods of Fishing**

It is worth noting that all the sample LGUs have passed ordinances providing for penalties for the use of deleterious methods of and illegal fishing. In particular, Malalag has amended its Municipal Fishery Ordinance by banning commercial fishing trawls and other fishing methods with the use of compressors and prohibits destructive methods like the use of dynamites. Kolambugan has also passed a new Basic Fishery Ordinance which provides for fines and penalties for the use of deleterious methods of fishing.

The passage of the above ordinances by the LGUs is a telling sign that the units are very much aware of the disastrous effects of such methods of fishing and are in the direction of conserving their fishery/coastal resources for sustainable development.

#### **On the LGU share of the National Government Collection from Fishery Charges**

One of the significant provisions of the Code regarding management of fisheries/coastal resources is the 40% share of LGUs from the collection of fishing charges. This would add to the meager financial resources of the local units. However, this particular provision has not been actualized because the LGUs under study have not received yet their share from the national government.

#### **On the Creation of the Office of the Municipal Agriculturist and the Position of Environment and Natural Resources Officer**

One of the devolved functions is agricultural services. In this light, it is significant to note that all the sample LGUs have created their own Municipal Agriculturist Offices whose functions lend to the provision of assistance/access to resources in the production, processing, and marketing of marine products; extension services and livelihood assistance to fishermen; water resources utilization and conservation projects; and enforcement of fishery laws.

The creation of the said office is a very positive sign of the seriousness of the LGUs to conserve, protect and manage well their water/fisheries/coastal resources.

While all the local units have created their own Municipal Agriculturist Offices, not all of them have created the position of Environment and Natural Resources Officer. Puerto Princesa has appointed one to the position while Tabaco has just designated an Officer-in-Charge. Batan and Carigara have not created a position for this officer, while Kolambugan has designated the Community Environment and Natural Resources Officer (CENRO) of the DENR to take charge of mangrove rehabilitation in the municipality. Meanwhile, Malalag, for efficient use of its resources, has established the Office of the Municipal Agriculturist and Environment Officer to take charge of the agricultural and environmental concerns of the municipal government.

It seems that the sample LGUs do not have enough resources to create the office or position of Environmental and Natural Resources Officer (ENRO). Nevertheless, some of the supposedly functions of the ENRO are lodged with the Office of the Municipal Agriculturist.

#### **Problems Encountered in the Code's Implementation**

As seen from Table 2, all the sample LGUs are beset with the lack of resources such as manpower, financial and technical, to fully implement the provisions of the Code. Puerto Princesa and Malalag for instance, need full-time and qualified personnel to provide the necessary extension services. Tabaco lacks fishing/aquatic technician or technologist in the Office of Municipal Agriculturist.

Related to the lack of technical personnel is the insufficient technical know-how in the management of fisheries/aquatic resources particularly in establishing the specific boundaries of municipal waters in the case of Kolambugan.

Due to meager financial resources of the local units, there are difficulties in sustaining and maintaining the Bantay Dagat Program.

Complementing the above problem is the absence of issue-oriented NGOs and advocacy groups as noted in Tabaco.

#### **Promoting the Establishment of NGOs/POs Concerned with Management of Fisheries/Coastal Resources**

In all the sample LGUs, promoting the establishment of NGOs/POs concerned with management of fisheries/coastal resources takes the form of accreditation of said organizations. Tabaco and Batan have started accrediting POs and NGOs while Kolambugan has encouraged the establishment of fishermen coops with the

**TABLE 2. PROBLEMS ENCOUNTERED IN THE CODE'S IMPLEMENTATION**

<b>PUERTO PRINCESA</b>	<b>TABACO, ALBAY</b>	<b>BATAN, AKLAN</b>	<b>CARIGARA, LEYTE</b>	<b>KOLAMBUGAN, LANA O DEL NORTE</b>	<b>MALALAG, DAVAO DEL SUR</b>
<p>- absence of full time personnel to provide extension services</p>	<p>- absence of a fishery/aquatic technician or technologist in the Office of the Municipal Agri. Officer</p> <p>- difficulty in apprehension of big-time violators: 1) coastal patrol system lacks logistical support, and 2) procedures for arrest spell difficulties.</p> <p>- the aquatic resources mgmt. bottom-up approach has taken a long time to take place due to: 1) lack of technical &amp; logistic assistance; and 2) absence of issue-conscious NGOs &amp; advocacy grps.</p> <p>- lack of funds to support the patrolling of Tabaco Bay &amp; Lagunoy Gulf</p> <p>- problem of convicting persons using illegal methods</p>	<p>- encroachment of illegal fishers within the 15 km. limit</p> <p>- lack of complete &amp; reliable list of fishing gear owners &amp; fishpond operators</p>	<p>- meager financial support to the Bantay Dagat Team</p> <p>- delay in the enactment of the proposed ordinance regulating fishing</p>	<p>- problems in processing &amp; marketing of seaweeds &amp; tilapia due to low prevailing market price</p> <p>- municipality lacks capability to re-establish the specific boundaries of its municipal waters</p>	<p>- difficulty in recruiting qualified personnel</p> <p>- the office of the Agri. Officer has limited supervision of fishponds operating within the municipality under the FLA</p> <p>- the need for technical assistance from the DA</p>



assistance of existing NGOs in the community. Also, Malalag has assisted COs in the preparation of documents for their accreditation and registration with the Securities and Exchange Commission (SEC) (see Table 3).

Carigara has not yet accredited LABRADOR-CABDEC, the NGO which is very much concerned with the management of such resources, and Puerto Princesa does not have specific policy on this kind of endeavor.

#### **Collaborative/Support Systems Extended to NGOs/POs**

Aside from accrediting and encouraging the establishment of NGOs concerned with the management of fisheries/coastal resources, majority (5 out of 6) of the sample LGUs have established some support systems to such NGOs in various forms (see Table 4). In Tabaco, for example, the concerned NGOs participate in the Municipal Resources Council. The same case is true in Batan where NGOs/POs participate in the meetings and planning exercises of its Coastal Resource Management Council.

In Kolambugan, three NGOs were involved in the management of coastal resources through community awareness building and organizing activities. About 13 fishermen coops are also involved in the formulation of barangay development plans which include the Barangay Integrated Coastal Resources Management Plan.

Malalag provides logistical support to NGOs/POs in the form of seedlings and planting materials, use of facilities, transportation and financial assistance in membership seminars and advocacy training. The local unit works closely with the KAPWA Upliftment Foundation, an NGO, in the rehabilitation of Baybay, a coastal barangay.

Although Puerto Princesa has not established any linkage with NGOs/POs in the management of coastal resources, it has extended financial assistance to certain NGOs operating within its territorial jurisdiction.

#### **Linkages Among Agencies and NGOs/POs**

As noted from the case studies, a number of government agencies, NGOs/POs, and academic institutions whose operations are based in the local communities, are linked to each other through the local government structures like the Municipal Development Council and fishery related bodies, i.e., Provincial Environmental Defense Council in Malalag, the Inter-Municipal Coastal Resource Management Council in Batan, and the Municipal Fishery Law Enforcement Task Force in Kolambugan (see Table 5).

**TABLE 3. PROMOTING THE ESTABLISHMENT OF NGOs/POs CONCERNED WITH MANAGEMENT OF FISHERIES/COASTAL RESOURCES BY SAMPLE LGUs**

<b>PUERTO PRINCESA</b>	<b>TABACO, ALBAY</b>	<b>BATAN, AKLAN</b>	<b>CARIGARA, LEYTE</b>	<b>KOLAMBUGAN, LANA DEL NORTE</b>	<b>MALALAG, DAVAO DEL SUR</b>
- the city gov't. does not explicitly encourage establishment of these NGOs/POs as it has no specific policy on this	- accreditation of fishermen's groups	- Resolution No. 13-A (1992) accredited 5 NGOs/POs - Resolution No. 51 (1992) accredited 6 additional NGOs/POs	- the municipal gov't. has not yet accredited LABRADOR-CABDEC which is responsible for FSP-CRM	-the municipal gov't. encouraged the establishment of fishermen cooperatives with the help of NGOs	- assisted community organizations in preparing for their accreditation and registration with gov't. agencies such as SEC

**TABLE 4. COLLABORATIVE/SUPPORT SYSTEMS EXTENDED TO NGOs/POs BY SAMPLE LGUs**

<b>PUERTO PRINCESA</b>	<b>TABACO, ALBAY</b>	<b>BATAN, AKLAN</b>	<b>CARIGARA, LEYTE</b>	<b>KOLAMBUGAN, LANA DEL NORTE</b>	<b>MALALAG, DAVAO DEL SUR</b>
- no linkage, the city merely provides financial assistance	- Local Government Resource Council - LGU - NGOs joint activities in aid of legislation - Philippine Rural Reconstruction Movement - NGOs partnerships for preliminary social investigation - Bay Management Council monitors illegal fishing and is in-charge of mangrove reforestation	- no other collaborative system other than involving NGOs/POs in Coastal Resource Mgmt. Council meeting and planning	- the Office of the Municipal Agri. Officer monitors LABRADOR	3 NGOs had been involved in the mgmt. of Kolumbugan's coastal resources: 2 were in community organizing (NETWORK & TIPASI); K of C manages implementation of Mangrove Rehabilitation Project - there are 13 fishermen cooperatives involved in the formulation of bgy. dev't. plans which include the Bgy. Integrated CRM plan	-KAPWA Upliftment Foundation, an NGO, is working with the local gov't. in rehabilitating coastal Bgy. Baybay, it conducts IEC - the municipal gov't. also initiated the formation of a Bgy. Resource Mobilization Action Board (BRMAB). It monitors and prevents use of destructive methods of fishing - from the 20% Dev't. Fund the local gov't. provides financial facility for cooperatives and livelihood groups - NGOs/POs received logistical support in the form of seedlings & planting materials; use of facilities; transportation and financial assistance; also assistance in conducting membership seminars and advocacy training

**TABLE 5. LINKAGES AMONG AGENCIES AND NGOs/POs /COs**

PUERTO PRINCESA	TABACO, ALBAY	BATAN, AKLAN	CARIGARA, LEYTE	KOLAMBUGAN, LANA O DEL NORTE	MALALAG, DAVAO DEL SUR
<p>- community-based orgs. claim no linkage with city/provincial gov't. in so far as implementation of their projects on mgmt. &amp; protection of Ulugan Bay</p>	<p>- coordination with NGOs /POs in Bantay Dagat operations and membership of fishermen's cooperatives in the Municipal Development Council</p>	<p>- CIDA provides financial assistance to the Inter-Municipal Coastal Resource Mgmt. Council/Program                      - UP Visayas provides technical assistance                      - involvement of NGAs such as DA, DENR, PNP as well as the provincial gov't. in the ICRM Council and the farmers and fisherfolks in implementing Coastal Resource Mgmt. Programs and enforcement of fishery laws</p>	<p>- linkages between LABRADOR, Fishermen Associations and the MPYA                      1) LABRADOR prepared implementation plans for the community organization component of the FSP-CRM.. It also facilitated the formation of core groups and coastal resources mgmt. committees                      2) LABRADOR also established coordination linkages with the MPYA which is responsible for community organization and undertaking CRM activities in Capoocan. Both NGOs through heads and staff attended the meetings of the CBM Council                      3) MPYA also shared some of their documents and reports on artificial reefs to LABRADOR</p>	<p>- 13 fishermen cooperatives have become members of the Federation of Cooperatives                      - the Federation is represented in the Municipal Devt. Council by its president                      - each of the 13 FCs is represented by its chairman in the Bgy. Development Council                      - the 13 FCs are members of the Municipal Cooperative Development Council                      - each of the FCs has two representatives to the Municipal Fishery Law Enforcement Task Force</p>	<p>- NGOs/POs with fishery concerns are represented in the Municipal Devt. Council                      - 11 NGOs/POs are involved in CRM programs and projects                      - NGOs/POs also participate in the Provincial Env't. Defense Council                      - the municipality is spearheading the formation of an alliance of municipalities of Malalag Bay to be operationalized through the strategic plan for the establishment of a Provincial Agricultural-Industrial Center (PAIC)</p>

The involvements of the various sectoral players are operationalized not only through the local government structures and other fishery-related bodies but also through the implementation of the Department of Environment and Natural Resources' Coastal Environment Program (CEP), Coastal Resource Management - Fishery Sector Program (CRM-FSP) of the Department of Agriculture, and the Coastal Resource Management of Canadian International Development Agency (CIDA). All these programs include projects which are aimed at conserving and developing coastal resources in all the study sites (see Table 6).

### **Critical Issues/Concerns Impairing Fishery/Aquatic Resource Management System**

As seen from Table 7, the common problems affecting the fisheries/coastal resources management system are the: 1) insufficient logistical support to Baywatch Program, to support alternative livelihood programs, to conduct training programs on mangrove reforestation, and other related coastal resources management programs; 2) weak law enforcement and inadequate law enforcement facilities; and 3) lack of organizational and technical capability.

Despite the structural and program linkages with the NGOs/POs, some operational problems are noted in Puerto Princesa, Batan, and Carigara. In Puerto Princesa, for instance, certain civic organizations appear to be unconcerned about coastal resources management programs. In Batan, there seems to be the lack of systematic or more effective inter-municipal coordination mechanism among NGOs/POs and the LGU. And in Carigara, a weak linkage between the municipal government and LABRADOR exists.

Perhaps due to the lack of technical know-how on the part of Batan, it is noted that there is lack of comprehensive plan for fisheries and aquatic resources.

In the same vein, there is no integrated policy for fisheries/coastal resources management for Malalag Bay. It seems that the absence of such policy is reflective of the lack of provincial initiative for an area-wide policy on fisheries/coastal resources management.

### **Strategies/Approaches in the Management of Fishery/Aquatic Resources**

Apparently, the main approach being employed in the management of fishery/aquatic/coastal resources is participatory in nature (see Table 8). In all the study sites, different sectors are involved in various activities such as the LGU, national government agencies, academic institutions, foreign/international financing/development organizations, and the NGOs/POs.

**TABLE 6. EXISTING COMMUNITY MANAGEMENT SYSTEM OF FISHERY/AQUATIC RESOURCES**

PUERTO PRINCESA	TABACO, ALBAY	BATAN, AKLAN	CARIGARA, LEYTE	KOLAMBUGAN, LANA O DEL NORTE	MALALAG, DAVAO DEL SUR
<p>- presence of NGOs operating in Ulugan Bay involved in DENR's 5 year Coastal env't Program (CEP). It aims to conserve, protect &amp; rehabilitate Ulugan Bay and grant preferential rights to sustenance fishermen &amp; ultimately transfer resource use regulatory powers to coastal communities</p>	<p>- Coastal Resource Mgmt - Fishery Sector Program (CRM-FSP). the mechanism for implementing this program is the Coastal Resource Dev't. Council</p>	<p>- the municipality's fishery/aquatic resource mgmt. system is anchored on the Coastal Resources Mgmt. Project (CRM)                      - CRM is a capability building project designed to conserve , develop &amp; implement an integrated &amp; community based coastal resource mgmt. program                      - to manage the implementation of the progra m the following were created : 1) Intermunicipal Coastal Resource Mgmt. Council; and 2) Municipal Coastal Resource Mgmt. Body</p>	<p>- FSP-CRM Carigara Bay, designed to cope with the problems of coastal resources depletion, widespread env'tl. damage &amp; increasing poverty among fishing communities through maintenance of env'tl. integrity of the coastal and fishery related systems of the bay.                      - the Carigara Bay Mgmt. Council acts as an advisory body to ensure a uniform, rational and coherent mgmt. of the bay</p>	<p>- Coastal Resource Mgmt. Program (CRM) with the following projects :                      1) construction of Bay Watch tower in Pasil, Mucas                      2) construction of 42 modules of artificial reefs for 5 bgys.                      3) sending of technologist to a training/seminar on scuba diving                      4) establishment of a one-hectare spot collector for oyster culture                      5) establishment of one-hectare demonstration farm for mussel culture                      6) establishment of a six-hectare seaweed farm in Simbuco to serve as a source of seeding materials for seaweed production</p>	<p>- CRM is a comprehensive effort to promote the conservation and sustainable use of the municipality's coastal resources, focusing on mangrove rehabilitation and artificial reef installation                      - support at community level are given by the FCs, Local Dev't. Councils and Barangay Advisory Teams on Environment (BATEs) through IEC, serve as members of the Bantay Dagat force and undertake fishery related activities                      - action plans are deliberated and decided on by the Bgy. Dev't. Council</p>

**TABLE 7. CRITICAL ISSUES/CONCERNS IMPAIRING FISHERY/AQUATIC RESOURCE MANAGEMENT SYSTEM**

PUERTO PRINCESA	TABACO, ALBAY	BATAN, AKLAN	CARIGARA, LEYTE	KOLAMBUGAN, LANA DEL NORTE	MALALAG, DAVAO DEL SUR
<ul style="list-style-type: none"> <li>- corrupt practices of some high ranking military officials stationed in Palawan</li> <li>- unconcern of civic orgs. to get involved</li> <li>- inadequate resources for Baywatch staff</li> </ul>	<p>Issues:</p> <ul style="list-style-type: none"> <li>- lack of funding support</li> <li>- problem of initiative &amp; advocacy</li> <li>- lack of qualified personnel</li> <li>- legislative agenda must cover the declaration of open &amp; closed fishing seasons</li> <li>- program implementation need a more aggressive campaign strategy complemented w/a functional leadership dev't. program</li> <li>- infrastructure: Albay province lacks block -ice and storage facilities</li> </ul>	<ul style="list-style-type: none"> <li>- lack of alternative livelihood</li> <li>- lack of financial resources to support alternative livelihood</li> <li>- absence of zoning plan</li> <li>- limited env'tl. awareness</li> <li>- lack of organizational and technical capability</li> <li>- lack of systematic or more effective inter-municipal coordination mechanism among LGUs, NGOs/POs sectors at resolving env'tl. issues</li> <li>- lack of comprehensive plan for fisheries &amp; aquatic resources</li> <li>- absence of credit assistance marketing services for agri., fisheries &amp; cottage industries</li> </ul>	<ul style="list-style-type: none"> <li>- inadequate law enforcement</li> <li>- weak linkage between the municipal gov't. &amp; LABRADOR</li> <li>- inadequate implementation of FSP-CRM</li> </ul>	<ul style="list-style-type: none"> <li>- on protection, conservation &amp; regeneration of fish habitat :               <ol style="list-style-type: none"> <li>1) difficulties on the part of the mun. gov't. to completely stop the cutting/use of mangrove trees &amp; conversion of mangroves</li> <li>- lack of funds for training programs on mangrove reforestation</li> <li>- dilemma of local officials regarding the Barge Landing Project</li> <li>- low awareness of the people due to lack of information campaign resources</li> <li>- continued destruction of fish habitat through illegal fishing operations due to lack of law enforcers and inadequate law enforcement facilities</li> <li>- water pollution due to lack of wave breakers and quarrying</li> <li>2) on reduction of fishery pressure:                   <ul style="list-style-type: none"> <li>- most fishermen have no other livelihood skills</li> <li>- existing sources of capital for land-based alternative livelihood impose an interest rate beyond fishermen's capability to pay</li> <li>- non-availability of land for landless fishermen who intend to engage in land-based economic activities</li> <li>- difficulties in running after migrant fishermen</li> </ul> </li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>- absence of an integrated policy for fisheries/coastal resources mgmt. for Malalag Bay</li> <li>- balancing agro-industrial dev't. with the concern for coastal resource mgmt.</li> <li>- lack of provincial initiative for area-wide policy on fisheries/coastal resource mgmt.</li> <li>- continued supervision by the DA of Fishpond Lease Agreement (FLA)</li> <li>- need for superior technical training &amp; skills related to env'tl. conservation and impact analysis</li> <li>- need to strengthen fishery and aquaculture capability of the Office of the Municipal Agri. and Env't.</li> </ul>

**TABLE 8. STRATEGIES/APPROACHES IN THE MANAGEMENT OF FISHERY/AQUATIC RESOURCES**

PUERTO PRINCESA	TABACO, ALBAY	BATAN, AKLAN	CARIGARA, LEYTE	KOLAMBUGAN, LANAO DEL NORTE	MALALAG, DAVAO DEL SUR
<p>- involvement of NGOs/POs and the community is a basic strategy in the implementation of the CEP: the Ulugan bay Foundation, Inc (UBFI) undertook community organizing; the community-based orgs. conducts education campaigns; the Farmers Cooperative of Macarascas initiated drive against illegal fishing; members of the community orgs. have been designated as members Bantay Dagat force; and UBFI developed alternative income generating projects</p>	<p>- the Council conducts coastal mgmt. activities which include campaigns against illegal fishing, coastal rehabilitation, env'l. preservation and slide showing                      - a component of the program is focused on community organizing &amp; leadership development                      - education, training component includes activities pertaining to: fisherfolk consultations addressing sectoral issues and coastal resource mgmt. prerogatives; skills training on alternative livelihood cooperative orientations, and farmers assoc. leaders' planning sessions</p>	<p>- NGOs/POs serve as frontliners in terms of program implementation  <u>Planning</u>: MAFC and KMB are dependent on CRM for the planning process. The SMS uses participatory approach although close coordination with the CRM Body is done.  <u>Implementation</u>: MAFC assigns agri, technologist to do the job, for the KMB &amp; SMS both leaders and members participate  <u>Monitoring</u>: done by conducting meetings, visitations &amp; consultations</p>	<p>- in terms of the CRM component, the fishing communities working with the MAO and assisted by LABRADOR designed and implemented community-based projects/activities to control illegal fishing, conserve, rehabilitate and manage fishery resources</p>	<p>- the municipality encourages the fishermen cooperatives and Bgy. Dev't Council to conduct situation analysis in their respective bgys.                      - a bottom-up approach was adopted in planning process                      - implementation of CRM projects is done by fishermen cooperatives (FCs)                      - the FCs conduct monitoring activities in their projects</p>	<p>- community participation, consultation and multi-sectoral dialogues when planning                      - Implementation involves social preparation and formulation of legal agreements                      - Monitoring and evaluation activities are carried out through consultations, on-site visits, multi-sectoral dialogues and through periodic performance assessment and external evaluation</p>

The participation of the NGOs/POs seems to be the basic strategy in the implementation of programs related to coastal resources management. In Kolambugan, the fisherman's cooperatives are the frontliners in fishery/aquatic resource management. In Puerto Princesa, the Ulugan Bay Foundation Incorporated is the primary NGO; in Tabaco, the PRRM; in Batan, the Municipal Agricultural and Fishery Council (MAFC) and the Katibuyugan it Mga Mangingisda sa Batan (KMB); in Carigara, LABRADOR; in Kolambugan, the NETWORK Foundation, Inc.; the Tinabangay sa Panguima Alayon sa Industria (TIPASI) Foundation, and the Knights of Columbus (Knight of Columbus, Kolambugan Chapter); and in Malalag, the KAPWA Upliftment Foundation, the Bagumbayan Fishermen's Cooperative, the Nagkahiang Pundok sa Gagmayong Mananagat (NAPUGAMA), and the Baybay Multipurpose Cooperative.

Participation also involves consultation and multi-sectoral dialogues. In Malalag, monitoring and evaluation activities are done through consultations, on-site visits, and multi-sectoral dialogue.



### Chapter 3. SUMMARY and CONCLUSIONS

Perla E. Legaspi

The case studies documented the existing management systems on fisheries/aquatic resources at the local level. Specifically, the research undertaking assessed the extent of implementation of the codal provisions pertinent to the management of said resources. It identified critical issues and problems affecting the implementation of such codal provisions as well as those related to the management of fisheries/aquatic resources at the community level.

As found in the case studies, the sample LGUs have generally implemented the pertinent provisions of the Code. Majority of them have provided extension and on-site research services and facilities to the fishery sector. Their awareness and concern about protecting their fisheries/coastal resources are very much evident in their adoption of some measures to enforce fishery laws in their respective communities. Three of the units have established Baywatch or Baybay Dagat patrols and the rest have organized their own task forces or boards to monitor illegal activities in their municipal waters.

Aside from the enforcement of fishery laws, the LGUs also passed ordinances providing for penalties for the use of deleterious methods of and illegal fishing.

While some NGOs/POs concerned with the management of fisheries/coastal resources are noted to be operating in almost all of the LGUs, only 50% have established some joint ventures with them on this matter. Nevertheless, despite the absence of such collaborative undertakings, they have provided some assistance in the form of technical know-how, funding and loans.

It is also noted from the case studies that three of the sample LGUs have granted fishery privileges to marginal fishermen most especially to fishermen cooperatives. The grant of fishery privileges to such groups encourages the formation of coops in the countryside which is a positive approach to community management of resources.

Following the devolution of agricultural services to the local units, it is significant to mention that all of the sample LGUs have created their own Municipal Agriculturist Offices whose functions focus on the provision of assistance/access to resources in the production, processing, and marketing of marine products; extension services and livelihood assistance to fishermen; water resources utilization and conservation projects; and enforcement of fishing laws. The establishment of such offices suggests the seriousness of the LGUs to conserve, manage and protect their fisheries/coastal/water resources.

Nonetheless, the implementation of the Codal provisions is not without problems. The case studies have identified difficulties of the LGUs to fully implement such provisions due to insufficient or lack of resources in terms of manpower, financial, and technical. Competent and qualified personnel who would work on a full-time basis are needed to provide technical and other services to the fisherfolk. The transfer of technology to the LGUs in the management of their resources is also needed.

The sustenance and maintenance of the Bantay Dagat Program appears to be imperiled due to the lack of financial resources among the LGUs.

Despite the identified problems, the sample LGUs have made some initiatives toward promoting the establishment of NGOs/POs concerned with the management of fisheries/coastal resources. As a starter, the units have accredited POs/NGOs operating within their respective localities. Furthermore, they have established some support systems for the operations of these NGOs/POs such as participation in the Municipal Resources Council or Coastal Resource Management Council. Aside from this kind of participation, the units have extended logistical support in the form of provisions of seedlings and planting methods, use of facilities, transportation and financial assistance in membership seminars and advocacy training.

Inter-linkages between and among the LGUs, national government agencies, NGOs/POs and some academic institutions appear to be extensive in the study sites. These various development actors are linked to each other through their membership and participation in the operations of certain local government structures like the Municipal Development Council and fishery related bodies such as the Provincial Environmental Defense Council in Malalag, the Inter-Municipal Coastal Resources Management Council in Batan, and the Municipal Fishery Law Enforcement Task Force in Kolambugan.

These networks are also operationalized through their involvements in the implementation of some programs like the Coastal Environment Program (CEP) of the Department of the Environment and Natural Resources (DENR), Coastal Resource Management - Fishery Sector Program (CRM-FSP) of the Department of Agriculture (DA), and the Coastal Resources Management of the Canadian International Development Agency (CIDA).

Based on the networks and linkages among the various players, a common strategy or approach that emerges is the participation of the community through the NGOs/POs in the implementation of programs related to fisheries/coastal resources management. The LGU merely provides the support system for the effective operationalization of the program. It also takes the lead in providing the necessary forum for consultations and multi-sectoral dialogues.

Although structural mechanisms have been set up in the community, some operational problems appear to beset the management of such resources. These are: 1) inadequate logistical support to Baywatch Program, to support alternative livelihood programs, to conduct training programs on mangrove reforestation, and other related coastal resources management programs; 2) weak law enforcement and poor law enforcement facilities; and 3) lack of organizational and technical capability.

The above issues and concerns should be addressed to come up with more effective management system of fisheries/aquatic/coastal resources at the local level. In this light, the following are recommended:

1. A major shift in orientation in the delivery of agricultural services from land-based agriculture to fisheries and aquaculture should be made. Such a shift can be realized by channeling additional resources, as manpower and facilities, to the implementation of devolved fishery functions. To concretize this channeling of additional resources, a unit under the Municipal Agriculturist Office can be created which will take charge of fisheries and coastal resources programs and projects.

2. The Department of Agriculture (DA) and the Department of Environment and Natural Resources (DENR) should provide the needed technical assistance to the LGUs within their areas of operations. Hands-on kind of training could be organized for the LGU personnel tasked with the functions pertaining to the management and conservation of fisheries/aquatic coastal resources.

3. In case the LGU does not have the competent and technically prepared personnel to perform the said functions, the DA and DENR should assign one of their technical staff to assist the local unit in undertaking such activities.

4. In terms of economies of scale, bay or gulf-wide management systems must be encouraged and supported by all local government units and NGOs/POs concerned. Moreover, interlocal cooperation among the local units covering the coastal and marine areas in the region should be established. Perhaps, a regional structure could be put up and the roles and functions/responsibilities of each sector or collaborating unit be identified for proper delineation of functions.

5. The LGU and the other national government agencies operating within the area should share the cost of maintaining and sustaining the Bantay Dagat or Baywatch Program. This function should be a shared responsibility between the LGU and the other national government agencies.

6. A stronger coordinative mechanism should be evolved among law enforcement agencies, i.e., LGU, PNP, DENR, and barangay, to fully enforce the fishery laws and anti-illegal fishing activities.

The cost of upgrading the law enforcement facilities should be shared among such local bodies. Each unit/agency including the barangay should be able to contribute some funds for the upgrading of the said facilities.

7. To strengthen the financial capacity of the LGUs, their shares from the national government collection from fishery charges should be given. The DBM should look into this to facilitate the release of such shares.

8. Every local unit must prepare and implement a comprehensive plan for the management of fisheries and aquatic resources, in the context of people's participation and empowerment. Such a comprehensive plan requires a sector study assessing the status of said resources. The study should cover issues on fisheries resources, illegal fishing, market opportunities and reforestation.

9. The overall resource management program can be lodged with a national government agency with a team of LGUs and NGOs/POs working under joint agreements.

10. In terms of local legislation, declaration of open and closed fishing seasons must be made by the concerned legislative councils. Such declaration must be premised on the availability of alternative livelihood programs which must be primarily supported by the local government units in coordination with the NGOs/POs.

11. The Fishery Ordinances of all local government units must be updated in line with the Local Government Code of 1991. To go along with the updated ordinance is the information and education campaign on fisheries and aquatic resource management.

# **PART 2**

## **CASE STUDIES ON THE MANAGEMENT OF FISHERIES AND AQUATIC RESOURCES AT THE LOCAL LEVEL**

**The Case of Puerto Princesa City**

**The Case of Tabaco, Albay**

**The Case of Carigara, Leyte**

**The Case of Batan, Aklan**

**The Case of Kolambugan, Lanao del Norte**

**The Case of Malalag, Davao del Sur**

## **PART 2. CASE STUDIES ON THE MANAGEMENT OF FISHERIES AND AQUATIC RESOURCES AT THE LOCAL LEVEL**

This part of the report discusses the experiences of six selected LGUs, namely, Puerto Princesa City, Tabaco (Albay), Carigara (Leyte), Batan (Aklan), Kolambugan (Lanao del Norte), and Malalag (Davao del Sur) in the management of fisheries and aquatic resources at the local level.

It focuses on: 1) the extent of implementation of the provisions of the Local Government Code pertaining to the fisheries and aquatic resources management; 2) policies and activities in promoting the establishment of NGOs/POs concerned with such resources management; 3) kinds of collaborative/supportive systems provided to the NGOs/POs; 4) critical issues and problems impairing the existing management systems; and 5) linkages between and among the NGOs/POs and the strategies or approaches used in the management of fisheries resources.

### **Objectives**

The overall aim of the case studies is to document the existing aquatic and fisheries management systems in the six selected study areas.

Specifically, it attempts to:

1. Assess the level of implementation of the Local Government Code regarding the devolution of functions relating to aquatic resources and fisheries management. It examines the activities/policies of the local government units to this end, including, but not limited to, the promotion of establishment of people organizations concerned with the management of fisheries and aquatic resources, and collaborative activities undertaken to address related concerns;

2. Identify critical issues and problems relative to the management of fisheries/aquatic resources at the local government end and to problems involved with the Local Government Code provisions; and,

3. Offer policy proposals that would strengthen existing fisheries/aquatic management systems in their respective localities.

**THE MANAGEMENT OF FISHERIES AND  
AQUATIC RESOURCES AT THE LOCAL LEVEL:  
THE CASE OF PUERTO PRINCESA CITY**

**Alicia B. Celestino\***

**Abstract**

While not a few local governments appear to lack interest in saving the remains of the ravage-wrought environment, the city of Puerto Princesa is racing against time to protect its land and water resources from further indiscriminate exploitation. Its *Bantay Puerto* Program, a nationally acclaimed environmental program, is a living proof of the city's deep regard for the environment.

The city has made quite an impact in the province of environmental protection despite some problems. It is yet to expand its involvement as well as strengthen or consolidate its efforts in the management of its fisheries/aquatic resources as this study reveals. Very minimal extension services concerning fisheries are being delivered by the city government because its City Agriculturist Office has no full-time staff (i.e., fishery technologists, aquaculturists) to do the job.

Insofar as the establishment of linkages or joint ventures with NGOs/POs in the fishery sector is concerned, no concrete actions for its operationalization have been initiated by the city government yet.

The city government is generous in giving financial assistance to these NGOs/POs in the fishery sector but it has not gone beyond this level of participation. Corollarily, it has no policies which explicitly promote the establishment of this kind of NGOs/POs. It seems that the city government has overlooked the fact that there is: 1) a need to foster the establishment of these NGOs/POs as well as 2) a need to forge a partnership with them. Both of these are necessary in the promotion of the scheme of co-management of fisheries/coastal resources which is perceived as a more effective and efficient way of managing and conserving these rapidly diminishing resources of the seas.

It is in the field of protecting its coastal areas where the city takes an active role. The implementation of the locally conceived Coastal Areas Protection Project (*Baywatch*), which is a reinforcement drive against illegal fishing and other sea-related

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illegal activities, has proved to be a wise move of the incumbent administration since this has become one of the more functional environmental projects of the city government which has some element of community participation. This project, however, is plagued by numerous problems, the most notable of which pertains to the corrupt practices of some men in the military sector that tend to undermine local efforts at saving the coastal resources. The seeming unconcern of the locally-based civic organizations for this movement and the inadequate facilities and wages of the Project staff add to the operational problems of Baywatch.

Judging from the sheer number of local legislations passed for the past three decades, it can be concluded that the city government has been quite active in coming up with fishery sector policies and regulations. It was only in the 1990s though when the city government actively passed coastal resources conservation and protection measures.

As to the substance of the policy legislations enacted so far, it can be noted that many of these local laws lack teeth to realize their intentions.

### Introduction

A development strategy that has sacrificed ecological balance for the sake of modernization prompted a worldwide rethinking of national economic activities, and the birth of the sustainable development philosophy. Just how much impact do disparate, seemingly insignificant actions at the local level have as far as the overall capability of the environment to sustain the needs of current and future generations, is concerned? Increasingly, the sustainable development movement has succeeded in committing nations to affirm their participation in managing their development in a manner that respects the limits of nature to nurture human beings: whether it concerns the land, the sea, or the atmosphere. It is however, in the arena of the atmosphere and the seas that friction among the actors is generally noted, and the Philippines is no exception to this.

It is in this context that the rapid depletion of marine and aquatic resources come to fore, generally perceived to be caused by destructive fishing practices, mismanagement of fisheries and aquatic resources, and unfavorable natural conditions that combine to harm coastal areas. The massive dependence of countries like the Philippines upon the yields of the waters is being jeopardized. With the recognition that localities who have the most to gain are the most viable actors in resolving aquatic resources management problems, there is a growing belief that protection of the coastal areas should seek out the participation of the people.



The Local Government Code of 1991 is one major piece of legislation which champions popular participation through its provisions on local governance and local development. It provides a vehicle by which a greater role by the people, and a better access to technical and financial resources for the localities in the management of coastal zones, can be actualized. Such a mandate and opportunity should be viewed vis-a-vis existing national parameters and institutional mechanisms in coastal management. To what extent can co-management be achieved? Do coastal communities, led by their leaders in government and in nongovernment organizations, have an awareness of the extent of the problems, and the opportunities to play a greater role? What has been done in these areas? This study aims to answer these questions.

## **Methodology**

The study utilized a combination of methodological approaches. Interviews were conducted with key informants who were purposively identified. Questionnaires were administered to them, i.e., one set for some members of the City Council, another set for the local chief executive and his functionaries and another one for the officers/representatives of non-governmental organizations/people's organizations involved in the management of fisheries and aquatic resources in the locality. Unstructured interviews were also made with some national government field officials who are engaged or who have programs and projects concerning fisheries and aquatic/coastal resources in the province of Palawan. Secondary data relevant to the case were gathered from the city government and other field offices of the national government like the Department of Agriculture (DA) and the Department of Environment and Natural Resources (DENR).

## **Respondents**

The major respondents of the study consisted of officials of the city government and those of the non-governmental/people's organizations engaged in fisheries/aquatic/coastal resources management in the locality (See Annex A).

## **Background of the Study Site**

Puerto Princesa is an ideal port city since it has the advantages of a seaport. It is endowed with a depth that can accommodate any size of ship and it is also naturally protected the whole year round. These advantages make the city a haven for ships and a virtual "princess of ports" as its name trumpets.

## Location

Puerto Princesa, the capital of Palawan, is about an hour away from Manila by plane. It is strategically at the heart of this largest island province which is considered as the country's last ecological frontier. It is bounded on the north by the municipalities of San Vicente and Roxas, on the south by the municipality of Aborlan, on the west by China Sea and on the east by Sulu Sea (See Map).

It is the country's second largest city (next only to Davao City) with a land area of 2,539.8 sq.km. It is made up of 66 barangays, 24 of which are urban and 42 are rural. Of the 42 rural barangays, 34 are scattered over the length of the city's coastline.

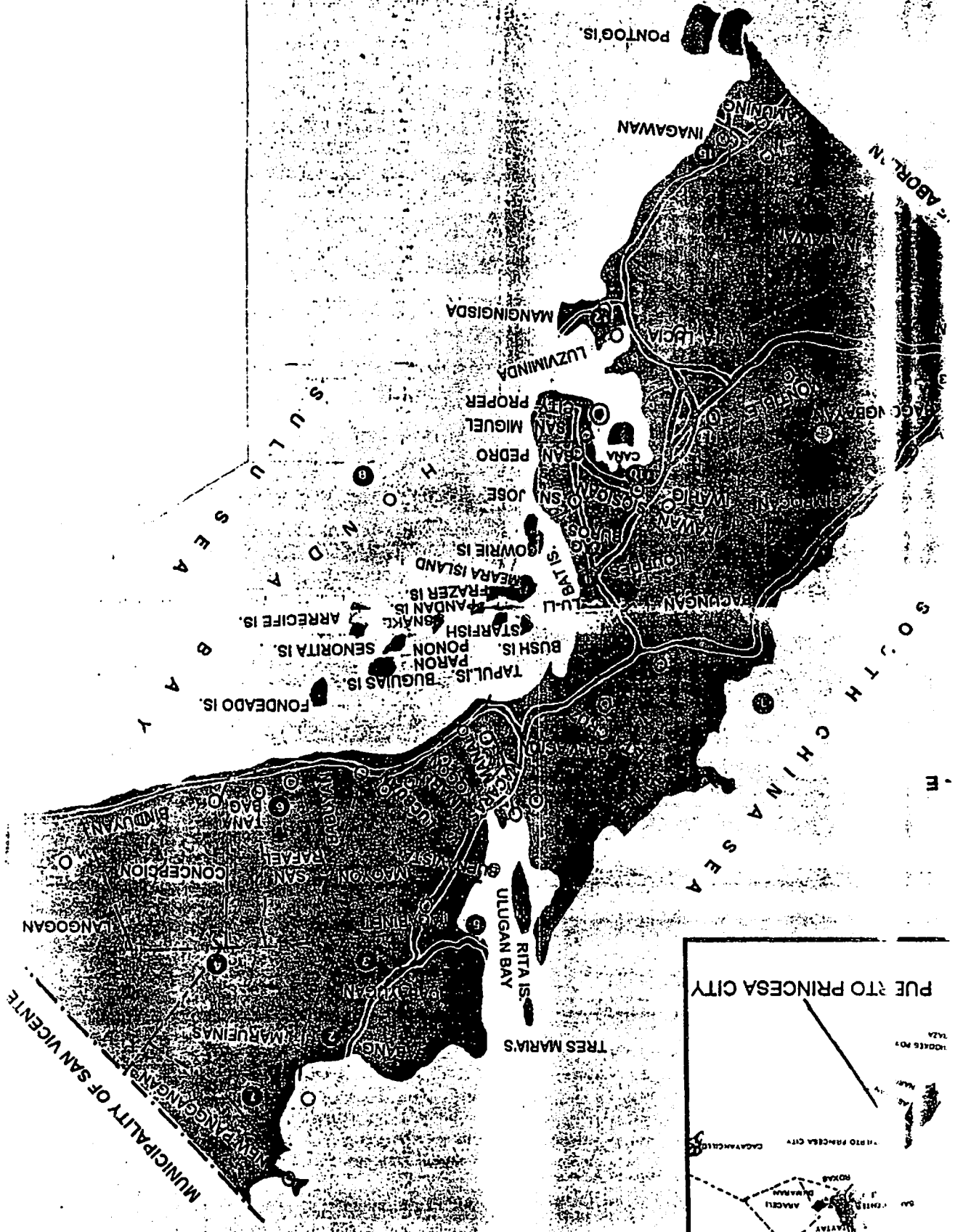
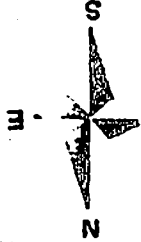
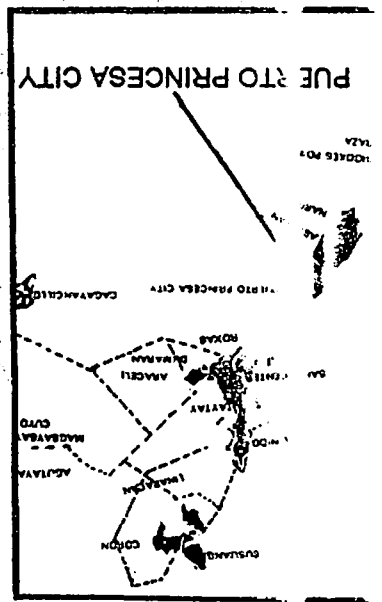
## Demographic and Economic Profile

As of 1990, the city's population was placed at 98,700. It had a population density of 39 individuals per sq. km., much lower than the national average of 120-140 persons per sq. km. The population growth rate of the city was quite high at 5.86% for the period 1985-1990. The rapid growth of population in the city was not only brought by natural increase but also by the influx of migrants from Luzon, Visayas and Mindanao. Squatting is one problem attendant to the influx of migrants.

The labor force of Puerto Princesa was about 60.7% (59,899) of the total population. Of this labor force, almost 50% (29,739) were economically active, 90% (26,744) of which were employed.

In terms of occupational grouping, agricultural workers, consisted one third or 35.25% (10,484) of the total gainfully employed workers. Of this group, 5,499 (52.5%) were farmers, 3,292 (31.4%) were fishermen and 1,693 (16.1%) were hired agricultural laborers (See Figure 1).

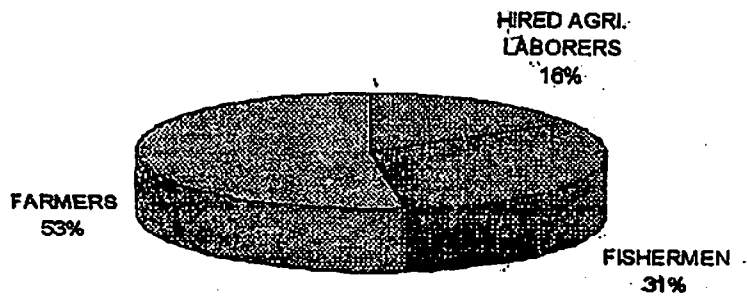
The group of clerical and related workers, professional/technical and related workers (26.21%) was the next biggest occupational group followed by sales workers group (14.65%) and the production and related workers, transport/equipment operators and laborers group (13.06%). The



**MAP OF  
Puerto Princesa City**

MUNICIPALITY OF SAN VICENTE

**FIG.1 AGRICULTURAL WORKERS**



service workers group and that of administrative, executive and managerial workers consisted of 7.85% and 0.65%, respectively.

Of the major sources of household income, fisheries ranked fifth (8.24%). The first four major sources were: 1) employment (44.88%), 2) trade and commerce (16.83%), 3) services and utilities (9.8%), 4) agriculture (8.48%) and others (11.73%) (See Figure 2).

### **Fishery/Aquatic Resources and Facilities**

The city has rich fishing grounds. Its five major fishing grounds are Tadio, Malinao, Calaparan, Isla Pandan and Puerto Princesa Bay. However, deep sea fishing is monopolized by non-residents of the city since local fishermen engage only in shallow fishing.

The city has also about 1,633 hectares suitable for inland fishing. Mangrove forests which serve as fish sanctuary can still be found along its coastline. Presently, 6% of the city's land area consists of mangroves.

As of 1990, fishery production totaled 24,894,128 kilos or 2,489.41 tons. Total income earned by the local fishermen was P50.7M.

The common methods of fishing used by small fishermen were the use of hook and line (72.24%), gill net (8.8%), fish cage/corral (8.05%), skin diving and spear fishing (6.4%), *basnig* and *largarite* (1.85%) and trawling/*tangkal* (1.97%) (See Figure 3).

As to the types of fishing boats used in the city, the non-motorized fishing boats were the most common with a total of 1,053. There were only 226 units of three tons or more motorized fishing boats and 528 units of three-tons motorized fishing boats as of 1990.

In terms of fishery infrastructure, the city has five (5) ice plants and cold storages, five (5) fish ports/wharves, three (3) of which are public wharves.

FIG.2 MAJOR SOURCES OF INCOME

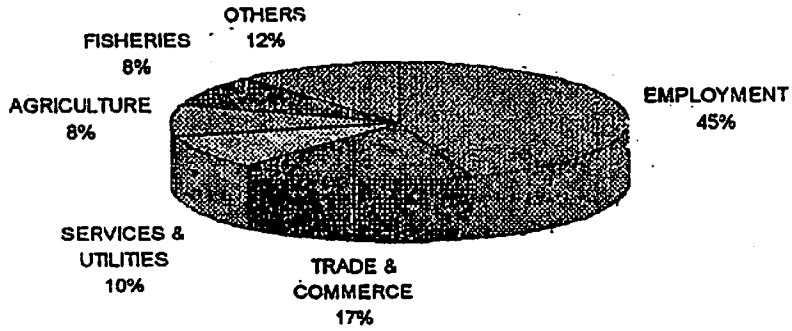
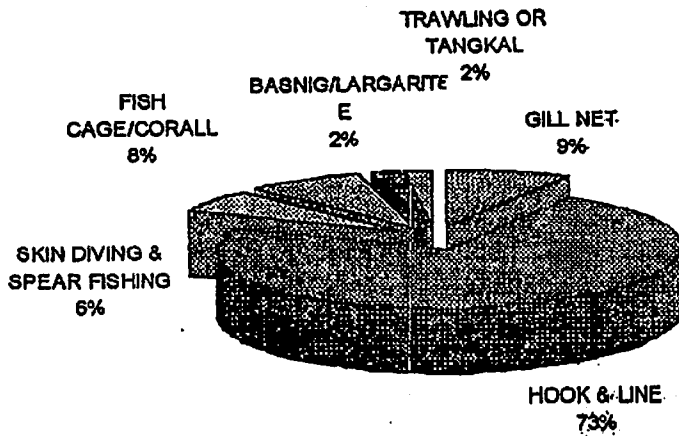


FIG.3 COMMON FISHING METHODS



## Discussion of Findings and Observations

### A. Extent of implementation of the Codal provisions on fisheries/aquatic resources management functions

Interviews conducted with city government officials disclosed that Puerto Princesa is yet to implement some of the devolved functions concerning fisheries/aquatic resources management. These are the following:

- provision of extension and on-site research services and facilities related to fishery activities [Sec.17 (2) i];
- establishment of linkages or joint ventures with People's Organizations (POs) and Non-Governmental Organizations (NGOs) [Sec. 35]

On the other hand, the city government has already started implementing the other devolved functions such as the following:

- provision of assistance to POs and NGOs for fisheries/aquatic resources management [Sec.36]
- provision of assistance and access to resources in the production, processing and marketing of marine products; [Sec. 482 (b) 1,3]
- enactment of rules and regulations pertaining to aquaculture
- enforcement of these rules and regulations

What follows is a discussion of the extent of implementation of the devolved functions pertaining to fisheries and aquatic resources management.

#### *Provision of extension and on-site services and facilities related to fishery activities*

The city government has not yet implemented the provision of the Code concerning the delivery of extension and on-site services and facilities related to fishery activities which include dispersal of fingerlings and other seeding materials for aquaculture (Sec. 17 (2) i). This is because prior to devolution, the Office of the City Agriculturist has been concentrating on land-based agriculture services and functions (Interview with Mr. Silderico Villosa, 21 March 1995).

The concentration on land-based agriculture could be gleaned from the fact that the personnel plantilla of his Office did not have the necessary items or positions (e.g. Fishery Technologist, Aquaculturist) for carrying out fishery functions.

With the advent of devolution however, one out of nine (9) Department of Agriculture (DA) personnel absorbed by the city government has been given an additional assignment of providing extension services related to fisheries. This personnel who occupies the position of Agricultural Technologist conducts, on a limited or part-time basis, classes or training courses on fisheries technology like fish cage making and fish production. Technicalities prevent her from doing a full time job on fishery functions/activities because her position is that of an Agricultural Technologist and not of a Fishery Technologist or Aquaculturist (Interview with Ms. Tutu Almonte, Agricultural Technologist, Office of the City Agriculturist, 21 and 23 March 1995).

*This portion of the study does not imply that the management of fisheries and coastal/aquatic resources is a distinct local government activity nor does it consider that it is the only important activity of the city government of Puerto Princesa. It merely points out that the provision of extension and on-site services and facilities related to fisheries in the city needs more attention. The city government, for instance, needs to hire fishery technologists, aquaculturists and other technical people to carry out the devolved functions which up to the time of the study were not yet implemented. It goes without saying that the success of the implementation of the devolved functions depends on the city government's capability to carry out such functions which in turn is dependent on the presence of resources (both human and financial) for implementation.*

The city government is cognizant of its need for technical people for fisheries services. In fact it has already started to address this concern when its Sangguniang Panlungsod created the position of Aquaculturist II to be occupied in 1996 by said personnel plus two casuals to assist the former in the provision of fishery related functions (Interview with Sangguniang Panlungsod Member Frederick Ylaya, 24 March 1995; Mr. Silderico Villosio, City Agriculturist, 21 March 1995 and Ms. Tutu Almonte, Agricultural Technologist, City Agriculturist Office, 23 March 1995).

#### *Establishment of linkages with POs and NGOs*

Linkages, particularly joint ventures with POs and NGOs, in the management of fisheries/aquatic/coastal resources is one area that has not been explored yet by the city government. Nonetheless, despite the absence of joint ventures, the city government has been providing financial assistance to some NGOs and other private sector organizations involved in fisheries/aquatic/coastal resources management particularly those that seek financial support from the it (Interview with Mr. Angel Padon, City Planning and Development Officer, 22 March 1995).



*Provision of assistance to POs/NGOs for fisheries/aquatic resources management*

As mentioned earlier, the city government has been giving assistance to NGOs/POs involved in fisheries/aquatic resource projects. For instance it approved the project proposal of the *Honda Bay Foundation, Inc.*, a locally-based NGO, to engage in the production of green grouper fingerlings through broodstock development, spawning and larval rearing. By virtue of Resolution No. 786-94, the Sangguniang Panlungsod allocated the sum of P100,000 for this purpose (See Annex B). As per the approved project proposal, 10% of the produce will be seeded to Honda Bay; 40% will be distributed to cooperating and financing agencies which include the city government of Puerto Princesa, and 50% will be retained by the *Honda Bay Foundation, Inc.* (See Annex C).

The *Ulugan Bay Foundation, Inc.*, another locally-based NGO which was contracted by the Department of Environment and Natural Resources (DENR) under its **Coastal Environment Program (CEP)** in the five barangays along Ulugan Bay, also received a donation from the city mayor in the amount of P10,000 (Interview with Atty. Lucas Licerio, President, *Ulugan Bay Foundation, Inc.*). Other than this one-shot assistance, the city government has no further involvement in this particular project.

The City Agricultural and Fisheries Council (CAFC) of Puerto Princesa, a private-led organization which serves as an advisory body to the city government, is a regular recipient of financial grant from the city government (Interview with Mr. Camacho, outgoing Chairman of the CAFC, 24 March 1995; Mr. Silderico Villosio, City agriculturist, 21 March 1995). This organization which is largely composed of individuals from agri-based cooperatives and associations accepts project proposals from NGOs and cooperatives for funding by the national and/or local government (Interview with Mr. Camacho, outgoing Chairman of the CAFC, 24 March 1995).

For 1995, the amount of P100,000 from the 20% Development Fund of the city, has been given as a grant to the CAFC (20% Development Projects, Fiscal Year 1995, City of Puerto Princesa).

City officials also vouched for the willingness of the incumbent administration to provide financial support to any organization engaged in worthy projects on fisheries development and management provided such organizations solicit the city government's help and if they can submit feasible project proposals (Interview with Mr. Silderico Villosio, City Agriculturist, 20 March 1995; Mr. Daquer, Acting City Administrator, 20 March 1995).

*Provision of assistance and access to resources in the production, processing and marketing of marine products*

For 1995, the city government has earmarked P1.5 million for livelihood loans on fish capture (20% Development Projects, Fiscal Year 1995). The extension of these loans which are administered by the City Agriculturist Office aims to assist the marginal fishermen in accessing resources for the production of marine products. The loans are granted to qualified applicants--those who have an income below the poverty line (P4,720/mo) and who pass the screening process conducted by the City Agriculturist Office. The applicant must be able to convince the city government that the loan application will be used in a productive fishing endeavor (Interview with Mr. Silderico Villosa, City Agriculturist, 23 March 1995).

For individuals, the maximum loanable amount is P25,000; for associations, P50,000; and for cooperatives, P200,000. These are soft term loans payable in three (3) years with an annual interest of 3%. It has been computed that the highest amortization is P500 a month which is just a fraction of the weekly catch of a small fisherman. As of March 1995, there were already 500 loan applications filed with the City Agriculturist Office. (Interview with Ms. Tutu Almonte, Agricultural Technologist, City Agriculturist Office, 23 March 1995). The City Agriculturist Office expressed hope that this project will not turn out to be a dole out but will really help the marginal fishermen get a fresh start in making a more decent living. While the intention of this loan assistance project is undoubtedly good, some doubts can be raised as to the impact it could generate. Since the loanable amount is quite small, only a few could benefit or avail of this project. Only 60 individuals or 30 associations or 7.5 cooperatives or a few combination of these could be accommodated if the maximum loanable amount is granted accordingly. In the final reckoning, however, it is fair to say that this project is still a worthy undertaking of the city government considering the fact that this is not a one-shot investment nor the only investment of the city in improving its fishery sector.

*Enactment of Rules and Regulations Pertaining to Fisheries/Aquaculture*

Existing records at the Office of the City Secretary indicate that the local government of Puerto Princesa had been enacting laws pertaining to fisheries as early as the 1960s. A Municipal Ordinance Regulating Fishing and Fisheries was already in place prior to 1968.

A cursory examination of the laws enacted by the City Council discloses the fact that there was one attempt on the part of the city government to promote the involvement of the community in the management of coastal resources several years back. This attempt is embodied in Ordinance No.84-87 (dated 29

September 1987) which adopted the "Sea Tenure and Coastal Zone Resource Management Project for Pilot Testing at Barangay Salvacion, Puerto Princesa".

This Ordinance called for the execution of a Sea Tenure Leasehold Contract Agreement between the city government and the barangay council of Barangay Salvacion for a minimum of 50 years and renewable for another 50 years. Had this project or agreement prospered, community participation in the management of coastal resources could have germinated from it since the provisions of the Ordinance were generally geared towards empowering the concerned barangay folks to handle this matter. The Ordinance, for instance, placed in the hands of the barangay residents the control and management of the coastal zones within the area of responsibility of Barangay Salvacion, i.e., up to the three-mile limit. Furthermore, the head of the barangay government and his officials or council members had been deputized as forest/coastal guards with the power to enter into agreement with existing cooperatives in the management and development of the coastal/sea areas within the barangay's jurisdiction. The organization of cooperatives in the barangay had been mandated as well and the barangay residents had been encouraged to become members of these community-based organizations.

Apart from the abovesited ordinance, no other local legislation has been passed mandating or at least enjoining the local folk or community-based organizations to get involved in the management of fisheries and aquatic resources. Most if not all of the more recent legislations on fisheries and coastal resources passed by the City Council (circa 1992-1994) pertain to its conservation and protection which is in line with the on-going conservation program for the province of Palawan as embodied in the Strategic Environmental Plan (RA 7611). Among these are the following:

1) Ordinance No. 199-92 dated 24 March 1992- An Ordinance Regulating the Use, Sale, Distribution, Transfer and Conveyance of Sodium Cyanide, Potassium Phosphate and Other Obnoxious Substances;

2) Ordinance No. 13-92 dated 17 November 1992- An Ordinance Declaring Turtle Bay and Binunsalian Bay as Marine Sanctuary and for other purposes;

3) Ordinance No. 15-92 dated December 15, 1992- An Ordinance Banning the Shipment of All Live Fish and Lobster outside Puerto Princesa from January 1, 1993 to January 1, 1998, and providing exemptions, penalties and for other purposes thereof;

4) Ordinance No. 16-92-B dated December 15, 1992- An Ordinance Banning the Use of Mangrove and other Similar Species of Trees Growing in Swampy Areas that Serve as Breeding Ground of Fishes, for Commercial Firewood Purposes, Charcoal not Included;

This was later amended by Ordinance No. 80-94 dated 5 May 1994 by deleting the phrase "charcoal not included";

5) Resolution No. 544-93 dated 10 November 1993- A Resolution Vehemently Objecting to the Operation of the Pa-aling Method of Catching Fish in the Waters of Puerto Princesa City. The pa-aling method is similar to muro-ami. It employs divers who are minors (13-18 years old). The divers use compressors which destroy fish habitats, the coral reefs.

During the sixties up to the early eighties, local legislations pertaining to the protection and conservation of the coastal environment were few. This suggests that at this particular point in time, the level of consciousness of the city government about the importance of environmental protection was still low. Most of the legislations passed by the local legislative body during this period were actually amendments to the Ordinance Regulating Fishing and Fisheries in Puerto Princesa. The first revision was done on February 21, 1968 by virtue of Ordinance No. 17-s-1968 (See Annex D). It was later on revised once more in 1973 by Ordinance No. A-13-73 (See Annex E) when Puerto Princesa was already a city. All these ordinances:

- 1) required the procurement of licenses/permits from the local government of Puerto Princesa before any person, association or corporation can take or catch fish and other marine products by means of nets, traps, or other fishing gear, or by means of fishing boats three tons or less;
- 2) required the securement of fishery grant before any person, association or corporation can operate fishponds, fish corrals, oyster beds, or can take or catch bangus fry or fry of other species within the waters of the local government;
- 3) identified the persons eligible for fishing or fishery privileges as:
  - a) Filipino citizens and United States citizens, and
  - b) associations/corporations duly registered or incorporated under the laws of the Philippines or United States, at least 60% of whose stock belongs wholly to Filipino citizens and US citizens;
- 4) divided/classified city waters into eight (8) fishing zones for the:
  - a) privilege of catching bangus fry (*kawag-kawag*), and
  - b) of erecting fish corrals, and set the minimum bid per fishing zone or area;

- 5) provided a schedule of annual license/permit fees for fishing nets, fishing boats, fishing devices;
- 6) provided the restrictions on licenses and permits issued in pursuance of this Ordinance.

In 1974, Ordinance No. PD 426-11-74 Regulating Fishing and Fisheries in the City of Puerto Princesa was enacted in conjunction with other operative laws and regulations on fisheries (See Annex F). This ordinance updated the:

- 1) amount of bids for the privilege of catching *bangus* fry in the established fishing zones;
- 2) schedule of permit fees for recipient of fishery grants, and
- 3) schedule of fees for fishing gears and fishing vessels.

The above ordinance was revised in 1975 with the enactment of Ordinance No. A-39-75. This ordinance repealed the privilege granted to American citizens and associations and corporations registered under American laws to fish in the waters of the city government.

Subsequent revisions on the regulation of fishing and fisheries in the city were again made in 1976, 1980, 1981, 1982 and 1994.

Ordinance No. PD 826-8-76 dated 10 August 1976 amended Ordinance No. 17-s-68 by changing the zonal classifications of fishing areas in the city from eight (8) zones to 11. It also provided for the establishment of a government *bangus* fry reservation pursuant to Sec.29 (a) of Presidential Decree No. 704.

In the same year, another ordinance, Ordinance No. PD 826-9-76 dated 16 November 1976, amending Ordinance No. 17-s-68, was enacted. It delineated the government *bangus* fry reservation to be in Zone 1 from the center of Babuyan River up to Langogan boundary of Roxas municipality.

Again the above ordinance was amended in 1980 by virtue of Ordinance No. 16-80, which provided for the government reservation to be in the West Coast of the city, i.e., from Northwest head to the boundary of the city and the province of Palawan at Long Point, Barangay New Panggangan, including the whole of Ulugan Bay.

Recently, this was again amended by Ordinance No. 78-94 dated 9 March 1994. This ordinance required the establishment of government *bangus* fry reservation in every barangay/zone with an area of not more than 1/5 of the area earmarked for the gathering of *bangus* fry.

The basic Fishery Ordinance of the City which has undergone a series of revisions does not expressly prohibit the destructive ways of fishing or extracting resources from the seas but it merely prescribes the rates for the different types of fishing gears and vessels to be used in fishing. Nonetheless, there was a separate law, i.e. Ordinance No. 27-s-1968 dated 15 April 1968, which prohibited trawl fishing at any depth or fathom within the territorial jurisdiction of Puerto Princesa. This was superceded by Ordinance No. 59-s-1971, dated 18 October 1971, which banned trawl fishing one nautical mile from the shoreline only at certain areas and only for a period of four years (1971-1975). The lifting of the ban after four years is another indication that during that time, the city government was not yet strict nor determined to free the city waters from any form of destructive fishing activities. Another indication of the city's seemingly lenient stance in coastal resources conservation/protection is the very minimal amount of penalties its ordinances impose for various forms of fishery violations. Even the recently enacted coastal conservation laws impose minimal penalties which in effect do not serve to deter the commission of illegal activities within the territorial waters of the city. It appears therefore that there is a need for policy reforms in this area to give more teeth to the coastal conservation and protection efforts of the city government.

#### *Enforcement of Fishery Rules and Regulations*

The city government takes an active role as far as protecting its sea waters/marine resources is concerned. Its **Coastal Areas Protection Program** better known as *Baywatch* or *Bantay Dagat*, a component of the *Bantay Puerto* Program of the city government, is primarily concerned with the protection of its marine resources as well as coastal areas.

*Baywatch* is an ad-hoc body by nature in the form of a task force and is directly under the supervision and control of the local chief executive. As such, it can be abolished at the discretion of the mayor who created it or once a new mayor assumes office and decides to discontinue the project.

It is headed by a Project Manager/Chair with eight (8) *banca* operators and 25 deputized staff. For operational assistance and information dissemination, *Baywatch* is supposed to maintain close coordination with various agencies such as the Philippine Coast Guard, WESCOM, 570th Composite Tactical Wing, Philippine National Police, Philippine Navy, Economic Intelligence and Investigation Bureau, National Bureau of Investigation, *Bantay Palawan* of the Provincial Governor's Office, DENR, DA, Cyanide Detection Test Laboratory, DWRM, Department of Education, Culture and Sports, Palawan State University, Palawan National Agriculture College Institute of Marine Fisheries and the local fishermen.

Baywatch maintains and mans five (5) outposts equipped with hand-held radios and motorized patrol bancas. These outposts guard their respective area of assignment, namely:

- 1) Cañon Island (Honda Bay)
- 2) Marufinas (Marufinas Bay)
- 3) Bahile (Ulugan Bay)
- 4) Nagtabon (Nagtabon Bay)
- 5) Bagong Bayan (Napsan Bay)

Baywatch staff conduct 24-hour patrols and monitor the movement of every seacraft in the city waters. The banca operators work under the guise of fishermen in monitoring the illegal activities in the areas that they are guarding. Once they detect any illegal activity, they communicate the incident by means of hand-held radios to their outposts and then the law enforcers with the speedboat comes to the fore to apprehend the culprits. The culprits are then brought to the shore where investigation by the Philippine National Police (PNP Maritime) is conducted and the corresponding charges issued (Interview with Mr. Benito Marcelo III, Chair, Baywatch Program, 22 March 1995). The local fishermen also cooperate with the Baywatch by providing information concerning illegal activities in the city waters.

For a two-year period (July 1992 to December 1994), Baywatch has apprehended the following number of fishing vessels:

- 1,300 pumpboats for violating City Fishery Ordinance No. 826-9-76 (operating without mayor's permits);
- 100 pumpboats for violating FAO 155 (fine-mesh net)
- 60 pumpboats for violating FAO 164 (Hulbot-Hulbot)
- 40 pumpboats for violating FAO 168 (Gathering of banned shelled mollusks)
- 20 pumpboats for violating LOI 1328 (Trawl and Purse Seine Fishing)
- 15 pumpboats for violating City Ordinance No. 15-92 (shipping of live fish)
- 10 pumpboats for violating Sec. 33 of PD 704 (Blast Fishing)
- 2 pumpboats for violating FAO 163 (Muro-ami fishing)
- 2 pumpboats for violating FAO 190 (Pa-aling fishing)
- 2 pumpboats for violating MNR Adm. Order No. 12 (Illegal gathering of marine turtles)

In numerical terms, it can be noted that within the two-year period of Baywatch operation, only a few pumpboats (196) were caught doing destructive fishing practices like blast fishing, hulbot-hulbot, trawl and purse seine fishing, the use of fine mesh nets, muro-ami and pa-aling. A great majority of the apprehended pumpboats (1,300) are minor offenders in the sense that their offense consisted only of operating without mayor's permits.

There were fishing boats apprehended by the Baywatch which were financed by big-time fish dealers. The *F/B Robinson* for instance, is estimated to be worth P30M. The Court has already convicted this boat including three others, namely, the *F/B Sta. Lucia*, *F/B Ireliza* and *F/B JR* (Baywatch 1994 Accomplishment Report).

At the time of this study, cases versus seven (7) motorized banca operators/individuals apprehended by Baywatch for blast fishing (violation of Sec. 33, PD 701) and shipment of live fish out of Puerto Princesa (violation of City Ordinance 15-92) were under trial (Baywatch 1994 Accomplishment Report).

Baywatch was also able to confiscate explosives such as dynamites and other obnoxious/poisonous substances like ammonium nitrate and sodium cyanide used in illegal fishing (Baywatch 1994 Accomplishment Report).

The accomplishment of Baywatch which was described above indicate that the city government's arm in protecting its coastal/marine resources has made quite an impact although some serious problems have been noted to hinder if not undermine the efforts of the body. (See III-E of the case report).

#### **B. Problems encountered in the implementation of the devolved fisheries functions**

As discussed in the preceding section of this study, only two (2) of the devolved functions on fisheries are yet to be implemented by the city government. These are: (1) the provision of extension and on-site research services and facilities related to fishery activities (Sec. 17 [2] i) and (2) the establishment of linkages or joint ventures with POs/NGOs (Sec. 35).

A major problem encountered in the implementation of the former is the absence of full-time personnel to do the job. Just a sole personnel of the City Agriculturist Office attends to the provision of extension services but only on a part-time basis because this is merely an additional assignment for her (Interview with Ms. Tutu Almonte, City Agriculturist Office).

In the case of the latter devolved function, there seems to be no existing problem that could hinder its implementation. The city government has in fact demonstrated its openness to



cooperate or to enter into joint ventures with NGOs/POs as can be gleaned from its acts of providing financial assistance to the NGOs and POs engaged in fisheries/aquatic resources development projects.

**C. LGU policies on the promotion of the establishment of NGOs/POs concerned with the management of fisheries and aquatic resources in the community**

Numerous legislations concerning fisheries have already been passed by the city council but not a single one pertained to the explicit promotion of the establishment of NGOs/POs concerned with the management of fisheries/aquatic resources in the city. There was one attempt though in 1987 (See Annex G - Ordinance No. 84-87) to involve the barangay folk in the management of coastal zones but nothing came out of it as discussed in a previous section of this report.

The city government does not explicitly encourage the establishment of these NGOs/POs as it has no specific policy on this. However, it gives financial grants to the NGOs and POs involved in fisheries as mentioned previously. This could be an indication that the city government is in a way involved in the implicit promotion of the establishment of such NGOs/POs. Moreover, it also gives accreditation to these NGOs/POs (and to other NGOs for that matter) although this is remotely related to the promotion of their establishment. To date, it has already accredited the *Ulugan Bay Foundation, Inc.* and the *Honda Bay Foundation, Inc.* both of which are engaged in fisheries/aquatic resources management and development.

**C.1 LGU programs and projects promoting the management of fisheries and aquatic/coastal resources in the community**

The city government has no comprehensive or integrated fishery management and development program/plan. Nonetheless, it has been involved in a number of fishery development projects by either providing funding or implementing them.

The Annual Investment Programs from 1992 to 1995 contain the list of fishery sector projects funded by the city government out of its 20% Development Fund (See Annex C). For 1992, three major projects under the fishery sector were undertaken, namely, 1) Sea Ranching Project, 2) Finfish Stock Enhancement Project, and 3) Drive Against Illegal Fishing.

1) The Sea Ranching Project of the city government in Ulugan Bay which received an allocation of P300,000 was concerned with the rehabilitation of the city's fishery resources caused by illegal fishing activities. This can be considered as a worthy project of the city government since Sea Ranching is one of the priority research areas of the National Fisheries Research

Program along with impact evaluation of artificial reefs, red tide monitoring, tuna and cephalopod exploratory fishing, among others. Outputs from these researches provide important information for the rational management of the fishery sector (Fisheries Sector Program, Department of Agriculture, undated).

2) The Finfish Stock Enhancement Project which was located in Hondoy Bay, focused on the spawning and larval rearing of marine finfishers half of which was dispersed into the city's coastal areas and the rest were marketed. It also had an allocation of P300,000.

3) The Drive Against Illegal Fishing in the waters of Puerto Princesa was implemented by the city government itself under the administration of the former mayor. It had a budget of P500,000. This was actually a reinforcement and continuation of the previous year's (1991) drive against illegal fishing. Some quarters allege that this project was not effective unlike the on-going *Baywatch Project* of the present administration. There were claims that it did not accomplish its goals, instead the enforcers connived with the illegal fishermen (Interview with Mr. Benito Marcelo, *Baywatch* Chairman).

In 1993, the *Bantay Puerto Program*, a comprehensive environmental program, was launched by the city government with an allocation of P7.67M. The drive against illegal fishing (renamed as *Baywatch* or *Bantay Dagat*) became a component of this program. After only a year of its implementation, this program became a GALING POOK\* awardee for it was adjudged as one of the few outstanding local government programs in the country.

The same year also saw the participation of the city government in the implementation of the Cyanide Reform Fishing Program. This program is a collaborative undertaking of various government and non-government agencies. Its long term objective is to stop the use of cyanide fishing, a major cause of corals' and other marine resources' destruction.

The year 1994 saw the continuation of the *Bantay Puerto Program* which got another P6M allocation. The Cyanide Fishing Reform Program (Phase II) was also continued. It was given an appropriation of P260,000 for the operation cost of its Cyanide Detection Test Laboratory which is manned by four personnel under the payroll of the city government.

For 1995, the city government has again allocated substantial amount for the continuation of the 1994 programs. *Bantay Puerto* for instance, received a budget of P5.586M and the Cyanide Fishing Reform Program has been given P377,600.

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\* The Gantimpalang Panglingkod Pook (Galing Pook) Program aims to publicly recognize new local government initiatives that successfully address pressing socio-economic needs and to inspire similar initiatives in other communities.

Table 1 reflects the budgetary outlay of the city government for fisheries/aquatic resources programs and projects for the past three years.

It can be noted that in absolute terms, the city government has already poured a sizeable amount (i.e. P7M) into fisheries/aquatic resources projects within a short span of three (3) years. However, if the percentage of the budget for fisheries to the general fund of the city is computed, it can be seen that its allocation for fisheries has declined from its 1992 level (See Table 2). This could be an indication of the declining importance or low priority accorded by the city government to fisheries/aquatic resources development.

**Table 1. Budgetary Outlay for Fisheries and Aquatic Resources Projects, 1992-1994**

Year	Program/Project	Amount
1992	Drive Against Illegal Fishing	P500,000
	Sea Ranching Project	300,000
	Finfish Stock Enhancement	564,242
	Coastal Areas Protection	988,000
	Sub-total	P2,352,242
1993	Foreshore Areas Protection	P 480,000
	Bantay Puerto - Coastal Areas Protection	1,162,500
	Cyanide Fishing Reform Program	1,245,000
	Sub-total	P2,887,500
1994	Cyanide Fishing Reform Program	260,000
	Bantay Puerto - Coastal Areas Protection	1,502,530
	Sub-total	P1,762,530
Grand Total.....		P7,002,272

Source: City Budget Office

**Table 2. Percentage of Fisheries Budget  
to the General Fund, 1992-1994**

<b>Year</b>	<b>Fisheries Budget</b>	<b>General Fund (GF)</b>	<b>% to GF</b>
1992	₱2,352,242	₱189,379,235	1.24
1993	2,887,500	380,347,476	.76
1994	1,762,530	456,982,980	.38

Source: City Budget Office

**D. LGU linkages/support systems extended to NGOs/POs; problems; technical assistance needed**

As previously discussed, the city government has not yet established linkages or any collaborative work with the NGOs/POs that are involved in the management of fisheries and aquatic resources in the city. The city government merely provides financial assistance to those NGOs which seek funding support from it. The absence of any linkage with them can be traced from the the fact that the city government has no specific policy on this matter and that there is nobody in the City Agriculturist Office nor in the City Environment and Natural Resources Office in charge of the task of linking up with these NGOs/POs.

The city government is aware that it needs technical assistance in the establishment and or promotion of the management of fisheries/aquatic/coastal resources in the locality. The City Planning and Development Coordinator is of the opinion that the city needs technical assistance in the aspect of project development, i.e., identifying and developing relevant, feasible and viable projects for the fishery sector. On the other hand, the part-time fishery staff of the City Agriculturist Office believes that the city government particularly her office, needs technical assistance in increasing fish production and in promoting the need for increased fish production.

**D.1 LGU linkage with the Palawan Council for Sustainable Development (PCSD)**

The PCSD is a governing body which oversees the implementation of the Strategic Environmental Plan (RA 7611), a conxervation program for the province of Palawan. All the developmental programs and activities of all the local government units (LGUs) comprising the province which include the city of Puerto Princesa should conform to this plan. The environmental

policies of the city, for instance, should not be at odds with those of the plan.

As mandated by law, the PCSD is chaired by the governor of the province. The mayor of the city of Puerto Princesa, the provincial capital, sits as a member of the Council together with the Congressmen of the two districts of the province, a DA Undersecretary, a DENR Undersecretary, the Deputy Director General of the National Economic and Development Authority and the President of the Federation of Barangays in the province. As a member of the Council, the city mayor participates in the formulation of policies to be observed by all the LGUs in all their developmental activities.

Aside from policy setting, the PCSD also monitors the programs of the various LGUs in the province for evaluation purposes. It sees to it for example, that every LGU must have its own environmental protection program (e.g. *Bantay Dagat/Bantay Gubat*) in order to actualize the policy of stopping all activities that are destructive to the environment.

#### **E. Critical issues and problems impairing fisheries/aquatic resource management systems**

As far as Puerto Princesa is concerned, the big issues and problems confronting fisheries/aquatic resource management do not actually lie with the implementation of the Codal provisions pertaining to the subject matter. The big problems lie in its effort to protect its coastal resources.

Protecting the city's coastal or marine resources from deleterious fishing practices especially of big commercial fishing ventures is not an easy job for the city's *Bantay Dagat* staff. Watching over the waters of Puerto Princesa is a highly dangerous job since big-time illegal fishing concerns are armed to the hilt aside from the fact that the guardians of the seas are exposed to various elements of nature (Interview with Mr. Benito Marcelo III, Chair, Baywatch Project, 22 March 1995). However, the dangerous nature of protecting the city coasts is not the problem itself. It is the perception of the *Bantay Dagat* management that a major problem in protecting the city's waters pertains to the corrupt practices of some high ranking military officials (from Western Command [WESCOM], Philippine Navy, Coastguard and the like) stationed in Palawan.

Several incidents depicting the corrupt behavior of some people in the military have been cited by the Chair of *Baywatch*.

In one incident, a high ranking WESCOM official interfered in setting free a crew of illegal fishermen who were caught by the *Baywatch* team. The top management of *Baywatch*, receives all sorts of threats from the military if the former refuses to budge to their requests to free some violators of fishery laws.

Another incident was the case of the apprehended illegal fishermen from Hong Kong. The Philippine Coast Guard just let them escape for a fee.

In another instance, the Philippine Navy men who joined the *Baywatch* staff in apprehending big time illegal fishermen blatantly asked for bribes from the culprits.

All these incidents illustrate how the corrupt behavior of some men in uniform undermines local efforts to protect the coastal/marine resources of the city. Instead of joining hands with the locals in order to effectively eradicate destructive fishing activities in the area, they tend to thwart or defeat the purpose of protecting the coastal environment.

It must be noted too that the above cited problems and issues are not confined to Puerto Princesa but it is true to other coastal localities as well. Illegal fishers especially those coming from neighboring countries constitute the biggest menace to coastal communities in the country. This problem is further compounded by the fact that some of the supposedly guardians of the seas usually fall prey to corrupt practices by conniving with the aggressors. Moreover, both the national and local authorities are ill equipped (i.e. they lack the modern facilities, equipment and other resources) to combat these illegal fishers.

Aside from the corrupt practices of some quarters in the military, another issue confronting the protection and conservation of coastal resources and the environment in general, is the seeming unconcern of civic organizations like the Lions, Rotaries, Jaycees and the like, to get involved in this crusade. This lack of concern can be gleaned from their hesitance to provide support of any form to the *Baywatch Project* (Interview with Mr. Benito Marcelo III, Chair, *Baywatch Project*, 22 March 1995).

Inadequate resources for the Coastal Protection Program likewise affects its implementation. The *Baywatch* staff patrolling the seas are not provided with jackets nor meal allowances nor hazard pay considering the dangerous nature of their job. The salaries of the *Baywatch* staff are even delayed. At the time of the study, these people have not yet received their salaries from the City Hall (Interview with Mr. Benito Marcelo III, Chair, *Baywatch Project*, 22 March 1995).

#### **F. Existing community management systems of fisheries/aquatic resources**

The city government has no statistics on community organizations and/or NGOs/POs that are involved in the management of fisheries and aquatic resources. It seems that community organizations concerned with the matter are a rare breed in Puerto Princesa. Identifying them was not an easy task.

government units in the management and protection of Ulugan Bay pertained only to the attendance of key city and provincial officials during the launching of the CEP at Ulugan Bay, and to the ₱10,000 one-shot donation of the city mayor to the UBFI.

This portion of the study does not in a way imply that the success of community participation in coastal resource management depends primarily on the linkages developed by the city government with community-based organizations or with the private sector in general. The city government, however, should play a major role in providing an environment conducive to community participation. Given the passivity of the private sector in matters concerning the protection of the seas (as evidenced by the absence of support to the Baywatch Project) [see discussion on Critical issues and problems impairing fisheries/aquatic resource management systems], the city government is the most logical instrument to the creation of such environment.

## Summary and Implications

While not a few local governments appear to lack interest in saving the remains of the ravage-wrought environment, the city of Puerto Princesa is racing against time to protect its land and water resources from further indiscriminate exploitation. Its *Bantay Puerto* Program, a nationally acclaimed environmental program, is a living proof of the city's deep regard for the environment. Parenthetically, it must be noted that what the city has been doing to protect its environment is all in keeping with the conservation program for the province of Palawan which is embodied in the Strategic Environmental Plan (RA 7611) and implemented by the Palawan Council for Sustainable Development (PCSD).

The city has made quite an impact in the province of environmental protection despite some problems. It is yet to expand its involvement as well as strengthen or consolidate its efforts in the management of its fisheries/aquatic resources as this study reveals. Very minimal extension services concerning fisheries are being delivered by the city government because its City Agriculturist Office has no full-time staff (i.e. fishery technologists, aquaculturists) to do the job. Presently, the City Agriculturist Office is heavily concentrating on the delivery of services for land-based agriculture. The creation of one Aquaculturist position has already been made by the Sangguniang Panlungsod as an initial step towards a more substantial involvement in fisheries management.

Insofar as the establishment of linkages or joint ventures with NGOs/POs in the fishery sector is concerned, no concrete actions for its operationalization have been initiated by the city government yet. The city government is supposed to serve as a program cooperator in the Coastal Environment Program of the national government in Ulugan Bay but at the time of the study, the community-based organizations involved in this program allege that it has no participation whatsoever except in granting a one-shot donation to one of the NGOs therein.

The city government is generous in giving financial assistance to these NGOs/POs in the fishery sector but it has not gone beyond this level of participation. Corollarily, it has no policies which explicitly promote the establishment of this kind of NGOs/POs. It seems that the city government has overlooked the fact that there is: 1) a need to foster the establishment of these NGOs/POs as well as 2) a need to forge a partnership with them. Both of these are necessary in the promotion of the scheme of co-management of fisheries/coastal resources which is perceived as a more effective and efficient way of managing and conserving these rapidly diminishing resources of the seas.



The city government compensates for its inadequacy in the provision of on-site extension services by way of its loan assistance program for the production of marine products by the marginal fishermen.

Aside from the provision of financial assistance to NGOs/POs and small fishermen, the city government's involvement in the management of fisheries and aquatic resources includes the implementation of several programs and projects. It has in a way contributed to the advancement of knowledge in the area of sea ranching after having conducted a research on this. It is also involved in the Cyanide Fishing Reform Program which ultimately aims to eliminate the rampant practice of cyanide fishing. The financial support it gives to this program is crucial to attainment of its objectives.

It is in the field of protecting its coastal areas where the city takes an active role. The implementation of the locally conceived Coastal Areas Protection Project (*Baywatch*) which is a reinforcement drive against illegal fishing and other sea-related illegal activities, has proved to be a wise move of the incumbent administration since this has become one of the more functional environmental projects of the city government which has some element of community participation. This project, however, is plagued by numerous problems the most notable of which pertains to the corrupt practices of some men in the military sector that tend to undermine local efforts at saving the coastal resources. The seeming unconcern of the locally-based civic organizations for this movement and the inadequate facilities and wages of the Project staff add to the operational problems of *Baywatch*. Unless these problems are promptly addressed, the functionality of the *Baywatch* Project will surely suffer.

Judging from the sheer number of local legislations passed for the past three decades, it can be concluded that the city government has been quite active in coming up with fishery sector policies and regulations. It was only in the 1990s though when the city government actively passed coastal resources conservation and protection measures. This could be attributed to the passage of the Strategic Environmental Plan which aims to conserve and protect the whole province of Palawan from further environmental degradation.

In terms of legislations or policy measures designed to encourage the community to participate in the management of coastal resources/environment there was total silence except in 1987 when an ordinance attempting to pilot a project on coastal zone management by barangay folks was enacted. Unfortunately, the attempt did not materialize for unknown reasons.

As to the substance of the policy legislations enacted so far, it can be noted that many of these local laws lack teeth to realize their intentions. To illustrate, the amount of penalties these ordinances impose for violators are very negligible --e.g.

₱5,000 and ₱4,000, respectively, for violating the ban against shipment of live fish out of Puerto Princesa and the ban against the use of mangrove trees for commercial and other purposes.

The findings of the study as summarized above illustrate the fragmented efforts of the city government in the management of fisheries and coastal/aquatic resources. There is therefore a need to consolidate its efforts in order to enhance and strengthen its management of these resources.

### **Recommendations**

To improve the management of fisheries and coastal/aquatic resources of the city government must give equal attention to fisheries and aquaculture. The resources for this--manpower, facilities and other logistical support, must be put up first in order to pave the way for the implementation of the devolved fishery functions such as those on extension and on-site research services and facilities related to fisheries. A particular unit in the city government bureaucracy (a division in the City Agriculturist Office for instance) whose function is focused on fisheries maybe created. The city government may also conceive of an organizational structure that would oversee the implementation of all programs and projects pertaining to fisheries and aquatic resources.

A comprehensive plan or program for the management, protection and conservation of fisheries and aquatic resources must precede all projects and activities for this sector in order to avoid the disjointed approach of delivering services. As espoused by the new Local Government Code, people's participation and empowerment should be the framework within which these programs, projects and activities are conceptualized and operationalized. After all, the protection of the coastal environment including its resources is not the sole responsibility of the government but it is the responsibility of the people and the non-government organizations as well. Thus, it is but proper to have a built-in component or mechanism for people's participation in the programs and projects on fisheries and aquatic/coastal resources management and protection.

The preparation of a comprehensive plan or program for the fishery sector necessitates the conduct of a sector study or review wherein an assessment of its status is required. The problems confronting the sector are diagnosed and the possible interventions are conceptualized. This is undoubtedly a costly undertaking but it is worth the effort if the aim is to come up with a rational and functional plan or program.

The sector study may start with the possible legislative reforms that the city government should undertake like revising its fishery legislations that no longer serve the purposes of

protecting/conserving the coastal environment. Other policy measures are needed to be enacted like legislating the promotion of the participation of community-based organizations in coastal management and protection. Providing the legal framework for community participation is a good starting point for the operationalization of the principle of people's participation.

The above recommendations are doable because these are actually action-oriented. These are formulated on the basis of the findings of the study.

## R e f e r e n c e s

Atrigenio, Michael and Nancy Bernas, *The Benthic Community of Ulugan Bay in Ecosystems Research Digest*, Vol. 21, January-December 1994.

Baywatch Accomplishment Report, July 1992-December 1994.

Coastal Environment Program Briefing Kit, Provincial Environment and Natural Resources Office, DENR Palawan.

Palacio, Alma, *Assessment of Marine Floral Resources in Ulugan Bay, Palawan in Ecosystems Research Digest*, Vol. 21, January-December 1994.

Socio-Economic Profile of Puerto Princesa, 1992.

## Ordinances

Ordinance No. 80-94. An Ordinance Amending the Title of Ordinance No. 16-92-B By Deleting the Phrase "Charcoal Not Included."

Ordinance No. 78-94 - An Ordinance Amending Section 1 of Ordinance No. 42-82 and Section 1, Zone IV - Government Reserve, of Ordinance No. 16-80, and for other purposes.

Ordinance No. 199-92- An Ordinance Regulating the Use, Sale, Distribution, Transfer and Conveyance of Sodium Cyanide, Potassium Phosphate and Other Obnoxious Substances.

Ordinance No. 13-92 - An Ordinance Declaring Turtle Bay and Binunsalian Bay as Marine Sanctuary and for other purposes.

Ordinance No. 15-92 - An Ordinance Banning the Shipment of All Live Fish and Lobster outside Puerto Princesa from January 1, 1993 to January 1, 1998, and Providing Exemptions, Penalties and for other purposes thereof.

Ordinance No. 16-92 B - An Ordinance Banning the Use of Mangrove and other Similar Species of Trees Growing in Swampy Areas that Serve as Breeding Ground of Fishes, for Commercial Firewood Purposes, Charcoal not Included;

Ordinance No. 84-87 - An Ordinance Adopting the Sea Tenure and Coastal Zone Resource Management Project for Pilot Testing at Barangay Salvacion, Puerto Princesa.

Ordinance No. 42-82 - An Ordinance Amending the Minimum Bid Per Annum of Bangus Fry Zones I, II, and III Provided for in Section 5-B of Ordinance PD 826-9-76 as amended by Section 1 of Ordinance 16-80 of the City of Puerto Princesa.

Ordinance No. 16-80 - An Ordinance Amending Section 5-B and Section 6 of Ordinance No. PD 826-9-76.

Ordinance No. PD 826-9-76 - An Ordinance Amending Ordinance No. 17, Series of 1968 Regulating Fishing and/or Fisheries in the City of Puerto Princesa.

Ordinance No. PD 826-8-76 - An Ordinance Amending Ordinance No. 17, Series of 1968 Regulating Fishing and/or Fisheries in the City of Puerto Princesa.

Ordinance No. A-39-75 - An Ordinance Regulating Fishing and Fisheries in the City of Puerto Princesa and for other Purposes.

Ordinance No. PD 426-11-74 - An Ordinance Regulating Fishing and Fisheries in the City of Puerto Princesa.

Ordinance No. A-13-73 - An Ordinance Regulating Fishing and Fisheries in the City of Puerto Princesa.

Ordinance No. 59-s-1971 - An Ordinance Banning Trawl Fishing in the Municipal Waters of Puerto Princesa and Imposing Penalties for Violation Thereof.

Ordinance No. 17-s-1968 - Revised Municipal Ordinance Regulating Fishing and Fisheries in the Municipality of Puerto Princesa.

Ordinance No. 27-s-1968 - An Ordinance Prohibiting Trawl Fishing at Any Depth or Fathom within the Municipal Waters of Puerto Princesa and Providing Penalty for Violation Thereof.

## **Resolutions**

Resolution 544-93 - A Resolution Vehemently Objecting to the Operation of the Pa-aling Method of Catching Fish in the Waters of Puerto Princesa City.

## LIST OF ANNEXES

- A. List of Respondents
- B. Excerpt from the Minutes of the 99th Regular Meeting of the Sangguniang Panlungsod of the City of Puerto Princesa Held on August 3, 1994
- C. Project Proposal, Honda Bay
- D. Ordinance No. 17, Series 1968, The Revised Municipal Ordinance Regulating Fishing and Fisheries in the Municipality of Puerto Princesa
- E. Ordinance No. A-13-73 An Ordinance Regulating Fishing and Fisheries in the City of Puerto Princesa and For Other Purposes
- F. Ordinance No. 426-11-74, An Ordinance Regulating Fishing and Fisheries in the City of Puerto Princesa, and For Other Purposes
- G. Ordinance No. 84-87, An Ordinance Adopting the "Sea-Tenure and Coastal Zone Resource Management Project" for Pilot Testing at Barangay Salvacion, City of Puerto Princesa

**List of Respondents**

1. Hon. Mil Miguel Reynoso, City Vice-Mayor
2. Hon. Frederick Ylaya, Chair, Committee on Agriculture, Animal Industry and Cooperatives, Sangguniang Panlungsod
3. Mr. Rogelio Daquer, City Environment and Natural Resources Officer
4. Mr. Angel Padon, City Planning and Development Coordinator
5. Mr. Silderico Viloso, City Agriculturist
6. Ms. Tutu Almonte, Agricultural Technologist, City Agriculturist Office
7. Mr. Benito Marcelo III, Chair, BAYWATCH Project
8. Atty. Lucas Licerio, Founder and President, Ulugan Bay Foundation, Incorporated
9. Ms. Ester D. Rodriguez, Member, Ulugan Bay Little Fisheries Organization
10. Mr. Serapio Coching, President, Farmers Cooperative of Macarascas
12. Mr. Leodigario Cojolo, President, Macarascas Coastal Mangrove Multi-Purpose Association, Incorporated
13. Mr. Camacho, President, City Agriculture and Fisheries Council.

Republika ng Pilipinas  
TANGGAPAN NG SANGGUNIANG PANLUNGSOD  
Lunsod ng Puerto Princesa

EXCERPT FROM THE MINUTES OF THE 29TH REGULAR MEETING OF THE SANGGUNIANG PANLUNGSOD OF THE CITY OF PUERTO PRINCESA HELD ON JULY 20, 1994 AT THE SESSION HALL OF THE SANGGUNIANG PANLUNGSOD.

PRESENT:

Hon. Mil Miguel R. Reynoso	City Vice Mayor, Presiding Officer
Hon. Amado L. Lucero	City Councillor, President Protempore
Hon. Vicky T. De Guzman	City Councillor, Majority Floor Leader
Hon. Daniel T. Josol	City Councillor, Asst. Majority Floor Leader
Hon. Gil P. Acosta	City Councillor, Minority Floor Leader
Hon. Rogelio M. Castro	City Councillor
Hon. Alroben J. Goh	City Councillor
Hon. Benjamin S. Carlos, M.D.	City Councillor
Hon. Jessie A. Tabang	City Councillor
Hon. Francisco C. Payuyo	City Councillor
Hon. Frederick A. Ylana	City Councillor
Hon. Antonio P. Cabrestante	City Councillor, (SK President)

PRESENT:

Hon. Douglas S. Hagedorn	City Councillor, (ABC President)
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XXX XXX

RESOLUTION NO. 786-94

A RESOLUTION APPROVING THE PROJECT PROPOSAL OF HONDA BAY FOUNDATION, INC., ENTITLED HONDA BAY AND ALLOCATING THE SUM OF P100,000.00 FROM ANY AVAILABLE FUNDS IN THE CITY TREASURY FOR THE PURPOSE,

WHEREAS, Acting City Administrator Lucello R. Bayron, by authority of the City Mayor submitted to this Body dated July 20, 1994 HONDA BAY, a project proposal by Honda Bay Foundation, Inc., for appropriate action pursuant to existing laws;

WHEREAS, the Project Honda Bay shall engage in the production of green grouper through broodstock development, spawning and larval rearing; ten percent of the produce to be seeded to Honda Bay, 40 percent will be distributed to the cooperative and financing agencies and fifty (50) percent will remain to the Honda Bay Foundation, Inc.;

WHEREAS, the general objectives of this project is to encourage fishermen to practice natural resource management by enlightening them on the spawning season, behavior, fecundity, growth and survival of young green grouper;

WHEREAS, this project will also directly increase the green grouper population of Honda Bay thereby enhancing the productive capacity of the bay;

WHEREAS, Chapter 4, Section 36 of the RA 7160, otherwise known as the Local Government Code of 1991 provides for a Local Government Unit (LGU) upon initiative of the Local Executive and with the approval of the Sangguniang Panlungsod may provide assistance, whether financial, technological or otherwise to peoples and non-government organization in support of projects designed to attain and enhance the economic, cultural and social being of the Local Government Unit (LGU)

NOW THEREFORE ON MOTION OF HON. VICKY T. DE GUZMAN  
SECONDED BY ALL THE OTHER MEMBERS PRESENT

BE IT RESOLVED, as it is hereby resolved, to approve the Honda Bay, a project proposal  
Honda Bay Foundation, Inc., as presented and to allocate the amount of P100,000.00 from any  
available funds in the City Treasury for the operation of said project.

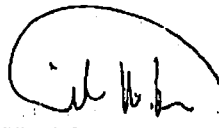
RESOLVED further, to furnish copies of this resolution to the Honorable City Mayor, the  
treasurer, the City Budget Officer, the City Accountant, the City Auditor and the Honda Bay  
Foundation, Inc., all in this City, for their information and appropriate action.

CARRIED UNANIMOUSLY.

I HEREBY CERTIFY to the correctness of Resolution No. 786-94 adopted by the  
Honorable Sangguniang Panglungsod of the City of Puerto Princesa in its regular meeting held on August 3, 1994.

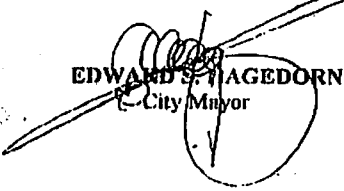
  
EDWARD S. THAGEDORN  
City Mayor

PROVED;


  
MIL MIGUEL R. REYNOSO  
City Vice Mayor  
Presiding Officer

PROVED

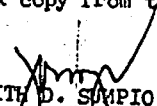
PROVED: Resolution No. 786-94 on August 12, 1994

  
EDWARD S. THAGEDORN  
City Mayor

ATTESTED:

  
VIVENCIO J. QUIRAY  
Secretary to the City Mayor

A certified xerox copy from the original:

  
JUDITH D. SUMPPIO  
Administrative Officer II  
March 21, 1995



## PROJECT PROPOSAL

**TITLE** HONDA BAY<sup>1</sup>

**PROPONENT** Honda Bay Foundation, Inc.

### COOPERATING AGENCIES

Honda Bay Foundation, Inc. (HBFI)

Department of Science and Technology  
Region IV (DOST IV)

City Government of Puerto Princesa City (CGPPC)

Provincial Government of the Province  
of Palawan (PGPP)

Palawan National Agricultural College-Institute of  
Marine Sciences (PNAC-IMS)

Philippine Council for Aquatic and Marine Research and  
Development (PCAMRD)

Department of Trade and Industry, Palawan (DTI, Pal)

**PROJECT SITE** Señorita Sandbar, Honda Bay  
Puerto Princesa City

**PROJECT COST** P700,000.00

### IMPLEMENTING SCHEDULE

The project will start on 1 July 1994 and end on 31 December 1995. It will last for 18 months.

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<sup>1</sup>The title is an acronym for Help Our Natural Deep in the Bay

## BRIEF DESCRIPTION OF THE PROJECT

Project Honda Bay shall engage in the production of green grouper fingerlings through broodstock development, spawning and larval rearing.

Ten per cent of the produce will be seeded to Honda Bay, forty per cent will be distributed to the cooperating and financing agencies while fifty per cent will remain with Honda Bay Foundation, Inc.

The marginal capture fishermen along the coastal areas of Honda Bay will be organized, taught fish cage culture and transformed into economically viable and environment friendly fish farmers.

## OBJECTIVES

### 1. General

- 1.1 The project will encourage fishermen to practice coastal resource management by enlightening them on the spawning season, behavior, fecundity, growth and survival of young green grouper.
- 1.2 The project will directly increase the green grouper population of Honda Bay thereby enhancing the productive capacity of the bay.
- 1.3 The project will wean marginal fishermen from uneconomic, over exploitative and often times destructive method of capture fishing and convert them into financially viable and environment friendly fish farmers.
- 1.4 The project will hasten the transfer of green grouper hatchery technology to the coastal areas of the province in particular and the country in general.

### 2. Specific

- 2.1 To produce green grouper fingerlings.

2.2 To organize fishermen into associations or cooperatives.

2.3 To teach capture fishermen fish cage culture technology and transform them into fish farmers.

## PROJECT DESCRIPTION/ACTIVITIES

The following are the major components/activities of the project.

1. Setting up a sea water system at Señorita Sandbar.
2. Establishing a mini marine laboratory.
3. Induce the broodstock of green grouper to spawn either naturally or through the use of hormones.
4. Incubate the fertilized eggs in aerated tanks until they hatch.
5. Nurture the larva produced to fingerling size.

Of the fingerlings produced,

10% will be seeded to the wild of Honda Bay,  
10% will go to the City Government for disposition,  
10% will go to the Provincial Government,  
10% to PNAC-IMS,  
10% to PCAMRD-DOST IV,  
Half or 50% will remain with HBF1.

6. Documentation.
7. General maintenance work.
8. Organize the marginal capture fishermen into associations and cooperatives.
9. Training of at least four communities along the bay's coastal areas in cage culture technology by the technicians of HBF1.

## IMPLEMENTING STRATEGY

Partnership concept will be used. DOST IV and HBFI will, at the start, be the most active partners. As the project progresses, the other partners will join in.

HBFI will provide:

1. The headquarters for the project which will include living quarters, storage facilities as well as the basic infrastructure for the sea water system and mini lab.
2. The floating cages for the broodstock development and spawning of green grouper.
3. A pumpboat to service to and from the project site the partners concerned.
4. Communications from the project site to the town proper.
5. Personnel for the project.

In money value, these will amount to P175,000.00.

DOST IV will provide:

1. Materials for the building of a sea water system and a mini lab in the form of lumber, stainless steel bolts, cement, copper and concrete nails, marine plywood, etc.
2. A knowledgeable and dedicated personnel who will nurture the project to its fruition.
3. Guidance and direction.
4. Documentation for the project.

Monetized, all these amount to P100,000.00.

PNAC-IMS will lend to the project tanks, PVC pipes, water pumps, filters, a microscope and other equipment which may be needed and are available at PNAC-IMS. These may include a refractometer, D.O. meter, dissecting set, Hach type NH meter, etc.

Converted into money value, these amount to P100,000.00

The Province of Palawan will:

1. Provide a grant in aid in the amount of P100,000.00 to the project.
2. Select the communities to be trained by HBFI in actual fish cage culture of green grouper.
3. Organize the selected communities into associations or cooperatives.
4. Help in the transfer of technology learned from the project so that capture fishermen can be transformed into fish farmers.

The City Government of Puerto Princesa will:

1. Provide grant in aid in the amount of P100,000.00
2. Select the communities to be trained by HBFI in actual cage culture of green grouper.
3. Organize the selected communities into associations or cooperatives.
4. Help transfer the technology gained from the project to intended beneficiaries so that capture fishermen will be converted into fish farmers.
5. Help in securing the project site from poachers and illegal fishermen.

PCAMRD will be in charge of monitoring researches on green grouper hatchery technology in the Philippines as well as outside the country and contribute technical assistance by bringing to the project technical manpower engaged in the latest grouper hatchery research. Such scientist/researcher in the project will be supported by the PCAMRD in the form of an honorarium and travelling expenses. In case it is justified to send the researcher for further study in any part of the Philippines or in any other country, then PCAMRD will sponsor such travel provided the researcher shall sign a contract with PCAMRD and HBFI that he will return and continue work on the project. PCAMRD will contribute P100,000.00 to the project.

DTI, Palawan will be responsible for the marketing of the produce of the project. It will help develop the communities chosen by the LGUs as beneficiaries of the project into viable associations or cooperatives. For this purpose, DTI, Palawan will contribute P25,000.00 or its equivalent value in organizing and networking.

#### EXPECTED OUTPUT

1. Green grouper fingerlings.
2. Field proven technology for green grouper hatchery.
3. Field tested green grouper cage culture technology.
4. Economically viable and environment friendly associations and/or cooperatives of fish farmers.

#### FINANCIAL REQUIREMENT

In 18 months of operation, the project will require a total of P700,000.00 from the cooperating agencies. The contributions need not be in cash. They may be in the form of manpower, facilities, equipment and even knowhow. However, for the purpose of arriving at a total financial requirement figure, all contributions have been assigned money value.

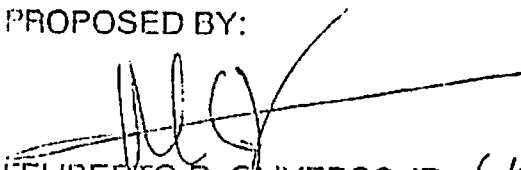
**CASH RELEASES**

Cash releases by the cooperating agencies to the proponent shall be detailed in a memorandum of agreement (MOA) signed by the parties concerned.

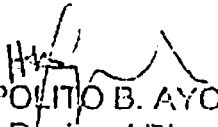
**EQUIPMENT LENDING**

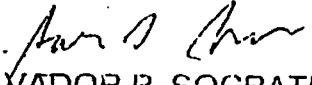
All equipment lent to the project shall be accompanied with the proper memorandum receipt.

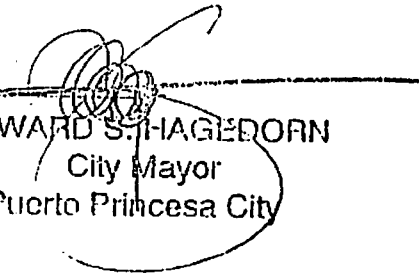
**PROPOSED BY:**

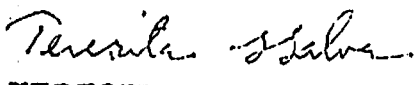
  
FELIBERTO R. OLIVEROS JR. (former City Mayor, Puerto Princesa)  
President  
Honda Bay Foundation, Inc.

**CONFORME:**

  
HIPOLITO B. AYCARDO  
Regional Director  
DOST IV

  
SALVADOR P. SOCRATES  
Governor  
Province of Palawan

  
EDWARD S. HAGEDORN  
City Mayor  
Puerto Princesa City

  
TERESITA L. SALVA  
President  
PNAC-IMS

RAFAEL D. GUERRERO III  
Executive Director  
PCAMRD

EDWIN RONDINA  
Provincial Director  
DTI Palawan

ORDINANCE NO. 17, SERIES 1968

THE REVISED MUNICIPAL ORDINANCE REGULATING FISHING AND FISHERIES IN THE MUNICIPALITY OF PUERTO PRINCESA, PROVINCE OF PALAWAN, AND FOR OTHER PURPOSES.

BE IT ORDAINED, by the Municipal Council of Puerto Princesa, Palawan in its Special Session assembled, that:

Section 1. This Ordinance shall be known as The Revised Municipal Ordinance Regulating Fishing and Fisheries in the Municipality of Puerto Princesa, Province of Palawan, and for other purposes, and shall be enforced in conjunction with the laws and regulations on fishing and/or fisheries already promulgated or that may later be promulgated regarding the matter.

Section 2. Municipal Waters - For the purpose of this ordinance, the words, "Municipal Waters" include not only streams, lakes and tidal waters included within the municipality, not being the subject of private ownership, and not comprised within national parks, public forests, timber lands, forest reserves, or fishery reserves, but also marine waters included between two lines drawn perpendicular to the general coastline from points where the boundary lines of the municipality touch the sea at a low tide and third line parallel with the general coastline and distant from it three nautical miles.

Section 3. License permit, fishery grant - It shall be unlawful for any person, association or corporation to take or catch fish or other aquatic products by means of nets, traps or other fishing gear in the municipal waters of this municipality or by means of fishing boats or vessels three tons or less, unless provided with the necessary license permit issued for the purpose by the Municipal Treasurer, subject to the approval of the Municipal Mayor. It shall be likewise illegal for any person, association or corporation to operate fishponds, fish corrals or oyster culture beds, or take or catch abalone, cray or fry of other species or propagation within the jurisdiction of this municipality without first securing a municipal grant therefor conferred as provided by law and this ordinance.

Section 4. Persons eligible for fishing or fishery privileges - The following are, under this ordinance, eligible for fishing or fishery privileges:

- (a) Citizens of the Philippines or of the United States;
- and
- (b) Association or corporation duly registered or incorporated under the laws of the Philippines or of the United States or any state thereof and authorized to transact business in the Philippines, and at least sixty (60%) of whose stock belong wholly to citizens of the Philippines or of the United States. It shall be unlawful for aliens or persons, associations or corporations not qualified by the law and this ordinance for the effect to engage, personally or through other person, in fishing in the municipal waters within the jurisdiction of the municipality.



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Section 5. Division and classification of Municipal Waters -  
The Municipal Waters within the jurisdiction of this municipality shall be divided and classified as follows:

(a) For the privilege of taking or catching bangus fry, known as "Kawag-kawag" in the following zones:

- Zone I - Municipal waters from Barrie Kanning to Banca-banaco Point - Minimum bid shall be ₱100.00 p/a
- Zone II - Municipal Waters from Barrie Banca-banaco Point to a point 200 meters south of the mouth of Matirigan Creek - Minimum bid shall be ₱200.00 per annum.
- Zone III - Municipal waters from a point 200 meters north of the mouth of Matirigan Creek to a point 200 meters south of the mouth of Marayagon River - Minimum bid shall be ₱100.00 per annum.
- Zone IV - Municipal waters from a point 200 meters north of the mouth of Marayagon River to a point 200 meters south of the mouth of Taytayan Creek - Minimum bid shall be ₱1,000.00 per annum.
- Zone V - Municipal waters from a point 200 meters north of the mouth of Taytayan Creek to a point 200 meters south of the mouth of Lasesan Creek - Minimum bid shall be ₱100.00 per annum.
- Zone VI - Municipal waters from a point 200 meters north of the mouth of Lasesan Creek to a point 200 meters south of the mouth of Olangosa Creek - Minimum bid shall be ₱100.00 per annum.
- Zone VII - Municipal waters on the east coast of Puerto Princesa north of Zone VI - Minimum bid shall be ₱30.00 per annum.
- Zone VIII - Municipal waters on the west coast of Puerto Princesa - Minimum bid shall be ₱500.00 per annum.

(b) For the privilege of erecting fish corrals or becks taking and catching fish thereof:

- Zone I - Municipal waters along Kanning and Inaganan.
- Zone II - Municipal waters within Puerto Princesa Bay to Banca-banaco Point.
- Zone III - Municipal waters from Banca-banaco Point to the mouth of Tapul River.
- Zone IV - Municipal waters from Tapul River to the mouth of Babuyan River.
- Zone V - Municipal waters from Babuyan River to the Puerto Princesa-Roxas boundary.
- Zone VI - Municipal waters within Uluan Bay.
- Zone VII - Municipal waters from Uluan Bay to Tutubain.

Zone VIII - Municipal waters from Ulugan Bay to Sto. Cruz.

Zone IX - Municipal waters north of zone VIII.

(c) The minimum bid of each zone in Section 5 (b) shall be P100.00 annually.

Section 6. Exclusive fishery privileges - Operating fish corrals, fishponds, or oyster culture beds, or the catching "bagnus" fry or fry of other species for propagation shall be considered as exclusive fishery privileges which shall be granted always to the highest bidder in public bidding held according to the provisions of this ordinance.

Grant for the exclusive privilege to erect fish corral, construct or operate fishpond or oyster culture bed, or take or catch "bagnus" fry or fry of other species for propagation shall be for a period not exceeding five years, or upon previous approval of the Provincial Board for a period of not exceeding ten years or for a longer period, but not exceeding twenty years, upon previous approval of the Secretary of Agriculture and Natural Resources.

Section 7. Application for exclusive fishing privilege - Application for any of the exclusive privileges mentioned in the preceding section shall be made on official form approved by the Municipal Council.

Section 8. To whom to submit application - All applications shall be forwarded to the Municipal Secretary who shall submit the same to the Municipal Mayor. Upon receipt of the application, the Municipal Mayor shall satisfy himself that the license applicant for will not prejudice public interest and that the portion of area for which application for lease has been presented is not covered by an subsisting lease.

Section 9. Committee on Auction - The Committee on Auction shall also be the composition of the Committee on Award of this municipality.

Section 10. Publication of Notice - The Committee on Auction shall advertise notice for sealed bids for exclusive fishery privilege in areas or ponds of the municipal waters available for erecting fish corrals, or constructing fishponds or oyster culture beds, or taking or catching "bagnus" fry or fry of other species for propagation by posting said notice in a newspaper published in the locality, if any, for a period not less than fifteen days.

Section 11. Time and place of Auction - The Municipal Council shall in a resolution provide for a notice calling for sealed bids for the exclusive privilege granted under Section 67 of the Fisheries Act, specifying the time and place of the auction, the amount to be deposited before an individual or any entity is entitled to participate, the procedure to be followed by the Committee on Auction before the exclusive privilege is granted and the bond as guarantee of good faith and satisfactory compliance with the terms of the lease or grant. The bond shall be in cash, in real estate situated within the Philippines or by surety company authorized for the purpose in an amount not less than two years rental.

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Section 12. License Permit - The privilege of taking or catching fish in the municipal waters of this municipality with nets, traps or other fishing gear, with or without using therefor fishing boats or vessels three tons gross or less, shall be granted under ordinary license permit issued by the Municipal Treasurer subject to the approval of the Municipal Mayor to any person, association or corporation qualified under Section 4 of this Ordinance, upon payment of the corresponding license permit fee required therefor in the following:

I - Fishing Nets:

- (a) Garop - - - - - \$2.00
- (b) Kitna - - - - - 12.00
- (c) Penty, less than 2 m. width and less than 100 m. length - - - - - 5.00
- Penty, 2m. - 4 m. width from 100 m. to 300 m. length - - - - - 8.00
- Penty, more than 4 m. width and more than 300 m. in length - - - - - 12.00

II - Buoys:

- (a) Less than one ton capacity - - - - - \$ 2.00
- (b) Less than one ton capacity with nets - - - - - 5.00
- (c) One ton to three tons capacity - - - - - 5.00
- (d) One ton to Three tons capacity with net - - - - - 12.00

III - Fishing with Hook on Line using Gas Lamp:

- (a) One Gas Lamp - - - - - \$ 4.00
- (b) Two Gas Lamps - - - - - 6.00

IV - Fishing Baitless:

- (a) Bargeets with accessories - - - - - 6.00
- (b) Chimehoro - - - - - 30.00
- (c) Telakob - - - - - 20.00
- (d) Bagnis with Accessories - - - - - 6.00
- (e) Baling or Bagan - - - - - 100.00
- (f) Langda or Sapine - - - - - 200.00
- (g) Bagay-daw - - - - - 4.00

V - Other Devices:

- (a) Licensing and/or Comared catcher - - - - - \$ 10.00
- (b) Light for Pank - - - - - 6.00

Provided that no other fee shall be collected from fishermen duly licensed by other municipality unless the license fees paid by them in that municipality are less than those prescribed above, in which case the difference between the two annual fees may be collected. Provided, that fishermen licensed by the National Government shall not be subject to the requirement of this Ordinance, specifically the payment of municipal license tax, fee or charge. Provided, lastly, that the residents of this municipality who have not been granted license for commercial fishing shall be allowed to fish in municipal waters for their home consumption; Provided, that no fish caught under this privilege shall be sold. Provided, also that they shall not fish within the hundred meters from any fish corral operated under exclusive

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privilege granted by the Municipality in accordance with this Ordinance.

License permits issued under this section shall be valid for the year in which they are issued.

Section 13. Report of fish caught - Any individual or entity who has obtained a fishery grant or license to take or catch fish in the municipal waters of the municipality wherein he is fishing within the first ten days of each month, shall monthly report, in triplicate, showing the kind, quantity and value, if sold, of fish caught during the month.

Section 14. Restrictions: License and permits issued or contracts executed under this Ordinance shall contain provisions of the effect:

(a) No fish corral or "baklad" shall be constructed within two hundred meters of another in marine fisheries or one hundred meters in fresh water fisheries, unless they belong to the same grantee but, in no case shall fish corral be less than sixty meters apart, unless previously approved by the Secretary of Agriculture and Natural Resources or his duly authorized representatives.

(b) Fish corrals shall be entirely open during closed season periods or periods, established by the Honorable, The Secretary of Agriculture and Natural Resources, for the free passage of fishes to enable a considerable number to reach the spawning grounds.

(c) Nothing in the license shall be so permitting the licensee, grantee, or permittee to obstruct the free navigation of any streams or water wherein the license, lease or permittee is granted a fishery privilege.

(d) The licensee agrees unconditionally to comply with all the laws, rules and regulations governing fishing now, or which may hereafter be in force.

(e) The licensee assumes responsibility for any and all the acts of his agents and employees of the contractors connected with his fishing operation.

(f) Failure to pay any fee or bond when due as prescribed in the permit, license, contract or regulations shall be sufficient for the cancellation of the license, permit or contract.

Section 15. Penalty - Any individual or entity found violating any of the provisions of this ordinance shall be punished for each offense by a fine not less than fifty Pesos (P50.00) but not exceeding Two Hundred Pesos (P200.00) or imprisonment of not less than ten (10) days but not exceeding six (6) months, or both such fine and imprisonment, in the discretion of the Court.

Section 16. Repeal - All ordinances and regulations or parts thereof in conflict with this ordinance are hereby repealed.

Section 17. Effectivity - This ordinance shall take effect upon its approval by the Secretary of Agriculture and Natural Resources.

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SO ORDAINED.

ADOPTED by the Municipal Council of Puerto Princesa in  
its Special session held on February 21, 1968.

ATTESTED:

(SD) MARINO R. VALENCIA  
Municipal Secretary

APPROVED:

(SD) FELIBERTO R. OLIVEROS, JR.  
Municipal Mayor

A TRUE COPY:

*Analia M. Padua*  
Analia M. Padua  
Skigginiang Paulungson  
June 6, 1979

## ORDINANCE NO. A-13-75

## ALL ORDINANCES REGULATING FISHING AND FISHERIES IN THE CITY OF PUERTO RICO, AND FOR OTHER PURPOSES.

BE IT ORDAINED by the City Council of Puerto Rico in the regular session aforesaid that:

Section 1. Title of the Ordinance - This Ordinance shall be known and referred to as the Revised City Ordinance on Fishing and Fisheries in the City of Puerto Rico, and shall be enforced in conjunction with other operative laws and regulations on fishing.

Section 2. City Waters Defined - For the purpose of this Ordinance, "City Waters" includes not only streams, lakes and tidal waters included within the city, but also the subject of private ownership, and not comprised within the national parks, public forests, timber lands, forest reserves, or fishing reserves, but also marine waters included between two lines drawn perpendicularly to the general coastline from points where the boundary line of the city touch the sea at low tide and a third parallel with the general coastline and distant from the first parallel miles.

Section 3. Mayor's Permit Fishery Grant - It shall be unlawful for any person association or corporation to take or catch fish or other aquatic products by means of nets, traps or other fishing gear in the city waters of this city or by means of fishing boats or vessels three tons or less, unless provided with the necessary mayor's permit issued for the purpose by the City Mayor. It shall be likewise illegal for any person association or corporation to operate fishponds, fish corrals or oyster beds, or take or catch "beque" fry or fry of other species for propagation within the jurisdiction of this city without first securing a fishery grant therefor as provided in the Ordinance.

Section 4. Persons Liable for Fishes or Fishery Violations - The following are, under this Ordinance, liable for fishing of fishery privileges:

(a) Citizens of the Philippines or of the United States; and

(b) Association or corporation duly registered or incorporated under the laws of the Philippines or of the United States or any state thereof and authorized to transact business in the Philippines; and at least sixty per cent (60%) of whose stock belongs wholly to citizens of the Philippines or of the United States. It shall be unlawful for aliens or persons, associations or corporations not qualified by the law and this Ordinance to engage, in any way, in fishing or through other person, in fishing within the jurisdiction of the city.

Section 5. Division and Classification of the City Waters - The City Waters within the jurisdiction of this city shall be divided and classified as follows:

(a) For the privilege of taking or catching bangus, fry, known as "hawa", and other fish, the following zones:

Zone 1 - City Waters from Puerto Rumbado, to Banao-banao Point, Minimum bid shall be P500.00 per annum.

Zone 2 - City Waters from Puerto Rumbado Point to a point 200 meters south of the mouth of Matizigan Creek. Minimum bid shall be P1,000.00 per annum.

- Zone III - City Waters from a point 200 meters north of the mouth of Mabirangan Creek to a point 200 meters south of the mouth of Maruyugon River - Minimum bid shall be P500.00 per annum.
- Zone IV - City Waters from a point 200 meters north of the mouth of Maruyugon River to a point 200 meters south of the mouth of Taylayan Creek - Minimum bid shall be P4,000.00 per annum.
- Zone V - City Waters from a point 200 meters north of the mouth of Taylayan Creek to a point 200 meters south of the mouth of Lacson Creek - Minimum bid shall be P2,000.00 per annum.
- Zone VI - City Waters from a point 200 meters north of the mouth of Lacson Creek to a point 200 meters south of the mouth of Clanganan Creek - Minimum bid shall be P2,000.00 per annum.
- Zone VII - City Waters on the east coast of Puerto Princesa north of Zone VI - Minimum bid shall be P500.00 per annum.
- Zone VIII - City Waters on the west coast of Puerto Princesa - Minimum bid shall be P500.00 per annum.

(b) For the privilege of erecting fish corrals or baklad - The City Council shall hereafter particularly designate the fish corral areas within the City of Puerto Princesa and the exclusive fishery privilege to erect fish corrals or "baklad" for the purpose of taking or catching fish therefrom shall be granted to the highest bidder, PROVIDED, that the minimum bid for each of the specified fish corral areas shall not be less than P100.00

Section 6. Exclusive fishery privileges - Operating fish corrals, except small fish traps (pumat), or oyster culture beds or the catching of bangus fry or kaway-kaway or fry of other species for propagation shall be considered as exclusive fishery privileges which shall be granted always to the highest bidder in a public bidding held accordingly to the provisions of this Ordinance. Any grant for the exclusive privilege to erect fish corral, construct or operate oyster culture beds or take or catch "bangus" fry or fry of other species for propagation shall be for a period of one calendar year; Provided that exclusive fishery privileges granted before the approval of this Ordinance shall continue to be in force until the expiration of the terms of the contract or until said privileges are revoked for cause as provided by law or ordinance.

Section 7. Composition of Committee on Auction - The Committee on Auction shall be composed of the City Treasurer, as Chairman, the City Mayor or his duly authorized representative and the Chairman of the Committee on Agriculture and Natural Resources of the City Council, as members.

Section 8. Posting and Publication of Notice - The Committee on Auction shall advertise notice for sealed bids for exclusive fishery privilege in areas or zones of the city waters available for erecting fish corrals, or oyster culture beds, or taking or catching "bangus" fry or fry of other species for propagation by posting said notice in three conspicuous places in the city for a period of not less than thirty days prior to the date of the bidding, by announcing over the radio of said notice at least once a week for three consecutive weeks prior to the date of the bidding.

**Section 9. Time and Place of Auction** - The Auction Committee shall specify in the notice of time and place of the Auction, the amount to be deposited before an individual or any entity is entitled to participate; the procedure to be followed before the exclusive privilege is granted and the amount of the bond as guarantee of good faith and for satisfactory compliance with terms of the lease if granted; Provided, that the auction or bidding shall be conducted on or before the fifteenth day of December of each year and that the bond shall be in cash or in real estate situated within the Philippines or by surety company authorized for the purpose in an amount not less than the equivalent to the rental for one year of the particular fishery area or zone leased or granted; Provided, finally, that the first bidding under this Ordinance for the year 1974 shall be conducted on or before January 31, 1974.

**Section 10. To whom to Submit Sealed Bids for Grant of Exclusive Fishery Privilege** - All sealed bids for the grant of exclusive fishery privilege mentioned in Section 6 of this Ordinance shall be submitted to the Committee on Auction which shall grant the exclusive fishery privilege to the highest bidder who has complied with the requirements of existing laws, the provisions of this Ordinance and the rules and regulations promulgated in conformity with the provisions hereof.

**Section 11. Grant of exclusive fishery rights** - If after two notices for the grant of exclusive fishery rights thru public auction in pursuance of the provisions of the preceding section, no interested bidders opt to bid and lease any fishing zone within the city waters, the City Council is authorized to grant the privilege of erecting fish corrals, operating fishponds or oyster beds, or catching bangus fry or kawag-kawag to any person, association or corporation qualified under Section 4 of this Ordinance.

**Section 12. Payment of Fees** - All such recipients of grants of fishery rights in pursuance of the preceding section shall, before engaging therein, pay the following fees:

- a. Annual Mayor's Permit Fee for each grant . . . P5.00
- b. Annual License Fees:

(1) Fish corrals leased on the beach:

Less than 3 meters . . . . .	P40.00
3 meters or more but less than 5 meters . . . . .	60.00
5 meters or more but less than 8 meters . . . . .	200.00
8 meters or more but less than 10 meters . . . . .	360.00
10 meters or more but less than 15 meters . . . . .	500.00
15 meters or more but less than . . . . .	800.00

(2) Operating of fishponds or oyster culture beds:

Per hectare . . . . .	P10.00
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(3) Catching bangus fry or kawag-kawag:

Less than 1,000 square meter . . . . .	P500.00
1,000 sq. m. or more but less than 2,000 square meter . . . . .	800.00
2,000 sq. m. or more but less than 4,000 square meter . . . . .	1,500.00
4,000 sq. m. or more but less than 6,000 square meter . . . . .	2,200.00
6,000 sq. m. or more but less than 8,000 square meter . . . . .	3,000.00
8,000 sq. m. or over . . . . .	4,000.00



Section 12. Licensing of fishing gears and fishing vessels - In accordance with Section 2, hereof, no person, association or corporation may take from the city waters of the City of Puerto Princesa by means of any fishing gears and/or fishing vessels without having obtained a mayor's permit therefor and paid the corresponding fees as fixed hereunder:

a. Annual Mayor's Permit Fee for each proprietor or operator . . . . . P 5.00

b. Annual License Fees:

(1) Fishing Nets:

- a. Sarap . . . . . P 2.00
- b. Bitana . . . . . 12.00
- c. Panty, per area in square meters -
  - Less than 200 sq. m. . . . . 5.00
  - 200 sq. m. to 1,200 sq. m. . . . . 8.00
  - More than 1,200 sq. m. . . . . 12.00

(2) Baroan:

- a. Less than one-ton capacity . . . . . 2.00
- b. Less than one-ton capacity with motor . . . . . 6.00
- c. One-ton to three-ton capacity . . . . . 5.00
- d. One-ton to three-ton capacity with motor . . . . . 12.00

(3) Fishing with hook and line using gas lamp:

- a. One gas lamp . . . . . P 4.00
- b. Two gas lamps . . . . . 6.00
- c. More than two gas lamps . . . . . 10.00

(4) Fishing Devices:

- a. Lagarata with accessories . . . . . 6.00
- b. Chinchorro . . . . . 30.00
- c. Talskob . . . . . 20.00
- d. Basnig with accessories . . . . . 100.00
- e. Baling or Balan . . . . . 100.00
- f. Lawagan or Sapiao . . . . . 200.00
- g. Sagaw-saw . . . . . 4.00

(5) Other Devices:

- a. Device for catching alaming and/or camaron . . . . . 10.00
- b. Light and Pana . . . . . 6.00

Section 14. Licensing of other localities and duly licensed fishermen - A licensee of any other locality shall not fish in the City of Puerto Princesa unless he secures the necessary permit and license therefor in accordance with the provisions of this Ordinance and pays the corresponding fees imposed thereon. Any fisherman duly licensed under Section 18 of Act 4003, as amended, may only be allowed to fish in the city waters if they secure the necessary permit therefor and pay the corresponding fees.

Section 15. Privileges of residents of the City of Puerto Princesa - Residents of the City of Puerto Princesa who are not holders of a permit or license to engage in commercial fishing shall be allowed to fish for domestic use in the city waters;

Section 15. Restriction - Licenses and permits issued in accordance with this Ordinance shall be subject to the following provisions: Provided further, that no fish caught under this privilege shall be sold:

Section 16. Restriction - Licenses and permits issued in accordance with this Ordinance shall be subject to the following provisions: Provided further, that contracts executed under this Ordinance shall stipulate the same to the effect that:

- (a) No fish corral or "banked" shall be constructed within two hundred meters of another in marine fisheries or one hundred meters in fresh water fisheries, unless they belong to the same grantee but, in no case shall fish corral be less than sixty meters apart, unless previously approved by the Secretary of Agriculture and Natural Resources or his duly authorized representatives;
- (b) Fish corrals shall be entirely open during closed season periods, established by the Honorable, the Secretary of Agriculture and Natural Resources, for the free passage of fishes to enable a considerable number to reach the spawning grounds;
- (c) Nothing in the license shall be as permitting the licensee, grantee, or permittee to obstruct the free navigation of any streams or water wherein the license, lease, or permit is granted a fishery privilege;
- (d) The licensee agrees unconditionally to comply with all the laws, rules and regulations governing fishing now, or which may hereafter be in force;
- (e) The licensee assumes responsibility for any and all the acts of his agents and employees of the contractors connected with his fishing operations; and
- (f) Failure to pay any fee or bond when due as prescribed in the permit license, contract or regulation shall be sufficient cause for the revocation of the license, permit or contract.

Section 17. Time and payment - All license fees herein provided shall be due and payable upon issuance of the corresponding permit; Provided, that the same may be paid in quarterly installments; Provided further, that in the case of a business engaged to operate on any date other than the first day of the current calendar year or quarter, the license fees due thereon shall be reckoned from the beginning of the said calendar year or quarter, as the case may be.

Section 18. Surcharge on late payment - Failure to pay the fees hereinabove fixed shall subject the taxpayer to a surcharge of twenty five per cent of the amount of license fees for each month of twelve percent per annum from the due date until the license fee is fully paid.

Section 19. Penal provisions - Violation of any section of this Ordinance shall subject the offender to a fine not less than P100.00 but not more than P1,000.00 or imprisonment for not more than six (6) months, or both, at the discretion of the Court.

Ord. No. A-13-73

Section 20. Repealing Clause - All Ordinances or part or parts thereof which are inconsistent herewith are hereby repealed and/or modified accordingly.

Section 21. Separability Clause - If, for any reason, any section or provision of this Ordinance shall be declared unconstitutional or invalid by competent authorities, no other section or provision hereof shall be affected by such declaration.

Section 22. Effectivity Clause - This Ordinance shall take effect upon its approval; Provided, however, that except as otherwise provided in this Ordinance, rights or privileges vested or acquired under Ordinance No. 17, Series of 1968 of the City of Puerto Rico shall remain in force and effect.

SO ORDERED.

ADOPTED by the City Council of Puerto Rico in its regular meeting held on December 26, 1973.

ATTESTED:

(SGD) VICENTE S. LICERIO, SR.  
Secretary to the City Council

APPROVED:

(SGD) ISABELO M. MIRANO  
City Vice Mayor &  
Presiding Officer

A TRUE COPY:

*Isabelo M. Mirano*  
Isabelo M. Mirano  
JP July 20, 1979

ORDINANCE NO. 426-11-74

AN ORDINANCE REGULATING FISHING AND FISHERIES IN THE CITY OF PUERTO PRINCESA, AND FOR OTHER PURPOSES.

BE IT ORDAINED by the City Council of Puerto Princesa in its special session assembled, that:

Section 1. TITLE OF THE ORDINANCE - This Ordinance shall be known and referred to as the Revised City Ordinance on Fishing and Fisheries in the City of Puerto Princesa, and shall be enforced in conjunction with other operative laws and regulations on fisheries.

Section 2. CITY WATERS, DEFINED - For the purpose of this ordinance, "City Waters" includes not only streams, lakes and tidal waters included within the city, not being the subject of private ownership, and not comprised within the national parks, public forest, timber lands, forest reserves, or fishery reserves, but also marine waters included between two lines drawn perpendicularly to the general coastline from points where the boundary line of the city touch the neap low tide and a third parallel with the general coastline and distant from it three nautical miles.

Section 3. MAYOR'S PERMIT, FISHERY GRANT - It shall be unlawful for any person, association or corporation to take or catch fish or other aquatic products by means of nets, traps or other fishing gear in the city waters of this city or by means of fishing boats or vessels three tons or less, unless provided with the necessary mayor's permit issued for the purpose by the City Mayor. It shall be likewise illegal for any person, association or corporation to operate fishponds, fish corrals or oyster culture beds, or take or catch "bangus" fry or fry of other species for propagation within the jurisdiction of this City without first securing a fishery grant therefor conferred as provided by law and this Ordinance.

Section 4. PERSONS ELIGIBLE FOR FISHING OR FISHERY PRIVILEGES - The following are, under this Ordinance, eligible for fishing or fishery privileges:

- a. Citizens of the Philippines or of the United States; and
- b. Association or corporation duly registered or incorporated under the laws of the Philippines or of the United States or any state thereof and authorized to transact business in the Philippines, and at least sixty per cent (60%) of whose stock belongs wholly to citizens of the Philippines or of the United States. It shall be unlawful for aliens or persons, association or corporation not qualified by the law and this Ordinance to engage, personally or through other person, in fishing within the jurisdiction of the City.

Section 5. DIVISION AND CLASSIFICATION OF THE CITY WATERS - The City Waters within the jurisdiction of this city shall be divided and classified as follows:

- a. For the privilege of taking or catching bangus fry, known as "kawa-kawang" in the following zones:
  - Zone I - City Waters from Bangie Kamuning to Banca-Bakoo Point - Minimum bid shall be ₱ 2,000.00
  - Zone II - City Waters from Barrio Banca-Banco Point to a point 200 meters south of the mouth of Mairingan Creek - Minimum bid shall be ₱ 4,000.00.

- Zone III - City Waters from a point 200 meters north of the mouth of Matirigan Creek to a point 200 meters south of the mouth of Maruyogan River - Minimum bid shall be ₱ 5,000.00.
- Zone IV - City Waters from a point 200 meters north of the mouth of Maruyogan River to a point 200 meters south of the mouth of Taytayan Creek - Minimum bid shall be ₱ 10,000.00.
- Zone V - City Waters from a point 200 meters north of the mouth of Taytayan Creek to a point 200 meters south of the mouth of Lagoon Creek - Minimum bid shall be ₱ 5,000.00.
- Zone VI - City Waters from a point 200 meters north of the mouth of Lagoon Creek to a point 200 meters south of the mouth of Olanggan Creek - Minimum bid shall be ₱ 3,000.00.
- Zone VII - City Waters on the east coast of Puerto Encarnación north of Zone VI - Minimum bid shall be ₱ 3,000.00.
- Zone VIII - City Waters on the west coast of Puerto Encarnación - Minimum bid shall be ₱ 3,000.00.

b. For the privilege of erecting fish corrals or baklad. The City Council shall hereafter particularly designate the fish corral areas within the City of Puerto Encarnación and the exclusive fishery privilege to erect fish corrals or "baklad" for the purpose of taking or catching fish therefrom shall be granted to the highest bidder. PROVIDED, that the minimum bid for each of the specified fish corral shall not be less than ₱ 100.00.

Section 6. EXCLUSIVE FISHERY PRIVILEGES - Operating fish corrals, except small fish traps (pusat), or oyster culture beds or the catching of bangus fry or kawag-kawag or fry of other species for propagation shall be considered as exclusive fishery privileges which shall be granted always to the highest bidder in a public bidding held accordingly to the provisions of this Ordinance. Any grant for the exclusive privilege to erect fish corral, construct or operate oyster culture beds or take or catch "bangus" fry or fry of other species for propagation shall be for a period of one calendar year; Provided, that exclusive fishery privileges granted before the approval of this Ordinance shall continue to be in force until the expiration of the terms of the contract or until said privileges are revoked for cause as provided by law or ordinance.

Section 7. COMPOSITION OF COMMITTEE ON AUCTION - The Committee on Auction shall be composed of the City Treasurer, as Chairman, the City Mayor or his duly authorized representative and the Chairman of the Committee on Agriculture and Natural Resources of the City Council, as members.

Section 8. POSTING AND PUBLICATION OF NOTICE - The Committee on Auction shall advertise notice for sealed bids for exclusive fishery privilege in spots or zones of the city waters available for erecting fish corrals, or oyster culture beds, or taking or catching "bangus" fry or fry of other species for propagation by posting said notice in three conspicuous places in the city for a period of not less than thirty days prior to the date of the bidding, by announcing over the radio of said notice of bidding, and by publishing said notice at least once a week for three consecutive weeks prior to the date of the bidding.

Section 9. TIME AND PLACE OF AUCTION - The Auction Committee shall specify in the notice the time and place of the Auction, the amount to be deposited before an individual or any entity is entitled to participate, the procedure to be followed before the exclusive privilege is granted and the amount of the bond as guarantee of good faith and for satisfactory compliance with terms of the lease or grant; Provided, that the auction or bidding shall be conducted on or before the fifteenth day of December of each year and that the bond shall be in cash or in real estate situated within the Philippines or by surety company authorized for the purpose in an amount not less than the equivalent to the rental for one year of the particular fishery area or zone leased or granted.

Section 10. TO WHOM TO SUBMIT SEALED BIDS OR GRANT OF EXCLUSIVE FISHERY PRIVILEGE - All sealed bids for the grant of exclusive fishery privileges mentioned in Section 6 of this Ordinance shall be submitted to the Committee on Auction which shall grant the exclusive fishery privilege to the highest bidder who has complied with the requirements of existing laws, the provisions of this Ordinance and the rules and regulations promulgated in conformity with the provisions hereof.

Section 11. GRANT OF EXCLUSIVE FISHERY RIGHTS - If after two notices for the grant of exclusive fishery rights thru public auction in pursuance of the provisions of the preceding section, no interested bidders opt to bid and lease any fishing zone within the city waters, the City Council is authorized to grant the privilege of erecting fish corrals, operating fishponds or oyster beds, or catching bangus fry or kawag-kawag to any person, association or corporation qualified under Section 5 of this Ordinance.

In case of fish corrals to be erected in places other than designated fish corral zones, the applicant is exempt from securing a permit from the City Council and in lieu thereof shall secure a mayor's permit from the Office of the City Mayor and pay the corresponding license fees herein provided at the Office of the City Treasurer.

Section 12. PAYMENT OF FEES - All such recipients of grants of fishery rights in pursuance of the preceding section shall, before engaging therein, pay the following fees:

- a. Annual Mayor's Permit Fee, for each grant . . . P5.00
- b. Annual License Fees:

- 1) Fish corrals, based on the heights:
  - Less than 3 meters deep . . . . . P 30.00
  - 3 meters deep or more but less than 5 meters deep . . . . . 60.00
  - 5 meters deep or more but less than 8 meters deep . . . . . 200.00
  - 8 meters deep or more but less than 10 meters deep . . . . . 360.00
  - 10 meters deep or more but less than 15 meters deep . . . . . 500.00
  - 15 meters deep or more . . . . . 800.00
- 2) Operating of fishponds or oyster culture beds -
  - Per hectare . . . . . 10.00

- 3) Catching ban\_us fry or kawag-kawag -
  - Less than 1,000 square meters . . . . . 800.00
  - 1,000 sq. m. or more but less than 2,000 square meters . . . . . 800.00
  - 2,000 sq. m. or more but less than 4,000 square meters . . . . . 1,500.00
  - 4,000 sq. m. or more but less than 6,000 square meters . . . . . 2,200.00
  - 6,000 sq. m. or more but less than 8,000 square meters . . . . . 3,000.00
  - 8,000 sq. m. or over . . . . . 4,000.00
  
- 4) Fish cercala of fishponds in inland fresh waters -
  - With an area of less than 500 sq. meters - 100.00
  - With an area of 500 sq. m. or more but less than 1,000.00 sq. meters . . . . . 200.00
  - With an area of 1,000.00 sq. m. or more but less than 5,000.00 sq. m. . . . . 360.00
  - With an area of 5,000 sq. m. or more but less than 10,000 sq. meters . . . . . 500.00
  - With an area of 10,000 sq. m. or more . . . . . 800.00

Section 13. LICENSING OF FISHING GEARS AND FISHING VESSELS

In accordance with Section 12, hereof, no person, association or corporation may take from the city waters of the City of Puerto Rico fishery by means of any fishing gears and/or fishing vessels without having obtained a mayor's permit therefor and paid the corresponding fees as fixed hereunder:

- a. Annual Mayor's Permit fee for each proprietor or operator - P . . . . . P 5.00
- b. Annual License Fees:
  - 1. Fishing nets -
    - a) Sarap . . . . . 2.00
    - b) Bilana . . . . . 12.00
    - c) Panty, per area in square meters -
      - Less than 200 square meters . . . . . 5.00
      - 200 sq. m. to 1,200 sq. m. . . . . 8.00
      - More than 1,200 square meters . . . . . 12.00
  - 2. Bances -
    - a) Less than one ton capacity . . . . . 2.00
    - b) Less than one ton capacity with meter . . . . . 6.00
    - c) One ton to three tons capacity . . . . . 5.00
    - d) One ton to three tons capacity with meter . . . . . 12.00
  - 3. Fishing with hook and line using gas lamp -
    - a) One gas lamp . . . . . 4.00
    - b) Two gas lamps . . . . . 6.00
    - c) More than two gas lamps . . . . . 10.00
  - 4. Fishing devices:

- a) Margarita with accessories . . . . . 6.00
- b) Chinchorre . . . . . 30.00
- c) Tulsob . . . . . 20.00
- d) Baanig with accessories . . . . . 100.00
- e) Palling or Bahau . . . . . 400.00
- f) Sula-saw . . . . . 4.00
- g) Lawgan or Sapiao . . . . . 200.00

5. Other Devices -

- a) Device for catching alaming and/or camaron . . . . . 10.00
- b) Light and Para . . . . . 6.00

Section 14. LICENSEES OF OTHER LOCALITIES AND DULY LICENSED DEEP-SEA FISHERMEN - A licensee of any other locality shall not fish in the City of Puerto Princesa unless he secures the necessary permit and license therefor in accordance with the provisions of this Ordinance and pays the corresponding fees imposed thereon. Deep-sea fishermen duly licensed under Section 10, of Act 4003, as amended, may only be allowed to fish in the city waters if they secure the necessary permit therefor and pay the corresponding fees.

Section 15. PRIVILEGE OF RESIDENTS OF THE CITY OF PUERTO PRINCESA - Residents of the City of Puerto Princesa who are not grantees of a permit or license to engage in commercial fishing shall be allowed to fish for domestic use in the city waters; Provided, however, that in no case shall fishing be allowed within two hundred meters from a fish corral licensed by this City; And Provided further, that no fish caught under this privilege shall be sold.

Section 16. RESTRICTIONS - Licenses and permits issued in pursuance of this Ordinance shall be subject to the following provisions to the same extent that contracts executed under this Ordinance shall stipulate the same to the effect that:

- a) No fish corral or "Baklad" shall be constructed within two hundred meters of another in marine fisheries or one hundred meters in fresh water fisheries, unless they belong to the same grantee but, in no case shall fish corral be less than sixty meters apart, unless previously approved by the Secretary of Agriculture and Natural Resources or his duly authorized representatives;
- b) Fish corrals shall be entirely open during closed season periods, established by the Honorable The Secretary of Agriculture and Natural Resources, for the free passage of fishes to enable a considerable number to reach the spawning grounds;
- c) Nothing in the license shall be so permitting the licensee, grantee, or permittee to obstruct the free navigation of any stream or water wherein the licensee, lessee, or permittee is granted a fishery privilege;
- d) The licensee shall unconditionally comply with all the laws, rules and regulations governing fishing now, or which may hereafter be in force;



- e) The licensee assumed responsibility for any and all the acts of his agents and employees of the contractors connected with his fishing operation; and
- f) Failure to pay any fee or bond when due as prescribed in the permit, license, contract or regulations shall be sufficient cause for the revocation of the license, permit or contract.

Section 17. TIME OF PAYMENT - All license fees herein imposed shall be due and payable upon issuance of the corresponding permit; Provided, that the same may be paid in quarterly installments; Provided further, that in the case of a business beginning to operate on any date other than the first day of the current calendar year or quarter, the license fees due thereon shall be reckoned from the beginning of the said calendar year or quarter in the case may be.

Section 18. CHARGE ON LATE PAYMENT - Failure to pay the license fees hereinabove fixed shall subject the taxpayer to a surcharge of twenty-five per cent (25%) of the amount of license fees plus an interest of fourteen per cent per annum from the due date until the license fee is fully paid.

Section 19. PENAL PROVISIONS - Violation of any section or sections of this Ordinance shall subject the offender to a fine of not more than P1,000.00 or imprisonment for not more than six (6) months or both, at the discretion of the Court.

Section 20. REPEALING CLAUSE - All Ordinances or part or parts thereof which are inconsistent herewith are hereby repealed and/or modified accordingly.

Section 21. SEPARABILITY CLAUSE - If, for any reason, any section or provision of this Ordinance shall be declared unconstitutional or invalid by competent authorities, no other section or provision hereof shall be affected by such declaration.

Section 22. EFFECTIVITY CLAUSE - This Ordinance takes effect beginning July 1, 1974; Provided, however, that except as otherwise provided in this Ordinance, rights or privileges vested or acquired under Ordinance No. 17, Series of 1968 and Ordinance No. A-13-73, Series of 1973, of the City of Puerto Princesa shall remain in force and effect.

SO ORDAINED.

ADOPTED by the City Council of Puerto Princesa in its Special Session held on June 7, 1974.

ATTESTED:

(SCD) VICENTE S. LICERIO, SR.  
Secretary to the City Council

APPROVED:

(SCD) ISABELO H. MURANO  
City Vice Mayor &  
Presiding Officer

VCL/lrm

A TRUE COPY:

Angela M. Padua  
August 9, 1979

REPUBLIC OF THE PHILIPPINES  
 LUNGGOD NG PUERTO PRINCESA  
 TANGGAPAN NG SANGGUNIANG PANLUNGSOD

FROM THE MINUTES OF THE REGULAR MEETING OF THE SANGGUNIANG PANLUNGSOD  
 CITY OF PUERTO PRINCESA HELD ON SEPTEMBER 29, 1987 AT THE SESSION HALL  
 OF THE SANGGUNIANG PANLUNGSOD

1. Benjamin S. Carlos, M.D.	Kagawad, Temporary Presiding Officer
2. Ceferino S. Dimalanta	Kagawad
3. Antonio P. Romananta, Sr.	Kagawad
4. Danilo L. Gloria	Kagawad
5. Teodoro M. Palanca	Kagawad
6. Galdemio N. Vicente	Kagawad
7. Panfilo B. Racuya	Kagawad
8. Regalado Z. Gabuco	Kagawad
9. Tibacio O. Abros, Sr.	Kagawad
10. Michael G. Tan	Kagawad
11. Higinio C. Mendoza, Jr.	City Vice-Mayor
12. Pablo S. Ehol	Kagawad
13. Carolina F. San Juan	Kagawad

xxx

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ORDINANCE NO. 64-87

ORDINANCE ADOPTING THE "SEA-TENURE AND COASTAL ZONE RESOURCE MANAGEMENT PROJECT" FOR PILOT TESTING AT BARANGAY SALVACION, CITY OF PUERTO PRINCESA.

IT ORDAINED by the Sangguniang Panlungsod of the City of Puerto Princesa in its regular meeting assembled that:

Section 1. For purposes of protecting, preserving, maintaining the ecological balance, promoting the economic viability and sound development of the coastal zones within the city's area of responsibility, it is hereby proposed for pilot testing the "Sea-Tenure and Coastal Zone Resources Management Project" at Barangay Salvacion, approximately 42 Kms. North of the City of Puerto Princesa.

Section 2. A Sea-Tenure-Leasehold Contract Agreement (with a minimum of 50 years and renewable for another 50 years) shall be executed between the city of Puerto Princesa and the Barangay Council of Bgy. Salvacion, this Agreement shall stipulate, among others, the following provisions:

2.1 The coastal zones and up to the 3 mile limits within the barangay's area of responsibility shall be under the control and management of the (residents of the) barangay.

2.2 Deputizing the Bgy. Captain and the members of the Barangay Council as Forest/Coastal guards and extending their powers to enter into agreement with the existing cooperative in the management/development of the coastal/sea areas within the barangay.

2.3 Organization of cooperatives in the barangay and encouraging the barangay residents to become members of cooperatives.

Section 3. There shall be strong coordination and established linkages between the city government, Bgy. Salvacion and the DPAR in order to avoid any conflict of interest on matters related to the operation and management of coastal/sea areas within the barangay.

Ordinance No. 84-87

Section 4. The City Council and the Reg. Council shall determine the amount of rental to be paid by the latter. In no case shall the rental exceed two percent (2%) of the gross income of the fishermen's cooperatives in Salvacion, this City.

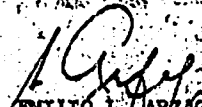
Section 5. This ordinance shall take effect upon its approval.

SO ORDERED,

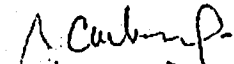
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xxx

I HEREBY CERTIFY to the correctness of the above Ordinance enacted by the Sangguniang Panlungsod of the City of Puerto Princesa in its regular session held on September 29, 1987.

  
EMILIO L. ARZAGA  
Assistant Board Secretary II  
Acting City Secretary

MDI

  
MARTIN S. CARLOS, N.D.  
Kagawad  
Secretary Presiding Officer

Ordinance No. 84-87 on October 21, 1987

  
ALFREDO B. ABUEG, JR.  
C/O City Mayor

ATTESTED:

MARINO B. VALENZA  
City Administrator

**THE MANAGEMENT OF FISHERIES AND  
AQUATIC RESOURCES AT THE LOCAL LEVEL:  
THE CASE OF TABACO, ALBAY**

**Vicente D. Mariano and Myrna M. Lanuzo\***

**Abstract**

Given the legislation, funding, personnel; and initiative and advocacy issues in the fisheries and aquatic resource management of the municipality of Tabaco, it must be concluded that there is a low priority given by the municipal government to said resources. The non-availment of the services of the Bicol University-Regional Institute of Fisheries Technology supports this observation. On the NGO participation, particularly, the PRRM, in the organizing and strengthening of fisheries cooperatives, and the local officials feel that the NGO does not properly coordinate with them. An attempt to provide fishport services to the municipal fishermen has been met with unwillingness on the part of the intended beneficiaries to use the fishport, resulting in losses for the municipal government. The setting up of a Gulf Resource Management Council, as well as the revised Fishery Code, was in process during the fieldwork.

Resolving the problems and issues in the coastal and fishery resource management of Tabaco would unlock the great potentials of the municipality. The people who could do much to improve the situation needs the support of the municipal leaders, both from the government and the NGOs, if things are to become better for the fishing community in Tabaco.

**Introduction**

This case study used the purposive sampling technique in identifying its respondents. Primary data were collected through interviews using one set of questionnaire for the Fishermen's Associations. Another set was used for respondents from non-government organizations, and the Tabaco municipal government. Secondary data were collected from the Municipal Government of Tabaco, the Philippine Rural Reconstruction Movement Office, and other agencies. (For the list of respondents, please see Annex A).

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\*University Researcher, Local Government Center, College of Public Administration, University of the Philippines and Associate Professor, Bicol University, respectively.

## Background of the Study Site

The municipality of Tabaco is located at the eastern coast of the Province of Albay in the Bicol region (See Figure 1. Map of the Municipality of Tabaco). It is composed of the mainland and the San Miguel Island to the east of the Poblacion. Tabaco is bounded by the Municipality of Malinao in the north, by the Municipality of Malilipot in the south, by Hagonoy Gulf in the east, and by the Municipality of Ligao in the West. The town proper is located thirty kilometers north of Legazpi.

The municipality is characterized by a pronounced rain period from November to January, having an annual average rainfall amounting to 129.08 millimeters.

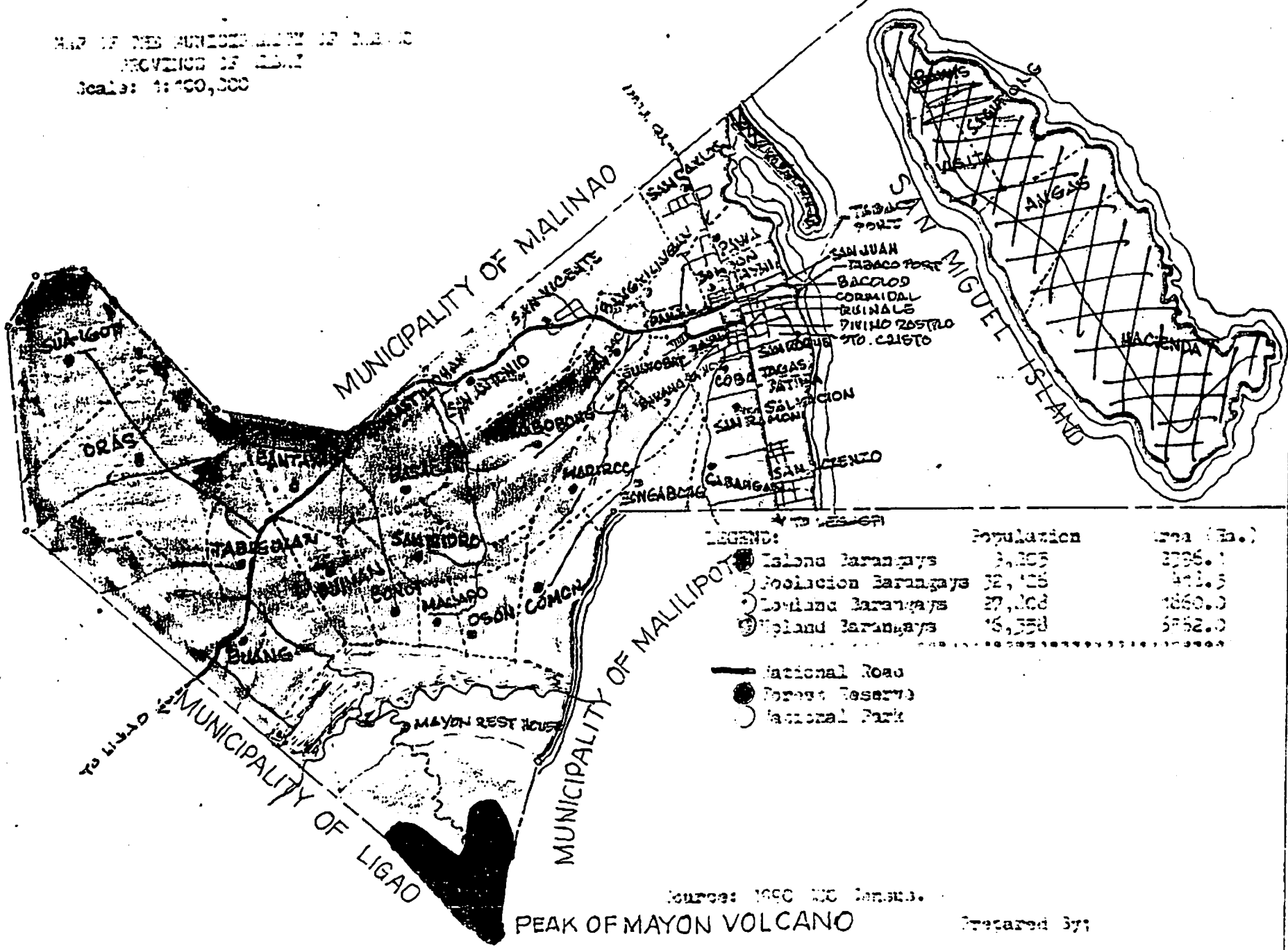
A third-class agricultural municipality, Tabaco is a self-contained economic base with sufficient support facilities. It is contiguous to the geothermal-power town of Tiwi. Its ports are jump-off points for the island province of Catanduanes. Tabaco is the fish trading center of the first district of Albay, partly of the provinces of Camarines Sur, Catanduanes, and Sorsogon.<sup>1</sup> Annual fish unloadings is estimated to be 3,880.3 metric tons (MT), or a daily fish unloading of 12.93 MT. Land transportation facilities link the area to the cities of Legazpi, Naga, and to Metro Manila. Even during volcanic eruptions, this municipality is never cut off from other commercial/industrial centers because of an alternative first class highway. Access to air transportation is available through the Legazpi Airport.

The topographical condition of the municipality provides upland, lowland and coastal opportunities for specific livelihoods, thus, allowing diversification. Its agricultural production is backed up by grains and cold storage facilities. Manufacturing is confined to small-to-medium scale industries on: fibercraft, cutlery, woodcraft, and food processing. Economic activities of the residents are generally farm-, marine- or home-based industries. Trading is a Chinese-dominated industry.

Its 1994 population is placed at 92,775, with approximately a 50:50 male-to-female ratio. It has 16,524 households, 35.95% (or 5,941) of which are in coastal barangays. Coastal barangays cover an area of 3,047 hectares (or 30.47 square kilometers), which is 24.98% of the total municipal land area of 122 square kilometers.

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<sup>1</sup>Infrastructure Assessment Report, 1993.

MAP OF THE MUNICIPALITY OF MALINAO  
 PROVINCE OF ALBAY  
 Scale: 1:100,000



LEGEND:

	Population	Area (Sq.)
Island Barangays	2,805	278.1
Poblacion Barangays	22,125	141.5
Lowland Barangays	27,208	1860.0
Upland Barangays	16,558	5782.0

- National Road
- Forest Reserve
- National Park

Source: 1960 C&G Census.  
 PEAK OF MAYON VOLCANO

Prepared by:  
 Valenciano, Professor, Jr.  
 1960 - Manila

## **Fishery and Aquatic Resources**

There are 13 coastal barangays (out of 47 barangays) with 928 fishermen (679 full-time and 249 part-time). There are 901 bancas (242 motorized and 659 non-motorized). The fishing gears used by the fishermen are classified as follows: fishnet, 436; fish corrals, 10, and hook-and-line, 323. The municipality had an annual production of 1791.3 M.T. in 1990 (or 5.97 MT daily). In 1992, the production was 3880.3 MT (or 12.93 M.T. daily).

Deep-sea fishing is conducted by 43 fishermen in 4 fishing vessels weighing more than 3 MT. The annual commercial fishing production is 25 MT. The Tabaco ice plant and cold storage has a capacity of 10 tube ice tons/day. The cold storage plant has a capacity of 100 tons.

Tabaco has a port terminal (which can accommodate five vessels), a municipal wharf (with a capacity of 328 MT), and four fishlanding areas (located at the pier site, San Roque, Bacolod, and Fatima).

The fishing season covers the months of May to October. The Bicol University College of Fisheries, the only fishing research institute in the region, is located in Tabaco. There are sixteen plants processing fermented anchovy, fermented padas, patis, bagoong, frozen abalone meat, squid, scallop meat, and octopus. These plants employ 61 laborers and have an annual production of 138.4 MT.

Aquaculture covers 24.4 hectares of brackishwater fishponds with an annual production of 1 MT per hectare. Freshwater fishponds is limited to about 1.03 hectares due to the sandy soil and flooding potential of the municipality. Communal waters of 14 rivers contribute about 3.330 MT of produce. Tabaco Bay, the off-shore shelves of the Lagonoy Gulf (within 15 kilometers from the shorelines of San Miguel Island), and the inland waters, its rivers and creeks compose the marine fishery resources of the municipality.

There is a marked disproportion of its fisheries production and the capacity of its ports. (See Table 1) For 1993, the Municipal Port at Fatima realized a net loss of ₱19,099.09.<sup>2</sup>

**Table 1. Selected Statistics, Municipality of Tabaco\***

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No. of Households	16,524
Population (1994)	92,775
Birth Rate	35.18
Total No. of Barangays	47
No. of Coastal Barangays	13
Squatters/Slumdweller	3,414 families
Municipal Revenue (1992)	₱12.236M
Labor Force (1992)	54,032
No. of Cooperatives	22
Agricultural Land	6,881.06
Total Land Area	122 square km
Grains Warehouse	7 units = 95,467 cavans
Cold Storage	2 units = 100 tons
Landing Sites	4 sites
Municipal Port	1 = 328 MT
Pier	1 = 2 foreign vessels + 3 domestic vessels
<i>Aquatic Resources**</i>	
Freshwater Fishponds	1.03 has. = 1,365 MT
Communal Waters	14 rivers = 3.330 MT
Brackishwater Fishponds	24.4 has. = 7.200 MT
Marine Fisheries Prod'n.	3,800.3 MT

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\*Values after the "=" correspond to the total capacity for stated units before the equality.

\*\*Estimated Annual Production.

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<sup>2</sup>Municipal Port, Fatima Accomplishment Report, 1993.



## Discussion of Findings and Observations

### 1. Extent to which Codal provisions on the devolution of functions pertaining to fisheries/aquatic resources have been implemented

The municipal government of Tabaco does not provide extension and on-site research services and facilities related to fishery activities (which include the dispersal of fingerlings and other seeding materials for aquaculture). This is due to the absence of a fishery/aquatic technician or technologist in the Office of the Municipal Agricultural Officer. The Provincial Fishery Management Unit can be called upon to provide the needed assistance, subject to the usual arrangements of the municipal government requesting for technical assistance and depending on the availability of the fishery personnel. The municipality has not provided assistance and access to resources in the production, processing and marketing of marine products in the absence of municipal fishery technologists and a municipal cold storage facility.

The local government has provided fishnets to some fishermen as part of its assistance program to the fishery sector.

The municipal agricultural officer, Mr. Arsenic Requintina, has prepared a Tabaco Municipal Fisheries Management and Development Plan. The agriculturist, being a soils technologist by training, could not be expected to provide as much assistance as possible to the mayor in extension services on aquaculture and marine product as a fishery technologist would.

Before the passage of the Local Government Code of 1991, the Fishery Ordinance of the municipality was Municipal Ordinance No. 14, s. 1988 (December 28, 1988), "An Ordinance Amending the Local Tax Code of the Municipality of Tabaco," on Fishery Rental or Fees. The ordinance has been questioned by the Provincial Fishery Management Unit as not having been approved by the Secretary of Agriculture, and thus has no basis for implementation. Given this questionable status of the ordinance, the treasurer has not been able to collect the fees for the fishery zones since 1993.

The municipal waters were zoned for the erection of fish corrals (range ₱700 to ₱2,000); for the operation of oyster culture beds (₱1,000); for catching or taking bangus fry or fry of other species of fish (₱5,000 to ₱15,000); for exclusive fishery rights (₱1,000 to ₱4,000).

This ordinance charges fees ranging from ₱10 to ₱50 on fishermen using nets, traps, and hook and line. For registration of boats, 3 tons or less, the charges range from ₱10 to ₱75.

The fishery related issuances before the Code:

1) Ordinance No. 11, s. 1991 (13 September 1991) "An Ordinance Vesting Authority to the Task Force Created to Temporarily Maintain and Operate the Fishing Port Constructed by PFDA at Barangay Fatima to Exact Berthing Fees and to Adopt Arrastre Rates of Fees and Charges Approved and Imposed by PPA."

2) Resolution No. 57, s. 1991 (3 July 1991) "Resolution Turning Down Endorsement of Any Foreshore Lease Application with DENR of Any Private Person of Any Portion of the Foreshore Land of the Municipality of Tabaco."

After learning of a private foreshore lease application filed with DENR, the sangguniang bayan passed this resolution to prevent private development of municipal coastal property.

3) Resolution No. 82, s. 1991 (13 September 1991) "Resolution Approving the Enactment of an Ordinance Vesting Authority to the Task Force Created as Temporary Caretaker of the Fishing Port in Barangay Fatima...."

This was passed to solve the continuing arrastre problems brought about by feuding labor groups. To properly maintain its Municipal Port, a corresponding tax/fees collection guide was provided.

After the Local Government Code of 1991 was enacted into law, the municipality passed several resolutions and ordinances affecting the management of fishery aquatic resource in the municipality.

1) Resolution No. 32, s. 1992 (22 May 1992) "Resolution Requiring All Vessels, Fishing Near and Within the Territorial Waters of the Municipality of Tabaco with Fish Caught of Commercial Quantity to Dock and Unload at the Fishing Port Located at Barangay Fatima, Tabaco, Albay."

This resolution provides centralized control of fisheries taxation and for health/sanitation and compliance with marine laws.

2) Municipal Ordinance No. 04, s. 1992, (4 September 1992) "An Ordinance Centralizing Business Transaction of Fish and Agricultural and other Aquatic/Marine Products within the Premises and Fishlanding Area of the Tabaco Fishing Port at Fatima, Tabaco, Albay and Providing Penalty Therefore," declares that it shall be unlawful to transact business for unloading/loading of fish and other aquatic/marine products outside the fishlanding area designated by the Sangguniang Bayan or to construct another fishlanding port. This ordinance has not been implemented with fishlanding being done in the Tabaco Pier due to its better location than the Fatima Fishport. This ordinance has still to be implemented.

3) Resolution No. 49, s. 1992 (26 June 1992) "Resolution Adopting Municipal Ordinance Centralizing Business Transactions of Fish, Agricultural, and Other Aquatic/Marine Products Within the Premises of the Tabaco Fishing Port at Barangay Fatima, Tabaco, Albay and Providing Penalty Therefore."

4) Resolution No. 116, s. 1992 (20 November 1992) "Resolution Granting 25% Share from Net Proceeds/Income of the Fatima Fishing Port to the Barangay Government of Fatima, Tabaco, Albay."

This resolution acts on Barangay Fatima's resolution demanding their 25% of the net proceed/income from the said fishing port.

5) Resolution No. 067, s. 1993 (2 April 1993, "Resolution Requesting the PFDA to Provide Funds for the Construction of a Perimeter Fence, Office of Personnel, Ice Plant and Cold Storage, Expansion of the Fishing Port and One (1) Rubberized Boat for the Municipal Fish Port Located at Barangay Fatima."

This resolution provides for expansion necessities to strengthen, centralize fishing activities to boost the fishing industry. This was passed in response to fishermen demands for them to be compelled to dock at the port.

6) Resolution No. 107, s. 1993 (9 July 1993) "Resolution Enacting an Ordinance Prohibiting the Use of Deleterious Methods of Fishing Such As By Explosives, Noxious or Poisonous Substances, Electricity and Muro-Ami, Kayakas and Pukot and Providing Penalty for Violation Thereof."

Action on the clamor of marginal fishermen and resident of coastal barangays to stop destruction of marine life, also of human lives, by use of deleterious fishing.

7) Ordinance No. 8, s. 1993 (9 July 1993) "An Ordinance Prohibiting the Use of Deleterious Methods of Fishing Such As By Explosives, Noxious or Poisonous Substances, Electricity and Muro-Ami, Kayakas and Pukot and Providing Penalty Thereof."

Although the Sangguniang Bayan has passed Ordinance No. 8, series 1993, prohibiting the use of deleterious methods of fishing, the lack of funds to support the patrolling of Tabaco Bay and Lagunoy Gulf within the jurisdiction of the municipality of Tabaco is a major problem in the implementation of this ordinance (which is a product of Sec. 447(a)(vi) of RA 7160).

The problem in convicting persons using illegal fishing is the legal requirement that they should be caught in the act or that the illegal items be found in their possession; thus, nobody has been convicted, in spite of apprehensions of those suspected of illegal fishing.

## Proposed Measures

A proposed resolution and ordinance were being deliberated during the time of the field work of the study.

1) Proposed resolution to amend Ordinance No. 14, s. 1988 to conform with the Local Government Code of 1991.

2) Proposed Ordinance s. 1995 "An Ordinance Regulating Fishing and/or Fisheries in the Municipality of Tabaco, Province of Albay, and for Other Purposes":

Section 1.	To be known as the "Basic Fishery Ordinance"
Section 2.	Municipal waters
Section 3.	Municipal license/permit
Section 4.	Persons eligible for fishing and/or fishery privileges
Section 5.	Division and classification of municipal waters
Section 6.	Issuance of individual license permit
Section 7.	Application for Individual license/permit
Section 8.	To whom to submit application
Section 9.	Fishing Permit
Section 10	Report of fish caught
Section 11	Permit to operate private fishpond
Section 12	Restriction on trawl, purse seine, muro-ami, calansisi, pahulbot-hulbot
Section 13	Restrictions/Prohibitions
Section 14	Adoption of color coding for fishing boats
Section 15	Creation of Municipal Resource Management Council
Section 16	Prohibition on the use of compressor
Section 17	Definition of air compressor
Section 18	Penalty
Section 19	Separability Clause
Section 20	Repealing Clause
Section 21	Effectivity Clause.

## The Proposed Fishery Code

The basic area for improvement, for fisheries/coastal/aquatic resources management is covered in the proposed Fishery Code of the municipality. A draft ordinance has undergone two public hearings, with the third hearing to be conducted after the May 8 elections. The major provisions of said ordinance are presented in the following paragraphs.

The municipal license/permit (issued by the mayor) is the basic requirement for a fisherman to take or catch fish or other aquatic resources. Persons eligible to apply for said permit are listed in the ordinance.

The municipal waters are divided and classified: for erection of fish corrals, catching bangus fry, catching fry of other species, and for the catching of aquarium fishes. A schedule of fees for fishing privileges and for permit fees is also provided for.

A report of fish caught is also required. Fishpond requirements are listed. Color coding for fishing boats is also stipulated. The creation of a municipal resource management council is required with its functions and required membership. To reduce the use of cyanide in fishing, the use of compressor is prohibited.

Problems on the implementation of fisheries/aquatic resource management programs are due to difficulties in apprehension of big-time violators. The coastal patrol system lacks logistical support. The procedures for convictions can be said to favor the violators.

The bottom-up approach to aquatic resources management activities has taken a long time to take off. Lack of technical and logistic assistance is a major difficulty that has contributed to this situation. Absence of issue-conscious NGOs and advocacy groups is slowing down efforts in environment rehabilitation.

#### **The Municipal Environment and Natural Resources Officer**

There is an acting MENRO in the Office of the Mayor. For 1995, the proposed environment management plan has no specific activity involving fishery and aquatic resources (See Annex 2).

Although fisheries, aquatic, coastal environmental conservation is not part of the activities of the MENRO, he sometimes joins the bantay dagat patrol being conducted by the PNP.

Requests for assistance of the municipal government on environmental matters is done with the CENRO (based in Legazpi), and the Environmental Management Bureau (through Mr. Rudy Villanueva). These requests include assistance for educational campaigns on environmental management.

#### **2. LGU Policies on the establishment of NGOs/POs concerned with the management of fisheries/coastal/aquatic resources in the community**

There is no municipal government policy in promoting the establishment of NGOs/POs concerned with the management of fisheries/coastal/aquatic resources in the community. The policy to accredit fishermen's cooperatives if they are qualified is indicated by the three accredited fishermen's cooperatives: San Lorenzo Multipurpose Farmers' and Fishermen's Cooperatives, San

Carlos Multipurpose Cooperative, and the Tabaco Fisheries Development Cooperative.

In terms of the management of fisheries/coastal/aquatic resources, the municipality provides counterpart funds to the Fatima Fishport, which in 1994 amounted to ₱4,373, and in 1993, ₱109,394.80 (for the construction of the fishport office). For 1995, the local government of Tabaco has allotted ₱162,000 as the municipal counterpart for the operations of the fishport in Fatima.

### 3. LGU Linkages/Support/Problems

The Municipal Environment Office linkages comprise of the following:

1. Local Government Resource Management Council-Local Government Unit-Non-Government Organizations joint activities in aid of legislation.

The accredited fishermen's cooperatives (the Fatima, San Lorenzo, and Tabaco Fisheries Development Cooperatives) are represented in the municipal development council.

2. Philippine Rural Reconstruction Movement - Non-Government Organizations partnerships.

Aquatic rehabilitation through mangrove reforestation and artificial reef construction are on-going programs with established linkages. Seven hundred mangrove seedlings were planted along San Lorenzo coastlines through PRRM's mangrove rehabilitation project. The coral reef project is appreciated by the fisherfolk as a necessary activity to enrich fishing grounds.

3. Tabaco Bay Management Council monitoring illegal fishing and is in-charge of reforestation.

The assistance extended to NGOs-POs by the Municipal Environment Office consists of coordination, consultation, and information dissemination on environmental matters. Joint ventures of LGUs and NGOs-POs on fisheries and aquatic resources management are effected through coordination of activities and programs.

The Bicol University Regional Institute of Fisheries Technology (BU-RIFT) is a potential partner in fisheries development, especially on fishing gear and technology. Its extension and research departments are available for community organizing, training, and fishery. BU-RIFT is committed to the protection of Lagonoy Gulf.

For one reason or another, the Tabaco municipal government has not tapped the BU-RIFT for technical assistance. One reason mentioned by a local official is their fear of possible high consultancy fees.

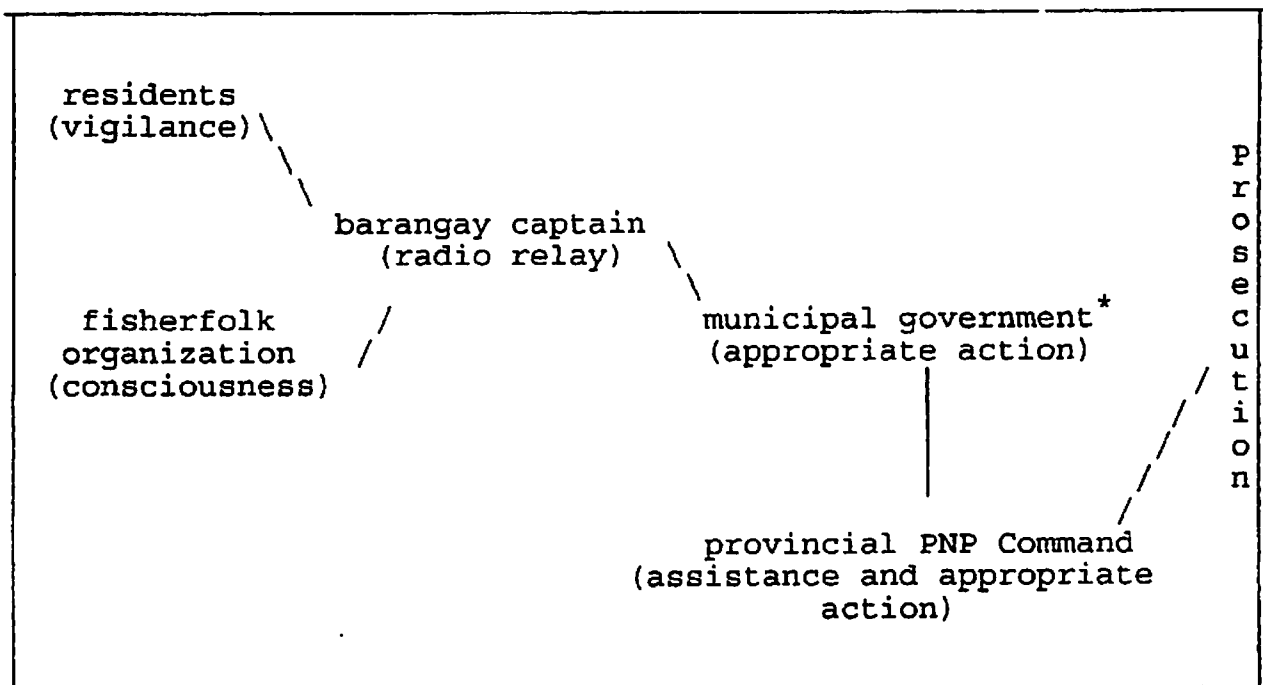
## Existing Community Management System of Fisheries/Aquatic Resources

Aside from representatives of cooperatives in the municipal development council, the Tabaco municipal government has established joint ventures with NGOs/POs through the following:

### 1. Bantay Dagat Program

This program addresses the problem of illegal fishing in the municipality. Coastal patrol is conducted on a participatory management scheme. Given the fisherfolks' misgivings with the Coastguard operations, having limited activities and equipment for marine resources protection, this program has mobilized individual and community efforts to carry out sea patrols. Fisherfolks attribute the accomplishments of the Bantay Dagat program to the radio facilities that have been provided the barangay captains. These radios have provided a system of alerting proper authorities in apprehending violators of fishing laws and ordinances.

Figure 2. The relay system for reporting illegal fishing



\* With the limited law enforcement capability

## **2. DA-PRRM Coastal Resources Management Component of the Fisheries Sector Program (CRM-FSP)**

The Memorandum of Agreement, dated 29 December 1993, among the Department of Agriculture, the municipal government, and the PRRM has given the latter the responsibility of implementing the tasks of the CRM-FSP programs, and the PRRM-FSP program. The mechanism for implementing these programs is the Lagonoy Gulf Resource Management Council (Albay-side).

The Tabaco Bay Management Council (with Mayor Antonio Demetriou as Chairman and Mr. Jack Bartumen as co-Chairman) conducts coastal management activities, which include campaigns against illegal fishing, on coastal rehabilitation, and on environmental preservation. Notable accomplishments of these activities are the active participation of deputized Bantay Dagat and Fishermen's Association (FA) members in monitoring, and sometimes, apprehending illegal fishermen, and also the maintenance of mangrove seedlings by FA members. The Council is a member of the Provincial Fisheries Management Council. Barangay Management Councils have also been formed.

A component of the CRM-FSP program is focused on community organizing and leadership development, which saw the organization of 42.7% of the total coastal barangays along the Lagonoy Gulf, Albay side. In Tabaco, 385 individual fisherfolks, have been organized. As of July 1994, 28 barangay leaders have been trained.

The popular education training component of the program including activities pertaining to fisherfolk consultations addressing sectoral issues and coastal resource management prerogatives, skills training on alternative livelihood cooperative orientations, and farmers associations leaders' planning sessions.

Consolidation activities provide a forum for FAs to discuss common concerns including cleanliness drives and advocacy sessions.



## **Issues and Problems**

The fishery/aquatic resource management of the municipality is encountering difficulties in the areas of legislation, funding, personnel, and advocacy.

### **Legislation**

The fact that the proposed Fishery Code has not been approved hinders the beneficial effects of the proposed Code, like the adoption of color coding for fishing boats, on the fishery and aquatic resources of the community.

### **Lack of Funding Support**

While fisherfolk groups are just realizing the necessity of a united effort to preserve and rehabilitate aquatic resources, funding support for mangrove seedlings and artificial coral reef materials are not enough. The local fisheries resource management program cannot be given its needed financing because of other priorities of the municipal government.

The importance of such activities is not reflected in the budget of the municipality. The municipal budget allocation for environmental programs for calendar years 1993 to 1995 was a constant ₱100,000.00, corresponding to around 3.0% of the 20% Development Fund Budget.<sup>3</sup> This amount is less than the expenditures in 1993 for the People's Law Enforcement Board (₱50,000) for illumination projects and maintenance (₱700,000), various infrastructure projects (₱500,000), and for the improvement of municipal offices (₱150,000).

### **Lack of Qualified Personnel**

The Municipal Agriculture Officer (MAO) has no fishery technologist in his office. Thus, full delivery of services to fishermen is not possible. Although the MAO can prepare a municipal fisheries management and development plan (see Annex 3), he needs at least two fishery technologists to implement the plan involving the:

1. dissemination of improved technologies to fishpond operators in increasing the productivity of fishponds;
2. establishment of sky ponds and dispersal of fingerlings to said ponds and in rivers; and

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<sup>3</sup>Statement of Fund Operation, 1993; Municipal Development Fund Utilization, 1994; Local Government Development Fund Proposed Projects for Funding, 1995.

3. conduct of cage culture trials for bangus, seganid, and oysters.
4. training of fishermen for deep-sea fishing; and
5. establishment of a fish quarantine office.

The absence of qualified fishery personnel and the lack of financial resources seriously hamper the delivery of services to the fishery sector in the municipality.

#### ***A Problem of Initiative and Advocacy***

Target direct participant-beneficiaries of Bantay Dagat and Mangrove and Coral Reef Rehabilitation Programs have to be pushed/guided and motivated to work for these projects. Most of them understand and feel the immediate consequences of irresponsible resource exploitation.

While many fisherfolk cooperatives have been organized, most groups are not really active. Respondents cite the need of their organization to be supported by the government and NGOs.

The Philippine Rural Reconstruction Movement (PRRM) is the major NGO that can underwrite issue-related programs. It needs to be assisted by other NGOs to complement/supplement its programs.

The Municipal Environment and Natural Resources Office (MENRO) is tasked with sponsoring initiatives on resource protection but the devolution of the environmental concerns has made it difficult for the MENRO to carry out environmental protection activities. The logistic and technical requirements of the devolution process must be studied. The MENRO must maintain a high level of advocacy on environmental concerns if he is to provide a viable environmental management alternative.

#### **Summary and Implications**

The fishery and aquatic resources of the municipality of Tabaco can be considered substantial considering the production of almost 4000 M.T. per annum. That some pieces of legislation are already in place provides the basis of managing said resources in the municipality.

The problems of financing and personnel are aggravated by the non-passage of the proposed Fishery Code of 1994 and the length of time needed before the coastal communities can be organized.

## **Existing Issues and Problems**

The FSP was supposed to have ended by December 1994, but Kolambugan hopes that it will be extended to enable the municipality to tackle/address many more CRM issues and problems.

Among the CRM issues and problems which prevail in the municipality are the following:

### **1. On Protection, Conservation and Regeneration of Fish Habitat**

1.1 Difficulties on the part of the municipal government to completely stop the cutting/use of mangrove trees for firewood and conversion of mangroves into fishpond or residential purposes especially in privately owned mangrove areas;

1.2 Lack of funds for training programs on mangrove reforestation;

1.3 Dilemma of some local officials on whether or not to support the Barge Landing Project which has resulted in the destruction of a mangrove area but could eventually accelerate the provision of alternative livelihood for fishermen;

1.4 Low awareness of the people on the importance of coral reefs, seagrasses and seaweeds partly due to lack of information campaign resources;

1.5 Continued destruction of the aforementioned fish habitat through illegal fishing operations partly due to lack of law enforcers (e.g., the municipality has only 16 policemen) and inadequate law enforcement facilities (e.g., patrol boats, high-powered guns and two-way radios);

1.6 Water pollution due to lack of environmental sanitation facilities such as toilet, garbage trucks, and dumpsite;

1.7 Dilemma of some local officials on whether or not to initiate the closure of the Findlay Millar Timber Company (FMTCO) and Tamula Management which have caused oil spill, sawdust and chemical pollution of the municipal waters but have provided employment for Kolambugan residents; and

1.8 Coastal erosion due to lack of wave breakers and due to quarrying of sand, gravel and boulders.

Partly because the Community Environment and Natural Resources Office (CENRO) in Kolambugan has not been devolved, the participation of this office in the implementation of the Municipal CRM Plan is practically nil. Although the CENRO is a member of the Municipal Fishery Law Enforcement Task Force, it seldom sends its representative to attend the Task Force's meetings.

As earlier discussed, the CENRO contracted a civic organization (i.e., Knights of Columbus (K of C), Kolambugan Chapter) to undertake a 50-hectare mangrove reforestation in 1990. Such project was not successfully implemented partly because of CENRO's incapability to effectively provide technical supervision. And this has been aggravated by some organizational problems within the K of C.

The CENRO's lack of technical capability is also implied by the fact that there were cases where either the regional or the central office of DENR directly contracted some of the FCs for the implementation of mangrove reforestation projects.

On the other hand, field interviews reveal that the provincial government of Lanao del Norte has not extended any form of assistance to the implementation of Kolambugan's CRM Plan. Nonetheless, the Provincial Fisheries Management Unit (PFMU) of FSP which is headed concurrently by the Provincial Agricultural Officer, takes charge of the overall supervision and coordination of DA-FSP projects not only in the municipality of Kolambugan but in all of the coastal areas in Lanao del Norte.

**Monitoring and Evaluation.** Monitoring of CRM projects is done at least once a month at the barangay and municipal levels. The FCs conduct monitoring activities on their respective projects with the help of OMAS staff. The result of such monitoring activities at the barangay level are subsequently integrated into the monthly monitoring report of OMAS at the municipal level.

Monitoring of DA-FSP projects is done at the provincial level by PFMU at least once per quarter, and by the regional and central offices of DA at least once a year. Apart from collating the field monitoring reports, the aforementioned offices also conduct ocular inspection of on-going and completed projects.

Monitoring of mangrove rehabilitation projects is reportedly done by DENR. However, the respondents from the field offices of DENR could not determine the frequency of such monitoring activities.

So far, no evaluative research has been conducted on the impact of CRM projects in Kolambugan. Nonetheless, the MSU-Naawan would soon conduct another REA to look into the impact of CRM projects on the coastal resources and communities along Panguil Bay.

<b>Barangay</b>	<b>Project</b>	<b>Budgetary Requirements</b>
6. Titunod	o Mangrove Reforestation (7 Hectares)	7,000.00
	o Artificial Reef	10,000.00
7. Libertad	o Artificial Reef	10,000.00
	o Marine Reserve	10,000.00
8. Baybay	o Artificial Reef	10,000.00
9. Poblacion	o Livelihood Project (land-based)	no data
	o Offshore Development (deep seafishing)	no data
	o Coop financial assistance	no data
	o Communal Toilet	50,000.00
	o Garbage Disposal Program	300,000.00
10. Riverside	o Water System	400,000.00
	o Marine Reserve	50,000.00
	o Concrete AR	10,000.00
	o Mangrove Reforestation	10,000.00
11. Rebucon	o Artificial Reef (10 Units) bamboo	10,000.00
	o Oyster Culture	3,500.00
	o Livelihood	20,000.00
12. Muntay	o Mangrove Reforestation	5,000.00
	o Bivalves breeding area 40 x 40 meters	5,000.00
13. Kulasihan	o Mangrove Reforestation (5 Hectares)	15,000.00
	o Beach Resort	100,000.00

**Implementation.** Community participation has also been considered a critical factor in ensuring the success of CRM projects. Hence, before the implementation of such projects in each barangay, the Board of Directors of the fishermen cooperative, with the assistance of OMAS and TIPASI staff, will hold a *pulong-pulong* (meeting/dialogue) with the residents of coastal villages by *purok* primarily to explain the merits of each project and thereby solicit support from the people.

In most cases, the implementation of CRM projects is done by the FC with technical assistance from OMAS. However, CRM projects which are infrastructure-related (e.g., seawall and communal toilet) could be implemented only under the supervision of the Municipal Engineer's Office.

**Planning.** As a result of the involvement of FCs and BDCs in the conduct of situation analyses, the municipality has been able to adopt a bottom-up approach to planning. Such planning approach ensures that the CRM plans of the barangays are really responsive to their problems and needs.

All of the interviewed officers of fishermen cooperatives stressed that it is the FC's general assembly which decides on the types of CRM projects to be undertaken by the cooperative. Through a resolution passed by the FC's general assembly, the proposed CRM projects and activities of the FC are endorsed to the BDC for integration into the barangay development plan. As mentioned earlier, part of the barangay development plan is the Barangay Integrated CRM Plan.

The Barangay Integrated CRM Plan is submitted by the BDC for approval and budgetary allocation of *sangguniang barangay* which, in turn, endorses such plan to the Municipal Development Council for integration into the Municipal CRM Plan.

Similar to the procedures at the barangay level, the Municipal CRM Plan is submitted by the MDC to the *sangguniang bayan* for approval and budgetary allocation.

The staff of OMAS and TIPASI provide technical assistance in the formulation of CRM Plans at the barangay and municipal levels.

The five-year (1995-2000) Municipal CRM Plan of Kolambugan, Lanao del Norte includes, among others, the following CRM projects in the 13 coastal barangays:

Barangay	Project	Budgetary Requirements
1. Simbuco	o Mangrove Reforestation (5 Hectares)	₱ 5,000.00
	o Artificial Reef	10,000.00
2. Tabigue	o Coastal Zone Rehabilitation thru Seawall Construction	100,000.00
3. Manga	o Mangrove Reforestation (16 Hectares)	16,000.00
	o Livelihood Project	10,000.00
4. Mukas	o Communal Toilet	20,000.00
	o Mangrove Reforestation (40 Hectares)	20,000.00
5. Caromatan	o Marine Reserve	50,000.00
	o Mangrove Reforestation (10 Hectares)	10,000.00

Each of the 13 FCs is represented by its chairman in the Barangay Development Council (BDC). As such, all of the FCs in Kolambugan are involved in the formulation of barangay development plans which include the Barangay Integrated CRM Plan.

Furthermore, the 13 FCs are members of the Municipal Cooperative Development Council (MCDC) which looks into the general welfare of all cooperatives in the municipality. The monthly meetings of the MCDC are hosted alternately by each of the FCs and other members of the MCDC.

As earlier discussed, each of the FCs has two (2) representatives to the Municipal Fishery Law Enforcement Task Force. These include the overall chairman and the CRM Chairman of the FC, both of whom are members of the Task Force's composite team which conducts patrol operations and apprehends the violators of fishery laws.

### **Management Structures and Approaches**

To provide a more comprehensive picture of how coastal resources are being managed in the municipality, this section will discuss Kolambugan's CRM approaches and structures in relation to the different management phases, i.e., situation analysis, planning, implementation, and monitoring and evaluation.

**Situation Analysis.** Partly because situation analysis (SA) requires some expertise in research, the FSP has deemed it necessary to involve the academic institutions in the conduct of SA. Accordingly, the MSU-Naawan which is located in an adjacent province (i.e., Misamis Oriental) and which offers courses as well as research services concerning fisheries, was contracted to conduct the so-called *Resource and Ecological Assessment (REA)* during the period 1990-1991. Such REA covered not only the municipality of Kolambugan but all of the coastal areas along Panguil Bay. Augmented by data on community organizing and other relevant information from various sectors, the REA served as inputs to the preparation of CRM plans during the early stage of the FSP. This also provides the baseline information which would be needed in the conduct of evaluative researches on the impact of FSP on its intended beneficiaries.

Currently, however, the municipality is encouraging the fishermen cooperatives and the Barangay Development Councils to conduct situation analysis in their respective barangays. This is in keeping with the municipality's policy to promote community participation in every aspect of CRM. Technical assistance for the conduct of situation analyses has been provided by the Office of the Municipal Agricultural Services and by TIPASI.

This coop has a five-hectare mangrove reforestation project which is funded from the 20% BDF. Unfortunately, however, the researchers were not able to gather data on the amount of financial assistance from the 20% Development Fund of barangay Kulasihan.

As discussed earlier, this organization coordinated with the *Muntay Fishers Multi-Purpose Cooperative* in bringing to the attention of the Muntay Barangay Council the cutting of mangrove trees in barangay Kulasihan by a Muntay resident. It also passed a resolution against the cutting of mangrove trees, and such resolution paved the way for the enactment of Municipal Ordinance No. 3, series of 1993, entitled *An Ordinance Prohibiting the Cutting of Mangrove Trees for Any Purpose Along the Coastal Areas of Kolambugan, Lanao del Norte and Providing Penalties for Violation Thereof*.

Through the passage of a resolution, this organization has also expressed its objection to the Mukas Barge Landing Project.

**13. Tabigue Fishermen Multi-Purpose Cooperative.** This was organized on July 11, 1993. As of December 1994, it had already planted 5,873 *miapi* seedlings to a hectare of mangrove swamp. To provide alternative sources of income for its members, it is currently engaged in seaweed (*guso*) culture and has started developing a bivalve (brown mussel) nursery.

This cooperative actively contributes to the information campaign for the protection of coastal resources. For instance, it has put up billboards to reiterate the urgent need to:

- 1) "Save Panguil Bay";
- 2) support mangrove reforestation;
- 3) support the propagation of seaweed culture as an alternative livelihood of fishermen; and
- 4) stop illegal cutting of mangrove trees.

This organization has also passed a resolution against the Mukas Barge Landing Project.

**Federation of Cooperatives.** Together with other types of cooperatives in the municipality, the 13 fishermen cooperatives have become members of the *Federation of Cooperatives in Kolambugan, Lanao del Norte* -- one of the only two federations of cooperatives existing in the province as of March 1995. This federation of cooperatives is represented in the Municipal Development Council by its president, and is therefore involved in the formulation of municipal development plans, including the Municipal CRM Plan.



10. **Manga Fishermen Multi-Purpose Cooperative.** This was organized only in March 1994. As of December 1994, however, it had already planted 3,520 *miapi* seedlings and had established a mangrove nursery in support of its mangrove reforestation project.

This cooperative has proposed to reforest a 16-hectare mangrove area. Such proposed project has received an initial budgetary allocation of P2,000.00 from the 20% BDF.

Likewise, this organization has been involved in the campaign for the protection of coastal resources. Such campaign includes, among others, the putting up of billboards which carry a slogan to "Save Panguil Bay" and which inform the people of the need to protect the "Tree Nursery" in a specified mangrove area.

This cooperative encourages its members to engage in land-based economic activities for their secondary source of income in order to minimize the depletion of coastal resources. It has also passed a resolution against the Mukas Barge Landing Project.

11. **Muntay Fishers Multi-Purpose Cooperative.** This was organized on April 28, 1993. As of December 1994, it had planted 684 *pirara* seedlings to help regenerate the mangrove resources of barangay Muntay. In coordination with upland farmers, it was able to plant 300 *mahogany* and *ipil-ipil* trees along riverbanks. It also passed resolutions against the following:

- 1) illegal fishing activities such as the use of dynamite and obnoxious/poisonous substances along Muntay and Kulasihan rivers;
- 2) sale of fish caught by means of the aforementioned illegal fishing methods;
- 3) throwing/dumping of garbage along the coast; and
- 4) construction of Barge Landing facilities in barangay Mukas.

Together with the *Kulasihan Community Multi-Purpose Cooperative*, this organization called the attention of the Muntay Barangay Council to the cutting of mangrove trees in barangay Kulasihan by a Muntay resident.

12. **Kulasihan Community Multi-Purpose Cooperative.** This was organized on April 15, 1993. Although its registered organizational name does not bear the word "fishermen," almost all of its members are engaged in fishing as this cooperative is located in a coastal barangay.

One of the resolutions passed by the cooperative has resulted in the enactment of Municipal Ordinance No. 4, series of 1994, establishing a six-hectare marine reserve in barangay Riverside. For 1994, the amount of ₱4,800.00 was allocated by the Barangay Council (BC) to cover the cost of labor in the establishment of such marine reserve. The corresponding cost of materials was shouldered by the municipal government.

**7. Baybay Fishermen Multi-Purpose Cooperative.** This was organized on January 17, 1993. In 1994, this received a budgetary allocation of ₱10,000.00 from the 20% BDF. Its CRM activities include, among others, the installation of bamboo ARs, information campaign (through posters/billboards) to educate the people on the adverse effects of throwing garbage to the seashore, supportive activities for the drive against illegal fishing, and passage of a resolution opposing the Barge Landing Project.

**8. Libertad Fishermen Multi-Purpose Cooperative.** This was organized on February 21, 1993. Being located in a barangay which is suitable for seaweed culture, this cooperative has engaged in seaweed production as an alternative livelihood for its members. It has also identified a two-hectare site for the installation of ARs, and has proposed the establishment of a marine reserve in barangay Libertad. Its AR and marine reserve projects have received a budgetary allocation from the 20% BDF amounting to ₱10,000.00 and ₱50,000.00, respectively.

This organization has also passed a resolution opposing the Barge Landing Project.

**9. Caromatan Fishermen Multi-Purpose Cooperative.** This was organized on January 16, 1993. With 102 members as of December 1994, this was the biggest fishermen cooperative in Kolambugan. All other FCs had a total membership ranging from only 23 (Rebucon FC) to 57 (Tabigue FC).

This formulated a Barangay Integrated CRM Plan incorporating, among others, mangrove rehabilitation, marine reserve and AR development projects. As of December 1994, it had planted a total of 1,550 mangrove trees. It has closely monitored the growth of such trees and, through the passage of corresponding resolutions, it has expressed its strong opposition to the conversion of mangrove areas into fishponds as well as its objection to the Mukas Barge Landing Project. Its mangrove reforestation project has received a budgetary allocation from the 20% BDF amounting to ₱4,200.00.

The cooperative is also a recipient of a ₱100,000.00 financial assistance from the regional office of the Department of Labor and Employment (DOLE). Such financial assistance is primarily earmarked for the copra trading project which has served as an alternative source of income for the coop members.

It has also passed a resolution on the complete control of illegal fishing activities.

**3. Titunod Fishermen Multi-Purpose Cooperative.** Upon its establishment in 1990, this cooperative was contracted by a representative of DENR central office to implement a mangrove rehabilitation project. To be able to continue its coastal resource conservation and regeneration activities, it has recently prepared project proposals on reforestation of a seven-hectare mangrove area and deployment of Artificial Reefs (ARs). Such proposed projects have been approved for funding from the 20% Baranagy Development Fund in the amount of ₱7,000.00 and ₱50,000.00, respectively.

This cooperative has passed a resolution supporting the drive against illegal fishing activities, and has expressed its objection to the Barge Landing Project in barangay Mukas. It has also encouraged its members to substitute some of their fishing activities with land-based livelihood projects in order to minimize the depletion of fishery resources.

**4. Poblacion Fishermen Multi-Purpose Cooperative.** This was established on January 31, 1993. By December 1994, it had installed 15 units of ARs (bamboo modules). Its budget for such activity came from the 20% BDF. This amounted to ₱6,070.00 in 1993 and ₱8,000.00 in 1994.

This organization has passed a resolution supporting the drive against illegal fishing, as well as a resolution opposing the construction of the barge landing facilities in barangay Mukas. To minimize water pollution, it has convinced the municipal government to support the implementation of a communal toilet and garbage disposal project. Such projects have received a municipal budget of ₱50,000.00 and ₱300,000.00, respectively.

**5. Rebucon Fishermen Multi-Purpose Cooperative.** Like the FC in the poblacion of Kolambugan, this cooperative was organized in January 1993 and had been able to install 15 modules of bamboo ARs as of December 1994. This had been supported by a ₱10 thousand budget from the 20% BDF.

Furthermore, this cooperative has established an oyster culture demonstration farm with the help of OMAS, and intends to operate and maintain a reading center primarily to increase people's awareness of CRM tools and strategies. It has also passed a resolution opposing the Barge Landing Project in barangay Mukas.

**6. Riverside Fishermen Multi-Purpose Cooperative.** Organized in February 1993, this cooperative had constructed 10 units of concrete ARs and had identified the suitable area for the deployment of such ARs as of December 1994. Its AR project received a budgetary allocation of ₱5,000.00 from the 20% BDF in 1994.

**Extent and Nature of PO Involvement.** As of March 1995, there were thirteen (13) fishermen cooperatives (FCs) in the municipality, representing the 13 coastal barangays. The municipal government has given priority to these cooperatives not only in the granting of fishery privileges but in the dispersal of seeding materials for aquaculture as well.

The 13 fishermen cooperatives in Kolambugan include the following:

**1. Mukas Muslim-Christian Multi-Purpose Cooperative.** This was organized in 1990 with the help of NETWORK. From a fishermen's association, this was converted into a multi-purpose cooperative and was registered as such with the Cooperative Development Authority (CDA) in 1993. It had an initial capital of P5,300.00 which came from the contributions of its members.

This cooperative has 37 members. About 30 of them are in the process of entering into a contract with the regional office of DENR for a 40-hectare Mangrove Rehabilitation Project. However, some of the coop members are still having second thoughts on entering into an agreement with DENR because of their experience in 1990. In that year, they were contracted by DENR to implement a mangrove rehabilitation project. As of March 1995, they have received only a partial payment of the contract cost.

This cooperative has passed a resolution proposing a 10-hectare marine sanctuary in barangay Mukas. It is currently preparing a feasibility study on Fish Corral Project, and is looking for a funding agency to finance such undertaking.

This cooperative has also passed a resolution to stop illegal fishing practices like the use of dynamite, even as they perceive that their efforts for the conservation and regeneration of coastal resources are futile unless illegal fishing practices are eradicated. And, together with the 12 other FCs in the municipality, the Mukas Muslim-Christian Multi-purpose Cooperative has expressed its objection to the Barge Landing Project which is located within the territorial jurisdiction of barangay Mukas.

**2. Simbuco Fishermen Multi-Purpose Cooperative.** This cooperative has existed since 1990. It is currently operating a 50-hectare seaweed farm with an average harvest of about 150 kilograms per day. It receives technical assistance on seaweed farming as well as seaweed loans (for seeding materials) from the municipal government through the OMAS.

To minimize pollution of the municipal waters, this cooperative has passed a resolution adopting a proper waste management scheme. To conserve coastal resources, it advocates the establishment of a marine reserve, and has expressed its strong opposition to the Barge Landing Project in barangay Mukas.

their strong objection to the Barge Landing Project. Likewise, charges against the private contractor of the project have been filed in court.

### **Community Participation and GO-NGO/PO Linkages**

As declared in Section 1 of Kolambugan's 1991 *Basic Fishery Ordinance*, it is the policy of the municipal government to promote community participation in the overall management of coastal resources. Accordingly, the municipal government has encouraged the establishment of fishermen cooperatives with the help of NGOs.

**Extent and Nature of NGO Involvement.** Three (3) NGOs had been involved in the management of Kolambugan's coastal resources during the period 1990-1995. These include the following:

1. **NETWORK Foundation, Inc.** This NGO was contracted by the regional office of DA primarily to take charge of the community organizing component of the FSP from 1990 to October 1992.

2. **Tinabangay sa Panguma Alayon sa Industria (TIPASI) Foundation, Inc.** This NGO was contracted by the regional office of DA to take over the FSP community organizing functions of NETWORK from November 1992 to January 1995. However, some of the Kolambugan residents said that there was merely a change of the NGO's name even as they observed that most of the members of TIPASI were also members of NETWORK.

TIPASI operates province-wide in Lanao del Norte. Apart from community organizing, it was also involved in the implementation of the livelihood programs for fishermen which were funded by the Southern Philippines Development Authority (SPDA), and mangrove rehabilitation projects which were funded by DENR. It was a member of the Secretariat for the Municipal Fishery Law Enforcement Task Force, and was one of the NGO/PO representatives in the MDC.

3. **Knights of Columbus (K of C), Kolambugan Chapter.** This was contracted by the Community Environment and Natural Resources Office (CENRO) in 1990 to manage the implementation of a 50-hectare Mangrove Rehabilitation Project in barangays Riverside and Rebucon with a total budget of ₱450,000.00. Being a civic organization that lacks the technical expertise in mangrove rehabilitation, the K of C was not able to effectively manage the project. This problem was aggravated by the fact that the then Grand Knights of the K of C signed the contract with CENRO without a corresponding resolution passed by the organization's Council/Assembly and, hence, the succeeding Grand Knights could not be held responsible for the continuation of the project.

marginal fishermen in the granting of various fishery privileges. It has also allowed marginal fishermen to gather fry and to catch fish from the municipal waters without any imposition, except in marine reserves where any kind of fishing operation is not allowed. And, since practically all of the fishermen in the municipality are operating on a subsistence scale, the *sangguniang bayan* has deemed public bidding unnecessary for the grant of fishery privileges.

According to the chairman of SB's Committee on Agriculture and CRM, the only type of fishing boat used by Kolambugan residents is the *banca* (canoe). In view of the legislative proposal to prohibit non-residents of Kolambugan from fishing within the municipal waters, the *sangguniang bayan* does not feel the need to promulgate rules and regulations on the issuance of licenses for the operation of fishing vessels three (3) tons or less.

In accordance with the provisions of Kolambugan's 1991 *Basic Fishery Ordinance*, the *sangguniang bayan* has penalized the use of explosives, noxious or poisonous substances, electricity, or other deleterious methods of fishing. The prescribed penalty for any violation of the aforementioned *Basic Fishery Ordinance* is a fine of not less than ₱25.00 but not exceeding ₱1,000.00 or imprisonment of not less than 10 days but not exceeding 10 months, or both such fine and imprisonment at the discretion of the court (Section 10). However, although it declares the municipality's "utmost dedication to the drive against illegal and destructive fishing practices," the 1991 *Basic Fishery Ordinance* of Kolambugan is still wanting in explicit provisions on the penalties per type of deleterious fishing method and on the authority of the *sangguniang bayan* to prosecute any violation of applicable fishery laws as stipulated in Section 149 of R.A. 7160.

As earlier discussed, the municipality has an ordinance prohibiting the cutting of mangrove trees along the coastal areas (Municipal Ordinance No. 3, series of 1993). Field interviews reveal that the municipal government has encountered serious problems in the enforcement of such ordinance even as one of the projects reportedly approved by the Municipal Development Council (MDC) necessitates the cutting of some mangrove trees. The project called Barge Landing is a private sector project which was reportedly approved by the MDC primarily to facilitate the transport of passengers and cargoes to and from the different parts of the country, and thereby promote agro-industrialization in the municipality. Unfortunately, however, such project is located along a coastal area with a number of mangrove trees. Some local officials would be willing to enter into a compromise agreement which would compel the private contractor to replenish the mangrove trees (e.g., to plant a number of mangrove trees and ensure that all of such trees have grown healthily before the issuance of the corresponding license to operate the Barge Landing facilities). As discussed in the subsequent sections of this report, however, the fishermen cooperatives have expressed

Considering that the so-called "updating" of the land area of Kolambugan was done on the eve of the local election campaign period, some people suspected that it was a form of political harassment. The local chief executive of Kolambugan was, at that time, the only oppositionist municipal mayor in the province of Lanao del Norte.

Even before the creation of the Task Force, however, the municipal government, under the leadership of Mayor Ursecio R. Ridao, had already been enforcing fishery laws especially on illegal fishing activities. For instance, trawl fishing was significantly reduced as a result of the mayor's political will to curb such destructive fishing method within the municipal waters. He refused to release a total of eleven (11) fishing boats used for trawl fishing pending the results of court hearings. He has also instructed the Chief of Police to arrest every violator of fishery laws, even if the erring fisherman is a Kolambugan resident or a political ally, provided that he (the mayor) shall be immediately informed of the arrest and that corresponding charges shall be filed in court within six (6) hours as stipulated by law, so that the local chief executive could take steps to make himself inaccessible to families/relatives of arrested persons until after six (6) hours. And, recently, he held consultations with the Kolambugan residents who continued using the *sanggab* \*\*\* fishing method to identify ways and means of encouraging them to shift to non-destructive fishing activities. Knowing that most of such residents are marginal fishermen who depend primarily on *sanggab* fishing for subsistence, the mayor has offered them loans to finance alternative means of generating income from either coastal or land-based resources such as seaweed production, oyster and mussel culture, deep-sea fishing and livestock raising.

Likewise, despite the absence of an ordinance adopting the provisions of Section 149 of the new *Local Government Code* on the granting of preferential treatment to marginal fishermen, the municipal government has given priority to the cooperatives of

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\*\*\* *Sanggab*, as defined by Municipal Ordinance No. 11, series of 1994, refers to the fishing gear made of a net "with a fine screen at cod-end forming a conical bag," with mouth continuously held open by either "sets of floats and anchors or by tying two (2) lateral sides of the rib lines to a set of rings attached to two (2) vertical posts," and with "bottom line pulled down by sinkers and set against the tidal current, both ebb and flood." It is considered a destructive fishing gear because it catches all of the fish rammed into it by the tidal current regardless of the size and kind of fish.

The details of the Task Force's budget for the second half of 1994 (July-December 1994) are shown below.

Expenditure Items	Amount
A. Snacks during meetings of:	
o General Assembly	P 1,350.00
o EXECOM	1,350.00
B. Acquisition/Maintenance of Facilities	
o Pumpboat	
- National Agricultural and Fishery Council (NAFC)	80,000.00
- Outboard motor	75,000.00
- Fuel and lubricants	9,000.00
- honoraria of operator	6,000.00
- maintenance	1,000.00
o Communication Facilities	
- Base	25,000.00
- Antennae	1,500.00
- handheld radio	7,500.00
- binoculars	5,000.00
o Guard House	
- materials	10,000.00
- labor (barangay's counterpart)	4,000.00
- FSP-funded guard house (national funds)	30,000.00
C. Delineation of the boundaries of municipal waters	10,000.00
D. Miscellaneous	300.00
	-----
Total - - -	P267,000.00
	=====

For 1995, however, the Task Force's funds which would come from the 20% Development Fund of the municipality would amount to only thirty thousand pesos (P30,000.00). This is so because the Department of Budget and Management (DBM) has reportedly notified the municipal officials that the land area of Kolambugan is 10,400 hectares only, not 22,300 hectares as previously reported by other agencies. This implies that there will be a substantial reduction in the Internal Revenue Allotment (IRA) of the municipality since land area is one of the criteria for the allocation of IRA. It has been estimated that the corresponding decrease in the IRA of Kolambugan under the land area criterion would be about P1.4 million.



The Composite Team conducts patrol operations and apprehends the violators of fishery laws. It is headed by the Chief of Police and has the following as members:

- o Punong Barangays of coastal areas
- o Philippine National Police (PNP) Force
- o Chairmen of Fishermen Cooperatives (FCs)
- o FC Chairmen on CRM
- o Fish Examiner/Fish Warden
- o Forest Ranger

The Technical Assistance Team provides technical services on the conservation, regeneration and wise utilization of coastal resources. It is jointly headed by the MAO and the CENRO, and has the following as members:

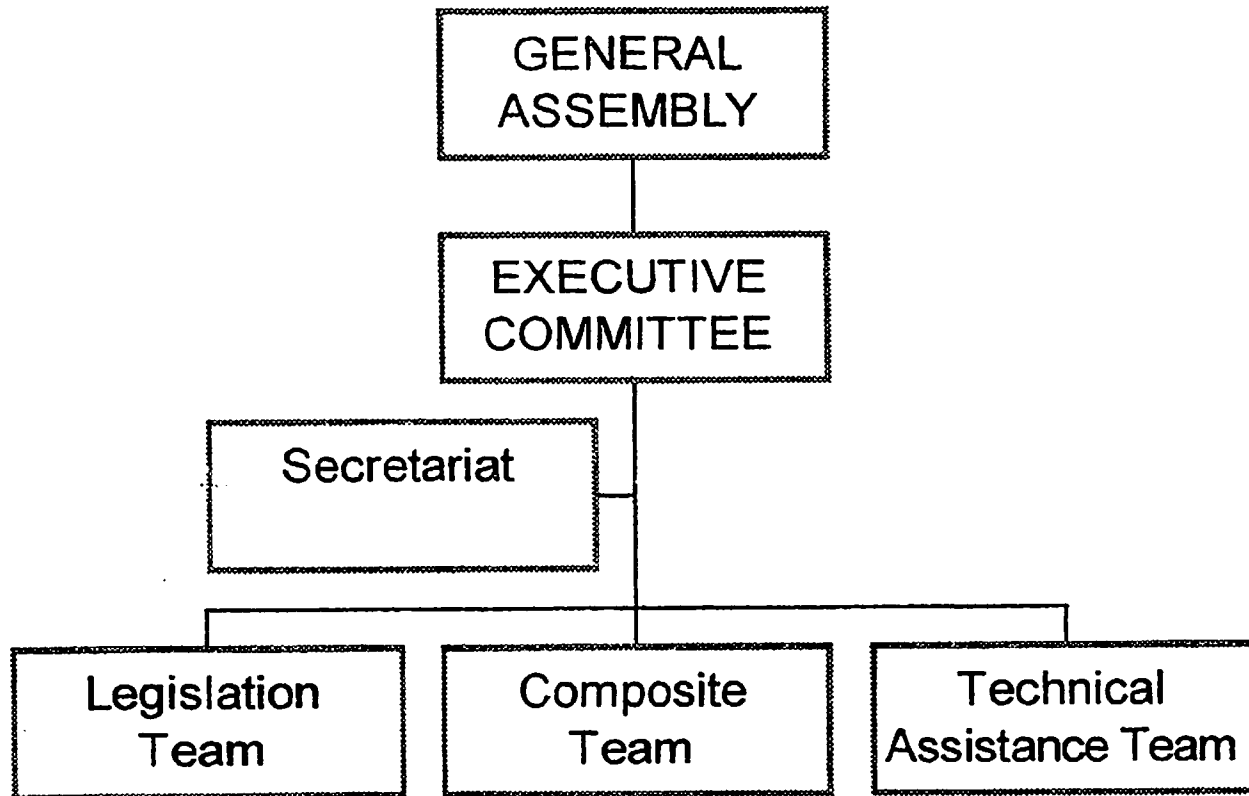
- o Technical Staff/Field Personnel of OMAS/DA
- o Technical Staff/Field Personnel of CENRO/DENR

The Secretariat of the Task Force is composed of the Municipal Planning and Development Coordinator (MPDC) and the NGO which primarily takes charge of community organizing in coastal areas (see Figure 1).

Partly because of the delay in the preparation of the first plan, the first budget of the Task Force covered only the second half of 1994. Its sources of funds were the following:

Source of Fund	Amount	%
Municipal Government (From 20% Development Fund)	P153,000.00	57.3
Barangay	4,000.00	1.5
National Government (Thru FSP/NAFC)	110,000.00	41.2
	<hr/>	<hr/>
Total	P267,000.00	100.0
	=====	=====

Figure 1. ORGANIZATIONAL STRUCTURE OF THE  
MUNICIPAL FISHERY LAW ENFORCEMENT TASK FORCE  
Kolambugan, Lanao del Norte



The organizational structure of the Task Force is shown in Figure 1. Its highest policy-making body is the General Assembly (GA) which is composed of all its members (i.e., members of Executive Committee and functional teams) and chaired by the Municipal Mayor.

The General Assembly meets quarterly. In-between the GA meetings, the Executive Committee (EXECOM) decides on, and oversees the operations of the Task Force.

The EXECOM meets at least once a month. Its officers and members include the following:

Chairman: Municipal Mayor

Vice Chairman

- a) for Legislation: Vice-Mayor
- b) for Police Power: Chief of Police
- c) for Technical Assistance: Municipal Agricultural Officer (MAO)

Members:

- o President of the Association of Barangay Captains (ABC)
- o Chairman of the Municipal Cooperative Board (MCB)
- o Chairman of SB's Committee on Agriculture and Coastal Resource Management (CRM)
- o Community Environment and Natural Resources Officer (CENRO)

Under the EXECOM are three (3) functional teams, namely:

- o Legislation Team
- o Composite Team
- o Technical Assistance Team.

The Legislation Team provides assistance in the formulation of legislative proposals. It is headed by the Vice-Mayor and has the following as members:

- o ABC President
- o MCB Chairman
- o Chairman of SB's Committee on Agriculture and CRM
- o MAO
- o CENRO.

As of March 1995, Kolambugan had not yet revised its 1991 *Basic Fishery Ordinance*. This was mainly because, being a fifth class municipality, it lacks the capability to re-establish the specific boundaries of its municipal waters in accordance with Section 131 (r) of R.A. 7160. Such new boundaries are essential in determining the appropriate coastal zones per type of fishery activity.

Nevertheless, three (3) additional fishery ordinances were passed during the period 1993-1994. These included the following:

1. Municipal Ordinance No. 3, series of 1993. This prohibits the cutting of mangrove trees for any purpose along the coastal areas of Kolambugan and provides penalties for violation thereof. (Approved on November 17, 1993).

2. Municipal Ordinance No. 4, series of 1994. This established a six-hectare marine reserve in barangay Riverside. (Approved on August 10, 1994).

3. Municipal Ordinance No. 11, series of 1994. This bans the use of filter nets, locally known as *sanggab*, for fishing operation within the municipal waters of Kolambugan. It also identifies the reference points for the establishment of the boundaries of Kolambugan's municipal waters. (Approved on October 26, 1994).

The municipality also had two (2) pending fishery ordinances as of March 1995. One of these aims to regulate the length and mesh of gill fishing nets, locally known as *pukot*, within the municipal waters of Kolambugan. The other pending ordinance seeks to prohibit non-residents of Kolambugan from catching fish within the territorial jurisdiction of the municipality.

Likewise, some of the provisions of the 1991 *Basic Fishery Ordinance* of Kolambugan concerning the fees for the issuance of fishery licenses and granting of fishery privileges are still valid under R.A. 7160. But none of the existing fishery ordinances of the municipality explicitly provides for the granting of preferential treatment to marginal fishermen. According to the Chairman of SB's committee on agriculture and CRM, however, the absence of such provision does not pose any serious problem for the moment because virtually all of the fishermen in the municipality are operating on subsistence scale and are members of fishermen cooperatives which have been given priority in granting fishery privileges.

**Enforcement of Municipal Fishery Laws.** To ensure the effective enforcement of fishery laws in its municipal waters, Kolambugan decided to organize a Municipal Fishery Law Enforcement Task Force on September 28, 1993 by virtue of a resolution passed by the *sangguniang bayan*. However, it was able to conduct its first planning workshop only on March 21, 1994.

fees to the municipal government. Then, on November 9, 1977, the *Sangguniang Bayan* of Kolambugan passed Municipal Ordinance No. 7, otherwise known as the 1977 *Basic Fishery Ordinance* of the municipality. At least six (6) other fishery ordinances were passed by the SB during the period 1977-1988, but most of which were mere amendments to the aforementioned *Basic Fishery Ordinance*.

As a result of the implementation of the FSP which started in 1990, the municipal officials of Kolambugan realized the urgent need to enact a comprehensive municipal fishery ordinance which seeks to address the following fishery problems:

- 1) resource depletion in the coastal zone;
- 2) widespread environmental damage;
- 3) poverty among municipal fishermen;
- 4) low productivity of aquaculture; and
- 5) limited utilization of offshore and Exclusive Economic Zone (EEZ) waters by commercial fishermen (Department of Agriculture, 1993:2-6).

Hence, in 1991, the *sangguniang bayan* of Kolambugan passed a new *Basic Fishery Ordinance* (Municipal Ordinance No. 6, s. 1991).

It is interesting to note that in the aforementioned ordinance, the declaration of Kolambugan's fishery policies forms part of Section 1, second paragraph. Such policies include, among others, the following:

- 1) to adhere to CRM for sustainable productivity of fishery resources;
- 2) to give priority to the rights and privileges of Kolambugan residents in the exploitation and development of fishery resources;
- 3) to uplift the socio-economic condition and promote the welfare of fishermen populace;
- 4) to encourage community participation in the overall management of coastal resources; and
- 5) to ensure the maintenance of a healthy and productive environment through conservation, regeneration and wise utilization of coastal resources, as well as utmost dedication to the drive against illegal and destructive fishing practices.

But the problem with Kolambugan's supposedly new *Basic Fishery Ordinance* was that it was promulgated too soon. By 1992, it already needed substantial revisions in order to conform with the *Local Government Code of 1991*.

**Coastal Resource Utilization and Conservation Projects.** Being located along Panguil Bay, Kolambugan forms part of the project site for the five-year (1990-1994) Fisheries Sector Program (FSP) which was supported by a \$155 million loan from the Asian Development Bank (ADB) and the Overseas Economic Cooperation Fund (OECF) of Japan.

The lead agency for the implementation of the FSP was the Department of Agriculture. Simultaneous with the devolution of some DA personnel in September 1993, the Coastal Resource Management (CRM) component of the FSP was devolved upon the municipal government. Hence, in the 1994 annual budget of the municipal government, the amount of one hundred fifty-three thousand pesos (P153,000.00) was set aside as the LGU's counterpart fund for the implementation of CRM programs.

As will be discussed in the next subsection, the municipal government's counterpart fund for the implementation of CRM projects was earmarked primarily for the facilities and operational expenses of the Municipal Fishery Law Enforcement Task Force. Nonetheless, with the help of barangay officials and fishermen cooperatives, the municipal government was also able to provide technical and/or financial support for the following CRM projects/activities in 1994:

- 1) construction of "Bay Watch" tower in Pasil, Mucas;
- 2) construction of 42 modules of Artificial Reefs (ARs) for five (5) barangays;
- 3) sending of one (1) technologist to a training/seminar on scuba diving;
- 4) establishment of a one-hectare spot collector for oyster culture in Kulasihan and Rebucon;
- 5) establishment of a one-hectare demonstration farm for mussel culture in Simbuco and Mucas; and
- 6) establishment of a six-hectare seaweed culture farm in Simbuco which could serve as a source of seeding materials for seaweed production.

#### **Promulgation and Enforcement of Fishery Laws**

**Promulgation of Municipal Fishery Laws.** Promulgation and enforcement of municipal fishery ordinances are among the tools and strategies of the CRM component of the FSP. Long before the start of the FSP, however, a number of municipal fishery ordinances had already been passed and enforced by the municipal government of Kolambugan. For instance, Section 13 of the 1974 *Local Revenue Code of Kolambugan* (approved on June 10, 1974) prohibited any person or business establishment from engaging in the fishery industry without first paying the required fishery

In the municipality of Kolambugan, Lanao del Norte, the actual transfer of the aforementioned functions from the national to the municipal government occurred in September 1993, simultaneous with the devolution of some national personnel from the Department of Agriculture (DA).

Having absorbed some devolved personnel from the Department of Agriculture, the municipality of Kolambugan has been able to assume the devolved functions concerning fishery and aquaculture. For instance, the municipal government, through its Office of Municipal Agricultural Services (OMAS), has started providing services related to the dispersal of seaweeds and tilapia fingerlings. The details of these services will be discussed in the subsequent subsections.

**Seaweed Dispersal.** The municipality has a 50-hectare seaweed farm in barangay Simbuco. Seeding materials for seaweed production are loaned by the municipal government to seaweed growers without any interest, and such loans are payable in kind (i.e., in seaweeds) out of the first harvest.

So far, no serious problem has been encountered in the dispersal of seeding materials for seaweed production. However, there seems to be some problems on processing and marketing of seaweeds.

The prevailing market price of fresh seaweeds in Kolambugan is very low at only four pesos (P4.00) per kilo. With the end in view of commanding a higher price for its seaweeds, the municipality has looked into the feasibility of having a tie-up with Cebu City in the marketing of seaweeds here (in the Philippines) and abroad.

Cebu City is willing to help Kolambugan in the marketing aspect, but only if the seaweeds are dried. Unfortunately, Kolambugan still lacks the funds, technical skills, equipment, and other resources needed in seaweed-drying.

**Dispersal of Tilapia Fingerlings.** The municipal government was able to disperse about 2,500 tilapia fingerlings in 1994. As of March 1995, however, it still had neither a hatchery nor a demonstration fishpond for tilapia production. The supply of tilapia fingerlings came from the hatchery of barangay Pacita in the municipality of Lala, Lanao del Norte.

Like the case of seaweed production, tilapia production also encounters some problems on marketing. The demand for tilapia is quite low primarily because, in Lanao del Norte and neighboring provinces, freshwater fish is generally considered inferior to saltwater fish.

The municipality also serves as one of the fishing grounds in Panguil Bay. As of March 1995, it had 187 fishing boats, most (about 73.8% or 138) of which were non-motorized, while only about 26.2% (49) were motorized. The municipality had about 51.36 hectares of brackishwater fishponds and about 24 hectares of inland fishpond.

As of March 1995, the fishing gears in the municipality included the following:

Type of Fishing Gear	No.
Gil Net	107
Spear Gun	14
Hook and Line	141
Fish Coral	32
Push Net	49
New Look (Liftnet)	48

Virtually all of the 352 fishermen in the municipality could be classified as "marginal."

### Findings/Observations

#### Devolution of Functions Concerning Fishery/Aquaculture

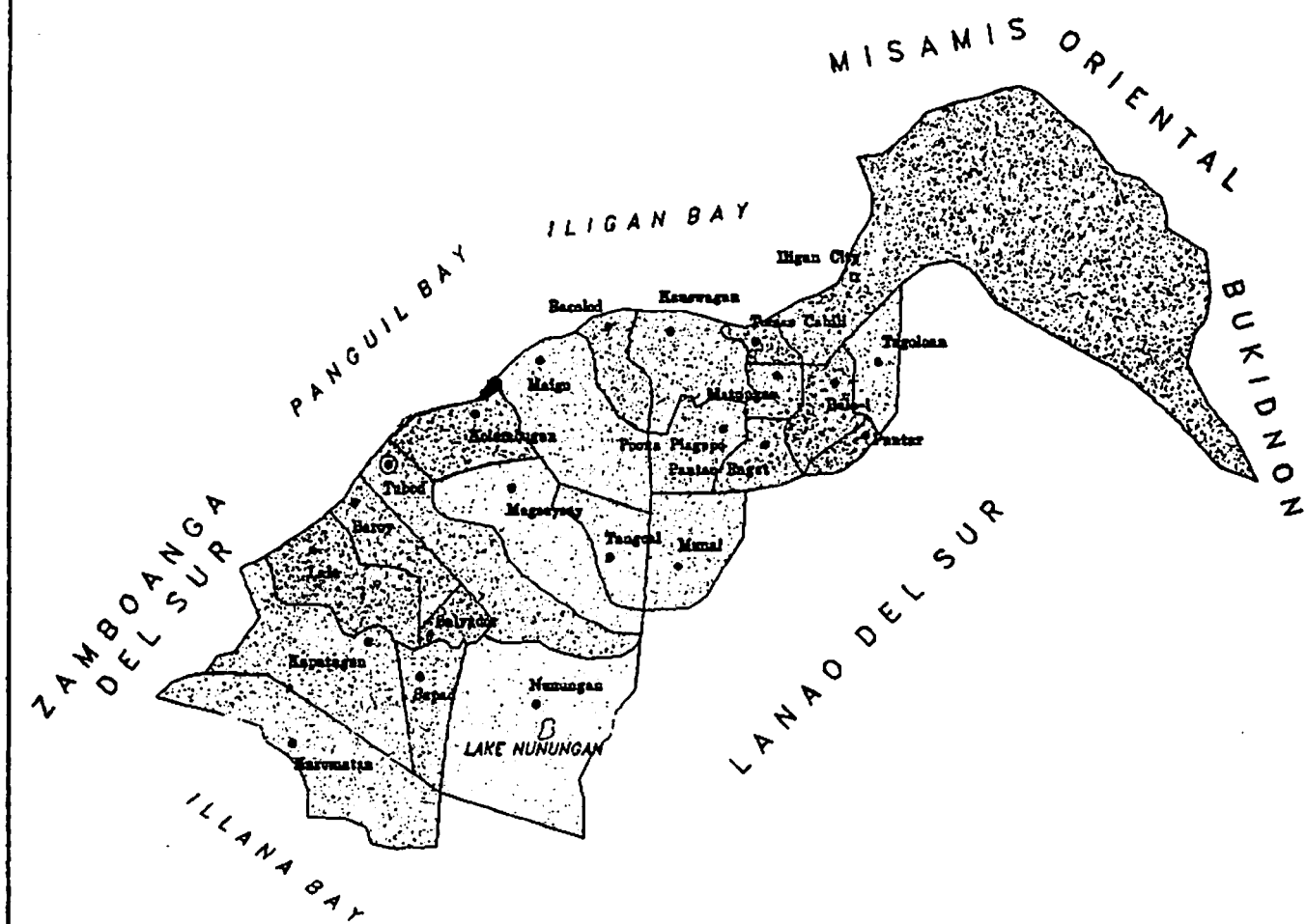
The passage of Republic Act No. 7160, otherwise known as the Local Government Code of 1991, has institutionalized the devolution of a number of national functions upon the local governments. Unless the aforementioned Code is amended, the devolved functions could not be returned to the national government even in cases of lack of capability on the part of some local governments.

Pursuant to the provisions of R.A. 7160 or the Local Government Code of 1991, fishery extension and on-site research services are among the national functions which have been devolved upon the municipal governments. As specified in Section 17(b-2) of R.A. 7160, the devolved fishery functions include, among others, the following:

- 1) dispersal of fingerlings and other seeding materials for aquaculture;
- 2) water resource utilization and conservation projects; and
- 3) enforcement of fishery laws in municipal waters, including the conservation of mangroves.



# POPULATION MAP PROVINCE OF LANAO DEL NORTE



**Legend:**  
1 dot = 50 persons

## The Municipality of Kolambugan\*\*

**Geography.** The municipality of Kolambugan is located at the northwestern portion of the province of Lanao del Norte, facing Ozamiz City across Panguil Bay. It is composed of 26 barangays, spread over a total land area of about 22,300 hectares or about 223 square kilometers.

Of the municipalities within the province of Lanao del Norte, Kolambugan has the longest coastline along Panguil Bay. Half (13) of its barangays are located along its 15-kilometer coastline.

**Population.** As of the May 1990 census, Kolambugan had a total population of 22,533. Its average population density then was about 101 persons to every square kilometer. There were 4,011 households in the municipality, with an average household size of about 5.6.

According to the study conducted by MSU-Naawan (Adan, et. al, 1991:10), the coastal communities of Kolambugan had a fishermen population of 215, resulting in a population density of only about 14 fishermen per kilometer of coastline in 1991. As of March 1995, the number of fishermen in the municipality had increased to 352, thereby increasing the population density to about 24 fishermen per kilometer of coastline.

**Economy.** Kolambugan is a fifth class municipality with an annual General Fund income of about ₱11.01 million in 1994. Its Internal Revenue Allotment (about ₱9.75 million) comprised about 88.6 percent of its total General Fund income. Municipal business taxes amounted to only about ₱260 thousand or only about 2.36 percent of the General Fund income, implying the limited taxbase of the municipality.

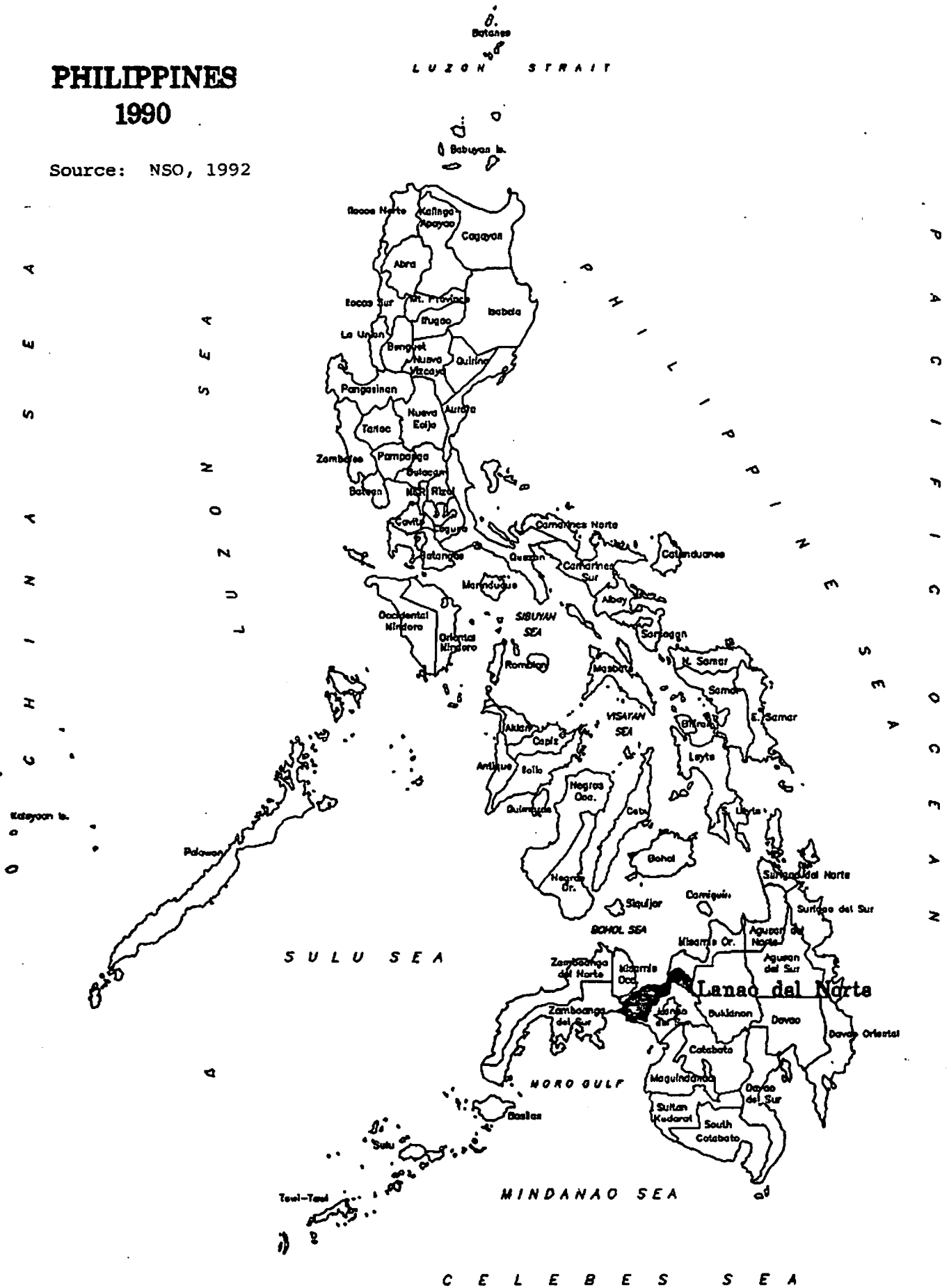
Kolambugan is still basically an agricultural area with about 5,700 hectares of cropland, about 80 hectares of swampland, about 641 hectares of mangrove area and vast tracts of idle lands which could be used as grazing lands.

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\*\*This section draws extensively from the *Municipal Coastal Resources Management Plan of Kolambugan, Lanao del Norte 1995-2000* and from *National Statistics Office, 1990 Census of Population and Housing, Report no. 3 - 49L (LANAO DEL NORTE) - Socio-Economic and Demographic Characteristics, Manila, June 1992.*

# PHILIPPINES

## 1990

Source: NSO, 1992



On the average, the population density of the province was about 198.6 persons to every square kilometer. The population densities of its six (6) municipalities along Panguil Bay ranged from only about 101 persons per square kilometer (in Kolambugan) to about 425 persons to every square kilometer (in Baroy).

**Economy.** Lanao del Norte is the poorest among the three (3) provinces of Central Mindanao. As of the reclassification of local government units (LGUs) in July 1991, the two other provinces of Regions 12 (North Cotabato and Sultan Kudarat) were already first and second class provinces, respectively, while Lanao del Norte was still fourth class.

The annual General Fund income of the provincial government was about ₱85.64 million in 1993 (latest data available). Its Internal Revenue Allotment (IRA) amounted to about ₱69.9 million, representing about 81.6 percent of its General Fund income.

As of May 1990, the province had an employment rate of about 93.4 percent and an unemployment rate of about 6.6 percent. A plurality (about 40.3%) of the 200,823 employed residents of Lanao del Norte were engaged in agriculture, fishery and forestry.

Municipal fishing in the province involved a total of 5,724 fishermen in 1993. There were 2,709 fishing vessels in the province, most (about 69.7%) of which were non-motorized (1993 SEP of Lanao del Norte).

The 1993 Socio-Economic Profile of the province also shows that Lanao del Norte had a total of 311 fishpond operators covering an aggregate fishpond area of about 2,266 hectares. The average annual production per hectare of fishpond in each municipality ranged from only about 50 kilograms (in Kapatagan) to about 35.56 metric tons (in Karomatan), resulting in a provincial average of only about 3.06 metric tons per hectare per year.

## **Limitations of the Study**

Owing primarily to budgetary and time constraints, the research design of this study did not include an impact evaluation of the fishery programs/projects/activities undertaken by local governments, NGOs and fishermen cooperatives. Consequently, this study could not provide substantial details on the effectiveness of such programs/projects/activities in responding to fishery issues and problems.

Likewise, no evaluative research had been conducted on the impact of CRM projects in Kolambugan, Lanao del Norte as of March 1995. This implies the absence of secondary data on the impact of CRM projects at the time the fieldwork for this study was conducted. Nevertheless, the MSU-Naawan was already commissioned by the FSP to conduct another *Resource and Ecological Assessment (REA)* primarily to assess the impact of CRM projects on the coastal resources and communities along Panguil Bay.

The limited budget for the fieldwork and the absence of relevant secondary data also hindered the researchers from establishing the extent of prevailing fishery problems based on statistical data. In most cases, identification and analysis of fishery issues/problems were made based on the results of interviews with the municipal government officials, NGO officials and officers of fishermen cooperatives.

## **Brief Profile of the Study Site**

### **The Province of Lanao del Norte**

**Geography.** Lanao del Norte is a province of the Central Mindanao Region (Region 12). Together with Zamboanga del Sur of Region 9 and Misamis Occidental of Region 10, it lies along the borders of Panguil Bay--one of the priority bays for the *Coastal Resource Management (CRM)* component of the country's *Fisheries Sector Program (FSP)*.

The province is composed of 22 municipalities, spread over a total land area of about 309,200 hectares or about 3,092 square kilometers. Six (6) of its municipalities have coastal villages along Panguil Bay.

**Population.** As of May 1, 1990, Lanao del Norte (including Iligan City) had a total population of 614,092. Its household population was slightly smaller at 613,259.

## Introduction

This case study focuses on the management of fisheries/aquatic resources in the municipality of Kolambugan, Lanao del Norte. This forms part of a nationwide study conducted by the Local Government Center (LGC) and the Center for Policy and Administrative Development (CPAD) of the U.P. College of Public Administration, in collaboration with the International Center for Living Aquatic Resources Management (ICLARM)/North Sea Center (NSC) and some universities operating either in or near the sample provinces. More specifically, the collaborating academic institution for the case study in Kolambugan, Lanao del Norte is the Mindanao State University (MSU) in Naawan, Misamis Oriental.

Funded by the Danish International Development Agency (DANIDA), the aforementioned nationwide study will eventually be integrated into a much larger study entitled "Fisheries Co-Management: A Worldwide Research Project."

Kolambugan was purposively chosen as the sample municipality in the province of Lanao del Norte primarily because:

- 1) it has the longest coastline among the municipalities of Lanao del Norte;
- 2) it has the largest number of coastal barangays in the province; and
- 3) it is one of the only two municipalities of Lanao del Norte which has a federation of cooperatives.

The bulk of data for this study was gathered by the researchers through a continuous fieldwork in the province of Lanao del Norte from March 19 to 25, 1995. Apart from obtaining relevant reports/documents from various offices, the researchers conducted ocular inspection of some coastal resource management projects, and interviewed selected officials/personnel of: (a) the municipal government of Kolambugan; (b) pertinent national offices; (c) non-government organizations or NGOs; and (d) fishermen cooperatives. The list of respondents is shown in Annex A of this report.

To put the study in context, the next section of this report discusses the brief socio-economic profiles of the province of Lanao del Norte and of the municipality of Kolambugan.

The technical assistance provided by OMAS to the municipal government and fishermen cooperatives has certainly contributed to the attainment of efficiency in fishery-related projects. However, there is an urgent need to provide technical assistance to mangrove reforestation projects in order to ensure better management of such projects.

Being a fifth class municipality, Kolambugan has very limited sources of local revenue. Hence, in view of the reduction of Kolambugan's IRA due to the so-called "updating" of its land area, the sustainability of its coastal resource management efforts is at stake. Much as it wishes to intensify its CRM-related activities, the municipality could not do so without adequate resources for such activities. And this is the primary reason why the municipality hopes for the extension of FSP.

To be able to ensure equity, efficiency and sustainability of CRM Projects, the municipal government of Kolambugan may:

1. Enact a new Basic Fishery Ordinance to conform with the pertinent provisions of R.A. 7160 such as the expanded definition or "municipal waters" (Section 131-r), fishery fees and preferential right of marginal fishermen to various fishery privileges (Section 149);

2. Continuously involve the POs/NGOs in every aspect of coastal resource management but ensure that they are provided with the necessary technical assistance;

3. Make a formal request from DENR to conduct and finance training programs as well as to provide other forms of technical assistance on mangrove reforestation even as such functions have not been devolved upon the municipal government;

4. Identify alternative sites for the Barge Landing Project to avoid destruction of mangroves while promoting economic development in the municipality;

5. Enact a local tax ordinance imposing entrance/terminal fees at Kolambugan's pier to serve as a source of funds for CRM Project; and

6. Tap other sources of funds for CRM such as loans/grants from the Official Development Assistance (ODA), financial assistance from DILG and other national agencies.

**THE MANAGEMENT OF FISHERIES AND  
AQUATIC RESOURCES AT THE LOCAL LEVEL:  
THE CASE OF KOLAMBUGAN, LANA DEL NORTE**

**Rosa R. Cordero and Marissa Y. Salarda\***

**Abstract**

The passage of Republic Act No. 7160, otherwise known as the Local Government Code of 1991, has institutionalized the devolution of some fishery functions upon the municipal governments. Among such devolved fishery functions are the following:

- 1) dispersal of fingerlings and other seeding materials for aquaculture;
- 2) water resource utilization and conservation projects; and
- 3) enforcement of fishery laws in municipal waters, including the conservation of mangroves.

In the municipality of Kolambugan, Lanao del Norte, the actual transfer of the aforementioned functions from the national to the municipal government occurred in September 1993, simultaneous with the devolution of some national personnel from the Department of Agriculture (DA).

Despite its limited sources of income, the municipality of Kolambugan, Lanao del Norte is trying its best to effectively assume the devolved fishery functions. Apart from maximizing the use of the technical know-how of devolved DA personnel (i.e., the OMAS staff), it has also encouraged community participation in every aspect of CRM.

The involvement of fishermen cooperatives, coupled with the priority given to marginal fishermen in the granting of fishery privileges and various aquaculture projects, promotes equity in the management of coastal resources. However, there is still a need to institutionalize this management approach by enacting a new Basic Fishery Ordinance.

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\*University Researcher of U.P. Local Government Center, Diliman, Quezon City, and Faculty Member of the Mindanao State University (MSU) in Naawan, Misamis Oriental, respectively.



**List of Respondents/Interviewees**

Hon. Jayner L. Demeterio, Municipal Mayor, Municipality of Batan

Mr. Luciano C. Del Rosario, Municipal Administrator of Batan, Municipality of Batan

Mr. Graciano P. Laurente, Batan Coastal Resource Management (CRM) Coordinator

Mr. Menard Placer, Municipal Planning and Development Coordinator

Mr. Percival T. Sasis, Municipal Agricultural Officer, Municipality of Batan

Mr. William Castillo, Agricultural Technologist, Municipal Agricultural Office, Municipality of Batan

Mr. J'Roel F. Del Rosario, Municipal Secretary, Municipality of Batan

Mr. Nicolas S. Perlas, Chairman, Sangguniang Bayan Committee on Fisheries and Aquatic Resources

Mr. Ramon G. Concepcion, Chairman, Sangguniang Bayan Committee on Education and Culture and People's Law Enforcement Board

Mr. Rodolfo Sugapong, Chairman, Katibyugan it Mangingisda sa Batan (KMB)

Mr. Rolito Inocencio, Chairman, Municipal Agriculture and Fishery Council (MAFC), Batan, Aklan

Mr. Julio Suggang, Municipal Coordinator, Pakisama, Batan Chapter.

1994

Resolution No. 2-A. Resolution Allocating Twenty Percent (20%) of the Amount Derived from Fines and Penalties Related to Illegal Fishing as Incentive to Apprehending Philippine National Police personnel. Approved on January 20, 1994.

Resolution No. 14-A. Resolution Adopting the Batan Municipal Coastal Resource Development Program as part of the Development Plan of the Municipality of Batan, Province of Aklan. Adopted on July 14, 1994.

Resolution No. 15. Resolution Adopting and Approving the Municipal Development Council Executive Committee Resolution No. 1, Series of 1994 (Identifying Projects, Programs and Activities and Appropriating the Funds for the same chargeable against the 20% Development Fund and other Funds which may be sourced for such purpose.) as integral part of the Municipal Development Plan. Approved on August 18, 1994.

Ordinance No. 05. Ordinance Creating the Multi-Sectoral Task Force on Illegally Constructed Fishpond and Related Problems in the Municipality of Batan, Province of Aklan and Providing its Powers and Functions. Approved on September 15, 1994.

**Resolutions/Ordinances Passed by the Sangguniang Bayan  
Relevant to Coastal Resource Management from 1992-1994**

**1992**

Resolution No. 13-A. Resolution Accrediting Non-Government Organization and/or People's Organization pursuant to Republic Act 7160 known as the Local Government Code of 1991 in the Municipality of Batan, Province of Aklan. Approved June 11, 1992.

Resolution No. 16. Resolution to Suspend the Construction or Setting-up of Tahongan (Mussel Culture) in Tinagong Dagat, Batan Bay and Other Tributary Waters within the Municipal Jurisdiction of the Municipality of Batan, Province of Aklan. Approved July 16, 1992.

Resolution No. 18. Resolution Requesting the Hon. Gov. Corazon L. Cabagnot to direct the Provincial Treasurer not to accept payment from taxpayers most specially fishpond owners/operators of Batan, Aklan without showing proof and certification from the municipal treasurer of prior payment of municipal licenses to the Municipality of Batan, Province of Aklan. Approved August 12, 1992.

Resolution No. 19. Resolution to Designate from Among the Plantilla of Municipal Employees Particularly from the Office of the Municipal Treasurer Additional Duties as Fishery Warden, to Define its Functions, Duties and Responsibilities and for Other Purposes. Approved August 13, 1992.

Resolution No. 51. Resolution Accrediting Additional Non-Government Organization and/or People's Organizations pursuant to Republic Act 7160 otherwise known as Local Government Code of 1991 in the Municipality of Batan, Province of Aklan. Approved on December 10, 1992.

**1993**

Resolution No. 19. Resolution Adopting and Approving the Local Development Plan of the Municipality of Batan, Province of Aklan. Approved on July 8, 1993.

Resolution No. 26. Resolution Designating Municipal Officials, Barangay Officials, Department of Agriculture Personnel and Members of the Philippine National Police as Deputy Fish Wardens with Full Powers and Authorities to Enforce Existing Municipal Fishery Laws, Rules and Regulations. Approved on September 17, 1993.

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**Annual Development Plan, Municipality of Batan, CY 1994, (SB Resolution No. 15, Series of 1994.**

**Brillantes, Alex B. Jr., The Philippine Local Government Code of 1991: Issues and Concerns in the Environment Sector, 1992.**

**Local Development Plan, Municipality of Batan, 1993-1998 (SB Resolution No. 19, Series of 1993).**

**Batan Coastal Resource Development Program, A Proposal prepared by the Batan Coastal Resource Management Body.**

**Batan Municipal and Religious Fiesta, December 6, 7 & 8, 1994 (Souvenir Program Handbook).**

**Development Plan of the Municipality of Batan, 1983 (Resolution No. 44, Series of 1983).**

**ECHO-SYSTEM, Vol. 1 Nos. 2 & 3, June-December 1993, A quarterly publication of the LGC-CRM in Aklan published by the University of the Philippines in the Visayas - Food Systems Development Project (UPV-FSDP).**

**Financial and Work Plan of Coastal Resource Management Body of Batan, Aklan for July, August and September 1994.**

**Kelly, Philip F., Development as Degradation: Aquaculture, Mangrove Deforestation and Entitlements in Batan, Philippines. A thesis submitted to the Faculty of Graduate Studies in Research in partial fulfillment of the requirements for the degree of Master of Arts in Geography, Department of Geography, McGill University, Montreal, Canada, June 1993.**

**Municipal Annual Budget, Municipality of Batan, CY 1994.**

**Municipal Annual Budget for CY 1995, (Appropriation Ordinance No. 1, Series of 1994).**

**National Economic and Development Authority, The Aquino Administration Major Development Programs and Projects, 1986-1992, Aklan Province.**

**National Statistics Office, 1990 Census of Population and Housing, Report No. 3-4F: Socio-Economic and Demographic Characteristics, Aklan, June 1992.**

**f. Create an Environment and Natural Resources Council**

There is no local special body addressing the equally important concern of environment and natural resources such as the problem with the denudation of the upland. There is therefore also a need to push for the creation of an environment and natural resources council, to be chaired by the municipal mayor and whose membership shall include representatives from the DENR and other national government agencies and NGOs/POs.

**g. Improve the financial records and collections system**

Measures should be taken by the municipal government to improve the record system to improve its financial collection from the fishery resources. To increase its collection particularly from the operation of large fishponds, among the priority concerns that need to be addressed by the municipal government should be to update and systematize the list of fishpond operators and fishing gears owners. This is necessary in order that they could properly monitor and control the renewal of permit and fishpond operation in the area.

**c. Improvement of inter-agency and inter-municipal cooperation and coordination**

There is also a need to improve and strengthen the cooperation and coordination between and among the municipal and provincial governments and the national government agencies. In particular, there is a need to strengthen the cooperation and coordination between the municipal government of Batan with the PENRO and the CENRO who are supposed to take charge of this responsibility with regard to reforestation program in the area.

As earlier discussed, there is a conflict between the municipality of Batan and the Department of Environment and Natural Resources as to who should exercise responsibility or who has jurisdiction over the mangrove reforestation in the municipality. It is therefore also recommended that the municipal government iron out its differences and strengthen its cooperation with the Department of Environment and Natural Resources.

**d. Strengthen inter-LGU/inter-municipal cooperation**

There is a need for the municipal government to strengthen and intensify its cooperation and coordination with other municipalities in the area on the basis of what has already been started in the CRM Program. In spite of the number of achievement by the CRM, a number of problems and issues still exist and needs to be ironed out between Batan and its neighboring towns, particularly on disputes in boundaries between these municipalities.

**e. Strengthen LGU-NGO community relations**

The municipal government should continue encouraging and mobilizing fisherfolks in the different barangays. The formation of fisherfolk organizations was already started by the Department of Agriculture before. Inasmuch as the agricultural services are already devolved functions, the municipal government should likewise continue organizing fisherfolks associations which the DA has already started years before. The municipal government still needs to cover the rest of the barangays where fisherfolks associations are not yet formed.

The implementation of fisheries/aquatic rules and regulations is highly dependent on the implementation of the Coastal Resource Management project. Lessons learned from any projects reveal that after the implementation of the project, enthusiasm of the community usually dies down. It is therefore recommended that participatory type of planning, implementation, monitoring, and evaluation should be sustained to get the commitment of the community, implementing agencies and political leaders.

of exploitation within sustainable level. Fishing effort could be adjusted or limited by imposing limit on the entry of large commercial vessels.

**4. Intensify study on appropriate fishing technology/fishing methods to adopt**

Fishery resources must be protected from whatever form of illegal and destructive method of fishing, (e.g., use of poisonous substances and chemicals, and use of prohibited fishing gear, including the use of very fine meshed nets. The mesh size and type of fishing gears to be used in the area should be controlled. Research should also be done in the area on what appropriate fishing gears are necessary and most viable in the area.

**5. Strengthen Institutional/Organizational Capability**

To improve and establish a more effective coastal resource management in the municipality, there is, in general, a need for strengthening the institutional/organizational and technical capability of the municipal government. In relation to that, the following are the specific recommendations:

**a. Appointment of a Municipal Environment and Natural Resources**

Based on interview with the Municipal Agricultural Officer, one cause of siltation in Batan Bay is the denudation of the upland. The responsibility over reforestation of the upland belongs to the DENR or the Environment and Natural Resources Officer (ENRO). But due to the absence of an ENRO in the municipality, this problem continues to exist and remain unabated.

It is therefore recommended that the municipality appoints an Environment and Natural Resources Officer if the provincial field office of the DENR and its field officials are not capable of solving the problem in the upland.

**b. Activation of the Maritime Development Authority**

In view of the problems, mentioned, there is also a need to fully activate the Maritime Development Authority, which was the office created by the Sangguniang Bayan based on the recommendation of the Coastal Resource Management Council/Body to take charge of the Coastal Resources Management Program in the municipality. People with proper background and technical skills should be hired as staff of the Maritime Development Authority.

the conversion of mangrove areas to fishponds or commercial activity; 2) ordinance creating a municipal fishing zone 3) zonification ordinance creating the forest zone; 4) ordinance creating the rehabilitation zone 5) ordinance creating an industrial and commercial zone 6) ordinance providing for the kinds of fishing gears allowed, distances and patterns for the construction of fishing gears, defining mesh of fishing nets of fishing gears; sizes and design of fishing gears, prohibiting the catching of small fishes; and 7) ordinance creating a municipal maritime management office.

The presence of eleven NGOs/POs reveals that the creation of these organizations is encouraged by both the provincial and municipal governments. It was also noted that many NGOs/POs, the KMB, MAFC and the Samahan ng mga Maliliit na Mangingisda sa Songcolan are active in fisheries/aquatic management. These NGOs/POs serve as frontliners in program planning, implementation, monitoring and evaluation. The KMB is involved in the information and education of fishery regulations. The MAFC helps in the protection of coastal areas and monitoring of fishery ordinances. The Samahan ng mga Maliliit na Mangingisda sa Songcolan is active in terms of installation of artificial coral reefs and encircling nets.

#### **Recommendations**

**1. Formulation of a long-term, integrated and comprehensive development plan for fishery and aquatic resources.**

As discussed in earlier sections of this report, among the problems in Batan is the absence of a comprehensive development plan for fisheries and aquatic resources. In response to this, it is recommended that the municipal government come up with a long-term integrated and more comprehensive program that will address not only the problem on siltation and pollution of the Banga Bay and its tributaries but also the denudation of the upland.

**2. Provision of livelihood program**

In order to enforce fishery laws particularly on limiting the number of fishing gears operating in the area, the municipal government needs to find ways and means to provide the affected families with alternative livelihood or source of living.

**3. Conduct of extensive resource assessment**

The government, through concerned agencies and institutions should launch an extensive program on resource assessment and evaluation of fishery resources in traditional fishing grounds in order that appropriate measures can be adopted to limit the rate



inlets; 4) illegal fishing by using illegally defined mesh of fish nets, use of dynamite, poison, and destructive fishing gears.

As a result of the devolution of agricultural services, the municipal government of Batan has created the Municipal Agricultural Office out of the former Department of Agriculture. Two out of its nine Agricultural Technologists have been assigned in the fishery sector to provide extension services and assistance to local fishermen. The municipal government has also come up with a municipal development plan identifying fisheries and coastal resource management as one of the priority concerns.

To improve fisheries and coastal resource management, the municipal government has passed a number of resolutions and ordinances. These include, among others, resolutions designating fishery wardens, creating multi-sectoral task force on illegally-constructed fishpond, suspending the construction and setting-up of *Tahongan* (mussel culture) in Tinagong Dagat, Batan Bay and other tributaries, prohibiting the conversion to fishponds of all existing mangrove forest, declaring all existing mangrove forest areas as permanent forest zone, regulating fishing activities by setting the kind or type of fishing gears, allowed.

A Coastal Resource Management Body was formed in Batan in 1993 with the help of the Canadian International Development Agency (CIDA) and the University of the Philippines in the Visayas to prepare policies, plans and projects to address the fisheries and coastal resource management concerns.

To improve the enforcement of fishery laws, the municipal government has also strengthened cooperation with the Philippine National Police through passing a resolution allocating 20% of the amount derived from fines and penalties to apprehending PNP personnel as incentive.

The municipal government has given accreditation to CRM-oriented non-government organizations and people's organizations (NGOs/POs) as well as encouraged citizens to form community associations or groups and to participate in local governance.

The fisheries and aquatic resource management in the municipality is being addressed by the municipal government through a number of efforts and initiatives in collaboration with the NGOs/POs and other sectors. It is also being addressed principally through the establishment of the Coastal Resource Management Program. With funding support from CIDA, this program was established in 1993.

Under the Coastal Resource Management Program, a series of activities ranging from participatory planning to capability-building and training programs has been carried out. The CRMC has also assisted in the review and formulation of municipal ordinances. These include the following: 1) ordinance prohibiting

This siltation problem of Tinagong Dagat is due primarily to the overcrowding of fishing gears in the area. Relocation of fishing gears is considered one solution but another cause of the problem of siltation is denudation of the upland. Reforestation is the problem and the Department of Environment and Natural Resources (DENR) is the one responsible for the upland. Since the two are closely related, the comprehensive plan should also address the problem in the upland.

This problem is affirmed by the UP Visayas Technical Research Team study which said that siltation in Banga Bay is also caused heavily by the denudation of the upland. Therefore, there is a need to integrate the upland in the comprehensive plan. This particular problem should also be addressed through reforestation. As earlier said, the Department of Environment and Natural Resources is the one primarily responsible for the upland.

**h. Absence of credit and marketing services for agriculture, fisheries and cottage industries**

The absence of credit and marketing services for agriculture, fisheries and cottage industries is one of the problems in the municipality of Batan. This was revealed by the CRM Coordinator of Batan during one of the interviews. This is also one of the problems identified by the UPV Technical Research Team.

As a result of this, the people do not have access to any source of capital, even if small, to start an alternative livelihood and more so to expand their existing productivity. Also, their produce do not find access to markets where they could probably earn more.

### **Summary and Implications**

This case study is an assessment of the experience of the municipality of Batan in the management of fisheries and aquatic resources. Batan is one of the 17 municipalities of the province of Aklan. Located in the easternmost portion of the province and composed of 20 barangays, it is basically an agricultural and fishing community with about 30% of its population engaged in fishing enterprises and fish production.

A large portion of the economy of Batan comes from and is dependent on marine resources which has been gradually diminishing in its productivity because of the loose implementation of some of the provisions of the Local Government Code. Among the problems encountered are: 1) wanton destruction of mangrove trees which were cut into firewood and exported to population centers; 2) construction of fishponds; 3) mussel farming which contributes to rapid siltation of rivers and

**e. Lack of Organizational and Technical Capability**

Environmental policies and legislations have not been consistently implemented because enforcement agencies are undermanned and poorly equipped. Some violators have political connections.

While it is important to note that there are already existing organs or units in the local/municipal government which more or less address or are responsible for solving problems and fulfilling the municipal government responsibilities to its constituents as far as the fishery and aquatic sector is concerned, these organs or institutions are not yet fully established, i.e., the Municipal Maritime Office. These offices are manned by limited number of staff. e.g., only two in the Municipal Agricultural Office. Yet the two Agricultural Technologists are not on full time for fisheries and aquatic resources concerns.

The problem is aggravated by the lack of technical capability. The Committee on Agriculture and Fisheries, which is responsible for studying legislative measures pertaining to fisheries and aquatic resources lack technical people who can assist them in that particular endeavor. The same goes with the Municipal Agricultural Office with only two of its staff assigned to attend to fishery concerns. At present, the municipal government relies greatly, if not solely, on the technical assistance provided by the UP Visayas and other sectors, through the Coastal Resource Management Program.

**f. Lack of Systematic Intermunicipal Coordination among LGUs, NGOs and PO Sectors at Resolving Environmental Issues**

As earlier mentioned, Batan Bay and Tinagong Dagat and their tributaries are shared by five municipalities with Batan covering 60% of the water area.

The participation of NGOs and POs should be more broad-based, democratic and systematically coordinated both in planning and implementation.

**g. Lack of a Comprehensive Plan for Fisheries and Aquatic Resources.**

The municipal government does not have yet a long-term integrated or comprehensive plan for fisheries and aquatic resources that will address the problems in fisheries and coastal resources in Batan. Efforts have just been started by the municipal government through the CRM Project assisted by CIDA and UPV.

Batan are dependent on fishing and the majority are dependent on agriculture for their source of living. Most live below poverty line and they lack access to social services and alternative income sources. They are economically vulnerable and some are forced to resort to illegal fishing.

Due to lack of alternative livelihood, it is difficult to prevent these people from continually exploiting the marine resources. These people can not also leave their main source of livelihood because they have no other way to go, due to lack of other employment opportunities.

Many of those who are dependent on fishing, in particular the marginal fishermen, will be displaced or will be deprived of their source of living once the municipal government will be very strict in the regulation and implementation of fishery laws.

Due to political reasons, the municipal government of Batan could not strictly enforce the ordinance particularly those with regard to zonation and establishing the distance between fishing gears as well as they could not dismantle the fishing gears of those who violate ordinance, due primarily to this constraint.

**b. Lack of Financial Resources to support alternative livelihood**

The municipal government recognizes the need to offer the people of Batan, in particular the marginal fishermen, alternative livelihood in order to prevent them from continuously exploiting and harming the aquatic resources. However, the actual provision of alternative livelihood is not feasible because of the lack of funds to finance projects that will provide people or COs/NGOs/POs with capital which they can use to invest in small enterprises.

The municipal government also expects a lot from NGOs and POs to provide assistance for establishing alternative livelihood for the people. Most of the municipal income is being channeled by the municipal government to infrastructure and other priority projects.

**c. Absence of a Zoning Plan**

According to the study of the UPV Technical Research Team, the absence of a zoning plan in view of competing resource users lead to conflict among gear owners, for instance between capture and culture fisheries.

**d. Limited Environmental Awareness**

While people have basic awareness of environmental issues based on their experiences, their awareness needs a systematic analysis of root causes and to be translated into systematic action for environmental protection.

The beneficiaries of these projects are the families within the project site. It has a total budget of ₱800,000 sourced from the 20% Development Fund.

This project is an ongoing one having been started in November 1994. Its implementation is based strictly on the principles laid down by the Batan Coastal Resource Development Program.

2) Integrated Farming Systems Demonstration Project. This project has poultry and agricultural crop production as components. Its target beneficiaries are marginal farmers and displaced fishermen. The project site is Barangay Lupit. The project proponent is the intermunicipal coastal resource management body of Batan chaired by Mayor Demeterio. Funding agency is the Local Government Support Program (LGSP) and its cooperating agencies are DA, municipal government and the Bureau of Fisheries and Aquatic Resources (BFAR). Estimated cost of the project is P40,000.00.

This project proposal was submitted to the ICRMC executive committee and was approved. It is waiting for the release of funds for implementation.

**f. Review and Formulation of Proposed Municipal Ordinances and Policies Pertaining to Fisheries and Aquatic Resources**

The Batan CRM Body has also helped the Sanggunian Bayan in the formulation of Municipal Ordinances pertaining to fisheries, aquatic and coastal resources management.

Among the major contributions of the CRM is in the area of review and formulation of municipal ordinances and policies. Gaps were identified and recommended policy/legislative agenda were made to enforce an intermunicipal zonation plan.

**5. Critical Issues and Problems Impairing Fisheries/Aquatic Resources Management Systems**

The preceding section shows the present efforts of the municipal government of Batan to address the concerns of fisheries and aquatic resources management. The municipal government has already shown its great concern and has already made certain advances in so far as addressing the problems and concerns in fisheries and aquatic resources. Certain critical issues and problems, however, still stand on the way and impair the effective management of fisheries and aquatic resources in the municipality of Batan.

**a. Lack of Alternative Livelihood**

As earlier mentioned, majority of the population in Batan are fishers, agricultural workers and farmers. Statistics presented earlier show that more than 30% of the population in

This project included programmed barangay visitations by the trainor members of the coastal resource management body of Batan who have adequately learned the principles of Intermunicipal Coastal Resource Management, from the various capability training they had attended as well as dialogues with barangay officials and inhabitants.

This participatory activity in the barangay level, will serve to integrate and institutionalize the principles and processes of coastal resource management at the grassroot level and will greatly be a major contributory factor to the formulation of a comprehensive coastal resource development and management plans, to include feasibility studies on micro-enterprise development and alternative livelihood programs.

This activity of participatory barangay dialogues for environmental and resource assessment in barangay level had been fully implemented. The last barangay visited was Magubahay in November 1994.

Based on the records of the Coastal Resource Management Coordinator of Batan, the conduct of grassroot level consultations by the Municipal Coastal Resource Management Body was done during the first phase of the project. Six consultation dialogues were conducted in September 1994 in Barangays Manuo, Camaligan, Magpagong and Bayang, Lupit and Cabugao.

In October 1992, 12 consultation dialogues were conducted in Barangays Palay, Angas, Songcolan, Camance, Mambuquiao, Napti, Mandong, Hapit, Ambolong, Tabon, Ipil and Lalab. In November 1994, consultation dialogues were conducted in Barangays Caiyang and Magubahay.

#### **d. Holding of Monthly Consultative Meetings**

Among the major activities of the ICRMC is the regular monthly consultative meeting. Every month, the officials conduct consultative meetings at the ICRMC to discuss common problems as well as to compare notes and activities being done by the respective municipalities to address the problem in coastal resource management. The three municipalities formed a secretariat and Mr. Graciano Laurente (or "Tay Sanoy"), who is the CRM Coordinator of Batan, was chosen as the ICRMC Coordinator.

#### **e. Preparation of Project Proposals**

Another area where the ICRMC was involved in is in the preparation of project proposals. The following are among the projects identified with the assistance of the ICRMC:

- 1) Contract Reforestation Project (Plantation Establishment) in the following barangays: Ipil (40 has.), Cabugao (20 has.), Oquendo, Balete (10 has.) and Maria Cristina, Madalag (10 has.).

## **b. Conduct of Participatory Research**

PRA field research was undertaken by the UPV technical resource persons and the local researchers in the three municipalities from August 27 to September 6, 1993. A multidisciplinary team of UPV faculty were engaged to conduct an assessment of the environmental resources of water and terrestrial environment of the 3 municipalities. To accomplish this project, participatory research was undertaken by involving municipal-based researchers in preparatory workshops, field data gathering and in research feedback.

Research Consultation workshops were held last August 4 and 19, 1993 at the FSDP Training Center in Camaligan, Batan and at the provincial Capitol to prepare for the participatory rural appraisal (PRA) field research to be conducted in three communities. There were around 30 participants for both workshops, 40% of whom were women. The workshops were a hands-on follow through training for local researchers who will assist the UPV technical resource persons in conducting the environmental study of the three municipalities.

The intention of the participatory rural appraisal field research was to go beyond the rather sterile testing of hypotheses, developed from theoretical discussions far removed from the lives of local people, and instead to allow the people themselves to define their problems and to equip them with the analytical ability to formulate solutions. The role of the researchers/technical experts in the communities is therefore as a catalyst for the formation of groups and a facilitator for their activities.

CRM Research Fora were held on November 11, 25 and 29, 1993 to get feedback on the results and recommendations of the PRA research in every municipality. The participants ranging from 30 to 40 per municipal forum validated most of the findings with minor comments and suggestions. They were most supportive of the recommendations to organize an intermunicipal coastal resource management council representing the various sectors (LGUs, government agencies, fisherfolk associations, non-governmental organizations) in their respective municipalities.

## **c. Conduct of Grassroot Level Consultations and Dialogues with the Different Barangays**

Another important activity of the CRM was the participatory barangay appraisal for the environmental and resource assessment of the 20 Barangays of Batan. The objective of this project was to produce information for the formulation of an integrated coastal resource management plan for Batan. Specifically to establish baseline data gathering, barangay socio-economic status assessment, identification of potential investment fields and establish priorities in areas of investments in terms of socio-economic impact and profit potentials.

## **Activities/Accomplishments of the CRM**

Since the launching of the Coastal Resource Management Project on April 22, 1993, among its major activities are the following:

**a. Conduct of Training and Capability-Building Programs on Fisheries and Aquatic Resources Management and Environmental Protection**

Among the major activities of the CRM is the conduct of training and capability building programs. This includes holding seminars and orientation workshops first to members of the CRM core group or CRM Body and later to the different sectors to explain the objectives, and nature of the Coastal Resource Management Project.

Also this includes training programs for members of the core group or the CRM body in the areas of regulatory matters on fisheries, law enforcement, participation of women and other sectors in the implementation of coastal resource management and project proposal preparation.

The first orientation and planning workshop for local government units ( LGUs) and government agencies was held at the Aklan National College of Fisheries in New Washington last March 23-24, 1993. A total of 66 participants attended.

The second orientation workshop for people's organizations and non-governmental organizations was held in Batan, Aklan last April 4, 1993. A total of 80 (33 men and 27 women) participants participated.

In addition to that, four capability building (CB) or training programs have been conducted as part of this activity.

CB Training 1 was on participatory research for CRM. Held at the third floor of the Aklan Provincial Capitol, it was attended by a total of 38 participants (21 men and 17 women).

CB Training 2 was on community organizing for CRM. It was held at the DECS Training Facilities in Boracay, Aklan last June 19-21, 1993 and attended by a total of 39 participants (20 men and 19 women) from the 3 municipalities and different government agencies.

CB Training 3 was on community organizing for fisherfolk leaders held on October 14-16, 1993 at the Provincial Guesthouse of the Provincial Capitol in Kalibo. About 40 participants, 7 of them women, attended the training.

CB Training 4 was on environmental and fishery laws for sustainable development.



composed of representatives of the provincial government, the 3 municipalities, the different national government agencies, people's organizations and non-governmental organizations.

The Council is led by an Executive Board composed of Aklan provincial governor Corazon L. Cabagnot, Altavas Mayor Maria May Refol, Batan Mayor Jayner Demeterio, New Washington Mayor Edmund Peralta and University of the Philippines in the Visayas (UPV) Chancellor Arsenio Camacho.

The Board is supported by a Project Management Office composed of representatives of the Department Environment and Natural Resources (DENR), Department of Agriculture (DA), Provincial Agriculturist's Office, Department of Trade and Industry (DTI), the mayor's office of the three municipalities, the provincial government, PNP-Philippine Maritime Police, fisherfolk associations in the three municipalities, the representative of an NGO coalition on coastal resource management and the representative of a research/technical team from UP Visayas.

The establishment of the Intermunicipal Coastal Resource Management Council was part of the recommendations given by the UP Visayas Technical Research Team, which conducted an earlier study of the problem in Batan Bay. The ICRMC of Altavas, Batan and New Washington was launched last January 20, 1994 in Batan. The organization of the ICRMC was facilitated by the UP Visayas.

#### **Municipal Coastal Resource Management Body (MCRMB)**

Apart from the ICRMC, the Coastal Resource Management Bodies (MCRMB) were also created at the municipal level, particularly in each of the 3 municipalities involved. The Coastal Resource Management Body (CRMB) is composed of the Mayor as chairman, the technical persons or representatives of the Department of Agriculture and other national government agencies (NGAs) including the fisherfolks and women sector as members.

The Municipal Coastal Resource Management Body of Batan is composed of the Municipal Mayor as Chairman and the following as members: Chairman of the Committee on Agriculture and Fisheries (who acts as representative of the Sangguniang Bayan), the Municipal Planning and Development Coordinator (MPDC), the representatives of the fisherfolks organizations, the women and youth sectors, the representative of the local DA-BFAR, the chief of the Philippine National Police, the representative of the CRM-oriented NGO and the CRMB Municipal Coordinator.

The CRMP is supported primarily by the Canadian government through the Canadian International Development Agency (CIDA), which provided more than ₱1 Million. The provincial government of Aklan, on the other hand, extended an amount of ₱100,000 as counterpart fund.

Launched on April 22, 1993, the CRMP was designed essentially to address the following goals:

a) to rehabilitate the ecological condition and productivity of the municipal waters and coastal areas of Altavas, Batan and New Washington;

b) to promote the protection and sustainability of the coastal and marine ecosystem in the aforementioned municipalities;

c) to appropriately address the illegal fishing activity and the poverty situation of concerned sectors in the coastal communities of the municipalities mentioned; and

d) to strengthen the partnership among the local government units, fisherfolk organizations and non-governmental organizations in addressing the problem in Batan Bay.

Among the primary and essential objectives/targets of the project are following:

First is to establish an intermunicipal coastal resource management council that will work towards organizing resource management councils around Batan Bay, Tinagong Dagat, and its tributaries. Women's groups and other people's organizations are expected to be strengthened by this council;

The second objective of the program is to develop an integrated coastal resource management plan that will become part of the provincial and municipal plans and ordinances;

Third objective is to develop a zone plan for Batan Bay, Tinagong Dagat and its tributaries that will be designed and implemented with the participation of the different sectors concerned; and

Fourth is to establish a monitoring and evaluation system for coastal resources management.

#### **Intermunicipal Coastal Resource Management Council (ICRMC)**

To manage the implementation of the Coastal Resource Management Project, an Intermunicipal Coastal Resource Management Council was created. The Council is a multisectoral body

The Samahan ng mga Maliliit na Mangingisda sa Songcolan is a barangay-based organization headed by the Barangay Captain. Its major concern is to protect small fishermen in the community and to make them aware of the fishery laws and regulations.

The above organizations have affiliated themselves with the Coastal Resource Management Council which is very active in fishery and aquatic management.

#### **Collaborative and Support Systems Extended by the COs/NGOs/POs**

NGOs/POs serve as frontliners in terms of program implementation. Since it is difficult for the local government officials to call concerned citizens one by one, these organizations have become effective vehicles in mobilizing their members to participate actively in project planning, implementation, monitoring and evaluation.

**Planning.** The MAFC and the KMB are dependent on the Coastal Resource Management for the planning process. The Samahan ng mga Mangingisda sa Songcolan uses participatory approach in drafting plans of action although close coordination is done by the Coastal Resource Management Body. Officers of the organization serve as facilitators in the formulation of plan of action.

**Implementation.** MAFC assigns agricultural technicians to do the work to be performed. For KMB and the Samahan ng mga Maliliit na Mangingisda sa Songcolan, both leaders and members participate in the implementation of the projects/activities.

**Monitoring.** All the respondents of the study mentioned that monitoring is done by conducting meetings, visitations and consultations to see to it that projects/activities are on the right track.

#### **4. Existing Community Management Systems of Fisheries/Aquatic Resources**

The existing management system of fisheries/aquatic resources in the municipality of Batan is anchored on the Coastal Resources Management Project (CRMP).

#### **The Coastal Resource Management Project**

The Coastal Resource Management Project is a capability-building project designed to conserve, develop, and implement an integrated and community-based coastal resource management program and project for the neighboring municipalities of Batan, Altavas and New Washington. The CRMP was born due to siltation and other related problems in Tinagong Dagat and its surrounding areas.

Aside from encouraging them to form an association or NGO, the municipal government tries to give them legal recognition. Through the accreditation of non-government organizations and people's organization and encouraging their participation in local governance, the municipal government shows its strong and concrete support.

Resolution No. 13-A series of 1992 was approved on June 11, 1992 accrediting non-governmental organization and/or people's organizations pursuant to RA 7160 otherwise known as the *Local Government Code of 1991*. NGOs accredited are the following:

- a) Batan Development Foundation
- b) Veterans Federation of the Philippines
- c) Municipal Agricultural & Fishery Council (MAFC)
- d) Buklod ng mga Family Community Counselors at Community Organization Volunteers ng Aklan, Inc.
- e) Association of Disabled Persons-Batan.

In addition, Resolution No. 51 series of 1992 on December 10, 1992 accredited additional NGOs/POs. These include the following:

- a) Katibyugan it mga Mangunguma ag Mamumugon sa Batan (KMMB)
- b) Katibyugan it mga Mangingisda sa Batan (KMB)
- c) Batan Port Workers Association (BPWA)
- d) Batan Bay Vendors Association (BBVA)
- e) Katibyugan it mga Kababayehan nga Batangnon para sa Kauswagan (KKBK)
- f) Katibyugan it mga Panday ag Trabahador sa Batan (KPTB)

#### **LGU-NGO Linkages**

Section 35 of the *Local Government Code* provides that local government units may enter into joint ventures and such other cooperative arrangements with people's and non-governmental organizations to engage in the promotion of ecological balance as well as well-being of the people.

In Batan, 11 NGOs/POs were formed. An interview with Coastal Resource Management Project implementors reveal that of the 11 NGOs/POs, only 3 are active in the area of fisheries/aquatic management. These are: 1) Katibyugan it mga Mangingisda sa Batan (KMB); 2) Municipal Agricultural and Fishery Council (MAFC); and 3) Samahan ng mga Maliliit na Mangingisda sa Songcolan.

The MAFC is not an NGO nor a PO. It is a project financed by the Local Government Support Program and CIDA which gathers municipal agriculturists and local government officials to have a venue for examination and analysis of problems related to agriculture and fisheries.

**d) Lack of manpower and technical capability**

Aside from insufficient funds, there is also not enough personnel or manpower in the municipal government who handle fisheries management. As earlier mentioned, out of the nine personnel of the Municipal Agricultural Office at present, only two Agricultural Technologists are assigned to the fishery sector. These two Agricultural Technologists are not enough to cover the whole area of the municipality.

**e) Conflict with the DENR on the implementation of the mangrove reforestation project**

There is a conflict between the municipal government and the Department of Environment and Natural Resources (DENR) provincial office as to who has the jurisdiction or responsibility over the mangrove reforestation program in the area.

**f) Lack of equipment**

The municipal government could not fully enforce the fishery laws against encroachment of illegal fishing boats in the municipal waters due to lack of equipment such as patrol boats. The municipal government has only one boat and oftentimes has to rely on the fishermen using their traditional wooden bancas to run after the bigger and much faster fishing boats encroaching in the municipal waters. The fishermen's groups in the barangays were also utilized in monitoring illegal encroachment by bigger fishing boats in the municipal waters.

**g) Lack of systematic records system**

This is one of the major complaints of the municipal officials, particularly of the Municipal Treasurer's Office and the Municipal Agricultural Office.

The municipal government could not effectively control the operation of fishponds and other fishing gears due to lack of proper and systematic recording system. Due to this, municipal officials could not properly monitor and regulate the operation of fishponds and fishing gears. This also results in so much loss of revenues on the part of municipal government because they do not have clear basis for renewal of permits.

**3. Collaborative and Support Systems Extended by the Municipal Government to the NGOs/POs and COs**

The municipal government recognizes the important role of non-governmental organizations (NGOs), people's organizations (POs) and community organizations (COs) in local development.

Being aware of the problems and issues on coastal resource management, the local government unit has been encouraging citizens to form non-governmental organizations and to participate in local governance.

## **b. Political factionalism**

In addition, political factionalism has also been identified as another deterring factor. Political leadership has been intervening especially in participation on the different training programs designed to make people aware of the provisions of law. Regularity and quality of participation of some concerned parties also leave much to be desired.

## **c. Lack of financial resources**

One of the major problems faced by the municipal government is lack of financial resources. This problem is something that affects not only the fisheries management but the entire operations of the municipal government.

Due to scarce financial resources, fisheries/aquatic management gets limited share from the budget of the municipality. It only depended on whatever amount the government collected from rentals, fees and other charges imposed. In addition, a large amount spent on fishery/aquatic management came from the budget of the Coastal Resource Management (P1,558,000.00), a project funded by the Local Government Support Project (LGSP) and CIDA.

A measly sum of P707,913.72 out of the total 1994 annual budget of P10,867,147.33 (or 6.51%) was allocated to agricultural services. Out of the total allocation, 86.31% or P610,995.03 was for personal services and the remaining 10.5% was for maintenance and operating expenses (MOOE). Out of the total budget of P11,856,255.00 in 1995, only P48,735.95 or 6.32% was allocated for agricultural services.

Due to lack of financial resources, the municipal government could not buy equipment nor provide alternative livelihood to affected families or fishermen.

The municipal government has difficulty in enforcing municipal ordinances, particularly with regard to limiting the number of fishing gears and regulating the distance between the fishing gears in the Batan Bay area to avoid siltation due to lack of alternative livelihood for affected marginal fishermen. In spite of its desire to improve the lives of the constituent fishermen, particularly those who will be affected by the enforcement of laws, the municipal government does not have enough financial resources to provide affected fishermen with alternative livelihood.

The Sangguniang Bayan had adopted on April 29, 1993 Resolution No. 14 series of 1993 urging the members of the House of Representatives to immediately approve House Bill No. 6346 entitled "An Act to Equitably Re-allocate the Internal Revenue Allotment of Local Government Units" by taking into account the costs of devolution, amending for this purpose Section 285 of the Local Government Code of 1991.

4) a municipal ordinance creating or declaring as the fishing zone all areas covered by water within the municipality of Batan which include a portion of the tidal mudflow flat lands, one half of the distance from the permanent water edge to the opposite shoreline.

5) a municipal ordinance declaring as rehabilitation zone the 12 kilometers of open sea and its shoreline, comprising the northern boundaries of barangays Mambuquiao, Napti, Mandong, and Dongcolan, including a portion of Sibuyan sea, 15 kilometers deep into the open sea under the authority of the municipality of Batan and all underwater areas after the permanent forest zone.

6) a municipal ordinance creating an industrial and commercial zone. This includes a necessary provision to support the planned expansion of services of the Batan Port to become a combination of fishing and transshipment port.

7) a municipal ordinance creating a no fishing gear zone within the fishing zone identified as 20% of the total width of water area during low tides, following the deepest river bottom.

8) a municipal ordinance regulating fishing activities. This ordinance sets the kind or type of fishing gears allowed, the distance and pattern of construction, sizes and design of fishing gears and the mesh of fishing nets allowed. This also prohibits the catching of small fishes whose species have the potential to grow big.

9) an ordinance creating a Municipal Maritime Management Office which will be given the necessary authority to manage the coastal resources of Batan effectively along the most modern technology in order to provide sustainable economic benefits to the municipality.

## **2. Problems encountered in the implementation of the devolved fisheries functions**

Since the implementation of the Local Government Code of 1991, not much has been done on the problems encountered by the community pertaining to fisheries and aquatic resources. The problems are:

### **a. Administrative problems such as stringent financial procedures and bureaucratic backlog**

On the administrative side, stringent financial procedures and bureaucratic backlog was faced by the municipal government. The delays in financial disbursements has slowed down the pace of implementation of the devolution of agriculture and fishery services.

This resolution was passed in order to give the municipal government a chance to properly monitor the outsiders operating in Batan as well as to increase its collection from fishery charges, a big source of income from the vast fishery resource of the municipality.

#### **Adoption of a Municipal Coastal Resource Development Program**

To address the problems on fisheries and aquatic resources management, the municipal government had also adopted a municipal coastal resource development program.

Last July 14, 1994, the Sangguniang Bayan had approved Resolution No. 14-A series of 1994, adopting the Batan Municipal Coastal Resource Development Program prepared by the Municipal Coastal Resource Management Council as part of the Development Plan of the Municipality of Batan.

#### **Enactment of Ordinances and Resolutions on Fisheries and Aquatic Resources**

There are existing national laws regarding management and protection of fishery and aquatic resources which certain national government agencies and the local government units enforce. However, due to the unique situation in the municipality, there is still a need for the municipal government through the Sangguniang Bayan to pass ordinances and policies to address the unique problems, needs, and concerns of the municipality in the area of fisheries/coastal resources management.

With the assistance of the Coastal Resource Management consultants/experts from UP Visayas, the following are some of the ordinances passed by the Sangguniang Bayan (see Annex) to address the actual needs and concerns of the locality:

1) a resolution No. 16 series of 1992 suspending the construction or setting-up of *Tahongan* (Mussel Culture) in Tinagong Dagat, Batan Bay and other tributaries within the municipal jurisdiction, approved on July 16, 1992.

2) a municipal ordinance prohibiting the conversion to fishponds or subjection to any commercial activities of all existing mangrove forest in the municipality of Batan.

3) a municipal ordinance declaring as permanent forest zone all existing mangrove forest areas as of 1994 and the area half the distance of the total mud flat lands, starting from the edge of cultivated upland and fishpond areas, to the opposite edge of the tidal mud flat which is permanently under tide waters even at low tides.



fishing and fishery rules and regulations. He is also responsible for the assessment and collection of taxes on stationary fishing gears within the municipal waters of Batan.

In addition, the fishery warden is also assigned to ascertain the present area/acreage of existing fishponds and their respective owners and all stationary fishing gears within the municipal waters for proper imposition of taxes and issuance of licenses and municipal permits as well as to coordinate with the concerned national government agencies the implementation of municipal ordinances and policies relative to fishing, in collaboration with municipal committee-at-interest.

Furthermore, the Sanggunian had approved Resolution No. 26 series of 1993 on September 17, 1993 designating municipal officials, barangay officials, Department of Agriculture personnel, and members of the Philippine National Police as deputy fish wardens with full powers and authorities to enforce existing municipal fishery laws, rules, and regulations.

#### **Strengthening Cooperation with the Philippine National Police in Apprehending Illegal Fishing**

One of the problems faced by coastal municipalities like Batan, is the encroachment of illegal fishers within the 15 kilometer limit of municipal waters. The municipal government relies strongly on the assistance and help of the local PNP to enforce the laws against the big fishing boats which violate the 15-kilometer limit of municipal waters.

To improve the campaign against illegal fishing, the Sanggunian had approved Resolution No. 2-A series of 1994, on January 20, 1994, allocating twenty percent (20%) of the amount derived from fines and penalties related to illegal fishing as incentive to apprehending PNP personnel. With this, the PNP personnel are encouraged to conduct a more intensive campaign against illegal fishing.

Another major problem in Batan is the lack of complete and reliable list of fishing gear owners and fishpond operations. Because of this, it is difficult for the municipal government to monitor, regulate, and control the operations of fishermen.

Since some of the fishermen and fishpond owners are not from Batan, the Sangguniang Bayan had passed Resolution No. 18 series of 1992, on August 12, 1992 requesting Governor Corazon L. Cabagnot to direct the Provincial Treasurer not to accept payment from taxpayers, especially fishpond owners/operators of Batan, Aklan, without showing proof and certification from the Municipal Treasurer of prior payment of municipal licenses to the municipal government of Batan.

The CRMB is primarily responsible for the preparation of policies, plans and projects to address the fisheries and CRM concerns and needs of the municipality. Aside from planning and deciding on specific alternative livelihood projects/proposals, it takes charge of coming up with measures to protect the fishery and coastal resources of the municipality. The main objective of the CRMB is to come up with a coastal resource development program for the municipality.

#### **Multi-Sectoral Task Force on Illegally Constructed Fishpond**

Among the major problems in Batan is the construction of fishponds out of existing mangrove areas. To address this problem, the municipal government has also created a multi-sectoral task force on illegally constructed fishpond and other related problems.

By virtue of Municipal Ordinance No. 5 passed by the Sangguniang Bayan on September 15, 1994, the said multi-sectoral task force is mandated to look into complaints relative to man-caused siltation, erosion and illegally-constructed fishpond and to provide solutions or impose legal sanctions to those who violate national and municipal laws. The task force is composed of representatives from the DENR as the lead agency, the Department of Public Works and Highways, Department of Agriculture, Office of the Provincial Prosecutor, Philippine National Police, the Municipal Coastal Resource Management Coordinator and the Sangguniang Bayan, represented by the Chairman of the Committee on Agriculture and Fisheries.

#### **Municipal Maritime Management Office**

Based on the recommendation of the CRM Council of Batan, the Sangguniang Bayan had also passed an ordinance creating the Municipal Maritime Management Office to manage the coastal resources of Batan. This office should have been created last January 1995 but, as of the time of the field work, it was not yet in existence.

#### **Appointment of Fishery Wardens**

To effectively enforce the fishery laws, the Sangguniang Bayan (SB) had approved on August 13, 1992 Resolution No. 19 series of 1992, authorizing the Mayor to designate fishery wardens from among the municipal employees, particularly from the Office of the Municipal Treasurer.

According to the resolution, the fishery warden is primarily responsible for the protection of the fishery resources within the municipal jurisdiction of Batan against undue and illegal exploitation and utilization such as illegal fishing, as provided for in Presidential Decree No. 704 as amended and other

well as the budget for the implementation of certain programs and projects, including those pertaining to fisheries and aquatic resources development.

The Sangguniang Bayan is composed of six regular members, the ABC representative and the Sangguniang Kabataan representative. It has a total of 19 standing committees.

In support of the objective of the municipal government to effectively address fisheries and aquatic resources, the Committee on Agriculture and Fisheries and the Committee on Ecology have been created in the Sangguniang Bayan. Both committees are responsible for studying legislative measures relevant to fisheries and aquatic development and coastal resource management before they are passed into law or ordinance.

The Committee on Agriculture and Fisheries is responsible for matters pertaining to agricultural production, inputs and facilities, development of agricultural and aquacultural enterprises and all other matters related to agriculture. It also takes charge of matters related to fishing and the fishery industry, determination of municipal waters and nautical boundaries as defined by law, bidding and zoning of municipal privileges, settlement of disputes arising from the distances of stationary gears, determination of taxes and licenses and permits in accordance with municipal ordinances and other pertinent laws, as well as all other matters related to and/or analogous to the fishing industry and marine life.

The Committee on Ecology, on the other hand, takes charge of matters pertaining to reforestation of denuded forest, air and water pollution, wanton destruction of natural resources, illegal exploitation of marine resources, and prevention of the environment.

#### **Coastal Resource Management Body**

Under the Coastal Resource Management Program initiated by the University of the Philippines in the Visayas and funded by the Canadian International Development Agency (CIDA), a Coastal Resource Management Body (CRMB) was formed in Batan in 1993.

The CRMB is composed of the Municipal Mayor as Chairman and the following as members: SB Committee Chairman on Agriculture & Fisheries, Municipal Planning & Development Coordinator, representatives of the fisherfolks organizations, the women and youth sectors, the representative of the Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR), the Chief of the Philippine National Police, the representative of the CRM-oriented NGO and the CRM Municipal Coordinator of Batan.

- 1) to improve the economic condition of the fishermen;
- 2) to develop the fishing industry within 5 years; and
- 3) to put up a processing plant for marine products.

To attain these, it has identified the following as priority activities:

1) Construction of Concrete Artificial Reefs. With an estimated cost ₱800,000.00, this project includes the construction of 200 units of artificial reefs made of old tires within the municipal waters for a period of 4 years. A total of 50 units were expected to be installed annually from 1994 to 1997 at a budget of ₱200,000 per year.

2) Preservation of Natural Coral Reefs

3) Strict Implementation of Fishery Laws and Municipal Ordinances

4) Mangrove Reforestation with the following targets per year:

1994 - 10 hectares at ₱ 50,000
1995 - 15 hectares at ₱ 75,000
1996 - 15 hectares at ₱ 75,000
1997 - 10 hectares at ₱ 50,000
=====
Total ₱250,000

5) Proper Resource Management of Tinagong Dagat, Batan Bay and its Tributaries

6) Construction of Fish Port Complex. To be implemented in two phases in 1994 and 1995, the project has a total budget of ₱15 million.

7) Establishment of Processing Plant for Marine Products. This project, which is to be implemented in 3 years time from 1994 to 1996, has an estimated cost of ₱35 million.

### **Organizational Structures Concerned with the Promulgation and Enforcement of Fishery Laws**

#### **Sangguniang Bayan**

The Sangguniang Bayan (SB) or the local legislative council, is one of the important organs or instrumentalities of the municipal government of Batan which has significant role in addressing the fishery and aquatic problems and concerns in the municipality. It is responsible for passing laws or ordinances needed to address the problems, needs, and concerns on fishery and aquatic resources and other issues. It is also responsible for approving plans and programs of the municipal government as

## **Municipal Development Plan on Fisheries and Aquatic Resources Management**

Pursuant to the 1991 Local Government Code, the municipal government of Batan has formulated and passed a Municipal Development Plan for 1993-98. This is embodied in the Municipal Development Council (MDC) Executive Committee Resolution No. 2 series of 1993. Among the development concerns and priorities addressed in the Municipal Development Plan is the fisheries and aquatic resources management.

The Plan clearly states that:

"Fishery being the primary source of income of the community must be assisted and regulated, while the existing practices of fishermen, which have been proven to be damaging and disastrous to the ecology and fish habitat, have also to be totally abolished and the dumping of garbage in rivers have to be stopped."

Proper resource management of Batan Bay and its tributaries was listed down as among the five priority sectors under the said plan. The creation of investment opportunities especially in marine product processing for local and foreign investors, on the other hand, was identified as a development strategy.

Under its Public Investment List, the municipal government has listed down the following projects for calendar year 1993:

- 1) Crab Fattening Project in Barangay Mandong whose target beneficiary was a farmer and which covered 150 square meters rehabilitation area. The cost of the project was estimated at ₱5,685 and the implementing agency was the Department of Agriculture.
- 2) Artificial Reef Project in Barangays Songcolan, Mandong, Napti and Mambuquiao. This project was implemented by the municipal government at a cost of ₱185,000.
- 3) Livelihood Assistance Program consisting of vegetable farming, swine and livestock raising, fish caging, goat raising, banana farming, bamboo craft, nito craft, citrus farming and duck raising located in the 20 barangays. The target groups were low-income families and cooperatives. The program has a budgetary requirement of ₱200,000 from the municipal government's 20% Development Fund and another ₱200,000 from other sources.
- 4) Mangrove Reforestation. This included planting of *bakhaw* and other mangrove species in Datu Magsugod River and Datu Magkawit River with a budget of ₱10,000 from the 20% Development Fund.

Under its Municipal Development Plan for 1994-1998, the municipal government has outlined the following as among its priority objectives:

## Findings and Observations

### 1. Extent of Implementation of the Codal Provisions on Fisheries/Aquatic Resources Management Functions

Under Section 17 of the *Local Government Code of 1991*, municipalities are mandated to provide extension as well as on-site research services related to agriculture and fishery activities which include, among others, dispersal of fingerlings and other seeding materials for aquaculture, enforcement of fishery laws in municipal waters and the conservation of mangroves. These are among the many functions or basic services formerly exercised by the national government through the Department of Agriculture which were devolved or transferred to local government units.

Pursuant to the implementation of the *Local Government Code*, the municipal government of Batan has created the Office of the Municipal Agricultural Officer out of the former municipal agricultural office of the Department of Agriculture (DA). The Office of the Municipal Agricultural Officer is composed of the Municipal Agricultural Officer and nine Agricultural Technologists, who are all devolved DA personnel. It is headed by the Municipal Agricultural Officer (or Municipal Agriculturist), which is an optional position in the case of the municipalities under the Code.

According to the Municipal Agricultural Officer, his office is responsible for providing technical assistance, extension services and livelihood assistance to fishermen and for implementing the fishery sector program (FSP).

It is also responsible for the construction of artificial reefs in the coastal areas and for the enforcement of fishery laws within the jurisdiction of the municipality, which were assigned to the field office of the Department of Agriculture in the municipality prior to the devolution of 1991.

In the absence of an Environment and Natural Resources Officer (ENRO) in the municipality, the Office of the Municipal Agricultural Officer also takes charge of the enforcement of environmental protection law or ordinances such as those prohibiting the cutting of mangroves.

Two of the nine Agricultural Technologists are assigned to take charge of the implementation of the fishery sector program. Under the fishery sector program, the main responsibility of the Office of the Municipal Agricultural Officer includes extending support for demonstration farms, providing assistance for farm inputs such as fertilizer and dispersal of bangus fingerlings.

Inland fishing industry constitutes a significant component of the province's fishery sector. In 1986, the province's total fishpond area was 9,123.32 hectares, 80% of which were classified as developed fishpond. Fresh water fishponds cover an area of 4.11 hectares, whose production is estimated at 4 metric tons. Brackishwater fishponds, on the other hand, occupy 7.7 thousands hectares with a total production of 9.5 thousand metric tons.

The municipality of New Washington accounted for the biggest share of the total fishpond area, with 3,011.66 hectares or 33% of the total fishpond area of the province. The municipality of Batan, on the other hand, accounted for the second largest with about 2,590.23 hectares or 28% of the total aggregate fishpond area of the province (NEDA, 1992: 18). The estimated area of fishpond in the municipality is more or less equivalent to the total area of mangrove swamps.

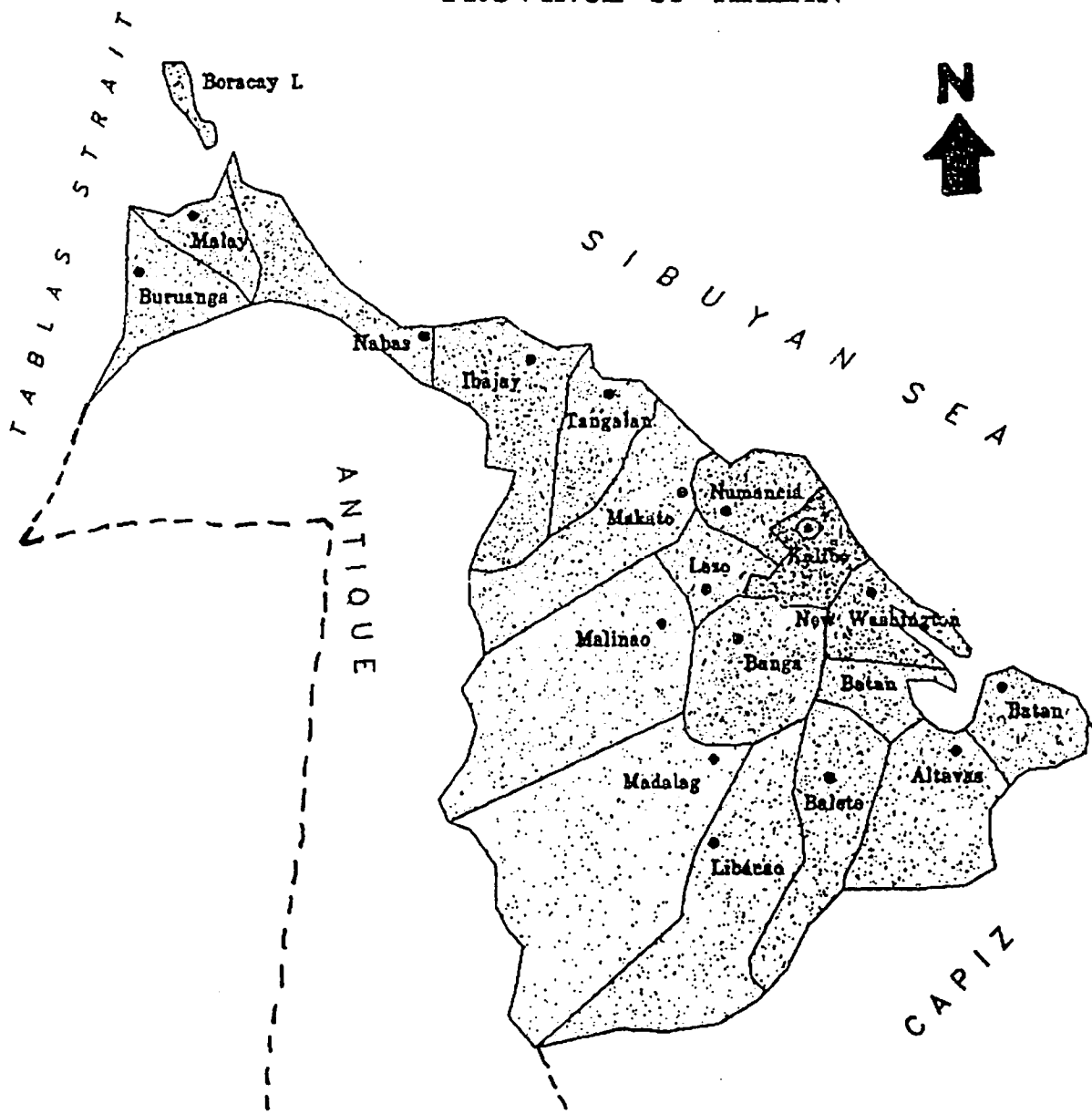
Batan Port is one of the 5 major inter-island ports in the province aside from New Washington Port, Dumaguít Port, Camanci Norte Port, and Colong-Colong Port.

Batan registered the highest yield of 1,292.604 metric tons, representing 39% of the total fishery production of the province in 1986, when the province's combined production of *bangus*, prawns, and other fishpond products reached 3,314.29 metric tons (NEDA, 1992: 18).

Batan Bay and Tinagong Dagat (referred to as "Banga Bay" in the official maps) are semi-enclosed estuarine environments with only a 2.4-kilometer opening located between Batan and Dumaguít (a barangay of New Washington) points. Batan Bay has an area of 7.65 sq. kms., 40% of which is utilized by passive gears. Tinagong Dagat has a total area of 6.68 sq. kms., 60% of which is covered by passive gears. Batan Bay and Tinagong Dagat and their tributaries are shared by five municipalities with Batan covering 60% of the water area.

The bays support a wide range of species of fish and invertebrates and serve a wide variety of uses: source of income through fishing, aquaculture and mariculture activities and provide transportation routes for water travel. The estimated fishery production in the province of Aklan amounts to 654 tons a year, 46.1% of which come from Batan Bay, 30% from Tinagong Dagat and 23.9% from the tributaries. *Batak-batak* (fish corral) accounts for 21.2% of fish production; *taba*, which accounts 18.9% of fish production, comes second.

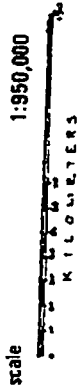
# PROVINCE OF AKLAN







PROVINCE OF AKLAN  
REGION VI



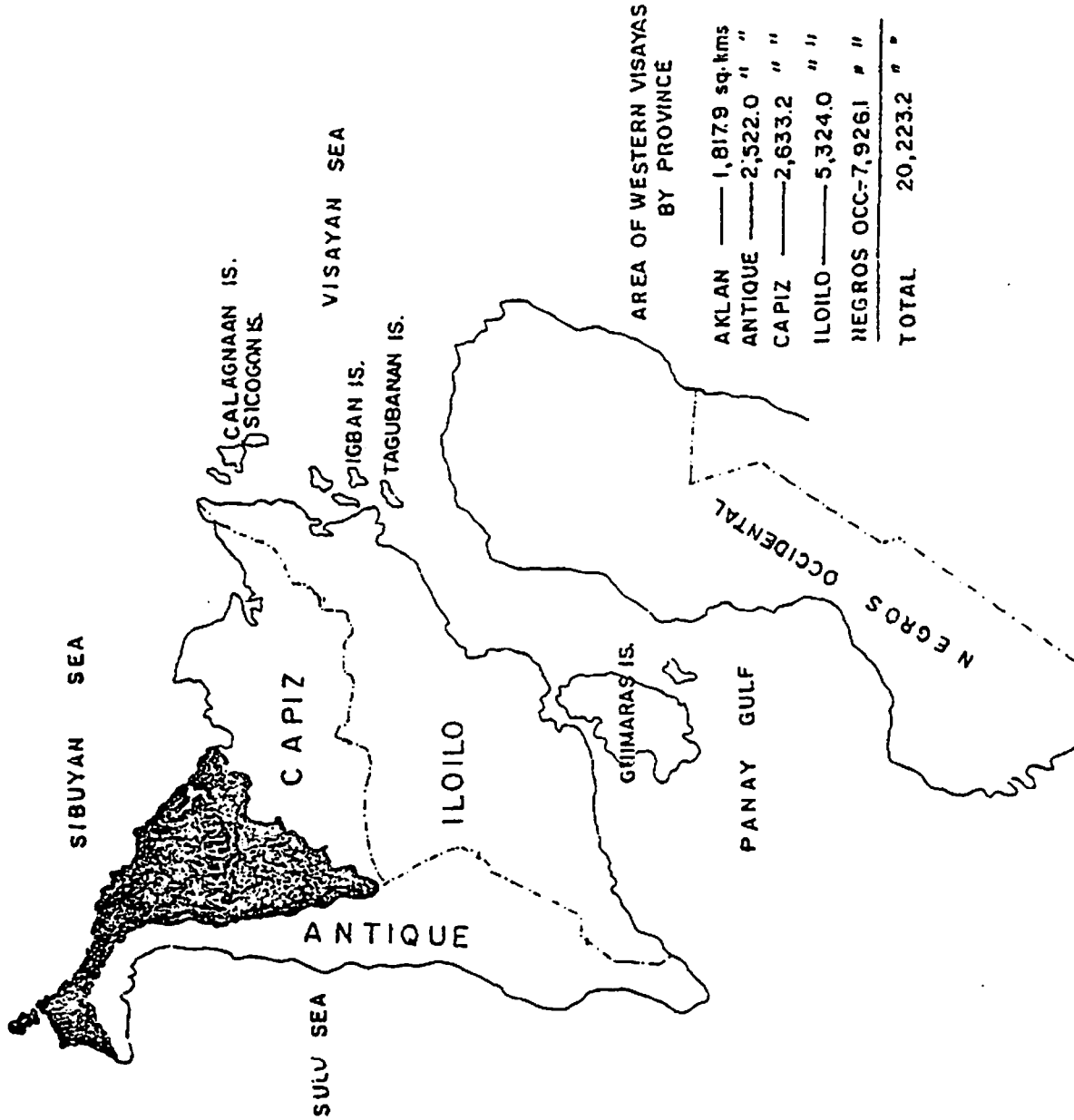
MAP OF REGION VI SHOWING  
RELATIVE POSITION OF THE  
PROVINCE IN THE REGION

Legend:

PROVINCIAL BOUNDARY -

SOURCE:

PROVINCIAL PLANNING &  
DEVELOPMENT OFFICE





## **The Human and Physical Environment of the Municipality of Batan**

The municipality of Batan is one of the 17 municipalities of Aklan, a province located in the northeastern part of Panay Island in the Western Visayas Region (Region VI). Established about 205 years ago in 1789, it is one of the oldest municipalities not only in the province and in the region but also in the whole Philippines. It is the birthplace of Datu Dendahara Kalantiao, who according to historians was born about 1410 AD and was the author of the first penal code in the Philippines, the *Code of Kalantiao*, which was promulgated in 1433 AD.

Located in the easternmost portion of the province, Batan is bounded on the north by the Sibuyan Sea, on the east by the municipality of Sapián, Capiz, on the south by the municipalities of Balete and Altavas, and on the northwest by the municipality of New Washington (Please see map). It is 45 kilometers away from Kalibo, the provincial capital of Aklan, in terms of road distance, via the town of Altavas. It is a sixth-class municipality with an estimated annual income of ₱10,197,399.00 as of 1994 and a total land area of 92.7 sq. kms. It has an estimated population of 27,838 and a population density of about 300 people per square kilometer as of 1995.

Batan is composed of 20 barangays with relatively flat topographies. No major fresh-water system flows through the municipality of Batan. It serves as a catch basin for the Agbalili and Talon Rivers from Altavas, which drain into the Tinagong Dagat, a salt water bay found at the center of the municipality.

The municipality is basically an agricultural and fishing community. Majority of its population are engaged in agricultural production while about 30% are engaged in fishing enterprises and fish production (fishpond operation, inland fishing, and deep-sea fishing).

In spite of these efforts, the municipal government still faces the following problems in the fisheries/coastal resource management and enforcement of fishery laws or ordinances: inadequate or limited financial resources; lack of alternative livelihood for the people; lack of organizational and technical capability, weak inter-municipal coordination, lack of a more comprehensive plan for fisheries and aquatic resources management.

To establish a more effective coastal resource management, the following concerns still need to be addressed: 1. strengthening the institutional/organizational and technical capability of the municipal government; 2. improvement of inter-agency and inter-municipal cooperation and coordination; 3. strengthening of LGU-community relations, and 4. increasing the financial capability of the municipal government.

### Introduction

This case report is a diagnostic study of the experience of the municipality of Batan in fisheries and aquatic resources management. This assesses the extent to which the provisions of the 1991 *Local Government Code* on the devolution of the functions pertaining to the fisheries and aquatic resources management have been implemented in the municipality. Specifically, it examines the various policies, programs and activities pursued by the local unit in promoting the establishment of non-government organizations (NGOs) and people's organizations (POs) concerned with the management of fisheries/aquatic resources in the community as well as determines the collaborative and supportive systems extended to the community organizations.

Data used in this study were based on primary and secondary sources, particularly from interviews with key municipal officials which include the Municipal Mayor and selected members of the Sanggunian Bayan, Municipal Budget Officer, Municipal Administrator, Secretary to the Sanggunian, Municipal Agriculture Officer, Coastal Resource Management (CRM) Coordinator, and key officials of NGOs and POs operating in the municipality. Data and information were also culled from the official documents such as the municipal annual reports, annual budget, municipal development plan, and resolutions and ordinances passed by the local Sanggunian.

**THE MANAGEMENT OF FISHERIES AND  
AQUATIC RESOURCES AT THE LOCAL LEVEL:  
THE CASE OF BATAN, ARLAN**

**Edgar Tomas Q. Auxilian  
Arnold M. Naldoza and Bella Grace L. Legayada \***

**Abstract**

As a result of the devolution of agricultural services, the municipal government of Batan has created the Municipal Agricultural Office. Two out of its nine Agricultural Technologists have been assigned in the fishery sector to provide extension services and assistance to local fishermen.

Resolutions and ordinances have been passed to protect the fisheries and aquatic resources, such as designating fishery wardens, creating multi-sectoral task force on illegally constructed fishpond, regulating fishing activities like limiting the number of fishing gears in the bay area and suspending the construction and setting-up of mussel culture, and prohibiting the conversion to fishponds of all existing mangrove forest.

Through the Coastal Resource Management Body formed with the help of Canadian International Development Agency (CIDA), the University of the Philippines in the Visayas, the provincial government and other agencies, policies, plans and projects are currently being prepared to address the fisheries and coastal resource management problems, issues and concerns in the area.

To improve the enforcement of fishery laws, the municipal government has also strengthened its cooperation with the Philippine National Police through providing incentive by allocating 20% of the amount derived from fines and penalties to apprehending PNP personnel.

Through encouraging citizens to form non-government organizations and accreditation of CRM-oriented NGOs/POs, the municipal government has extended support and encouraged the involvement of NGOs and POs local governance and in the protection and promotion of fisheries and aquatic resources.

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\*University Researcher, Local Government Center, College of Public Administration, University of the Philippines-Diliman, and Dean and Assistant Professor, respectively, College of Management, University of the Philippines in the Visayas.

**List of Officials Interviewed**

**Municipality of Carigara**

Mayor Ulpiano Arpon  
Sangguniang Bayan Member Jesus Narrido  
Municipal Vice Mayor  
Municipal Planning and Development Coordinator  
Municipal Treasurer

**NGO and Fishermen Association**

Junie Ballesteros, Executive Director of LABRADOR  
Rowena Quinalatea, Enterprise Development Officer of  
LABRADOR  
Zenitha Cerdines, Project Development Specialist of LABRADOR  
Hilarion Jose Delantar, Assistant General Manager of MPYA  
Presidents of Fishwarden Association and San Mateo Small  
Fishermen Association

**Other Officials**

Ofelia Bernales, Agricultural Technologist, PFMU  
Rupert Sievert, FSP-CRM Coordinator, Region VIII  
Omar Sabal, FSP-CRM Coordinator, Region VIII  
Annie Abella, Chief of Loans Division, Land Bank of the  
Philippines Tacloban City.

In terms of a bay-wide management system that will stop all illegal and destructive fishing activities, there is a need to a reactivate the Ad Hoc Committee on Carigara Bay Management. The newly-elected Mayors and Sanggunang Bayan members should be reoriented on the FSP-CRM concepts and strategies. A coordinating and advisory body like the Carigara Bay Management Council could adopt a Bay Management Plan and a uniform ordinance that would regulate the use of destructive fishing gears such as the "hulbot-hulbot", trawls, and superlights. And it could harmonize the various activities of the municipal government, NGOs, fishermen associations, national government agencies and other sectors concerning the management of the Bay.

### **Information/Education**

There is a need to intensify information and education campaign on FSP-CRM concepts, approaches and principles such as the installation of artificial reefs. LABRADOR should be responsible for educating the fisherfolks and residents of the coastal communities through the fishermen associations on FSP-CRM strategies to prevent destructive practices and illegal fishing. It should also reorient the fishermen associations not to consider the loans for income-generating projects as dole-outs as well as promote group cohesion to stop illegal fishing.

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officials of the Bantay Dagat team. This is necessary to prevent illegal fishing in Carigara Bay.

- c) There is a need to construct a watch tower at Kalumpihan island near the municipality of Leyte. It could serve as the headquarters of the Bantay Dagat teams of the various municipalities. And it should be provided with modern communication equipment such as radar and other instruments.

### **Institutional/Organizational**

The relations between LABRADOR and the municipal administration should be improved. Their relationship was marked by political conflict when the former Executive Director of LABRADOR ran for Vice-mayor of the opposition party. The success of the FSP-CRM depends largely on the linkage, mutual cooperation and support between LABRADOR and the municipal administration. Among the specific measures that should be carried out are the following:

- a) The municipal government should recognize and accredit LABRADOR to become a member of the Local Development Council.
- b) LABRADOR should avoid involvement in partisan politics. It should focus on community organizing and strengthening of the fishermen associations.

The Sangguniang Bayan should enact the proposed Fishery Ordinance. The present ordinance enacted in 1991 has obsolete provisions on licenses, permits and fishery privileges. The regulation of fishing in the bay and municipal waters will be strengthened if the municipal government enacts the proposed Fishery Ordinance of 1995 in line with the Local Government Code.

Once enacted, it would be very crucial to the regulation of Fishing in the municipality. Its salient provision covers the definition of municipal waters, fishery priveleges, granting of license permits, issuance of license for fishing vessels and prohibition on illegal fishing.

Strict enforcement of this ordinance is also needed towards effective management of fishery in Carigara Bay. It has been observed that both the enactment and enforcement of local ordinances by the various municipalities and adequate effort and solution to the problem on illegal fishing must be attended to. There would be confusion and disappointment when one municipality allows a particular fishing method such as baby travel while the other four municipalities prohibit it. How could other municipalities implement effectively the ordinance in their jurisdiction if the above fishing method is legal in the municipality of Capoocan while deemed illegal in Carigara and other municipalities.



There are also existing problems and constraints such as the absence of a new Fishery Ordinance, limited support for Bantay Dagat Operations and inactive Carigara Bay Management Council (CBMC). These constraints have exacerbated the problems of illegal fishing and the rapid depletion of coastal resources and support habitat of the Bay such as the few offshore reefs, mangrove and seagrass beds. To a considerable degree, the fishery resources have declined and the poor fisherfolks have already suffered the loss of marine resources and livelihood. The residents of these coastal communities have to confront this crisis which demands a comprehensive and community-based approach provided by the FSP-CRM in the Bay.

### **Recommendations**

Several policies and measures are needed to promote the role of the municipal government of Carigara particularly its linkage with LABRADOR and improve the administration of the FSP-CRM in Carigara Bay.

#### **Developmental**

There is a need to strengthen law enforcement by adopting the following measures and strategies:

- a) The Bantay Dagat team should conduct regular patrol operations. The municipal government should provide adequate funds to acquire a new patrol boat. The Department of Agriculture should continue its fuel subsidy of 100 liters a month. A portion of the collections from penalties should be set aside as incentives to members of the team particularly the PNP and the Fishwardens.

It is a major challenge on the part of the municipal administration to adopt Bantay Dagat as one of its priority programs. The success of the Bantay Dagat depends largely on the support, commitment and political will of the local executives and their constituents. And the top officials of the municipal government particularly the Mayor, members of the Sangguniang Bayan and department heads should be committed to the rehabilitation of Carigara Bay including prevention of illegal fishing. It should also include strengthening of the role of Fishermen's Associations in monitoring illegal fishing in barangays assigned to them.

- b) The Mayor should be strict in enforcing the laws and rules on illegal fishing. This would send a clear message to those engaged in illegal fishing that they will not be tolerated by the Mayor and the concerned

In terms of selection and contracting, a marine biologist assigned in Carigara observed that "the per year per phase contract has become very tentative and uncertain for LABRADOR. There were no clear provisions for the smooth transition from Phase I to Phase II or Year 1 to Year 2. These implementing and funding gaps are problems that are administrative and policy in nature. These hampered LABRADOR's operations as well as the FAs.

The FSP funding package allows only for salaries of staff, training travel and administrative overhead costs. The project did not allow costs for audio-visual equipments for training and public education activities, computers for data base, motorcycles for mobility of field supervisors. It is not sure whether the disallowance was a Philippine government policy or was a part of the conditionality of the loan with Asian Development Bank.

There are significant gaps between contract signing/award actual implementation and initial fund release, resulting in unsynchronized project implementation between LABRADOR & MPYA and adversely affecting them financially. This was mainly attributed to the delay in fund remittances from Department of Budget and Management to Department of Agriculture."

### **Summary and Conclusions**

The role of the municipal government of Carigara in the administration of the FSP-CBMM is very crucial. Carigara Bay is considered as one of the most depleted bays in the country due to overfishing and various modes of illegal fishing such as trawls, hulbot-hulbot and superlights. Specifically the present municipal leadership has not indicated an active and effective linkage with LABRADOR which is solely responsible for the organization of fishermen associations in the ten coastal barangays of Carigara from 1991 to 1994. The municipal government has failed to give accreditation to LABRADOR. In terms of pursuing decentralization, the issue of sustaining the partnership between the NGOs and the local governments has remained. This would hamper the management of fishery resources and local development in Carigara Bay.

It has been observed that the municipal government lacks enough revenues to finance its various programs and services. It depends largely on the Internal Revenue Allotment which represent 79.13% of its total income of ₱13,922,964 in 1994.

In terms of technical capability, it has been emphasized that the formulation of the new Ordinance on Fishery suffered delay due to inadequate expertise of the members of the Sangguniang Bayan and other municipal officials on fishery rules and regulations. The municipal government also does not have adequate resources and expertise to undertake community organizing and mobilization of Fishermen's Associations in the ten coastal barangays.

## **Weak Linkage Between Municipal Government and LABRADOR**

The Local Government Code recognizes the crucial role of NGOs in local administration. They are authorized to sit as members of Local Special Bodies such as the Local Development Council. In the case of Carigara, there is minimal linkage between municipal administration and LABRADOR. It has not been accredited by the Sangguniang Bayan. A major reason was the political conflict between the Executive Director of LABRADOR and the Mayor during the local elections in 1992. The Executive Director ran for Vice Mayor under the political party which opposed the Mayor. The Mayor perceived LABRADOR as a political threat particularly its community organizing activities which could boost its political stature. The conflict also increased when the Mayor proposed that it should be allowed to manage the FSP-CRM component. This was rejected by the PMO because the FSP loan agreement stated that the FSP-CRM component must be implemented by NGOs. The OIC of LABRADOR has planned to follow-up its accreditation after the May 8 elections.

## **Inadequate Implementation of FSP-CRM**

LABRADOR had organized ten fishermen associations in the coastal barangays and assisted them in the planning and implementation of CRM components. However, there are several deficiencies concerning the actual implementation of the FSP-CRM in Carigara Bay.

First, the fishermen associations had not received loans for their proposed income generating projects from the Land Bank due to the absence of the required capital build-up, poor credibility of LABRADOR, and dole out orientation of the members. Most of the FA's were not able to comply with the minimum capital build up of ₱500 per member. In terms of the credibility of LABRADOR, a field officer of Land Bank (LB) noted that LABRADOR and the FA's failed to provide the necessary equity to a commercial fishing boat project in the municipality of Tanauan, Leyte. LABRADOR assured the Land Bank that the required equity would be available. Relying on this promise, LB released the loan to the FAs as beneficiaries. But LABRADOR failed to provide the equity. This resulted in the foreclosure of said project even before it launched its operations.

Some sectors also observed that some members of the FAs in Carigara emphasized on the financial benefits of the loan instead of the opportunity to participate in strengthening management of coastal resources. These members no longer attend the meetings called by the heads of the FAs and had been considered inactive by their heads.

## **Issues and Problems Affecting Fishery Management**

Several issues have hampered the management of FSP-CRM in Carigara Bay.

These include the following:

- 1) Inadequate law enforcement
- 2) Weak linkage between the municipal government and LABRADOR
- 3) Inadequate Implementation of FSP-CRM

### **Inadequate Law Enforcement**

One of the main issues that hamper the management of Carigara's fishery resources deal with inadequate law enforcement. The Bantay Dagat Team has not been active for several months because the patrol boat is not functional. The wooden body is already old and needs to be replaced. It also lacks the financial resources required to carry out its operations against illegal fishing. The municipal government only allocates ₱5,000 annually from the twenty percent development fund. According to the Head of the Team who also serves as head of the SB Committee on Agriculture and Fishery, he sometimes spent his own money to provide food and other needs. He also requested the Treasurer to increase the appropriation for their operations and grant incentives. It also depends on the Department of Agriculture Regional Office for fuel subsidy of 100 liters a month.

The second factor which contributes to weak law enforcement is the absence of uniform and consistent policy and ordinance on destructive fishing in Carigara Bay. The municipality of Carigara and other municipalities have prohibited baby trawls, and superlight in their municipal waters. However, the municipality of Capoocan which has jurisdiction over a larger portion of the Bay has tolerated the use of baby trawls, "hulbot-hulbot" and superlight.

The third factor is concerned with the delay in the enactment of a new fishery ordinance to replace the 1991 Basic Fishery Ordinance whose provisions are considered obsolete. For example it defines the jurisdiction of municipal waters up to three (3) nautical miles only from the shore. It took the Sangguniang Bayan three years to draft and pass on third reading the 1995 Fishery Ordinance due to lack of technical expertise on fishery rules and regulations in the Sangguniang Bayan and weak resolve to prevent illegal fishing in Carigara Bay.

Some sectors also observed that the Mayor sometimes show leniency in imposing the fines/penalties to some of the violators. This has undermined the efforts of the Bantay Dagat operations team to apprehend those engaged in illegal fishing.

In 1993, the Ad Hoc Committee on Carigara Bay Management was formed to initiate activities concerning management of the bay. Headed by the SB Chairman of the Committee on Agriculture and Fisheries of the municipality of Leyte, it had the following members: 1) Mayors of the concerned municipalities; 2) Representatives of the two NGOs-LABRADOR and MPYA and 3) Department of Agriculture Regional Office Representative.

The Ad Hoc Committee conducted a series of visitation conferences in August 1993 covering the municipalities of Barugo, Babatngon, Leyte, San Miguel, and Carigara. Aside from the Mayors and other local officials of the concerned municipalities, the other participants were representatives of LABRADOR and MPYA, Fish wardens, Provincial Fisheries Monitoring Unit as secretariat, and other officials. They discussed the objectives and functions of the CBMC, existing cases of illegal fishing, roles of the NGOs, financial constraints and other relevant topics. In their first conference in Leyte, the Chairman stated that "the FSP-CRM would be useless if only a portion of the area of the Bay will be covered because encroachers will continue to fish in other portions."

The Ad Hoc Committee formulated a workplan for 1994 which included the following program components and sources of funds.

Components	Amount	Sources
1. CZM/CRM	₱4,750,000	FSP; FSP/DENR
2. Law Enforcement	1,555,000	FSP-DA
3. Infrastructure	65,000,000	PFDA
4. Credit	36,000,000	ACPC-LBP
5. Administrative Support	316,000	FSP-DA

This was submitted to the Provincial Fishery Monitoring Unit but it was not acted upon because of limited funds. Since 1993 the Ad Hoc Committee has not yet met largely due to difficulty in organizing and scheduling the meetings. The members had observed that the Mayors were not able to attend all the meetings at the same time due to their numerous activities. Some of the Mayors are not committed to FSP-CRM concepts, objectives and strategies.

LABRADOR also established coordinating linkages with the MPYA which is responsible for community organizing and undertaking CRM activities in the municipality of Capoocan. Both NGOs through their heads and staff attended the meetings of the Carigara Bay Management Council. The officials shared their technical expertise and experiences by informing the local officials and national government officials on their activities, problems and related topics. In 1993, the officials of the two NGOs attended three meetings of the Ad Hoc Committee held in the municipalities of Leyte, Capoocan and Carigara.

MPYA also shared some of their documents and reports on Artificial Reefs to LABRADOR. However, the two NGOs have different structures and officials. LABRADOR is supervised by its main office in Tacloban. On the other hand MPYAs main office is in Capoocan.

### **Carigara Bay Management Council**

The Carigara Bay Management Council consists of six municipalities surrounding the bay, namely: 1) Barugo; 2) Leyte; 3) Babatngon; 4) San Miguel; 5) Capoocan; and 6) Carigara. As envisioned by the FSP-CRM, it would act as an advisory and coordinating body to ensure a uniform, rational and coherent management of the bay. Among its major functions are the following:

- 1) Formulate, approve, monitor and evaluate an annual Bay Management Plan;
- 2) Mediate issues/conflicts arising from plan implementation;
- 3) Advocate for a rational management of coastal marine resources on a sustainable mode based on scientific and economic findings;
- 4) Recommend policy decisions or corrective measures for legislation in an appropriate body;
- 5) Identify and assess diverse needs and resources of the sectors in consultation with GO and NGO about collective efforts in Coastal Resource Management CRM);
- 6) Participation in policy assessment and formulation of a bay-wide CRM plan to meet identified needs of the sectors;
- 7) Conduct regular consultation with various interest groups such as Fishermen's Associations, Youth Associations and other sectors to identify opportunities and problems affecting management of the bay.

- e) Presentation of program concepts in community assemblies
- f) Identification of critical leaders and formation of fishermen associations on the basis of the resource management needs of the community.

LABRADOR also facilitated the formation of core groups and coastal resource management committees responsible for directing the management of marine resources in the barangay, enforce policies and implement action programs. These CRM groups involved the communities in formulating and implementing CRM plans.

Information drives, community assemblies and group orientations on the program and on specific topics were conducted to increase the levels of awareness and understanding of the communities, the general public, the students and teachers in schools. Education materials such as monographs and audio visuals were made available. Radio spots on CRM were also aired.

Public education continued through Phase II in 1994 until sufficient awareness is reached to institutionalize CRM values.

In the case of Income Generating Projects (IGP), these were initiated by the fishermen's groups. These ICPs serve as learning experiences for the FAs preparing them to become more capable in managing bigger livelihood projects. The experience in Carigara started as simple capital build up (CBU), evolving into a simple credit system, then graduating into a micro/cottage enterprise. Support services were provided such as small business management training and consultancy services. While the FAs keep building their management skills through their learning projects, they also continually build up their capital.

The FSP credit facility with Land Bank has been available since 1990 but so far no loans have been granted yet to FSP beneficiaries. The reasons include either because the funds required for the FAs projects are available from their internal CBU, or that the interested beneficiaries lack sufficient capability yet and that their identified projects do not fall within the Banks allowable enterprises.

In terms of CRM component, the fishing communities working with the MAO and assisted by LABRADOR designed and implemented community based projects/activities to control illegal fishing, conserve, rehabilitate and manage fishery resources.

"Some 46 tire modules for Artificial Reefs had been constructed and deployed in the municipal waters of Carigara and Capocan. The FAs were involved in construction of the ARs with the technical support of DA and LABRADOR. These ARs were established in the barangays of Nauguisan (15 modules) in 1993 and Guindapunan East (24 modules) in 1992 and 1993.

LABRADOR has the following main functions:

- a) Mobilize coastal communities to participate in coastal resource management;
- b) Organize and register municipal fishing communities into fishermen associations/cooperatives that shall advocate and undertake coastal resources management roles, specifically advocating for the enforcement of fishery laws and the enactment of appropriate fishery ordinances, undertaking and managing habitat regeneration projects and alternative livelihood enterprises;
- c) Encourage the formation of fishermen cooperatives from organized fishermen associations;
- d) Train and assist the fishermen cooperatives and other fishing community members in undertaking their role in CRM;
- e) Promote the use of the alternative sources of livelihood identified in the Socioeconomic and Investment Opportunity Studies (SEIOS) and assist the fishermen cooperatives and other groups in the area in establishing these enterprises.

LABRADOR prepared implementation plans for the community organizing component of the FSP-CRM in Carigara Bay. It provided inputs in community organizing, marine ecology education and resource management training. The following activities were implemented during Phase I in 1993:

- 1) Initial Staff Competency Building concerned with intensive community organizing and coastal resource management training for all personnel of LABRADOR;
- 2) Community Organizing concerned with the formation of community-based organizations building up their management and interactive capability. This includes the following key processes/activities:
  - a) community integration by the community worker
  - b) participatory action research
  - c) assessment of the community level of understanding of the basic marine ecosystems and adaptation of resource management strategies
  - d) presentation of programs to barangay and municipal officials and establishment of formal linkage with these groups



These functions will be discussed more extensively in the next section covering the linkages between LABRADOR and the Fishermen Associations.

The Office of the Municipal Agricultural Officer (MAO) is primarily responsible for monitoring the activities of LABRADOR. One of the FSP-Agricultural Technologists of the Provincial Fishery Management Unit (PFMU) was detailed to the Office of the MAO to monitor activities of LABRADOR in organizing the Fisherman's Associations. Specifically the Municipal Agriculturist is responsible for assessing whether LABRADOR is complying with the terms of the contract approved by the Program Management Office of the Department of Agriculture. The FSP-Agricultural Technologist prepares monthly reports for consolidation by the PFMU of the Office of the Provincial Agriculturist in Tacloban. These reports identify constraints and problems including cases of illegal fishing, lack of new Fishery Ordinance, community organizing and related activities.

The Municipal Agricultural Officer and the FSP-Agricultural Technologist also extended technical assistance to LABRADOR by serving as resource speakers in its seminars and informal dialogues with the members of the Fisherman's Associations concerning illegal fishing practices, and establishment of Artificial Reefs. The PFMUs printed materials, posters and pamphlets were distributed by the FSP-Agricultural Technologist in these seminars and dialogues.

They also attended the meetings conducted by the Ad Hoc Committee of the Carigara Bay Management Council established to coordinate the activities of the municipal government, NGOs, Department of Agriculture and other national agencies involved in FSP-CRM. The other municipal officials of Carigara who attended the CBMC meetings were the Mayor, Municipal Planning and Development Coordinator and the members of the Sangguniang Bayan.

In terms of fishery sectoral planning, LABRADOR consolidated a Coastal Resource Management Profile in 1993. This includes an analysis of the coastal resources and support habitat, population and community problems in the ten coastal barangays. It was presented to the Barangay Coastal Resource Management Councils, the Municipal Planning and Development Coordinator and Social Welfare and Development Officer for review and validation.

### **Community Based Management System in Carigara**

This section focuses on the community based management system particularly the crucial roles of LABRADOR, Fishermen Associations and the MPYA, the only NGO responsible for organizing Fishermen Associations in the municipality of Capocan. The significant activities carried out by LABRADOR in community organizing, development of income generating projects and other CRM components will be discussed.

## **Bantay Dagat Operations**

The municipal government has adopted the Bantay Dagat program to enforce the fishery laws and regulations against illegal fishing. This law enforcement team is composed of four members, namely:

- 1) Chair of SB Committee on Agriculture and Fishery as head
- 2) President of Fishwarden Federation
- 3) PNP Officer
- 4) Driver/Operator

The Fishwardens have been deputized by the Department of Agriculture after participating in a three day seminar on Fishery laws, rules and regulations. They are responsible for joining the patrol operations and monitoring illegal fishing.

The municipal government acquired an old motorized patrol boat through the initiative of the Municipal Agriculture and Food Council in 1992. After two years of Bantay Dagat surveillance and patrol operation, the wooden body had deteriorated.

The municipal government allocates ₱5,000 annually from the twenty percent development fund for the Bantay Dagat operations. This represents about 3.34 percent of ₱141,164 for Maintenance and Operating expenses of development projects taken from the twenty percent Development Fund in 1994. Due to this meager financial support, the head of the team complained that sometimes he spent his own money to buy food and other provisions needed. The team also depends on the Department of Agriculture Regional Office for fuel ration of 100 liters of gasoline a month.

The Team apprehended 29 violators in 1993. Among the major violations were: use of illegal fishing gears such as Danish seine or hulbot-hulbot", fine meshed net and baby trawl.

## **Linkages Between the Municipal Government and LABRADOR-CABDEC**

Carigara has several NGOs/civic organizations such as LABRADOR, Leyte Peace Formation Center, and the Knights of Columbus. However, LABRADOR-CABDEC is the only NGO involved in the management of fisheries in Carigara. In 1992 LABRADOR was contracted by the Program Management Office (PMO) of the Department of Agriculture under the FSP-CRM program. LABRADOR was responsible for organizing Fishermens Associations in the ten coastal barangays of Carigara from 1993 to 1994. The main functions of LABRADOR included the following: 1) critical awareness building; 2) formal organizing; 3) operationalization; and 4) institutionalization.

- . Monthly reporting of fish caught within the first ten days of each month to the Municipal Treasurer
- . Prohibition on all forms of trawl and superlight fishing
- . For violation of the provisions, the following fines will be applied:
  - ₱1,000 for first offense or imprisonment of one week to one month
  - ₱1,500 for second offense or imprisonment of 1-2 months
  - ₱2,500 for third offense or imprisonment of 2-6 months

The Sangguniang Bayan (SB) prepared and deliberated on the two earlier drafts of this ordinance in 1992 and 1993 respectively. The Chair of the SB Committee on Fisheries and Agriculture requested the Municipal Treasurer, FSP-Agricultural Technologist and the Municipal Agricultural Officer to prepare the draft of the fishery ordinance. However, the SB failed to pass it in 1993. Due to the delay, the present municipal administration is one of the two municipalities within Carigara Bay which has not yet enacted its fishing ordinance in line with the Local Government Code. According to the Vice-mayor, the SB deferred on its passage to enable the Carigara Bay Management Council to pass a uniform ordinance for all the member municipalities. He cited the case of Capoocan an adjacent municipality which allows baby trawl (for 6 months) and superlight fishing in its municipal waters.

The municipal government lacks a comprehensive development plan which is required under the new Local Government Code. The existing projects of the municipal government had been identified and decided by the Mayor, the Budget Officer, Municipal Planning and Development Coordinator and some members of the Sangguniang Bayan. There was no consultation or coordination with LABRADOR and other NGOs concerning the needs and problems of the community. LABRADOR was not yet accredited by the Sangguniang Bayan due to political reasons. Ideally, the priority programs of the municipal government in infrastructure, agriculture, health, education, social welfare and other development programs should be based on the municipal comprehensive development plan. However, the absence of a comprehensive development plan adversely affects the formulation of responsive programs at the barangay level. For example, the preparation of a Coastal Resource Management Profile only focused on the relevant social and economic problems and resources of the ten coastal barangays.

Recently, the Sangguniang Bayan has passed on third reading "Ordinance No. 3 series of 1995" An Ordinance Regulating Fishing and/or Fisheries in the Municipality of Carigara". This ordinance reiterates the provisions under Sec. 149 of the Local Government Code which states that the "The Sangguniang Bayan may:

- 1) grant fishery privileges to erect fish corals, oysters, mussels or other aquatic beds or bangus fry areas within a definite zone of the municipal waters;
- 2) grant fishery privilege to gather, take or catch bangus fry, prawn fry or fry of other species and fish;
- 3) issue license for the operation of fishing vessels of 3 tons or less.... provided, however that the sanggunian concerned shall, by appropriate ordinance, penalize the use of explosives, noxious or poisonous substances, electricity, muro-ami and other deleterious methods of fishing and prescribe a criminal penalty thereof...."

The key provisions of this proposed ordinance are as follows:

- . Operating fish corrals, fish pens, oysters, mussels and other aquatic bed or the catching of bangus fry or fry of other species for propagation shall be considered as exclusive fishery privileges. However, duly registered organizations and cooperatives of marginal fishermen shall have the preferential right to such fishery privileges.
- . Extending the municipal waters of Carigara from 3 nautical miles to 15 kms. from the coastline.
- . Division and classification of municipal waters into five zones, including the designation of Zone 3A (From Jugaban Creek to San Mateo Creek) Government Bangus Fry Reservation with minimum annual rental of ₱100.
- . Granting of License permit for the privilege of taking or catching fish in the municipal waters with nets, traps or other fishing gears with or without using fishing boats or vessels three gross tons or less.
  - For fishermen using net, the annual fees amount to ₱50.00
  - For fisherman using hook and line (₱30 to ₱50.00)
  - For fisherman using traps (₱20 to ₱50.00)
  - For fisherman using boats (₱50 to ₱00.00)

- 8) to develop guidelines for the dumping of all waste products which ultimately enter the bay;
- 9) to encourage the municipal government, coastal barangays and the provincial government to actively participate in the planning and management of the area;
- 10) to provide alternative sources of income for the local authorities through the development of aquaculture, agriculture, appropriate uses of marine and coastal forest products, cottage industry, tourism and others; and
- 11) to educate the local population and government officials on coastal resources management and how to participate in the resource management and livelihood development process.

#### **Extent of Implementation of the Local Government Code**

Before the enactment of the Local Government Code, the municipality of Carigara passed Ordinance No. 1 " An Ordinance Regulating Fishing and/or Fisheries in the Municipality of Carigara" on May 20, 1991. Some of its provisions are already obsolete since the Local Government Code has devolved functions and authority to the municipalities concerning fishery in municipal waters. One of the obsolete provisions refers to the jurisdiction of municipal water under Section 2 covering only 3 nautical miles from the shore. The provisions on licenses, permits and privileges for fishing are also obsolete. Some of the provisions are inadequate such as the following:

- a) shallow water fish corals have very low license fees;
- b) the fees on various gears do not reflect the ability to pay, effectiveness of the gears or the capital outlay of the gears;
- c) the scheme of general classification whether in the case of boats, gears or fishermen who should be licensed;
- d) lack of guidelines for implementing Fisheries Administrative Order (FAO) 155 on fine meshed nets.

It has been observed that very few of the fishermen especially the more marginalized ones have license. And reporting of fishery catch every month has not been adopted. The relationship between this ordinance and national fishery laws is unclear especially concerning commercial fishing.

## Discussion of Findings and Observation

There are several findings concerned with the extent of implementation of the Local Government Code, enforcement of laws on illegal fishing, linkages between the municipal government and LABRADOR and the linkage between LABRADOR and the Fishermen Associations established in the coastal barangays of Carigara.

As noted earlier, Carigara Bay used to have abundant marine resources and fisheries. Today it is one of the most depleted bays in the country due to overfishing and all sorts of illegal fishing practices. The national government through the Department of Agriculture as the lead agency has been administering the Fishery Sector Program -- Coastal Resource Management since 1990. The program covers the five coastal municipalities within the bay.

The FSP-CRM has been designed to cope with the problems of coastal resources depletion, widespread environmental damage and increasing poverty among fishing communities through maintenance of environmental integrity of the coastal and fishery related systems of the bay. It has the following specific objectives:

- 1) to establish guidelines for fisheries management that will stop overfishing and obtain maximum sustainable yields from the bay by regulating gear use and location;
- 2) to develop a bay-wide management system which will stop all illegal and destructive fishing activities in the bay;
- 3) to develop a bay wide zoning plan which will protect critical habitat areas and minimize the incidence of fishing activity according to sustainable limits;
- 4) to establish a consistent and practical artificial reef program which will enhance the fishery habitat and increase fish reproduction in the bay;
- 5) to recommend pilot testing of various community based schemes designed to stabilize the fishing effort within the limits of resource use through clear and correct boundaries and municipal marine parks;
- 6) to encourage water quality control in the shoreline villages dumping organic and solid wastes into the bay or rivers entering the bay;
- 7) to establish a land use zoning scheme which satisfies the needs of the different users, maintain certain critical areas of coastal mangrove forest for the benefit of nearshore fisheries;

Although there are telegraph, radio and postal facilities, the municipality lacks banking facilities which are based in Tacloban City, the provincial capital.

### **Health and Education**

There are two school districts responsible for public elementary and secondary education. The two public high schools are the Ponong Municipal High School and the Carigara School of Fisheries vocational high school. The private colleges and universities are mostly based in Tacloban City.

Health facilities include Rural Health Units and Carigara District Hospital with 25 beds. The District Hospital has five doctors, 8 nurses, one dentist, two medical technologists and other medical staff.

### **Municipal Structure and Income**

There are 12 municipal departments offices headed by Mayor Ulpiano Arpon, Jr. These offices are: 1) Mayor's Office; 2) Administrator; 3) Budget Officer; 4) Treasurer; 5) Planning and Development Coordinator; 6) Assessor; 7) Vice Mayor; 8) Social Welfare and Development Officer; 9) Health Officer; 10) Civil Registrar and 11) Agricultural Officer; and 12) Engineer.

The Mayor also designated the Accountant II of the Treasurer's Office as Municipal Accountant.

In terms of income, the municipal government had a total income of ₱13,922,964 in 1994. The main sources of income are the business taxes which amounted to ₱566,392 or 4.07%, Real Property taxes with ₱298,680 or 2.14% and Internal Revenue Allotment with ₱11,017,515 or 79.13%.

**Table I. Population of Coastal Barangays in Carigara**

Barangay	Number
1. Nauguisan	816
2. Tangnan	543
3. Visoria West	604
4. Visoria East	1,449
5. Baybay	2,852
6. Monbon	728
7. San Mateo	966
8. Guindapunan West	1,051
9. Guindapunan East	1,085
10. Barugohay Norte	1,075
	-----
	11,109

Source: CRM Profile of Carigara, 1993

There are 457 fishermen in these ten coastal barangays.

### **Economy and Infrastructure**

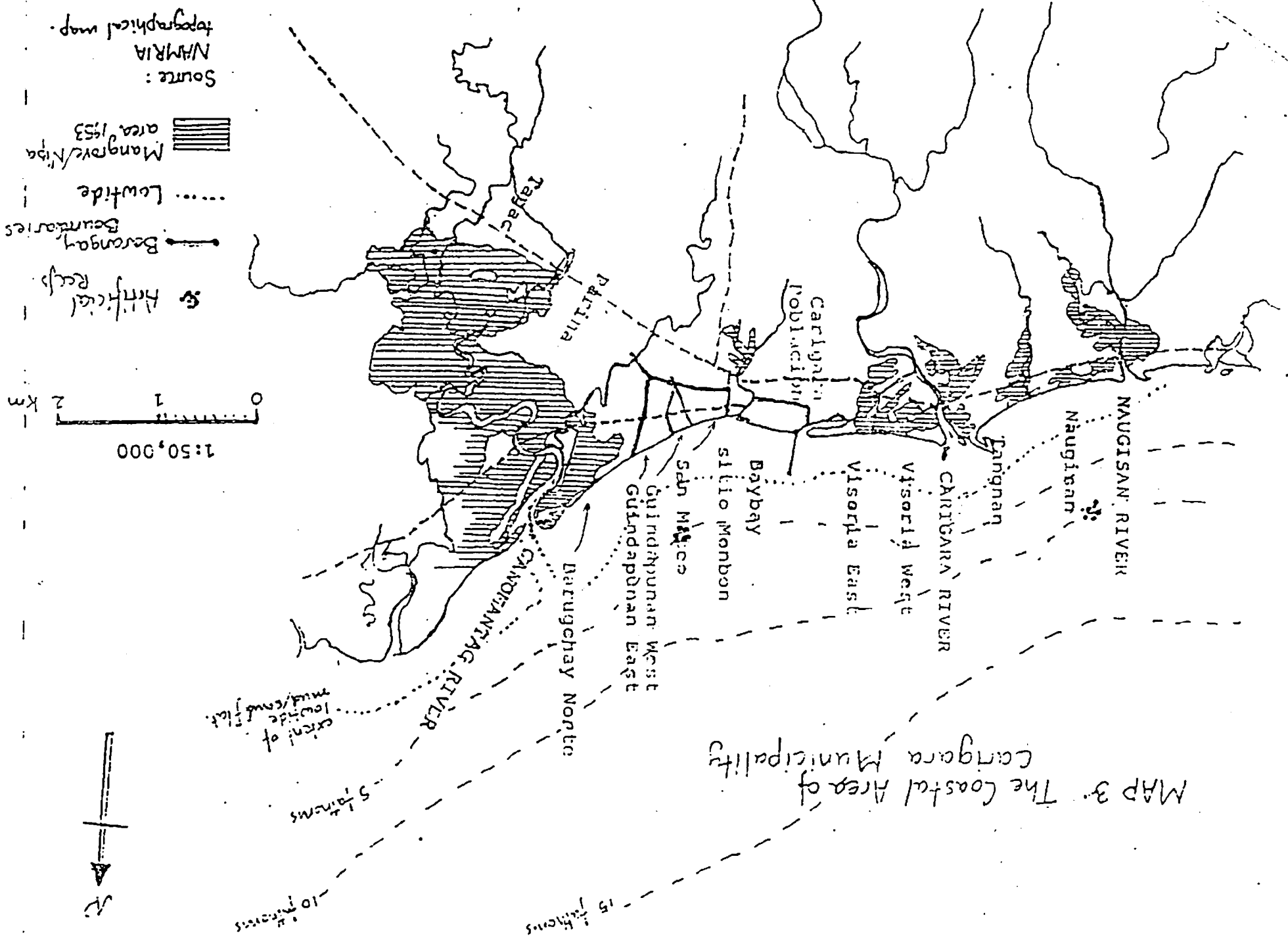
The municipality depends mainly on agricultural production particularly rice, coconut, root crops, sugar cane and bananas. The forest consists of 85 hectares. Among the major timber species in the forest are red and white lauan, molave, apitong and other resources such as rattan, nipa and bamboo. There are 80.5 hectares devoted to aquaculture production. Milkfish and prawns are cultured on fishponds developed from mangroves.

The public market is located in the poblacion near the wharf where various commercial boats, fishing boats, trawls and other boats dock thrice a week during peak season. During market days many products such as vegetables, dry goods, dried fish, furniture and other goods are sold in the market. There are also 140 fish stalls, 28 meat stalls and numerous stores that serve the Carigaranos.

The Leyte Electric Cooperative III provides electricity to the municipality. The source of this power is the Tongonan Geothermal Plant. The Carigara Metropolitan Waterworks System supplies water to the municipalities of Barugo, Tunga, Capocan and Carigara.



MAP 3. The Coastal Area of  
Cangara Municipality



extent of  
low tide  
mud/sand flats

15 fathoms

10 fathoms

5 fathoms



1:50,000



5 Artificial  
Reefs

Boundaries

Low tide

Mangrove/Nipa  
area 1953

Source:  
NAMRIA

topographical map.

## Coastal Resources

The municipal waters of Carigara stretches for 12.5 kilometers into the bay towards Biliran Strait. It has six kilometers of sandy and muddy shoreline. Carigara Bay is connected to the Visayan Sea through Biliran Strait and to the Pacific through San Juanico Strait. It is one of the three priority bays in Region 8 covered by the FSP-CRM being administered by the Department of Agriculture. It was formerly a rich fishing ground, providing livelihood to about 2,300 fishermen residing along the coastal communities of the five municipalities surrounding the bay. During the 1980s catch per unit effort for most of the common fishing gears used in the bay declined. Increasing portions of the catch of particular species were juvenile forms indicating that the bay has been overfished.

Important fisheries such as tuna, spanish mackerel, slipmouth, herring and sardines exist. Demersal fishing is also substantial in the nearshore area. Catches of these fishes vary with the particular gear and efforts have tended toward the more efficient methods which has exacerbated overfishing. The modified Danish seine or "hulbot-hulbot" has been used frequently despite its destructive effects. The bay has sizeable mud flat areas associated with mangroves and estuaries but the mangrove forest has been removed through cutting of commercially valuable species. A large portion of the mangroves has been depleted due to its conversion to fishponds particularly in the barangays of Barugohay Norte, Visoria West and Monbon. The loss of mangroves has contributed to shoreline erosion and decline of fisheries.

Siltation carried by the two rivers due to upland erosion is severe especially on the few offshore reefs and seagrass beds. It will likely damage the artificial reefs and contribute to the occurrence of red tide in the bay.

Bacterial pollution exists in the seawater and in front of the market near the wharf. This is caused by the drains flowing into the shore near the market and improper waste disposal of the residents along the shore. This is a serious problem in the barangays of Baybay, Monbon and Guindapunan.

## Population

Carigara had a total population of 38,851 in 1990. The ten coastal barangays had a combined population of 11,109 in 1993. Table 1 shows the distribution of population in the ten coastal barangays. Baybay and Visoria East have the largest number of residents, while Tangnan has the smallest population.

## **Introduction**

This case study seeks to document the existing fisheries management system in the municipality of Carigara, Leyte.

To examine the existing fisheries management system particularly the Fishery Sector Program -- Coastal Resource Management (FSP-CRM) in Carigara Bay, the research team interviewed the following key officials of the municipal government and Leyte Samar Rural Development Worker Association - Carigara Bay Development Center (LABRADOR-CABDEC) the NGO responsible for organizing the Fishermen Associations in Carigara:

1) Mayor; 2) Vice-Mayor; 3) Municipal Planning and Development Coordinator; 4) Treasurer; 5) Chair of Sangguniang Bayan; 6) Agricultural Technologist; 7) Executive Director of LABRADOR; 8) Enterprise Development Officer and 9) Project Development Specialist of LABRADOR and 10) Presidents of San Mateo Small Fishermen Association and Fishwardens Association.

The following documents and reports were also analyzed:

1) Municipal Profile; 2) Accomplishment Report of the Municipal Agricultural Officer; 3) 1991 Basic Fishery Ordinance of Carigara; 4) Proposed Draft of 1995 Basic Fishery Ordinance; 5) Report of Revenues and Receipts; 6) Status of Appropriation, Allotment and Obligation; 7) Coastal Resource Management Profile of Carigara; 8) Minutes of Carigara Bay Management Council Meetings; 9) Memorandum Circular of Lending Guidelines of Land Bank of the Philippines; and 10) Department of Agriculture FSP-CRM Reports.

## **Background of the Study Site**

### **Municipal Profile**

Carigara lies on the northern part of Leyte facing north into Carigara Bay. It is bounded by the municipalities of Kananga, Capoocan, Jaro and Tunga. Two main rivers, Naugisan and Canomantag serve as borders in the western and eastern sections. The exact location of Carigara is shown in the municipal map including the borders of the Carigara Bay. It is composed of 49 barangays including ten coastal communities.

**THE MANAGEMENT OF FISHERIES AND  
AQUATIC RESOURCES AT THE LOCAL LEVEL:  
THE CASE OF CARIGARA, LEYTE**

**Rolando L. Martir\***

**Abstract**

This study examined the existing fisheries management system in Carigara, Leyte. Carigara Bay used to have abundant marine resources and fisheries. The Department of Agriculture has been administering the Fishery Sector Program-Coastal Resource Management (FSP-CRM) in the five coastal municipalities within the bay. The FSP-CRM has been designed to reduce the problems of coastal resources depletion, widespread environmental damage and increasing poverty among the fishing communities through maintenance of environmental integrity of the coastal and fishery related systems of the bay.

There are significant findings and problems affecting the management of fisheries. Among these findings and issues are the following:

- 1) Absence of a fishery ordinance due to the failure of the Sangguniang Bayan to enact an ordinance in line with the Local Government Code;
- 2) Inadequate enforcement of policies on illegal fishing;
- 3) Weak linkage between LABRADOR and the municipal government. Although LABRADOR provided inputs in community organizing and community assemblies and group orientations on coastal resource management, the municipal government has not given accreditation and adequate support to LABRADOR's programs.

Several policies and measures are needed to enhance the role of the municipal government particularly its linkage with LABRADOR and support of the FSP-CRM in the bay.

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\*University Researcher, Local Government Center, College of Public Administration, University of the Philippines.

### Abbreviations/Acronyms

MT	Metric Ton
PFDA	Philippine Fishery Development Authority
DENR	Department of Environment and Natural Resources
LGU	Local government unit
MENRO	Municipal Environment and Natural Resource Officer
MAO	Municipal Agriculturist Officer
BU-RIFT	Bicol University-Regional Institute of Fisheries Technology
NGO	Non-governmental organization
DA	Department of Agriculture
PRRM	Philippine Rural Reconstruction Movement
CRM	Coastal Resource Management
FSP	Fishery Support Program

MUNICIPALITY : TABACO  
 PROVINCE : ALBAY  
 REGION : V

1995  
 Year (s)

PROGRAM/PROJECTS/ACTIVITIES	PERFORMANCE		AGENCIES INVOLVED	FUNDING REQUIREMENT			SOURCE OF FUNDS
	INDICATORS	TARGET		PS	MOE	CO	
10. Acquisition of Radio Communications Facilities for Fishery Law Enforcement.	-Base radio purchased	(No.) 2	DA			100,000.00	DA-1'SP
	-Hand-held radio purchased	(No.) 15					
11. Patrol Over Tabaco Waters for Fishery Law Enforcement (Gasoline, Honoraria and Insurance for Deputized Law Enforcers).	-Frequency of patrol	(No.) 144	Tabaco PNP		P240,000.00		DA-FSP
	-Distance travelled per boat	(Km.) 4,320					
12. Networking and Data Banking.			PAS/Tabaco LGU				DA-FSP
13. Training of Tabaco Fishermen for Deep-sea Fishing and Provision of Support Funds/Grants for Acquisition of Fishing Boats and paraphernalia.	-Trainings conducted	(No.) 3	DA		100,000.00		DA-FSP
	-Deep-sea fishing teams trained and formed	(No.) 10	DA				
	-Boats and paraphornalia purchased	(No.) 10	DA		5,000,000.00		Granting Institutions
14. Quarantine Service Program (Hiring of one Fishery Technologist).	-Fishes examined	(No.) 1007	Tabaco LGU	P54,000.00	16,800.00		Tabaco LGU
15. Fishermen's Projects Visitation Program.	-Visitations conducted	(No.) 1	Tabaco LGU		70,000.00		
	-Fishermen travelled	(No.) 30					
T O T A L				P138,000.00	P5,825,700.00	P400,000.00	
GRAND TOTAL					P6,333,700.00		

**Table 1. Program/Projects/Activities under the  
Municipal Fisheries Management and  
Development Plan**

MUNICIPALITY : TABACO  
PROVINCE : ALBAY  
REGION : V

1995  
Year (a)

PROGRAM/PROJECTS/ACTIVITIES	PERFORMANCE INDICATORS	TARGET	AGENCIES INVOLVED	FUNDING REQUIREMENT			SOURCE OF FUNDS
				PS	MOE	CO	
1. Technical Assistance to Bracish Water Fishpond Operators.	-Technical assistance -Fishpond Operators assisted	(No.) 2 (No.) 2	PAS		P2,700.00		PAS
2. Skypond Fingerlings Production (Hiring of one Fishery Technologist)	-Fingerlings produced	(No.) 5000	Tabaco LGU	P54,000	P107,200.00		DA-FSP
3. Skypond Demo for Grow-out using Tilapia.	-Demo established	(No.) 2	PAS/Tabaco LGU		100,000.00		DA-FSP
4. Freshwater Fish Dispersal Program.	-Fingerlings Dispersed	(No.) 5,000	PAS/Tabaco LGU		20,000.00		Tabaco LGU
5. Bangus Cage Culture Trial in Natunauan Cove.	-Cage established -Area of Cage established	(No.) 1 (Sq. M.) 200	PAS/Tabaco LGU		50,000.00		DA-FSP
6. Seganis Cage Culture Trial in Natunauan Cove.	-Cage established -Area of cage established	(No.) 1 (Sq. M.) 200	PAS/Tabaco LGU		50,000.00		DA-FSP
7. Oyster Culture Trial in Cage in Natunauan Cove.	-Cage established -Area of cage established	(No.) 1 (Sq. M.) 200	PAS/Tabaco LGU		50,000.00		DA-FSP
8. Educational Campaign on Coastal Resources Mgmt.	-Information dissemination conducted	(No.) 12	PAS/Tabaco LGU		20,000.00		PAS/Tab. LGU
9. Patrol Boat Acquisition for Fishery Law Enforcement.	-Boats purchased	(No.) 2	PAS/Tabaco LGU			P300,000.00	DA-FSP

2. Establishment of sky ponds and dispersal of fingerlings to these ponds and in rivers.
3. Conduct cage culture trials for bangus, seganid and oysters.
4. Disseminate coastal marine resources ecological information to educated the people and the fishermen particularly.
5. Provide 2 units patrol boats with two operators for each boat, and with base radio communications facilities and 15 hand-held radio for distribution to 14 coastal barangays for the use by the deputized law enforcers.
6. Train fishermen for deep-sea fishing and provide them the needed fishing boats and fishing gears and paraphernalia.
7. Allow fishermen to visit livelihood projects in other places for them to see and observe by themselves such other livelihood projects and for them to be encourage to adopt suitable and appropriate livelihood projects in the locality.
8. Establish a Fish Quarantine Service Office.

#### V. PROGRAMS AND PROJECTS/ACTIVITIES

The programs/projects/activities to be adopted for implementation upon funded are the following as shown in the Table 1 herewith attached.

#### VI. BUDGETARY REQUIREMENT

The budgetary requirement of specific program/projects or activities are shown in Table 1 herewith attached. The summary of the budgetary requirements is shown as follows:

1. Personal Services for 2 Fishery Technologists	P 108,000.00
2. Maintenance & Operating Expenses	5,825,700.00
3. Capital Outlay	400,000.00 -----
TOTAL - - - - -	P 6,333,700.00 =====



2. Marine Fishery Resources: The Tabaco Municipal waters are comprised of part of the Tabaco Bay, the off-shore shelves of the Lagonoy Gulf within 15 kms. from the shore lines of the island of San Miguel, and the inland waters in rivers and creeks of Tabaco. There are 901 fishing bancas and 901 small fishermen.

3. Fish and Fishery Product Utilization: There is one ice plant selling blocks of ice. There is one cold storage which also produces tube ice but not for sale. The ice plant is owned by a private person, while the cold storage is owned by the Philippine Government leased to a Japanese Business Enterprise - the Sadgewick. The ice plant is located in San Carlos, Tabaco, while the cold storage is located at the pier site in Cormidal, Tabaco.

There is a canning factory of Goyog (Seganid fry), and a freezing of fishes in preparation for export.

There is a fish port in Barangay Fatima. The Tabaco supermarket absorbs the fishes caught in the First District of Albay and even from other coastal areas of Albay.

Motorized bancas are being used in transporting to and from the island of San Miguel from and to the Mainland of Tabaco.

### III. GOALS AND OBJECTIVES

#### A. Goals

1. To enhance the recovery in the sustained population of fishes from an over-fished status.

2. To inculcate into the minds and hearts of the fishermen the sustainable utilization of marine resources for the benefit of not only the present generation but also of the future ones.

#### B. Specific Objectives

1. To increase productivity of aquaculture fishes.

2. To reduce and thereafter totally control illegal fishing.

3. To ensure illegally caught fishes and those affected with red tides and preservative chemicals.

### IV. STRATEGIES:

The following are the strategies to be adopted:

1. Dissemination of improved technologies to fishpond operators in increasing the productivity of fishponds.

## TABACO MUNICIPAL FISHERIES MANAGEMENT AND DEVELOPMENT PLAN

### I. INTRODUCTION/RATIONALE

Tabaco Municipal Waters are part of the Lagonoy Gulf which is subject to resting with regards to fish catching, except by hook and line method, for the reason that the area is over-fished. This Municipal Fisheries Management and Development Plan was prepared to complement the goals of the Lagonoy Gulf Management giving particular attention to the Tabaco fishermen, the development of inland fishery resources, increasing production of existing aquaculture projects and most paramount, the training of fisherman and the provision of the needed bancas and the corresponding fishing gears and paraphernalia for deep-sea fishing.

### II. FISHERY SITUATION

The municipal waters of Tabaco is within the latitudes  $13^{\circ}20'$  and  $13^{\circ}30'$ ; and longitudes  $123^{\circ}43'$  and  $123^{\circ}55'$ . Tabaco has 122 square kilometers land area. It has 47 barangays, of which 14 are coastal barangays. The coastal barangays have an area of 3,047.7 hectares or 30.47 square kilometers.

A. Demography. The present population of Tabaco is 92,775, of which 47,230 are males and 45,545 are females. The population of the 14 coastal barangays is 33,546 or 36 percent of the total population of Tabaco. There are 16,524 households in the municipality, of which 5,941 are in the coastal barangays.

#### B. Fishery Resources.

1. Aquaculture Resources: The area of brackish water fishponds in operation is 24.4 hectares with annual production of 1.0 ton per hectare. There are 4 fishpond operators in the municipality of Tabaco.

The inland fresh water fishpond is very limited due to the sandy soil condition and flood damage potentials in the river bed terraces areas.

The area in the Natunauan cove is a potential for oyster, Seganid and bangus cage cultures. bangus fries are being gathered along the Natunauan sand bar.

## Environment Management Plan CY 1995

Municipality of TABACO

Province: ALBAY

## Project Activities

## Schedule

	J	F	M	A	M	J	J	A	S	O	N	D	REMARKS
1. Solid Waste Management													
a) Identification of new Dumpsite					/	/							Private Property
b) Coordination with LGU/NGO	/	/	/	/	/	/	/	/	/	/	/	/	
c) Improvement of new Dumpsite						/	/						
d) Purchase of additional garbage truck						/							One existing truck
e) Planting of trees							/	/	/	/	/	/	
2. Reforestation of Watershed area.													
a) Coordination with LGU/NGA/NGOs			/					/	/	/	/	/	
b) Secure planting materials			/					/	/	/	/	/	
c) Monitor illegal loggers/slash and burn farmers	/	/	/	/	/	/	/	/	/	/	/	/	
d) Tree planting						/		/	/	/	/	/	
3. Revenue on Gravel and Sand													
a) Consultation with LGU/Barangay Officials	/	/	/	/	/	/	/	/	/	/	/	/	
b) Information Campaign			/	/				/	/				
c) Monitor quarrying activities	/	/	/	/	/	/	/	/	/	/	/	/	
4. Nursery establishment													
a) Coordination with DA/DENR						/	/						
b) Consultation with LGU						/	/						
c) Identification of site							/						

Submitted by:

HERMENEGILDO B. BROBIO  
MENRO-LGU

### Respondents

Interviewed for this case study were fifteen (15) respondents: five (5) were from five (5) coastal barangays, two from NGOs, six from the local government unit, and another from Bicol State University.

Represented in the sample are:

1. Rawis, San Miguel Island
2. Visita, San Miguel Island
3. San Lorenzo, Tabaco
4. Salvacion, Tabaco
5. Fatima, Tabaco
6. Kabalikat, Inc. (NGO Assistance Center)
7. Philippine Rural Reconstruction Movement (PRRM), Tabaco
8. Bicol University Regional Institute of Fishery Technology, BU-RIFT, and
9. Tabaco Municipal Government

The local government respondents were the:

- a) municipal administrator - Engr. Alex Binya;
- b) municipal planning and development officer - Engr. Valentin Confessor, Jr.;
- c) municipal agriculturist - Arsenio Requintina;
- d) municipal environment and natural resources officer - Herminigildo B. Brobio;
- e) sangguniang bayan secretary - Manuel J. Imperial;  
and
- f) the chairman of the committee on agriculture and fisheries of the sangguniang bayan - Hon. Lemuel V. Obed.

## **LIST OF ANNEXES**

- A. List of Respondents
- B. Environment Management Plan CY 1995
- C. Tabaco Municipal Fisheries Management and Development Plan

## **Recommendations**

### **Legislation**

The Sanggunian Bayan should rush the approval of the Fishery Code.

The approval of the proposed Fishery Code will provide the basis for the implementation of the LGC provisions on the fishery and aquatic resources in Tabaco. The local government unit must administer the declaration of open and closed fishing seasons, especially for the protection of migratory species, like the Siganid fry.

### **Funding Support**

Advocacy groups and issue-oriented NGOs should help in fund sourcing and propose joint venture schemes.

The minimal financial support for environmental programs emphasizes the need for advocacy groups and issue-oriented NGOs.

### **Personnel**

The municipal government should provide the needed fishery personnel if the fishery/aquatic resources management of the municipality is to succeed.

### **Initiative and Advocacy**

The local government unit should provide leadership and technical support until the NGO/PO groups mature into issue-oriented organizations.

The Municipal Environment and Natural Resources Office (MENRO), who must sponsor initiatives on resource protection, must work to address the logistic and technical requirements of the devolution process.

## **Conclusion**

Strengthening of the management of aquatic and fisheries in the municipality of Tabaco should start with the approval of the proposed Fishery Code. The funding and personnel requirements must also be satisfied before further activities to improve the lines of the municipal fishermen can effectively start.

Vigilance and advocacy of fisheries/aquatic management must be pursued by the Tabaco municipal government through joint ventures with POs and NGOs. The overall resource protection program should still be the responsibility of a national government office with NGOs, POs and LGUs working under joint agreements to achieve well-managed fishery and aquatic resources.

## **2. On Reduction of Fishery Pressure**

2.1 Most of the fishermen have no other livelihood skills;

2.2 Existing sources of capital for land-based alternative livelihood (e.g., FSP credit component and bank loans) impose an interest rate that is beyond the fishermen's capability to pay;

2.3 Non-availability of land for the landless fishermen who intend to engage in land-based economic activities;

2.4 Difficulties in running after the migrant fishermen who use destructive/deleterious fishing methods and who are reportedly protected and provided with high-powered guns by some influential persons; and

2.5 Migrant fishermen who have much more fishing capabilities (e.g., larger fishing vessels with more crews and more efficient fishing gears) have contributed largely to the depletion of fishery resources but could not be stopped from fishing within the municipal waters of Kolambugan pending the approval of pertinent municipal ordinances.

### **Summary and Implications**

The municipality of Kolambugan, Lanao del Norte is trying its best to effectively assume the devolved fishery functions. Apart from maximizing the use of the technical know-how of devolved DA personnel (i.e., the OMAS staff), it has also encouraged community participation in every aspect of CRM.

The involvement of fishermen cooperatives, coupled with the priority given to marginal fishermen in the granting of fishery privileges and various aquaculture projects, promotes equity in the management of coastal resources. However, there is still a need to institutionalize this management approach by enacting a new Basic Fishery Ordinance.

The technical assistance provided by OMAS to the municipal government and fishermen cooperatives has certainly contributed to the attainment of efficiency in fishery-related projects. However, there is an urgent need to provide technical assistance to mangrove reforestation projects in order to ensure better management of such projects.

Being a fifth class municipality, Kolambugan has very limited sources of local revenue. Hence, in view of the reduction of Kolambugan's IRA due to the so-called "updating" of its land area, the sustainability of its coastal resource management efforts is at stake. Much as it wishes to intensify

its CRM-related activities, the municipality could not do so without adequate resources for such activities. And this is the primary reason why the municipality hopes for the extension of FSP.

### Recommendations

To be able to ensure equity, efficiency and sustainability of CRM Projects, the municipal government of Kolambugan may:

1. Enact a new Basic Fishery Ordinance to conform with the pertinent provisions of R.A. 7160 such as the expanded definition of "municipal waters" (Section 131-r), fishery fees and preferential right of marginal fishermen to various fishery privileges (Section 149);

2. Continuously involve the POs/NGOs in every aspect of coastal resource management but ensure that they are provided with the necessary technical assistance;

3. Make a formal request from DENR to conduct and finance training programs as well as to provide other forms of technical assistance on mangrove reforestation even as such functions have not been devolved upon the municipal government;

4. Identify alternative sites for the Barge Landing Project to avoid destruction of mangroves while promoting economic development in the municipality;

5. Enact a local tax ordinance imposing entrance/terminal fees at Kolambugan's pier to serve as a source of funds for CRM Projects; and

6. Tap other sources of funds for CRM such as loans/grants from the Official Development Assistance (ODA), financial assistance from DILG and other national agencies.



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**Annex A**

**List of Respondents  
Kolambugan, Lanao del Norte**

<b>Name</b>	<b>Position/Designation</b>
<b>A. Municipal Officials/Staff</b>	
1. Ursecio R. Ridao	Municipal Mayor
2. Rudy L. Bantilan	Chairman, SB's Committee on Agriculture and CRM
3. Ruben A. Martinez	Municipal Planning and Development Coordinator
4. Mariano R. Retuta	Municipal Agricultural Officer
5. Gani C. Acas	Head of Fisheries Management Section, OMAS
6. Susan L. Denore	Municipal Accountant
7. Asuncion A. Gayanelo	SB Secretary
8. Wilfredo Z. Cardona	Municipal Budget Officer
9. Lourdes P. Tacal	Municipal Engineer
10. Clarita C. Lavilla	Municipal Treasurer
<b>B. Officials/Staff of NGOs</b>	
1. Rodrigo Gamit	Executive Director, TIPASI Foundation, Inc.
2. Manuel C. Amolar	Recorder, Knights of Columbus, Kolambugan Chapter
<b>C. Officials/Members of Fishermen Cooperatives</b>	
1. Ernesto Espelita	Chairman, Baybay Fishermen Multipurpose Cooperative
2. Francisco Sotto	Chairman, Caromatan Fishermen Multipurpose Cooperative
3. Dolly Genobaten	Chairman, Kulasihan Community Multipurpose Cooperative
4. Esperidion Dorimon	Chairman, Manga Fishermen Multipurpose Cooperative
5. Modesto Asupre	Chairman, Mukas Muslim-Christian Multipurpose Cooperative
6. Danilo Laña	Chairman, Muntay Fishers Multipurpose Cooperative
7. Fernando Senogat	Chairman, Riverside Fishermen Multipurpose Cooperative
8. Narciso Catalan	Chairman, Tabigue Fishermen Multipurpose Cooperative
9. Norberto Pliego	Vice-Chairman, Poblacion Fishermen Multipurpose Cooperative
10. Bonifacio Pejano	Secretary, Treasurer and Bookkeeper, Simbuco Fishermen Multipurpose Cooperative
11. David Ilanan	Position was not specified, Titunod Fishermen Multipurpose Cooperative

**Name****Position/Designation****D. National Officials/Employees**

1. Salem M. Limparo, Al Haj                      Community Environment and Natural  
Resources Officer
2. Grace Lapeceros                                      Technical Staff, CENRO of Kolambugan

**E. Staff of Fisheries Sector Program**

Raquel J. Ensano                                      Aquaculturist, Provincial Fisheries  
Management Unit

**THE MANAGEMENT OF FISHERIES AND  
AQUATIC RESOURCES AT THE LOCAL LEVEL:  
THE CASE OF MALALAG, DAVAO DEL SUR**

**Simeon A. Ilago and Lydia S. Vergara\***

*In all aspects of development, the LGU should encourage acceptance of shared responsibility for the well-being of all community members and a reverence for the connection between people and NATURE.*

*-- From the Development Plan*

**Abstract**

The case report focuses on the fisheries and coastal resources management efforts of the municipality of Malalag in Davao del Sur. It shows compliance and implementation by the municipal government of applicable provisions on fisheries under the Local Government Code, through the creation of an office for agriculture and environment, enactment of a fisheries code and prohibition of illegal and destructive methods of fishing. The case further shows the participation of nongovernment organizations (NGOs) and people's organizations (POs) in environment related activities. It also documents the existing relations and linkages among the government, other locally operating agencies and NGOs/POs in the promotion of a sustainable coastal ecosystem.

Among the issues raised by the case is the absence of an integrated policy for fisheries and coastal resources management for the bay (Malalag Bay) which adjoins several municipalities; the continued supervision by the Department of Agriculture of fishpond lease operations which hamper the effectiveness of the municipal government; the need to balance agro-industrial thrusts with the concern for coastal resource management; and the need to strengthen the skills and capability of the newly created Office of the Municipal Agriculturist and Environment Officer.

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\*University Researcher at the Local Government Center, College of Public Administration, University of the Philippines and a Senior Lecturer at the College, and a faculty of the Graduate School of the University of Southeastern Philippines and Director of its University Extension Services, respectively.

The case illustrates that any approach toward fisheries and coastal resource management must be coordinative and integrative. Such approach affirms the contiguousness of the coastal ecosystem, and the common fate of all, institutions and people, that benefit or live by it.

## Introduction

The future of the environment is now a major issue of concern of governments, policymakers and committed citizens. After decades of relentless pursuit of economic progress, there is now a growing interest on the state of the environment in relation to the various activities of man. It is now imperative without dismissing the value of economic growth to emphasize the sustainability of development efforts.

Of particular interest is the sustainable development of the country's coastal areas. These areas serve as places for settlement of marginal fishermen and their families, sources of their livelihood and territorial jurisdictions of many municipal government units. Many municipalities, in fact, dot the long Philippine coastline due to the country's archipelagic structure. Thus, any effort to rehabilitate and develop the coastal ecosystem must necessarily involve the local government unit, the coastal community and the people that live and benefit from it.

This case report focuses on the municipality of Malalag, Davao del Sur, particularly on the municipal and community efforts at fisheries and coastal resources management. It is part of a larger study which aims to document the existing fisheries and coastal management systems at the local level.

In preparing this case report, data were gathered on-site in Malalag from March 19 to 26, 1995 by the authors. Subsequent visits were conducted to verify earlier data and to seek additional information. Interviews were conducted with officials of the municipality, and non-governmental organizations, people's organizations and community organizations operating within the area. Documents, legal issuances and other written information related to fisheries and coastal resource management were also utilized.

## **Background of the Study Site**

### **Physical Profile**

Malalag is a fourth-class municipality comprising 15 barangays and covering a land area of 20, 659.88 hectares. The municipality is bounded on the north by the Malalag Bay and the municipality of Sulop, on the east by the municipality of Sta. Maria, on the west by the municipality of Kiblawan--all in Davao del Sur, and on the south by the municipality of Malungon, Sarangani. It is about 30 minutes south of Digos or a distance of 24 kilometers, and 80 kilometers or about one and a half hours from the regional center of Davao City.

Of its 15 regular barangays, the largest is Lapu-Lapu which accounts for about 16 percent of the total land area, while the smallest is Bagumbayan, which makes up only 0.6 percent of the total land area.

### **Population**

The 1990 census placed the municipality's population at 27,709 with an average household size of 5.2. The municipality remains predominantly rural with about 86 percent of its total population residing in the rural areas.

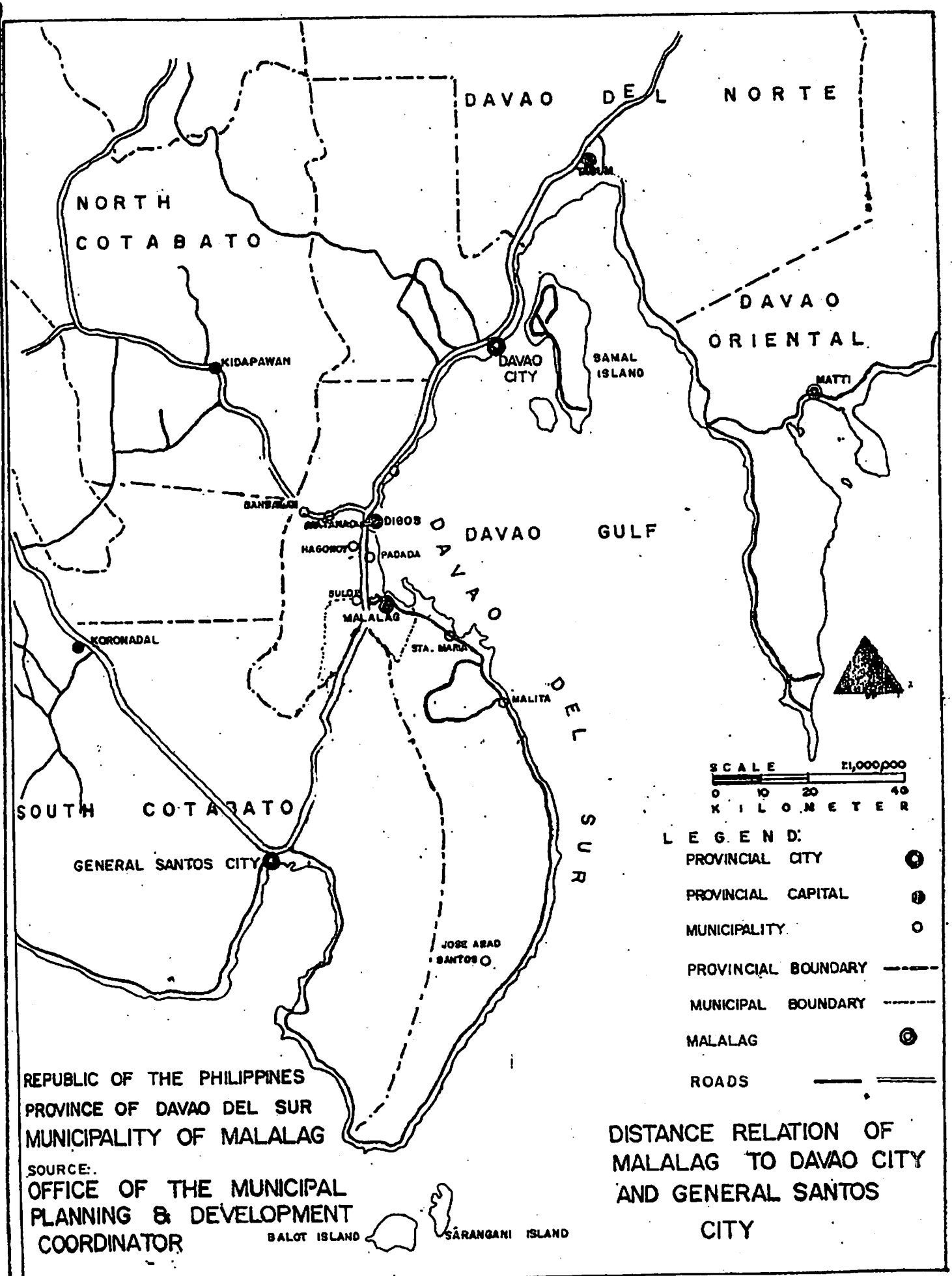
### **Labor Force and Employment**

The local economy is largely dependent on agriculture and fishing activities. About 46.9 percent of the employable population are engaged in farming, while the next largest (20.13 percent) are into fishing and related activities. Only a small percentage are involved in industry and profession-related work. Due to limited employment alternatives in the municipality, a significant number of the population are unemployed (about 40 percent of the labor force) and almost two-thirds (66 percent) live below the poverty threshold estimated at P3,500 per month.

### **Fishery**

A substantial area (18,912.88 hectares) is devoted to agriculture, while about 885 hectares comprise the municipal waters.

The municipality is endowed with inland fishing grounds. Brackishwater ponds can be found in New Baclayon and Upper Bagumbayan, while freshwater ponds are located in Caputian and Pitu. Total fishpond area has increased from 171.45 hectares in 1991 to 189 hectares in 1992. Fishpond production level likewise grew from 68.4 metric tons in 1991 to 113.4 metric tons



DAVAO DEL NORTE

NORTH COTABATO

DAVAO ORIENTAL

KIDAPAWAN

DAVAO CITY

SANAL ISLAND

MATI

BANSANGAL

MAKANAD

DIGOS

DAVAO GULF

HAGOROT

PADADA

BULDE

MALALAG

STA. MARIA

MALITA

KORONADAL

SOUTH COTABATO

GENERAL SANTOS CITY

JOSE ABAD SANTOS

SCALE 1:21,000,000  
0 10 20 40  
KILOMETER

- LEGEND:
- PROVINCIAL CITY
  - PROVINCIAL CAPITAL
  - MUNICIPALITY
  - PROVINCIAL BOUNDARY
  - MUNICIPAL BOUNDARY
  - MALALAG
  - ROADS

REPUBLIC OF THE PHILIPPINES  
PROVINCE OF DAVAO DEL SUR  
MUNICIPALITY OF MALALAG

SOURCE:  
OFFICE OF THE MUNICIPAL  
PLANNING & DEVELOPMENT  
COORDINATOR

BALOT ISLAND SARANGANI ISLAND

DISTANCE RELATION OF  
MALALAG TO DAVAO CITY  
AND GENERAL SANTOS  
CITY

in 1992, indicating a 40 percent increase, and an improvement in the average yield from 0.44 metric ton/hectare to 0.7 metric ton/hectare. Improved production was attributed to area expansion, upgrading of technology and pond rehabilitation. Although freshwater areas abound in the presence of lakes in Pitu and Ibo, a great deal of planning, research and technology transfer is needed before these can be harnessed.

Marine fishing ranks second to farming as a source of livelihood and income. Generally, fishing is confined within the municipal waters in the Malalag Bay. The coastal zone covers approximately 120 square kilometers while the coastline stretches to about 8.2 kilometers. Fishing is concentrated in barangays Bagumbayan, Baybay and portions of Bulacan. Annual production levels have averaged at about 21.5 metric tons in 1990 and 1991 but increased sharply to 198.56 metric tons in 1992 due to improved law and order, gradual banning of pressure gears and favorable weather conditions. The greater volume of the fishcatch, however, is not found in the local market but transported to outside markets and trading centers such as Digos, Kidapawan and Hagonoy.

Mariculture is undertaken in the form of seaweeds and oyster cultures; the latter is found suitable only in Upper Bagumbayan where the Balasinon River meets the sea water. At present, there are 25 families engaged in oyster farming, with annual production estimated at 1.8 metric tons. The method of culture relies heavily on hanging coconut shells. A seaweeds culture project was undertaken in 1988 with the financial assistance of the Department of Agriculture (DA), but the project was ravaged by a specific seaweeds disease known as ice-ice. The municipality is now introducing another variety to culture in the hope of establishing a seaweeds seedling bank, although the problem of finding a market for the products has not yet been overcome.

## **Discussion and Analysis of Findings**

### **Policies, Programs, Projects and Activities to Promote the Management of Fisheries, Coastal and Aquatic Resources**

The overall framework for managing the fisheries and coastal resources of the municipality is embodied in the 10-Year Comprehensive Development; the Comprehensive Zoning Ordinance; and the various ordinances enacted by the municipality in accordance with the 1991 Local Government Code.

These documents seriously recognize the problem of environmental degradation as manifested in upland deforestation, siltation and deterioration of the municipality's marine habitat. They uniformly describe Malalag Bay as a coastal ecosystem that



was once characterized as a rich fishing ground, but now severely degraded and abused by the people who live by it. The overall framework thus envisions to save, conserve, rehabilitate, and properly develop and utilize the coastal resources existing in the Bay.

***Fishery and Coastal Resources Management under the 10-Year Comprehensive Development Plan***

The 10-year Comprehensive Development Plan provides indicative guidelines for all development activities of the municipality. It is a major accomplishment of the municipal government, a source of pride of its officials, and a major reason for the municipality's selection as one of the most outstanding local government units in the country (1995 Galing-Pook Awards). The Plan spells out the municipality's vision of a sustainable, people-centered, and equitable development.

Environmental management and development is among the development objectives outlined in the Plan. Under this objective, the municipal government commits to "undertake bold initiatives and innovations in replenishing and protecting the resources of the forest, rivers, mangroves and aquamarine habitat;" critically assess the "environmental impact as well as the ecological soundness of agro-industrial projects"; enact "regulatory measures and policies that will safeguard and promote ecological balance"; enforce laws, ordinances, rules and regulations that will conserve and protect the environment from further destruction; and come up with a solid waste disposal and management master plan which will be implemented upon approval.

More notably, the Plan also indicates the desire to "adopt a public education program that will alleviate consciousness in environmental issues and instill stewardship skills, responsible attitude and sensitivity among the constituents in reducing the conflicts and pressures on its natural resources." It also aims to "sustain partnership between LGU-NGO-PO in the pursuit of ecological regeneration and conservation", including the organization of volunteer network for monitoring and reporting of irregular activities that will further endanger the environment."

Relatedly, the Plan emphasizes the importance of involving people's and nongovernmental organizations in both municipal and barangay governmental affairs. To this end, the municipal government intends to design capability building programs to increase their institutional capacity, enable them to achieve maturity and stability, and allow them to acquire livelihood and entrepreneurial skills. The municipal government also seeks to "pursue joint ventures with POs and NGOs, especially in enterprise development, service delivery and informational technology." It also aims to promote cooperativism and the participation of women and marginalized sectors in community development.

These objectives are to be operationalized through identified strategic interventions addressing various areas or sectors, time-framed and classified in terms of the immediate (1994-1995) concerns, medium-term (up to year 1999) objectives, and long-term goals (up to 2003).

#### *Strategic Development Interventions under the Plan*

Under agriculture and fisheries, the immediate concerns are the rehabilitation of fishing grounds and the establishment of alternative livelihood sources such as fish cage/spot production and seaweeds farming. Short-term conservation measures involve the establishment of a Coastal Resource Management Program, the development of appropriate and environment-friendly fishing gears, and upgrading of stock selection from existing fish fries. Along with these interventions, the municipality aims to intensify research on fish cage and fish spot technology as well as establish a seaweeds nursery to promote alternative livelihood to illegal fishing. This includes conduct of research and study on the appropriate research on the suitability of seaweeds species and the technology of seaweed farming.

The medium-term objectives envision the increase in production of both fish and seaweeds, and the expansion of areas devoted to both productions. Ice storage and drying, and post-harvest facilities are planned within the medium-term. The long-term perspective sees the continued implementation of regulatory measures to safeguard marine life along with the increase in production volume and area.

Under the environment sector is the Coastal Resources Management Program focusing on mangrove rehabilitation and artificial reef installation. Under mangrove rehabilitation, the immediate concerns are to establish a nursery for mangroves and to plant at least three hectares with mangrove seedlings. Participation of schools in mangrove replanting is sought, while fishpond operators are asked to comply with the area for mangrove establishment based on their Fishpond Lease Agreements. The medium-term seeks to expand the mangrove seedlings nursery and the area planted with mangroves to six hectares while trying to maintain the people's and school participation in replanting. The long-term goal is sustainability of past operations (nursery, replanting) and restoration of at least 14.5 hectares of mangrove area. For the installation of artificial reefs, the immediate concerns are to involve the fisherfolks in a partnership of repairing and constructing artificial reef modules, beginning with the installation of at least 4 modules, and the organization of Bantay Dagat volunteers for surveillance and monitoring of the Bay. The LGU-NGO partnership in reef maintenance and construction, and the organization of volunteers are envisioned to be sustained in the medium and long terms, while in artificial reef installation, it is expected that at least 50 modules will be installed in the medium term and another 54 modules in the long term.

Legislative support for the above measures are outlined in the strategic interventions under local legislation. Under the Plan, the local Sanggunian identified among its immediate concerns the enactment of ordinances on: the rehabilitation and maintenance of mangrove areas; garbage disposal and collection system; the conservation and protection of watershed; and land use and zoning. Further legislation on the maintenance, conservation and protection of watersheds; tree parks, greenbelts and forest development projects; and artificial reefs are planned in the medium term. No planned legislation on environment has been identified in the long term.

To promote NGO-PO participation in local governmental activities, the Plan identifies the following strategic interventions for human resource development: a people's enterprise development program to increase productivity and income of farmers and fisherfolks, ultimately to increase the people's access to and control of productive resources; joint ventures for environmental rehabilitation and protection; and alliance building among the Malalag Bay area municipalities to forge a concerted effort on areas such as infrastructure development, investment promotion, and more importantly, environmental rehabilitation and protection.

#### *Coastal Resource Management (CRM) Program*

The CRM program is a comprehensive effort to promote the conservation and sustainable use of the municipality's coastal resources.

In its initial year of implementation, the program started with two general objectives: to promote coastal area management through the formulation and implementation of an integrated management plan of coastal resources; and to increase the level of income of fishermen through rational use of resources. Two other objectives were added in its funding proposal for 1994, namely: to provide the institutional and organizational framework for the restoration of the ecology and productivity of coastal fisheries; and to strengthen coordination and linkage with other agencies concerned with coastal resources management.

It must be noted that unlike other CRM programs or projects, funding for the project is sourced yearly from the 20 Percent Municipal Development Fund--an indication that the municipal government is serious on preserving what is left of the marine ecosystem.

In its initial year, the project was given Php20,281.00 to cover the cost of conducting a survey in preparation for a CRM conservation area or fish sanctuary; setting up marker buoys to define the fishing grounds from the fish sanctuary; conducting a series of seminars/information campaigns among residents of the coastal barangays; and conducting regular patrols in the area.

By 1993, funding was increased to PhP50,000 to continue the construction of the fish sanctuary and the other activities started in the preceding year.

Funding for the program was tremendously increased in 1994, indicating a greater commitment on the part of the municipal government to achieve the objectives of the program. From PhP50,000, the budget ballooned to PhP249,170. The increase was to continue the earlier activities, especially the maintenance of the fish sanctuary, and also to implement several component projects.

As of 1994, the CRM program is made up of the following projects:

1. *Establishment and maintenance of a fish sanctuary*

The 50-hectare sanctuary is located at Barangays Baybay and Bulacan, and is guided by an enabling ordinance (No. 93-27).

2. *Establishment and expansion of a seaweeds seedling bank and nursery*

A seaweeds seedling bank and nursery was established to promote seaweeds farming as an alternative form of livelihood for the fishermen. Part of the 1994 funding was budgeted for the expansion of the seedling bank, to enable the nursery to attain sufficient volume for distribution to seaweeds farmer-beneficiaries.

3. *Establishment of artificial reef modules*

To stay the deterioration of coral reefs within the municipal waters, the municipal government intends to construct artificial reef modules using discarded tires, iron bars, mononylon filament, charcoal and bamboo poles. For 1994, two modules are planned with a budget of PhP23,160.

4. *Mangrove Rehabilitation*

This program component envisions the provision and replanting of 4,500 pieces of mangrove seedlings in the coastal areas of Barangay Baybay, and Sitio Bolo, Bulacan.

As part of the Program, the municipal government recently purchased a pumpboat for use in its Bantay-Dagat operations.

## **Land Use and Zonification**

Reduction of pressures that contribute to the deterioration of the coastal system through land use planning is one of the policy strategies being pursued by the municipality. The aim is to rationalize the use of land and space, efficiently allocating industrial uses far from the coastal zone and regulating the establishment of settlements on the foreshores and coastal lands.

The land use plan classifies municipal space in terms of several uses and is enforced by Ordinance No. 94-29 (Comprehensive Zoning Ordinance). Under the plan, 4.0 hectares has been set aside as mangrove area, located in the barangays of Bagumbayan, Baybay, Poblacion and Bulacan.

About 191.27 hectares are retained for fishpond use. This area conforms with the present area being used for fishpond production under the Fishpond Lease Agreements administered by the Department of Agriculture.

The Plan also allows for fishing and fish culture activities on fishing grounds located within forest reserve zones, although subject to the management and supervision of the municipal government and the Bureau of Fisheries and Aquatic Resources (BFAR).

## **Extent of Implementation of Local Government Code Provisions Applicable to Fisheries/Aquatic Resources Management**

Prior to the implementation of the Local Government Code, the authority of local governments in the management, utilization and disposition of fishery resources are limited. For example, their legislative powers were subject to the approval of the Secretary of Agriculture and their proposed actions on fishing and fisheries were invariably delayed by the centralized flow of authority.

The 1991 Local Government Code introduced changes into the power relationship between the national government and local governments. Among others, the Code contains several provisions which can be applied by local governments in the management of fishery and aquatic resources. Given the Code's effectivity as a legal framework, it is essential to find out how the municipal government used pertinent provisions of the Code to its benefit.

There are indications that applicable Codal provisions were implemented by the municipal government to promote fishery and coastal resources management. One indication is its commitment to provide agricultural and environmental services through a distinct office.

### **Appointment of Agriculture and Environment Officer**

Although the appointment of a municipal agriculturist and that of an environment and natural resources officer is optional on the part of city and municipal governments, the municipal government of Malalag has decided to create an office which integrates the functions and authority of these two positions. The Office of the Municipal Agriculture and Environment Officer was created as a result of the streamlining and reorganization effected immediately after the Code's implementation. Part of the responsibilities of the Agriculture and Environment Officer is to:

develop appropriate technology through conduct of location-specific researches to/for: . . . (b) increase fish production and other aquaculture production techniques; (d) coastal resources management and mangrove rehabilitation; (e) fish sanctuary and government reservation for fry; (f) upland rehabilitation, protection and conservation.

### **Extension and On-site Research Services**

It is through the Agriculture and Environment office that extension and on-site research services and facilities related to fishery activities are provided, in accordance with Section 17 (2) i of the Code. Under this office is a devolved agriculture technologist who is currently assigned as the fisheries technician.

Research activities are conducted within the bangus fry reservation area, the fish sanctuary, and as part of the seaweed seedling bank project. Dispersal of seaweeds for alternative livelihood is planned once the seaweed nursery project attains a sufficient volume for distribution. Services for fishpond and aquaculture are limited merely to monitoring of fishpond activities. As the officials explained, most of the fishpond operators have access to technology as well as funds to obtain the services of professional technicians. Hence, the services of the Agriculture and Environment Office are more focused towards helping the marginal fishermen.

### **Fishery Legislation**

Another indication of the municipal government's application of the Code is in the area of fishery legislation.

Enforcement of fishery laws is under the responsibility of the municipal government. Its basic legal statute is Section 18 of the 1993 Malalag Revenue Code which took effect last January 1994. This section amends the basic Fishery Code and establishes the rules and regulations in fishing and/or fisheries within the municipal waters.

The section classifies municipal waters into seven zones, of which Zone 2 is designated as the fish sanctuary and Zone 7 is declared as the Government Bangus Fry Reservation Area. Zones 1, 3, 4 and 5 are allocated for the erection of fish corrals and for other purposes other than fishing while Zone 6 is reserved for the operation of oyster culture beds. All the zones (except Zones 2 and 7) are also designated for the catching and/or taking of bangus fry, kawag-kawag and fry of other species.

A subsequent ordinance (No. 93-27) fleshes out the guidelines in the establishment, maintenance and protection of the fish sanctuary. The sanctuary totals 50 hectares and is located at Barangay Baybay and Sitio Babak, Barangay Bulacan, about 4 kilometers away from the Poblacion. The sanctuary is intended to maintain and preserve aquatic products, restore depleted marine areas, and support fish population in adjacent fishery areas.

### ***Grant of Fishery Privilege***

The grant of fishery privileges in the above zones, however, is regulated by Section 18. It provides that:

any person/s, cooperatives and organizations who intend to erect fish corrals, oyster, mussel or other aquatic beds and/or catch bangus fry and fry of other fish species within a definite zone must first secure a municipal grant therefore from the Municipal Mayor (18.d).

Such grant of fishery privileges shall be given by the municipal mayor only "after determination and proper evaluation by the Fishery Technician as to the appropriateness and fitness of the purpose in a particular zone applied for." The same section also mandates that preferential right to or direct award without bidding for such fishery privileges upon payment of rental fee shall be given only to cooperatives and organizations of marginal fishermen duly registered and accredited by the Sangguniang Bayan (18.d.1).

At the time of the study, four cooperatives of marginal fishermen exercised their preferential rights and were awarded grants for fishery privilege. (See Table 1).

**Table 1**  
**Organizations/Cooperatives Awarded**  
**Preferential Rights to Fishery Privileges**

Organization/Cooperative	Location
Nagkahiusang Pundok sa Gaymaying Mananagot sa Malalag	Bgy. Baybay
Bagumbayan Fishermen's and Consumer's Cooperative, Inc.	Upper Bgy. Bagumbayan
Bagumbayan Fishermen's and Health Cooperative	Bgy. Bagumbayan Proper
Baybay Multi-Purpose Cooperative, Inc.	Bgy. Baybay

Source: Office of the Municipal Planning and Development  
Coordinator, Malalag

In the absence of organizations and cooperatives, or their failure to exercise their preferential right, the same section provides that other parties may participate in a public bidding for the grant of privilege. The grant shall be for a period of one year and renewable thereafter. However, no grants were awarded by the municipal government in this manner, according to the Municipal Planning Coordinator.

#### **Registration of Fishing Boats**

Section 17 of the same Revenue Code provides for the registration of fishing boats and/or motorboats of three (3) gross tons or less operating within the municipality. The registration fees are graduated based on the horsepower capacity of the pumpboat, with the lowest being 50 pesos (for pumpboats with capacity of 3 to 7 HP) and the highest being 150 pesos for pumpboats from 15 HP and above (a.1). In addition, an annual license fee shall be collected from the operation of fishing boats of 3 gross tons or less (Section 18.2.e).

#### **Prohibitions**

Recognizing the critical status of Malalag Bay as a marine ecosystem, the municipal government passed Ordinance No. 21 (series of 1993) which amended the Municipal Fishery Ordinance. It bans the operations of commercial fishing, trawls, purse seine, baby trawls, hulbot-hulbot, bira-bira, lampornes, muro-



ami, palisot, pasanka or hulahop, and fishing methods with compressors within the municipal waters.

A fine of 2,500 pesos, imprisonment for a period not exceeding six (6) months, or both are the penalties which could be imposed upon the discretion of the Court.

Prohibitions against destructive methods of fishing are further emphasized in Section 18.1, which lists down the following restrictions:

1. Fishing with the use of explosives, obnoxious or poisonous substances, electrofishing and other deleterious methods;
2. Exploration, exploitation, extraction, destruction and gathering of precious, semi-precious and ordinary corals;
3. Placing, discharging or depositing petroleum-based products, mine tailings and other industry or factory wastes which could destroy fishing or aquatic life;
4. Cutting, firewood gathering and destruction of mangrove trees and areas;
5. All kinds of fishing activities within the Fish Sanctuary or the Government Bangus Fry Reservation Area, except duly permitted scientific researches.

Violators of the above prohibitions can face a fine of at least 1,000 pesos but not exceeding 5,000, imprisoned for a minimum of one (1) month but not exceeding six months, or suffer both.

Despite the existence of these legal provisions, several incidents of illegal fishing and fishing within the sanctuary areas had been recorded from December 1994 up to March 1995. These incidents indicate the need for further dissemination of information regarding the prevailing laws and the need to provide marginal fishermen with additional choices of livelihood.

#### *Problems Encountered in the Code's Implementation*

Substantively, the municipal government has followed the provisions of the Code, especially with regard to participation by COs, POs and NGOs.

Changes were also effected in the structure of the municipal government in accordance with the Code. An office was created based on the reorganization plan combining the positions and functions of the agriculturist and environment officers. A pragmatic appreciation of the limited financial means of the municipality is one of the reasons for combining the two sectoral functions under one office, although the effectiveness

and efficiency of a single office dealing with two equally important concerns have yet to be thoroughly assessed. The municipal government also encounters some difficulty in recruiting qualified personnel (for example, marine technician) due to comparably lower rates offered all government employees.

Although the functions of the agricultural officer cover aquaculture, the office has limited supervision on fishponds operating within the municipality under a fishpond lease agreement (FLA). This authority remains with the Department of Agriculture and was not among those devolved to local governments.

Coordination with the Department of Agriculture is one area that needs further finetuning. Municipal officials stress that they still need technical assistance on the devolved functions and in other agriculture and environment functions on which DA is technically superior. Although the case did not happen in the municipality, the officials cite the case of the fishkill that occurred in the municipality of Hagonoy in 1992 to bring home their point. At that time, the municipal officials of Hagonoy gathered samples for testing. But since they did not have the facilities for analysis, the officials sent the samples to the DA regional office. It is claimed that until now, the results of the analysis have yet to be known.

#### **Collaborative and Supportive Systems Extended to the COs, NGOs and POs**

Under the supervision of the Office of the Municipal Agriculture and Environmental Officer, the municipality has conducted training seminars, seminars and awareness-building activities among upland and coastal residents to orient them on integrated social forestry, coastal resource management and environmental issues. It has also provided barangays, POs and NGOs with technical assistance in the preparation of project proposals, in linkaging with other NGOs and funding institutions and in planning projects related to environmental management and protection. The municipal government also assisted the community organizations in preparing for their accreditation and registration with government agencies such as the Securities and Exchange Commission.

Cooperative undertakings have been carried out by the municipal government with nongovernmental organizations. As early as September 1992, the municipal government through Resolution No. 92-289 explored the possibility of working with the Bagumbayan Fishermen Consumers Cooperative based on an earlier resolution. The municipal mayor was authorized to enter into a Memorandum of Agreement with KAPWA Upliftment Foundation through Resolution No. 92-26. The foundation is a nongovernmental organization based in Davao City. It is working with the municipal government in rehabilitating one of the coastal

barangays (Barangay Baybay). The Foundation conducts education and information campaigns among the barangay residents on how to rehabilitate their coastal resources. It also sources the different planting materials, such as mangrove seedlings, from different agencies and institutions.

The Offices of the Planning Coordinator, and Agriculture and Environment are involved in planning the project. In most instances, however, the Foundation works closely with barangay officials.

The municipal government has also initiated the formation of a Barangay Resource Mobilization Action Board (BRMAB) in each of the 15 barangays of the municipality. The Board's membership comes from the different NGOs, POs, purok officials, cooperatives' leaders and women sector representatives within each barangay. Its formation aims at raising the awareness of community members of the resources available to them and strengthening the barangay's ability to utilize funds for development purposes. In the coastal barangays, BRMAB activities include monitoring and preventing the use of destructive methods of fishing within the barangays' coastal waters.

Part of the assistance provided by the municipal government is a financial facility for cooperatives and livelihood groups funded out of the 20 percent Development Fund. The facility provides loans to cooperatives to help them start with their identified projects. This assistance has been used by the Bagumbayan Fishermen's Cooperative to purchase fries and fingerlings. This has also been extended to NAPUGAMA (Nagkahiusang Pundok sa Gagmayng Mananagat or United Small Fishermen) Cooperative for its Seaweeds Culture Project. Unfortunately, the seaweeds were afflicted with some form of a disease. The cooperative was thus unable to repay the loan.

The municipal government also conducted an assessment of fishery resources within the municipal waters, in collaboration with the provincial and municipal agricultural offices of the Department of Agriculture.

### **Critical Issues and Problems Impairing Coastal Fisheries and Aquatic Resource Management Systems**

The management of fisheries and aquatic resources in Malalag has been promoted by a well-defined legal and institutional framework. There are, however, several issues which should be addressed not only by the municipal government but by other institutions and agencies. Left unattended to, these issues could affect the sustainability of present efforts.

*The absence yet of an integrated policy  
for fisheries/coastal resources management for Malalag Bay*

This is a broad issue which covers at least two concerns: the problem of weak enforcement due to the absence of a unified fisheries law common to all contiguous municipalities; and the definition of common boundary limits among the municipalities in the Bay.

Although the municipality of Malalag has adequate legal bases to protect its coastal resources, these legal mandates are enforceable only within municipal waters. There were instances mentioned by respondents when suspected violators and illegal fishers simply fled beyond municipal waters to evade capture, aware that the other municipalities have not yet enacted similar legislation banning illegal fishing methods.

Related to the problem of enforcement is the need to resolve overlapping claims on municipal fishing waters among the coastal municipalities. Without clear delimitation of boundaries, illegal fishers can always reason out that they are fishing within the territorial waters of other municipalities.

*Balancing Agro-Industrial Development with the  
Concern for Coastal Resource Management*

Part of the strategies outlined in the 10-year comprehensive development plan of the municipality is the improvement and upgrading of Malalag Port into an industrial port. The municipality plans to work for the eventual transfer to its authority of port management from the Philippine Port Authority, and the expansion of port capability to service a bigger volume of shipping and trade activities.

An implication of this strategy is the possible increase in the level of pollution in the marine waters surrounding the port, which could pose problems to the municipality's attempts to preserve the remaining marine balance within the bay. However, no policies nor accompanying strategies has been identified yet at the municipal level. Neither has there been a unified environmental policy formulated that would balance imperatives for industrial development and environmental sustainability.

*Lack of provincial initiative for area-wide  
policy on fisheries /coastal resource management*

Related to the last issue is the need for provincial initiative for an area-wide policy on fisheries/coastal resource management.

Although there are efforts toward inter-governmental cooperation through the Malalag Bay Alliance Project, these efforts have been initiated largely by the municipality of Malalag. It is thus more difficult to sustain consensus-building

among the affected localities and governments given the same level of the initiating local government unit. Provincial leadership and involvement in inter-jurisdictional efforts to arrive at a common environmental policy for Malalag Bay is necessary.

*Continued supervision by the Department of  
Agriculture of Fishpond Lease Agreements*

Fishpond Lease Agreements (FLAs) continue to be under the supervision and control of the Department of Agriculture. However, the municipal government claims that despite "provisions in the FLA that operators are required to allocate an area for mangrove rehabilitation, the (mangrove) ecosystem is continuously imperilled by sheer negligence on the part of fishpond operators and the lackadaisical attitude in the enforcement of the FLA's terms and condition on the part of the Department of Agriculture. (Profile, p. 148). Add to this the officials' assertion that most of the fishpond operators are not residents of the municipality, and thus have limited contributions to the municipal economy. As the officials contend, they act as stewards of these municipal resources but do not have enough authority to regulate the activities of the operators who benefit most from the resource base.

In the municipal government's view, supervision and control of fishpond lease agreements (FLAs) should be devolved to local governments. This arrangement would enable them to have a more direct responsibility in overseeing the rehabilitation of the mangrove areas.

*Need for Superior Technical Training and  
Skills Related to Environment Conservation  
and Impact Analysis*

Despite its notable achievements, the municipality must address its needs for technical training and skills, particularly in environmental impact analysis and assessment, and in marine and fisheries technology. With the drive to transform the municipality into an agro-industrial center, the requisite skills in environmental impact assessment become important.

This last issue stresses the need for greater interaction between the departments involved in fisheries and environmental and natural resources management (i.e., Department of Agriculture and Department of Environment and Natural Resources), particularly in the transfer of technology and upgrading of skills and capabilities of municipal technicians and personnel. Although the interviews did not surface any problem or tension in municipal and agency relationships, local officials recognized the municipality's need for higher and more appropriate technologies for coastal/marine fisheries management, which they feel could be extended them by the national government agencies.

*Need to Strengthen the Fishery and Aquaculture  
Capability of the Office of the Municipal  
Agriculture and Environment*

The newly created office for agriculture and environment needs to be beefed up in manpower and technical capability to provide coastal and marine fisheries technology. The current staff complement of the office is skewed in favor of agriculture --there is only one Aquamarine Technologist as against 8 items for Agriculturist and 3 items for Barangay Farm Technicians. The salary grade of the Aquamarine Technologist (SG 8) is lower than that of the Agriculturist (SG 12) even though aquaculture technology is highly technical and requires similar level of competence and technical skills. An item for one Environment Management Specialist remained unfilled for the last four years; it was only early this year that an applicant qualified for the position. The problem appears to be the scarcity of suitable candidates and the unattractiveness of the salary. Even the presence of an aquamarine technologist may not be sufficient to address the needs for marine fisheries technology and environment, given the increased emphasis on environmental protection and coastal resource management.

**Existing Community Management Systems**

Support for the management of fisheries and coastal resources at the community level are given by existing fishermen cooperatives, the local barangay development councils and the advisory teams on environment at the barangay level (BATES).

There are 4 cooperatives in the list of accredited non-governmental organizations (NGOs) in the municipality--the Nagkahi-usang Pundok sa Gagmay'ng Mananagat sa Malalag; Kumintang Seaside Neighborhood Association, Inc.; Baybay Multipurpose Cooperative, Inc.; and the Bagumbayan Fishermen's and Health Cooperative. Based on interviews, these cooperatives assist the municipal government in information dissemination on coastal resource management, serve as members in Bantay-Dagat and undertake fishery-related activities like the seaweed culture project.

Action plans for coastal resource management are deliberated and decided on by the Barangay Development Council. On the other hand, the Barangay Advisory Teams on Environment (BATES) assist in mangrove replanting activities, disseminate information on issues of environmental management, monitor the implementation of rules and regulations on environment, and implement plans prepared by the Municipal Advisory Team on Environment at the barangay level.

Lately, Barangay Resource Mobilization Action Boards (BRMABs) were created in all barangays with membership coming from different NGOs, POs, leaders of barangay-based cooperatives, women leaders and purok officials. Its creation was initiated by municipal officials, and its purpose is to strengthen awareness of resources existing in the community; and to help in the fiscal management of the barangay, including fund utilization. In the activities of the coastal barangays, the BRMAB activities will include monitoring of illegal fishing.

Community activities do not seem to be lacking in the barangays within Malalag. The proliferation of boards and teams, and other organizations, however, may lead to dissipated energies on numerous activities and inadequate focus on environmental issues in particular if the activities are not coordinated or integrated under broader guidelines.

### **Linkages in the Management of Fisheries and Aquatic Resources**

At the municipal governmental level, NGOs and POs with fishery concerns are represented in the Municipal Development Council by NAPUGAMA and the Baybay Multi-Purpose Cooperative. On the other hand, the Bagumbayan Fishermen Consumer Cooperative and Kumintang Seaside Neighborhood Association are members of the Local Health Board. Within the Municipal Development Council, a coastal resource management committee was organized as a subsector under the Environment sector. Its membership is distributed among different institutions and organizations including POs, NGOs and the Sanggunian member who is in charge of agriculture and environment.

Educational institutions also play a role in fishery management. SPAMAST (Southern Philippines Aquamarine School of Technology) has cooperated with the municipal government in providing expertise on fish cage technology for beneficiaries located in Sitio Bulo, Bulacan during the initial stages of the CRM program. Aside from this, the institution also assists in information dissemination and technology transfer to beneficiaries in coastal communities.

### **Existing NGO Involvement in Fisheries and Coastal Resources Management**

There are, at present, 31 non-government organizations and people's organizations (NGOs/POs) accredited by the municipal government. Eleven of these NGOs/POs indicated their involvement in programs and projects on fisheries and coastal resources management, and were consulted and interviewed in the course of data gathering. The organizations are classified below:

Table 2

**Accredited NGOs/POs Involved in Fisheries and Coastal Resources Management**

<b>Name</b>	<b>Classification</b>
Institute for Small Farms and Industries	NGO
Kapwa Upliftment Foundation	NGO
Countryside Development Foundation, Inc.	NGO
Municipal Advisory Team on Environment	NGO
Unified Muslim Christian Association	PO
Malalag Integrated Livelihood Cooperative	PO
Nagkahiusa-ag Pundok sa Gagmayang Mananagat sa Malalag	PO
Baybay Multi-purpose Cooperative	PO
Bagumbayan Fishermen's Health Cooperative	PO
Bagumbayan Fishermen's Consumer Cooperative	PO

***Programs/Projects/Activities on Fisheries/Coastal Resources Management***

A number of the NGOs/POs listed above are involved in the rehabilitation of the local environment. Several of the organizations indicated their participation in such activities as the reforestation of mangrove and nipa areas (5), installation of artificial reefs (3), identification and rehabilitation of watershed areas (2) and solid/liquid waste disposal (1). Others are involved in technical assistance, education and training activities targetting the community (4), mobilizing and organizing activities, such as their participation in the Municipal Advisory Team for the Environment (MATE), the Municipal Environmental Defense Council, and the Barangay Advisory Team for the Environment (4); and monitoring of illegal fishing activities (1).

***Linkages with Other Level Institutions***

The NGOs/POs are linked with the municipal government through various ways. Kapwa Upliftment Foundation, for example, works with the municipal government in providing agro-forestry assistance in 3 barangays and in rehabilitating mangrove areas. Others actively participate in the formulation of environmental



plans, projects and programs of the local government, either through the Municipal Development Council or through their membership in the Municipal Advisory Team on Environment (MATE).

The province, on the other hand, provides mangrove seedlings and other materials for rehabilitation of environmentally degraded areas. NGOs/POs also participate in the Provincial Environmental Defense Council, Some of them also act as financial conduits or sub-grantees for environmental and advocacy programs and projects. Most of the organizations also interact with the field offices of the DENR (through the PENROs and CENROs) and the Department of Agriculture, particularly the field office of the Bureau of Fisheries and Aquatic Resources. KAPWA links with the DENR and DAR in assisting communities in the acquisition of land tenure security. Another NGO, the Institute for Small Farms and Industries (ISFI) receives planting materials and technical assistance from DENR.

### ***Logistical Support***

Most of the NGOs/POs consulted indicate that they have received logistical support from various agencies at the local and national level. The assistance were in the form of seedlings and other planting materials; use of facilities for meetings and orientation seminars; transportation of seedlings to reforestation sites; and some amount of financial assistance. NGOs also received assistance in conducting membership seminars and advocacy training for the environment. However, assistance in the form of transfer or upgrading of technology and skills was not mentioned during the interviews.

### ***Approaches and Strategies in Fisheries/ Coastal Resource Management***

Most of the NGOs/POs interviewed emphasize community participation, consultation and multi-sectoral dialogues when planning activities on coastal resource management and the environment. Implementation, on the other hand, involves both social preparation and formulation of legal agreements. Social preparation is carried out through immersion by NGO members along with the beneficiaries and community organizers; or through the organization of sectors (e.g., women) into local groups that would be involved in the program or project activities. The legal agreements, mainly carried out through Memoranda of Agreement, clarify the roles, functions and responsibilities of the NGO and the other parties involved in the implementation of a particular program/project.

Monitoring and evaluation activities are carried out through regular consultation with beneficiaries and members of the community, on-site visits and multi-sectoral dialogues, and through periodic performance assessment and external evaluation.

## **Inter-Municipal Cooperation**

Municipal officials from Malalag hold a positive view of fisheries and coastal resources within Malalag Bay as a shared responsibility. The municipality is at present spearheading the formation of an alliance of municipalities in the Malalag Bay Area. The alliance is to be operationalized through the strategic plan for the establishment of a Provincial Agri-Industrial Center (PAIC) in the Area. The Plan aims to:

- a. delineate area capabilities, potentials, and opportunities;
- b. identify possible industry opportunities;
- c. determine industry mix as to priority investment areas; and
- d. draw industry development strategies.

The strategic plan covers the municipalities of Malalag, Hagonoy, Padada, Sulop and Sta. Maria, all of which are located along the Malalag Bay. Another municipality, Kiblawan, is included as an influence area due to its geographical position and nearness to the bay area.

Under the strategic plan is a 10-year Industry Development Program prepared by the municipalities based on their respective development plans and in relation to the common objectives of the alliance. At the time of the study, however, only two of the municipalities have completed their respective development plans --Malalag and Hagonoy.

Both municipalities appear to address similar concerns in coastal resource management, under the section on environmental management and protection. Both municipalities recognize the need to establish and expand artificial coral reefs, fish sanctuaries and mangrove nursery. The two municipalities also plan to strictly enforce fisheries laws and intend to acquire pumpboats for increased capability for monitoring and surveillance. In the case of Hagonoy, enforcement also envisions the deputization of coastal barangay officials.

Also part of the implementing plan of the Malalag Bay Area is the enactment of a unified fishing ordinance which shall be undertaken by the respective Sanggunians of the municipalities involved. At the time of study, Malalag has enacted its own fisheries law, and Hagonoy has indicated it will soon codify its own.

## Summary and Implications

Malalag's efforts at fisheries and coastal resources management suggest invaluable insights for other local government units that are similarly situated.

The most fundamental insight is the importance of a coherent and integrated framework for fisheries and coastal resources management. As the case has illustrated, activities related to conservation, protection and maintenance proceed from the general guidelines indicated by the strategic development plan. The plan in fact sets the overall theme by emphasizing the relationship between man and nature, and the connection between sustainable development and people empowerment. The plan also expresses the openness of the municipal government and its officials to reach out to the communities and involve people's organizations in the process of local governance. It emphasizes, in fact, the value of people participation as a strategy for sustainable development. The key appears to be a wholistic and integrative approach--looking at the sectoral concern of fisheries and coastal resources management as an integrated part of the larger picture of local development. This explains why land use and zonification, local legislation, inter-municipal government alliance, and people participation are seen as essential components of the existing management system.

The case also shows ample participation by nongovernmental, people's and community organizations in activities on environmental protection, particularly, reforestation and coastal resource management at the community level. A number of organizational structures are being used at the community level through which citizens and residents could channel their participation. Examples of these are the Barangay Advisory Team on the Environment, the Barangay Resources Mobilization Administration Board, the Barangay Development Council and the various cooperatives existing in the different barangays.

Compliance with the relevant provisions of the Local Government Code which bear on fisheries and coastal resources management was also validated. In fact, the municipal government used the Code's operationalization as a tool in streamlining its operations and structure. Part of the restructuring is the creation of an office combining the functions of agriculture and environment--a step of improvement considering the optional status of the environment and natural resources officer under the Code. However, the initial set-up and staffing of the office shows the need to balance the predominantly agricultural focus of its officer and personnel with the demands for environmental and marine fisheries services.

Despite the positive measures to improve the situation of coastal resources in the municipality, the most immediate issue is the limited sources of livelihood available for most of the

residents. The municipal government is trying to address this through alternative fishing and marine technologies, but the efforts are still exploratory and the issue of sustainability has yet to be overcome. Aside from the challenge of overcoming the initial resistance of community members to shift from what is familiar (coastal fishing through legal or illegal means) to what is yet to be proven (seaweed culture, fish cage, mariculture), the proponents of alternative livelihood sources still face formidable challenges in terms of establishing a foothold and creating a supportive production and marketing system.

The case also surfaced critical issues on fisheries and coastal resources management. Among these is the absence of an integrated policy that would govern fisheries and coastal resources management in Malalag Bay; the continued supervision of fishpond lease agreements by the DA; the need for provincial initiative on fisheries and coastal resources management; and the need for technical training on and greater orientation toward coastal fishing and environmental affairs by the newly-created Agriculture and Environment Office. It was noted also that at both community and municipal government levels, interaction goes on between the municipal government and community organizations and various national government agencies, particularly DENR and DA. Most often, however, such interaction is confined to requests and provisions of materials, supplies and facilities. The potential to widen the nature and scope of interaction to include the regular provision of updated technical training and upgrading of skills has yet to be fully maximized.

The case illustrates how a municipality faced the reality of a deteriorating life-system and the efforts by both the local government and the community to rehabilitate it. For all the efforts of the municipality of Malalag, however, the future of Malalag Bay does not rest on it alone. The bay waters flow from one locality to another, its fish swim unhampered by jurisdictional boundaries. Because the fate of the municipalities along the Bay is tied to its future, the need for an integrated framework for the preservation of the remaining marine life in the Bay assumes a more urgent dimension. All the steps which Malalag had taken to preserve the marine ecosystem will not prosper without complementary efforts from the rest of the municipalities along the Bay. The Alliance being spearheaded by the municipality should be supported and reinforced by other government agencies. In particular, the provincial government should take the lead in transforming the Alliance into a baywide environmental initiative, by providing the policy framework on coastal resource management and the legislative support needed to enact a provincial-wide fishery ordinance and other supporting legislations.

From a broader perspective, the case provided policymakers and decision-makers with specific issues that raise larger implications on the conceptualization of an effective paradigm for fisheries and coastal resources management.

One issue is the contiguousness of the fishery and coastal ecosystem, which could curtail separate, isolated efforts of a locality towards conservation. Another is the commitment and will of the local institutions in establishing a framework for sustainable use of coastal resources and seeing to it that this is pushed through by the necessary legal, institutional and administrative actions. Another issue that surfaced was the importance of community involvement and participation in the planning and implementation of conservation measures as well as the sustainability of devolution efforts, particularly in terms of technical support and assistance from national departments and agencies in building up the capabilities of local governments. All of these bear on the sustainability of the conservation and management efforts for the coastal ecosystem.

The contiguousness of the sea can perhaps sum up the needed approach to fisheries and coastal resources management. Because the ecosystem eschews political boundaries, its conservation and management must depend on coordinated efforts of the groups, interests, and stakeholders that are affected by it--the people within a locality; the localities that live by the sea or ecosystem; the province that covers the localities and the sea; and the national departments or agencies that deal with the local governments and institutions.

### **Recommendations**

The previous analysis pointed out at least three concerns that require action on the part of the municipal government, the provincial government, and national departments.

On the part of the municipal government, there is still a need to flesh out the policy framework that would address environmental issues to be generated by its agro-industrial development strategy.

There is also a need to strengthen the environmental and marine/coastal technical capabilities of the Office of Agriculture and Environment. This could be done through the hiring of personnel with sufficient exposure to environmental concerns as well as marine fisheries and coastal resource management. Or qualified personnel among the existing staff of the Office could be re-trained to focus on the environment and coastal resource management.

The latter option also points out the need to transfer technology from the national departments such as DENR and DA to the municipal government. Training could be facilitated by the departments for the municipal agricultural and environmental personnel especially on recent fisheries and aquamarine technologies as well as environmental management.

On the part of the provincial government, it could help strengthen the fledgling alliance among the coastal municipalities of Malalag Bay by assuming a lead role in initiating and sustaining the alliance. The province could convene the different municipalities to review the direction and accomplishments of the alliance. It could then lead the alliance towards establishing an integrated and unified plan for the protection and sustainability of the Bay. The starting point could be the enactment of a unified ordinance governing the use and exploitation of the Bay. Provincial resources could also be allocated to support municipality-initiated activities such as the Bantay-Dagat operation and upland reforestation.

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### B. Interviews

Givelle M. Mamaril, Municipal Administrator

Dionisio C. Lepornio, Municipal Planning and Development Coordinator

Stanley D. Bernasor, Jr., Agricultural Technologist, Office of the Municipal Agriculture and Environment Officer

Giza A. Pablo, Project Officer, Institute for Small Farms and Industries (ISFI)

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Manuel Cabije, Member, Municipal Advisory Team on Environment (MATE)

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Vicente Melecio, President, Bagumbayan Fishermen's Health Cooperative

# PART 3

## APPENDICES

1. Data Guide
2. Secondary Data Guide
3. Interview Guide No. 1
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Study on the Management of Fisheries/Aquatic Resources  
at the Local Level

(For the Municipal/City Accountant and Budget Officer)

Data can be obtained from:

- a) Statement of Operations, 1992-1994;
- b) Annual Report of Revenues and Receipts (post closing), 1992-1994.
- c) Expenditures for the same period (1992-1994) under:
  - i) Current Legislative Appropriation,
  - ii) Continuing Appropriation,
  - iii) Automatic Appropriations, etc.,
- d) Budget (Annual) and 20% Development Fund, 1992-1994; supplemental budgets, if any.

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(Budget Officer)

Has the LGU provided any budgetary outlay for the establishment and/or promotion of fisheries/aquatic resources in the community in the years 1992 to 1994?

\_\_\_ Yes                    \_\_\_ No

If yes, what is the level of LGU funding in proportion to total budget?

	1992	1993	1994
Fund for fisheries/ aquatic resources	_____	_____	_____
General Fund	_____	_____	_____

## Secondary Data Guide

### Study on the Management of Fisheries/Aquatic Resources at the Local Level

#### from Municipal/City Government

1. Comprehensive Development Plans (Fishery Sector)
2. Development Plans (1992-1994, Fishery Section)
3. Annual Investment Plans (1992-1994) (Fishery Sector)
4. Socio-economic Profile (latest, to include province)
5. Legislation on fisheries/aquatic resources (1992-1994)
  - of municipality
  - of Puerto Princesa City  
and barangays in Ulugan Bay and Palawan

#### from DENR/DA

1. Fisheries Sector Program
2. Coastal Environment Program background, projects, status of projects, timetable, budget

#### from NGOs/POs (involved in fisheries/coastal resources management)

1. Brochure/background materials on NGO/PO
2. Plans, programs, and projects of NGO/PO
3. Annual/accomplishment reports

**Study on the Management of Fisheries/Aquatic Resources  
at the Local Level**

**(For Mayors, Municipal Agriculturists,  
Environment and Natural Resources Officers,  
Municipal Planning and Development Officers)**

**On the Local Government Code**

**A. Provisions**

**(Sec. 17 (2) i For a city/municipality)**

1. Does the municipal/city government provide extension and on-site research services and facilities related to fishery activities which include dispersal of fingerlings and other seeding materials for aquaculture.

\_\_\_ Yes \_\_\_ No

1.1. If yes, please give details. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1.2. Who enforces fishery laws in municipal waters (including the conservation of mangroves)? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**(Sec. 35. Linkages with People's and Nongovernmental Organizations)**

2. Has the municipal/city government unit entered into joint ventures and such other cooperative arrangements with people's and nongovernmental organizations in the management of fisheries/aquatic/coastal resources?

\_\_\_ Yes \_\_\_ No

2.1. If yes, what are these NGOs or POs and please specify the kind of cooperative arrangements entered into by the municipal government.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**(Sec. 36. Assistance to People's and Nongovernmental Organizations)**

3. Has the local government unit provided assistance to people's and nongovernmental organizations for the management of fisheries/aquatic/coastal resources in the locality?

\_\_\_ Yes \_\_\_ No

3.1. If yes, what kind of assistance has been provided? Please specify \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

**(Sec. 482. The Agriculturist)**

4. Is there a city/municipal agriculturist?

\_\_\_ Yes \_\_\_ No

4.1. If yes, has the municipal/city agriculturist provided assistance and access to resources in the production, processing and marketing of marine products extended to fishermen?

\_\_\_ Yes \_\_\_ No

4.1.1. If yes, what kind of assistance? Please specify. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4.1.2 If no, why not? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4.2. Has the agriculturist provided assistance to the mayor in extension services on aqua-culture and marine products?

\_\_\_ Yes \_\_\_ No

4.2.1. If yes, what kind of assistance? Please specify. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

5. Are there rules and regulations passed by the municipal/city government pertaining to aquaculture?

\_\_\_ Yes \_\_\_ No

5.1. If there are, what are these rules and regulations? Please specify. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

5.2. Has the municipal agriculturist enforced such rules and regulations?

\_\_\_ Yes \_\_\_ No

5.2.1. If yes, specify which rules and regulations have been enforced. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**(Sec. 484 [Environment and Natural Resources Officer])**

6. Is there an Environmental and Natural Resources Officer in the city/municipality?

\_\_\_ Yes \_\_\_ No

6.1. If yes, please give details on his/her activities in connection with fisheries/aquatic/coastal environment conservation. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6.2. If no, is there a person assigned to handle fisheries/aquatic/coastal environmental conservation?

\_\_\_ Yes \_\_\_ No

6.3. If no, what are the activities of the LGU in connection with environmental management and protection (fisheries/aquatic/coastal environmental program)?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6.4. Does the municipal/city government coordinate with the CENRO/PENRO of DENR?

\_\_\_ Yes \_\_\_ No

6.4.1. If yes, how? Please explain.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6.4.2. If no, why not? Please explain.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**B. Problems Encountered in the Code's Implementation**

1. Are there problems encountered by the municipal/city government relative to the implementation of the Codal provisions on fisheries/aquatic/coastal resources management?

\_\_\_\_\_ Yes \_\_\_\_\_ No

1.1. If yes, in what areas and explain such problems encountered: )

a) administrative (e.g., procedures, weak coordination, duplication of functions, etc.)

b) personnel \_\_\_\_\_

c) financial \_\_\_\_\_

d) others \_\_\_\_\_?

2. What are the areas for improvement, change, or strengthening in the Local Government Code for fisheries/coastal/aquatic resources management? How? Please explain.

Areas for Improvement/Change

Approach

_____	_____
_____	_____
_____	_____
_____	_____

**C. LGU policies/programs/projects/activities/organization**

1. Are there policies promulgated by the municipal/city government for the establishment and/or promotion of fisheries/coastal/aquatic resources in the community?

\_\_\_\_\_ Yes \_\_\_\_\_ No

1.1. If yes, please specify these policies. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

1.2. Are there executive orders and administrative issuances pertaining to establishment and/or promotion of fisheries/aquatic/coastal resources?

\_\_\_\_\_ Yes \_\_\_\_\_ No

1.2.1. - If yes, please specify and/or explain these executive orders and administrative issuances. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1.3. In the development plan of the city/municipal government, is there a pertinent section on the enhancement or promotion of fisheries/aquatic/coastal resources?

\_\_\_ Yes \_\_\_ No

1.4.1. If yes, please identify and/or explain the pertinent section. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Are there programs/projects/activities implemented by the municipal/city government for the establishment and/or promotion of fisheries/aquatic/coastal resources in the community?

\_\_\_ Yes \_\_\_ No

2.1. If yes, what are these programs/projects/activities?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.2. Which of these are locally initiated?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.3. Of the locally-initiated projects, has the local government provided any budgetary outlay?

\_\_\_ Yes \_\_\_ No

2.3.1. If yes, please indicate the budget and funding of each project.

Projects	Budget	Funding Source
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_____	_____	_____
_____	_____	_____
_____	_____	_____

2.3.2. If no, please explain. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.4. For the other projects (non-locally initiated), does the LGU provide any support?

\_\_\_ Yes \_\_\_ No

2.4.1 If yes, what kind of support?

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3. Has the municipal/city government established any unit/structure for the promotion of fisheries/aquatic/coastal resources in the area?  
 Yes  No

3.1. If yes, under what office? \_\_\_\_\_

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3.1.1. Is there an employee/staff particularly assigned the function of establishing and/or promoting fisheries/aquatic/coastal resources in the community?  
 Yes  No

3.1.2. What are his/her specific functions? \_\_\_\_\_

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**D. LGU linkages/support/problems/needed technical assistance**

1. Has the LGU established linkages with the NGOs, POs, and COs concerned with the management of fisheries/aquatic/coastal resources in the community?  
 Yes  No

1.1. If yes, what linkages have been established?

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- 1.2. Are these COs, POs, NGOs represented in local special bodies and/or other committees and ad hoc bodies??  
 Yes  No

1.2.1. If yes, in which local special bodies/committees/ad hoc?

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2. Has the municipal/city government provided logistical support to those organizations involved in the management of fisheries/aquatic/coastal resources?  
 Yes  No



2.1. If yes, what kind of support system has been provided by the municipal/city government? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Are there problems experienced by the municipal/city government in the establishment and/or promotion of fisheries/aquatic/coastal resources in the locality?  
\_\_\_ Yes \_\_\_ No

3.1. If yes, please specify and/or explain. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4. Do you think the municipal/city government need any technical assistance to establish and/or promote the management of fisheries/aquatic/coastal resources in the community?  
\_\_\_ Yes \_\_\_ No

4.1. If yes, please specify and/or explain the kind of technical assistance needed. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. Has the municipal/city government established any linkage with the provincial government in the establishment and/or promotion of fisheries/aquatic/coastal resources management?  
\_\_\_ Yes \_\_\_ No

5.1. If yes, please describe the linkage or network.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

- 5.2. Has the provincial government provided any logistical support to the municipal/city government in the management of fisheries/aquatic/coastal resources?  
\_\_\_ Yes \_\_\_ No

5.3. If yes, what kind of support? Please specify and/or explain. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Has the municipal/city government established linkages/networks with other municipalities in the province in the management of fisheries/aquatic/coastal resources in the area?

\_\_\_ Yes \_\_\_ No

1.6. If yes, please describe the said linkage or networks.

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7. Has the national government provided support to the municipal/city government in the management of fisheries/aquatic/coastal resources?

\_\_\_ Yes \_\_\_ No

7.1. If yes, what kind of support? Please specify and/or explain.

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Study on the Management of Fisheries/Aquatic Resources  
at the Local Level

(For Vice-Mayors and Chair of Committee on Fisheries and Aquatic Resources)

(Sec. 149 Fishery Rentals, Fees and Charges)

1. Are there legislative measures passed?

Yes  No

1.1 If yes, please specify and/or explain these measures. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. Has the sangguniang bayan/panlungsod granted fishery privileges to erect fish corrals, oyster, minerals or other aquatic beds or bangus fry areas?

Yes  No

2.1. If yes, what organizations/units have been granted such privileges? Please specify. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.2. Did duly registered organizations and cooperatives of marginal fishermen have preferential right to such fishery privileges?

Yes  No

2.2.1. Please give details. \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2.3. Did the SB/SP require a public bidding in conformity with and pursuant to an ordinance for the grant of such privilege?

Yes  No

2.4 In the absence of said organization and cooperatives, or their failure to exercise their preferential right, did other parties participate in the public bidding?

Yes  No

2.4.1. If yes, please specify these other parties.

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3. Did the SB/SP grant to marginal fishermen the privilege to gather, take or catch bangus fry, prawn fry or kawag-kawag or fry of other species and fish from the municipal waters without any imposition?

Yes  No

3.1 If no, please explain.

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4. Has the SB/SP issued licenses for the operation of fishing vessels three tons or less?

Yes  No

4.1. If yes, to what organizations/units? Please specify.

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5. Has the SB/SP promulgated rules and regulations regarding the issuances of such licenses to qualified applicants under existing laws?

Yes  No

(If yes, please provide copies of said rules and regulations).

- 5.1. If yes, has the SB/SP penalized the use of explosives, noxious or poisonous substances, electricity, or other deleterious methods of fishing?

Yes  No

- 5.2. Has the SB/SP prescribed a criminal penalty therefor?

Yes  No

Study on the Management of Fisheries/Aquatic Resources  
at the Local Level.

Local Community Level

(For MPDC/CPDC or Municipal Administrator only)

1. What are the existing organizations in the community concerned with the management of fisheries/aquatic/coastal resources? Please specify the functions of each organization.

Organizations	Functions
_____	_____
_____	_____
_____	_____
_____	_____

2. Are there programs/projects/activities of the organizations concerned with the establishment and/or promotion of fisheries/aquatic/coastal resources management in the locality?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

2.1. If yes, please specify these programs/projects/activities.  
\_\_\_\_\_  
\_\_\_\_\_

3. How are the said programs/projects/activities related or linked up with the:
- a) municipal/city government? \_\_\_\_\_  
\_\_\_\_\_
  - b) provincial government? \_\_\_\_\_  
\_\_\_\_\_
  - c) national government agencies? \_\_\_\_\_  
\_\_\_\_\_
  - d) other organizations in the community? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

e) national level NGOs/POs? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

4.	Does the	Yes	No
	a) municipal/city	_____	_____
	b) provincial	_____	_____
	c) national government	_____	_____
	e) national level NGOs/POs	_____	_____

provide logistical support to the said organizations?

4.1. If yes, what kind? Please specify and/or explain.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5. What approaches/strategies do the said organizations use in managing the fisheries/aquatic/coastal resources in the community?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

5.1. Please describe the structural arrangements and procedures utilized by the organizations.  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6. Do the activities of said organizations pertaining to the management of fisheries/aquatic/coastal resources complement or supplement the activities of other organizations operating in the locality?  
\_\_\_\_\_ Yes \_\_\_\_\_ No

6.1. If yes, how? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

6.2. What mechanisms have been established for complementation or supplementation of such activities?  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

7. Are there activities of the

	Yes	No
a) municipal/city government	_____	_____
b) provincial government	_____	_____
c) national government	_____	_____

in regard to the management of the said resources?

7.1. If yes, what are these activities? Please explain.

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7.2. Do these activities complement and/or supplement the existing activities of the organizations undertaking projects pertaining to the promotion of fisheries/aquatic/coastal resources?

\_\_\_\_\_ Yes \_\_\_\_\_ No

Please explain.

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Study on the Management of Fisheries/Aquatic Resources  
at the Local Level

Local Community Level

(For NGO/PO officials: \_\_\_\_\_)

1. Is your organization involved in programs/projects/activities concerned with the establishment and/or promotion of fisheries/aquatic/coastal resources management in the locality?

\_\_\_ Yes \_\_\_ No

1.1. If yes, please specify these programs/projects/activities.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2. How are the said programs/projects/activities related or linked up with the:

a) municipal/city government? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

b) provincial government? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

c) national government agencies? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

d) other organizations in the community?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

e) national level NGOs/POs? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

3. Does the

Yes

No

a) municipal/city government	_____	_____
b) provincial government	_____	_____
c) national government	_____	_____
d) national level NGOs/POs	_____	_____

provide logistical support to your organization?



3.1. If yes, what kind? Please specify and/or explain.

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4. What approaches/strategies does your organization use in managing the fisheries/aquatic/coastal resources in the community?

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4.1. Please describe the structural arrangements and procedures utilized by your organization.

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5. Do the activities of your organization pertaining to the management of fisheries/aquatic/coastal resources complement or supplement the activities of other organizations operating in the locality?

\_\_\_ Yes \_\_\_ No

5.1. If yes, how?

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5.2. What mechanisms have been established for complementation or supplementation of such activities?

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6. Are there activities of the

	Yes	No
a) municipal/city	_____	_____
b) provincial government	_____	_____
c) national government	_____	_____
d) national level NGOs/POs	_____	_____

in regard to the management of the said resources?

6.1. If yes, what are these activities? Please explain.

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6.2. Do these activities complement and/or supplement the existing activities of the organizations undertaking projects pertaining to the promotion of fisheries/aquatic/coastal resources?

\_\_\_\_\_ Yes \_\_\_\_\_ No

Please explain.

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