Mangrove Management
Sustaining our Coasts: The Ridge-to-Reef Approach
A Compilation of Technical and Policy Papers

Mangrove Management
Sustaining our Coasts: The Ridge-to-Reef Approach
A Compilation of Technical and Policy Papers

Mangrove Management

By

Department of Environment and Natural Resources
Protected Areas and Wildlife Bureau,
Coastal and Marine Management Office
Ninoy Aquino Parks and Wildlife Center, North Avenue, Quezon City

and

Integrated Coastal Resources Management Project (ICRMP)

2013

Printed in Manila, Philippines

Citation:

This publication is made possible through funding assistance from the Asian Development Bank (ADB Loan No. 2311-PHI) and the Global Environment Facility (GEF Grant No. 0071-PHI).

This publication may be reproduced or quoted in other publications as long as proper reference is made to the source.

Photo Credits: Front Cover: Chen Reyes-Mencias

# Table of Contents

ICRMP Background  v  

Foreword  ix  
Director, DENR-PAWB

Message  xi  
Undersecretary and Chief of Staff, DENR

Message  xiii  
Secretary, DENR

Introduction  xv  
Executive Director, DENR-PAWB-CMMO

About the Papers  xvii  

Mangrove Management Policy Study  1  

Acknowledgements  79
Ecosystems are interconnected; what happens in one will ultimately affect the other. Forest denudation, for example, results in soil erosion causing siltation of rivers and estuaries. Improperly managed solid waste/waste water end up in coastal areas and pollute these resources, a major source of food and livelihood for millions of Filipinos. Development efforts – establishment of industries, ports, tourism programs, various sources of livelihood – also have to take into consideration the carrying capacity of our environment and natural resources.

The Integrated Coastal Resources Management Project (ICRMP) promotes the “ridge-to-reef” approach in managing coastal resources. This management approach -- addressing threats in the uplands, lowlands and coastal areas in an integrated way -- is expected to result in the development of coastal resources that is sustainable, allowing these resources to continue providing environmental services to support livelihood, eco-tourism, industrial and other socio-economic activities.

The ICRMP is a seven-year project (July 2007 to June 2014) implemented by the Department of Environment and Natural Resources (DENR), Bureau of Fisheries and Aquatic Resources (BFAR) and Municipal Development Fund Office (MDFO). It aims to follow the “ridge-to-reef” approach for sustainably managing the coastal resources and to increase income of the fisher folks by providing them greater access to livelihood opportunities. Its implementation is supported by US $33.8M loan proceeds from the Asian Development Bank (ADB) and US $9M grant proceeds from the Global Environmental Facility (GEF).

**SCOPE AND COVERAGE**

The project covers provinces and municipalities surrounding four “extremely high” marine biodiversity corridors of national and global importance as identified by the Philippine Marine Biodiversity Priorities. These are: (i) the Babuyan corridor along the northern coast of Luzon joining the Pacific Ocean and West Philippine Sea; (ii) the Ticao Pass-San Bernardino Strait-Samar corridor; (iii) the Daan Bantayan corridor straddling the Visayas Sea and the Tañon Strait; and (iv) the Pujada Bay corridor, an important point of convergence of bioregions of the Pacific Ocean and the Celebes Sea. The Zamboales marine ecosystem in the Sulu Sea and the Bohol small-island marine ecosystem between the Bohol Sea and Sulu Sea were added to the project areas for their “high” to “very high” priority marine biodiversity significance and proximity to marine corridors.

The project covers 80 municipalities as shown in the map and table below:

**EXPECTED OUTCOME**
Sustainable Management of coastal resources and increased income for coastal communities

**EXPECTED IMPACT**
Enhanced coastal resources
PROJECT COMPONENTS

Component A - Policy and Institutional Strengthening and Development

This component aims to (i) rationalize Government policy for ICRM and improving coordination mechanisms, (ii) strengthen national and local government institutional capacity, and (iii) develop a performance-based incentive and disincentive system for local governments. Major accomplishments include (i) development of the National Integrated Coastal Management (ICM) Program as mandated by the EO 533, (ii) completion of various policy studies (e.g. Mangrove Management, Foreshore Management, User’s Fees and Resource Rents, Environmental and Social Impact Assessment, Live Reef/Food Fish Trade, etc.) which provide corrective measures recommendation on policy weaknesses and legal gaps in the management of coastal zones and habitats, (iii) provision of trainings on Biodiversity Conservation, Gender Sensitization, Environmental Assessment and Review Framework, MPA Networks and Institutional Arrangements, Initial Environmental Examination, for hundreds of staff from DENR and participating municipalities.

Component B - ICRM and Biodiversity Conservation

This component promotes basic ICRM and biodiversity conservation practices. Technical assistance was provided to participating LGUs to develop and adopt municipal ICRM plans that shall guide local development initiatives towards sustainable management of coastal resources. In 2011, 63 out of 80 LGUs have already allocated budget to implement ICRM plans. The component also supports the rehabilitation and reforestation of mangrove and watershed areas with active participation of local communities, complementing the National Greening Program (NGP). The project already rehabilitated and reforested about 2,000 hectares of mangrove and about 7,000 hectares of watershed. Other on-going assistance to LGUs include development/ adoption of Marine Protected Area (MPA) Management Plans, development of conservation projects, among others.

Component C - Enterprise Development and Income Diversification

Implemented in collaboration between BFAR and DENR, this Component is committed to provide the municipal fisherfolks with supplementary income and reduce their reliance on fishing by promoting environment-friendly and sustainable enterprises and livelihoods (e.g. natural salt production, reef discovery, etc.). Assistance is on-going to establish about 370 enterprises/livelihoods that would benefit thousands of households in the project sites in 2012 to 2014.

Component D - Social and Environmental Services and Facilities

In collaboration with the Municipal Development Fund Office (MDFO), DENR provides assistance to LGUs in realizing basic social services requirements of coastal communities and to complement with LGU efforts to address coastal pollution and mitigate resource degradation. Technical assistance is on-going to LGUs for the development, appraisal and approval of about 30 infrastructure sub-projects (e.g. sanitary landfill, materials recovery facility, slaughterhouse, water supply, etc.) amounting to roughly PhP 300M.
(Clockwise from top left) For Component A, a series of planning and review workshops have been conducted, such as the Environmental Assessment and Review Framework for ICRMF Subprojects; For Component B, rehabilitation and reforestation of mangrove forests and watershed areas have complemented the DENR’s National Greening Program (NGP); For Component C, environment-friendly and sustainable enterprises, such as eco-tourism, have been promoted and implemented by the DENR and DA-BFAR; For Component D, the DENR assists LGUs to develop, appraise, and approve infrastructure sub-projects.
Foreword

Policies on mangrove management through the years have been varying in focus. The 1970s was the boom of aquaculture, hence, the conversion of mangrove areas into fishponds. Meanwhile, the succeeding decades saw efforts in the conservation and protection of the remaining mangroves. At the beginning of the new millennium, some mangrove wilderness areas have been designated as protected areas or wildlife sanctuaries under the National Integrated Protected Areas System Act (NIPAS). Since then, various issues have stemmed from mangrove management and development.

In pursuit of resolving these issues, a mangrove policy study was conducted under the Integrated Coastal Resources Management Project (ICRMP). Related laws and department administrative orders were reviewed, policy gaps were analyzed, and the status of mangrove forests, as well as, those converted into fishponds were identified. These are all presented in this Policy Paper on Mangrove Management, including a more directed set of guidelines and policy recommendations.

May the value of mangroves continue to be strongly recognized and mangrove management be actively executed with the proper policy guideposts, management tools, political and community will, and institutional arrangements.

Theresa Mundita S. Lim
Director
Protected Areas and Wildlife Bureau
The matter of improving strategies on mangrove development and management is of utmost urgency.

It is high time that the Philippines, being an archipelagic nation, recognize the value of its coastal and marine resources, particularly its rich mangrove forests. The benefits of food security and coastal protection, among many others, are good enough reasons to give proper focus to mangrove management.

Highlighting the need for guidelines and policy recommendations on major mangrove policy issues and concerns, the Integrated Coastal Resources Management Project (ICRMP) has brought together experts from the concerned agencies and sectors on the protection and conservation of mangrove forests. The resulting draft Joint Administrative Orders (JAO) and Department Administrative Orders (DAO) are fundamental policies that consider the convergence of strategies and programs among national and local implementers. Outlined in this Mangrove Policy Study area thorough policy gap analysis, and more importantly, a qualitative analysis of the benefits of the proposed JAO and DAOs and policy recommendations.

The DENR recognizes this milestone achievement through the steering of the Policy and Institutional Strengthening and Development component of the ICRMP by the Coastal and Marine Management Office (CMMO) of the Protected Areas and Wildlife Bureau (PAWB).

Atty. Analiza R. Teh
Undersecretary and Chief of Staff
Department of Environment and Natural Resources
Message

The National Greening Program (NGP) of the Department of Environment and Natural Resources (DENR) has brought encouraging results since its inception in 2011. Through the convergence of government, organizations, and civil society, the NGP goes as far as targeting food security, poverty reduction, environmental stability, biodiversity conservation, and climate change mitigation and adaptation.

The NGP also made possible the rehabilitation of mangrove forests as mangrove assessment and mapping, social mobilization, and planting activities were successfully conducted in several areas in the country. Alongside this accomplishment is the harmonization of all national and local greening efforts and tree planting initiatives.

It is in perfect congruence that the Coastal and Marine Management Office (CMMO) of the Protected Areas and Wildlife Bureau (PAWB), through the Integrated Coastal Resources Management Project (ICRMP) together with partner agencies, organizations, and relevant stakeholders, allocated the much needed policy support for the sustainable conduct of mangrove protection and rehabilitation programs. It is, thus, my hope that the guidelines and policy recommendations discussed in this Mangrove Policy Study will effectively steer the DENR, national government agencies, local government units, NGOs and people’s organization.

Ramon J.P. Paje
Secretary
Department of Environment and Natural Resources
Introduction

This book is the second in a compilation of ten technical and policy papers on Integrated Coastal Management (ICM) in the Philippines. The compilation entitled *Sustaining our Coasts: The Ridge-to-Reef Approach* aims to provide decision makers, managers and field implementers with a sound policy environment for ICM.

*Mangrove Management*, discusses various issues covering mangrove policies, such as, the reversion of Abandoned, Undeveloped, and Underutilized (AUU) fishponds under Fishpond Lease Agreements (FLA) through the National Convergence Approach and the Special Agreement for Mangrove Area Development, as a legal instrument for the development and management of mangrove areas, including beach areas and foreshore areas under the administrative jurisdiction of the DENR. It is hoped that these policies will provide sound guideposts toward the restoration, development, and protection of mangrove areas in the country.

With more than three decades of experience in coastal resources management, the Philippines has undertaken a progressive journey towards ICM. Managing the coastal and marine resources has progressed into taking on a “ridge-to-reef” approach that is integrative, holistic, multi-sectoral, and ecosystem-based, in order to address the inter-linkages among associated watersheds, estuaries and wetlands, and coastal seas. Significantly, Executive Order No. 533, which was issued on 6 June 2006, has adopted ICM as the national strategy and policy framework to ensure the sustainable development of the coastal and marine environment and resources. Alongside this major landmark in the history of ICM development is the opportunity to strengthen ICM practice in the country through the Integrated Coastal Resources Management Project (ICRMP).

The DENR, in consultation with other concerned agencies, sectors and stakeholders, has conducted policy and technical studies on user fees and resource rents, mangrove management, foreshore management, impact monitoring, and management effectiveness tracking for Marine Protected Areas. The results of these studies have been packaged into a compilation of technical and policy papers comprising:

1. National Integrated Coastal Management Program (NICMP) for Sustainable Development of the Coastal and Marine Environment and Resources of the Philippines;
2. Mangrove Management;
4. User Fees for Marine Protected Areas and Resource Rents for Major Coastal Habitats;
5. Environmental Impact Monitoring System (EIMS);
6. Management Effectiveness Tracking Tool (METT) for MPA;
7. Marine Protected Areas under the National Integrated Protected Areas System (NIPAS) Act;
8. Environmental and Social Impact Assessment;
9. Live Reef/Food Fish Trade; and
10. Environmental Hazard Management

May this compilation direct, guide, and support implementers from concerned government agencies and local government units, including private and public sectors, and other stakeholders, and ultimately, attain the expected outcome of sustainably managed coastal resources and increased income for coastal communities.

Jacob F. Meimban, Jr.
Executive Director
Protected Areas and Wildlife Bureau
Coastal and Marine Management Office
**NATIONAL ICM PROGRAM**

The Philippines, through the passage of Executive Order No. 533 in 2006, has adopted Integrated Coastal Management (ICM) as the national strategy to ensure sustainable development of the coastal and marine environment and resources.

EO No. 533 mandates DENR to develop a National ICM Program (NICMP), in consultation with other concerned agencies, sectors and stakeholders to provide direction, support and guidance to local government units (LGUs) and stakeholders in the development and implementation of their local ICM Programs.

The National ICM Program drew up from the Sustainable Development Strategy for the Seas of East Asia (SDS-SEA) Implementation Plan of DENR and PEMSEA and the National ICM Program prepared under the Integrated Coastal Resources Management Program (ICRMP). The streamlining of these two initiatives was undertaken by CMMO and PEMSEA, leading to the development of a unified and comprehensive NICMP that accounts for all sectoral, local and transboundary initiatives under a common agenda of goals, targets, outputs and measurable outcomes, including the establishment of a national ICM coordinating mechanism. The NICMP is set to provide direction, support and guidance to local government units and stakeholders in the development and implementation of their local ICM programs.

**MANGROVE MANAGEMENT**

The DENR, through PAWB-CMMO and the Integrated Coastal Resources Management Project (ICRMP), recognizes the urgency of restoring, developing, protecting, maintaining and managing mangrove resources in light of the current problems on food security, environmental stability, social development and economic growth in coastal communities. Such development is affected by climate change. To achieve this, it has to formulate policies on mangroves that will guide DENR in the implementation of its mandates in the mangrove areas of the country.

For this mangrove policy study, the following policy concerns identified as critical by PAWB-CMMO are: (1) Reversion of Abandoned, Undeveloped and Underutilized Fishponds under Fishpond Lease Agreements to the Department of Environment and Natural Resources through the National Convergence Approach; (2) Cancellation of Illegally Titled Fishponds and Illegally Constructed Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land; (3) Special Agreement for Mangrove Area Development as a Legal Instrument for the Development and Management of Mangrove Areas Including Beach Areas and Foreshore Areas under the Administrative Jurisdiction of the Department of Environment and Natural Resources; (4) Implementation of Laws and Relevant Administrative Issuances Relating to Foreshore Areas that are Actually Mangrove Areas; and (5) Repeal of the Policy Prohibiting the Cutting of Mangrove Forest and in the Collection of Forest Charges Therefrom Embodied in RA 7161.

To address the mangrove policy problems, draft administrative orders were prepared, namely: (1) Draft JAO: “Guidelines on the Reversion of Abandoned, Undeveloped and Underutilized Fishponds under Fishpond Lease Agreements to the Department of Environment and Natural Resources through the National Convergence Approach”; (2) Draft DAO: “Cancellation of Illegally Titled Fishponds and Illegally Constructed Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land”; and (3) Draft DAO: “Special Agreement for Mangrove Area Development as a Legal Instrument for the Development and Management of Mangrove Areas Including Beach Areas and Foreshore Areas under the Administrative Jurisdiction of the Department of Environment and Natural Resources”, among others.
Effective management of foreshore areas in the Philippines requires a shift in the government’s development paradigm. While there are existing laws and policies governing foreshore, the dominant perspective articulated by these policies has been one of utilization. Current policies and guidelines focus on the use and development of the foreshore area and inadequately provide the legal protection needed by the foreshore and its adjacent shore lands.

The challenges faced by the coastal zone include among others, weak enforcement of existing laws and guidelines, the jurisdictional conflicts and institutional overlaps among various agencies exercising responsibilities covering the foreshore and the coastal zone.

The policy study has identified the following key concerns in addressing the problems and issues facing the management of foreshore areas: (1) Harmonization of development paradigms perspectives in order to integrate conservation, coastal zone management, and such concerns as climate change, local development planning and disaster risk reduction; and (2) Pursuit of vigorous enforcement strategies and participatory and inclusive monitoring processes to ensure implementation of existing laws and guidelines.

The study recommends the following ways forward: (1) Developing a Foreshore Management Policy Agenda; (2) Inter-agency or multi-institutional Assessment of Policies and Programs relating to Foreshore; (3) Capacity/Training Needs Assessment and Information and Education of key stakeholders in foreshore “hotspots”; (4) Building More Effective Enforcement Strategies, including multipartite monitoring schemes and the setting up of a systematic inventory (or database) of foreshore cases and legal problems; and (5) Revisiting/Reviewing comprehensive land and water use plans of LGUs.

Financing of programs and projects is critical to the sustainable management of protected areas. The formulation of appropriate instruments for prescribing fees for the enjoyment and sustainable use of resources in protected areas is the main focus of DAO 2000-51. A focus group discussion was held among PAMB and DENR staff in the implementation of the DAO, and a number of constraints have been identified in its smooth implementation in the field. Recommendations to address these constraints are composed of the following, among others: (1) The PAWB may try to maximize its existing projects and external funding sources to contract out the estimation of user fees in NIPAS PAs. The skills required for estimating user fees do not seem to match the set of skills possessed by the current PAMB staff; (2) PAMB staff members should be oriented with the results of existing valuation and user fee studies, so that cross-learning may be achieved. In PAs where it may be too costly for PAWB-DENR to contract out user fee setting studies, results for other PAs may be applied to them granted resources, uses and users are similar in nature. PAWB can therefore do an inventory of all user fees being implemented and recommended in all NIPAS sites, and share them with all PAMB staff members nationwide; (3) The NIPAS law provides a much wider discretion for fines to be set at higher levels. PAMBs might consider setting their respective fines at levels that approximate the amount of damages potentially incurred by specific violations; and (4) In areas where overlaps of NIPAS PAs occur with other legal instruments such as the Local Government Code, the Fisheries Code or the CADTs through the IPRA, it is suggested that PAMBs explore the possibility of co-management arrangements with other management stakeholders such as LGUs or IP groups. There are some PAs that have successfully pursued this arrangement such as in Tubbataha Reef Natural Park and St. Paul Subterranean River.

The following outputs emanated from the workshop: (1) Identification of possible resource uses for implementation of user fee studies; (2) Formulation of workplans for the conduct of user fee studies and/ or for setting user fees within their respective jurisdictions; and (3) A better appreciation of the economic and legal principles behind the setting of appropriate user fees and estimating resource rents in major coastal habitats.
The ICRMP small scale subprojects that would require the preparation of IEE and the acquisition of ECC from EMB are subject to Environmental Impact Monitoring (EIM) in accordance with the EIA law. However, the Environmental Management Bureau’s prescribed requirements for EIM are designed for large projects that are environmentally critical (ECPs) and for non-ECPs that are located in environmentally critical areas (ECAs) as defined under the EIA law.

In view of this, the Environmental Impact Monitoring System (EIMS) is designed for subprojects under ICRMP to ensure that the (1) environmental management plan and the required conditions under the ECC are properly implemented by the project proponent; (2) to determine the effectiveness of environmental management measures in reducing the actual impacts of the subprojects; and (3) to use the information gathered in improving project design, correcting flaws and addressing deficiencies in project implementation.

The EIMS has two components: (1) Compliance monitoring; and (2) Impact monitoring. Compliance monitoring determines whether the project proponent is able to implement the actions such as mitigation measures that are required. Impact monitoring, on the other hand, is to measure and determine the environmental changes that can be attributed to project construction or operation and to check the effectiveness of mitigation measures put in place by the proponent.

The EIMS also involves the development of the Environmental Monitoring Framework and Plan. The Environmental Monitoring Plan (EMoP) provides the parameters and indicators to be monitored, source(s) of samples, frequency of monitoring, method of analysis and responsible institution(s) for each proposed ICRMP subprojects. The monitoring framework will serve to guide the project implementers and stakeholders in monitoring the performance and effects or impacts of the mitigation measures.

In addition to formulating a monitoring program, it is also crucial to work out a plan for its implementation. This includes assigning institutional roles and responsibility, reporting requirements, enforcement capability, and ensuring that adequate resources, in terms of staffing and skills, equipment, training and budget are provided to support EIMS implementation.

The Management Effectiveness Tracking Tool has been developed by the World Bank/WWF Alliance Worldwide to help track and monitor progress in protected area management effectiveness. It is designed to be a basic and simple mechanism for monitoring progress towards more effective management over time. It was initially developed for terrestrial protected areas that later became the basis for the development of the tracking tool for marine protected areas (MPA). The MPA tracking tool uses a Score Card developed by the World Bank in 2004 to assess progress in achieving management effectiveness goals for Marine Protected Areas. The Score Card has been built around the application of the World Commission Protected Area (WCPA) Framework comprising of six components i.e. context, planning, implementation, inputs, outputs and outcomes.

It was developed with the following attributes: (1) It is capable of providing a harmonized reporting system for forest protected area assessment within both the World Bank and WWF; (2) It is suitable for replication; (3) It is able to supply consistent data to allow tracking of progress over time; (4) It is relatively quick and easy to be completed by protected area staff or managers, so as not to be reliant on high levels of funding or other resources; (5) It is capable of providing a “score” if required; and (6) It is based around a system that provides four alternative text answers to each question, strengthening the scoring system.

As per the Project Management Consultant’s Terms of Reference, the WB score card will be used by the ICRMP for monitoring and evaluation of the management effectiveness of MPAs. However, since this is the first time the WB score card is used to assess locally managed MPAs in the Philippines, it was essential to test whether in its current format and content this assessment tool is suitable to test the management effectiveness of ICRMP locally managed MPAs. The METT test-run exercise was conducted in parallel with the ICRMP catch-up activities and the development of MPA Plan and management planning guidelines. This created opportunities for an effective iterative feedback process leading to several modifications and refinements of the original WB Score Card. Indeed, during the MPA management planning workshops, several management concerns were identified that were not covered in the original WB Score Card, hence, additional questions were incorporated to cover these specific aspects as will be further described in the report.
Mangrove Management Policy Study

Contents

List of Figures  xxiii
List of Table  xxiii
List of Acronyms and Abbreviations  xxiv

Executive Summary  1
Mangrove Policy Study  4
I. Background and Introduction  4
  Why Mangrove Policy Study  4
  Policies that Shaped the Present Mangrove Situation  5
  Focus on Aquaculture in the 1970s  5
  Conservation and Protection - Mangrove Policy in the 1980s  5
  Continued Conservation, Management, and Development - Mangrove Policies from the 1990s to the Present  5
II. Objective  6
III. Methodology  6
IV. Scope of the Study  6
V. Mangrove as ecosystem  6
VI. Functions and Values of Mangrove Ecosystem  7
  Mangrove Values  8
  Mangrove Values in the Philippines  8
  Fish, Crustacean, and Mollusk Production  8

VII. Status of mangrove areas  8
  Total Mangrove Forest  8
  Total Mangrove Forest in Alienable and Disposable Lands  8
  Total Mangrove Forest in Classified Forestland  11
VIII. Classified Fishponds  11
  Abandoned, Underutilized and Undeveloped Fishponds (AUU)  11
  Illegally Constructed/Illegally Titled Fishponds  12
  General Conditions of Mangrove Areas  12
IX. Declaring Mangrove as Protected Areas  14
X. Who Administer, Develop and Manage Mangroves  14
  Administrative Jurisdiction of Mangrove Areas  14
  Department of Environment and Natural Resources  16
  Local Government Units  17
  Department of Agriculture  17
  Policy Insights on Mangrove Administration, Development and Management  18
XI. Policy Issues on Mangroves as Proposed for Study by PAWB-CMMO

XII. Policy Gap Analysis

Reversion of Abandoned, Undeveloped and Underutilized (AUU) fishponds.

Cancellation of Illegally Titled Fishponds and Illegally Constructed Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land

Prescribing the Special Agreement for Mangrove Area Development (SAMAD) as a Legal Instrument for the Development and Management of Mangrove including Beach Areas and Foreshore Areas under the Administrative Jurisdiction of the Department of the Environment and Natural Resources

Policy Recommendations on the Implementation of the Laws and Relevant Administrative Issuances Relating to Foreshore Areas that are Actually Mangrove Areas

Policy Recommendation on the Repeal of the Policy Prohibiting the Cutting of Mangrove Forest and the Collection of Forest Charges Embodied in RA 7161

XIII. Qualitative Analysis of the Benefits of the Proposed JAO/DAO and Policy Recommendations

Documentations of Stakeholders’ Consultations

Butuan Stakeholders’ Consultation

Stakeholders Consultations in Iloilo City

Mangrove Convergence Initiative Workshop Results

Recommendations

Bibliography

Appendix A.

Proposed JAO: Guidelines on the Reversion of Abandoned, Undeveloped and Underutilized Fishponds under Fishpond Lease Agreements to the Department of Environment and Natural Resources through the National Convergence Approach

Appendix B.

Guidelines for the Cancellation of Illegally Constructed Fishponds and Illegally Titled Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land

Appendix C.

Prescribing the Special Agreement for Mangrove Area Development (SAMAD) as a Legal Instrument for the Development and Management of Degraded Mangroves, Beach Areas and Foreshore Areas.

Appendix D.

Policy Recommendation for the Implementation of the Laws and Relevant Administrative Issuances Relating to Foreshore Areas that are Actually Mangrove.

Appendix E.

Policy Recommendation on the Repeal of the Policy Prohibiting the Collection of Forest Charges from Forest Products Harvested in Mangrove Forests Embodied in RA 7161.
### LIST OF FIGURES

<table>
<thead>
<tr>
<th>Figure No.</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Mangrove Ecosystem Functions and Values</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Process of Reversion of Cancelled FLAs to Mangroves</td>
<td>36</td>
</tr>
<tr>
<td>3</td>
<td>Process of Cancellation and Reversion of Abandoned, Undeveloped and Underutilized FLAs</td>
<td>49</td>
</tr>
</tbody>
</table>

### LIST OF TABLES

<table>
<thead>
<tr>
<th>Table No.</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Valuation of Selected Mangrove Benefits in Some Asian and South American Countries</td>
<td>7</td>
</tr>
<tr>
<td>2</td>
<td>Forest Cover of the Philippines, 2003 (In hectare)</td>
<td>9</td>
</tr>
<tr>
<td>3</td>
<td>Forest Cover Within Alienable and Disposable Lands, 2003 (in hectares)</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>Mangrove Forest Cover within Forestland. 2003 (in hectares)</td>
<td>10</td>
</tr>
<tr>
<td>5</td>
<td>Classified Fishponds by Region.</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>Cancelled Fishpond Lease Agreement</td>
<td>12</td>
</tr>
<tr>
<td>7</td>
<td>Mangrove Areas Recognized as Protected Areas or Park</td>
<td>13</td>
</tr>
<tr>
<td>8</td>
<td>Potential Impacts of the Proposed JAO/DAO on AUU, ICT/ITF and SAMAD</td>
<td>23</td>
</tr>
<tr>
<td>10</td>
<td>Policy Recommendations: Whether to Repeal the Provision of RA 7161 that Prohibits the Collection of Forest Charges in Mangrove Forests.</td>
<td>24</td>
</tr>
<tr>
<td>11</td>
<td>Funding Options for Mangrove Reforestation</td>
<td>28</td>
</tr>
<tr>
<td>12</td>
<td>Next Steps Identified by Stakeholders</td>
<td>33</td>
</tr>
<tr>
<td>Acronym</td>
<td>Abbreviation</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
<td>-----------</td>
</tr>
<tr>
<td>AUU-FLA</td>
<td>Abandoned, Undeveloped and Underutilized Fishpond Lease Agreement</td>
<td></td>
</tr>
<tr>
<td>A &amp; D</td>
<td>Alienable and disposable</td>
<td></td>
</tr>
<tr>
<td>BFAR</td>
<td>Bureau of Fisheries and Aquatic Resources</td>
<td></td>
</tr>
<tr>
<td>CBFM</td>
<td>Community-Based Forest Management</td>
<td></td>
</tr>
<tr>
<td>CENRO</td>
<td>City Environment and National Resources Officer</td>
<td></td>
</tr>
<tr>
<td>CLUP</td>
<td>Comprehensive Land Use Plan</td>
<td></td>
</tr>
<tr>
<td>CMMO</td>
<td>Coastal and Marine Management Office</td>
<td></td>
</tr>
<tr>
<td>DA</td>
<td>Department of Agriculture</td>
<td></td>
</tr>
<tr>
<td>DAO</td>
<td>Department Administrative Order</td>
<td></td>
</tr>
<tr>
<td>DENR</td>
<td>Department of Environment and Natural Resources</td>
<td></td>
</tr>
<tr>
<td>EO</td>
<td>Executive Order</td>
<td></td>
</tr>
<tr>
<td>FARMC</td>
<td>Fisheries and Aquatic Resources Management Council</td>
<td></td>
</tr>
<tr>
<td>FLA</td>
<td>Fishpond Lease Agreement</td>
<td></td>
</tr>
<tr>
<td>FMS</td>
<td>Forest Management Services</td>
<td></td>
</tr>
<tr>
<td>ICM</td>
<td>Integrated Coastal Management</td>
<td></td>
</tr>
<tr>
<td>LGU</td>
<td>Local Government Unit</td>
<td></td>
</tr>
<tr>
<td>LMB</td>
<td>Land Management Bureau</td>
<td></td>
</tr>
<tr>
<td>MOU</td>
<td>Memorandum of Understanding</td>
<td></td>
</tr>
<tr>
<td>NAMRIA</td>
<td>National Mapping and Resource Information Authority</td>
<td></td>
</tr>
<tr>
<td>NCI</td>
<td>National Convergence Initiative</td>
<td></td>
</tr>
<tr>
<td>NGO</td>
<td>Non Governmental Organization</td>
<td></td>
</tr>
<tr>
<td>NGP</td>
<td>National Greening Program</td>
<td></td>
</tr>
<tr>
<td>NIPAS</td>
<td>National Integrated Protected Areas System</td>
<td></td>
</tr>
<tr>
<td>NTFP</td>
<td>Non-Timber Forest Products</td>
<td></td>
</tr>
<tr>
<td>NPK</td>
<td>Nitrogen, Phosphorous, and Potassium</td>
<td></td>
</tr>
<tr>
<td>PAWB</td>
<td>Protected Areas and Wildlife Bureau</td>
<td></td>
</tr>
<tr>
<td>PAWCRMS</td>
<td>Protected Areas and Wildlife Coastal Resource Management Services</td>
<td></td>
</tr>
<tr>
<td>PD</td>
<td>Presidential Declaration</td>
<td></td>
</tr>
<tr>
<td>PENRO</td>
<td>Provincial Environment and Natural Resources Officer</td>
<td></td>
</tr>
<tr>
<td>PO</td>
<td>Peoples’ Organization</td>
<td></td>
</tr>
<tr>
<td>PP</td>
<td>Presidential Proclamation</td>
<td></td>
</tr>
<tr>
<td>RA</td>
<td>Republic Act</td>
<td></td>
</tr>
<tr>
<td>TWG</td>
<td>Technical Working Group</td>
<td></td>
</tr>
</tbody>
</table>
Executive Summary

The DENR, through PAWB-CMMO and the Integrated Coastal Resources Management Project (ICRMP), recognizes the urgency of restoring, developing, protecting, maintaining and managing mangrove resources in light of the current problems on food security, environmental stability, social development and economic growth in coastal communities. Such development is affected by climate change. To achieve this, it has to formulate policies on mangroves that will guide DENR in the implementation of its mandates in the mangrove areas of the country. Thus, this policy study.

For this mangrove policy study, the following policy concerns identified as critical by PAWB-CMMO are:

a. Reversion of Abandoned, Undeveloped and Underutilized Fishponds under Fishpond Lease Agreements to the Department of Environment and Natural Resources through the National Convergence Approach.
b. Cancellation of Illegally Titled Fishponds and Illegally Constructed Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land.
c. Special Agreement for Mangrove Area Development as a Legal Instrument for the Development and Management of Mangrove Areas Including Beach Areas and Foreshore Areas under the Administrative Jurisdiction of the Department of Environment and Natural Resources.
d. Implementation of Laws and Relevant Administrative Issuances Relating to Foreshore Areas that are Actually Mangrove Areas.
e. Repeal of the Policy Prohibiting the Cutting of Mangrove Forest and in the Collection of Forest Charges Therefrom Embodied in RA 7161.

To address the mangrove policy problems, the following draft administrative orders were prepared:

a. Draft JAO: “Guidelines on the Reversion of Abandoned, Undeveloped and Underutilized Fishponds under Fishpond Lease Agreements to the Department of Environment and Natural Resources through the National Convergence Approach”

Of the total area of mangroves that were under Fishpond Lease Agreement (FLA), a substantial area nationwide has been found abandoned, undeveloped and underutilized. The DA has already turned-over 4,764 hectares to the DENR. There may be more areas in the regions which need to be validated and turned-over to the DENR for restoration. The draft Joint Administrative Order shall be participated by the DENR, DA, DAR and DILG/LGU under the National Convergence Initiative Framework for Sustainable Rural Development and also under the National Greening Program of the government through the DENR.

2. Draft DAO: “Cancellation of Illegally Titled Fishponds and Illegally Constructed Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land”

The draft DAO above will address the proliferation of illegally constructed and illegally titled fishponds considering that fishponds in mangrove forestlands are only possible under the Fishpond Lease Agreement. How come there were fishponds which had been titled? Is there a way that such titled areas could...
still be reverted to mangrove forest state?

In the same manner, the draft DAO also addresses the potential reversion of intact mangrove forests in classified alienable and disposable lands to forestlands.

3. Draft DAO: “Special Agreement for Mangrove Area Development as a Legal Instrument for the Development and Management of Mangrove Areas Including Beach Areas and Foreshore Areas under the Administrative Jurisdiction of the Department of Environment and Natural Resources”

SAMAD is important for revenue generation. Any funds collected from SAMAD shall be used for the restoration, protection, development and management of mangrove areas that had undergone degradation. Financing is important and the only way is to internally raise funds through contracting businesses or corporations to utilize available mangrove, beach and foreshore lands for any appropriate economic development activities. SAMAD exempts individuals and families in coastal communities from paying any fees or dues defined in SAMAD.


Several guidelines on the implementation of the laws and relevant administrative issuances to foreshore areas that are actually mangrove areas are being implemented by different government agencies. It is better to maintain status quo rather than recommend some changes in the policies to avoid further confusion.

Integrating the different policies being implemented by different national government agencies is not practical at this time due to difficulty in organizing such agencies to come together for a common concern. They are guided by their own mandates and resources obligated by the government. The mandates of the concerned agencies are totally different from each other using a single land resource. Implementing an integrated policy is expensive because it will take a long time for the agencies/implementers to come together and adjust into one field implementing unit. Turf protection cannot be avoided. Also, the other tradeoff is the difficulty of pinpointing management liability among the implementing agencies when something went wrong.

If policy reform is pushed, the following are recommended:

1. Implementation of an integrated and overarching framework defining the use of mangroves including beach and foreshore as well as the roles of each government agencies that administer and manage foreshore and mangrove areas.

The salient features of the framework are:

a. Vision and mission on mangrove development and management (including beach and foreshore areas) considering climate change, disaster risk reduction, environmental protection, food security, biodiversity conservation and sustainability.

b. The optimal and best uses of mangrove areas and its components and how to sustain such uses. Such uses shall be made part of the LGUs comprehensive land use plan and comprehensive development plan.

c. Provide full authority to the LGUs to implement the best use of the mangrove areas at the municipal level subject to their capacities and resources. All government agencies that will be involved will have common decision to authorize the LGUs to execute such projects or actions according to the local government code.

d. The major roles of the national government agencies involved would be limited to coordination and monitoring and evaluation functions at the national, regional and community level.

e. Resource and benefit sharing to sustain operations of each of the government agencies as well as to maintain contribution to national growth and development.

f. Status Quo (With Minimal Modification Integrating Land Rent System)

As it is now, it is not clear whether government agencies through their concessionaires are paying the DENR some amounts as land rent or fees for the use of mangrove, beach or foreshore areas. Land rent is charged to the actual user of the resource and not from those who do not use the resource. The land rent shall be used in maintaining and protecting the sites being used.

5. Draft DAO: “Policy Recommendation on the Repeal of the Policy Prohibiting the Cutting of Mangrove Forest and in the Collection of Forest Charges Therefrom Embodied in RA 7161”

Two alternative policy recommendations regarding the proposed repeal of the policy on non-cutting in mangrove forests are important for consideration. These are:

a. Implementation of the policy on non-cutting of mangrove forest and non-collection of forest charges
Due to the very low percent forest cover of the remaining mangrove forest considering the total coastline of the country, the large number of coastal communities to be protected from possible tsunami, and the need to provide sanctuaries for fish, wildlife for genetic preservation, to provide other environmental services and to meet the demand for goods and services, a paradigm shift of revenue generation from extraction-based to other forms of innovative revenue generation system that will not require the harvesting of mangroves be introduced.

The issuance of EO 23 by President Benigno S. Aquino III, declaring a moratorium on the cutting and harvesting of timer in the natural and residual forests and creating the anti-illegal logging task force, requires compliance. It is not good for DENR leadership to be contradicting the Executive Order of the President of the Republic of the Philippines.

Cushioning the impact to coastal communities may be achieved through the Conditional Cash Transfer (CCT) program of the government to poor families. This may be modified by adding the cost of restoring, protecting and maintaining degraded mangroves to the CCT. The amount may come from the budget of the NGP. Furthermore, they shall be priority in small-scale fishery development project defined under SAMAD.

b. Allowing limited harvesting of mangrove forest

The Bill on Sustainable Forest Ecosystem Management and the Bill on Mangrove Conservation and Rehabilitation Program which are now filed in Congress allow the harvesting of mangrove forest products. Passing both bills into laws will automatically repeal the provision in RA 7161 prohibiting the cutting of mangrove forests and non-collection of forest charges for trees harvested in mangrove forests.

The next step is for DENR to review, improve, approve and implement the JAOs/DAOs or some of the relevant provisions that may be integrated to proposed policies that had been drafted, if any. Because funds are necessary to start up restoration of degraded mangroves, the draft DAO on SAMAD may be given priority by the DENR if it wants to pursue approval and implementation. Also, it may consider the suggestion of BFAR to devolve the activities of SAMAD to the LGU to facilitate project governance under a mutually agreed arrangements or conditions. This, however, must be done only upon evaluation of the interest, capacity and technical know-how of the LGUs.
Mangrove Management Policy Study

I. BACKGROUND AND INTRODUCTION

WHY MANGROVE POLICY STUDY?

The DENR, through PAWB-CMMO and the Integrated Coastal Resources Management Project (ICRMP), recognizes the urgency of restoring, developing, protecting, maintaining and managing mangrove resources in light of the current problems on food security, environmental stability, social development and economic growth in coastal communities brought about by climate change. The cheapest adaptation and/or mitigation measure to climate change in the coastal zone of the country is through the restoration, development and management of the mangrove areas. Achieving this would require reorientation of the development policies being implemented by different government agencies.

 Considering the extensive coast line of the Philippines as an archipelago totaling 36,289 kilometers and the need to protect coastal communities against the threat of tsunamis, the remaining mangrove forest of 245,000 hectares assuming more or less evenly distributed nationwide to the coastal communities allocated as buffer protection forest all over the coastline at 1-hectare strip of mangrove forest would prove insufficient for cushioning the impact of tsunamis. The Philippines has been experiencing tsunamis since 1735 as presented by Nakamura (1978), see Appendix Table 1, and due to the increasing temperature of the sea brought about by climate change in present period, it is highly possible that volcanic eruptions and earthquakes off-shore may create tsunamis that may destroy most of the vulnerable coastal communities.

This scenario necessitates the urgency of reorienting development and management of the mangrove areas not only for food security but for the production of bundle of goods and services most importantly as buffer protection forest for coastal communities. Hence this policy study is timely.

POLICIES THAT SHAPED THE PRESENT MANGROVE SITUATION

Focus on Aquaculture in the 1970s

The constitution of 1970s adhered to the Regalian doctrine of natural resource management and allocation, where all lands and natural resources were the property of the State (Section 8, Article 14 of the 1973 Constitution).

The 1970s saw the growth of aquaculture and shrimp farming industries because of their lucrative prices in the market. The Government supported these industries through a national policy, the Fisheries Decree of 1975 laid down in Presidential Decree 704 (PD 704); This policy encouraged the setting-up of fishpens and fishponds (the latter usually from previously-mangrove covered areas) all over the country. To achieve this end, the policy provided incentives in the form of loans from the Central Bank and Development Bank of the Philippines.

---

1 http://www.philippinedomain.com/philippine-facts.htm
2 2003 DENR Forestry Statistics
The implementing regulation of PD 704, i.e., Bureau of Fisheries and Aquatic Resources (BFAR) Administrative Order No. 125 of 1979, further encouraged the growth of aquaculture by allowing the issuance of 25-year Fishpond Lease Agreements at a relatively low rental fee of P1,000.00 per hectare per year. Additionally, in PD 705 or the Revised Forestry Code, BFAR was given jurisdiction of all mangroves not needed for shoreline protection and suitable for fishpond use.

In spite of the provisions in the Revised Forestry Code which allowed the protection of strips of mangroves along shorelines, islands, and coastal communities, the number of mangroves nationwide fell sharply as a result of the prioritization of the fisheries sector. From 288,000 hectares of mangroves in 1970, only 175,000 hectares remained in 1980.

Conservation and Protection - Mangrove Policy in the 1980s

Policies enacted in the 1980s, in contrast, mostly focused on the protection and conservation of the remaining mangroves, a possible reaction to the rapid mangrove deforestation of the previous decade for aquaculture purposes. The revised 1987 Constitution formally adopted the protection and advancement of the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature as a state principle. In terms of specific laws, the Presidential Proclamation (PP) No. 2151 and PP No. 2152 both designated around 80,000 hectares of mangroves as wilderness areas and forest reserves, where any form of exploitation or destruction was forbidden.

The establishment and protection of mangrove buffer zone areas was required in Department Administrative Order (DAO) No. 76-87- strips of 50 meters in all mangrove areas fronting bodies of water and 20 meters on both sides of river channel/banks. Furthermore, Fishpond Lease Agreement (FLA) lessees were required to afforest the tidal flats and river channels in their respective areas. Memorandum Circular 15, Series of 1989 was also released to provide guidelines for the immediate rehabilitation and development of mangrove forests.

Continued Conservation, Management, and Development - Mangrove Policies from the 1990s to the Present

Conservation trends started in the 1980s and continued in the 1990s. Policies for mangrove management were also enacted, centering on communities, non-government organizations (NGOs), and people’s organizations (POs), and provided for the sustainable utilization of mangroves. However, these management policies are affected by a rider provision in Republic Act (RA) 7161, which banned cutting of all mangroves.

DAO 15-90 in particular contained many different provisions for the management and conservation of mangroves, such as the prohibition of cutting or use of mangrove resources in any form for mangroves not covered by existing FLAs or is part of plantations. The conversion of thickly vegetated mangrove areas, mangrove reserves, and wilderness areas were also banned, and fishpond development was only allowed in denuded areas. Plantation establishment for mangrove utilization was encouraged; however, this is banned under RA 7161.

Another national legislation with significant implications for mangroves was the Local Government Code of 1991, which gave Local Government Units (LGUs) jurisdiction over some aspects of mangrove management, and implementation of community-based forest projects, subject to the control, supervision, and review of the Department of Environment and Natural Resources (DENR). DENR was also required to consult with LGUs regarding the management of natural resources within their areas.

DAO 94-30 listed guidelines for NGO-assisted community-based management of mangroves. Community-based mangrove management was also the topic of DAO 98-10, which allowed the harvesting of mangroves by the community as long as it was included in a management plan and Annual Work Plan, with reforestation activities to occur within six months of harvesting operations. DAO 99-34 also excluded mangroves from Foreshore Lease Agreements. The Philippine Fisheries Code of 1998 banned the conversion of mangroves for fishponds, and stated that abandoned, undeveloped, or unutilized fishponds should be immediately reverted to their original mangrove state.

Another landmark legislation that affects mangrove management is RA 8371, or the Indigenous People’s Rights Act. This gives Indigenous People the right to utilize, manage, or conserve all resources within their ancestral domains, pursuant to national and customary laws.

The 2000s saw the designation of some mangrove wilderness areas as protected areas or wildlife sanctuaries under RA 7586, or the NIPAS Act. DAO 2000-57 also banned cutting of mangrove timber species within forestry sector subprojects and mangrove sites. Harvesting and gathering of non-timber mangrove products in these projects is allowed, however.

II. OBJECTIVE

The primary objective of the study is to draft guidelines and policy recommendations on 5 major policy issues identified by PAWB-CMMO that need to be resolved to improve mangrove development and management in the country.
The policy issues are:

a. Reversion of Abandoned, Undeveloped and Underutilized Fishponds under Fishpond Lease Agreements to the Department of Environment and Natural Resources through the National Convergence Approach.

b. Cancellation of Illegally Titled Fishponds and Illegally Constructed Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land.

c. Special Agreement for Mangrove Area Development as a Legal Instrument for the Development and Management of Mangrove Areas Including Beach Areas and Foreshore Areas under the Administrative Jurisdiction of the Department of Environment and Natural Resources.

d. Implementation of Laws and Relevant Administrative Issuances Relating to Foreshore Areas that are Actually Mangrove Areas.

e. Repeal of the Policy Prohibiting the Cutting of Mangrove Forest and in the Collection of Forest Charges Therefrom Embodied in RA 7161.

III. METHODOLOGY

The methodology used in the study involved reviews of existing policies that govern mangrove development and management, policy gap analysis, web-based research on secondary data and interpretation, identification of policy implications and recommendations, and drafting of proposed guidelines in department administrative orders whether jointly with other government agencies or exclusive to the DENR.

To support the need for the guidelines in the five major policy issues, secondary data were used to establish the existence of policy problems in addition to anecdotal information given by stakeholders during national consultations.

The end products of the study are draft guidelines in department administrative orders and policy recommendations that will answer the 5 major policy concerns stated in the objective of the study.

The proposed JAO (Joint Administrative Orders) and DAO (Department Administrative Orders) were subjected to a series of review by the PAWB-CMMO involving different stakeholders.

IV. SCOPE OF THE STUDY

The study's scope is within the bounds of the 5 major policy concerns involving policy analysis of relevant laws, guidelines and administrative orders that govern the restoration, development and management of mangroves, beach areas and foreshore areas in the Philippines. The major laws reviewed are Executive Order No. 192, Presidential Decree 705 (Revised Forestry Code of the Philippines), Republic Act 8570 (Integrated Protected Areas System Law), Commonwealth Act 141 (Public Land Act), Republic Act 7160 (Local government Code) and Republic Act 8550 (Fishery Code of the Philippines). Also, relevant department administrative orders issued by DENR were reviewed.

V. MANGROVE AS ECOSYSTEM

Mangrove is a forest ecosystem composed of plant species that thrive and live in areas that are submerged in sea water or brackish water due to high tide or exposed during low tide.

A mangrove ecosystem includes the forest, the terrestrial and marine wildlife, the soil and its subsoil and other abiotic elements. Also, it includes mangrove lands which had been deforested and turned to beaches and foreshore areas.

If the mangrove forest is clearcut and not regenerated or the mangrove trees are uprooted due to strong waves and tsunamis the area through time will be covered with sand through the actions of waves. This resulted in the creation of foreshore and/or beach area. Thus, foreshore or beach areas are formerly mangrove areas. Foreshore or beach areas when planted with mangrove species will revert back to a mangrove forest ecosystem through time.

VI. FUNCTIONS AND VALUES OF MANGROVE ECOSYSTEM

In general, mangrove ecosystem has several functions and values shown in Figure 1. The functions and values are classified into provisioning products, regulating benefits, cultural non-material benefits and supporting services necessary of the production of ecosystem services. The specific values are classified under each of the functions of mangrove ecosystem. Setting up the values of the goods and services of the mangrove ecosystem through economic valuation is necessary for the following: a) Value assessment for potential marketing of the different goods and services; b) Weighing and selection which alternative uses of mangroves should be considered before making decision; and c) basis for lawmakers in crafting policies for the development and management of the mangrove resources.

4 Based on UNDP classification of functions and values of ecosystems.
Mangrove Values

Some of the values of mangroves in some Asian and South American countries are shown in Table 1. Worldwide, mangroves help protect communities against floods and the strong winds and storm surges associated with typhoons. Numerous people also derive their income from mangrove or mangrove-derived products such as charcoal, wood, fodder for animals, oil, edible parts of mangrove plants and propagules, and even medicine. Local fishermen can utilize tannins from mangroves to coat and preserve their gear.

Table 1. Valuation of Selected Mangrove Benefits in Some Asian and South American Countries

<table>
<thead>
<tr>
<th>Benefit</th>
<th>USD/ha/yr</th>
</tr>
</thead>
<tbody>
<tr>
<td>On-site Sustainable Fisheries</td>
<td>126</td>
</tr>
<tr>
<td>On-site Crustacean and Mollusk Harvests</td>
<td>126</td>
</tr>
<tr>
<td>On-site Sustainable harvest, All Products</td>
<td>500</td>
</tr>
<tr>
<td>Fish Products</td>
<td>538</td>
</tr>
<tr>
<td>Vicinity Fish Harvests</td>
<td>1,071</td>
</tr>
<tr>
<td>Vicinity Shrimp Harvests</td>
<td>254</td>
</tr>
<tr>
<td>Vicinity Mollusk Harvests</td>
<td>675</td>
</tr>
<tr>
<td>Vicinity Crab Harvests</td>
<td>720</td>
</tr>
<tr>
<td>Off-site Fisheries</td>
<td>189</td>
</tr>
<tr>
<td>Other products (e.g. fruits, thatch)</td>
<td>435</td>
</tr>
<tr>
<td>Sustainable Forestry</td>
<td>756</td>
</tr>
<tr>
<td>Charcoal</td>
<td>378</td>
</tr>
<tr>
<td>Biodiversity (capturable)</td>
<td>20</td>
</tr>
<tr>
<td>Total Direct Use Value</td>
<td>2,505</td>
</tr>
<tr>
<td>Waste Assimilation</td>
<td>7,833</td>
</tr>
</tbody>
</table>

Mangrove Values in the Philippines

In a study conducted in the Pagbilao Mangrove Swamp in Quezon by Janssen and Padilla (1994), it was estimated that the value of fisheries productivity for all species present was P4,490.40 per hectare per year (roughly P5,767.38 in present values) with mangrove preservation, while productivity with intensive aquaculture (defined as conversion of mangroves into fishponds while keeping buffer zones, utilizing high-stock prawn and milkfish rotation) was only valued at P74.3 per hectare per year (roughly P288.79 in present values).

Fish, Crustacean, and Mollusk Production

Mangroves are important parts of the coastal ecosystem, and act as safe havens for different commercial fish, crustacean, and mollusk species, especially for spawning and as a nursery for juveniles. The structure of mangrove roots, debris, and other vegetation associated with the mangrove forest allows juvenile creatures to elude predators. Juvenile areas also protected from being swept away by currents and tides. Mangrove areas also have a high primary productivity, consisting of the trees themselves, on growth, different phytoplankton and microalgae. As such, it is also likely that creatures are drawn to mangrove areas because of abundant food resources. Migration to other systems such as coral reefs occurs in some species when the juveniles mature. Thus, mangroves can also indirectly increase the survival rates and numbers of fish found in other aquatic ecosystems. Some fish that are found near mangrove areas in the Philippines include the Kitong (Siganus sp.), Lapu-Lapu (Epinephelus sp.), Bunog (Glossogobius sp.), and Mangagat (Lutjanus sp.). Shrimps which are supported by mangroves range from the giant freshwater prawns to small shrimps that are dried and formed into a fermented paste. Different kinds of mollusks (including commercially profitable oysters and mussels) attach themselves to mangrove roots and the lower parts of mangrove trunks, where they can be easily harvested.

A study by Camacho and Bagarinao (cited by Lewis) stated that a positive correlation exists between mangrove cover and municipal fisheries landing. Mangroves were also shown to have a logarithmic relationship with various species of penaeid shrimps, some of which are commercial species (Pauly and Ingles, 1999). It is estimated that 1 ha of mangrove resources can support shrimp production from a range of 13 kg to up to 756 kg annually. Therefore, the destruction of mangroves in an area will adversely affect the amount of shrimp and other commercial species that the area can support.

In 2009, both brackish water and freshwater fishponds accounted for 33.19% of aquaculture production, and only 8.81% of total fisheries production.

Water Purification and Protection

Aside from their beneficial effect on species productivity, mangroves also function as water filterers. Excess salt in seawater is dissolved in mangrove sediment, increasing the amount of diluted freshwater available inland. Mangroves can also trap particulate matter, organic material, and other nutrients associated with river run-off. This particular ability is important for the well-being of nearby coral reefs, which are easily affected by sediments and excess nutrients. As mentioned earlier, they reduce on-shore vulnerability to waves and currents and also decrease riverbank or shore erosion.

Although aquaculture is often regarded as the biggest threat to mangroves, the presence of mangroves can also help sustain aquaculture production. Organic material from mangrove leaves that fall in the water can enhance offshore mollusk aquaculture, or can be directly utilized for feed inputs for land-based aquaculture. Fish and other species dependent on mangroves can also serve as feed for aquaculture, either directly or as parts of processed feeds. Fishpond or aquaculture operators who still rely on wild species for stocking and seeding will also greatly benefit from the different species found near mangrove areas.

Carbon Sequestration

Mangroves have the ability to sequester five times more carbon dioxide than trees in tropical forests, making them valuable carbon sinks. It is estimated that wetland destruction (also includes seagrass and plants native to salt marshes) contributes to around 1 to 3 percent of industrial carbon dioxide emissions. This figure is predicted to rise in the coming years, as humans is thought to have destroyed around 35 percent of mangrove stocks worldwide so far.

Although mangroves have traditionally been converted to shrimp farms or fishponds, the market of carbon credits can be an alternative to these destructive practices. With a price of $15-$20 per ton of carbon dioxide sequestered, mitigation and conservation can be encouraged. Even if international carbon markets do not exist at the moment, nations with an abundance of mangrove resources can count these as sinks when preparing their national carbon emission accounts.

VII. STATUS OF MANGROVE AREAS

Understanding the present situation of mangroves today will help decision makers craft the best and appropriate policy directions for the mangrove resources of the country today. Primavera (2002) reported that in 1918, the estimated area of mangrove was 500,000 hectares. With an average conversion rate of 3,700 hectares per year, the mangrove forest declined to 120,500 hectares in 1994. The reduction in mangrove area was attributed to aquaculture development by brackish water pond...
construction for fish/shrimp aquaculture to give way to fishery development in the country in 1975 (Primavera, 2000). Other drivers of mangrove destruction are community/settlement expansion in coastal zones, mangrove conversion to agriculture, tourism facilities, and other special uses. Primavera (2002) also identified the following institutional factors that contributed to mangrove destruction: a) low economic rent; b) overlapping government bureaucracy; c) inconsistent policies; d) weak law enforcement; and e) lack of political will.

Total Mangrove Forest

The distribution of existing mangrove forests by region in 2003 as reported in the 2009 DENR Forestry Statistics is shown in Table 2.

The regions with the highest forest cover of mangroves are Region 4-B, ARMM, Region 8, Caraga and Region 9. The forest cover of mangroves includes both from classified forestland and Alienable and Disposable Land.

Total Mangrove Forest in Alienable and Disposable Lands

Mangrove forest cover also exists in Alienable and Disposable Lands. Table 3 shows the distribution of mangrove forest cover both from natural mangrove forest and mangrove plantation.

Mangrove forest in Alienable and Disposable may have been the works of owners of lands in mangrove areas who reforested their areas. It is also possible that during the classification and release of the mangrove areas as Alienable and Disposable Lands, there was no effort to assess on the ground the real conditions of the mangrove areas. Thus, even patches of mangrove forests were released for A&D lands. It is also possible that these areas are located in the peripheries of released areas but because farming them is difficult, the mangrove stands in them remained intact and grow further through time.

Total Mangrove Forest in Classified Forestland

In classified forestland, the mangrove forest cover exists in the regions indicated in Table 4. The natural mangrove forest cover is 153,577 hectares while plantation cover accounts for 1,316 hectares.

In terms of mangrove areas within classified forestlands, Region 4-B, ARMM, Region 8, Region 9 have the highest areas of forested mangroves.

Out of the 500,000 hectares in 1918, the forest cover in mangrove areas had declined significantly to 153,577 hectares in 2003. This means that 346,423.00 hectares were already degraded and need restoration to bring back their productivities.

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Forest</th>
<th>Mangrove (Natural)</th>
<th>Mangrove (Plantation)</th>
<th>% Mangrove (Natural)</th>
<th>% Mangrove (Plantation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>7,168,400.00</td>
<td>247,362.00</td>
<td>1,545.00</td>
<td>3.45</td>
<td>0.02</td>
</tr>
<tr>
<td>Region 1</td>
<td>189,801.00</td>
<td>151</td>
<td>-</td>
<td>0.08</td>
<td>-</td>
</tr>
<tr>
<td>Region 2</td>
<td>1,149,845.00</td>
<td>8,602.00</td>
<td>-</td>
<td>0.75</td>
<td>-</td>
</tr>
<tr>
<td>Region 3</td>
<td>589,495.00</td>
<td>368</td>
<td>-</td>
<td>0.06</td>
<td>-</td>
</tr>
<tr>
<td>NCR</td>
<td>2,820.00</td>
<td>30</td>
<td>-</td>
<td>1.06</td>
<td>-</td>
</tr>
<tr>
<td>Region 4-A</td>
<td>289,673.00</td>
<td>11,346.00</td>
<td>-</td>
<td>3.92</td>
<td>-</td>
</tr>
<tr>
<td>Region 4-B</td>
<td>1,195,144.00</td>
<td>57,567.00</td>
<td>465</td>
<td>4.82</td>
<td>0.04</td>
</tr>
<tr>
<td>Region 5</td>
<td>156,476.00</td>
<td>13,499.00</td>
<td>-</td>
<td>8.63</td>
<td>-</td>
</tr>
<tr>
<td>Region 6</td>
<td>264,514.00</td>
<td>4,600.00</td>
<td>-</td>
<td>1.74</td>
<td>-</td>
</tr>
<tr>
<td>Region 7</td>
<td>74,869.00</td>
<td>11,770.00</td>
<td>-</td>
<td>15.72</td>
<td>-</td>
</tr>
<tr>
<td>Region 8</td>
<td>519,848.00</td>
<td>38,781.00</td>
<td>513</td>
<td>7.46</td>
<td>0.10</td>
</tr>
<tr>
<td>Region 9</td>
<td>182,195.00</td>
<td>22,279.00</td>
<td>49</td>
<td>12.23</td>
<td>0.03</td>
</tr>
<tr>
<td>Region 10</td>
<td>337,493.00</td>
<td>2,492.00</td>
<td>-</td>
<td>0.74</td>
<td>-</td>
</tr>
<tr>
<td>Region 11</td>
<td>421,035.00</td>
<td>2,010.00</td>
<td>-</td>
<td>0.48</td>
<td>-</td>
</tr>
<tr>
<td>Region 12</td>
<td>349,234.00</td>
<td>1,350.00</td>
<td>86</td>
<td>0.39</td>
<td>0.02</td>
</tr>
<tr>
<td>CARAGA</td>
<td>523,292.00</td>
<td>26,731.00</td>
<td>-</td>
<td>5.11</td>
<td>-</td>
</tr>
<tr>
<td>ARMM</td>
<td>250,346.00</td>
<td>45,786.00</td>
<td>432</td>
<td>18.29</td>
<td>0.17</td>
</tr>
</tbody>
</table>

1/ Data on plantation are still incomplete

Note: Data are currently being updated. Results will be reflected in our future publications.

Source: DENR Forestry Statistics, 2009
### Table 3. Forest Cover Within Alienable and Disposable Lands, 2003 (in hectares)

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Forest</th>
<th>Mangrove (Natural)</th>
<th>Mangrove (Plantation)</th>
<th>% Mangrove (Natural)</th>
<th>% Mangrove (Plantation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>736,770</td>
<td>93,785</td>
<td>229</td>
<td>12.73</td>
<td>0.03</td>
</tr>
<tr>
<td>Region 1</td>
<td>34,316</td>
<td>66</td>
<td>-</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>Region 2</td>
<td>95,068</td>
<td>5,533</td>
<td>-</td>
<td>5.82</td>
<td></td>
</tr>
<tr>
<td>Region 3</td>
<td>76,617</td>
<td>231</td>
<td>-</td>
<td>0.30</td>
<td></td>
</tr>
<tr>
<td>NCR</td>
<td>763</td>
<td>30</td>
<td>-</td>
<td>3.93</td>
<td></td>
</tr>
<tr>
<td>Region 4-A</td>
<td>65,046</td>
<td>6,109</td>
<td>-</td>
<td>9.39</td>
<td></td>
</tr>
<tr>
<td>Region 4-B</td>
<td>126,729</td>
<td>13,659</td>
<td>-</td>
<td>10.78</td>
<td></td>
</tr>
<tr>
<td>Region 5</td>
<td>46,052</td>
<td>6,801</td>
<td>-</td>
<td>14.77</td>
<td></td>
</tr>
<tr>
<td>Region 6</td>
<td>50,222</td>
<td>2,294</td>
<td>-</td>
<td>4.57</td>
<td></td>
</tr>
<tr>
<td>Region 7</td>
<td>23,268</td>
<td>5,821</td>
<td>-</td>
<td>25.02</td>
<td></td>
</tr>
<tr>
<td>Region 8</td>
<td>38,695</td>
<td>15,781</td>
<td>226</td>
<td>40.78</td>
<td>0.58</td>
</tr>
<tr>
<td>Region 9</td>
<td>14,164</td>
<td>7,348</td>
<td>3</td>
<td>51.88</td>
<td>0.02</td>
</tr>
<tr>
<td>Region 10</td>
<td>23,800</td>
<td>1,195</td>
<td>-</td>
<td>5.02</td>
<td></td>
</tr>
<tr>
<td>Region 11</td>
<td>4,740</td>
<td>1,211</td>
<td>-</td>
<td>25.55</td>
<td></td>
</tr>
<tr>
<td>Region 12</td>
<td>19,653</td>
<td>932</td>
<td>-</td>
<td>4.74</td>
<td></td>
</tr>
<tr>
<td>Caraga</td>
<td>43,459</td>
<td>12,923</td>
<td>-</td>
<td>29.74</td>
<td></td>
</tr>
<tr>
<td>ARMM</td>
<td>42,254</td>
<td>13,851</td>
<td>-</td>
<td>33.57</td>
<td></td>
</tr>
</tbody>
</table>

1/ Data on plantation are still incomplete

Note: Data are currently being updated. Results will be reflected in our future publications.

Source: DENR Forestry Statistics, 2009

### Table 4. Mangrove Forest Cover Within Forestland, 2003 (in hectares)

<table>
<thead>
<tr>
<th>Region</th>
<th>Total Forest</th>
<th>Mangrove (Natural)</th>
<th>Mangrove Plantation</th>
<th>% Mangrove (Natural)</th>
<th>% Mangrove Plantation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>6,431,630.00</td>
<td>153,577.00</td>
<td>1,316.00</td>
<td>2.39</td>
<td>0.02</td>
</tr>
<tr>
<td>Region 1</td>
<td>155,485.00</td>
<td>85</td>
<td>-</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Region 2</td>
<td>1,054,777.00</td>
<td>3,069.00</td>
<td>-</td>
<td>0.29</td>
<td></td>
</tr>
<tr>
<td>Region 3</td>
<td>512,878.00</td>
<td>137</td>
<td>-</td>
<td>0.03</td>
<td></td>
</tr>
<tr>
<td>Region 4-A</td>
<td>224,627.00</td>
<td>5,237.00</td>
<td>-</td>
<td>2.33</td>
<td></td>
</tr>
<tr>
<td>Region 4-B</td>
<td>1,068,415.00</td>
<td>43,908.00</td>
<td>465</td>
<td>4.11</td>
<td>0.04</td>
</tr>
<tr>
<td>Region 5</td>
<td>110,427.00</td>
<td>6,698.00</td>
<td>-</td>
<td>6.07</td>
<td></td>
</tr>
<tr>
<td>Region 6</td>
<td>214,292.00</td>
<td>2,306.00</td>
<td>-</td>
<td>1.08</td>
<td></td>
</tr>
<tr>
<td>Region 7</td>
<td>51,601.00</td>
<td>5,949.00</td>
<td>-</td>
<td>11.53</td>
<td></td>
</tr>
<tr>
<td>Region 8</td>
<td>481,153.00</td>
<td>23,000.00</td>
<td>287</td>
<td>4.78</td>
<td>0.06</td>
</tr>
<tr>
<td>Region 9</td>
<td>168,031.00</td>
<td>14,931.00</td>
<td>46</td>
<td>8.89</td>
<td>0.03</td>
</tr>
<tr>
<td>Region 10</td>
<td>333,693.00</td>
<td>1,297.00</td>
<td>-</td>
<td>0.41</td>
<td></td>
</tr>
<tr>
<td>Region 11</td>
<td>416,295.00</td>
<td>799</td>
<td>-</td>
<td>0.19</td>
<td></td>
</tr>
<tr>
<td>Region 12</td>
<td>329,581.00</td>
<td>418</td>
<td>86</td>
<td>0.13</td>
<td>0.03</td>
</tr>
<tr>
<td>CARAGA</td>
<td>479,833.00</td>
<td>13,808.00</td>
<td>-</td>
<td>2.88</td>
<td></td>
</tr>
<tr>
<td>ARMM</td>
<td>209,092.00</td>
<td>31,935.00</td>
<td>432</td>
<td>15.27</td>
<td>0.21</td>
</tr>
</tbody>
</table>

1/ Data on plantation are still incomplete

Note: Data are currently being updated. Results will be reflected in our future publications.

Source: DENR Forestry Statistics, 2009
VIII. CLASSIFIED FISHPONDS

The locations of the mangroves are not specifically indicated in the DENR Forestry Statistics. Probably mangroves are within Classified Fishponds or Timberland or Protected Areas or Unclassified portions of the public lands. Table 5 shows the subclassification of forestlands based on the 2009 subclassifications of NAMRIA as reported in the 2009 DENR Forestry Statistics.

Nationwide, the total area of the classified forestland suitable for fishpond purposes (or already fishpond in reality) is 91,077 hectares. The total area of brackish water fishpond is 210,467 hectares. Out of this area 131,471 hectares are privately owned and 78,969 hectares are government owned or under FLAs. The locations of the privately-owned fishponds are not exactly indicated whether located in Auenable and Disposable Lands or in classified Forestland. The actual productive area of fishponds is unknown, although basing it from areas in freshwater fishpond, out of 14,531 hectares only 6,522 hectares of 1995 (BFAR, 1997) as reported by FAO were productive or only 45% of the total area of freshwater fishpond are productive. Most likely the picture in the brackish-based fishpond is similar to that of the freshwater fishpond.

Deducting from the above performance subject to validation of the presently productive areas, there would be substantial hectarage of brackish-based fishponds that are not productive and therefore their best alternative use is to revert back to DENR for rehabilitation.

Abandoned, Underutilized and Undeveloped Fishponds (AUF)

Initial areas of AUUs turned-over by BFAR to DENR for restoration purposes are shown in Table 6. Out of the 78,969 hectares under FLAs, only 4,758 hectares were turned over for rehabilitation. Probably because of the low productivity of the brackish-based fishponds, more areas would be cancelled and turned over to DENR.

Illegally Constructed/Illegally Titled Fishponds

During the consultations in Butuan with stakeholders, there were reports that there are substantial areas of mangroves under FLAs and non-FLA that are already titled or where fishponds were illegally constructed. While this situation is happening in some areas in Mindanao, it is highly possible that it is happening in other mangrove areas in Visayas and in Luzon. There are no figures to determine whether the areas under this situation is alarming or not from the point of view of environmental

---

Table 5. Classified Fishponds by Region

<table>
<thead>
<tr>
<th>Region</th>
<th>Total area</th>
<th>Certified A&amp;D</th>
<th>Unclassified</th>
<th>Total</th>
<th>Established Timberland</th>
<th>National parks GRBS/WA</th>
<th>Military &amp; naval reserv'n</th>
<th>Civil reserv'n</th>
<th>Fishpond</th>
</tr>
</thead>
<tbody>
<tr>
<td>Philippines</td>
<td>30,000,000</td>
<td>14,294,675</td>
<td>15,805,325</td>
<td>755,009</td>
<td>15,059,318</td>
<td>3,270,146</td>
<td>10,056,020</td>
<td>1,340,997</td>
<td>216,130</td>
</tr>
<tr>
<td>Region 1</td>
<td>1,284,019</td>
<td>810,922</td>
<td>473,097</td>
<td>30,271</td>
<td>442,826</td>
<td>226,846</td>
<td>201,016</td>
<td>12,999</td>
<td>288</td>
</tr>
<tr>
<td>Region 2</td>
<td>2,687,517</td>
<td>972,822</td>
<td>1,714,695</td>
<td>45,105</td>
<td>1,669,590</td>
<td>209,288</td>
<td>1,423,482</td>
<td>26,388</td>
<td>412</td>
</tr>
<tr>
<td>Region 3</td>
<td>2,447,916</td>
<td>1,024,649</td>
<td>942,378</td>
<td>27,648</td>
<td>916,139</td>
<td>290,002</td>
<td>439,882</td>
<td>36,970</td>
<td>112,819</td>
</tr>
<tr>
<td>NCR</td>
<td>63,600</td>
<td>48,232</td>
<td>15,368</td>
<td>14,704</td>
<td>618</td>
<td>0</td>
<td>237</td>
<td>59</td>
<td>0</td>
</tr>
<tr>
<td>Region 4-A</td>
<td>1,622,861</td>
<td>1,091,548</td>
<td>570,813</td>
<td>21,032</td>
<td>549,881</td>
<td>98,825</td>
<td>424,752</td>
<td>20,832</td>
<td>3,688</td>
</tr>
<tr>
<td>Region 4-B</td>
<td>2,745,601</td>
<td>998,563</td>
<td>1,747,038</td>
<td>55,319</td>
<td>1,691,899</td>
<td>268,894</td>
<td>369,269</td>
<td>1,004,420</td>
<td>147</td>
</tr>
<tr>
<td>Region 5</td>
<td>1,763,249</td>
<td>1,222,060</td>
<td>541,189</td>
<td>29,873</td>
<td>531,316</td>
<td>69,939</td>
<td>412,996</td>
<td>25,276</td>
<td>0</td>
</tr>
<tr>
<td>Region 6</td>
<td>2,022,312</td>
<td>1,477,978</td>
<td>604,333</td>
<td>1,520</td>
<td>602,813</td>
<td>335,346</td>
<td>419,171</td>
<td>23,505</td>
<td>0</td>
</tr>
<tr>
<td>Region 7</td>
<td>1,495,079</td>
<td>964,269</td>
<td>520,908</td>
<td>65,638</td>
<td>459,270</td>
<td>49,619</td>
<td>390,121</td>
<td>15,054</td>
<td>4</td>
</tr>
<tr>
<td>Region 8</td>
<td>2,144,265</td>
<td>1,024,955</td>
<td>1,121,214</td>
<td>41,772</td>
<td>1,076,442</td>
<td>53,908</td>
<td>1,014,322</td>
<td>4,108</td>
<td>176</td>
</tr>
<tr>
<td>Region 9</td>
<td>1,599,734</td>
<td>762,460</td>
<td>837,274</td>
<td>26,663</td>
<td>810,611</td>
<td>474,924</td>
<td>370,288</td>
<td>2,607</td>
<td>46</td>
</tr>
<tr>
<td>Region 10</td>
<td>1,774,803</td>
<td>857,669</td>
<td>917,134</td>
<td>52,602</td>
<td>844,532</td>
<td>85,140</td>
<td>687,444</td>
<td>53,339</td>
<td>7,996</td>
</tr>
<tr>
<td>Region 11</td>
<td>1,967,283</td>
<td>777,533</td>
<td>1,197,550</td>
<td>14,376</td>
<td>1,212,174</td>
<td>111,951</td>
<td>1,046,220</td>
<td>53,643</td>
<td>0</td>
</tr>
<tr>
<td>Region 12</td>
<td>1,874,946</td>
<td>730,546</td>
<td>1,144,400</td>
<td>218,000</td>
<td>926,400</td>
<td>129,146</td>
<td>684,780</td>
<td>20,552</td>
<td>0</td>
</tr>
<tr>
<td>Region 13</td>
<td>1,884,697</td>
<td>544,887</td>
<td>1,339,800</td>
<td>7,789</td>
<td>1,352,021</td>
<td>329,022</td>
<td>992,131</td>
<td>2,415</td>
<td>0</td>
</tr>
<tr>
<td>ARMM</td>
<td>1,260,859</td>
<td>542,872</td>
<td>618,002</td>
<td>94,673</td>
<td>523,329</td>
<td>24,359</td>
<td>465,684</td>
<td>31,943</td>
<td>0</td>
</tr>
</tbody>
</table>


---

FOA Rural Aquaculture in the Philippines: http://www.fao.org/docrep/003/ x6943e/x6943e08.htm,
for purposes of genetic preservation. In terms of biodiversity, these sites are still rich in biodiversity (Primavera, 2000). The areas where high biodiversity are still present are:

- Bohol with 26 species
- Pagbilao Bay, Quezon with 24 species
- Aurora province with 23 species
- Ibajay in Aklan province with 22 species
- Puerto Galera, Mindoro with 18 species
- San Remigio, Cebu with 18 species

IX. DECLARING MANGROVES AS PROTECTED AREAS

Preserving mangroves for genetic preservation as well as for sustainable provision of food and other ecosystems services for the present and future generation is essential to the growth and development of the country. In Table 7, initial efforts of the LGUs, DENR and coastal communities on segregating mangroves for such purposes have been demonstrated.

The only problem is that majority of the declarations is not backed up with national legislations to protect them from possible interventions from influential entities for their self-interest.

http://www.mangroverestoration.com/pdfs/Primavera%20and%20Este-ban%202008.pdf

### General Conditions of Mangrove Areas

There has been no nationwide assessment done so far on the present conditions of the mangrove areas in the country in relation to the potentials of the areas for food security, climate change, environmental protection and economic development concerns. Assessment of mangrove situations was conducted as a requirement for site-based development projects of the DENR and the DA in the past.

The indicator on forestland mangroves and A&D land mangroves in the statistics was limited to hectarage and none on the biodiversity and physical characteristics, which are important indicators for assessing the potential uses of the mangrove areas.

As a general picture, the existing mangrove areas based on the 13 mangrove sites under the Forestry Sector Project implemented in 1996 to 2003, indicated that the areas were heavily degraded in terms of vegetation, subsoil, and terrestrial and marine wildlife. Thus, their restorations were addressed during the project.

While most of the mangrove areas have been degraded, there are still some mangrove areas that are still intact and should be closed from utilization for purposes of genetic preservation. In terms of biodiversity, these sites are still rich in biodiversity (Primavera, 2000). The areas where high biodiversity are still present are:

- Bohol with 26 species
- Pagbilao Bay, Quezon with 24 species
- Aurora province with 23 species
- Ibajay in Aklan province with 22 species
- Puerto Galera, Mindoro with 18 species
- San Remigio, Cebu with 18 species

### Table 6. Cancelled Fishpond Lease Agreement

<table>
<thead>
<tr>
<th>Region</th>
<th>Area Granted (Hectares)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.7199</td>
<td>0.18</td>
</tr>
<tr>
<td>2</td>
<td>119.9255</td>
<td>2.52</td>
</tr>
<tr>
<td>3</td>
<td>0.9855</td>
<td>0.02</td>
</tr>
<tr>
<td>4</td>
<td>1534.1649</td>
<td>32.24</td>
</tr>
<tr>
<td>5</td>
<td>481.4585</td>
<td>10.12</td>
</tr>
<tr>
<td>6</td>
<td>790.2441</td>
<td>16.61</td>
</tr>
<tr>
<td>7</td>
<td>492.7196</td>
<td>10.36</td>
</tr>
<tr>
<td>8</td>
<td>599.8434</td>
<td>12.61</td>
</tr>
<tr>
<td>9</td>
<td>571.3078</td>
<td>12.01</td>
</tr>
<tr>
<td>10</td>
<td>55.8952</td>
<td>1.17</td>
</tr>
<tr>
<td>11</td>
<td>102.7746</td>
<td>2.16</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>4758.039</strong></td>
<td><strong>100.00</strong></td>
</tr>
<tr>
<td>Region</td>
<td>Province</td>
<td>Specific Location/Name</td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td>------------------------</td>
</tr>
<tr>
<td>1</td>
<td>Pangasinan</td>
<td>Bangrin Marine Protected Area, San Miguel, Bani</td>
</tr>
<tr>
<td>2</td>
<td>Cagayan</td>
<td>Buguey Wetlands</td>
</tr>
<tr>
<td>3</td>
<td>Aurora</td>
<td>Casiguran and Dilansag</td>
</tr>
<tr>
<td>3</td>
<td>Bataan</td>
<td>Brgy. Puerto Rivas and Tortugas, Bataan</td>
</tr>
<tr>
<td>4-A</td>
<td>Quezon</td>
<td>Lamon Bay and Alabat Island</td>
</tr>
<tr>
<td>4-A</td>
<td>Quezon</td>
<td>Minasawa Bird Sanctuary, Burdeos</td>
</tr>
<tr>
<td>4-A</td>
<td>Quezon</td>
<td>Tayabas Bay (from Lucena City to General Luna)</td>
</tr>
<tr>
<td>4-A</td>
<td>Batangas</td>
<td>Barrio Hugom, San Juan</td>
</tr>
<tr>
<td>4-A</td>
<td>Batangas</td>
<td>Brgy. Pinagbayanan, San Juan</td>
</tr>
<tr>
<td>4-A</td>
<td>Batangas</td>
<td>Calatagan</td>
</tr>
<tr>
<td>4-A</td>
<td>Batangas</td>
<td>Sta. Rita</td>
</tr>
<tr>
<td>4-B</td>
<td>Palawan</td>
<td>Malbato, Coron, Palawan</td>
</tr>
<tr>
<td>4-B</td>
<td>Palawan</td>
<td>Sabang Mangrove Forest &amp; Ulugan Bay, Sabang</td>
</tr>
<tr>
<td>4-A and 5</td>
<td>Quezon and Camarines Sur</td>
<td>Ragay Gulf, (between Bicol and Bondoc Peninsulas)</td>
</tr>
<tr>
<td>5</td>
<td>Masbate</td>
<td>Pawa Mangrove Nature Park, Masbate</td>
</tr>
<tr>
<td>5</td>
<td>Sorsogon</td>
<td>Prieto Diaz</td>
</tr>
<tr>
<td>6</td>
<td>Antique</td>
<td>Lipata, Culasi, and Sebaste</td>
</tr>
<tr>
<td>6</td>
<td>Capiz</td>
<td>Culajao Mangrove Eco Park, Roxas</td>
</tr>
<tr>
<td>6</td>
<td>Guimaras</td>
<td>Panubulon Island and Guimanon Islets</td>
</tr>
<tr>
<td>6</td>
<td>Negros Occidental</td>
<td>Balaring, Silay</td>
</tr>
<tr>
<td>6</td>
<td>Negros Occidental</td>
<td>Talisay</td>
</tr>
<tr>
<td>6</td>
<td>Negros Occidental</td>
<td>Ilog River Estuaries</td>
</tr>
<tr>
<td>7</td>
<td>Negros Oriental</td>
<td>Bird Sanctuary and Mangrove Park, Bais</td>
</tr>
<tr>
<td>7</td>
<td>Bohol</td>
<td>Candijay Mangrove Forest, Brgy. Panadatran, Candijay</td>
</tr>
<tr>
<td>7</td>
<td>Bohol</td>
<td>Inabanga Coast (from Tubigon to Inabanga Estuary and to Buenavista)</td>
</tr>
<tr>
<td>Region</td>
<td>Province</td>
<td>Specific Location/Name</td>
</tr>
<tr>
<td>--------</td>
<td>----------</td>
<td>------------------------</td>
</tr>
<tr>
<td>7</td>
<td>Bohol</td>
<td>Southwestern Coast (Tubigon to Loay)</td>
</tr>
<tr>
<td>7</td>
<td>Bohol</td>
<td>Cogtong Bay (Candijay and Mabin)</td>
</tr>
<tr>
<td>7</td>
<td>Cebu</td>
<td>Bogo Mangrove Swamp, Bogo</td>
</tr>
<tr>
<td>7</td>
<td>Cebu</td>
<td>Silot Bay, Liloan</td>
</tr>
<tr>
<td>7</td>
<td>Cebu</td>
<td>Mactan, Kalawisan, and Cansaga Bays</td>
</tr>
<tr>
<td>7</td>
<td>Cebu</td>
<td>Moalboal Wetlands, Moalboal, Cebu</td>
</tr>
<tr>
<td>7</td>
<td>Cebu</td>
<td>Olango Island Wildlife Sanctuary</td>
</tr>
<tr>
<td>7</td>
<td>Cebu</td>
<td>Pinamungahan Mangroves, Pinamungahan</td>
</tr>
<tr>
<td>8</td>
<td>Samar</td>
<td>Sohoton Natural Bridge National Park, Basey</td>
</tr>
<tr>
<td>9 &amp; 10</td>
<td>Multiple</td>
<td>Pangull Bay</td>
</tr>
<tr>
<td>11</td>
<td>Multiple</td>
<td>Davao Gulf (from Northern extremity to Pedada &amp; Davao City, Davao del Sur)</td>
</tr>
<tr>
<td>13</td>
<td>Surigao del Norte</td>
<td>Bucos Grande Island, Socorro</td>
</tr>
<tr>
<td>13</td>
<td>Multiple</td>
<td>Agusan River Basin</td>
</tr>
<tr>
<td>NCR</td>
<td>Las Piñas-Parañaque Critical Habitat and Ecotourism Zone</td>
<td>Yes</td>
</tr>
</tbody>
</table>

X. WHO ADMINISTER, DEVELOP, AND MANAGE MANGROVES

There are two (2) national government agencies (NGAs) and the Local Government Units (LGUs) that are tasked to administer, develop and manage mangroves. These are the:

a. Department of Environment and Natural Resources
   • Land Management Bureau (CWA 141, EO 102)
   • Forest Management Bureau (EO 192, PD 705)
   • Protected Areas and Wildlife Bureau (EO 192, RA 7586)

b. Department of Agriculture (RA 8550)
   • Bureau of Fisheries and Aquatic Resources (RA 8550)

c. Local Government Units (RA 7160)

Administrative Jurisdiction of Mangrove Areas

The review of the policies below will help trace the agencies that have jurisdiction over mangrove areas. This would also help the agencies justify whatever projects that they would implement in their respective areas in the future. The mandates of the agencies engaged in mangrove development and management are discussed in the following sections.

Department of Environment and Natural Resources

a. Land Management Bureau. Continue the functions of the Bureau of Lands defined in the Public Land Act in 1935 or Commonwealth Act 141 and provide policy recommendations to the DENR under EO 192 on land surveys and classification, inventory, lease, sale and rational classification and management and disposition of Alienable and Disposable Lands including lands outside of the responsibilities of other government agencies such as reclaimed areas and areas not needed for or are not being utilized for purposes for which they have been established (Section 14, EO 192). Foreshore areas that were leased under Foreshore Lease Agreements are within the jurisdiction of the DENR through the Land Management Bureau.
b. Forest Management Bureau. Provide policy directions to DENR on matters pertaining to the development, conservation and management of classified forestlands. The major policy that governs its implementation is PD 705. This is still the basis of forestry-related rules and regulations being used at present. Under this law, the classification, utilization, conservation, development and management of areas of the public domain are within the jurisdiction of the Bureau. Portions of the public domain was classified into agricultural, industrial or commercial, residential, resettlement, mineral, timber or forest, and grazing lands, and into such other classes as now or may hereafter be provided by law, rules and regulations. Furthermore, unclassified lands of the public domain necessary for forest purposes were declared as permanent forest to form part of the forest reserves. Areas not needed for forest purposes were and are still being classified and decreed as alienable and disposable lands where its administrative jurisdiction and management was transferred to the Bureau of Lands (Section 13, Chapter 2, PD 705).

Also, mangroves and other swamps not needed for shore protection and suitable for fishpond purposes were placed under the administrative jurisdiction and management of the Bureau of Fisheries and Aquatic Resources. Those still to be classified under the present system shall continue to remain as part of the public forest (Section 13, Chapter 2, PD 705).

Section 16 of the same code, prescribed lands which may not be classified as A&D include mangrove or swampland at least twenty (20) meters wide, along shorelines facing oceans, lakes, and other bodies of water, and strips of land at least twenty (20) meters wide facing lakes. Likewise, Section 43 requires the maintenance of strips of mangrove forest bordering numerous islands which protect the shoreline, the shoreline roads, and even coastal communities from the destructive force of the sea during high winds and typhoons. Such areas shall be prohibited from alienation. Such strips must be kept from artificial obstruction so that flood water will flow unimpeded to the sea to avoid flooding or inundation of cultivated areas in the upstream. Further, mangroves set aside for coast-protection purposes shall not be subject to clearcutting operations.

PD 705 also states that mangrove areas and other swamps released to the BFAR for fishpond purposes which are not utilized, or which have been abandoned for five (5) years from the date of such release shall revert to the category of forest land.

Executive Order 192 under the 1986 constitution is being used as basic law that guides law makers in crafting policies further maintains the jurisdiction of the DENR in exercising supervision and control over forest lands, alienable and disposal lands, and mineral resources and in the process of exercising such control the Department shall impose appropriate payments, fees, charges, rentals and any such revenues for the exploration, development, utilization or gathering of such resources (Section 5, d).

Section 13, EO 192 tasked the Forest Management Bureau (formerly Bureau of Forestry) to recommend policies and/or programs for the effective protection, development, occupancy, management and conservation of forest lands and watersheds, including grazing and mangrove areas, reforestation and rehabilitation of critically denuded/degraded forest reservations, improvement of water resource use and development, ancestral lands, wilderness areas and other natural preserves, development of forest plantations including rattan, bamboo, and other valuable non-timber forest resources, rationalization of the wood-based industries, regulation of the utilization and exploitation of forest resources including wildlife, to ensure continued supply of forest goods and services; develop plans, programs operating standards and administrative measures to promote the Bureau’s objectives and functions.

At present the basic laws that guide the development and management of the environment and natural resources including classified forestlands are still PD 705 and EO 192.

c. The Protected Areas and Wildlife Bureau. RA 7586 (The NIPAS Law) of 1998 states that a National Integrated Protected Areas System (NIPAS) shall be established. NIPAS encompasses outstanding remarkable areas and biologically important public lands that are habitats of rare and endangered species of plants and animals, biogeographic zones and related ecosystems, whether terrestrial, wetland or marine, all of which shall be designated as protected areas (Section 2, Declaration of Policy). Section 3 prescribed the following categories of protected areas such as: Strict nature reserve; natural park; Natural monument; Wildlife sanctuary; Protected landscapes and seascapes; Resource reserve; Natural biotic areas; and, Other categories established by law, conventions or international agreements which the Philippine Government is a signatory.

Section 5 (Establishment and Extent of the System) states that the establishment and operationalization of the System shall include all areas or islands in the Philippines proclaimed, designated or set aside, pursuant to a law, presidential decree, presidential proclamation or executive order as national park, game refuge, bird and wildlife sanctuary, wilderness area, strict nature reserve, watershed, mangrove reserve, fish sanctuary, natural and historical landmark, protected and managed landscape/seascape as well as identified virgin forests as initial components of the System.
Local Government Units

The Local Government Code (RA 7160) of 1991, Section 2 (Declaration of Policy) states that the “territorial and political subdivisions of the State shall enjoy genuine and meaningful local autonomy to enable them to attain their fullest development as self-reliant communities and make them more effective partners in the attainment of national goals. Toward this end, the State shall provide for a more responsive and accountable local government structure instituted through a system of decentralization whereby local government units shall be given more powers, authority, responsibilities, and resources. The process of decentralization shall proceed from the national government to the local government units.”

Furthermore, Section 3 (i) requires that local government units shall share with the national government the responsibility in the management and maintenance of ecological balance within their territorial jurisdiction, subject to the provisions of this Code and national policies.

Also, Chapter 2, Section 17 (Basic Services and Facilities) states that “(a) They shall also discharge the functions and responsibilities of national agencies and offices devolved to them pursuant to this Code.

At the Municipality, its functions, among others, are water and soil resource utilization and conservation projects; and enforcement of fishery laws in municipal waters including the conservation of mangroves; and (ii) pursuant to national policies and subject to supervision, control and review of the DENR, implementation of community-based forestry projects which include integrated social forestry programs and similar projects; management and control of communal forests with an area not exceeding fifty (50) square kilometers; establishment of tree parks, greenbelts, and similar forest development projects.”

At the provincial level, “among its functions are:

a) "(iii) Pursuant to national policies and subject to supervision, control and review of the DENR, enforcement of forestry laws limited to community-based forestry projects, pollution control law, small-scale mining law, and other laws on the protection of the environment"

The LGU is also responsible in the reclassification of lands (Section 20) within its jurisdiction. The law states that “a city or municipality may, through an ordinance passed by the sanggunian after conducting public hearings for the purpose, authorize the reclassification of agricultural lands and provide for the manner of their utilization or disposition in the following cases: (1) when the land ceases to be economically feasible and sound for agricultural purposes as determined by the Department of Agriculture or (2) where the land shall have substantially greater economic value for residential, commercial, or industrial purposes, as determined by the sanggunian concerned.”

The allowable area for conversion is 15% for highly urbanized and independent component cities, 10% for component cities and first to third class municipalities and 5% for fourth to sixth class municipalities. Further, that agricultural lands distributed to agrarian reform beneficiaries pursuant to R.A. No. 6657 (The Comprehensive Agrarian Reform Law), shall not be reclassified and converted into other purposes.

Also, in conformity with existing laws, continue to prepare their respective comprehensive land use plans enacted through zoning ordinances which shall be the primary and dominant bases for the future use of land resources: Provided, that the requirements for food production, human settlements, and industrial expansion shall be taken into consideration in the preparation of such plans.

The LGUs are also mandated to perform fishery development and management in municipal waters. The Code defines Municipal Water to include not only streams, lakes, and tidal waters within the municipality, 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 lines of the municipality or city touch the sea at low tide and a third line parallel with the general coastline and fifteen (15) kilometers from it. Where two (2) municipalities are so situated on the opposite shores that there is less than fifteen (15) kilometers of marine waters between them, the third line shall be equally distant from opposite shores of the respective municipalities”.

LGU activities in agricultural lands include planting of trees, raising of crops, livestock and poultry, dairying, salt making, inland fishing and similar aquacultural activities, and other agricultural activities. Agricultural activities should not be undertaken in classified mineral, timber, residential, commercial or industrial land.

Relative to the implementation of the Local Government Code, several laws were repealed. These are Batas Pambansa Blg. 337 (Local Government Code), Executive Order No. 112 (1987); and Executive Order No. 319 (1988); Presidential Decrees Nos. 684, 1191, 1508 and such other decrees, orders, instructions, memoranda and issuances related to or concerning the barangay; provisions of Sections 2, 3, and 4 of Republic Act No. 1939 regarding hospital fund; Section 3, a (3) and b (2) of Republic Act No. 5447 regarding the Special Education Fund; Presidential Decree No. 144 as amended by Presidential Decrees Nos. 559 and 1742; Presidential Decree No. 231 as amended; Presidential Decree No. 436 as amended by Presidential Decree No. 558; and Presidential Decrees Nos. 381, 436, 464, 477, 526, 632, 752, and 1136; Presidential Decree No. 1594 is hereby repealed insofar as it governs locally-funded projects; Sections 2, 16, and 29 of Presidential Decree No. 704; Section 12 of Presidential Decree No. 87, as amended; Sections 52, 53, 66, 67, 68, 69, 70, 71, 72, 73,
and 74 of Presidential Decree No. 463, as amended; and Section 16 of Presidential Decree No. 972, as amended.

Department of Agriculture - Bureau of Fisheries and Aquatic Resources

The functions and responsibilities of the Department of Agriculture through the Bureau of Fisheries and Aquatic Resources are defined in RA 8550, The Fishery Code of 1998. Section 3, Chapter 1 prescribes that the Code's provisions shall be applied in "all aquatic and fishery resources whether inland, coastal or offshore fishing areas, including but not limited to fishponds, fish pens/cages; and all lands devoted to aquaculture, or businesses and activities relating to fishery, whether private or public lands".

Aquatic Resources - includes fish, all other aquatic flora and fauna and other living resources of the aquatic environment including, but not limited to, salt and corals and coastal area includes a band of dry land and adjacent ocean space (water and submerged land) in which terrestrial processes and uses directly affect oceanic processes and uses, and vice versa; its geographic extent may include areas within a landmark limit of one (1) kilometer from the shoreline at high tide to include mangrove swamps, brackish water ponds, nipa swamps, estuarine rivers, sandy beaches and other areas within a seaward limit of 200 meters isobath to include coral reefs, algal flats, seagrass beds and other soft-bottom areas (Section 4, RA 8550).

Foreshore Land - a string of land margining a body of water: the part of seashore between the low-water line usually at the seaward margin of a low tide terraces and the upper limit of wave wash at high tide usually marked by a beach scarp or berm.

Mangroves - a community of intertidal plants including all species of trees, shrubs, vines and herbs found on coasts swamps or border of swamps.

Section 45 of Article 3 states that the "Public lands such as tidal swamps, mangroves, marshes, foreshore lands and ponds suitable for fishery operations shall not be disposed or alienated. FLA may be issued for public lands that may be declared available for fishpond development primarily to qualified fisherfolk cooperatives/associations.

Section 49 states that "The DENR, in coordination with the Department, LGUs, other concerned agencies and FARMCs shall determine which abandoned, undeveloped or underutilized fishponds covered by FLAs can be reverted to their original mangrove state and after having made such determination shall take all steps necessary to restore such areas in their original mangroves state.

The laws that were repealed are embodied in Section 131, Chapter 9 of the Fishery Code. The laws that were repealed are Presidential Decree No. 704, as amended by Presidential Decree Nos. 1015 and 1058, Presidential Decree No. 977, as amended, Executive Order No. 967, Series of 1984, Executive Order No. 116, Series of 1987, Executive Order No. 292, Series of 1987, E.O. No. 473, Series of 1991 and other existing laws except RA 7611, decrees, executive orders, and rules and regulations or parts thereof, which are inconsistent with this Code, are hereby repealed or modified accordingly.

In the Local Government Code and the Fishery Code of 1998, EO 192, PD 705 (Forestry Code) and RA 7586 (NIPAS Law) which govern the classification, development and management of the environment and natural resources were not repealed and therefore are still enforced. This means that DENR still has administrative jurisdiction over all mangrove forestlands in the country that were not alienated and disposed to the LGUs and those that were not transferred to the DA-BFAR.

Policy Insights on Mangrove Administration, Development and Management

The review of the above policies led to insights on the allocation, administration, development and management of mangrove areas as follows:

1. The DENR classifies public lands into Alienable and Disposable Lands, Classified Forestlands and Unclassified Public Lands.
2. Classified forestlands are subclassified into forest reserves, timberland, national parks, military and naval reservations, civil reservations and fishponds.
3. Forest reserves, timberland, national parks include dipterocarps, pine, mossy, mangroves, foreshore areas and beach forests ecosystems, grasslands, brushlands, open lands and plantation forests.
4. Forest reserves, timberland, national parks and unclassified public lands are within the administrative jurisdiction of the DENR.
5. Mangroves, beach and foreshore areas in forest reserves, timberlands, national parks and unclassified public lands remained under DENR administrative jurisdiction.
6. Foreshore areas under foreshore lease agreement are under the administrative jurisdiction of the DENR by virtue of CWA 141 or the Public Land Act.
7. Fishponds constructed in mangrove forestland under Fishpond Lease Agreement are turned-over to DA-BFAR for fishery development and management. Abandoned, underutilized and unproductive fishponds should be turned over to DENR.
8. Fishponds in coastal areas that had been alienated and disposed and classified as Alienable and Disposable Lands are under the administrative jurisdiction of the LGUs.
9. Community-based ENR projects that have been devolved to the LGUs are under the administrative jurisdiction of the LGUs.
XI. POLICY ISSUES ON MANGROVES PROPOSED FOR STUDY BY PAWB-CMMO

The PAWB-CMMO prioritized 5 major policy problems or issues that should be addressed in this study. These are:

1. Of the total area of mangroves that were under Fishpond Lease Agreement (FLA), a substantial area nationwide has been found abandoned, undeveloped and underutilized. The DA has already turn-over 4,764 hectares to the DENR. There may be more areas in the regions which need to be validated and turned-over to the DENR for restoration. The problem is that there are no specific guidelines that will be used in handling the reverted areas from cancellation to restoration and management. To address this, PAWB-CMMO envisions a policy implementable at all levels in a format of a Joint Administrative Order to be participated by the DENR, DA, DAR and DILG/LGU under the National Convergence Initiative Framework for Sustainable Rural Development and also under the National Greening Program of the government through the DENR. The title of the guidelines is and it is in the form of a draft Joint Administrative Order, "Guidelines on the Reversion of Abandoned, Undeveloped and Underutilized Fishponds under Fishpond Lease Agreements to the Department of Environment and Natural Resources through the National Convergence Approach".

2. Proliferation of illegally constructed and illegally titled fishponds is another policy problem considering that fishponds in mangrove forestlands are only possible under the Fishpond Lease Agreement. How come there are fishponds which had been titled? Is there a way that such titled areas could still be reverted to mangrove forest state? In the same manner, there are intact mangrove forests in classified alienable and disposable lands. Perhaps, these areas were misclassified and declared as alienable and disposable lands. What should be the action of PAWB-CMMO to revert or reclassify such areas into forestland?

The proposed Department Administrative Order formulated to address these policy problems is titled, "Guidelines for the Cancellation of Illegally Titled Fishponds and Illegally Constructed Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land".

3. The third policy problem that PAWB-CMMO encounters is the inadequacy of resources to be used for the restoration, protection, development and management of mangrove areas that have been deteriorated and those that have potentials for income generation. Financing is important and the only way is to internally raise funds through contracting businesses whether individuals and/or corporations to utilize available mangrove, beach and foreshore lands for any appropriate economic development activities. The PAWB-CMMO would like to have a policy recommendation regarding this or a revised proposed DAO. "Special Agreement for Mangrove Area Development as a Legal Instrument for the Development and Management of Mangrove Areas Including Beach Areas and Foreshore Areas under the Administrative Jurisdiction of the Department of Environment and Natural Resources”

4. The other policy problem is that there are several guidelines on the implementation of the laws and relevant administrative issuances relating to foreshore areas that are actually mangrove areas implemented by different government agencies. PAWB-CMMO requires a policy recommendation on what should be the best foreshore area management under the present situation.

The policy recommendation to address the issue is titled, "Policy Recommendation on the Implementation of Laws and Relevant Administrative Issuances Relating to Foreshore Areas that are Actually Mangrove Areas”

5. The last policy issue that PAWB-CMMO would like to address is the repeal of the policy prohibiting the cutting of mangrove forest and in the collection of forest charges as embodied in RA 7161.

The policy recommendation to address this is titled, "Policy Recommendation on the Repeal of the Policy Prohibiting the Cutting of Mangrove Forest and in the Collection of Forest Charges Therefrom Embodied in RA 7161”

XII. POLICY GAP ANALYSIS

Reversion of Abandoned, Undeveloped, and Underutilized (AUU) Fishponds

There are no specific, detailed and comprehensive guidelines governing the reversion of AUU FLAs to DENR from DA. DA-BFAR, however has its own version defining the administrative reversion of AUU from DA to DENR. Likewise, DENR through PAWB-CMMO has this JAO drawn within the context of the National Convergence Initiative of the government involving DENR, DA, DAR and DILG/LGU where the member-agencies of the NCI will be participating in
terms of resource sharing and coordination activities collectively designed and implemented to achieve the government objectives in rural development.

The policy gap or problems that need to be addressed in the draft Joint Administrative Order are:

- AUU FLAs are important not only for reversion to forest state but should also be considered for other uses that will provide sustainable livelihood to people in coastal communities, reduce poverty and attain the objectives of environmental protection and sustainable development.

- While AUU FLAs are under the responsibility of the DENR, their effective development, protection and management are better placed under the NCI where DENR, DA, DAR and DILG/LGU should be working together in terms of sharing resources and in coordinative activities to ensure that the objectives of sustainable rural development could be achieved.

- The NCI member agencies have their own receptive responsibilities in their own agencies and under the NCI, their roles, functions and responsibilities should be defined to avoid duplication and wasteful participation in the NCI where AUU FLAs are included.

- To avoid error in field implementation of the NCI, especially in the AUU FLAs, a thorough identification, assessment and evaluation of such areas FLAs must be done based on ground realities and their development and management defined through scientific approach and holistic evaluation.

- The process of administrative reversion of AUU FLAs from DA to DENR and reversion to forest state to be undertaken by DENR must be formulated in the JAO.

- Stakeholders’ participation is important not only for transparency but also for potential partnership in the development, protection and management of the AUU FLAs.

- Survey and mapping of AUU FLAs is necessary for data base build up and proper documentation.

- Participation of NCIs in all levels is important in the identification, assessment and evaluation of AUU FLAs.

- Counter legal action is necessary for those contesting lessees of AUU FLAs.

- Issuance of CBFMA/PACBRMA tenurial instrument to reverted FLAs.

- Development and management approach of AUU FLAs is better integrated into the NGP of the government under a participatory planning of development and management requirement.

- So as not to waste the reverted FLAs under a CBFMA/PACBRMA tenurial instrument for a period of 25 years renewable for another 25 years, a probationary period is prescribed to observe and prove the sincerity of the CBFMA/PACBRMA applicant in terms of showing concrete development.

- The development, protection and management of reverted FLAs, especially the 4,700 hectares should be budgeted under the NGP this year and their development completed within 5 years.

- Likewise, other important policies/programs/projects to support the development, protection and management of AUU FLAs such as: a) programs and projects management and supervision at the sub-national level involving all NCI-TWGs from the RCI to the PCI; b) implementation of plans, programs, and projects and related activities of the NCI and NGP; c) initial FLA area reverted to DENR totaling to 4,176 hectares shall be budgeted for feasibility study, development planning and forestation under the NGP; d) CBFMA/PACBRMA site-based forestation and management activities; e) Conduct of Results Monitoring and Evaluation.

The policy/problem gaps mentioned above are addressed in the proposed JAO shown in Appendix A.

Cancellation of Illegally Titled Fishponds and Illegally Constructed Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land

Just like AUU FLAs, there are fishponds that are illegally constructed in classified forestland and there are also intact mangrove forests in classified A&D lands that in order to effectively protect, develop and manage such areas should be reclassified and placed under the jurisdiction of the government. PAWB-CMMO would like to explore what policy directions should be implemented.

The policy/problem gaps are:

- Some of the mangrove areas leased to DA as FLAs were converted to titled fishponds without the knowledge of the DA and the DENR. Leased areas as FLAs are not allowed for titling unless it is first classified as A&D lands. What is the process to be implemented in order to consolidate these areas into integral component of the forestland?
While there were observations and probably official records on the existence of titled fishponds in mangrove areas, their inventory, assessment and evaluation are important to make sure of their legal status. There are no documents showing who the owners are, actual areas titled and converted into fishponds and actual conditions whether these are still being used as fishponds or converted into residential areas.

There are also no maps showing their exact locations and boundaries. Thus, survey and mapping is necessary to establish their boundaries on the ground and to have official maps showing their exact locations.

Cancellation of titles is not an easy task considering that owners are capable of defending themselves legally or otherwise. To justify the cancellation and reversion, the DA and DENR should establish paramount public interest over titled areas in classified forestland. How does PAWB-CMMO show paramount public interest over an area?

How come classified forestlands were titled without first reclassifying it as A&D lands? Who issued the title? What processes were used resulting in the titling of mangrove forestland? The DENR should investigate why this happened. If the process was done by DENR personnel, what disciplinary action should be implemented by DENR.

The other policy problem is the existence of intact mangrove forests in Alienable and Disposable Lands and whether such areas are better under A&D or reclassified as forestland. The policy gaps that should be addressed here are:

- Lack of inventory of intact mangrove forests in Alienable and Disposable Land.
- No information on the actual condition of the intact mangrove forest, thus assessment is important.
- No maps of the said areas, thus surveys and mapping of intact mangrove forest must be undertaken.
- No records on public interest over intact mangrove forests in A&D lands, thus a system of establishing interests of the public over the intact mangrove forests need to be established.
- As of now DENR is not certain on what action should be pursued over the reclassification of such areas.

For reclassified areas, how should DENR develop these and make them productive. Should these areas be integrated into the NCI and NGP to ensure their development and management.

There are no funding for the execution of activities of this DAO, thus funding is necessary.

Lack of a mechanism to ensure that resources being used in this DAO are used wisely to produce benefits, thus a results monitoring and evaluation system is a must.

The policy/problem gaps mentioned above are addressed in the proposed DAO shown in Appendix B.

Prescribing the Special Agreement for Mangrove Area Development (SAMAD) as a Legal Instrument for the Development and Management of Mangrove including Beach Areas and Foreshore Areas under the Administrative Jurisdiction of the Department of the Environment and Natural Resources.

SAMAD evolved from the draft DAO on Coastal Area Special Agreement (CASA) drafted in this study but later on changed to SAMAD. CASA and SAMAD were drafted from the draft DAO on Coastal Area Special Use Agreement (CASUA) of the DENR. BFAR junked CASUA for inconsistency with the Local Government Code and the Fisheries Code of the Philippines.

Restoring, developing and managing mangrove, beach and foreshore areas must not be totally relegated to the taxpayers but also to the capacity of such resources to generate funds that might be used for it. Thus, to realize such benefits from such mangroves, beach and foreshore areas and to be able to generate resources, a legal instrument is necessary for implementation.

In the proposed SAMAD, equal opportunity is given to individuals, families, groups, cooperatives, People's Organizations, LGUs, and the Business Sector for the Utilization of coastal areas including mangrove forestlands and foreshore areas classified under integrated protected areas and forestland.

The policy/problem gaps are:

- Undefined types of project compatible with the restoration, development and management of coastal areas where SAMAD is applicable;
- Absence of surveys and zoning of mangrove and foreshore areas according to suitability;
- Lack of fees and charges;
- Unprescribed allowable or maximum area;
- Lack of prohibition on subleasing;
- Lack of capability strengthening activities in M&E, project management and in monitoring of
payments;
• Lack of prioritization of applicants;
• Lack of application procedure;
• Absence of a rationalize tenure; and
• Undefined conditions for termination.

These policy gaps are being addressed in the proposed DAO presented in Appendix C.

Policy Recommendations on the Implementation of the Laws and Relevant Administrative Issuances Relating to Foreshore in Areas that are Actually Mangrove Areas

There are several policies on the utilization of foreshore and mangrove areas being implemented by different national government agencies. The DENR issues and implements policies in the conservation, development, rehabilitation and management of foreshore and mangrove areas. The DA-BFAR issues and implements guidelines pertaining to the construction, development and management of fishponds under Fishpond Lease Agreement in foreshore or mangrove areas. The DOT issues and implements guidelines in the development and management of tourism areas in foreshore areas. The LGUs are authorized under the Local Government Code to draw its own CLUP integrating the use of foreshore and mangrove areas. There are more government agencies that are involved in the developing and managing portion(s) of the mangrove areas such as beach and foreshore areas.

The policy/problem gaps are:

What is missing is an overarching policy that will require the following to be performed by each government agency engaged in foreshore or mangrove utilization, development, conservation and management:

Alternative Policy Recommendations

1. Implementation of an integrated and overarching framework defining the use of mangroves including beach and foreshore as well as the roles of each government agencies that administer and manage foreshore and mangrove areas.

The salient features of the framework are:

a. Vision and mission of the government regarding mangrove areas (including beach and foreshore areas) considering climate change, disaster risk reduction, environmental protection, food security, biodiversity conservation and sustainability. Once the vision and mission are formulated and adopted by the national government, the government agencies that will have an administrative and management stake over the mangrove area should abide by this vision and mission.

b. The optimal and best uses of mangrove areas and its components and how to sustain such uses shall be drawn in the LGUs comprehensive land use plan and comprehensive development plan. This will serve as guide in the allocation or zoning of mangrove areas according to demands for goods and services subject to environmental constraint, economic objectives, social concerns, resource carrying capacity and management capacity of the LGUs.

c. Provide full authority to the LGUs to implement the best use of the mangrove areas at the municipal level subject to their capacities and resources. All government agencies that will be involved will have common decision to authorize the LGUs to execute such projects or actions according to the local government code.

d. The major roles of the national government agencies involved would be limited to coordination and monitoring and evaluation functions at the national, regional and community level. This will serve as a unifying factor of the different national government agencies while executing their major functions.

e. Resource and benefit sharing to sustain operations of each of the government agencies as well as to maintain contribution to national growth and development. Agency’s share from whatever benefits derived from any projects in mangroves should be given to them automatically to enable them address current problems in resource management.


Integrating the different policies being implemented by different national government agencies is not practical at this time due to difficulty in organizing such agencies to come together for a common concern. They are guided by their own mandates and resources obligated by the government. The mandates of the concerned agencies are totally different from each other using a single land resource. Implementing an integrated policy is expensive because it will take a long time for the agencies/implementers to come together and adjust into one field implementing unit. Turf protection cannot be avoided. Also, the other tradeoff is the difficulty of pinpointing management liability among the implementing agencies when something went wrong.

3. Status Quo (With Minimal Modification Integrating Land Rent System)
As it is now, it is not clear whether government agencies through their concessionaires are paying the DENR some amounts as land rent or fees for the use of mangrove, beach or foreshore areas. Land rent is charged to the actual user of the resource and not from those who do not use the resource. The land rent shall be used in the maintaining and protecting the sites being used.

In both status quo, without or with modification, conflicts on policies and operational policies shall be reviewed, consolidated and reconciled resulting in issuances that are harmonious and contributory to a unified development action in the mangrove areas.

Policy Recommendation on the Repeal of the Policy Prohibiting the Cutting of Mangrove Forest and the Collection of Mangrove Forest Charges Therefrom Embodied in RA 7161

The utilization of mangrove forest products is constrained by one of the provisions of RA 7161 prohibiting the cutting and harvesting of mangrove forests. To some CBFMA holders engaged in mangrove forest development consider this policy counter-productive. One of the incentives given by the DENR to communities who will be engaged in the rehabilitation of degraded mangrove forests is the cutting and harvesting of mangrove timber once the trees reached maturity. This is done through the resource utilization permit (RUP) mechanism embodied in the CBFMA. In harvesting, the CBFMA holders expect income from the trees when they sell it as fuel wood, charcoal and light housing materials. These benefits, however, are not that much. Cost-benefit analysis of mangrove reforestation projects under the Forestry Sector Project exhibited negative benefit if based only on the wood products without the environmental services such breeding grounds of valuable fishes and marine species, protection forests, recreational areas, NPK recharging into the soil, etc.

Policy recommendations

There are two alternative policy recommendations regarding the proposed repeal of the policy on non-cutting in mangrove forests. These are:

a. Implementation of the policy on non-cutting of mangrove forest and non-collection of forest charges

Due to the very low percent forest cover of the remaining mangrove forest considering the total coastline of the country, the large number of coastal communities to be protected from possible tsunami, and the need to provide sanctuaries for fish, wildlife for genetic preservation, to provide other environmental services and to meet the demand for goods and services, a paradigm shift of revenue generation from extraction-based to other forms of innovative revenue generation system that will not require the harvesting of mangroves be introduced. The other consideration is the issuance of EO 23. It will not look good for DENR leadership to be contradicting the Executive Order of the President of the Republic of the Philippines.

This may be done through a modified implementation of the Conditional Cash Transfer (CCT) being offered by the government to poor families as an incentive system whereby the government will add the cost of restoring, protecting and maintaining degraded mangroves to the CCT to be given to each participating family. The additional amount for the expanded CCT may come from the regular budget of the DENR for reforestation, protection and maintenance of mangrove areas. As an incentive to the poor families enrolled in the expanded CCTs in coastal communities, they would be considered priority in small-scale fishery development project defined under SAMAD.

b. Allowing limited harvesting of mangrove forest

The Bill on Sustainable Forest Ecosystem Management and the Bill on Mangrove Conservation and Rehabilitation Program which are now filed in Congress allow the harvesting of mangrove forest products. Passing both bills into laws will automatically repeal of the provision in RA 7161 prohibiting the cutting of mangrove forests and non-collection of forest charges for trees harvested in mangrove forests.

XIII. QUALITATIVE ANALYSIS OF THE BENEFITS OF THE PROPOSED JAO/DAO AND POLICY RECOMMENDATIONS

Are the Proposed JAO/DAOs Beneficial?

Subjecting the DAOs to further evaluation to establish whether they are beneficial or not will further strengthen their urgency for implementation. The criteria to be used are the following:

- Effectiveness in addressing the present and potential future problems, issues, and constraints in developing, rehabilitating, utilizing, conserving, and managing the mangrove forest lands and resources;
- Efficiency in resource usage;
- Practicality of the provisions in terms of being implementable right where the problems are;
• Cost-effectiveness of development, rehabilitation, utilization, and management strategies;
• Beneficial impacts to coastal communities; and
• Impacts to social, economics/financial, institutional, and environmental considerations.

The qualitative impact analysis of the proposed JAO/DAOs and policy recommendations are summarized in the following matrix below. All the proposed orders are beneficial in terms of the impact indicators. If the provisions are implemented according to provisions of the guidelines, then the positive benefits will most likely be achieved. Since the proposed guidelines for AUU and ICF/ITF were designed to retrieve mangrove lands for restoration into forest, the benefits would be positive economically, socially and environmentally. SAMAD on the other hand will specifically benefit the poor in coastal communities and at the same time save funds from the government’s regular appropriation because DENR will be able to generate more funds to be used for mangrove restoration. Adoption of ECCT (extended conditional cash transfer) under SAMAD for restoring damaged mangrove, beach and foreshore areas will benefit the poor families in the coastal areas (Table 8).

In terms of the policy recommendations on what should be the management directions for the mangroves and foreshore areas considering several management guidelines being implemented by different government agencies, the potential impacts are summarized below, IOF-integration of an overarching framework to form a coordination mechanism at the national level and define the vision and mission of mangrove management and identify the best uses of the mangrove, beach and foreshore areas. The benefit of the IOF will be in terms of consolidating and coordinating efforts of the different government agencies toward optimally achieving their mandates without sacrificing the environment. The status quo is appropriate in terms of allowing the different agencies in the implementation of their mandates without changing their present course actions as defined in their respective guidelines. The status is beneficial in terms of identifying accountabilities and performance. The status quo with land rent system will help the government generate more income from the resource users whether government or private to be used for the restoration of degraded mangrove, foreshore and beach areas (Table 9).

The policy recommendations on whether the provision of RA 7161 that prohibits the collection of forest charges/fees should be repealed are not beneficial if fees from timber harvesting in mangroves will be allowed because it will encourage more cutting of mangrove trees. The policy implication would be detrimental to the program of the government in restoring degraded mangroves considering the huge archipelagic coastal areas to be provided with buffer protection forest and mangrove areas for breeding grounds of marine and terrestrial species (Table 10).

Table 8. Potential Impacts of the Proposed JAO/DAO on AUU, ICT/ITF and SAMAD

<table>
<thead>
<tr>
<th>Impact Indicator</th>
<th>JAO-AUU</th>
<th>DAO-ICF/ITF</th>
<th>SAMAD</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>Efficiency</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>Practicality</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>Cost-effectiveness</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>Beneficial impacts</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>Impact:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a. Economic</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>b. Social</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>c. Institutional</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
<tr>
<td>d. Environmental</td>
<td>y</td>
<td>y</td>
<td>y</td>
</tr>
</tbody>
</table>

Y-yes

<table>
<thead>
<tr>
<th>Impact Indicator</th>
<th>PR:IOF</th>
<th>PR:Status Quo</th>
<th>PR:Status Quo w/ Land Rent System</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>y</td>
<td></td>
<td>y</td>
</tr>
<tr>
<td>Efficiency</td>
<td>y</td>
<td></td>
<td>y</td>
</tr>
<tr>
<td>Practicality</td>
<td>y</td>
<td></td>
<td>y</td>
</tr>
<tr>
<td>Cost-effectiveness</td>
<td>y</td>
<td></td>
<td>y</td>
</tr>
<tr>
<td>Beneficial impacts</td>
<td>y</td>
<td></td>
<td>y</td>
</tr>
</tbody>
</table>

**Impact:**

- **a. Economic:** y y y
- **b. Social:** y y y
- **c. Institutional:** y y y
- **d. Environmental:** y y y

Y-yes

### Table 10. Policy Recommendations: Whether to Repeal the Provision of RA 7161 that Prohibits the Collection of Forest Charges in Mangrove Forests

<table>
<thead>
<tr>
<th>Impact Indicator</th>
<th>No Cutting in Mangrove Forest (RA 7161)</th>
<th>Limited Cutting (SYFM Bill)</th>
<th>Limited Cutting (Mangrove Bill)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Positive</td>
<td>Negative</td>
<td>Positive</td>
</tr>
<tr>
<td>Effectiveness</td>
<td>y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Efficiency</td>
<td>y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Practicality</td>
<td>y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Cost-effectiveness</td>
<td>y</td>
<td></td>
<td>Y</td>
</tr>
<tr>
<td>Beneficial impacts</td>
<td>y</td>
<td></td>
<td>Y</td>
</tr>
</tbody>
</table>

**Impact:**

- **a. Economic:** y Y Y
- **b. Social:** y Y Y
- **c. Institutional:** y Y y
- **d. Environmental:** y Y Y

Y-yes
Documentations of Stakeholders’ Consultations

The other function of the Consultant is to document consultation meetings relative to mangrove development and management. The was on one opportunity where the Consultant had attended one of the meetings of the PAWB-CMMO on mangroves in Butuan. The proceedings are presented in the following section.

BUTUAN STAKEHOLDERS’ CONSULTATION

Title of the meeting: CONSULTATION ON THE REVERSION OF ABANDONED, UNDEVELOPED, AND UNDERUTILIZED FISHPONDS TO MANGROVE

Venue: Luciana Inn, San Jose St., Butuan City
Date: 3-4 March 2011

Program:

1. Opening and welcome remarks: RED Leonardo R. Sibbaluca, RED of CARAGA Region

   The RED pointed out the following:
   • Conflicting policies in mangrove development may cause gradual effect to the management and preservation of the mangroves;
   • Climate change may aggravate environmental situation;
   • Mangroves are better mitigation in combating excessive carbon emission; and
   • The reversion of AUUs is good based on this consideration.

   The RED recommendations:
   • That the output of the 2 days affair will be to identify and recognize AUU fishponds and the mechanics of their conversions into mangrove areas, and to give our policy makers a basis in providing mangrove appropriate sites to settle with; and
   • He challenged the participants particularly the Mindanawons to utilize AUU fishponds to mangrove and even into a productive land.

2. Setting the Direction of the Consultations and Identification of Expected Output

   The organizer through the moderator divided the stakeholders into groups that will be assigned in the workshops. Each group was given sufficient time to conduct the workshop to determine their recommendations.

   The objectives of the workshop were:
   • Knowledge on laws and regulations on mangroves management;
   • Criteria as to AUU selection and that includes creation of a task force;
   • Push BFAR to have an inventory of AUU;
   • Formulate an AUU reversion process that is holistic in approach, appropriate for the whole country; and
   • In the process of addressing the above concerns, the interest FLA holders and owners
as well as the other government stakeholders should also be taken into consideration.

3. Presentation of the objectives of the Butuan consultation

Mr. Dennis Calvan, NFR Executive Director, presented the objectives of the Butuan consultations. The objectives were:

- To understand the importance of mangroves in the environment and fisheries resources;
- To draw out local experiences like in Visayas (Iloilo) particularly by Mangrove Convergence Initiative (MCI) on their actual process of disused fishponds' reversion;
- Identify mangrove reforestation funding options and opportunities;
- To know the existing policies, rules and regulations on mangrove management and on reversion;
- Propose process on conversion into mangrove before different concerned government agencies like DA-BFAR and DENR;
- Discus the relevance of the terms: a) Abandoned; b) undeveloped; and c) underutilized; and
- Creation of a technical working group (TWG) that will primarily be responsible in the realization of the outputs created during the three island wide consultations.

4. Paper Presentation

Dr. Hilly Ann-Quiaiot, Xavier University Vice-President for Research and Social Outreach, presented a paper on climate change. Her paper highlighted the following:

- Climate change is real and it is long-term and the changes in weather condition are also long-term;
- Risks brought about climate change should be reduced;
- In the coastal communities, mangroves serves as mitigation measures thus reducing risks;
- Mangroves and climate impacts/risks;
- Mangroves are the backbone of the tropical ocean coastline; and
- Mangroves are the main habitats for the regeneration of fishes.

Mangroves will play a vital role in cushioning the impact of sea level rise and tsunamis. It also plays in the minimization of coastal erosion because through its root system it will hold the movements of soil and at the same time provide soil accretion due to its litter fall and debris. However, due to changes in temperature and other weather-related indicators, species composition in mangrove will also change. Likewise, mangrove structure and health will most likely be changed because of storminess, changes in the salinity, and changes in the wetland sediment budget.

It has been observed that due to sea surface temperature increases, some species of mangroves showed declining leaf formation rate. At 38-40°C leaf temperatures almost no photosynthesis occurred. At more than 35°C leaf temperature, the species will have a thermal stress affecting mangrove root structures and its regeneration.

What strategies do we have to adopt at least to reduce the impact of climate change particularly in the mangrove areas? The following were recommended:

- Apply risk-spreading strategies to address the uncertainties of climate change;
- Identify and protect critical areas that are naturally positioned to survive climate change;
- Manage human stresses on mangroves;
- Develop alternative livelihoods for mangrove dependent communities as a means to reduce mangrove destruction;
- Establish greenbelts and buffer zones to allow for mangrove migration in response to sea-level rise, and to reduce impacts from adjacent land-use practices;
- Restore degraded areas that have demonstrated resistance or resilience to climate change;
- Understand and preserve the connectivity between mangroves and sources of freshwater and sediment, and between mangroves and their associated habitats like coral reefs and seagrasses;
- Establish baseline data and monitor the response of mangroves to climate change;
- Implement adaptive strategies to compensate for changes in species ranges and environmental conditions; and
- Build partnerships with a variety of stakeholders to generate the necessary finances and support to respond to the impacts of climate change.
The other paper presented is titled Mangrove Convergence Initiative: the ZSL-CRMP Experience. This was presented by Ms. Josephine Savaris, Zoological Society of London. She reported that the community through the PO leadership implemented a community-based mangrove approach in the rehabilitation and management of the mangroves in their community. The project started in 2008 and still being implemented at present. The project is a project of the Zoological Society of London.

The objectives of the projects

- To support coastal communities in Iloilo, Aklan, Capiz and Guimaras provinces to rehabilitate abandoned, government-leased fishponds and degraded nipa palm stands to healthy mangrove forest; and
- To increase coastal protection, food resources and livelihood income through the sustainable management of the mangrove forest.

Project goals

- Secure tenure on coastal land through Community-based Forest Management Agreement;
- Rehabilitate 50 hectares of abandoned, unutilized and under-utilized government-leased fishponds and 30 hectares of degraded nipa stands to healthy mangrove habitat to provide communities with ecosystem goods and services including increased food resources;
- Support coastal communities to supplement their livelihoods utilising rehabilitated mangrove habitats; and
- Re-establish the legally mandated mangrove ‘greenbelt’ along the coast, to decrease vulnerability of the communities to coastal erosion and storm surges.

Project Strategies

- Equal opportunities for men and women;
- Active community participation;
- Influencing opinion;
- Capacity building; and
- Building alliances, collaboration and networking.

Project partners

- Department of Agriculture-Bureau of fisheries and Aquatic Resources (DA-BFAR)
- Department of Environment and Natural Resources (DENR)
- Local Government Units (LGUs)
- People’s Organizations (POs)
- Fishpond Operators
- Academe

Lessons learned from the project

- Catalyst that will initiate the convergence;
- Right persons representing MCI members;
- Ability of members, to go out of their boxes and embrace, collaboration and partnership;
- Strong POs/groups that will push for the cancellation, reversion, and initiate the reforestation process; and
- Logistics to operationalize MCI.

Opportunities and Challenges

- Institutionalization of Mangrove Convergence Initiative;
- Sustainability of Mangrove Convergence Initiative;
- Replication of the model in other areas; and
- Documentation of the experience.

The other paper was presented by Dr. Alice Ferrer of the University of the Philippines-Visayas. The title of her paper is Funding Options for Reversion of Disused FLAs to Mangroves. The paper presented the following funding options for mangrove reforestation of disused FLAs (Table 11).
### Table 11. Funding Options for Mangrove Reforestation of Disused FLAs

<table>
<thead>
<tr>
<th>Options</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Imposition of performance bond</strong></td>
<td>Reforestation fund can be established where the performance bond is one source. Performance bond imposed on all applications, renewals, and transfers, and should be enforced during the whole life of the contract. The purpose is to ensure that the lessees perform their duties and responsibilities.</td>
</tr>
<tr>
<td><strong>Green tax imposition</strong></td>
<td>Reforestation fund can be established where green tax is one source. Green tax should be imposed to those not complying with existing fishery laws, rules and regulations; polluter pay principle.</td>
</tr>
<tr>
<td><strong>Increase lease and all other fees related to FLA</strong></td>
<td>A percentage of the amount raised can be channeled to fund mangrove reforestation program. Increased rentals, surcharge for late payment and all other related fees.</td>
</tr>
<tr>
<td><strong>Strict implementation of real property tax</strong></td>
<td>A percentage of the RPT is channeled to fund local mangrove reforestation program. RPT is for the improvements.</td>
</tr>
<tr>
<td><strong>Seek DENR grant</strong></td>
<td>Seek DENR grant for mangrove reforestation program.</td>
</tr>
<tr>
<td><strong>Seek funding source grant (foreign funding agencies)</strong></td>
<td>Seek grants from agencies supporting mangrove reforestation.</td>
</tr>
<tr>
<td><strong>Seek private sector support</strong></td>
<td>Seek assistance from the private sector (volunteers, corporate social responsibility, youth, other organizations).</td>
</tr>
</tbody>
</table>

The last Resource Person is Atty Lolly Bisquerra-Sheen, Executive Director of Tanggol Kalikasan. Her topic is titled “Relevant Policies on Reversion of Abandoned, Undeveloped and Underutilized Fishponds Covered by Fishpond Lease Agreements”

### The salient features of the presentation

- 1987 Philippines Constitution, Article XII, Section 2 where all lands of the public domain, waters, minerals, coals, petroleum, and other mineral oils, all forces of potential energy, fisheries, forest or timber, wildlife, flora and fauna, and other natural resources are owned by the State.

- Goals of national economy: more equitable distribution of opportunities, income and wealth; A sustained increase in the amount of goods and services produced by the nation for the benefit of the people; Expanding productivity as the key to raising the quality of life for all, especially the underprivileged.

- Article II, Section 2. It is also the duty of the State to protect and promote the right of the people to a balanced environment in accord with the rhythm and harmony of nature.

- The State hopes to perform this mandate by enacting environmental laws such as: a) Forestry Code; b) Fisheries Code.

### RA 8550 or the Fisheries Code of the Philippines

The policies of the State:

- Food security;
- Exclusive use and enjoyment of Filipino people;
- Rational and sustainable development, management and conservation of the fishery and aquatic resources in the Philippine waters;
- Fisherfolk rights in the preferential use of municipal waters;
- Support to fishery sector through technology and research, financial, production, construction of post harvest facilities, marketing assistance;
- Management consistent with integrated coastal area management; and
- Grant of privilege to private sector to utilize fishery resources as active participant and partner of the government in the sustainable management, conservation and protection.

### The objectives of the Code

- Conservation, protection and sustained management;
- Poverty alleviation and supplementary livelihood;
productivity of aquaculture within ecological limits;

• Optimal utilization of offshore and deep-sea resources; and

• Upgrading of post-harvest facilities.

Application of the Code

• All Philippine waters, the 200-nautical mile Exclusive Economic zone (EEZ) and continental shelf;

• All aquatic and fishery resources whether inland, coastal or offshore fishing areas, including but not limited to fishponds, fish pens/cages; and

• All lands devoted to aquaculture, or businesses and activities relating to fishery, whether private or public lands.

Definition of Key Terms/Words

Mangroves defined mangrove is a term applied to the type of forest occurring on tidal flat along the seacoast, extending along stream where the water is brackish (PD 705). In the Fishery Code, mangrove is defined as a community of inter-tidal plants including all species of trees, shrubs, vines and herbs found in coasts, swamps or border of swamps (RA 8550).

Mangrove area is part of forest lands. Forest land includes the public forest, the permanent forest or forest reserves, and forest reservations.

Public Forest is the mass of lands of the public domain which has not been the subject to the present system of classification for the determination of which lands are needed for forest purposes and which are not.

Permanent forest or forest reserve refers to those lands of the public domain which have been the subject of the present system of classification and declared as needed for forest purposes.

Mangrove alienation

Lands needed for forest purposes, even though below 18% slope, may not be classified as alienable and disposable. These include strips of mangrove or swampland at least 20 meters wide, along shorelines facing oceans, lakes and other bodies of water, and strips of lands at least twenty meters wide facing lakes.

Prior to November 9, 1972, area suitable for fishpond purposes may be disposed of by sale. This was done through an instrument called fishpond sales patent. This explains why some fishpond areas of the country are now titled private property.

This practice was no longer allowed with the passage of Presidential Decree 704 in 1975. After November 9, 1972, mangroves within public land may no longer be alienated and can only be utilized by lease.

Mangrove utilization

Mangrove areas may still be utilized for production purposes by qualified individuals, primarily by lease as provided for in PD 704. The same policy was adopted in the New Fisheries Code, Section 45 of RA 8550 – FLA may be issued for public lands that may be declared available for fishpond development primarily to qualified fisherfolk cooperatives or associations.

What are those public lands – tidal swamps, mangroves, foreshore lands and ponds suitable for fishery operations.

Conditions of FLAs in mangrove areas

Area: Individual – not more than 50 has. Corporation or fisherfolk organization – not more than 250 has.

Term of lease

25 years and renewable for another 25 years

Payment of lease rates

• Developed and producing on commercial scale within 3 years from the approval of the lease contract;

• Shall not be subleased, in whole or in part;

• Transfer or assignment of rights only with prior written approval of the Department;

• Reforestation for river banks, bays, streams and seashore fronting the dike of fishpond; and

• Provision of facilities that minimize environmental pollution (settling ponds, reservoirs, etc.).

Consequence of violation

• Areas not fully producing within five (5) years from the date of approval of the lease contract shall automatically revert to public domain for reforestation.

• Failure of the FLA holder to comply with the conditions of the lease will result into the cancellation of Fishpond Lease Agreement.
Automatic reversion – The DENR, in coordination with the Department, LGUs, other concerned agencies and FARMCs shall determine which abandoned, undeveloped and underutilized fishponds covered by FLAs can be reverted to their original mangrove state and after having made such determination shall take all steps necessary to restore such areas in their original mangrove state.

Developed fishpond – areas are enclosed by dikes with functional water control structures not vegetated with mangrove species and producing on a commercial scale, but not a fully developed fishpond.

Commercial-scale producing fishpond – a fully developed fishpond producing not less than 1000 kilograms of fish per hectare per year.

Fully developed fishpond – a clean, levelled area enclosed with dikes at least one foot higher than the highest flood water level in the locality and strong enough to resist water pressure at the highest flood tide; consists of at least a nursery pond, a transition pond, a rearing pond, or a combination of any or all of said classes of ponds and a functional water control system and producing in a commercial scale.

Undeveloped fishpond area – areas not enclosed by dikes; or enclosed by dikes without functional water control structures; or those enclosed by dikes with functional water control structures but the water level required for production on a commercial scale cannot be maintained either by high tides or by pumping; or a larger areas enclosed only with a simple perimeter dike which has not been subdivided, which may or may not be vegetated with mangrove species and is not producing on a commercial scale.

Related Guidelines

Joint DA-DENR General Order No. 3 Series of 1991

- Pertains to the reversion of administration of mangroves areas released by DENR to BFAR which are not covered by lease applications within 5 years from the release.
- Contains cancellation of lease of abandoned fishponds and disposition of the same in favour of qualified beneficiaries or CARL or CARP law.
- While DA-DENR G.O. No. 3, provides for segregation of vegetated portion for reversion to DENR, the administrative mechanisms to implement the same is time bounded .
- The joint team created to implement the Order shall complete the task of evaluation and establishing a database within 360 days from the date of the order or five days less of one year from October 31, 1991.
- General Order No. 3 has for its basis Section 2 and 3 of PD 704, in relation to Section 43 of PD 705 as amended.

Joint Administrative Order No. 1 Series of 2008

- Section 14 provides an inter-agency technical working group to be chaired by the DENR, with members from DA/BFAR, LGUs concerned and CARMCs, shall be created to identify FLA areas which have been abandoned for 5 years from the date of approval of the lease contract.
- These areas upon proper notice shall automatically revert back to public domain for eventual reforestation under administration of DENR.
- This inter agency technical working group shall develop and prepare guidelines for the reversion of identified abandoned, underutilized and undeveloped areas covered by FLA that can be reverted to original mangrove state.

Open Forum

Question: The reglementary period of 360 days was made in 1992. However until now, there is no implementation of the said policy. Does the same reglementary period applicable?

Answer: The guidelines are no longer effective after the enactment of PD 705, the Forestry Code and RA 8550, the Fisheries Code of the Philippines.
- Reversion by this cannot be done by the DENR but through the act of Congress.
- Before, the cancellation of title and reversion of the same was under the Court. Now, in RA 8550, there is that automatic reversion, and its implementation is under the jurisdiction of DENR.

Question: What is the classification of mangrove forest?

Answer: under PD 705, mangrove is under timberland.

Question: Is the reversion of fishponds to mangroves automatic?

Answer: Under CA 141, reversion to timberland, then to FLA and if abandoned, undeveloped and underutilized, reversion to forest land can only be made thru an administrative order. Note however, that there is no such thing as automatic reversion. There is still a need of Administrative Order. In RA 8550, the DENR in coordination with concerned agencies, is responsible
for reversion of those land covered by FLAs that are not titled. If the area was titled before 1972, it is not covered by reversion but by the action of the court to cancel it, not under automatic reversion. Reversion of cancelled FLAs under RA 8550, Section 43 requires administrative orders to effect reversion.

Question: Are POs contented with their participation in plantation establishment in mangroves?

Answer: No, they are not satisfied because it reduces the capacity of the community involved for such limited purpose. Stakeholders’ concerns include sense of ownership and tenurial status. There is a need to clarify the plantation only and the programs of the government. In Guimaras, POs were not forced to do the plantation of mangroves although POs lead the initiative for the cancellation of such developmental activities in the area.

Question: Are women given preference for livelihood in mangroves and fisheries?

Answer: To date, the DENR has no program that accrues to the needs and interests of the women sector. In the CMI Project, women are not marginalized and there is equal opportunity for both men and women. In Camiguin, under the Coastal Resource Management Project (CRMP), both men and women are tapped in livelihood projects. Both of them are beneficiaries and considered stakeholders.

Government agencies/personnel seldom visits the local communities due to distance from the city and difficulty and lack to access to transportation.

Question: Are there still sufficient mangroves in the country?

Answer: No inventory and assessment of mangroves nationwide. The health condition of the mangrove forest inside and outside should also be determined. Land uses which are not compatible with the health condition of mangroves may affect the health of mangroves if not well managed.

Question: How feasible are the alternative funding sources for mangrove reforestation?

Answer: Funding is not an essential factor in the success of mangrove development projects, collective effort of local communities has proven important than funding.

Question: Who should monitor FLAs?

Answer: BFAR, admittedly, BFAR has not been effective in monitoring FLAs due to lack of human resources. But the agency shares the sentiment of the people that there is an urgent need to track and prepare an inventory as to the existing FLAs in the country.

Question: What about FLAs that expired but foreclosed by DBP, and sold by the leaseholder to another. This is prevalent and not isolated in a specific area?

Answer: The DBP has an option to transfer.

STAKEHOLDERS CONSULTATIONS IN ILOILO CITY

Objectives

- Draw an action plan for moving forward the process of FLA cancellation and reversion of abandoned, undeveloped and underutilized fishponds to mangrove state in light of climate change; and
- Prepare a petition letter to the DENR, DA, DILG to submit various issues, concerns and policy proposals on Fishpond Lease Agreements cancellation and reversion to Mangroves.

Recommendations

- That cancellation and reversion of AUU FLAs should be an inter-agency cooperation;
- To convene the 2 national technical working groups once chaired by the DA-BFAR and the other chaired by the DENR per Sec. 14 Art. VI within 30 days from receipt of the petition;
- To recognize existing TWGs and establish local TWGs at the regional levels to implement the provisions of the JAO, where appropriate through administrative issuances within 90 days from receipt of the petition;
- To draft guidelines for implementation of JAO, including procedures for FLA cancellation and reversion to mangroves within 6 months;
- Information Management - generate, thru the NAMRIA, maps of fishponds and mangroves based on the latest satellite imagery in appropriate resolution and make these information accessible to aid policy formulations at all levels;
- Develop fully-computerized database on fishponds and mangroves which must be made readily accessible;
- Enforcement, Monitoring and Evaluation. Having identified the importance of proper assessment and monitoring of efforts on FLA, there is a need to:
• Strictly enforce laws, rules, policies and regulations against illegal, undocumented and unreported fishponds;
• Monitor fishponds (FLAs, titled and illegal) vis-a-vis laws, rules and regulations;
• Direct/enjoin LGUs to stop declarations over mangrove areas;
• Identify feasible options on fishpond areas; issuance of and revoke existing tax for the reversion of illegally titled;
• Cancel motu proprio delinquent FLAs (rent, reports, violations on the provisions of FLAs, etc.);
• Implement provisions of RA 8550 on the utilization of collected FLA rentals and fees which is specified for aquaculture research; and
• Monitor cancelled FLAs and ensure that the fishponds are reverted to mangroves, where feasible.

The stakeholders also recommended that policy and basic research should be conducted on the following:
• Commercial viability of brackish water fishponds and their contribution to the national economy;
• Socialized fishpond rents and imposition of limits on area granted for renewal of FLAs in the light of current policies;
• Develop systems of integrating aquaculture with mangrove systems; and
• Rationalize all fees, rents and other charges for fishpond operations.

The stakeholders also recommended the following as the next steps to following in order to move forward:
• Develop a website or email group – to include calendar of activities, and we can jointly monitor these activities and interact;
• Designation of a point person per agency where communication and coordination effort should be addressed;
• Inter-agency linkages and cooperation particularly in knowledge management;
• Reiterating the importance of the TWG as a venue for all matters pertaining to mangroves and FLAs;

• DENR-PAWB-CMMO to initiate meetings with DA, DENR and DILG Secretaries for appointing their official representatives to the TWG;
• Take up petition letter in National Convergence Initiative with GIZ support;
• Include in agenda the National Steering Committee Meeting;
• Invitation of participants during the meeting;
• Invite the Secretary of DILG, Sec. Robredo in the meeting.
• Formally organize the TWG.

The stakeholders identified the next steps to be undertaken (Table 12).

The succeeding steps for the POs, NGOs and the private sector groups to be undertaken for the next 3-6 months are:
• Initiate inventory of fishponds (FLA, illegal and titled in R8);
• Conduct study on market segmentation and consumption patterns;
• Gather existing studies/intervention on fishpond rents and valuation;
• Inventory of on-going studies on integrating aquaculture with mangroves;
• Research economic costs/benefits of fishponds with/without mangroves;
• Coordination and cooperation with academe and research institutions on FLA cancellation;
• Compile further FLA case studies;
• Provide LGU partners with list of FLA holders;
• Collect information on fishpond properties in respective municipal/city treasurer’s office if any;
• Discuss/raise issues on FLA cancellation and reversion to mangrove to NAFC;
• Review Draft AO on FLA Cancellation;
• Brief National Convergence Initiative on workshop outputs;
• Explore possibility of holding the same and similar in forum in Mindanao;
• Campaign to the private sector with buffer zone/greenbelt requirement;
• Inform, discuss to members of the association
about the contents of the Petition letter;
• Meet with government agencies to promote FLA cancellation and keep on their agenda;
• General assembly meeting among fishpond owners and operators of our cooperative;
• On enforcement: Encourage POs (where they work) to identify AUU ponds and facilitate their submission for cancellation requests; Visit nearest BFAR/NFRDI demo farm and examine their compliance to buffer zone; Influence CFARMC/agriculture office to monitor AUU fishponds; Report to BFAR AUU fishponds for them to visit and inspect;
• On special projects: Acquire satellite images for analysis in Regions 6, 7 and 8; Distribute workshop outputs to NGO colleagues, and LGUs and POs in areas we work and other relevant stakeholders; and
• Convert presentation into publishable form for submission to journals

The POs and FARMCs groups also presented their preferred activities to be undertaken,
• Conduct roundtable discussion on FLA-AUU and other mangrove concerns;
• Share the outputs/materials of the workshop to partners on mangrove conservation;
• Conduct meeting (GA) and join barangay community;
• Upon receipt of the CD, call for a meeting to the 5 national representatives (fisherfolk/fish worker) for information to the entire municipality/city FARMCs;
• Orientation and IEC for mangrove reversion FLA;
• Sharing of output seminar to PO (NewBAMA);
• Ask assistance from LGU, DENR and COSEED on processing of tenurial instrument on mangrove areas;
• Seeking of the master list of FLA holders in our area;
• Conduct PO meetings;
• Discussion on FLA laws and reversion to mangroves;
• Join barangay community;
• Re-echo workshop to communities (Ibajay); and
• Joint meeting with LGU

To make the agreements of the stakeholders binding, the stakeholders passed a resolution. The text of the resolution is presented in the following section.

<table>
<thead>
<tr>
<th>WHAT TO DO</th>
<th>WHEN</th>
<th>WHO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assist in TWG organizing</td>
<td>Within the next 6 months</td>
<td>National level: DILG Sec. Robredo, Dir. M. Gotis, BLGD Regional: Operations Service Division Provincial Director Defino</td>
</tr>
<tr>
<td>Information dissemination to LGUs on FLA cancellation and reversion</td>
<td>Immediately after TWG creation and issuance of memorandum circulars</td>
<td>DILG – Regional – Provincial – Municipal</td>
</tr>
<tr>
<td>Assist in inspection of FLA areas (protection)</td>
<td>As the need arises</td>
<td>DILG-PNP / LGU</td>
</tr>
<tr>
<td>Assist in implementation of FLA cancellation and mangrove reversion</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monitoring of environmental state of LGU (self-assessed)</td>
<td>Annually since 2000</td>
<td>LGPMS team facilitated by DILG</td>
</tr>
<tr>
<td>Echo seminar on FLA cancellation and reversion to mangroves in BFAR VI</td>
<td>3rd week of October 2010</td>
<td>FRMD</td>
</tr>
<tr>
<td>Follow up the setting up of specific account for FLA rentals, fees, etc.</td>
<td>December 2010</td>
<td>BFAR c/o M.A. Gonzales</td>
</tr>
<tr>
<td>Include in the budget proposal for 2011, costs for the above mentioned activities</td>
<td>December 2010</td>
<td>Planning and Budget</td>
</tr>
<tr>
<td>BFAR/NFRDI examine their own demo farms for compliance to buffer zone requirement</td>
<td>In 3 to 6 months</td>
<td>TOS Center Chief Aklan: C. Remegio</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Antique: R. Nacisvalencia Negros Occidental – C. Delfin</td>
</tr>
<tr>
<td>Strengthening/updating of FLA database</td>
<td>August 2010 onwards</td>
<td>Leasing and licensing section – Boy M.</td>
</tr>
<tr>
<td>Recommend cancellation AUU FLAs</td>
<td>September 2010 onwards</td>
<td>Leasing and licensing section, FRMD R8</td>
</tr>
</tbody>
</table>
MANGROVE CONVERGENCE INITIATIVE

RESOLUTION CALLING FOR THE FORMATION OF A MANGROVE CONVERGENCE INITIATIVE AND FOR PROACTIVE EFFORTS BY KEY GOVERNMENT AGENCIES

WE, representatives from various sectors who participated in the Pond-Mangrove Rehabilitation Workshop held 10-12 September 2010 at Grand Hotel in Iloilo City, HAVING discussed various issues, concerns and strategies relevant to the rehabilitation of the country’s mangrove resources, particularly in Western Visayas, and with specific focus on the reversion of abandoned, undeveloped and underutilized portions of fishpond lease agreements and other potential areas;

REALIZING that a multi-sectoral efforts among concerned national government agencies, local government units, people’s organizations, non-government organizations, academe and other civic groups is necessary in order to ensure the implementation of existing laws and guidelines governing the reversion of abandoned, undeveloped and underutilized portions of FLAs;

REALIZING that Western Visayas has the opportunity to actively catalyze the implementation process relating to laws and policies on massive mangrove rehabilitation;

BELIEVING that such multi sectoral effort should be led by key government agencies, particularly the Department of Environment and Natural Resources (DENR), Department of Agriculture-Bureau of Fisheries and Aquatic Resources (DA-BFAR), and concerned local government units;

HEREBY AGREE to organize a Mangrove Convergence Initiative among key national government agencies, local government units, private sectors, people’s organizations, non-government organizations, academe and other civic groups; AND

RESOLVE to call on the Secretaries of the DENR, DA, DILG, the National Director of BFAR to undertake the needed steps and mechanisms to enable, and support the initiatives of, their regional offices and key local officials in Region 6 to regularly coordinate their efforts directed towards mangrove rehabilitation in the region, to seek assistance from other agencies such as the National Economic Development Authority (NEDA), and in particular, pursue the implementation of pertinent laws and guidelines governing the reversion of abandoned, undeveloped and underutilized portions of FLAs and other potential areas into mangrove forestlands.

WORKSHOP RESULTS

The participants were divided into 3 subgroups. Each group was assigned to work on their own topic/issue to resolve, to wit:

- Process of FLA cancellation;
- Process of reversion of cancelled FLAs to mangroves;
- Definition of terms: a) abandoned; b) undeveloped; and c) underutilized

Process of FLA Cancellation

- Complaint/Petition (Source of action). This is to be initiated by the PO or community or the LGU;
- Regular Monitoring (source of action);
- Ocular inspection/investigation/report by the Regional Director/Provincial Office to National office whereby a technical conference may be conducted;
- Sending of letter/notice to lessee;
- Considerations would include with and without reply by the lessee. The first letter is within 30 days while the second letter is within 15 days;
- Recommend cancellation by the Department of Agriculture Secretary;
- Within 15 days after sending of letters of cancellation, DA (central) issues notice/order of cancellation and order of finality or denial; and
- BFAR furnishes ROs/POs order of cancellation

RECOMMENDATIONS

Every Regional/Provincial Office must have a legal officer or a lawyer retained for the latter purpose

- Issuance of steps for the Cancellation;
- Tracking system for the status of FLAs;
- Transparency of the cancelled FLAs;
- Involve LGUs/DENR in the evaluation/ tripartite evaluation and monitoring team, (ask comments from LGUs/TWG);
- Ensure the participation of women sector;
- To have a women-managed areas;
- Organize a permanent TWG;
- Output/guidelines to translate into admin order;
- Regional offices to recommend FLA cancellation; and
• Executory pending appeal.

Process of Reversion of Cancelled FLAs to Mangroves

• Signs cancellation/termination;

• Turn over jurisdiction to DENR DA Secretary
  DENR Secretary Concerned USec: a). Writes
  letter of acknowledgement to DA; b). issuance
  of memorandum Order to concerned Regions
  Concerned Regional Offices/RED;

• FMB for secretariat work FMB Encoding of Order
  to database on forestlands;

• FMS/PAWS-CMMS for protected areas;

• NAMRIA for mapping;

• Lands for surveys;

• Creates TWG to conduct the assessment
  to determine the appropriate use (include
  monitoring mechanism) 5 days 5 days 5 days
  5 days 5 days -issues memo to REDs for appropriate
  action;

• Calls TWG meeting – multisectoral (DA-BFAR,
  DENR, DILG, concerned LGUs and FARMC) FMB:
  regulatory function PAWB: technical function/
  mangrove rehabilitation; and

• Assessment of Cancelled FLAs to determine
  Rehabilitation/protection Requirement:

  Site Assessment shall identify the species, hectarage,
  vegetated and open areas, soil and substrate and water
  analysis, mangrove assessment and stratification,
  determine site indicators, and biodiversity. The TWG
  shall conduct the assessment and evaluation of the site,
  undertake IEC.

  Management options recommended are: Co-
  management with LGU, Public-Private Partnership,
  multi-partnership rehabilitation involving LGU, PO,
  private sector, CBFMA, and volunteerism partnership.

  Monitoring at site level to be undertaken by the
  TWG, feedback monitoring, reporting to the national
  level, and monitoring of reversion process of AUUs.

  On the sourcing of funds, The tropical forest
  conservation foundation provides funding for forestry
  related projects in mangrove areas. Also the private/
  business sector such as the CSR may also be tapped.
  Other sources are FLA holders, PDAF of congressmen,
  carbon offset option, PAWB by inclusion of budget
  request, from ecotourism investment and bilateral
  financing agreements.

  The other workshop group assigned on the
  definition of terms reported their outputs:

  ABANDONED – No existence of possession/occupation
  and any operational activities by the lessee or of
  any of his or her lawful representative.

  UNDEVELOPED – (adopted from Section 1.12 of FAO
  No. 197) Areas not enclosed by dikes; or enclosed
  by dikes without functional water control structures
  but the water level required for production on a
  commercial scale cannot be maintained either by
  high tides or by pumping; or a larger area enclosed
  only with a simple perimeter dike which has not been
  subdivided, which may or may not be vegetated
  with mangrove species and is not producing on a
  commercial scale.

  Note that under RA 8550 Section 46 (d) and Section
  14 (e) of FAO 197, undeveloped includes areas not
  producing on a commercial scale within 3 years
  from approval of lease contract.

  UNDERUTILIZED – area not fully producing within
  5 years from the date of approval of the lease
  contract.

  The next step as recommended by the Stakeholders:

  • Conduct a national conference;
  • Convene the technical working group; and
  • Representation of PO in the technical working
    group.

  CLOSING by RED Mario Eludo

  The challenge is that banks, may from time to
time take-over custody of FLAs, from the leaseholders
because they are indebted to them. Its fortunate that
we had this consultation to help solve the problem and
to encourage LGUs to give value to the significance of
mangroves in our environment. And through it, there
will be more revision of land use plan by the concerned
LGUs to meet such concern. Thus, mitigating causes of
climate change and even improve livelihood of involved
communities.

NEXT MOVES

Given the draft JAOs/DAOs and policy
recommendations, the DENR may consider the
draft policies and recommendations or any relevant
provisions for review, integration, approval, and
implementation in the mangrove areas. These are all
important for the improvement of the natural defense
of coastal communities from climate change related
disasters, ensure food security, and protect marine and
terrestrial ecosystems.

The draft JAO governing cancellation,
reversion, restoration and management of AUU
fishpond lease agreement is important to ensure
proper inter-agency protocol effecting the above processes. Placing the initial areas already turned-over by DA to DENR under the National Convergence Initiative (NCI) and the National Greening Program (NGP) ensures inter-agency cooperation which would be helpful to DENR in resource sharing and augmentation thus covering larger areas and implementing integrated approaches, local governance, supervision and M&E-all leading to successful restoration and management of degraded mangrove areas.

To help the national government in revenue generation, SAMAD may be reviewed, approved and implemented or some of its relevant provisions considered by DENR. Present financing from the national government for mangrove restoration is almost nil. Financing mangrove restoration and management by DENR in areas under its administrative jurisdiction saves funds from the national government appropriation which could be used for other equally important projects of the government in other sectors.

Before implementing SAMAD in any mangrove areas, beach areas and foreshore areas, DENR is expected to weigh its options whether it is better to devolve SAMAD implementation to the LGUs under the Local Government Code especially when the transaction and management costs are costly. Arrangements with the LGU may be forged if SAMAD will be devolved particularly on the functions and responsibilities of the LGU.

Third in the priority list is the proposed DAO on illegally titled fishponds. Reverting illegally titled fishponds to DENR especially when such areas are inside forestlands or protected areas is costly due to the process of establishing the legality of acquiring the title and possible counter-action of owners against DENR. It is also important to DENR to get rid of its people involved in the illegal titling process to clear its name from the public and cleanse the office from undesirable employees. The proposed policy to revert intact mangrove forests in A&D areas to forestland requires congressional decision and may or may not be considered by congress for enactment into law.

The policy recommendations would guide the DENR in pursuing further policy directions governing foreshore areas which are generally mangroves.
Bibliography


Department of Agriculture and Department of Environment and Natural Resources, Joint DA-DENR General Memorandum Order No. 3. Guidelines on the reversion of underutilized, undeveloped, abandoned fishponds to mangroves. 1991.


Department of Environment and Natural Resources, DAO 2002-08, February 20, 2002. Strengthening the Coastal Environment Program (CEP) through the Establishment of the Coastal and Marine Management Office (CMMO) as the National Coordinating Office for all Coastal and Marine Environment Activities.


National Mapping and Resource Information Authority (NAMRIA) and Department of Environment and Natural Resources (DENR). 2009. Assessment of the Mangrove Areas and Remaining Unclassified Public Lands (UPL).


Philippine Constitution, Article 2, Section 16 and 22.

Philippine Constitution, Article 14, Section 17.

P.P. No. 2151, Declaring Certain Islands and/or Parts of the Country as Wilderness Areas. December 29, 1981.

P.P. No. 2152, Declaring the Entire Province of Palawan and Certain Parcels of the Public Domain And/Or Parts of the Country as Mangrove Swamp Forest Reserves. December 20, 1981.


RA No. 7161, An Act Incorporating Certain Sections of the National Internal Revenue Code of 1977, as Amended, to Presidential Decree No. 705, as Amended, Otherwise Known as the “Revised Forestry Code of the Philippines”, and Providing Amendments Thereto by Increasing the Forest Charges on Timber and Other Forest Products. Oct. 10, 1991.


Appendix A

DENR-DA-DAR, and DILG Joint Administrative Order S-2011-____________

Subject: Guidelines on the Reversion of Abandoned, Undeveloped and Underutilized Fishponds under Fishpond Lease Agreements to the Department of Environment and Natural Resources through the National Convergence Approach

Pursuant to Section 16 under Article II, Declaration of Principles and State Policies, of the 1987 Constitution of the Republic of the Philippines, which states that “the State shall protect and advance the right of the people to a balanced and healthful ecology in accord with the rhythm and harmony of nature”, the Revised Forestry Code of the Philippines (PD 705) and its implementing rules and regulations, the National Integrated Protected Areas System Law (RA 7586) and its implementing rules and regulations, the Philippines Fisheries Code (RA 8550) and its implementing rules and regulations, the Local Government Code (RA 7160) and its implementing rules and regulations, and the Joint Memorandum Circular (JMC) No. 1 Series of 2010 of the Department of Agriculture (DA)-Department of Agrarian Reform (DAR)-Department of Environment and Natural Resources (DENR) Policy and Implementation Framework for the Enhanced National Convergence Initiative (NCI), hereby promulgate the following rules and regulations governing the reversion, development and management of abandoned, undeveloped and underutilized fishponds under Fishpond Lease Agreements (FLAs) from the DA to the DENR.

Chapter 1.

Title, Policy, Objective, Scope and Coverage, and Definition of Terms

Section 1. Title. – This Joint Administrative Order (JAO) shall be known as the “Guidelines on the Reversion of Abandoned, Undeveloped and Underutilized Fishponds under FLAs from the DA to the DENR through the National Convergence Approach.

Section 2. Basic Policy. It shall be the policy of the State to revert, rehabilitate, develop, and manage abandoned, undeveloped and underutilized fishponds under FLAs to mangrove forests to sustainably produce ecosystem’s goods and services that will benefit the nation and its people as well as achieve the objectives of the convergence initiative, namely sustainable rural development and poverty reduction. To implement this policy and achieve its objectives, the DA, the DENR, and the Department of the Interior and Local Government (DILG) have harmonized and integrated their policies to the implementing rules and regulations of the above relevant laws through this JAO for effective implementation at the operational level.

Section 3. Objective. The JAO aims to prescribe guidelines for the administrative and technical reversion of abandoned, undeveloped and underutilized FLAs from the DA to the DENR and from the present state of the FLAs to their mangrove forest state.

Section 4. Scope and Coverage. These guidelines shall cover all abandoned, undeveloped and underutilized FLAs that have been cancelled and administratively reverted by the DA to the DENR and FLAs technically reverted by the DENR to their mangrove forest state.
All FLAs cancelled and turned-over to DENR, covering a total area of 4,764 hectares nationwide, shall be the initial areas for technical reversion or conversion to their mangrove forest state. The list of cancelled FLAs, which includes the name of lessees, locations, and area granted (hectares), are shown in Appendix 1. Reverted illegal fishponds and reclassified intact mangrove forests in A&D lands under DAO XXX shall be integrated and governed by this JAO.

Section 5. Definition of Terms. The following terms related to this Departmental Administrative Order (DAO) are hereby defined:

- **Abandoned FLA** – a condition described by any of the following: 1) failure of the lessee to submit the required report on the development, operations and production of FLAs within ten (10) days after six (6) months from the approval of the lease; 2) non-existence of actual or constructive possession or occupation by the lessee; 3) sub-leasing of the FLA; 4) failure of the heirs of the lessee to submit the required annual production reports for two (2) consecutive years; 5) failure of the lessee to pay annual rentals for two (2) consecutive years; 6) failure of the lessee to exercise pre-emptive right to apply for FLA within 90 days from the death of the lessee; or 7) failure of an applicant to comply with all the regulatory requirements for the issuance of the FLA within 90 days from the filing of the application to exercise their pre-emptive right (proposed DA-DENR-DILG JAO No. 1, Series of 2011, BFAR).

- **Administrative reversion of FLA** – the process involving administrative procedures in the transfer of jurisdiction of FLAs, which have been cancelled by the DA, to the DENR.

- **Days** – refers to the number of official working days excluding Saturdays and Sundays, and holidays.

- **In-house Technical Working Group (TWG)** – refers to any TWG within each member-agency of the NCI whose primary functions are highly and strictly technical in nature but is needed to input occasionally on NCI matters.

- **FLA physical and chemical characteristics** – the features of FLA in terms of mangrove forest species growing (young or old growth trees), species of wildlife, existence of dikes, acidity of soil, presence of organic matter, Nitrogen (N), Phosphorous, and Potassium (NPK) in soil, water acidity (pH), presence of intact or dilapidated fishpond facilities, and species of fish/marine stocks in fishpond.

- **Forestation and management plan** – includes plans to establish nurseries; gather, grow, and care for planting materials; prepare sites for forestation; promote restoration, rehabilitation, reforestation, enrichment planting and assisted natural regeneration; and ensure protection, maintenance and sustainable management, among other activities designed to ensure the quantity and quality of forest and environment desired in the reverted FLAs.

- **Fishpond or FLA reversion** – refers to an area, which is purposely for fishpond development under the FLA between the DENR and the DA, but has been found abandoned, undeveloped or underutilized and is no longer needed for economical fish production operations and therefore, under the provision of law, should be reverted to its official classification category as forestland or timberland under the administrative and management jurisdiction of DENR.

- **Foreshore Land** - a string of land margining a body of water; the part of a seashore between the low-water line usually at the seaward margin of a low tide terrace and the upper limit of wave wash at high tide usually marked by a beach scarp or berm. (RA 8550, Sec. 4.46).

- **Mangrove forest** – a forest composed of mangroves, namely trees belonging to the genera Avicennia, Rhizophora, Aegiceras, Lumnitzera, Nypa, Sonneratia, Bruguiera, Ceriops, Excoecaria, Acanthus, Acrostichum, Heriteria and Scyphiphora.

- **Mangrove restoration** – the process of restoring damaged components of the mangrove ecosystem in terms of plants species involving replanting, enrichment planting and assisted natural regeneration.

- **Mangrove forestation** – the planting of biodiverse mangrove plant species in denuded or degraded mangrove areas classified as forestlands.

- **National convergence initiative (NCI)** – a sustainable rural development approach of the government designed to achieve the objectives of rural development and poverty reduction through equitable complementation of government resources for optimum use (JMC No. 1, Series of 2010. November 17, 2010)

- **NSC- National Steering Committee of the NCI**

- **NCI-TWG** – National Convergence Initiative – Technical Working Group

- **RCI-TWG** – Regional Convergence Initiative – Technical Working Group

---

7 Based on the document by BFAR to DENR regarding the list of abandoned fishpond lease agreement
8 Refers to the draft DAO that will govern reversion of illegal fishponds and reclassifications of intact mangrove forests in A and D lands
Chapter 2

Integrating Administratively-Reverted FLAs to the NCI for Sustainable Rural Development (SRD)\(^9\)

Section 6. Organizing and Mainstreaming SRD Agencies into the NCI. The DA, the DAR, the DENR, and the DILG shall be organized as a National Coordinating and Executive Body for optimum impact in the NCI and NGP areas. Their development actions shall be mainstreamed to NCI to help achieve the objectives of SRD through the convergence approach mechanism. This unified approach shall address all concerns from the assessment and evaluation, cancellation, and administrative reversion to technical reversion or conversion of abandoned, undeveloped, underutilized FLAs as well as other FLAs that will be reverted in the future by the DA to the DENR. These shall include implementation of restoration, forestation, development, conservation, protection and sustainable management plans to revert FLAs to their mangrove forest state.

Section 7. Functions and Responsibilities of the DA. The jurisdiction of all FLAs is under the DA. In relation to the abandoned FLAs, the DA shall perform the following functions and responsibilities:

- Formulate and implement a sustainable management system for FLAs to ensure their productive conditions and to prevent degradation of the environmental elements within and outside the FLAs. The management system shall include the following:
  - Protection, conservation and management of intact forested portions of active and productive FLAs not converted into fishponds. The DA may include such responsibilities to the terms and conditions of the FLA lessee, or turn-over the same area to the DENR.
  - Enforcement of guidelines prohibiting sub-leasing, procurement of rights over FLA lands, titling of FLAs, using FLAs as collateral for bank loans by lessee, informal transfer of rights to other party(ies) without officially informing the DA.
  - Regular conduct of monitoring and evaluation (M&E) to determine the actual status/conditions of FLAs.
  - Prepare M&E reports for use by the DA Secretary and members of the NCI.
  - Identification, assessment and evaluation of all FLAs, including abandoned, undeveloped and underutilized FLAs nationwide, in coordination with the NCI partners.

---

\(^9\) The CMMO Director during the last review of this JAO strongly recommended that this should be integrated to the National Convergence Initiative program of the government. This was also the consensus during the stakeholders conference held in coordination with BFAR.
• Lead in the formulation and implementation of strategies necessary to revert FLAs administratively to the DENR through issuance of official reversion order by way of a Memorandum Circular/Order.

• Provision and sharing of resources necessary for the implementation of NCI-related activities to achieve its objectives.

• Work together with the DENR, the DAR and the DILG/Local Government Units (LGUs) in resolving policy implementation conflicts that may arise in the execution of the cancellation, administrative reversion and technical reversion/conversion of FLAs.

• In all undertakings relative to the concerns and objectives of the NCI on abandoned FLAs and in restoring these back to productivity, the DA shall implement institutionally developed and adopted standard administrative, technical and legal procedures in the cancellation and administrative reversion of FLAs and in sharing resources for the NCI at all levels.

• Coordination with its respective Bureaus and field offices as well as with the other NCI member-agencies and stakeholders for effective implementation of field activities.

Section 8. Functions and Responsibilities of the DAR. DAR shall lead in the following functions and responsibilities:

• Social organization of communities and People’s Organizations in municipalities where the NCI is implementing projects.

• Provision of training and other capability building activities to socially, economically and technically empower communities and People’s Organizations to become a more productive sector as well effective government partners in effecting development and economic progress in rural areas.

• Provision of necessary infrastructure supportive to the concerns of NCI-covered communities.

• Provision of needed resources by the NCI in the development and management of reverted abandoned, undeveloped and underutilized FLAs under the NCI framework as mutually agreed among members.

• In the execution of its functions and responsibilities relative to the objectives of this JAO, implement institutionally developed and adopted standard administrative, legal and technical procedures at all levels.

• Coordination with its respective Bureaus and field offices as well as with the other member-partners of the NCI agencies in the field.

Section 8. Functions and Responsibilities of the DILG. The governance of provinces, municipalities, communities, people, social, economic and business establishments and resources is under the jurisdiction of the DILG through the LGUs nationwide. The DILG shall perform the following functions and responsibilities relative to the NCI:

• Assistance to the DA, the DAR, and the DENR in the enforcement of policies and directives pertaining to the objectives of this JAO where their mandates are relevant.

• Participation in the formulation and implementation of strategies necessary to revert FLAs administratively to DENR and to technically revert/convert the area to a mangrove forest state.

• Provision of protection to personnel of the DA, the DAR and the DENR while doing field activities relative to assessment and evaluation of FLAs and ejection proceedings to non-complying lessee(s).

• Through the LGUs, provide effective local governance mechanisms that will protect and sustain development and management of degraded FLAs.

• Provision and sharing of resources necessary for the execution of activities that will achieve the objectives of the NCI, the DA and the DENR regarding the restoration of the productivity of abandoned FLAs.

• Implementation of the DILG’s standard administrative, technical and legal procedures in providing protection and local governance assistance to the DA, the DAR and the DENR.

Section 9. Functions and Responsibilities of the DENR. The restoration, forestation, protection, rehabilitation, development, conservation and sustainable management of the environment and natural resources are within the primary mandate of the DENR in accordance with its National Greening Program (NGP) and the NCI framework. To revert FLAs to their mangrove forest state, the DENR shall perform the following functions and responsibilities:

• Lead in the assessment and evaluation of administratively reverted FLAs to determine their best use, development and management requirements.

• Lead in the formulation and implementation of restoration, forestation, development, conservation, protection and sustainable management strategies in a participatory manner to bring back the productive conditions of reverted FLAs.
It shall mobilize all its relevant TWGs (in-house or NCI-related) at the sub-national level in the conduct of the following:

- On-site assessment and evaluation of administratively reverted FLAs to determine appropriate use, development and management requirements.

- Conduct feasibility study(ies) of the reverted FLAs to establish the most financially/economically viable use, development and management requirements to convert such areas from their present condition as well as the cost of additional services that shall be implemented by partner-agencies, non government organizations (NGOs), communities, and People’s Organizations.

- Based on the feasibility study of the site, the DENR shall award a Community-Based Forest Management Agreement (CBFMA)\textsuperscript{10} if in certified forestland or Protected Area Community-Based Resource Management Agreement (PACBRMA) if in certified protected areas or any appropriate tenurial instrument to the most capable community-based People’s Organization in the area.

- Through participatory planning with the CBFMA/PACBRMA holder(s), LGU(s), and NGO(s), prepare a workable development plan with the following components: a) general land use allocation plan of the area showing on the layout plan the different land uses/development requirements; b) forestation plan, including plans for seedling production, site preparation, planting, and outcome quality maintenance, of degraded areas; c) protection and maintenance plan for established developments, including silvicultural treatments, to achieve desired high quality of development, such as existing mangrove forests adjacent to the reverted FLAs; d) sustainable resource management plan; e) results monitoring and evaluation plan; and f) sustainability plan.

- Provision and sharing of resources necessary for the preparation and implementation of development and management activities to restore the productive conditions of the reverted FLAs.

- That DENR shall give priority to the budgeting of reverted FLAs for development and management under the NGP of the government and accomplish the technical reversion within the time frame set forth by the NGP.

- Implementation of DENR’s standard administrative, technical and legal procedures relative to the restoration and management of reverted FLAs.

Chapter 3

Stages of Reversion, Process of Cancellation and Reversion of Abandoned FLAs, and Activities of the DA and the DENR

Section 10. Stages of Reversion. There shall be two stages of reversion to be performed by the NCI-member agencies. The time lines for each of the activities to be undertaken by each of the member agencies are presented in Annex A.

These are:

- Stage 1 – Cancellation and administrative reversion of abandoned FLAs. This stage shall be headed by the DA, with assistance from the DAR, the DENR and the DILG, subject to mutual agreement on the nature of assistance, when and where such assistance is required, and how many resources are needed. All participating agencies should work within their own relevant standard administrative, technical and legal procedures established and being implemented at all levels.

- Stage 2 – Technical reversion or technical conversion of administratively reverted FLAs into mangrove forest state to be headed by the DENR in coordination with other concerned agencies, NCI-TWGs at the sub-national level, and other in-house TWGs. All member-agencies of the NCI should perform their roles and functions relative to this JAO using their relevant standard administrative, technical and legal procedures established and being implemented at all levels. Resource sharing and where and when such resources are needed should also be mutually agreed by all parties involved.

Section 11. Process of Cancellation and Reversion. The cancellation and reversion process flowchart is shown in Figure 1 (Process of Cancellation and Reversion of Abandoned, Undeveloped and Underutilized FLAs).

Section 12. DA Cancellation and Administrative Reversion. The DA shall perform the following activities:

- Source of Petition. The actions of the DA for cancellation and reversion shall emanate from any of three potential sources. This may come from the report(s) of the regular monitoring and evaluation of the DA-Bureau of Fisheries and Aquatic Resources (BFAR), from the petition of resident individual, professional and NGO or from leader(s) from community LGUs in the form of a formal report, or from community-based People’s Organizations through a resolution reporting existence of such condition. Such

\textsuperscript{10} CBFMA was decided last September 15, 2011 meeting/consultation conducted by DA-BFAR with stakeholders as the official tenurial instrument to be used for reverted FLAs.
document(s) shall be sent to the DA Secretary requesting for inspection/investigation of the condition of abandoned FLAs.

- **Inspection/Investigation of FLAs.** The DA, in coordination with the DENR, the DAR, the DILG/LGU and the Fisheries and Aquatic Resource Management Council (FARMC) shall conduct an inspection/investigation of all FLAs and assess the veracity of the petition or complaint. The DA shall coordinate with the sub-national NCI-TWGs for assistance in the executions of its actions at the field level.

- **Stakeholders’ Consultation.** For DA-BFAR-initiated monitoring report on the existence of abandoned FLAs, stakeholders’ consultation is not required. However, if the petition or complaint came from the community or from People’s Organizations, stakeholders’ consultation is necessary for transparency of decisions and appropriate recommendations. A proceeding of the stakeholders’ consultation shall be prepared and submitted to the DA Secretary. The other members of the NCI at the sub-national levels shall be invited to participate in the stakeholders’ consultation.

- **Issuance of Cancellation Order.** The DA shall issue a notice of cancellation order to the lessee of abandoned FLAs, according to standard guidelines of the DA-BFAR. The cancellation order embodied in a memorandum order to the lessee shall be issued in the presence of the LGU, the DA-BFAR, the MCI-TWG chairman, the FARMC. and other stakeholders.

- **Administrative Reversion of Cancelled FLAs to the DENR.** All FLAs found abandoned, undeveloped and underutilized shall be cancelled by the DA and administratively reverted using memorandum circular/order, whichever is appropriate, or any appropriate legal instrument deemed necessary by the DA that will officially transfer jurisdiction of cancelled FLAs to the DENR.

Section 13. **DENR Technical Reversion or Conversion of Administratively Reverted FLAs to Mangrove Forest State.** The DENR shall implement the following activities:

- A memorandum circular, whichever is appropriate, acknowledging receipt of the DA memorandum circular/circular on cancellation and administrative reversion of FLAs. The memorandum order or circular indicates the formal and official acceptance of DENR of the administratively reverted FLAs from DA.

- **Issuance of memorandum order to Regional DENR Offices.** The DENR Secretary shall issue a memorandum order to the Regional Offices for the assessment and evaluation of reverted FLAs.

The DENR Bureaus that will provide secretariat services to the Secretary are:

- The Forest Management Bureau (FMB) as secretariat to the DENR Secretary, NCI, and NGP in matters pertaining to regulatory functions concerning FLAs. It shall monitor the execution of regulatory functions of the Regional Forest Management Services (FMS) at the community level and the MCI-TWG, and prepare and submit reports to the DENR Secretary. Such reports shall be consolidated and submitted by the DENR Secretary to the Secretaries of the DA, the DAR and the DILG.

- The Protected Areas and Wildlife Bureau (PAWB) as secretariat to the DENR Secretary, the NCI, and the NGP on technical matters pertaining to the rehabilitation, development, conservation, protection and sustainable management of mangrove ecosystems. It shall monitor the execution of the Protected Areas, Wildlife and Coastal Zone Management Services (PAWCZMS) at the community level and the MCI-TWG, and prepare and submit reports to the DENR Secretary. Such reports shall be consolidated and submitted by the DENR Secretary to the Secretaries of the DA, the DAR and the DILG.

- The Ecosystems Research and Development Bureau for its relevant research outcomes that have been tested and workable in real field situation.

- **Issue of memorandum order to the RCI-TWG, the PCI-TWG and the MCI-TWG by the Regional Executive Director convening them into a meeting/dialogue regarding the order of the DENR Secretary.** To execute the order in the assessment and evaluation of administratively reverted FLAs, the MCI-TWG shall be convened by the Regional Executive Director or the RCI-TWG to effect order in the field. In addition to the general functions of the MCI-TWG defined in JMC No. 1, the other functions of the MCI-TWG are enumerated in Annex C.

- **Inventory, assessment and evaluation of reverted FLAs.** The MCI-TWG shall conduct the inventory, assessment and evaluation of administratively reverted FLAs using standard administrative, technical and legal procedures of the DENR. The parameters necessary for establishing the profile of the reverted FLAs that will be gathered during assessment and evaluation are shown in Annex D.

- **Surveys and mapping.** For properly locating

---

11 Recommended by ICRMP in the previous draft DAO, November 3, 2011
reverted FLAs, for database build up and for proper documentation and development, all reverted FLAs shall be surveyed and mapped by the DENR. The maps produced shall be furnished to the NAMRIA as national depository of all maps of the Republic of the Philippines and to the Land Management Bureau for subsequent future use.

- **Preparation of reports.** The MCI-TWG shall prepare reports for all reverted FLAs that have been assessed and evaluated. The report shall contain the following: (a) name of lessee, age, official address, number and names of dependents of FLAs lessee; (b) physical and chemical characteristics (Annex E for the minimum physical and chemical indicators) to describe the characteristics of abandoned FLAs; (c) conditions of the different types of required infrastructure; (d) production for the last two years; (e) financial condition of the abandoned FLAs for the last two years; (f) records of history of payment of taxes for the last three years; (g) land use of the area, if any, according to the comprehensive land use plan of the municipality; (i) and recommended best use of the reverted FLAs, including development and management requirements. The report shall be submitted to the DENR Secretary through the Regional Technical Directors for the FMS and PAWCZMS and the Regional Executive Director.

- **Decision-making on the best use, development and management of reverted FLAs.** After thorough study on the assessment and evaluation report of the MCI-TWG and consultation(s) with the stakeholders, the respective Secretaries of the DA, the DAR, the DENR and the DILG shall decide on what would be the best action or decision regarding the reverted FLAs. The final decision shall be the basis for the final use, development and management of reverted FLAs that will be used in planning NCI activities as well as for the planning of NGP activities.

**Section 14. MCI-TWG Guides in Assessing Best Use, Development and Management of Administratively Reverted FLAs.** The best use of any reverted FLAs shall be recommended according to the findings of the MCI-TWG. In cases where the MCI-TWG needs additional information or basis, the criteria or guides presented in Annex F are recommended.

**Chapter 3**

**Legal Actions against Contesting Lessees of Abandoned FLAs**

**Section 15. Legal Action of the DA.** The DA shall exercise legal authority and power in filing legal cases against lessees, sub-lessees, operators, and owners who are contesting the cancellation of abandoned FLAs following institutionally developed and adopted administrative, technical and legal procedures. It shall coordinate with the DILG/LGU, the DAR and the DENR when assistance is needed to legal actions against contesting lessees of cancelled FLAs and reversion orders.

**Section 16. Legal Action of the DENR.** In like manner, the DENR shall pursue legal means in cases when fishpond owner(s), claimant(s), sub-lessee(s), lessee(s), and operator(s) refuse(s) to comply with the cancellation and turn-over order of abandoned FLAs. In such cases, maximum penalty and surcharges shall be imposed using standard penalty and surcharges of DENR to violators of laws governing occupancy and resource utilization in forestland and protected areas. The DENR shall follow the existing administrative and legal processes in filing cases against violators.

**Chapter 4**

**Tenurial Instrument for Reverted FLAs**

**Section 17. Community-Based Forest Management Agreement (CBFMA).** The tenurial instrument to be used in reverted FLAs located in classified forestland is CBFMA. The optimum area for a CBFMA depends on the capacity of communities or People’s Organization(s) to effectively rehabilitate, protect and manage FLAs and degraded mangrove areas. Issuance of CBFMA shall follow the processes prescribed under DAO 96-29.

**Section 18. Protected Area Community-Based Resource Management Agreement (PACBRMA).** This tenurial instrument shall be used in reverted FLAs that are located in classified protected areas. The optimum area for a PACBRMA depends on the capacity of communities or People’s Organization(s) in effectively restoring, protecting and managing FLAs and degraded mangrove areas. Issuance of PACBRMA shall follow the processes prescribed in DAO 2002-02.

**Chapter 5**

**Development and Management Approach for Reverted FLAs**

**Section 19. Integration of Reverted FLAs to the NGP of the Government.** To receive priority financial support from the government, all reverted FLAs shall be made part of the NGP for mainstreaming forestation activities, resources, and other inputs necessary to bring their forest state back to their productive and protective conditions.

**Section 20. Participatory Planning for Development and Management of Reverted FLAs.** In consonance to the feasibility study and forestation plan prepared for reverted FLAs and degraded mangrove areas by the MIC-TWG, the CBFMA holder shall conduct a participatory planning together with the members of the MCI-TWG to formulate a two-year task-specific...
development and management plan to revert the degraded FLAs to mangrove forest state. Replanning shall be conducted every quarter of every second year of the project to adjust targets, reprogramming of unused resources, and for setting up new targets. Such plan shall be the basis of periodic resource allocation that would be shared by the different members of the NCI on a per CBFMA area. The plan shall be submitted to the NGP for budgeting through the PCI-TWG and RCI-TWG and to the DENR Secretary.

Section 21. Trial Period of the CBFMA/PACBRMA. To avoid tying up the CBFMA/PACBRMA to People’s Organizations that are not deserving for 25 years, a trial duration of 3 years (1st year planning, 2nd year planting material preparation and 3rd year start of forestation) is given to prove the capacity of the holder in delivering physical development in the reverted FLAs. In case these activities are not met during the first 3 years as assessed by the MCI-TWG conducted on a yearly basis, the DENR, in consultation with the NCI members, shall cancel the tenurial instrument according to the process of cancellation indicated in DAO 96-26 and DAO 2002-02, respectively.

Section 22. Full CBFMA/PACBRMA Period. In cases where the performance of the CBFMA/PACBRMA is acceptable as assessed yearly by the MCI-TWG, the 25-year period, renewable for another 25-year shall be granted to the CBFMA/PACBRMA holder. Other privileges allowed under the CBFMA or PACBRMA shall be granted depending on the capacity of the holder.

Section 23. Cancellation of CBFMA/PACBRMA. In the event of dismal performance of the CBFMA/PACBRMA holder responsible in restoring degraded FLAs, the tenurial instrument shall be cancelled in favor of other qualified and deserving People’s Organizations or communities following the cancellation process established in DAO 96-29 for CBFMA and DAO 2002-02 for PACBRMA, respectively.

Section 24. Re-awarding of CBFMA/PACBRMA. The forestation, protection and management of reverted FLAs must be continued immediately after termination of the first holder. The reason behind is to prevent individuals from squatting the area. Before re-awarding CBFMA/PACBRMA, a stakeholders’ consultation shall be conducted to assess who should be entrusted to take the responsibility in developing and managing the area according to the recommendation of the stakeholders.

Chapter 6

Budgetary Requirement

Section 25. Budget Requirement. All activities necessary for the complete reversion of degraded FLAs to mangrove forest state under the NCI approach and NGP framework at all levels shall be budgeted by the national government. The budget shall cover the following:

- Policy formulation and advocacy at the national level;
- Programs and projects management and supervision at the sub-national level involving all NCI-TWGs from the RCI to the PCI;
- Implementation of plans, programs, and projects and related activities of the NCI and NGP
  - Initial FLA area reverted to DENR totaling to 4, 764 hectares shall be budgeted for feasibility study, development planning and forestation under the NGP;
- CBFMA/PACBRMA site-based forestation and management activities.
- Conduct of Results Monitoring and Evaluation
  1. NCI activities
  2. NGP activities
  3. CBFMA/PACBRMA activities

The DA, the DAR, the DENR and the DILG shall agree on the optimal sharing of budget to finance their activities at all levels considering NCI activities.

Chapter 7

Monitoring and Evaluation

Section 26. Results Monitoring and Evaluation (RME). All activities required for implementation in this JAO shall be monitored and evaluated by the DENR through its RME system being used in all projects, programs and policies nationwide. RME reports shall be prepared and furnished to DA, the DAR, the DENR, and the DILG for improving management decisions. The Policy and Planning Service Office (PPSO) M&E Office at the central DENR office shall lead in the periodic conduct of the monitoring and evaluation in coordination with the regional PPSO M&E office.

Chapter 8

Miscellaneous Provisions

Section 27. Repealing Clause – Any provisions of the previous DAOs that are inconsistent herewith are hereby repealed.

Section 28. Effectivity – This order shall take effect immediately after its publication in newspapers of general circulation.

Signed by:
DA Secretary
DAR Secretary
DENR Secretary
DILG Secretary
ANNEX A (AUU).
Time Lines for Each Activities Under the Member Agencies of the NCI

Department of Agriculture

- Review of Petition – 3 days review of petition and within the next 3 days order of the DA Secretary for inspection and investigation.

- Inspection/Investigation of FLAs. Actual field inspection and investigation – 7 days field work and within the next 3 days submission of final investigation report to the DA Secretary through channels.

- Stakeholders’ Consultation
  
  - For DA-BFAR-initiated monitoring report- within 7 days after reviewing monitoring report.
  
  - For petition-sourced complaint- 7 days consultation inclusive of preparatory activities such as planning, coordination, actual enbanc consultation, and preparation of proceedings and submission to the DA Secretary.

- Issuance of Cancellation Order. Within 3 days upon receipt of report.

- Administrative Reversion of Cancelled FLAs to the DENR - Within 5 days upon issuance of cancellation order.

- Legal Action of the DA – within 5 days upon receipt of contested cancellation cases.

Department of Environment and Natural Resources

- A memorandum circular formally acknowledging DA memorandum circular/circular on cancellation and administrative reversion of FLAs. Within 3 days upon receipt.

- Issuance of memorandum order to Regional DENR Offices. Within 7 days inclusive of the following simultaneous activities.
  
  - Recommendations from the Forest Management Bureau (FMB) – 2 days
  
  - Recommendations from the Protected Areas and Wildlife Bureau (PAWB)- 2 days
  
  - Recommendations from the Ecosystems Research and Development Bureau (ERDB) – 2 days

- Issuance of memorandum order to the RCI-TWG, the PCI-TWG and the MCI-TWG by the Regional Executive Director convening them into a meeting/dialogue regarding the order of the DENR Secretary – 3 days.

- Inventory, assessment and evaluation of reverted FLAs - 15 days field work.

- Surveys and mapping – 10 days.

- Preparation of reports and submission of reports to the DENR Secretary through channels – 5 days

- Secretaries’ decision-making on the best use, development and management of reverted FLAs – 5 days.

- Assessing best use by MCI-TWG – 5 days

- Legal Action of the DENR – within 5 days upon non-compliance of order

- Preparatory activities for the issuance of Community-Based Forest Management Agreement (CBFMA) – to start upon decision of the NCI members under the leadership of the DENR when areas are cleared for CBFMA coverage – 3 months or the period defined under DAO 96-29.

- Preparatory activities for the issuance of Protected Area Community-Based Resource Management Agreement (PACBRMA) - to start upon decision of the NCI members under the leadership of the DENR when areas are cleared for PACBRMA coverage – 3 months or the period defined under DAO 2002-02.

- Memorandum integrating reverted FLAs to the NGP – within 3 days memorandum from the DENR Secretary shall be issued to the NGP.

- Conduct of feasibility study of area by size inclusive of field work, writing of FS, and validation on-site:
  
  a. Less than 10 hectares – 30 days
  b. 11-30 hectares – 40 days
  c. 31 and above hectares – 60 days

- Participatory planning - 2 months

- Issuance of cancellation notice of CBFMA/ PACBRMA – within 5 days upon findings of non-compliance of major requirements.
Figure 3. Process of Cancellation and Reversion of Abandoned, Undeveloped and Underutilized FLAs
ANNEX C (AUU).

Additional Functions and responsibilities of the MCI-Technical Working Group at the Regional Level.

- Coordination with the CENRO, BFAR and LGU in the municipality and conduct dialogue with officers on their mission objectives;
- Follow inter-agency protocol for the execution of any FLAs assessment and evaluation;
- Conduct the actual assessment and evaluation of all FLAs;
- Inventory of abandoned, underutilized and undeveloped FLAs;
- Initiate and complete the cancellation proceedings of the FLAs;
- Recommend the survey and mapping of all abandoned fishponds in mangrove areas.
- Prepare recommendations on the specific best use of the abandoned FLAs for rehabilitation, development, conservation and management of reverted FLAs;
- Prepare and submit assessment and evaluation reports including other pertinent documents such as photographs, maps, and anecdotal evidences on abandoned FLAs;
- Attend hearing(s), testify and present facts and evidences, if necessary of all contested cases of abandoned FLAs recommended for reversion; and
- Perform other activities necessary relative to the reversion, rehabilitation, conservation, development and management of abandoned fishponds to optimize benefits.

ANNEX D (AUU).

List of Profiling Indicators for Reverted FLAs under Assessment and Evaluation

- Area of abandoned, undeveloped and underutilized FLAs;
- Date of award of FLAs;
- Location of FLAs (Sitio, Barangay, Municipality, Province);
- Map of the area;
- Name and address of the owner including contact number(s) if available;
- Taxes paid by the owner to the government (LGU, national government, if any);
- Identification of mangrove species;
- Vegetated cover area of FLAs (forested, open, etc.);
- Soil substrate and water analysis;
- Mangrove stratification;
- Site indicators; and
- Biodiversity characteristics.
ANNEX E (AUU).

Physical and Chemical Indicators to Describe Minimum Characteristics of AUU FLAs.

<table>
<thead>
<tr>
<th>Physical/Chemical Indicators</th>
<th>Described Indicators</th>
<th>Other Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>a. Vegetation (species) within fishponds, dikes and about 10 meters from fishpond boundary</td>
<td></td>
<td></td>
</tr>
<tr>
<td>b. Wildlife (species) within fishponds and about 200 meters from fishpond</td>
<td></td>
<td></td>
</tr>
<tr>
<td>c. Soils</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. Types</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. pH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. NPK</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Organic matter</td>
<td></td>
<td></td>
</tr>
<tr>
<td>d. Water</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1. pH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Quality (suspended solids, silted/non-silted)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Toxicity/pollution</td>
<td></td>
<td></td>
</tr>
<tr>
<td>e. Presence/absence of debris</td>
<td></td>
<td></td>
</tr>
<tr>
<td>f. Others</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

ANNEX F (AUU).
Guides or Criteria for Determining Best Use, Development and Management Requirements of Reverted FLAs

a. Forestation for protection purposes
   • Defined in previous classification before use as FLA defined as protection forest by the Comprehensive Land Use Plan of a municipality;
   • Forest gap in a protection forest;
   • Protection forest of coastal communities against strong winds, tidal waves, tsunamis and sea level rises due to climate change;
   • Surrounding mangroves as wildlife or as marine sanctuary;
   • Others consistent to the requirements for a protection forest.

b. For ecotourism area
   • Defined in previous classification before use as FLA;
   • Identified as ecotourism area(zone) in the CLUP;
   • Adjacent to ecotourism establishments;
   • Presence of ground features that may serve as attraction of tourists; and
   • Others consistent with the requirements of an ecotourism area.

c. For Wildlife Sanctuary
   • Presence of threatened and endangered wildlife species;
   • Defined in previous classification before use as FLA;
   • Adjacent to wildlife sanctuaries;
   • Presence of ground features that may serve as wildlife sanctuary; and
   • Others consistent with the requirements of a wildlife sanctuary.

d. For Marine Sanctuary
   • Presence of marine species;
   • Defined in previous classification before use as FLA;
   • Defined as marine sanctuary in the CLUP;
   • Adjacent to marine sanctuary;
   • Presence of ground features that may serve as marine sanctuary; and
   • Others consistent with the requirements of a marine sanctuary.
## Appendix 1 (AUU).

### LIST OF CANCELLED FISHPOND LEASE AGREEMENTS (FLAs)

<table>
<thead>
<tr>
<th>FLA NO.</th>
<th>NAME OF LESSEE</th>
<th>LOCATION</th>
<th>AREA GRANTED (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REGION I</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5735</td>
<td>SAN AGUSTIN, Adela</td>
<td>Sual, Pangasinan</td>
<td>3.7199</td>
</tr>
<tr>
<td>5733</td>
<td>SAN AGUSTIN-RAYOS, Teresita</td>
<td>Sual, Pangasinan</td>
<td>5.0000</td>
</tr>
<tr>
<td>2</td>
<td>_</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>REGION II</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2200</td>
<td>OVERSEAS Industries Dev’t Inc.</td>
<td>Sta. Ana, Cagayan</td>
<td>119.9255</td>
</tr>
<tr>
<td><strong>REGION III</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2109</td>
<td>MOSELINA, Isaias</td>
<td>Sta. Cruz, Zambales</td>
<td>0.9855</td>
</tr>
<tr>
<td><strong>REGION IV</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4545</td>
<td>AMPONIN, Norberto</td>
<td>Occidental Mindoro</td>
<td>10.9869</td>
</tr>
<tr>
<td>3391</td>
<td>SAN DIEGO Fishery Ent. Inc.</td>
<td>San Jose, Occidental Mindoro</td>
<td>147.7447</td>
</tr>
<tr>
<td>4397</td>
<td>VILLAROSA, Triponio</td>
<td>Looc, Occidental Mindoro</td>
<td>5.7463</td>
</tr>
<tr>
<td>3127</td>
<td>ADB Marine Industries, Inc.</td>
<td>San Jose, Occidental Mindoro</td>
<td>6.4378</td>
</tr>
<tr>
<td>4367</td>
<td>PEREZ, Luis</td>
<td>San Jose, Occidental Mindoro</td>
<td>17.4136</td>
</tr>
<tr>
<td><strong>5</strong></td>
<td>_</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4082</td>
<td>AC SISON Devt. Corp.</td>
<td>Bulalacao, Oriental Mindoro</td>
<td>59.0000</td>
</tr>
<tr>
<td>3192</td>
<td>BASIC Managers &amp; investors, Inc.</td>
<td>Mansalay, Oriental Mindoro</td>
<td>26.0000</td>
</tr>
<tr>
<td>4568</td>
<td>JAREÑO, Purita</td>
<td>Pola, Oriental Mindoro</td>
<td>16.0742</td>
</tr>
<tr>
<td>4318</td>
<td>POLICARPIO, Lumen</td>
<td>Mansalay, Oriental Mindoro</td>
<td>20.0000</td>
</tr>
<tr>
<td>2619</td>
<td>FERROLINO, Cholly</td>
<td>Pola, Oriental Mindoro</td>
<td>19.2109</td>
</tr>
<tr>
<td><strong>5</strong></td>
<td>_</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2247</td>
<td>GADI, Victoria</td>
<td>Quezon, Palawan</td>
<td>49.3678</td>
</tr>
<tr>
<td>2243</td>
<td>GADI, Manuel</td>
<td>Quezon, Palawan</td>
<td>49.3982</td>
</tr>
<tr>
<td>2246</td>
<td>GADI, Gil</td>
<td>Quezon, Palawan</td>
<td>49.9379</td>
</tr>
<tr>
<td>2245</td>
<td>GADI, Emma</td>
<td>Quezon, Palawan</td>
<td>49.2763</td>
</tr>
<tr>
<td>2244</td>
<td>BALTAZAR, Rita</td>
<td>Quezon, Palawan</td>
<td>49.0129</td>
</tr>
<tr>
<td><strong>6</strong></td>
<td>_</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4771</td>
<td>TAN, Ruben</td>
<td>Macalelon, Quezon</td>
<td>25.3710</td>
</tr>
<tr>
<td>4160</td>
<td>VALDEZ, Bienvenido</td>
<td>Calauag, Quezon</td>
<td>48.8433</td>
</tr>
<tr>
<td>1446</td>
<td>POQUIZ, Alejandro</td>
<td>Calauag, Quezon</td>
<td>29.8465</td>
</tr>
<tr>
<td>2040</td>
<td>AMREL Devt. Corp.</td>
<td>Tagkawayan, Quezon</td>
<td>231.9212</td>
</tr>
<tr>
<td>2127</td>
<td>BALTAZAR, Conrada</td>
<td>Guinayangan, Quezon</td>
<td>12.8783</td>
</tr>
<tr>
<td>3496</td>
<td>QUIRIT, Buenaventura</td>
<td>Guinayangan, Quezon</td>
<td>24.0000</td>
</tr>
<tr>
<td>FLA NO.</td>
<td>NAME OF LESSEE</td>
<td>LOCATION</td>
<td>AREA GRANTED (Hectares)</td>
</tr>
<tr>
<td>--------</td>
<td>-------------------------</td>
<td>-------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>4246</td>
<td>ANDRINO, Linlin</td>
<td>Real, Quezon</td>
<td>24.0000</td>
</tr>
<tr>
<td>4162</td>
<td>PASCUAL, Conrado</td>
<td>Calauag, Quezon</td>
<td>13.0662</td>
</tr>
<tr>
<td>3050</td>
<td>ICASIANO, Elisa</td>
<td>Calauag, Quezon</td>
<td>16.0000</td>
</tr>
<tr>
<td>1809</td>
<td>ALPHA Fishery Dev. Corp.</td>
<td>Calauag, Quezon</td>
<td>344.9200</td>
</tr>
<tr>
<td>3108</td>
<td>TAN Pio</td>
<td>Quezon, Quezon</td>
<td>22.2900</td>
</tr>
<tr>
<td>3827</td>
<td>DE GUZMAN, Fabian</td>
<td>Calauag, Quezon</td>
<td>13.4819</td>
</tr>
<tr>
<td>5412</td>
<td>OSIO, Rex</td>
<td>Catanauan, Quezon</td>
<td>4.5908</td>
</tr>
<tr>
<td>5413</td>
<td>OSIO, Reynaldo</td>
<td>Catanauan, Quezon</td>
<td>4.5920</td>
</tr>
<tr>
<td>5414</td>
<td>OSIO, Russel</td>
<td>Catanauan, Quezon</td>
<td>1.5923</td>
</tr>
<tr>
<td>3049-A</td>
<td>NATIVIDAD, Benito &amp; Julia</td>
<td>Calauag, Quezon</td>
<td>5.0000</td>
</tr>
<tr>
<td>3049-B</td>
<td>NATIVIDAD, Ma. Lourdes</td>
<td>Calauag, Quezon</td>
<td>5.0000</td>
</tr>
<tr>
<td>3049-E</td>
<td>NATIVIDAD, Cecilia</td>
<td>Calauag, Quezon</td>
<td>4.5451</td>
</tr>
<tr>
<td>2181</td>
<td>RAMOS, Andres</td>
<td>Calauag, Quezon</td>
<td>11.0000</td>
</tr>
<tr>
<td>2549</td>
<td>RAMOS, Andres</td>
<td>Calauag, Quezon</td>
<td>13.4658</td>
</tr>
<tr>
<td>2680</td>
<td>ZAMORA, Crisanto</td>
<td>Lopez, Quezon</td>
<td>18.8895</td>
</tr>
<tr>
<td>3481</td>
<td>BISCOCHO, Emiliano</td>
<td>Guinayangan, Quezon</td>
<td>6.0488</td>
</tr>
<tr>
<td>1944</td>
<td>BALTAZAR, Conrada</td>
<td>Guinayangan, Quezon</td>
<td>15.7234</td>
</tr>
<tr>
<td>3330</td>
<td>VEDEO, Elicito</td>
<td>Guinayangan, Quezon</td>
<td>4.8597</td>
</tr>
<tr>
<td>4581</td>
<td>TECSION, Venusto</td>
<td>Padre Burgos, Quezon</td>
<td>49.1920</td>
</tr>
<tr>
<td>2011-A</td>
<td>VILLEGAS, Augusto</td>
<td>Lopez, Quezon</td>
<td>7.4396</td>
</tr>
</tbody>
</table>

### REGION V

<table>
<thead>
<tr>
<th>FLA NO.</th>
<th>NAME OF LESSEE</th>
<th>LOCATION</th>
<th>AREA GRANTED (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4567</td>
<td>BACCAY, Jose Jr.</td>
<td>Legaspi City, Albay</td>
<td>1.8225</td>
</tr>
<tr>
<td>3363</td>
<td>DE LEON, Dulce</td>
<td>Sta. Elena, Camarines Norte</td>
<td>13.7645</td>
</tr>
<tr>
<td>4333</td>
<td>DELA TORRE, Eduardo</td>
<td>Paracale, Camarines Norte</td>
<td>31.5274</td>
</tr>
<tr>
<td>1400</td>
<td>DOMINGO, Severino</td>
<td>Paracale, Camarines Norte</td>
<td>23.4220</td>
</tr>
</tbody>
</table>

### 3

<table>
<thead>
<tr>
<th>FLA NO.</th>
<th>NAME OF LESSEE</th>
<th>LOCATION</th>
<th>AREA GRANTED (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3297</td>
<td>VILLASEÑOR, Domingo Jr.</td>
<td>Tinambac, Camarines Sur</td>
<td>6.0000</td>
</tr>
<tr>
<td>3474</td>
<td>CALALANG, Heirs of Federico</td>
<td>Lagonoy, Camarines Sur</td>
<td>22.7883</td>
</tr>
<tr>
<td>3035</td>
<td>CLEDERA, Florentino</td>
<td>Garchitorena, Camarines Sur</td>
<td>45.2126</td>
</tr>
<tr>
<td>2308-A</td>
<td>FILIPINAS, Canning Corp.</td>
<td>Tinambac, Camarines Sur</td>
<td>8.4670</td>
</tr>
<tr>
<td>4215</td>
<td>ABRIAN, Amparo</td>
<td>Sipocot, Camarines Sur</td>
<td>6.9984</td>
</tr>
<tr>
<td>1708-A</td>
<td>A DE GUZMAN Corp.</td>
<td>Tinambac, Camarines Sur</td>
<td>25.7108</td>
</tr>
<tr>
<td>4328</td>
<td>IMPERIAL, Ernesto K.</td>
<td>Pasacao, Camarines Sur</td>
<td>3.7487</td>
</tr>
</tbody>
</table>

### 7

<table>
<thead>
<tr>
<th>FLA NO.</th>
<th>NAME OF LESSEE</th>
<th>LOCATION</th>
<th>AREA GRANTED (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>5084</td>
<td>ARCILLA, Arnaldo</td>
<td>San Andres, Catanduanes</td>
<td>5.0000</td>
</tr>
<tr>
<td>4173</td>
<td>AQUINO, Gil</td>
<td>San Andres, Catanduanes</td>
<td>36.2508</td>
</tr>
<tr>
<td>3922</td>
<td>TATAD, Delfin</td>
<td>Baras, Catanduanes</td>
<td>5.1949</td>
</tr>
<tr>
<td>3559</td>
<td>TRIUMPO, Abelardo</td>
<td>Bato, Catanduanes</td>
<td>20.7961</td>
</tr>
<tr>
<td>FLA NO.</td>
<td>NAME OF LESSEE</td>
<td>LOCATION</td>
<td>AREA GRANTED (Hectares)</td>
</tr>
<tr>
<td>--------</td>
<td>----------------</td>
<td>----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>3618</td>
<td>ELEAZAR, Eduardo</td>
<td>Aroroy, Masbate</td>
<td>50.0000</td>
</tr>
<tr>
<td>3175</td>
<td>DUQUE, Agr'l &amp; Ind. Corp.</td>
<td>Uson, Masbate</td>
<td>20.9486</td>
</tr>
<tr>
<td>2395</td>
<td>NORITA Fishing Corp.</td>
<td>Milagros, Masbate</td>
<td>73.5365</td>
</tr>
<tr>
<td>4606</td>
<td>DURAN, Mariano</td>
<td>Mobo, Masbate</td>
<td>10.2136</td>
</tr>
<tr>
<td>4263</td>
<td>KHO, Eng Poe</td>
<td>Milagros, Masbate</td>
<td>22.7763</td>
</tr>
<tr>
<td>2858</td>
<td>LEGAZPI, Heirs of Enrique Jr.</td>
<td>Mobo, Masbate</td>
<td>5.0003</td>
</tr>
<tr>
<td>2859</td>
<td>NAVEA, Otilia</td>
<td>Mobo, Masbate</td>
<td>5.0501</td>
</tr>
<tr>
<td>2679</td>
<td>TICAO, Agro-Ind. Dev. Inc.</td>
<td>Monreal, Masbate</td>
<td>16.7485</td>
</tr>
<tr>
<td>2897</td>
<td>TAN, Bienvenido</td>
<td>Pilar, Sorsogon</td>
<td>15.5566</td>
</tr>
<tr>
<td>2226</td>
<td>FRANCISCO, Reynaldo</td>
<td>Castilla, Sorsogon</td>
<td>4.9240</td>
</tr>
<tr>
<td>3495</td>
<td>DOLIGOSA, Felicidad &amp; Millie</td>
<td>Altavas, Aklan</td>
<td>20.2237</td>
</tr>
<tr>
<td>2569</td>
<td>BATALLA, Braulio Jr.</td>
<td>Batan, Aklan</td>
<td>49.6269</td>
</tr>
<tr>
<td>4166</td>
<td>ALBA, Teresita</td>
<td>Pontevedra, Capiz</td>
<td>42.5959</td>
</tr>
<tr>
<td>4166</td>
<td>SO, Julia</td>
<td>Pontevedra, Capiz</td>
<td>48.8190</td>
</tr>
<tr>
<td>4224</td>
<td>SO, Manuel</td>
<td>Pontevedra, Capiz</td>
<td>39.7866</td>
</tr>
<tr>
<td>4168</td>
<td>SIMON, Lucia</td>
<td>Pontevedra, Capiz</td>
<td>46.5800</td>
</tr>
<tr>
<td>4054</td>
<td>PALABRICA, Zafiro</td>
<td>Pontevedra, Capiz</td>
<td>24.4057</td>
</tr>
<tr>
<td>4218</td>
<td>VILLANUEVA, Cora</td>
<td>Pres. Roxas, Capiz</td>
<td>49.1021</td>
</tr>
<tr>
<td>4225</td>
<td>VILLA, Felix Jr.</td>
<td>Pontevedra, Capiz</td>
<td>25.7913</td>
</tr>
<tr>
<td>4455-A</td>
<td>SABANDO, Leonardo</td>
<td>Ivisan, Capiz</td>
<td>5.2827</td>
</tr>
<tr>
<td>4167</td>
<td>BASILONIA, Maria</td>
<td>Pontevedra, Capiz</td>
<td>46.3522</td>
</tr>
<tr>
<td>3555</td>
<td>ANISCO, Celso</td>
<td>Roxas City, Capiz</td>
<td>7.5650</td>
</tr>
<tr>
<td>3023</td>
<td>GAONA, George</td>
<td>Nueva Valencia, Guimaras</td>
<td>14.3871</td>
</tr>
<tr>
<td>3964</td>
<td>DIVINAGRACIA, Wilhelm</td>
<td>Buenavista, Guimaras</td>
<td>7.3395</td>
</tr>
<tr>
<td>4497</td>
<td>PERALTA, Hermogenes Jr.</td>
<td>Ajuy, Iloilo</td>
<td>38.9105</td>
</tr>
<tr>
<td>2066</td>
<td>LOBATON, Nelly</td>
<td>Carles, Iloilo</td>
<td>49.2261</td>
</tr>
<tr>
<td>4370</td>
<td>CONACO, Marcial Jr.</td>
<td>Ajuy, Iloilo</td>
<td>47.4877</td>
</tr>
<tr>
<td>4021</td>
<td>GUTIERREZ, Lorice</td>
<td>Ajuy, Iloilo</td>
<td>29.7044</td>
</tr>
<tr>
<td>54</td>
<td>ICAMINA, Elpidio</td>
<td>Ajuy, Iloilo</td>
<td>19.9062</td>
</tr>
<tr>
<td>2721</td>
<td>ICAMINA, Noel</td>
<td>Ajuy, Iloilo</td>
<td>20.1642</td>
</tr>
<tr>
<td>4498</td>
<td>REYES, Nedi</td>
<td>Ajuy, Iloilo</td>
<td>40.9126</td>
</tr>
<tr>
<td>3483-F</td>
<td>MANTUA, Monaliza</td>
<td>Jaro, Iloilo City</td>
<td>2.0000</td>
</tr>
<tr>
<td>3483-E</td>
<td>GIALOLO, Guillermo</td>
<td>Jaro, Iloilo City</td>
<td>5.0000</td>
</tr>
<tr>
<td>FLA NO.</td>
<td>NAME OF LESSEE</td>
<td>LOCATION</td>
<td>AREA GRANTED (Hectares)</td>
</tr>
<tr>
<td>---------</td>
<td>---------------------------</td>
<td>-----------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>3483-D</td>
<td>BESAGRE, Aida</td>
<td>Jaro, Iloilo City</td>
<td>5.0000</td>
</tr>
<tr>
<td>3483-G</td>
<td>FABELA, Eden</td>
<td>Jaro, Iloilo City</td>
<td>5.0000</td>
</tr>
<tr>
<td>2885</td>
<td>FLORETE, Marcelino &amp; Julieta</td>
<td>Iloilo City</td>
<td>1.1954</td>
</tr>
<tr>
<td>1683-G</td>
<td>JOCO, Arlinda</td>
<td>Cadiz City, Negros Occidental</td>
<td>2.2745</td>
</tr>
<tr>
<td>1533</td>
<td>GATANELA, Moonyeen</td>
<td>Pontevedra, Negros Occidental</td>
<td>5.5844</td>
</tr>
<tr>
<td>2153-A-4</td>
<td>MONTELIBANO, Antonio</td>
<td>Cadiz City, Negros Occidental</td>
<td>4.3725</td>
</tr>
<tr>
<td>2153-AB-7</td>
<td>POBLADOR, Ma.Teresa</td>
<td>Cadiz City, Negros Occidental</td>
<td>4.2197</td>
</tr>
<tr>
<td>2153-B-3</td>
<td>MONTELIBANO, Marianna</td>
<td>Cadiz City, Negros Occidental</td>
<td>5.0000</td>
</tr>
<tr>
<td>5128</td>
<td>SIBUG, Evelyn</td>
<td>Escalante City, Negros Occidental</td>
<td>1.0655</td>
</tr>
<tr>
<td>2153-A-2</td>
<td>MONTELIBANO, Oscar</td>
<td>Cadiz City, Negros Occidental</td>
<td>4.8731</td>
</tr>
<tr>
<td>5216</td>
<td>SAVAÑA, Edalinda</td>
<td>Escalante City, Negros Occidental</td>
<td>5.0000</td>
</tr>
<tr>
<td>2162-D</td>
<td>REGINO, Cynthia</td>
<td>Victorias City, Negros Occidental</td>
<td>4.1584</td>
</tr>
<tr>
<td>2162-E</td>
<td>RUFINO, Maria Antoinette</td>
<td>Victorias City, Negros Occidental</td>
<td>4.3584</td>
</tr>
<tr>
<td>4648</td>
<td>ESTRELLA, Deogracias Jr.</td>
<td>Silay City, Negros Occidental</td>
<td>4.0000</td>
</tr>
<tr>
<td>4724</td>
<td>GONZALES Dev. Corp.</td>
<td>Escalante, Negros Occidental</td>
<td>29.3777</td>
</tr>
<tr>
<td>4722</td>
<td>GONZALES Dev. Corp.</td>
<td>Escalante, Negros Occidental</td>
<td>9.4940</td>
</tr>
</tbody>
</table>

**REGION VII**

<table>
<thead>
<tr>
<th>FLA NO.</th>
<th>NAME OF LESSEE</th>
<th>LOCATION</th>
<th>AREA GRANTED (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3807</td>
<td>LATONIO, Eulalia &amp; Milagros</td>
<td>Jetafe, Bohol</td>
<td>3.5000</td>
</tr>
<tr>
<td>2369</td>
<td>PMG Dev. Corp.</td>
<td>Trinidad, Bohol</td>
<td>24.8350</td>
</tr>
<tr>
<td>2669-A</td>
<td>MARGSTRADE Ind. Corp.</td>
<td>Jetafe, Bohol</td>
<td>39.9220</td>
</tr>
<tr>
<td>4363</td>
<td>MONSANTO, Clarito</td>
<td>Candijay, Bohol</td>
<td>20.0089</td>
</tr>
<tr>
<td>5093</td>
<td>MELICOR, Aurelio</td>
<td>Candijay, Bohol</td>
<td>4.2408</td>
</tr>
<tr>
<td>5899</td>
<td>UY, Minda</td>
<td>Pres. Garcia, Bohol</td>
<td>5.0000</td>
</tr>
<tr>
<td>3238</td>
<td>ARANDELA, Rosendo</td>
<td>Inabanga, Bohol</td>
<td>30.3049</td>
</tr>
</tbody>
</table>

**8**

<table>
<thead>
<tr>
<th>FLA NO.</th>
<th>NAME OF LESSEE</th>
<th>LOCATION</th>
<th>AREA GRANTED (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>4231</td>
<td>MORREL, Wilson</td>
<td>Lapu-Lapu City, Cebu</td>
<td>40.4687</td>
</tr>
<tr>
<td>2377</td>
<td>GORRERO, Leonor</td>
<td>Lapu-Lapu City, Cebu</td>
<td>40.3425</td>
</tr>
<tr>
<td>4047</td>
<td>PATALINGHUG, Norma</td>
<td>Lapu-Lapu City, Cebu</td>
<td>30.6169</td>
</tr>
<tr>
<td>4917</td>
<td>CASTILLA, Buenaventura</td>
<td>Balamban, Cebu</td>
<td>4.8408</td>
</tr>
<tr>
<td>2871-A</td>
<td>LIM, Adelina</td>
<td>Lapu-Lapu City, Cebu</td>
<td>3.6666</td>
</tr>
<tr>
<td>3699-A</td>
<td>INCIONG, Enrique</td>
<td>Consolacion, Cebu</td>
<td>5.0000</td>
</tr>
<tr>
<td>2868-A</td>
<td>GO, Eduardo</td>
<td>Lapu-Lapu City, Cebu</td>
<td>5.0001</td>
</tr>
</tbody>
</table>

**8**

<table>
<thead>
<tr>
<th>FLA NO.</th>
<th>NAME OF LESSEE</th>
<th>LOCATION</th>
<th>AREA GRANTED (Hectares)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3527</td>
<td>DAVID, Lorenzo</td>
<td>Ayungon, Negros Oriental</td>
<td>6.7444</td>
</tr>
<tr>
<td>3793</td>
<td>AGAN, Andres</td>
<td>Siquijor, Siquijor</td>
<td>6.2280</td>
</tr>
<tr>
<td>FLA NO.</td>
<td>NAME OF LESSEE</td>
<td>LOCATION</td>
<td>AREA GRANTED (Hectares)</td>
</tr>
<tr>
<td>---------</td>
<td>----------------</td>
<td>----------</td>
<td>-------------------------</td>
</tr>
<tr>
<td>REGION VIII</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2972</td>
<td>NEGADO, Filomeno</td>
<td>Barugo, Leyte</td>
<td>35.8074</td>
</tr>
<tr>
<td>3354</td>
<td>RONBESAN Dev. Corp.</td>
<td>Palompon, Leyte</td>
<td>35.1307</td>
</tr>
<tr>
<td>1929</td>
<td>VARGAS Enterprises</td>
<td>San Antonio, Northern Samar</td>
<td>93.1422</td>
</tr>
<tr>
<td>3285</td>
<td>GATA, Virginia</td>
<td>Allen, Northern Samar</td>
<td>50.0000</td>
</tr>
<tr>
<td>2695</td>
<td>BASAS, Sylvia</td>
<td>Tacloban City</td>
<td>11.9613</td>
</tr>
<tr>
<td>3583</td>
<td>CABUS, Bienvenido</td>
<td>Salcedo, Eastern Samar</td>
<td>3.4025</td>
</tr>
<tr>
<td>3052</td>
<td>BAROM Agro-Ind. Dev. Corp.</td>
<td>Sta. Rita, Western Samar</td>
<td>280.5490</td>
</tr>
<tr>
<td>4645</td>
<td>CABAHUG, Joanell Ty</td>
<td>Calbiga, Western Samar</td>
<td>40.9920</td>
</tr>
<tr>
<td>4647</td>
<td>CABAHUG, Juvenal</td>
<td>Calbiga, Western Samar</td>
<td>48.8583</td>
</tr>
<tr>
<td>REGION IX</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1796</td>
<td>BROWN, Leroy</td>
<td>Talon-Talon, Zamboanga City</td>
<td>32.3699</td>
</tr>
<tr>
<td>3491</td>
<td>DE LEON, Calixto Jr.</td>
<td>Manicahan, Zamboanga City</td>
<td>7.5000</td>
</tr>
<tr>
<td>2070</td>
<td>ALVAREZ, Juan</td>
<td>Talon-Talon, Zamboanga City</td>
<td>59.3975</td>
</tr>
<tr>
<td>3649-A</td>
<td>RUIZ, Erlinda</td>
<td>Cabaluay, Zamboanga City</td>
<td>19.5281</td>
</tr>
<tr>
<td>2960</td>
<td>CABRERA, Paterno</td>
<td>Manicahan, Zamboanga City</td>
<td>7.7031</td>
</tr>
<tr>
<td>4633</td>
<td>RODRIGUEZ, Rosemarie</td>
<td>Talabaan, Zamboanga City</td>
<td>5.7541</td>
</tr>
<tr>
<td>3941</td>
<td>ENRIQUEZ, Inocencia</td>
<td>Cabaluay, Zamboanga City</td>
<td>4.4060</td>
</tr>
<tr>
<td>2766</td>
<td>LIM, Sultan Jacob</td>
<td>Talabaan, Zamboanga City</td>
<td>11.0000</td>
</tr>
<tr>
<td>4155</td>
<td>ROXAS, Cirilo</td>
<td>Zamboanga City</td>
<td>1.7689</td>
</tr>
<tr>
<td>4095</td>
<td>BONIFACIO, Simplicio</td>
<td>Zamboanga City</td>
<td>12.5000</td>
</tr>
<tr>
<td>2978</td>
<td>DR. MANUEL CORTES Fp. Mktg. Corp.</td>
<td>Siay, Zamboanga Sibugay</td>
<td>398.4182</td>
</tr>
<tr>
<td>3940</td>
<td>AGRAVIADOR, Dominica</td>
<td>Siay, Zamboanga Sibugay</td>
<td>10.9620</td>
</tr>
<tr>
<td>REGION X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3878</td>
<td>SABELINA, Pablo</td>
<td>Alubijid, Misamis Oriental</td>
<td>3.1075</td>
</tr>
<tr>
<td>2759-A</td>
<td>ABELLANOSA, Isabelo</td>
<td>Clarin, Misamis Occidental</td>
<td>3.3391</td>
</tr>
<tr>
<td>1882</td>
<td>BRANZUELA, Pilar</td>
<td>Plaridel, Misamis Occidental</td>
<td>28.1267</td>
</tr>
<tr>
<td>2125</td>
<td>ROMERO, Esteban</td>
<td>Ozamis City, Misamis Occidental</td>
<td>11.8864</td>
</tr>
<tr>
<td>4071</td>
<td>CABANAO, Francisco</td>
<td>Kolambagan, Lanao del Norte</td>
<td>9.4355</td>
</tr>
<tr>
<td>FLA NO.</td>
<td>NAME OF LESSEE</td>
<td>LOCATION</td>
<td>AREA GRANTED (Hectares)</td>
</tr>
<tr>
<td>---------</td>
<td>-------------------------</td>
<td>----------------------------</td>
<td>-------------------------</td>
</tr>
<tr>
<td></td>
<td>REGION XI</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2835</td>
<td>LANABAN, Damian</td>
<td>Baganga, Davao Oriental</td>
<td>6.2450</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>REGION XIII</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3741</td>
<td>TOLENTINO, Luz</td>
<td>Butuan City, Agusan del Norte</td>
<td>4.9045</td>
</tr>
<tr>
<td>3720</td>
<td>TOLENTINO, Venancio</td>
<td>Butuan City, Agusan del Norte</td>
<td>4.8680</td>
</tr>
<tr>
<td>3187</td>
<td>NORTHERN Agusan Dev. Corp.</td>
<td>Magallanes, Agusan del Norte</td>
<td>71.5771</td>
</tr>
<tr>
<td>4208</td>
<td>RUIZ, Pamposa</td>
<td>Gigaquit, Surigao del Norte</td>
<td>6.4250</td>
</tr>
<tr>
<td>3518</td>
<td>GREAT PILLAR Corp.</td>
<td>Bayabas, Surigao del Sur</td>
<td>15.0000</td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>4764.2840</strong></td>
</tr>
</tbody>
</table>
Appendix B (ICT/ITF)

Proposed Department Administrative Order

Subject: Guidelines for the Cancellation of Illegally Constructed Fishponds and Illegally Titled Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forest in Classified Alienable and Disposable Land

Pursuant to Presidential Decree 705, otherwise known as the Revised Forestry Code of the Philippines, and its implementing rules and regulations, and Republic Act 7586, otherwise known as the National Integrated Protected Area System Act of 1992, and its implementing rules and regulations, the Department of Environment and Natural Resources hereby promulgates the following rules and regulations that govern the reversion of titled fishponds in classified forestland and reclassification of intact mangroves in alienable and disposable land into certified forestland.

Chapter 1

Title, Policies, Objectives, Scope and Coverage and Definition of Terms

Section 1. Title. This Department Administrative Order (DAO) shall be known as the “Guidelines on the Reversion of Titled Fishponds in Classified Forestland and Reclassification of Intact Mangrove Forests in Alienable and Disposable Land into Certified Forestland”.

Section 2. Policies. It shall be the policy of the state to revert, rehabilitate, develop, and manage areas of the forestland, including illegally constructed fishponds and illegally titled fishponds in mangrove areas, for the sustainable production of ecosystem’s goods and services that will benefit the nation and its people.

Section 3. Objectives. This DAO aims to prescribe these guidelines for the reversion of titled areas in classified forestland and reclassification of intact mangroves in alienable and disposable lands.

Section 4. Scope and Coverage. These guidelines shall cover all mangrove areas classified as forestland that have been illegally converted to fishponds and illegally titled by private individuals, and intact mangrove forests in alienable and disposable land.

Section 5. Definition of Terms. The terms related to this DAO are hereby defined as follows:

- **Buffer protection forest** – a strip of mangrove forest and/or beach type forest that is designed to protect coastal communities from strong winds, typhoons, tsunamis, floods and other natural calamities.
- **Coastal and Marine Management Office (CMMO)** – One of the units of the Community Environment and Natural Resources Office (CENRO) whose functions are for the development, protection, conservation and management of the coastal areas where mangroves are situated.
- **Coastal zone** – an area that extends one kilometer inland from the shore land and to seaward areas covered within 200-m isobaths or 15 kilometers.
- **Ecotourism area** – an area used for enjoying the visual and aesthetic values of mangroves and foreshore areas, including landscapes and seascapes, as well as other amenities that provide relaxation to recreationists.
- **Fishpond reversion** – refers to an area, which is purposely designed for fishpond development under the Fishpond Lease Agreement between the DENR
and Department of Agriculture (DA) but has been found abandoned, unproductive or underutilized and is no longer needed for economical fish production operations and therefore, under the provision of law, should be reverted to its official classification category under the administrative and management jurisdiction of DENR.

- **Foreshore Land** – a string of land margining a body of water; the part of a seashore between the low-water line usually at the seaward margin of a low tide terrace and the upper limit of wave wash at high tide usually marked by a beach scarp or berm. (RA 8550, Sec. 4.46).

- **Foreshore Lease Application** – this type of application covers foreshore lands, marshy lands and other lands that border bodies of water for commercial, industrial or other productive purposes other than agriculture. (DAO 1994-34, Sec. 2b)

- **Illegally occupied area** – any portion of the mangrove forestland and/or timberland that is occupied by individuals, groups or corporations without any permit or authority from the DENR.

- **Illegally constructed fishponds** – these are fish production areas constructed in mangrove forestland and/or timberland by individuals, groups or corporation without any permit or authority from the DENR and the DA.

- **Intact mangroves in alienable and disposable land** – portion of the alienable and disposable land that is still covered with mangrove forest.

- **Land rent** – the amount of money that is paid as rental for the use and occupancy of an area in the coastal zone. The land rent may use the zonal value of agricultural/fishery areas prepared by the Bureau of Internal Revenue (BIR) in the absence of a real zonal value of the area estimated by DENR.

- **Mangrove conservation** – the wise use of any resource(s) of the mangrove forests without impairing the carrying capacity of the resource base and its environment.

- **Mangrove fish and marine species sanctuary** – a mangrove forest that is purposely established and managed to serve as a spawning ground and habitat of fish and other marine species. This area is not a fishing ground and should be protected from all forms of fishing activities whether from members of the community or outsiders.

- **Mangrove forest** – a forest that is composed of mangroves, namely trees belonging to the genera Avicennia, Rhizophora, Aegiceras, Lumnitzera, Nypa, Sonneratia, Bruguiera, Ceriops, Excoecaria, Acanthus, Acrostichum, Heriteria and Scyphiphora.

- **Mangrove rehabilitation** – the process of putting back damaged components of the mangrove ecosystem in terms of plants species. This involves replanting, enrichment planting and assisted natural regeneration.

- **Mangrove forestation** – the process of planting biodiversity mangrove plant species in denuded or degraded mangrove areas classified as forestland.

- **Mangrove timberland** – mangrove areas officially classified for the production of mangrove timber.

- **Public–private partnership (PPP)** – a contractual arrangement between the government and the private sector, wherein a private entity agrees to deliver public infrastructure and/or public services and assumes substantial risks in the project.

- **Zonal value** – the value of a piece of land being used for a particular land use set by the BIR

All terms defined under the above code and administrative orders are herewith adopted in this DAO.

### Chapter 2

**Inventory of Illegally Constructed Fishponds and Illegally Titled Fishponds in Mangrove Forestland**

**Section 5. Inventory of Illegally Constructed Fishponds and Illegally Titled Fishponds in Mangrove Forestland**. All illegally constructed fishponds and illegally titled lands in classified mangrove forestland shall be inventoried by the DENR in coordination with the Local Government Units and the Bureau of Fisheries and Aquatic Resources. The following information will be gathered:

- Area of titled fishponds in classified mangrove forestland;
- Date the title was acquired/awarded;
- Location of titled fishponds (Sitio, Barangay, Municipality, Province);
- Map of the area;
- Relocation of corners of the area through GPS survey of the titled property;
- Name and address of the owner including contact number(s) if available;
- Present land use of titled area;
- Taxes paid by the owner to the government (LGU, national government, if any); and
- Ownership history of the titled area.

**Section 6. Identification of Illegally Constructed Fishponds and Illegally Titled Fishponds in Classified Mangrove Forestland**. In cases where the legal status of the mangrove forestland is
not readily identifiable or not clear on the ground, the DENR, through its concerned field offices, shall first establish the boundary of the classified mangrove areas by relocating boundary corners or stations on the ground where the illegally constructed fishponds and illegally titled property is located. All constructed fishponds and titled fishponds that are inside the boundary of the forestland and/or timberland shall be classified as illegal fishponds and illegally titled fishponds.

Section 7. Mapping Illegally Constructed Fishponds and Illegally Titled Fishponds in Mangrove Areas. For properly locating such areas, for data base build up, and for proper documentation of illegally constructed fishponds and illegally titled fishponds in certified mangrove forestlands or timberland shall be mapped according to their actual GPS coordinates.

Section 8. Establishing Public Interest over Illegally Constructed Fishponds and Illegally Titled Areas in Classified Mangrove Forestland. To establish public interest over a piece of mangrove forest that had been illegally titled or where illegal fishponds are located, the DENR may consider the following:

- Plans that will be implemented by the national or local government unit indicating the use of such lands and that it should benefit the majority of people if placed under the government.

- If there are no plans, DENR may conduct a stakeholders’ consultation to determine the best use of such lands and use the vote of the stakeholders to establish that there is public interest on the use of such lands; and

- Conduct a survey to determine the consensus of the people whether or not such lands should be retained under private ownership or public ownership to be used for something that will benefit majority of the people.

Chapter 3

Investigation of Titling, Disciplinary Action and Notice of Voluntary Turn-Over of Illegally Constructed Fishponds and Illegally Titled Fishponds

Section 9. Investigation of the Titling Process. The DENR shall assign the investigation of how titling was done in the Classified Mangrove Forestland to its legal division. Under the law, titling is only possible when the area is classified as Alienable and Disposable and not from classified forestland direct to titled areas. The objectives of the investigation are to establish whether the titling process was legal or illegal and trace how the titling processes were done, who were involved, when and where the titles were issued. The legal office of the DENR is given 15 days to investigate the matter, and to submit its recommendation within 5 days after the conduct of investigation.

Section 10. Disciplinary Action against Erring DENR Personnel. DENR personnel who were/are involved in the titling process that is proven illegal shall be charged according to existing civil service law and policy that governs proper work ethics of DENR personnel.

Section 11. Notice of Voluntary Turn-Over of Illegal Constructed Fishponds and Illegally Titled Fishponds. Based on the information in Sections 5 and 9, the DENR shall issue a Notice of Voluntary Turn-Over of Illegally Constructed Fishponds and Illegally Titled Fishponds to all owners inside a Classified Mangrove Forestland. Owners who are amenable to leave their fishponds shall be given one month to dismantle all facilities and shall officially turn-over the area by signing the Notice of Voluntary Turn-Over.

Section 12. Legal Action Against Illegal Fishpond Owners. The DENR shall file legal charges against owners of fishponds that refuse to turn-over their fishponds voluntarily. Maximum penalty and surcharges shall be imposed to each owner using standard penalty and surcharges of DENR to violators of laws governing occupancy and resource utilization in forestland.

Chapter 4

Reclassification of Intact Mangrove Forests in Alienable and Disposable Lands into Classified Mangrove Forestland

Section 13. Inventory of Intact Mangrove Forests in Alienable and Disposable Land. The DENR shall conduct an inventory of intact mangrove forests in areas classified as Alienable and Disposable Land to assess and evaluate whether such areas are better placed either under Classified Mangrove Forestland or Alienable and Disposable Land.

Section 14. Criteria for Identifying Intact Mangrove Forests for Reversion. Intact mangrove forests for reversion shall be indentified according to the following criteria:

- Area is no less than 1/4 hectare
- Mangrove area has mangrove trees
- Area is close to or within a river/stream network
- Area is useful as a protection forest
- Area has potential for wildlife or marine sanctuary
- Area has no beneficial use to owner
- Owner is willing to yield ownership to the government
- There is public interest for its best use that will benefit majority of the people

Section 15. Surveys and Mapping of Intact Mangrove Forest Areas. The DENR shall order the surveys and mapping of intact mangrove forests in alienable and
disposable lands. The objectives of the surveys and mapping are for: a) properly locating intact mangrove forest areas; b) data base build up; and c) proper documentation.

Section 16. Establishing Public Interest over Intact Mangrove Forests in Alienable and Disposable Land. The following are recommended to establish presence of public interest over a piece of intact mangrove forests in alienable and disposable lands:

- Existence of a national or local government plan for the area.
- Governance and management of the area are best placed under the government.
- If there is no plan, the DENR may conduct a stakeholders’ consultation to determine the best use of the intact mangrove forests and use the vote of the stakeholders to establish that there is public interest on the use of such lands.
- Conduct a consensus survey to determine the need to retain the intact mangrove forests under government jurisdiction.

Section 17. DENR Management Action over Reclassification of Intact Mangrove Forests in Alienable and Disposable Land into Classified Forestland. The reversion of intact mangrove forests in Alienable and Disposable Land into Classified Forestland lies in the power and authority of Congress. Thus, the DENR shall recommend to Congress the reclassification of such areas. The DENR may draft a Bill on the Reclassification of Intact Mangrove Forests in Alienable and Disposable Land into Classified Forestland for submission to Congress.

Section 18. Roles, Functions, and Duration of Allowable Activities of DENR Offices in the Cancellation of Titles in Classified Mangrove Forestland and Reclassification of Intact Mangrove Forests in Alienable and Disposable Land into Classified Forestland. The table below shows the roles and functions of the DENR Offices relative to the reversion of Titled Areas in Classified Mangrove Forestland and intact mangrove forests in Alienable and Disposable Land into Classified Forestland.

<table>
<thead>
<tr>
<th>Step No.</th>
<th>Responsible Office</th>
<th>Activity</th>
<th>Duration (Day)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PAWB-CMMO</td>
<td>Draft order for the assessment and evaluation of mangrove areas. Evaluation shall include determination of which areas have been subjected to reclassification to Alienable and Disposable Land and which mangrove areas have remained forest lands but have been covered by private titles. Draft order shall be submitted to and approved by the DENR Secretary.</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>DENR Secretary Office</td>
<td>Transmit the approved order to regional offices</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Regional Directors</td>
<td>Regional Protected Areas, Wildlife and Coastal Zone Management Services (PAWCZMS), Regional Forest Management Services (RMS), Provincial Environment and Natural Resources Offices (PENRO) and CENROs conduct meeting regarding the order of the DENR Secretary.</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>PAWCZMS, PENRO, CENRO, CMMO, Technical Working Group, Fisheries and Aquatic Resources Management Council</td>
<td>As to mangroves areas that were covered by private titles, establish public interest thereon. Conduct stakeholders’ consultations, if necessary.</td>
<td>3</td>
</tr>
<tr>
<td>5</td>
<td>CENROs</td>
<td>Conduct field assessment, review of the legal classification and evaluation of mangrove forests and submit report and make appropriate recommendation, based on the discussion above, namely:</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td></td>
<td>a. Intact mangrove areas that have been reclassified into Alienable and Disposable Land shall be recommended to forestland reclassification through act of congress.</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>b. Mangrove area that remained as forestland but had been titled shall be recommended for the filing of appropriate legal action in court.</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>DENR Legal Office</td>
<td>For letter b, above, file charges to owner(s) in court, attend all hearings and inform the Secretary on the court’s decisions. Prepare all documents necessary to revert such lands to forestlands. If DENR wins the case, cancel the title or amend any tenurial instrument used or expropriate the area. If not, pursue next legal steps. Subject to actual duration</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>DENR Secretary</td>
<td>After areas have been properly reverted to the state, make necessary management options for the rehabilitation, protection and management of such areas to respective regions.</td>
<td>5</td>
</tr>
</tbody>
</table>
Chapter 5

Integration of Reverted Illegally Constructed Fishponds and Illegally Titled Fishponds into the Convergence Initiative of the Government

Section 19. Integration into the Convergence Initiative Program of the Government. All titled areas in the classified mangrove forestland recovered or reverted to DENR shall be included into the convergence initiative of the government. These recovered areas together with reverted abandoned fishponds shall be managed under the co-management system adopted by the concerned government agencies involved in the convergence initiative in environmental protection and natural resources development and management.

Section 20. Sharing of Resources. All concerned government agencies participating in the convergence initiative shall share their manpower, technical expertise, financial resources and other needs necessary for the effective implementation of co-management activities. A feasibility study for each site shall be prepared and used for resource sharing.

Chapter 6

Budget for the Implementation of this DAO

Section 21. Budget. The DENR shall allocate from its annual appropriation the amount necessary for the execution of this DAO. The annual budget shall be determined by the CMMO and it shall be based on targets provided by the regional offices.

Chapter 7

Monitoring and Evaluation

Section 22. Results Monitoring and Evaluation (RME). All activities required for implementation in this DAO shall be subjected to RME process of the DENR.

Chapter 8

Miscellaneous Provisions

Section 23. Repealing Clause – Any provisions of the previous DAOs that are inconsistent herewith are hereby repealed.

Section 24. Effectivity – This order shall take effect immediately after its publication in newspapers of general circulation.

Signed by:
DENR Secretary
Appendix C (SAMAD)

Policy Opinion/Recommendation: The idea behind CASUA (Coastal Area Special Use Agreement) is to help the government generate revenue to be used for the restoration, development, protection and maintenance, and management of the mangrove areas in the country. Instead of relying solely from the regular budget appropriations to be used, the DENR opted to design an instrument intended to raise its own funding requirement. The mangrove areas where DENR should focus its revenue generation activities should be those areas that are within its administrative jurisdiction to avoid possible conflicts with the LGUs and the DA-BFAR. DENR should not in any way attempt to compete with the two government agencies in areas that have been legally designated for use by the LGUs and DA-BFAR. The 3 government agencies may agree among themselves to complement each other in revenue generation. Under this assumption, the DENR may consider the passing of the proposed DAO on SAMAD to the higher policy formulation body of the DENR for further review and evaluation.

In case of possible objection from any of the government agencies who do not see the merit of SAMAD, then it is up to DENR to decide.

Policy Opinion/Recommendation of the DA-BFAR. The representative of the DA-BFAR who participated in the review process aired her opinion that SAMAD should not be passed to higher DENR policy making body for reason that it competes with the LGUs and DA-BFAR in revenue generation particularly in fishery development projects even if the project sites are within the administrative jurisdiction of the DENR.

The proposed DAO on SAMAD is titled as,

Subject: Prescribing the Special Agreement for Mangrove Area Development (SAMAD) as a Legal Instrument for the Development and Management of Degraded Mangroves, Beach Areas and Foreshore Areas.

Pursuant to EO 192 and pertinent provisions of PD 705, “The Revised Forestry Code of the Philippines” and its implementing rules and regulations, RA 7586 NIPAS Law and its implementing rules and regulations and RA 9147 the Wildlife Act, hereby promulgate the following rules and regulations governing the implementation of PPP through the SAMAD for community individuals, families, groups, cooperatives, People’s Organizations, LGUs, and the Business Sector for the utilization and restoration of degraded mangroves including beach areas and foreshore areas.

Chapter 1
Title, Policies, Objectives, Scope and Coverage and Definition of Terms

Section 1. Title. – This Administrative Order shall be known as “Prescribing the Special Agreement for Mangrove Area Development (SAMAD) as a Legal Instrument for the Development and Management of Degraded Mangroves, Beach Areas and Foreshore Areas”.

Section 2. Policies. In the implementation of this DAO, the State shall be guided by three important policies. The first is to engage on an equitable basis community individuals, families, groups, cooperatives, people’s organizations in coastal communities, LGUs and business sector who have the capacity to sustainably utilize, restore and manage degraded coastal areas including mangrove forestland and its resources, and foreshore areas to bring back their productivities for goods and services, protect...
coastal communities from the adverse impacts of strong winds, typhoons, tsunamis and other natural calamities.

The second is to develop massive strip of mangrove forests to preserve essential fish and marine habitat and spawning grounds to ensure sustainable supply of protein foods and medicines from fishes and other marine species, preserve birds and other mammals, wildlife and biodiversity to mitigate and adapt to climate change.

And the third one is to use innovative financing mechanisms such as payment for ecosystem’s services and private-public partnership to achieve the objectives of utilizing, restoring and managing mangroves and foreshore areas.

**Section 3. Objectives.** This DAO aims to prescribe CASA as a legal instrument to allow the utilization, restoration and management of coastal areas and the resources therein to generate funds to be used in the sustainable generation of productive and protective benefits of the coastal areas.

**Section 4. Scope and Coverage.** These guidelines shall cover all degraded mangrove areas, beach areas and foreshore areas under the administrative jurisdiction of the DENR that need restoration, development, protection and maintenance, and management.

**Section 5. Definition of Terms.** The following terms related to this DAO are hereby defined:

- **Application processing fee** – this amount covers the level of efforts of evaluating officers and supplies and materials used in the evaluation of the completeness and correctness of required documents embodied in the application requirements.

- **Biodiverse forest** – forest composed of different plant species growing side by side with one another, each one is symbiotically related to one another.

- **Beach forest** – forest composed of non-mangrove plant families growing in beach areas and areas landward or upslope. The plant families growing in these areas are Bani, Dapdap, Agoho, etc.

- **Beach areas** – a sandy land area fronting the shoreline and part of foreshore areas. Beach and foreshore areas are parts of the mangrove forestland. A beach area that is forested becomes part of a mangrove ecosystem. Likewise, a foreshore area that is forested becomes a mangrove ecosystem.

- **Buffer protection forest** – a strip of mangrove forest and/or beach type forest joined together as a strip designed to protect coastal communities from strong winds, typhoons, tsunamis, floods and other natural calamities.

- **Coastal zone** – is legally defined to extend one kilometer inland from the shore land and to seaward areas covered within 200-m isobaths or 15 kilometers.

- **Conditional cash transfer (CCT)** – government assistance to poor families by giving cash to be used for financing the education of children of poor families.

- **Cooperative** – a community-based organization registered with the Cooperative Development Authority (CDA) of the Philippines to engage in multi-purpose business allowed under the CDA

- **Corporation** – refers to a for profit-company registered with the Securities and Exchange Commission

- **Ecotourism or eco-destination area** – area used for enjoying visual and aesthetic values of mangroves and foreshore areas according to landscapes and seascapes beauty as well as other amenities providing relaxation to recreationists.

- **Extended conditional cash transfer (ECCT)** – a modified form of the CCT where the government is adding more funds as incentive to families who are not only sending their children to school but also in participating in the restoration, protection, maintenance and management of degraded mangrove areas. The additional amount will come from the annual budget of the DENR for mangrove restoration, protection and maintenance and management.

- **Government share** – the amount of money that should be paid to the government (DENR) as its share for the use of forestlands for IFMAs.

- **Individual** – member of a family of human beings living in the coastal community and with capacity for human labor to work in mangrove restoration, protection and management project or in fishery development project.

- **Family** – a group of individuals that belongs to a family related by consanguinity, marriage or affinity.

- **Fishpond reversion** – refers to an area purposely for fishpond development under the Fishpond Lease Agreement between the DENR and DA which has been found abandoned, unproductive or underutilized and no longer needed for economical fish production operations and therefore under the provision of law should be reverted to its official classification category under the administrative and management jurisdiction of DENR

- **Foreshore Land** – a string of land margining a
body of water; the part of a seashore between the low-water line usually at the seaward margin of a low tide terrace and the upper limit of wave wash at high tide usually marked by a beach scarp or berm. (RA 8550, Sec. 4.46). A foreshore land used to be part of a mangrove forestland. Such mangrove forest was deforested due to clearcutting or through the long-term actions of strong waves or tsunamis uprooting the mangrove forest. A foreshore area regenerated naturally or man-made with mangrove species becomes a mangrove ecosystem. The same is true with beach area.

- **Foreshore Lease Application** – the type of application covering foreshore lands, marshy lands and other lands bordering bodies of water for commercial, industrial or other productive purposes other than agriculture. (DAO 1994-34, Sec. 2b)

- **Land rent** – amount of money paid as rental for the use and occupancy of an area in the coastal zone.

- **Mangrove conservation** – wise use of any resource(s) of the mangrove forests without impairing the carrying capacity of the resource base and its environment.

- **Mangrove fish and marine species sanctuary** – a mangrove forests established and managed purposely to serve as spawning ground and habitat of fish and other marine species. This area is not a fishing ground and should be protected from all forms of fishing activities whether from members of the community or outsiders.

- **Mangrove forest** – forest composed of mangroves, namely trees belonging to the genera Avicennia, Rhizophora, Aegiceras, Lumnitzera, Nypa, Sonneratia, Bruguiera, Ceriops, Excoecaria, Acanthus, Acrostichum, Heriteria and Scyphiphora.

- **Mangrove rehabilitation** – the process of putting back damaged components of the mangrove ecosystem in terms of plants species involving replanting, enrichment planting and assisted natural regeneration.

- **Mangrove forestation** – the planting of biodiverse mangrove plant species in denuded or degraded mangrove areas classified as forestland,

- **Non-government organization** – refers to a non-for profit people’s organization duly registered with the Securities and Exchange Commission.

- **Non-permanent ecotourism facilities** – ecotourism facilities that are not permanently anchored on the ground. They can be moved or transferred in a matter of hours.

- **Permanent ecotourism facilities** – ecotourism facilities that are anchored on the ground permanently through the use of cement of wooden materials that can be moved in a matter of days and weeks.

- **Payment for Ecosystem’s Services** – amount of money paid for the services of ecosystems or the environment without necessarily cutting the resource base.

- **Public–private partnership (PPP)** - Contractual arrangement between the government and private sector, wherein a private entity agrees to deliver public infrastructure and/or public services and assumes substantial risks in the project.

- **Resource valuation** – the process of determining the economic values of coastal areas and mangrove forestlands and their resources.

- **Zonal value** – the value of a piece of land being used for a particular land use set by the Bureau of Internal Revenue.

- All other terms defined in each of the DAOs are hereby adopted in this DAO.

Chapter 2

Coverage of the Special Agreement for Mangrove Area Development (SAMAD)

Section 5. Priority Areas for SAMAD. Any lands and their resources under classified forestland, timberland, protected areas and unclassified lands of the public domain strictly under the administrative jurisdiction of the Department of Environment and Natural Resources. Mangroves, beach and foreshore areas which had been devolved to the LGUs, turned over to DA-BFAR and to other LGUs, national government agencies and GOCCs are not illegible under SAMAD.

The areas intended for SAMAD are:
- Mangrove areas
- Beach areas
- Foreshore areas

Section 6. Types of Projects Allowed under SAMAD. Only projects that will further enhance and develop the mangrove, beach and foreshore areas that are socially acceptable, economically beneficial in the short-run and long-run and without adverse environmental impact shall be allowed. All projects that will require changes on the original ground configurations and features and establish or construct semi-permanent and/or permanent structures and found to have adverse
environmental impacts in any of the prescribed SAMAD areas shall strictly be prohibited from applying under the SAMAD mechanism.

The following projects that may be applied for in the development and management of areas under Section 6 are:

- Restoration, forestation, vegetation enrichment projects in degraded mangrove areas for the establishment and management of the following:
  a. Mangrove sanctuary
  b. Terrestrial wildlife sanctuary
  c. Buffer protection forest
- Establishment and management of high-value fish/marine species production facilities in submerged foreshore areas. These include aquasilviculture, mud crab culture fattening, oyster culture, blue crab culture/fattening, salt water crocodile rearing with precautionary measures, seaweed farming, pearl culture/farming, sea horse culture, sea cucumber culture, spirulina culture, and other non-destructive cultural activities conducive and compatible with the area.
- Non-permanent ecotourism facilities in beach and foreshore areas.

Section 7. Allowable Resource Management Practices that may be Undertaken by SAMAD Contractors. The following may be used by contractors to improve their resource management systems if necessary:

General statement on allowable practices:
- Use of non-polluting substances;
- Non-extractive utilization;
- Use of local/traditional methods of harvesting that are not destructive;
- Use of selective fishing gears; and
- Strict compliance to the optimum carrying capacity of the coastal area to avoid undue mortality of desired species.

Section 8. Prohibited Acts. The following acts or activities are not allowed in coastal areas:

General statement on prohibited acts:
- Cutting of mangrove trees and other species;
- Use of harmful chemicals and other hazardous materials/substances;
- Use of invasive alien species (both flora and fauna);
- Use of destructive fishing and/or harvesting methods, such as use of fine mesh nets, cyanide-fishing, dynamite fishing;
- Destruction of corals;
- Illegal collection of corals, shells, wildlife and other valuable marine and terrestrial flora and fauna;
- Sub-contracting and selling of rights; and
- Construction of buildings, houses, swimming pools and other permanent structures in foreshore areas.

Chapter 3

Zoning of Mangroves, Beach and Foreshore Areas

Section 9. Purpose of Zoning. The purpose of zoning mangrove, beach and foreshore areas is for valuation of areas being applied for by SAMAD contractors.

Section 10. Characterization Surveys and zoning of mangrove areas. All mangrove areas shall be characterized according to their vegetative, soils and geology, sea water level, subsurface characteristics, and suitability for utilization and development. The zones are:

Multiple-Use Zone – includes built-up areas used for residential and tourism establishment; restoration area – portion of the mangrove area and its elements or components which have been damaged due to excessive use. Such damaged portion(s) or element(s) or component(s) require(s) restoration; production area suitable for any productive undertaking such as production of any resources; Ecotourism area – portion of the mangrove area which has scenic and aesthetic value which can be developed and managed for recreational purposes; and Infrastructure area – portion of the mangrove area which has been identified by local government units or by the national government through the Department of Public Works and Highways or by the Department of Transportation and Communication necessary for infrastructure development.

Strict Protection Zone – mangrove area designated for protection purposes.

Section 11. Characterization Surveys and Zoning of Beach and Foreshore Areas.

All beach and foreshore areas shall be characterized according to their vegetative, soils and geology, sea water level, subsurface characteristics and suitability for utilization and development. The zones are:

Multiple-Use Zone – includes built-up areas used for residential and tourism establishment;
restoration area – portion of the mangrove, beach and foreshore area and their elements or components which have been damaged due to excessive use. Such damaged portion(s) or element(s) or component(s) require(s) restoration; production area suitable for any productive undertaking such as production of any resources (can be under the multiple use zone); Ecotourism area – portion of the mangrove, beach or foreshore area which has scenic and aesthetic value which can be developed and managed for recreational purpose.; Infrastructure area – portion of the mangrove, beach and foreshore area which has been identified by local government units or by the national government through the Department of Public Works and Highways or by the Department of Transportation and Communication necessary for infrastructure development.

Protection zone – foreshore areas designated for preservation and protection purposes.

Chapter 4

Fees and Charges for SAMAD

Section 12. Fees and Charges. The fees and charges that SAMAD applicants should settle to DENR before operations, whether in mangroves, beach or foreshore area are:

- Application processing fee – PhP800 per application
- Area inspection fee:
  - Round transport cost for 2 technical staff – PhP800
  - Site area investigation: PhP100/day for <1ha. to 5 ha. Increment of a fraction of 5 ha. or up to 5 ha. thereof will be charged PhP1,000/day additional site investigation fee
  - Report preparation: PhP1,200.00/report
- Review and evaluation of feasibility study or development plan:
  - Panel review and evaluation: PhP75,000.00/FS or development plan

- Resource/land rent:
  - In cities or urban foreshore areas- built-up zone: percentage of land rent based on the prevailing zonal value of land/ha
  - Production zone: PhP29,000/ha/year
  - Ecotourism/ecodestination zone: PhP15,000/establishment=300 sq.m./year
  - Infrastructure zone: PhP500/sq.m.
- ECC fee (as assessed by EMB or EMS)
- Performance bond: equivalent to 10% gross project cost
- Annual monitoring and evaluation fee: same as the fee for area inspection.
- Annual license or permit to operate: PhP1,000/year

Section 13. Adjustment of Fees and Charges. All fees and charges shall be adjusted every 2-year period by a percentage equal to the average annual increment of all prices of commodities.

Section 14. Exemption from Payment of Fees and Charges. All individuals and families in the coastal community applying for the use of mangrove or foreshore areas for livelihood projects without sufficient income shall be exempted from paying the above fees and charges provided that the individual or family applicant will restore, protect and manage an equivalent area in the restoration zone.

Section 15. Extended Conditional Cash Transfer (ECCT). Poor families in coastal communities who are recipient of the CCT may avail of the ECCT program of the government if they are willing to participate in the project of the DENR in mangrove restoration, protection and maintenance, and management. The source of the additional fund for the ECCT shall come from the regular budget of the DENR for mangrove reforestation, protection and maintenance, and management. The ECCT amount shall be determined by the DENR Secretary. Poor families under the ECCT shall be given priority in the mangrove restoration projects or fishery development projects of the DENR without paying any of the fees and charges.

Section 16. Maximum Area Allowed for Individual or Family Applicants. An area of 0.25ha for individual and 0.75 ha for family shall be the maximum to be allowed under SAMAD.

---

13 This is based on a level of effort equivalent to PhP 350/day (minimum wage of technical staff) for 2 days doing the following activities under processing of application: a) recording of individual documents; b) review and evaluation of entry in required forms as to correctness and completeness; c) issuance of acceptance receipt and preparation of communication addressed to the applicant regarding the status of the application is estimated at PhP 100.00
14 Fare of 2 technical staff assigned to conduct field inspection of sites being applied for at PhP 400.00/person/round trip
15 For level of effort of 2 field inspection of staff at PhP 350.00/person plus PhP 150.00 for food allowance.
16 Cost of materials used in preparing reports and level of effort of technical staff.
17 The level of effort for FS and plan evaluation is 3 days for 5 experts at PhP5,000.00/expert/day
18 Applies to all forms of establishment in mangroves of foreshore areas in classified cities or urban areas
19 Based on the resource rent study of Rina Rosales on Fishpond operations in Masbate. The amount adopted as an average resource/land rent for all forms of production projects in mangroves or foreshore areas, Annex 1
20 Based on the resource rent study of Rina Rosales on Ecotourism establishment in Cagayan province, Annex 1
21 While it is true that any piece of land in the public domain is owned by the government, the charging of resource/land rent for projects of other government agencies such as the DOTC, DPWH, DOT, DA, etc. is necessary to be used by the DENR in the protection and management of the environment of the project site and to indicate the contribution of the DENR to government revenue
Section 17. Maximum Area for Each Coastal Community. An area of 10% of the total production and ecotourism zones in the mangrove and foreshore area in each coastal municipality shall be allocated for the use of individual and family applicants free of all fees and charges. In cases where there are more areas than applicants, the municipal government shall return the excess area to the DENR.

Section 18. Prohibition on Subleasing Individual and Family Areas. No individual and/or family SAMAD holders shall be allowed to sublease their areas to community-based organizations, cooperatives, corporations and wealthy family(ies). The permit to operate of any SAMAD holders that violated this provision shall be terminated by the DENR.

Chapter 5

Strengthening DENR Capability in M&E and Project Management

Section 18. Capability Building in Monitoring and Evaluation. The DENR at all levels shall be trained on Results Monitoring and Evaluation (RME) using the framework on RME of the DENR. The M&E Office of the PPSO shall conduct training on RME as requested by the regional offices. The schedules of the training shall be mutually agreed between the PPSO and the office concerned.

Section 19. Capability Building in Project Management. The DENR shall be trained on project management to improve overall performance in the restoration, management and administration of projects in the mangrove and beach areas.

Chapter 6

Results Monitoring and Evaluation

Section 20. Results Monitoring and Evaluation (RME) of SAMAD Activities. All developmental and management activities of SAMAD contractors shall be subjected to a results-based monitoring and evaluation system being used by the PPSO-DENR. The objectives of the RME are: a) to check whether developmental and management activities are within agreed terms and conditions; b) assess actual carrying capacity of the SAMAD area; c) regularly determine the environmental impacts of SAMAD operations to the different attributes of the environment that are negatively affected; and d) identify problems, issues and constraints that need to be addressed by both DENR and the SAMAD holder to improve project management decisions and implementation.

Section 21. Monitoring of SAMAD Fees and Charges. To prevent the accumulation of uncollected fees and charges, the DENR shall conduct periodic monitoring and evaluation of the payments of all SAMAD holders to determine those that have not settled their fees and charges regularly to the DENR.

Chapter 7

Eligible Entities for SAMAD

Section 22. Who are Qualified to Apply for SAMAD? All citizens of the Republic of the Philippines with good moral character, financial/economic capability, good sense of social responsibility and balance environmental and economic responsibility are qualified to apply for the SAMAD. For NGOs and corporations, the required combination of citizens and non-citizen partnership defined based on capitalization according to existing laws of the land shall be adopted. The following are qualified SAMAD contractors and their corresponding priorities:

- **First Priority** – individuals, families, groups in coastal communities with capacity to participate
- **Second priority** - people’s organizations, cooperatives, Local Government Unit in coastal communities who have direct administrative jurisdiction over the area using their corporate role according to the local government code.
- **Third Priority** – Existing NGOs in the area who have capacity to implement projects.
- **Fourth Priority** – Business sector with good financial and tax payment standing.

Section 23. Application Procedure. The application procedures for CASA are shown as,

**Step 1. Completion and submission of basic requirements.**

For Individuals, Families, and Groups in Coastal Communities. The applicants are required to prepare the following documents:

- Application form (Annex 2)
- Simple project concept/design (Annex 3)
- Map or sketch map of the area intended for the project.
- Barangay clearance of applicant(s)

For NGOs, Cooperatives and Corporations, the requirements are:

- Application form (Annex 4)
- Feasibility study (Annex 5)
- Map of the area intended for the project
- Certificate of good standing in places where such entities are operating (Barangay, Mayor, BIR, DOLE)
• Audited financial statements for the last 3 years.

Step 2. Evaluation of the basic documents of the applicants. Based on the size of the applied area, the evaluating offices are:

• CENRO-CMMO – for areas 1-5 hectares
• PENRO-CMMO – for areas 5-10 hectares
• Region-FMS/PAWCZMS – 11 hectares and above

Step 3. Selected applicants are notified in writing by the respective evaluating offices of the DENR and advised to prepare full blown feasibility study, survey and mapping of the area, conduct IEE/EIA for NGOs, Cooperatives and Corporations. Individuals, families and groups will prepare a simple feasibility study, map of the area, and certification from the Barangay Captain/Municipal Assessor on their assets (lands, boat, fishing gears, etc.)

Step 4. Evaluation of the requirements of selected applicants. The criteria for evaluation for NGOs, Cooperatives and Corporations are:

• Realistic assumptions used in the feasibility study (production standards, costs and prices, applicability of production methodologies)
• Impact to employment generation.
• Compliance to the requirements of SAMAD
• Incremental income of household heads to be employed in the project.
• Net present value and Internal Economic Rate of Return
• Environmental impacts.

For Individuals, families and groups, the evaluation criteria are:

• Realistic assumptions used in the simple feasibility study
• Simple financial return or ROI
• Compliance to the requirements of SAMAD.
• Environmental impacts.

Step 5. Conduct of public hearing on the projects. There will be 3 public hearings to be conducted by DENR in different barangays/municipalities to assess the social acceptability of the project. Once the project is socially acceptable, Step 6 is conducted.

Step 6. Notice of award to the project proponent. A letter will be issued by the DENR and advice the proponent for the signing of the SAMAD.

Step 7. Payment of all fees and charges.

Step 8. Issuance of Notice to Proceed and issuance of ECC and other technical and administrative requirements of the DENR.

Step 9. Project implementation.

Chapter 9

Tenure of the Special Agreement for Mangrove Area Development

Section 24. Probationary Period. SAMAD holders shall be given a probationary period of 2 years to demonstrate their capacity to introduce developmental activities according to an approved development plan by the DENR. Failure to perform well according to the activities/structures approved for implementation during the first 2 years shall be ground for termination of the contract.

Section 25. Maximum Period. The maximum period for SAMAD is based on the period indicated in the approved business plan but not more than 25 years subject to satisfactory performance. Periodic assessment and evaluation of SAMAD performance shall be done every 6 months. Satisfactory performance of SAMAD holder based on meeting project objectives, implementation of approved development plan on time and compliance to DENR, BIR and LGUs fees and tax requirements qualifies the SAMAD holder for an extension for another term defined in its approved business plan but not more than 25 years subject to submission of a sustainability project management plan.

Section 26. Conditions for Termination. The following are the minimum conditions for the termination of SAMAD. Any violation of one and/or combinations of the items will be ground for termination:

• Failure to show physical development in 2 years according to the schedules in the development plan or feasibility study starting from the receipt of notice to proceed of the SAMAD.
• Non-compliance to the Terms and Conditions of the SAMAD.
• Non-compliance to ECC, administrative and technical requirements imposed by the DENR, BIR and LGU.

Chapter 10

Miscellaneous Provisions

Section 27. Repealing Clause – Any provisions of the previous DAOs that are inconsistent herewith are hereby repealed.

Section 28. Effectivity – This order shall take effect immediately after its publication in newspapers of general circulation.

Signed by:
DENR Secretary
<table>
<thead>
<tr>
<th>Habitat</th>
<th>Type of Fee</th>
<th>Amount</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mangroves</td>
<td>Fishpond Operations</td>
<td>Masbate: PhP 1,000 to 29,000 /ha/yr</td>
<td>Use minimum amount to target all fishponds to be regulated, use higher amount to decrease the total number of fishponds</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Cagayan: PhP 1,000 to 632,000 /ha/yr</td>
<td>BFAR to get into co-management schemes with LGUs for monitoring fishpond operations</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Net benefit from mangroves: PhP 9,000 /ha/yr</td>
<td></td>
</tr>
<tr>
<td>Nipa gatherers in Cagayan</td>
<td></td>
<td>PhP 180 / hh/ yr</td>
<td></td>
</tr>
<tr>
<td>Resource gatherers in Masbate</td>
<td></td>
<td>PhP 76 /hh/yr</td>
<td></td>
</tr>
<tr>
<td>Foreshore areas</td>
<td>Foreshore lease agreements</td>
<td>3% of market value per square meter, using lowest and highest beachfront prices in the province for the range 1% value of improvements</td>
<td>Use market values of beachfront lots being sold in the province</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Coral Reefs</td>
<td>Commercial fishing license fees</td>
<td>Maximum of PhP 130,000 per vessel per year</td>
<td>BFAR may decide on a certain percentage of rent to be captured, with increasing levels over a certain period, e.g. every 5 years</td>
</tr>
<tr>
<td></td>
<td>Municipal fishing registration and license fees</td>
<td>PhP 500 in Masbate (10% of rent)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>PhP 1,000 in Cagayan (1% of rent)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>LGU can decide on the percentage of rent to be captured</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Enforcement should be undertaken more vigorously</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Need for increasing rent in Masbate, e.g. MPA establishment, decreasing fishing effort</td>
</tr>
<tr>
<td>Tourism establishments</td>
<td></td>
<td>PhP 700 to 6,000 in Masbate</td>
<td>Lower range values will encourage all establishments to register; Higher range values will force establishments to be more efficient, and increase revenues of LGUs</td>
</tr>
<tr>
<td></td>
<td></td>
<td>PhP 2,400 to 15,000 in Cagayan</td>
<td></td>
</tr>
<tr>
<td>Ecotourism</td>
<td></td>
<td>PhP 1,000 – 3,000 per visitor</td>
<td>Should be adjusted later on to account for WTP of visitors, when surveys can already be conducted</td>
</tr>
<tr>
<td>Filming</td>
<td></td>
<td>PhP 20,000 per day</td>
<td>Can be adjusted to account for long periods of filming in the same area</td>
</tr>
</tbody>
</table>
ANNEX 2 (SAMAD)

APPLICATION FORM FOR SAMAD INDIVIDUAL OR FAMILY APPLICANT

Name of Applicant: ________________________
Address: ________________________
Number of Dependents: ______

Total Area Applied for: ________________________
Purpose: ____________________________________
Location of Area: Sitio: ________________________
: Barangay: ________________________
: Municipality: ________________________
: Province: ________________________

Applicant’s Signature: ________________________

ANNEX 3 (SAMAD)

PROJECT DESIGN

Title of Project: ________________________
Location: ________________________
Name(s) of project proponent(s): ________________________
Objective: ________________________
Activities to be undertaken: ________________________
Structures to be constructed: ________________________
Schedules of activities and structures to constructed: ________________________
Manpower: ________________________
Project duration: ________________________
Capital requirement: ________________________
Projected Income: ________________________
ANNEX 4 (SAMAD)

APPLICATION FORM FOR SAMAD PEOPLE’S ORGANIZATIONS, COOPERATIVES, NON-GOVERNMENTAL ORGANIZATIONS, AND CORPORATIONS

Name of organization: ________________________
Address of organization: ______________________
Contact No. _____________________
Email address: ___________________

Name of representatives:
Chairman:_____________________________
Address and contact No., email _________________
President:______________________________
Address and contact No., email _________________
Vice President:___________________________
Address and contact No., email _________________
Address of the organization: ___________________________________________________

Total Area Applied for: ________________________________
Purpose: _______________________________________
Location of Area: Sitio:_______________________________
: Barangay: ________________________________
: Municipality: ______________________________
: Province: _________________________________

Chairman/President’s Signature:
_________________________

ANNEX 5 (SAMAD)

FEASIBILITY STUDY

Title of project:
Location of the project:
Background:
Objectives:
Technical feasibility:
Activities to be undertaken:
Facilities to be constructed:
Methods/processing systems:
  Social acceptability
    Stakeholders’ consultation
  Social impact
    Employment impact
    Impact on income of workers
  Other social impacts
Economic/financial feasibility
  Financial cost-benefit analysis
Impact to LGU revenue (Taxes)
Project’s net income
Project’s budget
Sensitivity analysis
Environmental soundness
  On-site impacts
  Off-site impacts
  Mitigation of on-site and off-site impacts
Project duration
Manpower requirements
Schedules of implementation
Annexes
  Tables
  Maps
  Resolutions
  Pictures
Appendix D

POLICY RECOMMENDATION ON THE IMPLEMENTATION OF THE LAWS AND RELEVANT ADMINISTRATIVE ISSUANCES RELATING TO FORESHORE IN AREAS THAT ARE ACTUALLY MANGROVE AREAS

Background

There are several policies on the utilization and management of foreshore and mangrove areas being issued and implemented by different national government agencies. To cite some of the government agencies involved on foreshore utilization, development and management, the DENR issues and implements policies in the conservation, development, rehabilitation and management of foreshore and mangrove areas. The DA-BFAR issues and implements guidelines pertaining to the construction, development and management of fishponds under Fishpond Lease Agreement in foreshore or mangrove areas and the DOT issues and implements guidelines in the development and management of tourism areas in foreshore and mangrove areas. And the LGUs are authorized under the Local Government Code to draw its own CLUP integrating the use of foreshore and mangrove areas.

Objectives

This paper presents a policy recommendation on the implementation of laws and administrative issuances relating to foreshore in areas that are actually mangrove areas.

Governing policies affecting foreshores and mangroves

The policies and administrative issuances governing foreshores and mangroves are shown in the table below:

<table>
<thead>
<tr>
<th>Governing Policy</th>
<th>Title</th>
<th>Implementing Office</th>
<th>Resource(s) Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>EO 263 (1995) and its implementing rules (DAO 96-29)</td>
<td>Adopting CBFMA as national strategy in the sustainable development of the country’s forestland resources</td>
<td>DENR</td>
<td>Forestland and its resources. Foreshores and mangroves are included.</td>
</tr>
<tr>
<td>EO 318</td>
<td>Promoting sustainable forest management in PH</td>
<td>DENR</td>
<td>Forestland and its resources including environmental services</td>
</tr>
<tr>
<td>DAO 30 (1994)</td>
<td>Implementing guidelines for NGO-assisted CBFMA in mangrove forest</td>
<td>DENR</td>
<td>Mangrove areas that need rehabilitation, reforestation, protection and management</td>
</tr>
</tbody>
</table>
### a. Tenurial Instrument Used in CBFMA Areas Applicable in Foreshore and Mangrove Areas

<table>
<thead>
<tr>
<th>Governing Policy</th>
<th>Title</th>
<th>Implementing Office</th>
<th>Resource(s) Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAO 15 (1990)</td>
<td>Regulations governing the utilization, development and management of mangrove resources</td>
<td>DENR</td>
<td>Mangrove resources</td>
</tr>
<tr>
<td>DAO 98-10 (1998) &amp; Sect 17 LGU Code</td>
<td>Guidelines on the establishment and management of community-based forest management projects in mangrove areas.</td>
<td>DENR &amp; LGU</td>
<td>Mangrove areas and its forest resources</td>
</tr>
</tbody>
</table>

### b. Lease Contract Used in Foreshore Areas

<table>
<thead>
<tr>
<th>Governing Policy</th>
<th>Title</th>
<th>Implementing Office</th>
<th>Resource(s) Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chapter 9 Public Land Act (CA 141)</td>
<td></td>
<td>DENR</td>
<td>Forestland and its resources. Foreshores and mangroves are included.</td>
</tr>
<tr>
<td>DAO 99-34</td>
<td>Rules and regulations governing the administration, management and development of foreshore areas, marshy lands and other lands bordering bodies of water</td>
<td>DENR</td>
<td>Foreshore areas, mangrove/marshy lands and other lands bordering bodies of water.</td>
</tr>
<tr>
<td>RA 2694 (1960)</td>
<td>Amended CA 141 schedule of rental for foreshore lands</td>
<td>DENR</td>
<td>Foreshore</td>
</tr>
<tr>
<td>DAO 98-24</td>
<td>Schedule of approving authority for foreshore lease.</td>
<td>DENR</td>
<td>Foreshore</td>
</tr>
<tr>
<td>DENR MC 12 (1993)</td>
<td>Policy on the issuances of licensees, leases, and permits covering islands with areas less than 50,000 has.</td>
<td>DENR</td>
<td>Forestland, foreshore, mangrove and resources</td>
</tr>
<tr>
<td>Lands Gen Circular 58 (1979)</td>
<td>Land officers authority to collect occupation fees on foreshore, marshy, reclaimed and other government lands occupied by any person w/out authority or permit</td>
<td>Bureau of Lands</td>
<td>Foreshore and mangrove areas</td>
</tr>
<tr>
<td>DAO 82 (1992)</td>
<td>Guidelines for the issuance of permits for pebble picking along beaches</td>
<td>DENR</td>
<td>Foreshore</td>
</tr>
</tbody>
</table>

### c. Special Land Use Agreement for Tourism Purposes (FLAG-T)

<table>
<thead>
<tr>
<th>Governing Policy</th>
<th>Title</th>
<th>Implementing Office</th>
<th>Resource(s) Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAO 2004-28</td>
<td>Rules and regulations governing the use of forestlands for tourism purposes</td>
<td>DENR</td>
<td>Any forestland, may include foreshore and mangrove areas. Bathing establishment, camp site, ecotourism, hotel site and other tourism purposes.</td>
</tr>
</tbody>
</table>

### d. Special Forest Land Use Agreement (FLAG)

<table>
<thead>
<tr>
<th>Governing Policy</th>
<th>Title</th>
<th>Implementing Office</th>
<th>Resource(s) Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAO-2004-59</td>
<td>Rules and regulations governing the special use of forestlands</td>
<td>DENR</td>
<td>Forestland and its resources. Bodega/warehouse, drydock site, shipbuilding site, herbal med plantation site, nipa plantation site, fish drying site, communication station site, landing site, log pond/log depot site, lumberyard, mineral storage site, crushing site.</td>
</tr>
</tbody>
</table>
### Fishpond Lease Agreement

<table>
<thead>
<tr>
<th>Governing Policy</th>
<th>Title</th>
<th>Implementing Office</th>
<th>Resource(s) Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA 8550</td>
<td>Fisheries Code of 1998</td>
<td>DA-BFAR</td>
<td>Foreshore and mangrove areas covered by FLA</td>
</tr>
<tr>
<td>FAO 125 (1979)</td>
<td>Rules and regulations governing conversions of ordinary fishpond permits and 10 year fishpond lease agreements into 25 year FLA</td>
<td>DA-BFAR</td>
<td>Foreshore and mangroves</td>
</tr>
<tr>
<td>FAO 197</td>
<td>Rules and regulations governing the lease of public lands for fishpond development</td>
<td>DA-BFAR</td>
<td>Foreshore and mangrove areas</td>
</tr>
<tr>
<td>MNRAO 3 (1982)</td>
<td>Lands suitable for fishponds to be placed under the administration of BFAR</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DAR-DA JAO 18 (1991)</td>
<td>Rules and regulations governing the distribution of cancelled or expired FLA under EO 407 and EO 448</td>
<td>DA and DAR</td>
<td>Foreshore and Mangrove under cancelled or expired FLAs</td>
</tr>
<tr>
<td>DA-DENR JMCO 3 (1991)</td>
<td>Guidelines on the reversion of underutilized, underdeveloped abandoned fishponds to mangroves</td>
<td>DA and DENR</td>
<td>Foreshore and mangroves</td>
</tr>
</tbody>
</table>

### Co-Management Agreement

<table>
<thead>
<tr>
<th>Governing Policy</th>
<th>Title</th>
<th>Implementing Office</th>
<th>Resource(s) Covered</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA 7160</td>
<td>Local Government Code: Sharing of management, development, protection and utilization of specified area of forestland, including mangroves, and its resources between the LGU and the DENR.</td>
<td>LGU and DENR</td>
<td>All forestlands including foreshore and mangroves.</td>
</tr>
<tr>
<td>Section 3 of RA 7160</td>
<td>LGUs to share with the national government the management and maintenance of ecological balance.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Zoning of foreshore lands</td>
<td>LGU &amp; HLURB</td>
<td>Foreshore and mangrove</td>
<td></td>
</tr>
<tr>
<td>Port zones</td>
<td>Philippine Ports Authority</td>
<td>Foreshore and mangroves</td>
<td></td>
</tr>
<tr>
<td>Reclamation projects</td>
<td>Public Estates Authority</td>
<td>Foreshore and mangroves</td>
<td></td>
</tr>
<tr>
<td>Permit structures in foreshore areas</td>
<td>DPWH</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tourism areas</td>
<td>DOT</td>
<td>Foreshore, mangrove, all forestlands</td>
<td></td>
</tr>
</tbody>
</table>
The policy/problem gaps are:

What is missing is an overarching policy that will require the following to be performed by each government agency engage in foreshore or mangrove utilization, development, conservation and management:

**Alternative Policy Recommendations**

1. **Implementation of an integrated and overarching framework defining the use of mangroves including beach and foreshore as well as the roles of each government agencies that administer and manage foreshore and mangrove areas.**

   The salient features of the framework are:
   
   - Vision and mission of the government regarding mangrove areas (including beach and foreshore areas) considering climate change, disaster risk reduction, environmental protection, food security, biodiversity conservation and sustainability. Once the vision and mission are formulated and adopted by the national government, the government agencies that will have an administrative and management stake over the mangrove area should abide by this vision and mission.

   - The optimal and best uses of mangrove areas and its components and how to sustain such uses shall be drawn in the LGUs comprehensive land use plan and comprehensive development plan. This will serve as guide in the allocation or zoning of mangrove areas according to demands for goods and services subject to environmental constraint, economic objectives, social concerns, resource carrying capacity and management capacity of the LGUs.

   - Provide full authority to the LGUs to implement the best use of the mangrove areas at the municipal level subject to their capacities and resources. All government agencies that will be involved will have common decision to authorize the LGUs to execute such projects or actions according to the local government code.

   - The major roles of the national government agencies involved would be limited to coordination and monitoring and evaluation functions at the national, regional and community level. This will serve as a unifying factor of the different national government agencies while executing their major functions.

   - Resource and benefit sharing to sustain operations of each of the government agencies as well as to maintain contribution to national growth and development. Agency’s share from whatever benefits derived from any projects in mangroves should be given to them automatically to enable them address current problems in resource management.


   Integrating the different policies being implemented by different national government agencies is not practical at this time due to difficulty in organizing such agencies to come together for a common concern. They are guided by their own mandates and resources obligated by the government. The mandates of the concerned agencies are totally different from each other using a single land resource. Implementing an integrated policy is expensive because it will take a long time for the agencies/implémenters to come together and adjust into one field implementing unit. Turf protection cannot be avoided. Also, the other trade-off is the difficulty of pinpointing management liability among the implementing agencies when something went wrong.

3. **Status Quo (With Minimal Modification Integrating Land Rent System)**

   As it is now, it is not clear whether government agencies through their concessionaires are paying the DENR some amounts as land rent or fees for the use of mangrove, beach or foreshore areas. Land rent is charged to the actual user of the resource and not from those who do not use the resource. The land rent shall be used in the maintaining and protecting the sites being used.

   In both status quo, without or with modification, conflicts on policies and operational policies shall be reviewed, consolidated and reconciled resulting in issuances that are harmonious and contributory to a unified development action in the mangrove areas.
Appendix E

POLICY RECOMMENDATION ON THE REPEAL OF THE POLICY PROHIBITING THE CUTTING OF MANGROVE FOREST AND THE COLLECTION OF FOREST CHARGES THEREFROM EMBODIED IN RA 7161

Background

The utilization of mangrove forest products is constrained by one of the provisions of RA 7161 prohibiting the cutting and harvesting of mangrove forests. To some CBFMA holders engaged in mangrove forest development consider this policy counterproductive. One of the incentives given by the DENR to communities who will be engaged in the rehabilitation of degraded mangrove forests is the cutting and harvesting of mangrove timber once the trees reached maturity. This is done through the resource utilization permit (RUP) mechanism embodied in the CBFMA. In harvesting, the CBFMA holders expect income from the trees when they sell it as fuel wood, charcoal and light housing materials. These benefits, however, are not that much. Cost-benefit analysis of mangrove reforestation projects under the Forestry Sector Project exhibited negative benefit if based only on the wood products without the environmental services such breeding grounds of valuable fishes and marine species, protection forests, recreational areas, NPK recharging into the soil, etc.

Objective

This paper presents alternative policy recommendations on the proposed repeal of the policy prohibiting the cutting of timber in the mangrove forests and non-collection of forest charges embodied in RA 7161.

Existing policies that prohibit cutting and harvesting of timber

EO 23 declared a moratorium on the cutting and harvesting of timber in the natural and residual forests. Mangroves are classified as natural forest and residual forests especially areas that were logged before natural forest

Coverage of Bills addressing timber harvesting in mangrove forest

There are two pending Bills in congress that address the cutting of timber in all types of forests where mangrove forest is included. These are the Bill on Sustainable Forest Ecosystem Management and the Bill on Mangrove Conservation and Rehabilitation Program.

Policy recommendations

There are two alternative policy recommendations regarding the proposed repeal of the policy on non-cutting in mangrove forests. These are:

a. Implementation of the policy on non-cutting of mangrove forest and non-collection of forest charges
Due to the very low percent forest cover of the remaining mangrove forest considering the total coastline of the country, the large number of coastal communities to be protected from possible tsunami, and the need to provide sanctuaries for fish, wildlife for genetic preservation, to provide other environmental services and to meet the demand for goods and services, a paradigm shift of revenue generation from extraction-based to other forms of innovative revenue generation system that will not require the harvesting of mangroves be introduced. The other consideration is the issuance of EO 23. It will not look good for DENR leadership to be contradicting the Executive Order of the President of the Republic of the Philippines.

This may be done through a modified implementation of the Conditional Cash Transfer (CCT) being offered by the government to poor families as an incentive system whereby the government will add the cost of restoring, protecting and maintaining degraded mangroves to the CCT to be given to each participating family. The additional amount for the expanded CCT may come from the regular budget of the DENR for reforestation, protection and maintenance of mangrove areas. As an incentive to the poor families enrolled in the expanded CCTs in coastal communities, they would be considered priority in small-scale fishery development project defined under SAMAD.

b. Allowing limited harvesting of mangrove forest

The Bill on Sustainable Forest Ecosystem Management and the Bill on Mangrove Conservation and Rehabilitation Program which are now filed in Congress allow the harvesting of mangrove forest products. Passing both bills into laws will automatically repeal of the provision in RA 7161 prohibiting the cutting of mangrove forests and non-collection of forest charges for trees harvested in mangrove forests.
Acknowledgements

The ICRMP Compilation of Technical and Policy Papers: “Sustaining our Coasts: The Ridge-to Reef Approach” was made possible through the valuable contributions of the following resource persons:

Prof. Raphael Lotilla, Mr. Adrian Ross, Mr. Robert Jara, Ms. Nancy Bermas (PEMSEA), Dr. Etienne Baijot, Dr. Ninnette Lasola, Atty. Grizelda Mayo-Anda, Ms. Rina Rosales, Dr. Tonie Balangue, Dr. Candido A. Cabrido, Jr., Dr. Benjamin Gonzales, Dr. William Adan, (ICRMP), Dr. Merlinda Andelisio (UPV), Dr. Estifania Co., Ms. Frances Cabana (UP-NCPAG), Ms. Doris Dalanon, (Masbate School of Fisheries), Mr. Arsenio Tanchuling (Tambuyog), Mr. Dennis Calvan (NFR), Ms. Dolores Ariadne Fabunan (GIZ-ACCCoast), Ms. Luz Baskinas, Ms. Chrisma Salao (WWF-P), Ms. Nora Diaz (HLURB), Mr. Len Garces (WorldFish Center), Mr. Ditto dela Rosa (Haribon), Ms. Emerlinda Dizon, Mr. Rolan Geronimo (CI-P), Ms. Grace Garcia (SEAFDEC), Mr. Rommel Martinez (LMP), Mr. Jesse Alcaraz (LPP), Sandra Victoria Arcamo (DA-BFAR), Ms. Emma Sarne (DFA), Asec Rolando Acosta (DILG), Mr. Agapito Arrieta (PPA), Mr. Jaime Hernandez (PPA), PCSupt. Hitosis (PNP), Mr. Louie Mencias (PCSSD), Mr. Grace Lopez (NFRDI), Ms. Ma. Janette Verdida (NCIP), Mr. William Digyen (NICP), Mr. Jason Jude Villegas (DoE), Ms. Glenda Daco (Lower House Committee on Ecology), Usec. Analiza R. Teh, Usec. Manuel Gerochi, Sec. Neri Acosta (LLDA), Asec. Rommel Abesamis, Dir. Edwin Domingo, Mr. Ronald Buazon, Atty. Gandhi Flores, Atty. Jocelyn Lobino, For. Albino Belen, Ms. Gemma Monje, Mr. Emilio Vidad, Ms. Ma. Matilda Gaddi, Ms. Jeslina Gorospe, Mr. Wilfredo Saraca, Conrado Bravante, Jr. (DENR Central Office), Mr. Nelson Devanadera (PAWB), Atty. George Katigbak (LAMPA), Mr. Rolly Pablo (LMB), Mr. Jesus Posadas, Jr., Mr. Roberto Mollonga (FMB), Mr. Reynaldo Villela (MGB), Mr. Samuel Fabrio (EMB), RTD Poicarpio Najera, Ms. Maricel Calpito (DENR R1), Enrique Pasion (DENR Region 2), Jimmy Aberin, (DENR Region 3), Mr. Domingo Bravo, Ms. Amelia Abecina (DENR R4A), Porfiriio Alchachupas, Ms. Ma. Luz Recilestino (DENR Region 4B), RTD Felix Mendoza, Rebecca Matusalem (DENR Region 5), Atty. White Gallego (DENR R6), Edmundo Arregadas (DENR Region 7), Ms. Neneth Ordone (DENR R9) RTD Myrna Erlinda Arbiol (DENR Region 11) and RTD Mario Eludo (DENR R13),

Finally, this publication depended much on the efforts exerted by CMMO Executive Director Jacob F. Meimban, Jr. and his staff, Lynette T. Laroya, Angelita P. Meniado, Renato D. Cruz, Imee S. Hacla, Ma. Lisette P. Perlado, Lea C. Avilla, Jhorace L. Engay, Milcah J. Geronimo, Criselda B. Castor, Christine N. Ladiero, Patrie Cianne S. Gelvezon, John Erick B. Avelino, Noel Jessie M. Aquino, and John Christian A. Blanco. The support of DENR’s Foreign Assisted and Special Projects Office (DENR-FASPO) as Project Management Office for the ICRMP is likewise gratefully acknowledged.
Contact Details:

Department of Environment and Natural Resources
Protected Areas and Wildlife Bureau
COASTAL AND MARINE MANAGEMENT OFFICE

Ninoy Aquino Parks and Wildlife Center
North Avenue, Diliman, 1100 Quezon City, Philippines
+632 925 8948 | +632 924 6031 to 35 loc 207