

Improving the Governance of Philippine Coastal and Marine Areas:

A Guide for Local Government Units



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Published with assistance from the American people through the U.S. Agency for International Development's (USAID) Philippine Environmental Governance 2 Project (EcoGov2). Month and year of publication: June 2007.

The views expressed here do not necessarily reflect the views of USAID or the United States Government.

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EcoGov2 is a collaborative effort resulting from the bilateral agreement between the United States Government through USAID and the Government of the Philippines through the Department of Environment and Natural Resources and the Department of the Interior and Local Government. EcoGov2 focuses on strengthening local government units or LGUs, so that they can carry out localized but strategic actions that aim to:

- Reduce overfishing and the use of destructive fishing practices;
- Reduce illegal logging and conversion of natural forests; and
- Improve the management of solid wastes and wastewater.

EcoGov 2 provides technical assistance to some 130 strategically located LGUs to enable them to plan and implement locally financed environmental programs, while observing the principles of transparency, accountability and people's participation in all their decisions, transactions and actions.

The EcoGov2 project is managed by Development Alternatives, Inc. and its subcontractors:

- Cesar Virata & Associates, Inc.
- Deloitte Touche Tohmatsu Emerging Markets
- The Marine Environment and Resources Foundation, Inc.
- The Media Network
- Orient Integrated Development Consultants, Inc.
- Resources, Environment and Economics Center for Studies, Inc.

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Table of Contents

Foreword	17
Preface	19
Acknowledgments	22
Acronyms	26
Introduction	28
Chapter 1: The Philippine Coastal and Marine Areas	32
What are municipal waters?	33
What are coastal areas, or zones in relation to municipal/city waters?	34
What are the land areas bordering municipal waters?	34
Foreshore.....	34
Salvage Zone	35
Riparian Area.....	35
What important living resources are found in the coastal zone and municipal waters and why do we need to manage them?	37
A. Coastal Habitats	37
Estuaries.....	38
Wetland and Mangrove Forests.....	38
Seagrass Beds.....	39
Coral Reefs.....	39
B. Species Biodiversity.....	40
C. Fishery Resources	41
What are the non-living resources found in the coastal zone and municipal waters and why do we need to manage these resources?.....	42
Chapter 2. Governance of Coastal and Marine Resources	44
A. Government Agencies with Mandate on Coastal and Marine Resources Management	45
What government agencies have mandates in managing coastal and/or marine areas?	45

What is the specific mandate of LGUs in managing coastal and marine areas?	46
Are there areas within the coastal zone and municipal waters that do not fall under the territorial jurisdiction of local governments?.....	48
Do LGUs need to adopt a national law like RA 8550 through an ordinance for it to apply within the territorial jurisdiction of the LGU?	48
Can LGUs establish zones within their municipal waters?.....	49
What is the importance of coastal and municipal water zoning?	49
What should be the basis for coastal zoning?	51
In what ways can LGUs assert control and authority in managing the coastal and foreshore land areas within their territorial jurisdiction?.....	52
B. Role of Communities and Other Stakeholders	54
What is the role of communities and other stakeholders in the governance of coastal and municipal waters?.....	54

What is the role of the grantee, licensee, or permittee in the management of coastal and marine resources?	55
What is the formal institutional mechanism for public participation in coastal and marine resources management?.....	55
How can the LGUs enjoy and sustain the participation of communities and other stakeholders in coastal and marine resource management?.....	56

C. Benefits of Effective Coastal and Marine Resources Management **57**

What benefits can LGUs, communities and other stakeholders obtain from good governance of coastal and marine resources?	57
(1) Ecological Benefits.....	57
(2) Socio-Economic and Financial Benefits	57
(3) Socio-Political Benefits	58
(4) Institutional Benefits	59

D. Sustainable Financing Mechanisms **59**

What are the sources of funds for the implementation of coastal and marine resources management?.....	59
---	----

What specific user fees can be charged from the users of municipal waters?.....	62
Does the LGU have the power to collect user fees from port and maritime transport operators?.....	62
Can an LGU impose fees and charges from port and maritime transportation operators for the negative impacts on environment caused by their activities?	63
What is the LGU's share from the proceeds received from the national wealth?	63
Can LGUs create a special account for coastal and marine resource management?	64
E. Inter-LGU Collaboration.....	64
Can an LGU enter into an alliance with other LGUs in managing coastal and marine resources?	64
Is revenue and cost-sharing mechanism among LGUs applicable to CRM?.....	65
What are the benefits of inter-LGU CRM collaboration?	66

Chapter 3: Protection and Management of Living Resources in Coastal and Marine Areas..... 68

A. Coastal Habitat Protection, Conservation and Management

Mangrove Areas

What laws and regulations govern the use of mangrove areas?.....	68
Can a thinly vegetated or denuded mangrove area be converted to fishpond?	69
What can LGUs do if mangroves are fenced and claimed by owners of the adjacent A/D lot?	69
If public interest requires that a legally aquired productive fishpond be reverted to mangrove use, what steps should be undertaken by the LGU, and how much compensation should be involved?.....	70
Can planted mangroves be harvested?	70
What should LGUs do if mangrove areas are used for developmental activities and other purposes?.....	71

What can LGUs do if mangroves were cut in coastal areas?	71
If the mangrove area has been awarded to an FLA holder but remain undeveloped within 5 years, can the area still be developed to fishponds?.....	72
What can LGUs do to fishponds covered by FLA that remain abandoned, undeveloped, or underutilized five years after the issuance of the agreement?.....	73
Is there a need to register existing private fishponds with the LGU?.....	73

Seagrasses

Can the LGUs regulate the harvesting/extraction of seagrasses?	73
--	----

Coral Reefs

What can the LGUs do to protect corals?.....	74
--	----

B. Species Conservation and Wildlife Protection

What are the laws governing the protection of endangered, rare, and threatened species found in the coastal areas and municipal waters?.....	75
What can the LGUs do to promote the protection of wildlife in coastal areas?	76

C. Fishery Resources

What are the mandates of LGUs in fishery resources management?	77
Can the LGU still pass an ordinance if the FARMC is inactive or has not been formed?	78
Can LGUs establish fishery refuge and sanctuaries?.....	78

D. Fishery Law Enforcement

What are the regulations concerning the harvest of fisheries/aquatic resources?	78
Aside from those enacted through local ordinances, what are the prohibited acts identified in RA 8550 that LGUs can fine and penalize?	79

E. Fishery Registry and Preferential Use Rights

Who maintains the registry of municipal fisherfolks?	80
Who has preferential rights to the fishery privileges issued by municipal/city governments?.....	80
Why are there cases where the preferential right option is not given to municipal fisherfolks?	81

What actions can registered fisherfolks take if their preferential rights to fishery privileges are overlooked or disregarded by the municipal/city government?81

F. Fishery Licenses and Permits

Who has the power to issue permit or license to harvest fisheries/aquatic resources in the coastal areas and in municipal waters?82

In which areas are LGUs not authorized to grant permits for fisheries/aquatic resources privileges?.....83

What are the fishery or aquatic resources privileges and licenses that can be issued by municipal and city governments in coastal areas and municipal waters?83

To whom can municipal/city governments issue fisheries licenses in municipal waters?84

Does registration constitute a permit to fish?84

Can LGUs issue a license to a commercial fisher?84

What are the permits and clearances on mariculture/fisheries management which can be issued by LGUs?85

Can the municipality/city regulate the construction of fish pens and fish cages and other culture activities in the coastal area and municipal waters?86

How can the LGU ensure that the permittees follow the conditions of the permits?87

Chapter 4. Protection and Management of Non-living Resources in Coastal and Marine Areas..... 88

A. Quarry Resources

What are quarry resources?.....88

What is quarrying?.....89

Who issues quarry permits in the coastal area?.....89

What are the limitations on the issuance of permits for sand and gravel extraction?90

What should the LGU do if there is sand and gravel extraction in the coastal area?.....91

What should the LGU do if sand and gravel extraction in the coastal area is not covered by a permit?.....91

What cases can be filed against persons who extract sand, gravel, and other quarry materials without a permit?92

Who will be responsible for the damage caused by illegal extraction of quarry materials and other minerals from the coastal area?.....92

What can be done if the quarry operation in a prohibited portion of the coastal area/s closed to mining is found to be covered by a permit?92

B. Water Resources

What is aquatic pollution?.....93

What can LGUs do to prevent pollution in the coastal and marine areas under their territorial jurisdiction?94

What can the LGU do if a regulated wastewater is discharged in the coastal and marine area?96

What are the power and functions of LGUs in the maintenance of water quality in coastal and marine areas?96

What can LGUs do if vessels discharge oil, diesel, and other fuel in the coastal zone?97

Can LGUs designate navigational passage ways to regulate the passage of large marine vessels that can pose harm to coastal and marine resources?98

What can the LGU do on solid waste disposal in the coastal area? 98

What can the LGUs do if laws on sanitation and solid waste disposal are violated?99

C. Energy Resources

What are the benefits that can accrue to LGUs and communities in relation to energy projects within coastal and marine areas in their localities?99

Chapter 5: Regulating Coastal Land

Development Activities 102

A. Land Development in the Coastal Area

What are the powers of local governments over development activities in the coastal land area? 102

What are the legal and practical implications of the devolved powers of cities and municipalities stated in RA 7160 and EO 71? 104

What can LGUs do to regulate development activities in the coastal land area? 104

What are the different types of coastal land clearances or permits issued by different national agencies of the government? 105

Can the LGUs issue tenurial instruments over foreshore area? 105

Can the LGUs issue tax declarations over foreshore or coastal areas? 106

What can LGUs do on structures built/found in the coastal area that cause obstruction or endanger the safety of the people?.....	107
What can LGUs do to abate public nuisance in the coastal area?.....	108
Are informal settlements on the salvage zone or foreshore considered public nuisance?.....	109
What can the LGUs do regarding illegally constructed structures built/found in the coastal area?.....	109
Can the LGU undertake reclamation activities in the foreshore area?	110
Can foreshore areas be used for socialized housing?.....	111

B. Regulating Activities of Littoral Owners

Can the LGUs regulate the activities of the owners of land that adjoin the sea?	111
Can the LGU prevent a landowner from reclaiming a foreshore that is originally part of his private property?.....	112
What is the role of the LGU in the retention of areas within the easement or salvage zone as environmental protection areas?	112

C. Regulating Activities of Riparian Owners

What can the LGUs do to regulate the activities of riparian owners?	114
Is the riparian owner entitled to compensation for loss of land due to construction/works of the government?	115
If the property near the river was enclosed by a high wall that protected the estate, is the owner still entitled to the alluvium?	115
What can the riparian owner do to protect his right of ownership over the alluvium on his land?	115
What happens if the property of the riparian owner loses part of his alluvial property?.....	116

Annexes

Annex 1: List of Rare Endangered, Threatened and Vulnerable Coastal Species.....	118
A. Rare Species	118
B. Threatened Species.....	119
C. Endangered Species	119
Annex 2: Good Governance Practices in Coastal and Marine Areas	112

Annex 3: Major Government Agencies with Mandate and Accountabilities over Management of Coastal and Marine Areas	125
Annex 4: Possible Priority Coastal and Marine Waters Use Zones	127
Annex 5: Clearances and Permits Issued by Local Government Units for Coastal and Marine Areas	128
A. Mariculture and Fisheries-Related	128
B. Wildlife Collection	128
C. Quarrying/Mining	128
D. Coastal Land Development	129
Annex 6: Projects that need an Environmental Compliance Certificate and Specific LGU Role in ECC Issuance	130
A. Category A or Environmentally Critical Projects	130
B. Category B or Projects Located in ECA	130
C. Category C or D	131
D. ECC Issuance	131
E. Role of the LGU in the EIS Process and in the ECC Issuance	132
Annex 7: Violations, Fees, and Penalties for Unlawful Activities in Coastal Areas	135

A. Related to Mangrove and Corals	135
B. Related to Rare, Threatened and/or Endangered Species	136
C. Related to Wildlife Resources in General	136
D. Related to Fishery Resources (RA 8550)	140
E. Related to Quarrying Resources	147
F. Related to Water Quality	147
G. Related to Solid Waste Management	148

Annex 8: Major Clearances and Permits Issued by National Agencies and the Role of LGUs in their Issuance	149
--	-----

Annex 9: Code of Practice of Aquaculture	154
--	-----

Annex 10: Various Foreshore and Shoreland Tenorial Instruments	158
--	-----

References 160

Publications	163
--------------------	-----

Cases	165
-------------	-----

List of Tables

Table 1: Summary of prohibited acts under the Fisheries Code	77
Table 2: Utilization of Proceeds from energy resources/generation facilities	100

List of Figures

Figure 1: A diagrammatic representation of the foreshore area, municipal waters and other features in the coastal zone	33
Figure 2: Schematic diagram of foreshore, salvage zone, and riparian areas.....	36
Figure 3: Example of a priority zone schematic diagram	50

Foreword

Rapid development is taking place in Philippine coastal and marine areas. Beach resorts and hotels are sprouting along coastlines; wharves and ports are being established; reclamation projects are ongoing in many parts of the country to accommodate residential, commercial and industrial estates; and aquaculture activities are expanding.

Progress can have various unintended consequences—pollution, degradation of critical coastal habitats, illegal reclamation, squatting, conflicts arising from competing resource uses and many more. These threats undermine the value of our coastal and marine areas. They affect biodiversity and ecological protection, our major source of food, livelihood and construction materials, our navigation lanes, and energy resources.

Recognizing the complexity of the coastal and marine environment, its significance to national economic development, and the variety of sectors benefiting from its resources, President Gloria Macapagal-Arroyo issued Executive Order (EO) 533 in June 2006. EO 533 adopted integrated coastal management (ICM) as the national strategy to promote optimum resource utilization and sustainable coastal and marine development. Through this EO, local government units (LGUs) are designated as the frontline agencies in the formulation, planning and implementation of ICM programmes in their respective coastal and marine areas.

While some national agencies exercise specific authority on some activities in the coastal areas, the LGUs together with the local stakeholders play a crucial role in the governance of our coastal and marine areas, particularly in ensuring that living and non-living resources found therein are placed under effective and sustainable management. The LGUs are in the best position to rationalize various resource uses and resolve conflicts among diverse stakeholders through coastal land and municipal water zoning ordinances.

The U.S. Agency for International Development (USAID)/Philippine Environmental Governance (EcoGov) Project, developed this sourcebook to assist LGUs and other stakeholders operationalize their role and functions in the governance of our coastal and marine areas.

We hope that this sourcebook will raise the awareness of readers on the importance of the coastal and marine areas and their role in sustaining these valuable resources. Moreover, we hope that this sourcebook will improve the capacity of local government units to implement good governance of coastal and marine areas as a shared resource and responsibility in their territories.

Ernesto S. Guiang, PhD
Chief of Party
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Project

Preface

This sourcebook aims to help LGUs improve the governance of coastal and marine areas found within their territorial jurisdiction. Technical and legal information are provided to help LGUs make sound decisions and actions together with their constituents and other stakeholders to ensure the conservation, protection and sustainability of coastal and marine habitats and the living and non-living resources found in these areas.

Designed as a local reference material, this sourcebook provides answers to questions frequently asked by LGUs, fishers, private sector, resource managers and other local stakeholders concerning government policies in coastal and marine resource management. This also provides guidance on how LGUs as legally mandated local resource managers can address commonly occurring issues concerning the governance of coastal and marine areas within their territorial jurisdiction.

The contents are presented in a logical order that first describes the various living and non-living resources found within the coastal and marine areas; their ecological, economic and social significance, conservation status and the various threats they face. The aim is to raise the consciousness of the readers in regard to the need for sound and effective management of these areas. The source book defines the scope of LGU authority and jurisdiction over the management of coastal and marine areas found within their territories, including the portions that are under the administrative jurisdiction of other government agencies. The complex nature of coastal and marine resource governance is also highlighted by describing the varied and often overlapping uses, users, policy actors, management bodies and stakeholders of the resource. The subsequent chapters deal with specific and on-the-ground issues concerning the management of living and non-living resources found within the coastal and marine areas and the regulation of development activities occurring on coastal lands. The technical and legal options for addressing these commonly occurring problems, issues, and persistent areas of conflict are presented along with the pertinent laws, government policies and rules as well as regulations. The management and legal tools discussed include land and water zoning, ordinance formulation, resource allocation, and definition of use rights, law enforcement and provision of incentives as part of overall governance.

Chapter 1. The Philippine Coastal and Marine Areas. This chapter defines the extent of the coastal zones and land areas bordering municipal waters to clarify the areas of jurisdiction of LGUs in relation to other agencies. It also describes the various living and non-living resources found within the territorial jurisdiction of LGUs including the fishery resources and critical ecosystems such as mangroves, seagrasses and coral reefs.

Chapter 2. Governance of Coastal and Marine Resources. This chapter provides an overview of the mandates of LGUs and various government agencies and the role of various stakeholders in the governance of coastal and marine areas. The actions that LGUs can do to participate and assert control and jurisdiction over the management of portions of coastal and marine areas that are under the administrative jurisdiction of other government agencies—namely, by directly regulating activities through zoning and permitting, by taking part in shaping the decisions and actions of these agencies, and by enforcing applicable laws and regulations and enacting ordinances—are discussed. The chapter also discusses the benefits of improved coastal and marine resources management including some possible financing mechanisms to support LGU Coastal Resource Management (CRM) plans, programs, and projects. A section on the importance of forming alliances, or networks, among LGUs for more sustainable CRM program implementation is also included.

Chapter 3. Protection and Management of Living Resources in Coastal and Marine Areas. This chapter presents the pertinent policies and the common issues concerning the utilization and management of living resources in marine and coastal areas. The focus is on possible courses of action such as the issuance of privileges, permits and licenses, ordinance formulation and law enforcement, which LGUs can utilize to ensure the protection, conservation and sustainable use of these resources.

Chapter 4. Protection and Management of Non-living Resources in Coastal and Marine Areas. This chapter summarizes the policies and the role of LGUs in the conservation and management of quarry resources, water and other non-living resources found in coastal and marine areas. Commonly occurring issues such as illegal quarrying, marine pollution, sanitation and solid waste disposal are also discussed alongside with pointers on the legal options available to LGUs in addressing and preventing such problems.

Chapter 5. Regulating Coastal Land Development Activities. This chapter describes the authority and responsibilities of LGUs in managing development activities on coastal lands. Commonly occurring issues concerning squatting and the construction of structures that create public nuisance and endanger the safety of people along the coasts are discussed including the legal remedies and actions that LGUs in conjunction with concerned government authorities can undertake. Likewise, clarifications on persistent issues concerning the ownership and regulation of littoral and riparian areas are discussed. This chapter also gives a brief description of the role of LGUs on the issuance of clearances, permits and tenurial instruments related to coastal and marine resources development.

Although primarily intended for LGU officials and their staff, this publication may also be used by non-governmental organizations (NGOs), people's organizations (POs), the private sector and field staff of national agencies involved in coastal and marine resources management and development. We advice the readers to read all the annexes to get more substantive and detailed information about key topics discussed in the main text.

Acknowledgments

This document is the outcome of many years of learning experiences of the EcoGov Project from its assistance, interaction and collaboration with LGUs, national government agencies (DENR, DA-BFAR, DILG) counterparts, academe, NGOs, peoples' organization, private sector and other partners and stakeholders in its assisted sites in Northern Luzon (Aurora), Central Visayas (Cebu, Bohol, Negros Oriental), and Southern, Central and Western and Southern Mindanao (Basilan, Zamboanga Del Sur, Zamboanga Sibugay, General Santos, Sultan Kudarat and Davao City). This document is thus, a joint output with the numerous individuals, institutions and organizations from these areas and with other stakeholders and government agencies at the national level with which EcoGov 2 was privileged to work with over the years.

The following persons contributed immensely in the refinement and finalization of this sourcebook through their expert technical and legal review, suggestions and sharing of field experiences and insights: Dr. Isabelo R. Montejo, the Regional Technical Director for Forest Management Service of DENR Region 7; Mr. Florendo Barangan, Executive Director of Coastal and Marine Management Office; Teodoro Torio, the Provincial Environmental and Natural Resources Officer (PENRO) of Aurora Province; Atty. Liza Osorio-Eisma, the Executive Director of Coastal Conservation and Education Foundation, Inc. (CCEF); Benjamin Umaguing, the head of the Fisheries Sector of the Davao City Agricultural Office; and Alex Yambao, Coastal Resource Management Specialist of Sustainable Coastal Tourism in Asia (SCOTIA) Project.

The authors also wish to thank the EcoGov Team who provided valuable management and technical guidance and additional inputs: Ernesto Guiang, PhD; Porfirio Aliño, PhD; Rebecca Paz; Rudolfo Aragon; Hazel Arceo; Cleto Nañola; Ma. Fe Portigo; Roger Serrano, PhD; Edward Lim; May Elizabeth Ybañez; Ferdinand Esguerra; Jose Ibarra Angeles; and Ma. Theresa Espino-Yap.

Acronyms

A/D	Alienable and Disposable	DENR	Department of Environment and Natural Resources
ADB	Asian Development Bank	DBP	Development Bank of the Philippines
AFP	Armed Forces of the Philippines	DFA	Department of Foreign Affairs
ARA	Academic Research Agreement	DILG	Department of the Interior and Local Government
BAC	Bids and Awards Committee	DND	Department of National Defense
BAR	Bureau of Agricultural Research	DOE	Department of Energy
BFAR	Bureau of Fisheries and Aquatic Resources	DOH	Department of Health
BFARMC	Barangay Fisheries and Aquatic Resources Management Councils	DOJ	Department of Justice
BOD	Biochemical Oxygen Demand	DOT	Department of Tourism
BOT	Build Operate Transfer	DOTC	Department of Transportation and Communication
CBFM	Community-based Forest Management	DOST	Department of Science and Technology
CCEF	Coastal Conservation and Education Foundation, Inc.	DPWH	Department of Public Works and Highways
CENRO	Community Environment and Natural Resources Office	DSWD	Department of Social Works and Development
CITES	Convention on the International Trade of Endangered Species	DTI	Department of Trade and Industry
CLUP	Comprehensive Land Use Plan	ECP	Environmentally Critical Projects
CMMO	Coastal and Marine Management Office	ECA	Environmentally Critical Areas
CNC	Certificate of Non-Coverage	ECC	Environmental Compliance Certificate
CP	Certification Precondition	EcoGov	Philippine Environmental Governance Project
CRA	Commercial Research Agreement	EGF	Environmental Guarantee Fund
CRM	Coastal Resource Management	EIA	Environmental Impact Assessment
CRMF	Coastal Resources Management Framework	EIS	Environmental Impact Statement
CRMP	Coastal Resource Management Project	EMB	Environmental Management Bureau
DA	Department of Agriculture	ENRO	Environment and Natural Resources Officer
DAO	DENR Administrative Order	EO	Executive Order
		ERDB	Ecosystem Research and Development Bureau
		FAO	Fisheries Administrative Order
		FARMC	Fisheries and Aquatic Resources Management Council

FCR	Feed Conversion Ratio	LGC	Local Government Code
FLA	Fishpond Lease Agreements	LGU	Local Government Units
FLAg	Special Forest Land Use Agreement	LMB	Lands Management Bureau
FLAgT	Special Forest Land Use Agreement for Tourism Purposes	LRA	Land Registration Authority
FLUP	Forest Land Use Plan	M and E	Monitoring and Evaluation
FLC	Foreshore Lease Contract	M/CFARMC	Municipal or City Fisheries and Aquatic Resources Management Councils
FMB	Forest Management Bureau	MARINA	Marine Industry Authority
FPIC	Free and Prior Informed Consent	MGB	Mines and Geosciences Bureau
GDP	Gross Domestic Product	MIA	Maritime Industry Authority
GMO	Genetically Modified Organisms	MMT	Multi-sectoral Monitoring Team
GOCC	Government owned and controlled corporation	MOA	Memorandum of Agreement
GVA	Gross Value Added	MPA	Marine Protected Area
HACCP	Hazard Analysis and Critical Control Points	MRF	Materials Recovery Facility
HLURB	Housing and Land Use Regulatory Board	MSY	Maximum Sustainable Yield
ICM	Integrated Coastal Management	NAMRIA	National Mapping and Resource Information Authority
IEE	Initial Environmental Examination	NFARMC	National Fisheries and Aquatic Resources Management Council
IFMA	Integrated Forest Management Agreement	NCIP	National Commission on Indigenous Peoples
IFARMC	Integrated Fisheries and Aquatic Resources Management Council	NDCC	National Disaster Coordinating Council
ILCRMC	Inter-LGU Coastal Resource Management Committee	NFRDI	National Fisheries Research and Development Institute
IMO	International Maritime Organization	NGO	Non-Governmental Organization
IP	Indigenous People	NIPAS	National Integrated Protected Areas System
IPRA	Indigenous People's Republic Act	NSC	National Security Council
IRA	Internal Revenue Allotment	ODA	Overseas Development Agency
IRR	Implementing Rules and Regulations	PAMB	Protected Area Management Board
JMC	Joint Memorandum Circular	PAWB	Protected Areas and Wildlife Resources
LFRMC	Lakewide Fisheries and Aquatic Resources Management Councils	PCG	Philippine Coast Guard
LBP	Land Bank of the Philippines	PCFC	People's Credit and Finance Corporation

PCMARD	Philippine Council for Aquatic and Marine Research and Development
PCSD	Palawan Council for Sustainable Development
PCRA	Participatory Coastal Resource Assessments
PD	Presidential Decree
PENRO	Provincial Environmental and Natural Resources Officer
PIC	Prior-informed consent
PNP	Philippine National Police
PO	People's Organization
PPA	Philippine Ports Authority
PRA	Philippine Reclamation Authority
RA	Republic Act
SCOTIA	Sustainable Coastal Tourism in Asia Project
SIFMA	Socialized Industrial Forest Management Agreement
TWG	Technical Working Groups
UNESCO	United Nations Educational, Scientific and Cultural Organization
USAID	United States Agency for International Development
USEC	Underscretary



Introduction

Photo by USAID/Vic Kintanar

The Philippines is an archipelago with coastline of about 36,289 kilometers (km). Eighty-two percent (82%) of our 81 provinces, 90% of our 120 cities and 80% of our 1,005 municipalities are coastal (DENR, et al., 2001). Of our more than 80 million population, 62% live within the coastal zone (DENR-UNDP, 2006).

The country's coastal and marine areas are critical socio-economic areas. They are centers of various development activities. Marine transport and industry support facilities such as wharves, piers, ports and dockyards are located in coastal zones. Beach resorts, including hotels, rest houses and restaurants occupy parts of coastal areas. Vast areas have also been converted into fishponds (e.g., mangrove forests) or reclaimed to give way to residential, commercial and industrial uses. With proper management and development, coastal and marine areas can become major sources of sustainable livelihood for local communities and revenue for local and national governments.

Philippine coastal and marine areas are also critical life support systems. They are endowed with ecologically diverse and economically important habitats that nurture a high diversity of marine life such as mangrove forests, seagrass beds and coral reefs. These ecosystems are important in maintaining the productivity of nearshore fisheries. They also help protect coastal areas from flooding, erosion and sedimentation. Aside from the living resources, coastal areas are also common sources of construction material (e.g., sand and gravel) and other non-living resources such as water and energy.

However, over-exploitation and pollution affect Philippine coastal resources resulting in the loss of fishery habitats. Environmental degradation in coastal lands and waters due to poor enforcement of laws, lack of integrated management, poorly defined property rights

and poor incentives for conservation pose major threats to biodiversity and ecological integrity as well as to public safety and livelihood of coastal communities.

This current situation highlights the need for improved governance of our coastal and marine areas. At present, at least twenty national government agencies are involved in various aspects of coastal and marine planning, protection, development and utilization. However, governance of the coastal and marine environment is weakened by poor inter-agency cooperation and coordination, presence of overlapping and conflicting mandates and interests, inadequate institutional capacities, and most importantly, ineffective implementation of applicable laws, rules and regulations.

The Role of Local Government Units

The leadership of local government units is an essential element in the protection and management of the country's marine and coastal resources. LGUs should take a more active role in implementing policies, regulations and enforcement mechanisms to protect and conserve the marine and coastal environment.

LGUs are mandated by law to practice good governance in conducting coastal and marine resources management activities. Under the 1987 Constitution and Section 3 (i) of the Local Government Code (RA 7160), LGUs share with the national government the responsibility to manage and maintain ecological balance within their territorial jurisdiction.

The Fisheries Code (Republic Act 8550) contains relevant provisions on the jurisdiction of LGUs over municipal waters and their mandate to enact appropriate ordinances and enforce appropriate actions to ensure that coastal and marine resources are protected.



To prevent the destruction and over-exploitation of coastal and marine resources, LGUs must:

- Establish clear access, use rights and arrangements;
- Formulate and implement a management plan for coastal and marine resources within municipal waters;
- Harmonize coastal, marine and land-use zones;
- Conduct information and education campaigns and pass and enforce the necessary ordinances;
- Put in place incentive systems to promote good environmental practices;
- Anticipate unintended consequences of plans, programs and projects and make provisions for mitigating them, i.e., safety nets;
- Establish marine protected areas (MPA) and manage municipal fisheries;
- Empower and partner with communities for the protection and management of municipal waters, and support their need for sustainable livelihood;
- Build inter-LGU alliances to enforce coastal and fishery laws, protect and manage shared ecosystems, including MPAs.

Republic Act (RA) 8550 recommends an integrated management of contiguous or neighboring fishery areas to facilitate their management as a single resource system. This highlights the need for LGUs to initiate the setting up of a strong network of LGUs to coordinate and consolidate plans and actions that may affect the marine and coastal resources under their jurisdiction. Such a network should also be done in terms of fishery and coastal law enforcement and marine protected areas to achieve synergy, complementation and economies of scale.

Furthermore, Executive Order (EO) 533 promotes the adoption of an integrated coastal management framework for sustainable development of coastal areas and municipal waters and adjacent watershed areas. An integrated effort by neighboring LGUs and other stakeholders is necessary to effectively address issues that cut across interdependent upland/lowland, coastal and marine and coastal ecosystems. They can also help address the jurisdictional divides among government agencies and the problems of limited funding and institutional capacity.

A well-implemented coastal resources management (CRM) program will bring about numerous benefits to LGUs and to their constituents. Fish stocks will increase resulting in more food on the table and more income for fisherfolk. Once biodiversity and ecological conditions in the coastal and marine areas are improved, private investment particularly in tourism and fishery-related industries will also rise. These will eventually increase livelihood opportunities for local communities and raise LGU revenues. As LGUs sustain their CRM programs, their capacity to leverage more technical and financial assistance from the government and other local and foreign agencies will also improve.

The national government must provide adequate support systems for LGUs to perform their mandate and reap the benefits from them. This will require the:

- Clarification of responsibilities and accountabilities among institutions that share mandates on coastal and marine resource management;
- The laying down of a supportive policy environment centered on the principles of decentralization, local autonomy and self-determination; and
- The provision of necessary technical and logistical support.



Chapter 1

THE PHILIPPINE COASTAL AND MARINE AREAS



Photo by USAID/Vic Kintanar

The Philippine coastal zone has an area of about 11,000 square kilometers (km²) of land and 267,000 km² of water. Around 62% (49.6 million) of the Philippine population resides within coastal areas and about a million people depend on coastal and marine areas for their source of living.

In 1998, the fishing industry provided employment to 3% of the country's total labor force. Municipal fishing generated 68% of the total employment, aquaculture, 26%, and commercial fishing, 6% (ADB, 2003).

Coastal areas' economic contribution to the gross domestic product (GDP) is estimated at 60% (DENR-UNDP-MERF, 2004). In 2000, the service sector was the largest contributor to the GDP. This sector includes marine transportation, international trade and the industrial sector, which includes coastal mining and energy. Fisheries contributed 2.2% of the GDP and 15.2% of gross value added (GVA) in the agricultural, fishery and forestry sectors in 2002 (World Bank, 2004). The yield from municipal fisheries was estimated to be \$741 million in 2003 (Worldbank, 2005). These economic contributions can only be sustained or improved through integrated management and good governance of the coastal and marine environment.

Due to increasing population size and the rising demand for fish, fishery resources in most areas of the country are over-exploited. Pollution and habitat destruction also contribute to the worsening condition of the country's coastal and marine resources.

Defining areas of jurisdiction is fundamental in improving the management of coastal and marine areas. Municipal waters, for instance, are under the complete administrative and territorial jurisdiction of LGUs. Although there are certain portions of the land areas bordering municipal waters that are under the administrative jurisdiction of certain national agencies, they are still within the territorial jurisdiction of the LGUs. Thus, the LGUs have a critical role in enforcement of existing laws, conflict resolution and rationalization of various development activities in these areas.

What are municipal waters?

Municipal waters include streams, lakes, inland bodies of water, public forest, timber lands, forest reserves or fishery reserves and tidal waters within the municipality that are not included within the protected areas defined under the National Integrated Protected Areas System Act (RA 7586). Also included are marine waters between two lines drawn perpendicular to the general coastline from points where the boundary lines of the municipality touch the sea at low tide and a third line parallel with the general coastline including offshore islands and fifteen kilometers from such coastline (RA 8550). (See figure 1.) The distance from the coastline may be less than 15 km where municipal water of adjacent municipalities overlap. (FAO 01, series of 2004)

What are coastal areas, or zones, in relation to municipal/city waters?

The coastal area/zone is a band of dry land and adjacent ocean space (water and submerged land) where terrestrial processes and uses directly affect oceanic processes and vice versa. Its geographic extent may include areas within a landmark limit of one kilometer from the shoreline at high tide, including mangrove swamps, brackish water ponds, nipa swamps, estuarine rivers, sandy beaches and other areas within a seaward limit of 200 meters isobath including coral reefs, algal flats, seagrass beds and other soft-bottom areas (RA 8550).



Depending on the bathymetry, or seafloor topography in a locality, the seaward boundary of the municipal or city waters may or may not completely encompass what is technically defined as the coastal area/zone.

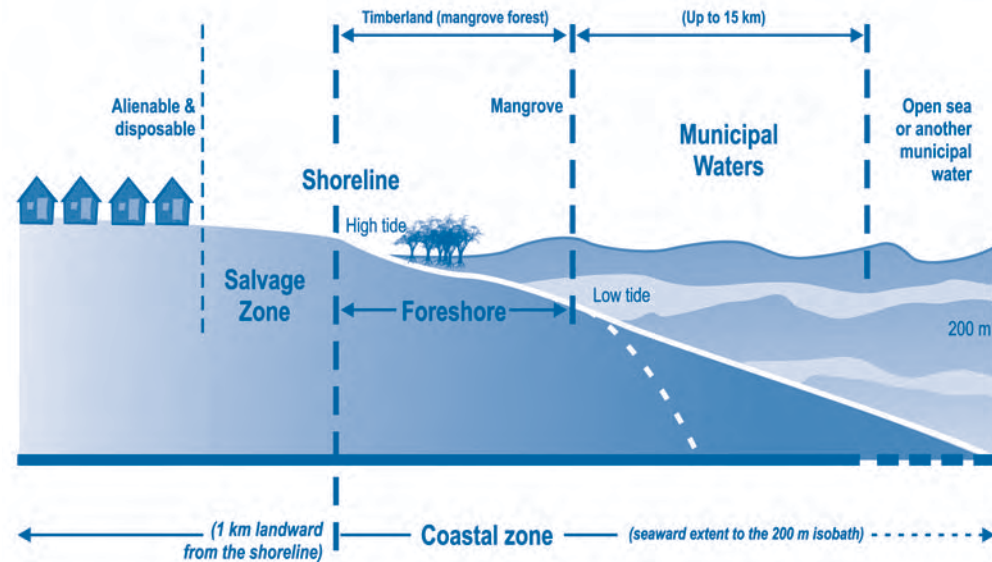


Figure 1: A diagrammatic representation of the foreshore area, municipal waters and other features in the coastal zone

What are the land areas bordering municipal waters?

The land areas bordering municipal waters are the foreshore, salvage zone and the riparian areas. The foreshore and the salvage zone form part of the coastal area/zone as shown in figure 2. The riparian area is technically not part of the coastal zone, although it is ecologically connected to it.

Foreshore

Foreshore is scientifically defined by the Fisheries Code (RA 8550) as a “string of land margining a body of water; the part of a seashore between the low water line usually as 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.”

A simpler scientific definition issued by the Department of Environment and Natural Resources in 1999 through Department Order No. 34 defines foreshore as that “part of the shore which is alternately covered and uncovered by the ebb and flow of the tide.”

However, in the context of determining the extent of the public domain, foreshore includes a portion of the land adjoining the “part of the inalienable land of the public domain and may be disposed of only by lease and not otherwise. Foreshore land remains part of the public domain and is outside the commerce of man. It is not capable of private appropriation” (Republic vs. Court of Appeals, G.R. No. 126316, June 25, 2004 and other cases). This means that foreshore areas cannot be privately owned or titled and can only be leased from the government (e.g., through a Foreshore Lease Agreement with the DENR). The areas covered by the latter definition can be collectively referred to as foreshore land.

Salvage Zone

The salvage zone, found immediately landwards from the shoreline is part of the landward portion of the coastal zone. This area is also subject to the easement of public use, this means the land cannot be alienated or titled as it is reserved for public use. The salvage zone's extent and use are provided in Article 51 of the Water Code (PD 1067), "the banks of rivers and streams and the shores of the seas throughout their entire length and within a zone of three (3) meters in urban areas, twenty (20) meters in agricultural areas and forty (40) meters in forest areas, along their margins are subject to the easement of public use in the interest of recreation, navigation, floatage, fishing and salvage. No person shall be allowed to stay in this zone longer than what is necessary for recreation, navigation, floatage, fishing or salvage or to build structures of any kind."

Based on the technical definitions of foreshore and salvage zone, foreshore land includes both foreshore and salvage zone.

Riparian Area

The area bordering rivers and streams are called riparian areas. Though these areas are technically not part of the coastal zone, the rivers and streams are the major means of transport of materials from the land to the sea. Strips of vegetation along riparian zones help control soil erosion, can buffer pollutant loadings from landward sources and help recycle nutrients from sediments. The development along the freshwater bodies within the territorial jurisdiction of the municipal/city LGU has very significant impact on the quality of coastal resources.

Portions of the riparian area up to the extent defined in Article 51 of the Water Code are also subject to the easement of public use.

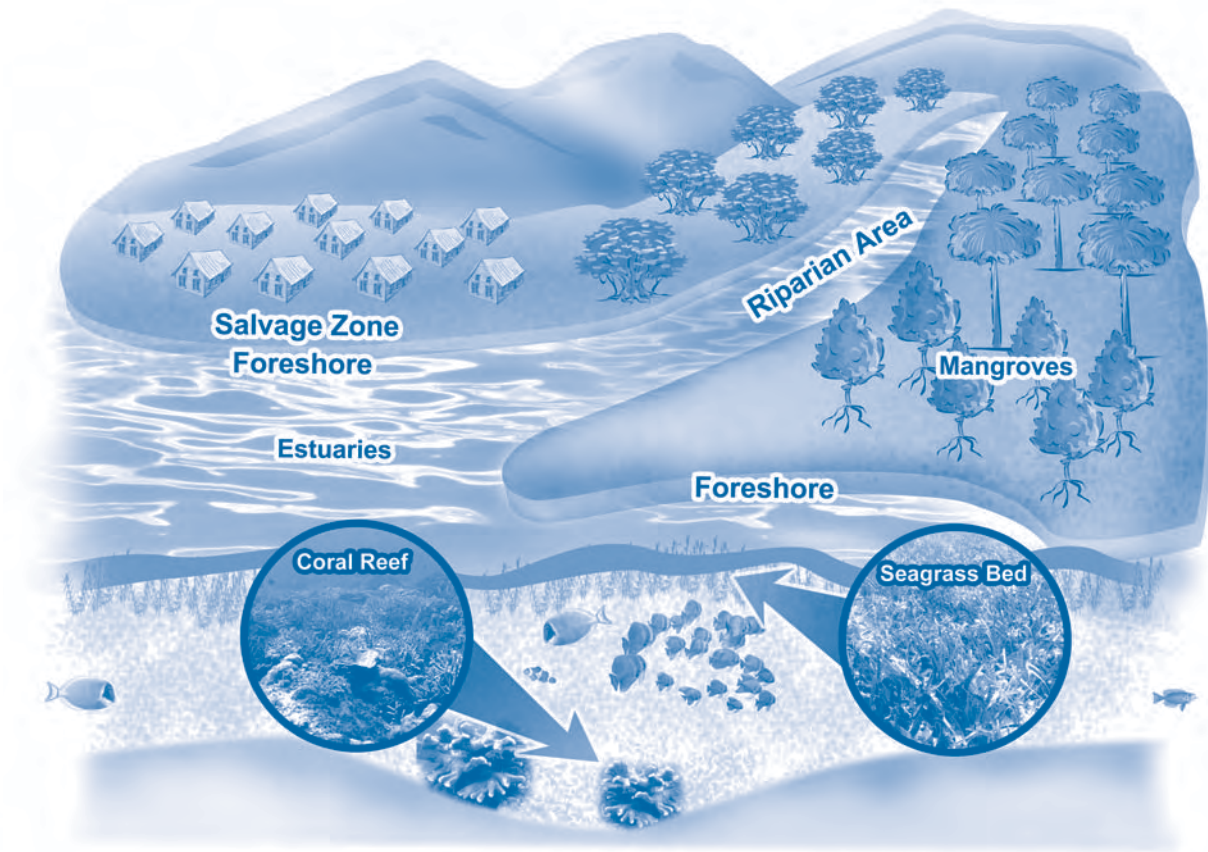


Figure 2. Schematic diagram of foreshore, salvage zone and riparian areas.

What are the land areas bordering municipal waters?

The important living resources in coastal zones include not only those found in coastal habitats such as mangroves, sea grass and coral reefs but also other marine plants, animal species, and fishery resources. Majority of our coastal and marine habitats are degraded and the living resources in these habitats are steadily declining. Because of the interconnectedness of ecosystems, the destruction of one ecosystem also degrades other ecosystems. This results in long-term ecological and socio-economic losses that deter national and local development.

A. Coastal Habitats

The coastal zone is a highly productive and biologically diverse ecosystem containing varied habitats such as estuaries, mangroves, seagrasses, coral reefs, beaches and wetlands that provide numerous ecological, economic and socio-cultural benefits to communities.

While many of the resources found within the coastal zone are renewable, they cannot continue to provide needed goods and services if the coastal environment is degraded. Human activities such as urban development, tourism, quarrying, mining, recreation, aquaculture and transport have been rapidly growing and are putting pressure on coastal zones. Ecosystems are impaired and ecologically sensitive areas and species are lost because of habitat destruction and modification, eutrophication, introduction of new species, pollution and destructive and over-fishing, to name a few culprits.

Estuaries

The estuaries are areas where rivers meet the sea and where fresh water mixes with salt water. They provide habitat for birds, mammals, fish and other wildlife. They serve

as feeding areas, spawning grounds and nurseries to many marine organisms. Most commercially valuable fish species also depend on estuaries at some point during their life history. Estuaries are highly productive ecosystems that perform other important functions such as water filtration and flood control through the absorption of flood waters and dissipation of storm surges.

Wetlands and Mangrove Forests

Wetlands are areas of marsh or land saturated with water that are either natural or artificial, permanent or temporary, static or flowing, fresh, brackish or salt. They include areas of marine water with a depth not exceeding 6 meters at low tide (DENR et al., 2001). Wetlands have a vital ecological function. They mitigate flooding and sedimentation and help in nutrient retention, water purification, biodiversity conservation and replenishment of groundwater, among others. They are also sites for ecotourism and recreation and sources of fish, shellfish and other economic goods.

Four of the 63 significant wetlands in the country are internationally important and included among the list of Ramsar sites. Ramsar sites are representative, rare or unique wetland types that are internationally important for conserving biodiversity. They are protected under the Convention of Wetlands of International Importance or the Ramsar Convention of 1971. The four wetlands included in the Ramsar sites list are Olango Island, Naujan Lake National Park, Agusan Marsh and Tubbataha Reef. Tubbataha is also a United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage site.

Mangrove forests are classified as Marine/Coastal Wetlands I (Intertidal Forested Wetlands) in the Ramsar classification system for wetland types. As defined by the Fisheries Code (Section 4, No. 52), a mangrove is a community of intertidal plants that includes all species of trees, shrubs, vines and herbs found on coasts, swamps or borders of swamps.

The Philippines' total mangrove resource has declined to 248,450 hectares (World Bank 2004), with only 5% considered "old growth" mangroves and the rest, "secondary growth."

Past government policies that encouraged the expansion of aquaculture led to the massive conversion of mangrove areas into fishponds. As much as 260,000 hectares of these fishpond areas were once covered with mangroves (White and De Leon, 1996). Some areas have also been converted to residential and commercial uses.

Despite an ongoing ban, mangroves are cut for fuel wood, charcoal and construction materials. LGUs can play an important role in addressing the problem by increasing the awareness of the economic and ecological value of mangroves to communities and the country.



Some 80% of seagrass species in the East Asian region are found in the Philippines (Fortes, 1994). The country's seagrass beds cover an area of 978 km². These valuable resources have declined continuously since the mid-1990s, mainly due to shortsighted management, illegal fishing practices and overfishing brought about by poverty in coastal areas. (World Bank, 2004)

The reef area of the Philippines covers about 26% of the total reef area in South East Asia. The diversity of coral reefs and associated species found in our waters is reported to be the highest in the world. (World Bank, 2004. Philippine Environment Monitor 2004: Assessing Progress). However, as early as 1991, 98% of our reefs were assessed to be under medium or high threat due to over-harvesting, destructive fishing methods, and degradation of coastal waters from pollution and sedimentation.

Seagrass Beds

Seagrasses are marine flowering plants that commonly form meadows in the foreshore and subtidal areas. Seagrass beds serve as shelter and breeding area for a variety of fishes and invertebrate species, and as a nursery for their young. They also stabilize bottom sediments and protect the shoreline from erosion. Sea grasses are also important food to grazing animals like sea turtles. Another popular inhabitant of these areas is the *dugong*, an endangered species in the Philippines.

The leaves of seagrasses are also used as compost fertilizer and fodder for livestock. Their leaves can also be woven into baskets or used as stuffing for mattresses, thatching for roofing, upholstery and packing material.

Coral Reefs

Corals form one of the dominant framework builders of the coral reef. They consist of soft-bodied animals called coral polyps. Hundreds of thousands of polyps often aggregate and form a colony. Communities of coral colonies form massive deposits of calcium carbonate that form coral reefs. These reefs provide habitat, breeding and spawning areas for a wide variety of marine organisms including many commercially important fishery species and sources of marine natural products. Together with seagrass beds and mangrove forests, coral reefs buffer strong wave action and prevent coastal erosion.

Because of the stony calcareous deposits, corals have been traditionally harvested for filling and construction materials or for commercial trade in the marine curio industry together with other marine organisms (e.g., shells).

B. Species Biodiversity

The Philippines is one of 17 megadiversity countries that contain two-thirds of the world's biodiversity (Heaney and Mittermeier, 1998). It also holds the distinction of being the 'epicenter' or the 'center of the center' of global marine biodiversity. The Verde Island Passage, for instance, located between Batangas and Mindoro, is reported to be the center of marine shore fish diversity in the world.

The country plays a significant role in the global biodiversity conservation effort and in preventing the mass extinction of many of the world's species. If the alarming threats to these species and their habitats are not addressed, this global heritage may be lost and the world will lose a significant component of the total genetic pool. Losing these species would not only be a loss in biodiversity but in the actual and potential contributions of these species to ecology, food security, medicine, culture, economy and science. Sustainable advances in genetic engineering for food, medicine and environment require that the world's genetic pool remain protected and viable. (The list of rare, threatened and endangered fishery/aquatic species is found in **annex I**.)

C. Fishery Resources

Fish and fishery/aquatic products include not only finfish but also various invertebrates such as mollusks, crustaceans, echinoderms, marine mammals, other species of aquatic flora and fauna harvested and collected, and other products of aquatic living resources (Section 3, RA 8550). Coastal areas and near shore waters (i.e., within city/municipal waters) have the highest fishery productivity. Many of the pelagic and offshore fisheries are also linked to the coastal area.

The Philippines hosts 43% of the world's marine aquarium fish and accounts for 36% of the invertebrates traded globally (World Bank, 2005).

Annual Economic Contribution of Selected Marine Living Resources in the Philippines

Mangroves: US\$3 million
(White and Cruz-Trinidad, 1998)

Coral reefs: US\$1.064 billion
(Burke et al., 2002,
White and Cruz-Trinidad, 1998)

Total Fisheries (commercial, municipal, aquaculture):
US\$70 billion
(World Bank, 2005)

Marine Aquarium Fishery and Trade (2004): US\$7.3 million
(www.aquariumcouncil.org)

Municipal fishing (2003):
US\$741 million (World Bank, 2005)
(excluding reef fish)

Economic Losses Due to Coastal and Marine Pollution in the Philippines

Red Tides:

PhP1.6 billion (US\$30 million) in yearly loss in fish exports during the 1990s (World Bank, 2005)

Productivity loss due to premature deaths (Manila Bay only):

PhP310 million (US\$6 million) (World Bank, 2005)

Toxic spills from mining (1996 Marinduque Mining Disaster):

PhP9.2 million (Bennagen, 1998)

Lost Fisheries Productivity:

PhP17 Billion (World Bank, 2004)

Lost Tourism Revenues:

PhP47 billion (World Bank, 2004)

The Philippines is among the top 15 fish-producing countries in the world (DENR-UNDP, 2006). However, the contribution of fishing to the country's total GDP has been gradually declining from 5% in the 1990s to 4% in the mid-1990s, and down to less than 3% since 1997 (World Bank, 2005). The decline in our marine fishery resources is largely attributed to over-fishing and destruction of habitats. This situation has resulted in high incidence of poverty in coastal areas, where 80% of fisherfolk households are below the poverty threshold (PRIMEX, 1996).

Fish and other marine products contribute significantly to food security in the Philippines. Estimates from the Coastal Resource Management Project (CRMP) show that fish and other marine products supply 70% of the total animal protein intake and 30% of total protein intake of Filipinos. However, because of the rapid rise in population and declining production, it has been estimated that only 10 kg of fish will be available for each Filipino per year in 2010 (Bernesek, 1996 cited in World Bank, 2005).

General estimates of pelagic and demersal catches reveal that most fisheries in the Philippines have exceeded the estimated maximum sustainable yield (MSY). This means that most of our fisheries are already over-exploited. The calculated annual dissipation in rent due to over-fishing is around US\$290 million for small pelagic fishes and around US\$130 million for demersal fisheries (DENR-UNDP-MERF, 2004).

Over-fishing stems from the open access nature of most fishing grounds in the Philippines. The lack of exclusivity over fishing areas causes unrestrained entry of new fishing operators and the expansion of existing fishing operations. Fishers compete with each other to maximize their share of the total resource harvest. This, and the lack of incentives to conserve the stock, cause over-exploitation of the resource. Fisheries become at risk of depletion as they are exploited over and above their natural capacity to replenish the stock. It is important, therefore, that use and access

rights over coastal and marine fisheries are well defined to prevent this open access situation. The LGUs have a primary role in allocating and defining use and access rights over fisheries in municipal waters.

Aside from over-exploitation, and destructive illegal fishing activities that result in unselective harvesting, the degradation of critical habitats (e.g., coral reefs, seagrass beds) further exacerbates the decline in fishery production. Thus, the role of LGUs in enforcing national and local fishery and coastal laws and regulations is crucial in sustaining the fisheries, the major source of food and livelihood of a majority of coastal constituents.



Photo by USAID/Vic Kintanar

What are the non-living resources found in the coastal zone and municipal waters and why do we need to manage these resources?

Non-living resources found within the coastal and marine zones include marine waters, energy resources, quarry and other minerals.

Marine waters are important to marine transportation of people, goods and services. Port facilities are major hubs for industrial development in coastal cities and municipalities.

Energy resources include oil, tidal energy and natural gas. The World Bank (2005) reports that with new developments in wave energy conversion systems, the Philippines will be able to provide power to small islands (average of 33 kw/m/y at the Pacific side and 35 kw/m/y at the side of South China Sea). Since traditional energy sources such as coal-fired power plants are major producers of carbon dioxide, the “chief green-house gas” in the atmosphere, the use of waves and wind as alternative energy sources can contribute to the mitigation of global warming.



There are 83 oil wells in Northern and Southern Palawan and the Reed Bank (World Bank, 2005). West Linapacan is estimated to contain more than 100 million barrels of recoverable crude oil while the Camago-Malampaya offshore area is estimated to hold 2.5 to 3.2 trillion cubic feet of recoverable natural gas (Balce and Pablico, 1997).

There are economically important deposits of placer minerals such as gold and titaniferous magnetite sands in many coastal areas in the country (DENR, 2006). Gold, for instance is found along the coasts of Paracale and Panganiban towns in Camarines Norte and on Panaon Island in Southern Leyte. The coastal area is also a source of sand and gravel used in construction activities and reclamation projects. Other economically important mineral resources include decorative stones and silica sands used for the manufacture of glass.

Tourism is a major contributor to the local and national economy. Pristine marine waters, beautiful sandy beaches, exotic diving sites, and historic wreckage sites are some of the non-living resources that attract tourists to the country.

Excessive and unregulated dumping of harmful solid and liquid wastes from domestic, agricultural and industrial sources and unsustainable resource extractive activities contribute to degradation of coastal land and marine waters.

Chapter 2

GOVERNANCE OF COASTAL AND MARINE RESOURCES



Photo by USAID/Michelle Baird

It is important to consider the complex nature of the country's coastal and marine environment for effective governance. Aside from ecological complexities and interconnectedness, the coastal and marine areas are characterized by the presence of multiple uses and users, varied interests of different stakeholders, and overlapping and multi-layered agency jurisdiction, regulatory bodies and policy actors.

Managing the coastal and marine areas requires an integrated and holistic approach that takes into account important ecological, economic, political, and social considerations. In addition, management of these resources should involve the communities, national government agencies and other stakeholders (e.g., investors, non-government organizations, donors).

Although there are sufficient policy and implementation mechanisms to promote sustainable development of coastal and marine resources, the problem of inter-agency coordination and integration hampers efficient government operations.

Although other government agencies have primary jurisdiction over portions of the coastal and marine areas, the LGUs have a critical integrative role in ensuring the sustainable development of coastal and marine resources found within their territorial jurisdiction. A key strategy is for the LGUs to make sure that the various other mandated agencies and bodies are doing their jobs properly, effectively, complementarily and synergistically. (A list of major national agencies with mandate on coastal and marine management is found in **annex 2**.)

Government Agencies with Major Roles over Coastal and Marine Areas Management

DENR

There are various bureaus in the DENR which have roles in policy-making, planning, conservation and protection, permitting and licensing, mapping, rehabilitation, enforcement and conservation.

DA-BFAR

The DA-BFAR is mandated to develop, conserve and maintain the sustainable utilization of fishery and aquatic resources, except dugong. It also issues commercial fishing licenses, monitors trades of aquatic resources, enforces fishery laws and formulates policies, rules and regulations, except in municipal waters.

DILG

The DILG/LGUs are given jurisdiction and exclusive authority to grant privileges in the municipal waters. The DILG-PNP-Maritime Command has the general responsibility over the enforcement of the Fisheries Code and other fishery laws and regulations and crime prevention.

DOTC

The DOTC-PCG is given the primary role in the prevention and control of marine pollution and in the control and supervision over navigational lanes and enforcement of laws in the high seas. Other DOTC agencies with key roles are Maritime Industry Authority (MARINA) and the Philippine Ports Authority.

The responsibilities for integrated coastal management of LGUs at various governance hierarchies are listed below:

- Barangays shall be directly involved with municipal and city governments in prioritizing coastal issues and identifying implementing solutions;
- Municipal and city governments shall consider integrated coastal management (ICM) as one of their regular functions;
- Provincial governments may provide technical assistance, training, enforcement and information management to support municipal and city LGUs;
- Inter-LGU collaboration shall be maximized to sustain the country's coastal and marine resources.

Investment in proper management of coastal and marine resources and collaboration with other LGUs, agencies, and stakeholders can result in numerous direct and indirect benefits for the LGUs and their constituents. Good governance practices should be institutionalized by LGUs to ensure effectiveness, efficiency and sustainability. (A list of good LGU practices in the governance of coastal and marine resources can be found in **annex 3**.)

A. National Government Agencies with Mandate on Coastal and Marine Resources Management

What government agencies have mandates in managing coastal and/or marine areas?

There are four national government agencies that have major administrative roles in managing the country's coastal and marine resources. These are the DENR, Department of Agriculture – Bureau of Fisheries and Aquatic Resources (DA-BFAR), Department of the Interior and Local Government (DILG)/Philippine National Police (PNP), and the

Department of Transportation and Communication (DOTC)/Philippine Coast Guard (PCG). The DENR, particularly the Coastal and Marine Management Office (CMMO), has the over-all mandate to coordinate national efforts for environmental protection and management of marine and coastal environments. The DA-BFAR has primary responsibility over the conservation and proper utilization of fishery resources. The DILG/PNP, on the other hand, has the general responsibility over law enforcement and crime prevention while the DOTC-PCG is responsible for the prevention and control of marine pollution.

Over all, there are more than twenty other government agencies with various policy, regulatory, planning, research and development functions in the coastal and marine environment (see **annex 2**).

What are the mandates of LGUs in managing coastal and marine areas?

According to the Local Government Code (LGC), the LGUs and the national government share in the management and maintenance of ecological balance within their territorial jurisdiction. {Section 3(i), RA 7160}

The Fisheries Code states that the municipal/city governments have the jurisdiction over municipal waters, including the seaward portion of the coastal zone. This jurisdiction includes responsibilities over the protection, management, and conservation of municipal waters and coastal and riparian areas and the enforcement of all fishery laws, rules and regulations and valid fishery ordinances.

Section 16. Jurisdiction of municipality/city government. The municipality/city government shall have jurisdiction over municipal waters as defined in this Code. The municipality/city government, in consultation with the FARMC shall be responsible for the management, conservation, development, protection, utilization, and disposition of all fish and fishery/aquatic resources within their respective municipal waters.

Key LGU Responsibilities in CRM

- *Require government agencies to consult them in the issuance of permits and tenure instruments within their localities (e.g., Sections 26 and 27, LGC, EIS System).*
- *Enforce national laws and use local legislative powers to regulate coastal and marine resource utilization and development (e.g., RA 8550, RA 9147, RA 7942, RA 7076).*
- *Enact comprehensive land-use plan and integrated zoning ordinances (LGC; HLURB guidelines).*
- *Implement an integrated coastal management in their localities (EO 533).*
- *Supplement setback zones with additional safety zones in the coastal zone (Section 51 of Water Code).*
- *Prescribe procedure for summary abatement of nuisance (Articles 694, 699, and 701 of Civil Code) or buildings and structures that fail to conform with safety regulations {Sections 214 and 215 of Presidential Decree (PD) 1096, or Building Code}.*

Governance of Coastal and Marine Resources

Good environmental governance of coastal and marine resources:

- **Entails decisions and actions** that lead to beneficial and sustainable impact on the environment;
- **Is a shared responsibility** between and among government and non-government actors (e.g., communities, private sector, schools, NGOs, etc.);
- **Takes primary consideration of the welfare** of the people and the living and non-living components of the environment.

Good environmental governance requires the practice of sound principles like transparency, accountability and public participation in the conduct of basic governance functions, technical strategies and processes like permitting and licensing, budgeting, bidding and procurement, tenure issuance and law enforcement.

Annex 3 presents the recommended best practices in the governance of coastal and marine resources.

The municipal/city government may, in consultation with the FARMC, enact appropriate ordinances for this purpose and in accordance with the National Fisheries Policy. The ordinances enacted by the municipality and component city shall be reviewed pursuant to Republic Act No. 7160 by the Sanggunian of the province which has jurisdiction over the same.

The LGUs shall also enforce all fishery laws, rules and regulations as well as valid fishery ordinances enacted by the municipality/city council.

Other government agencies exercise administrative authority over specific activities and concerns in the coastal and riparian areas bordering municipal waters. However, the full extent of the municipal waters are under the administrative and territorial jurisdiction of LGUs.

Section 6 of EO 533 designates LGUs as frontline agencies in the formulation, planning and implementation of ICM programs. It also gives LGUs the mandate to mobilize and allocate necessary personnel, resources and logistics to effectively implement their respective ICM programs.

The LGUs have a critical role in regulating and coordinating activities, in monitoring accountabilities of different managers and stakeholders and in addressing conflicts in these areas as part of their local environmental governance. (The role of LGUs in relation to the issuance of major clearances and permits issued by national government agencies are summarized in **annex 4**.)

Are there areas within the coastal zone and municipal waters that do not fall under the territorial jurisdiction of local governments?

The LGUs have limited powers and jurisdiction over protected coastal areas under the National Integrated Protected Areas System (NIPAS) Act. Such areas are excluded

from the geographic scope of municipal waters as defined under Section 4 (58) of RA 8550.

In marine and coastal protected areas that are under the NIPAS, the authority of the local government in policy making, regulating, planning, zoning and monitoring are given to the Protected Area Management Board (PAMB). These protected areas, including the buffer zone, are under the primary control and administrative jurisdiction of the DENR (Section 10, RA 7586). The LGUs (provincial, municipal, city, barangay) however, can directly participate in the management of coastal areas covered by NIPAS through their active membership in the PAMB (Section 11, RA 7586).

The LGUs also have no jurisdiction over the policy, supervision, control, regulation, construction, maintenance, and operation of private ports and ports managed by the Philippine Ports Authority (PPA). The LGUs have jurisdiction only over devolved ports.

In the province of Palawan, the governance, implementation and policy direction of the Strategic Environmental Plan are exercised by the multi-sectoral Palawan Council for Sustainable Development (PCSD).

Do LGUs need to adopt a national law like RA 8550 through an ordinance for it to apply within the territorial jurisdiction of the LGU?

No. National laws are applicable within the entire territory of the Republic of the Philippines, whether or not an LGU adopts them through an ordinance. The main purpose of enacting an ordinance is to address local concerns or gaps not covered by the national law or to supplement national laws and fit the enforcement procedure to local realities and needs. Some examples of ordinances that LGUs can pass include those that regulate the harvesting of certain local species through permits and licensing, establish local marine sanctuaries and provide incentives for conservation.

LGUs are part of the Protected Area Management Board (PAMB). As members, they can influence PAMB's management of protected areas under their territorial jurisdiction. LGUs can affect changes in the:

- Allocation of budget;
- Approval of proposals for funding; and
- Decision on matters relating to planning, peripheral or boundary protection and general administration of the protected area.

LGUs can also enact ordinances to support the protection and management of the protected area. They may enter into a co-management arrangement with the PAMB over certain portions of the protected area where they want more direct involvement. Their role and authority in the management of such areas under their territorial jurisdiction can be more clearly specified and defined in the specific law that the Congress enacts to establish the protected area under the National Integrated Protected Areas System (NIPAS).

International Agreements and Protocols

The Philippines is a signatory to various international environmental protocols, treaties and agreements. Those that are relevant to coastal and marine resources management include the following:

- *International Convention for the Prevention of Pollution of the Sea by Oil, 1964*
- *Convention on the Prevention of Marine Pollution by Dumping Wastes and Other Matters, 1973*
- *International Convention for the Prevention of Pollution from Ships, 1973*
- *Convention on the International Trade in Endangered Species of Wild Flora and Fauna (CITES), 1981*
- *Montreal Protocol on Substances that Deplete the Ozone Layer, 1991*
- *Chapter 17 of Agenda 21, United Nations Conference on Environment and Development (UNCED), 1992*
- *Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal (Basel Convention), 1993*
- *Convention on Biological Diversity (CBD), 1992*
- *United Nations Conference on the Law of the Sea (UNCLOS), 1994*
- *RAMSAR Convention on Wetlands (RAMSAR)*
- *Bonn Convention on the Conservation of Migratory Species of Wild Animals*
- *UN Framework Convention on Climate Change (Kyoto Protocol)*

Can LGUs establish zones within their municipal waters?

Yes. Under RA 8550, LGUs can implement municipal water zoning as a strategy to effectively perform their responsibility to manage, conserve, develop, protect, utilize and dispose fish and fishery/aquatic resources within their respective municipal waters. In addition, the Local Government Code also contains provisions on the authority of LGUs to establish zones. According to Section 149 of the LGC, municipalities (and cities, under Section 151), through the Sangguniang Bayan, may grant fishery privileges to erect fish corrals, oyster, mussel or other aquatic beds or bangus fry areas within a definite zone of the municipal waters.

Granting fishery privileges within definite zones and establishing fishery refuge and sanctuaries entail the establishment of zones within municipal waters.

What is the importance of coastal and municipal water zoning?

Zoning provides an integrated planning framework to harmonize the different current uses and potential future development activities in the coastal and marine areas. It aims to minimize conflicting resource uses that threaten the environment's sustainability. It also helps LGUs attain optimal benefits from the utilization of various resources found in coastal and marine areas.

Coastal and marine stakeholders (LGU, fishers, coastal communities, private sector, NGOs, etc.) need to have a consensus on priority land and sea uses. The coastal and marine resources management and development plan should also contain specific programs and strategies for each zone and identify the roles and responsibilities of pertinent agencies and stakeholders. Ideally, there should also be a coordinating office that will oversee the implementation of the coastal and marine resources management plan using the zoning as the spatial framework.

What should be the basis for coastal zoning?

The use zones should be established based on the best available information on coastal and marine resources, existing resource users, use patterns, and development potential. The information can be derived through the conduct of Participatory Coastal Resource Assessments (PCRA). PCRA may involve community-resource use mapping,

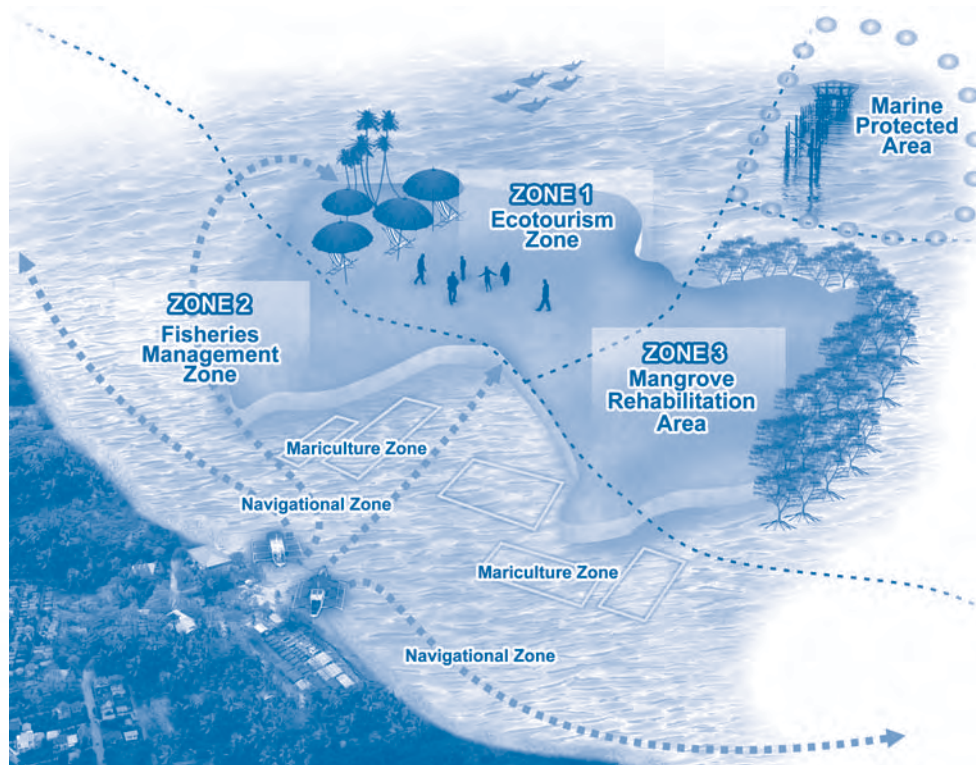


Figure 3. Example of a priority zone schematic diagram



Photo by USAID/Michelle Baird

coastal habitat field surveys, focus group discussions and household interviews to gather pertinent socio-economic information. Different stakeholders are properly consulted and all relevant information are analyzed, integrated and used as basis for identifying present and potential uses of the coastal zone, mitigating possible conflicts and harmful consequences of certain activities and actions, as well as in formulating policies, guidelines and implementation mechanisms for the identified zones.

Decisions concerning coastal zones should be guided by the principles of sustainable development and long-term ecological and socio-economic benefits and costs. The use of the sea should be harmonized with land uses and equitable access and benefits should be considered in developing zone-specific management strategies.

The LGU should integrate coastal and municipal zoning with the city or municipality's Comprehensive Land Use Plan (CLUP). The aim is to ensure that development programs are implemented with minimal negative externalities on coastal and marine resources. After community consultations and public hearings, a coastal area and municipal water zoning ordinance should be enacted to guide the planning and development of these areas. (The common priority coastal and marine use zones are described in **annex 5.**)

In what ways can LGUs assert control and authority in managing the coastal and foreshore land areas within their territorial jurisdiction?

Aside from exercising their powers and authority over municipal waters, LGUs can participate in coastal and foreshore land management in three ways, namely:

- (1) By regulating the use of coastal and foreshore areas.

The Local Government Code empowers the LGU to regulate the use of land within the municipal/city jurisdiction through the adoption of land-use plan and the enactment of zoning ordinances {Sections 447(2)(vii) and 447(2)(ix), as

well as Sections 458(2)(vii), 458(2)(ix) and 468(2) (vii)}. To ensure sustainable development, it is essential to zone municipal waters to designate priority-use areas and harmonize their uses with the development and uses of the land component of the coastal zone. A zoning ordinance is a powerful tool to regulate the use of foreshore areas. Zoning helps to determine what kind of structures, development and utilization can be allowed in a particular area.

The LGU can also issue licenses, clearances and permits consistent with the Comprehensive Land Use Plan (CLUP) and zoning ordinances as well as other valid fisheries and environmental ordinances to regulate the utilization, management and development of specific coastal areas and resources. (**Annex 6** presents the various clearances, permits and licenses that LGUs can issue.)

- (2) In shaping the decisions of national agencies and government-owned or controlled corporations that have administrative jurisdiction or the authority and mandate to issue permits and clearances, including Environmental Compliance Certificate (ECC) and tenurial instruments.

According to Section 26 of the Local Government Code, “it shall be the duty of every national agency or government-owned or controlled corporation authorized or involved in the planning and implementation of any project or program that may cause pollution, climatic change, depletion of non-renewable resources, loss of crop land, rangeland or forest cover and extinction of animal or plant species, to consult with the local government units, non-government organizations and other sectors concerned and explain the goals and objectives of the project or program, its impact upon the people and the community in terms of environmental or ecological balance, and the measures that will be undertaken to prevent or minimize the adverse effects thereof.”



Photo by USAID/Charlie Saceda

Section 27 of the LGC also provides that “no project or program shall be implemented by government authorities unless the consultations mentioned in Sections 2c and 26 of the Code are complied with, and prior approval of the Sanggunian concerned is obtained.”

Participation in the mandatory consultation process will enable the local government and communities to articulate their position, concerns, and even objections to the proposed project or undertaking. Through the process of Environmental Impact Assessment (EIA), the LGU can also influence the design of development projects and activities, voice their opposition to the project, or recommend preventive or mitigating measures. LGUs can also take an active role in the Multipartite Monitoring Team, which should be formed once the DENR gives the project the signal to proceed through the issuance of an Environmental Compliance Certificate. (**Annex 7** gives a summary of the projects that need an Environmental Compliance Certificate and the role of the LGU in ECC issuance).

- (3) By enforcing existing laws and regulations and enactment of ordinances consistent with national laws. The major laws under each of the above categories are discussed under pertinent sections of this guidebook.

B. Role of Communities and Other Stakeholders

What is the role of communities and other stakeholders in the governance of coastal and marine areas?

Local communities, the private sector, NGOs, the academe and other civil society organizations also have important roles to play in ensuring the sustainable development of coastal and marine areas. Communities and other stakeholders can:

- (1) Advocate for policy reforms so that responsive environmental policies, ordinances, rules and regulations are created and implemented;
- (2) Demand good governance from their LGUs and public officials so that responsive programs and projects are developed, funded and implemented, and greater transparency, public participation and accountability are observed;
- (3) Monitor and report actions of the LGUs and government agencies to prevent corruption, abuse, and over-discretion;
- (4) Directly participate in LGU and government programs, projects and activities as volunteers, deputized enforcers, etc.; and
- (5) Serve as supplier of certain services (e.g., information, education and communication, training, technical assistance).

Section 2 (c) of the LGC mandates the participation of stakeholders in CRM programs and projects. The law requires all national agencies and offices to conduct periodic consultations with non-governmental and people's organizations and other concerned sectors of the community before any project or program is implemented. Section 26 of the LGC further reiterates that:

It shall be the duty of every national agency or government-owned or controlled corporation authorizing or involved in the planning and implementation of any project or program that may cause pollution, climatic change, depletion of non-renewable resources, loss of crop land, rangeland, or forest cover and extinction of animal or plant species to consult with the local government units, non-governmental organizations, and other sectors concerned and explain the goals and objectives of the project or program, its impact upon the people and the community in terms of environmental or ecological balance and the measures that will be undertaken to prevent or minimize the adverse effects thereof.



Photo by USAID/Vic Kintanar

M/CFARMC Functions

The M/CFARMCs exercise the following functions (Section 74, RA 8550):

- a) Assist in the preparation of the *Municipal Fishery Development Plan*;
- b) Recommend the enactment of municipal fishery ordinances to the Sangguniang Bayan/Sangguniang Panlungsod through its Committee on Fisheries;
- c) Assist in the enforcement of fishery laws, rules and regulations in municipal waters;
- d) Advise the Sangguniang Bayan/Panlungsod on fishery matters through its Committee on Fisheries, if such has been organized; and
- e) Perform such other functions that may be assigned by the Sangguniang Bayan/Panlungsod.

What is the role of the grantee, licensee, or permittee in the management of coastal and marine resources?

The privilege given to the private sector to utilize fishery resources shall be under the basic concept that the grantee, licensee or permittee shall not only be a privileged beneficiary of the State but also an active participant and partner of the government in the sustainable development, management, conservation and protection of the fishery and aquatic resources of the country {Section 2 (6), RA 8550}.

What is the formal institutional mechanism for public participation in coastal and marine resource management?

Municipal or City Fisheries and Aquatic Resources Management Councils (M/CFARMCs) can be created to provide a structure for public participation in coastal and marine resource management (Section 69 and 73, RA 8550).

The members of M/CFARMC can include a representative from the accredited non-government organization, private sector and at least eleven fisherfolk representatives in each municipality/city which include representatives from the youth and women sector (Section 75, RA 8550). The eleven fisherfolk representatives consist of seven municipal fisherfolks, one fishworker and three commercial fishers. For bays, gulfs, lakes, rivers and dams bounded by two or more municipalities/cities, an Integrated Fisheries and Aquatic Resources Management Council (IFARMC) can be created (Section 76, RA 8550).

How can the LGUs enjoin and sustain the participation of communities and other stakeholders in coastal and marine resource management?

Incentive systems can be established to encourage fishers' and other stakeholders' involvement and participation and to lessen overfishing and illegal fishing practices.

Various types of stakeholders may have different motivations and interests and, thus, will require different kinds of incentives. The types of incentives that can be applied at the local level include:

- (1) **Property rights.** Property rights include access and harvest rights which define the extent of use of the resources. This is necessary to prevent over-fishing and open-access fisheries. Another form of property rights is territorial use rights which specify the boundaries of municipal waters that can be used as fishing grounds for exclusive use of registered fisherfolk.
- (2) **Skills development and livelihood assistance.** Fishers can be provided with technical assistance to improve their skills and income potential. Some examples of support include alternative livelihood training, marketing and transport support, and improved post-harvest facility.
- (3) **Financial assistance.** Some examples of financing assistance are credit support or livelihood and loan assistance programs for small-scale fishers. LGUs may help marginalized fisherfolk form organizations and cooperatives and help them secure outside financial assistance. Law enforcers, like the *Bantay-dagat* and community volunteers can also be provided with honorarium and to share fines and penalties collected as incentives for their participation.
- (4) **Recognition and other support.** Local coastal and resources managers and enforcers can be given awards and public recognition for good performance. Incentives may also be in the form of training and capability building, and logistical support such as uniforms, tools and equipment.





Photo by USAID/Charlie Saceda

C. Benefits of effective coastal and marine resources management

What benefits can LGUs, communities and other stakeholders obtain from good governance of coastal and marine resources?

Sound governance of the coastal and marine environment provides immediate and long-term benefits to local government units, communities and other stakeholders.

Some of the benefits that LGUs, communities and stakeholders can obtain include:

- (1) Ecological Benefits.** Among the long-term benefits of sustainably managed coastal and marine resources are the increase in biodiversity, stability and resiliency of the coastal and marine ecosystems. These properties will enhance the capacity of ecosystems to buffer or withstand stresses such as aquatic pollution and the emergence of pest and diseases. Improved coastal and marine resource management can also give communities long-term protection from flooding, shoreline erosion and pollution as well as enhance the sustainability of stocks of ecologically and economically important species.
- (2) Socio-economic and Financial Benefits.** There are direct and indirect economic benefits from sound governance of coastal and marine resources. Direct benefits include enhanced fish supply, food security and income from increased fish stock and mariculture production. An increased income for the fishing population, in turn, reduces the need for LGUs to incur expense or subsidize the creation of livelihood opportunities for its constituents. In this way, limited financial resources can be used for other LGU services such as health and sanitation. In addition, better enforced laws, clear property rights and improved ability to manage conflicts will attract private sector investments on coastal tourism, mariculture, post harvest industries and other economic opportunities that will catalyze further

growth, development and livelihood opportunities for the city/municipality. Better ecological sustainability and enhanced income opportunities will also enhance the value of private properties along the coasts.

Improved income and welfare of constituents and stakeholders will increase their willingness to pay for environmental services. In turn, this will provide an opportunity for LGUs to implement schemes for user fees and payment for environmental services. Increased revenues from enhanced investment and economic activities, cost savings from elimination of subsidies and greater ability to implement user fees and payment for environmental services will give LGUs more funds for better and more efficient service delivery.

- (3) Socio-political Benefits.** Good governance of the coastal and marine environment will increase the legitimacy and credibility of LGUs. Greater legitimacy and credibility will translate to greater political support, public trust and confidence. The result will be enhanced capacity of the LGU to govern and secure the citizens' support and cooperation for its various policies, programs and projects.

Outstanding LGUs can also receive recognition for implementing best practices in CRM, such as the Best Coastal Resources Management Program and the *Galing-Pook Award*. Exemplary LGUs also become role models and learning sites for other LGUs.

- (4) Institutional Benefits.** Good environmental governance can enhance the LGU and national government agencies' access to lending support, loan guarantees, loan subsidies and international donor support for CRM activities. This will also result in greater ability of the LGU, communities and Fisheries and Aquatic Resources Management Councils (FARMCs) to secure direct technical assistance, training and seminars and support for capital and infrastructure. Enhanced opportunities to participate in government actions and programs and improved



access to information and external support will result in greater empowerment for communities, people's organizations and NGOs. A more empowered citizenry is able to exert greater pressure on LGUs, national government agencies and private firms to exercise good environmental governance.

D. Sustainable Financing Mechanisms

What are the sources of funds for the implementation of coastal and marine resources management?

There are traditional and non-traditional sources of funds for coastal and marine resources management. The traditional sources of funds include:

- (1)** Twenty percent (20%) development fund from the Internal Revenue Allotment (IRA).

According to Section 287 of the Local Government Code, "each local government unit shall appropriate in its annual budget no less than twenty percent (20%) of its annual internal revenue allotment for development projects."

- (2)** Revenues from local taxation and fiscal management.

Aside from allocation from IRA, the LGUs can also use additional funds generated through the exercise of the LGU's fiscal management powers and authorities. The LGC provides them with the authority to create sources of revenues and to levy taxes, fees, etc. as provided by the following sections:

Local government units may exercise the power to levy taxes, fees or charges on any base or subject not otherwise specifically enumerated herein or taxed under the provision of the National Internal Revenue Code, as amended, or other applicable

laws. Provided that the taxes, fees or charges shall not be unjust, excessive, oppressive, confiscatory or contrary to declared national policy. Provided, further that the ordinance levying such taxes, fees or charges shall not be enacted without any prior public hearing conducted for the purpose (Section 186, RA 7160).

(3) External aids, grant and donations.

Grants, aids and donations may come from the national government, other LGUs (e.g., province), government owned and controlled corporations (GOCC), private sources (e.g., NGOs, civil organizations, private businesses) and international donor agencies. The aid can be in the form of in-kind contributions or technical and financial assistance.

Non-traditional sources of funds include the following:

- (1) Credit financing.** LGUs can create indebtedness and avail themselves of credit facilities with any government or domestic private banks and other lending institutions, foreign sources, other LGUs, etc. to finance priority facilities and programs (Section 296, RA 7160).
- (2) Build Operate Transfer (BOT) mechanism.** LGUs can enter into contracts for financing, construction, operation and maintenance of viable infrastructure projects under the BOT Law (RA 7718).
- (3) Joint ventures.** LGUs can enter into contract with other LGUs and private proponents for business activities. They can also share in the expenses, resources, management, control, risks and profits of the enterprise.



- (4) **Municipal bonds.** These are interest-bearing or discounted government security bonds that obligate the LGU to pay the bondholder a specified amount of money and to repay the principal amount of the loan at maturity.
- (5) **Overseas Development Agency (ODA)** assistance and financing to facilitate implementation of the LGU project.
- (6) **Cost recovery mechanisms.** Cost recovery refers to the collection of revenues (e.g. , user fees, payment for environmental services) from users or customers in order to recover costs of the project's facilities.
- (7) **Privatisation.** LGUs may also resort to privatization of their own enterprises if such action is determined to result in better efficiency and public service.

In the case of integrated coastal management initiatives, Section 10 of EO 533 instructs all relevant government agencies and LGUs to allocate adequate funds for the development and implementation of integrated coastal management (ICM) programs. The Land Bank of the Philippines (LBP), Development Bank of the Philippines (DBP), People's Credit and Finance Corporation (PCFC) and other relevant financial institutions are instructed to "formulate and identify loan and financing mechanisms that will be made available to support local ICM programs, including alternative livelihood projects for small-scale fishers and cooperatives." Other funding options and schemes are enumerated under Section 11 of EO 533.

What specific user fees can be charged from the users of municipal waters?

The fees that can be charged from the users of municipal waters include access fees, license fees and registration fees for fishers and vessels, harbor fees, safety inspection fees, marketing fees, fishery management fees, dockside monitoring fees, accommodation fees, entrance fees, concession fees and permits for establishments in the coastal zone and Marine Protected Areas (MPAs) used as tourism sites, and pollution charges.

According to chapter 2, Article 1, Section 16 of the Fisheries Code, “LGUs shall determine, in consultation with the Fisheries and Aquatic Resources Management Council (FARMC), the license fees of fisheries activities in municipal waters: provided that the FARMC may also recommend the appropriate license fees that will be imposed.”

Does the LGU have the power to collect user fees from port and maritime transport operators?

No. At present the involvement of LGU’s in port and maritime transportation is limited to devolved public ports (PPA AO 02-98). Likewise, the LGU’s authority on marine vessels is confined to the registration of fishing vessels which are 3 gross tons and below.

The exercise of the taxing powers of the LGUs, municipalities and barangays, shall not extend to the levy of customs duties, registration fees of vessel and wharfage on wharves, tonnage dues, and all other kinds of customs fees, charges and dues except wharfage on wharves constructed and maintained by the LGU concerned. (Section 133, RA 7160)



Table 1. Percentage of Proceeds Sharing from National Wealth

Percentage of Proceeds Sharing from National Wealth	
Natural resources in province	20% province 45% component city or municipality 35% barangay
Natural resources in 2 or more provinces or 2 or more barangays	Proceeds shall be computed on the ff basis: 70% population 30% land area
Natural resources are located in highly urbanized or independent component city	65% city 35% barangay

Source: Section 289, RA 7160

In addition to this, Section 133 of RA 7160 prohibits LGUs from imposing taxes, fees and charges on goods in transit and taxes on transportation contractors.

Further, in Section 6 of PD 857, only the Philippine Ports Authority has the authority over the supervision, control, regulation, construction, maintenance, operation and provision of policies of ports belonging to the PPA and all other ports in the country, including those that are privately owned. The collection of user fees from domestic ship operators is given to the Maritime Industry Authority (MIA).

Can an LGU impose fees and charges from port and maritime transportation operators for the negative impacts on environment caused by their activities?

Yes. The LGU may impose fees and charges indirectly connected with maritime transport and port operations and not otherwise specifically prohibited by law. An LGU may impose fees and charges through an ordinance for the use of its municipal waters in port operations pursuant to Section 129 in relation to Section 16 (General Welfare Clause) and Section 18 and Section 447 (1) (vi) of RA 7160, which devolves the power to protect the environment to the LGU and penalizes acts that endanger the environment. The fees will serve as compensation for the negative impact of ports and ships on the coastal resources and fishing grounds in municipal waters. All fees that will be collected shall accrue exclusively to the LGU fund.

What is the LGU’s share from the proceeds received from the national wealth?

The LGUs have an equitable share in the proceeds derived from the utilization and development of national wealth within their respective areas. They also share the proceeds with the inhabitants of their area by way of direct benefits (Section 289, RA 7160).

Specifically,“LGUs shall, in addition to the Internal Revenue Allotment (IRA), have a share of forty percent (40%) of the gross collection derived by the national government from the preceding fiscal year from mining taxes, royalties, forestry and fishery charges, and such other tax, fees or charges, including related surcharges, interests or fines and from its share in any co-production, joint venture or production sharing agreement in the utilization and development of the national wealth within their territorial jurisdiction.” (Sections 289, RA 7160)

Can LGUs create a special account for coastal and marine resource management?

Yes. The LGU may create a special account for coastal resource management (CRM) through a municipal ordinance where all revenues from CRM activities shall accrue. The account can be used solely to support CRM activities. According to the Local Government Code:

LGUs shall maintain special accounts in the General Fund for the following: public utilities and other economic enterprises; loans, interests, bond issues and other contributions for specific purposes; and development projects funded from the share of the LGU concerned in the IRA and such other special accounts which may be created by law or ordinance. (Section 313, RA 7160)

E. Inter-LGU Collaboration

Can an LGU enter into an alliance with other LGUs in managing coastal and marine resources?

Yes. Inter-LGU collaboration is encouraged by the law. Section 16 of the Fisheries Code states:



Inter-LGU Alliances

Inter-LGU alliance for CRM activities is established through a memorandum of agreement (MOA) signed by all LGUs concerned. The alliance is established by LGUs which share common coastal resources, usually along the bays. The MOA signifies the commitment and willingness of the LGUs to implement unified strategic actions in managing the concerned common resource. The LGUs, through the MOA, creates an Inter-LGU Coastal Resource Management Committee (ILCRMC) that will oversee the implementation of these common and joint strategic actions.

The management of contiguous fishery such as bays which straddle several municipalities, cities, or provinces, shall be done in an integrated manner, and shall not be based on political subdivisions of municipal waters in order to facilitate their management as single resource systems. The LGUs, which share or border such resources may group themselves and coordinate with each other to achieve the objectives of integrated fishery resource management. The Integrated Fisheries and Aquatic Resources Management Councils (IFARMCs) established under Sec. 76 of this Code shall serve as the venues for close collaboration among LGUs in the management of contiguous resources.

Section 33 of the Local Government Code allows pooling of funds and other resources. The relevant provision states:

Local Government Units may, through appropriate ordinances, group themselves, consolidate or coordinate their efforts, services and resources for purposes commonly beneficial to them. In support of such undertakings, the Local Government Units involved may, upon approval by the Sanggunian concerned after a public hearing conducted for the purposes, contribute funds, real estate, equipment and other kinds of property and appoint or assign personnel under such terms and conditions as may be agreed upon by the participating Local Government Units through Memoranda of Agreement.

Is revenue and cost-sharing mechanism among LGUs applicable to CRM?

Yes. Revenue and cost sharing involves an agreement between parties on percentage of sharing and the use of the funds. Revenue and cost sharing can be done between the municipal and barangay LGUs, among municipal LGUs (e.g., alliances) or between the LGU and law enforcers.

Some examples of a revenue and cost-sharing arrangement include:

- (1) LGU-barangay revenue and cost sharing.** An agreement can be made between the LGU and barangays to divide the revenue from user fees and/or

finer and penalties. The percentage of shares must be agreed upon by the two parties. Coastal barangays can also set up a CRM Barangay Fund where CRM revenues shall accrue;

- (2) LGU-LGU revenue and cost sharing among members of a CRM bay-wide alliance.** Revenues and costs from CRM activities can be shared equitably among LGUs that are part of the alliance or council.

What are the benefits of inter-LGU CRM collaboration?

Inter-LGU CRM collaboration provides the following benefits:

- (1) Higher environmental benefits arising from improved synergy, resilience, and stability.** Networking and collaboration of LGUs managing contiguous and ecologically interconnected coastal and marine resources are effective and efficient strategies to promote synergy and enhanced natural connectivity and resilience of coastal resources. CRM collaboration can be applied in inter-LGU fishery management and Marine Protected Area (MPA) networks.
- (2) Reduced operating and maintenance costs due to economies of scale.** Through inter-LGU collaboration, LGUs will have the venue to pool, complement and share among themselves the resources and expenses for infrastructure, facilities, tools, manpower, and equipment necessary for effective coastal and marine resource management. The costs entailed by coordination among stakeholders are reduced since established institutional arrangement facilitates dialogue and implementation of agreed strategies within a specific period of time. Such an arrangement is also expected to facilitate conflict resolution and provide an opportunity for joint, less costly and more effective and efficient monitoring and evaluation (M and E).

- (3) Faster and more effective replication of best practices.** Inter-LGU fishery management and MPA networks allow LGUs to share experiences and lessons learned in coastal and marine resource management. LGU to LGU coaching, dialogues and sharing are very effective tools for upscaling strategies and dissemination of best practices.
- (4) Increased cooperative spirit among LGUs.** Organizing LGUs that commonly benefit from the coastal and marine resource into a formal collaborative network or inter-LGU alliance or council bound by rules and well-defined accountabilities and sanctions will create peer pressure among the member LGUs. This in turn will encourage member LGUs to cooperate and adhere to the agreements and commitments of the inter-LGU alliance, council or network. Such formal and binding agreement can also result in a better and more equitable distribution of costs and benefits of improved CRM.
- (5) Increased capacity to leverage external funds as a collective body.** Collaboration can result in improved capacity to access external funds. It can also mobilize counterpart funds and complement each other's resources. The presence of more parties will result to greater transparency and better funds accountability. Moreover, due to increased economies of scale, it will be easier to leverage external funds or secure credit assistance because economic benefits will be higher and financial risk will be reduced since it will be divided among several member LGUs.

Chapter 3

PROTECTION AND MANAGEMENT OF LIVING RESOURCES IN COASTAL AND MARINE AREAS



Photo by USAID/Vic Kintanar

Local government units have the power and authority necessary to enforce laws and regulations to protect and manage critical habitats and species within the coastal and municipal waters. Although other agencies have administrative jurisdiction over certain areas or activities, the LGUs have the primary responsibility over the protection, development, conservation and sustainable utilization of living coastal and marine resources within their territories.

A. Coastal habitat protection, conservation and management

Mangrove Areas

What laws and regulations govern the use of mangrove areas?

Mangrove areas, in general, are classified as forest lands. According to Section 16 (8) of Presidential Decree (PD) 705 (Revised Forestry Code) “mangrove or swamplands 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” are needed for forest purposes and may not be classified as alienable and disposable land.

Section 16 of PD 705 also provides that if the area has been titled in favor of any person, the LGU can take the necessary steps to cancel or amend the title or expropriate the titled area.

Penalties and fines are imposed to provide a disincentive against the breaking of the law. Ordinances imposing such fines and penalties are not enacted to create a revenue source for the LGU.

The conversion of mangrove areas into fishponds or for any other purpose is also prohibited (Section 94, RA 8550). The violation, fees and penalties for unlawful activities related to mangroves are found in **annex 8**.

In existing Fishpond Lease Agreements (FLA), a portion of the fishpond area fronting the sea shall be established as a buffer zone and be planted with specified mangrove species to be determined in accordance with Section 65c of RA 7881 (RA 6657, as amended by RA 7881).

Can a thinly vegetated or denuded mangrove area be converted to fishpond?

No, a thinly vegetated or denuded mangrove area cannot be converted to fishpond. Section 94 of the Fisheries Code bans the conversion of mangroves to fishponds. The law does not state, however, that it is only the thickly vegetated mangroves that are subject to this prohibition.

The Fisheries Code invalidates Section 9 of DENR DAO 15 series of 1990 which allows fishpond development in denuded areas that have been zonified as suited for this activity.

What can LGUs do if mangroves are fenced and claimed by owners of the adjacent A/D lot?

LGUs should verify with the DENR the boundaries of the land being claimed since there are some lands classified as Alienable and Disposable (A/D) and titled private properties that are vegetated with mangroves. If the mangrove area is outside the private property and within the forest zone, the LGU and the DENR can, depending on the nature and value of the fence, remove the fence or file a corresponding case for mandatory prohibitory injunction.

If public interest requires that a legally acquired productive fishpond be reverted to mangrove use, what steps should be undertaken by the LGU and how much compensation should be involved?

RA 8550 states that if a fishpond is abandoned, underdeveloped or underutilized {Section 46 (d)} five years after the issuance of the fish pond lease agreement, it should be reverted to public domain for reforestation.

On the other hand, if the fishpond is legally acquired and productive, the conditions for reversion under RA 8550 do not apply. In this case, the LGU must first make an offer to buy the property from the owner at fair market value. If the owner refuses to sell the property, the LGU can file an action in court to have the area expropriated in favor of the government. Before the court can fix the just compensation for the property owner, the LGU must prove that the taking is for public use. The just compensation is based on the fair market value of the property as shown by evidence. While determining the waiting for the just compensation, the LGU can ask the court to issue a writ of possession so that the LGU can have possession of the area by depositing 10% of the declared value in the Property Tax Declaration. LGUs should also coordinate this with the DENR as mangrove forests are under their jurisdiction.

Can planted mangroves be harvested?

No. Section 71 of RA 7161 bans the cutting of mangroves.

The Department of Justice, in its response to the DENR to clarify the provision of Section 71 of RA 7161, declares the total ban on the cutting of mangrove species as a State policy:

The DENR used to allow mangrove harvesting through the issuance of a permit (Section 13 of DAO 15 series of 1990). Cutting and utilization of mangroves planted by Community-based Forest Management (CBFM) holders is allowed under section 3 of DAO 98-10.

The cutting of mangroves is now banned (RA 7161). CBFM beneficiaries view this as a disincentive for mangrove planting since they cannot harvest what they have planted. The ban is also seen as undermining the government's social forestry program.

The pros and cons of the ban need to be carefully weighed, particularly in the light of a study showing that sustainable harvesting of mangroves is just as beneficial as preserving or not harvesting them. (Fernandez et al., 2005)

Since mangroves are very valuable ecological resource, sustainable mangrove-based livelihood options that do not involve cutting like ecotourism, may also be explored as incentives for conservation and as sources of community income.



What can LGUs do to fishponds covered by FLA that remain abandoned, undeveloped, or underutilized five years after the issuance of the agreement?

The LGU can coordinate with the DENR, DA-BFAR, FARMC, and other concerned agencies, to identify which abandoned, undeveloped, or underutilized fishponds covered by Fishpond Lease Agreements can be reverted to their original mangrove state. The Fishpond Lease Agreements for such fishponds should be cancelled by BFAR and turned over to the DENR for mangrove reforestation purposes. (Section 49, RA 8550)

Is there a need to register existing private fishponds with the LGU?

Yes. According to Section 57 of RA 8550, private fishponds like fish hatcheries and fish breeding facilities must be registered with LGUs. The LGU in consultation with the Department of Agriculture shall prescribe minimum standards for such facilities.

Seagrasses

Can the LGUs regulate the harvesting/extraction of seagrasses?

Yes. The municipal/city government can regulate or prohibit the harvesting of seagrasses within its territorial jurisdiction through the issuance of appropriate ordinances. Though there is no provision in the Fisheries Code that prohibits the harvesting of seagrasses, Section 92 of RA 8550 penalizes any person who fish using gear methods that destroy coral reefs, seagrass beds, and other fishery marine life habitat.

Coral Reefs

What can the LGUs do to protect corals?

LGUs should prohibit the gathering, collection, and transporting of corals in their area of jurisdiction. Persons violating the prohibition should be arrested and the corals in their possession should be confiscated. Confiscated corals can either be returned to the sea, or donated to schools or museums for educational or scientific purposes, or disposed through other allowable means. A transparency mechanism may be established by the LGUs to ensure that confiscated materials are returned to the sea or donated to qualified institutions.

The law bans the exploitation and exportation of corals and prohibits any person or corporation from gathering, possessing, selling or exporting ordinary, precious and semi-precious corals, whether raw or in processed form, except for scientific or research purposes (Section 91 of the Philippine Fisheries Code). The implementing rules are provided in FAO 202 series of 2000.

Strict enforcement of fishery and coastal laws will prevent further degradation of coral reefs. Some enforcement mechanisms that LGUs can implement are discussed under fishery resources and in chapter 4. The violation, fees and penalties for unlawful activities related to corals are found in **annex 8**.

B. Species Conservation and Wildlife Protection

What are the laws governing the protection of endangered, rare and threatened species found in the coastal areas and municipal waters?

Some aquatic plants and animals that are in danger of extinction because they are naturally rare or over-harvested are protected under existing fishery laws, rules and

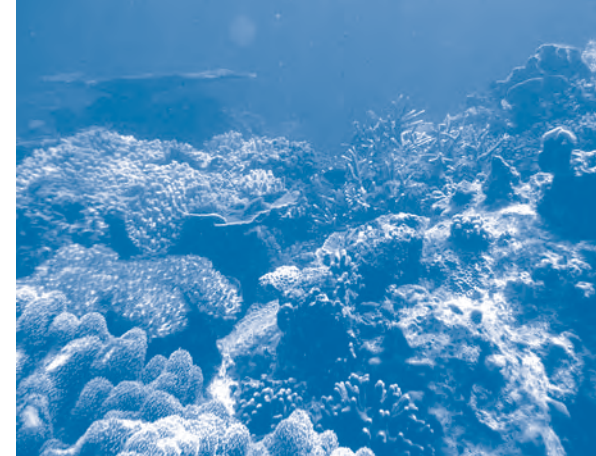


Photo by USAID/Cleto Nañola



regulations, and the Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES) implemented by the Protected Areas and Wildlife Bureau (PAWB) of the DENR and the Bureau of Fisheries and Aquatic Resources (BFAR) of the Department of Agriculture (DA).

Other laws on rare and threatened species are listed below.

- **Fisheries Code (RA 8550):** Sections 11 and 97 ban the fishing and/or taking of rare, threatened and/or endangered species, including their eggs/offspring as identified by existing laws in concurrence with concerned government agencies. Fisheries Administrative Order (FAO) 208 series of 2001 provides the implementing rules and regulations on this matter. (A list of rare, threatened and endangered fishery/ aquatic species is found in **annex I**.)
- **The Wildlife Act (RA 9147):** This law provides the regulations on the collection, transport and trade of wildlife resources including those found in the coastal and marine areas and penalties for violations of its provisions. (**Annex 8** contains the violations, fees and penalties for unlawful activities related to wildlife resources.) Rule 4.8 of the implementing rules and regulations (IRR) of this law provides that wildlife species found in coastal areas shall be managed by the DA, DENR, or for the province of Palawan, the Palawan Council for Sustainable Development (PCSD) in coordination with local government units, using an integrated and coordinated approach. Further, prior informed consent (PIC) from concerned indigenous people or prior clearance from the concerned LGU and in the case of protected areas, from the PAMB, and other relevant agencies, bodies, or institutions that exercise authority over the collection area, shall be obtained before wildlife collection is allowed (Rule 7.4).
- **The NIPAS Act (RA 7586):** The NIPAS covers outstandingly remarkable areas and biologically important public lands that are habitats to rare and endangered species of plants and animals, biogeographic zones, and related ecosystems, whether

terrestrial, wetlands, or marine. Endangered, rare, and threatened species are also found in protected areas that are part of NIPAS. Under Section 5 of this Act, protected and managed landscape/seascape, fish, bird, and wildlife sanctuaries are among the initial components of the NIPAS.

What can the LGUs do to promote the protection of wildlife in coastal areas?

Some LGUs are blessed with the presence of plants and animals that are uniquely found or endemic in their areas of jurisdiction. To protect wildlife, LGUs are mandated to implement and enforce the provisions of the Fisheries Code and the Wildlife Act. According to Section 35 of the Wildlife Act, “local government units shall initiate conservation measures for endemic species in their areas. For this purpose, they may adopt flagship species...which shall serve as emblems of conservation for the local government concerned.”

LGUs may also coordinate with the DENR in establishing and protecting critical habitats in their localities. Section 25 of the Wildlife Act provides that “all designated critical habitats shall be protected, in coordination with the local government unit, from any form of exploitation or destruction which may be detrimental to the survival of the species dependent therein.”

C. Fishery Resources

What are the mandates of LGUs in fishery resources management?

Local government units have the primary authority in the management of fishery resources within their respective municipal waters (Section 16, RA 8550).

LGUs should enforce all fishery laws, rules and regulations as well as fishery ordinances enacted by the municipal/city council (Section 16 of RA 8550). LGUs can also pass

Protected areas are set aside as part of the National Integrated Protected Areas System (NIPAS) for their unique physical and biological significance. They are managed to enhance biological diversity and contain destructive human exploitation.

All protected areas under NIPAS are required to have a management plan with appropriate management zones. They are supervised by a Protected Area Management Board (PAMB) composed of one representative each from the local government unit and the barangays situated within the protected area.

The Philippine Fisheries Code [RA 8550] encourages the setting aside of 15% of municipal waters as marine fishery reserves. These areas, together with marine sanctuaries, are established by LGUs to improve fish productivity and preserve biodiversity.

Penalties and fines are imposed to provide a disincentive against the breaking of the law. Ordinances imposing such fines and penalties are not enacted to create a revenue source for the LGU.

local ordinances banning or regulating the collection/harvest of particular species (e.g., starfish, sea cucumber, seahorse, sea urchin, seaweeds, etc.) to prevent their depletion.

Can the LGU still pass an ordinance if the FARMC is inactive or has not been formed?

Yes. The LGU can still pass and enforce an ordinance even if the FARMC is not active or has not been formed.

Can LGUs establish fishery refuge and sanctuaries?

Yes. As part of the LGUs' mandate to conserve, develop, and protect fishery resources within their municipal waters, LGUs in consultation with the FARMCs can enact an ordinance establishing fish refuge and sanctuaries (Section 81 of RA 8550). Fishery sanctuaries have biodiversity conservation functions though they are primarily established to help sustain fisheries production.

“In municipal waters, the concerned LGU in consultation with the FARMCs may establish fishery refuge and sanctuaries: Provided further, that at least fifteen percent (15%), where applicable, of total coastal areas in each municipality shall be identified based on the best available scientific data and in consultation with the Department, and automatically designated as fish sanctuaries by the LGUs in consultation with the concerned FARMCs.” (Section 81, RA 8550)

D. Fishery Law Enforcement

What are the regulations concerning the harvest of fisheries/aquatic resources?

The use and exploitation of fishery and aquatic resources in Philippine waters shall be

reserved exclusively to Filipinos except for research, scientific, technological and educational purposes that would also benefit Filipino citizens. (Section 5, RA 8550)

Harvesting and exploitation of fishery and aquatic resources are covered by a permit system. According to the law, no person shall exploit, occupy, produce, breed, culture, capture, or gather fish, fry or fingerlings of any species, or engage in any fishery activity in Philippine waters without a license, lease, or permit. (Section 86, RA 8550)

The only exceptions to the rule requiring a permit for harvesting fishery resources are fishing for daily food sustenance and fishing for leisure that is not for commercial, occupation, or livelihood purposes. (Section 86, RA 8550)

What fines and penalties can LGUs impose for violation of their fishery one year. Municipalities, on the other hand, based on Section 447 (a) no. 1 (iii) of the LGC, can impose a fine of up to Php2,500 and six months imprisonment.

Table 2. Summary of Prohibited Acts under the Fisheries Code

<p>A. Based on fishing method employed</p> <ul style="list-style-type: none"> • Actual use of explosives, noxious or poisonous substances, and/or electricity for illegal fishing (Sec. 88) • Mere possession of explosive, noxious or poisonous substances and/or electrofishing devices for illegal fishing (Sec. 88) • Dealing in, selling or disposing of, for profit, illegally caught fisheries species (Sec. 88) • Use of fine mesh net (Sec. 88) • Use of active gear in the municipal waters and bays and other fishery management areas (Sec. 90) • Ban on muro-ami and any of its variations (Sec. 92) • Ban on gear and methods which destroy coral reefs, seagrass beds and other fishery marine life habitat (Sec. 92) • Illegal use of superlight within municipal waters (Sec. 93) 	<p>C. Based on resource exploited</p> <ul style="list-style-type: none"> • Ban on coral exploitation and exportation (Sec. 91) • Ban on gathering, selling, exporting of white sand, silica, pebbles and other substances that make up the marine habitat (Sec. 92, paragraph 3) • Conversion of mangroves (Sec. 94) • Fishing or taking of rare, threatened or endangered species (Sec. 97) • Ban on the taking or catching, selling, purchasing and possessing, transporting, and exporting of whale sharks and manta rays (FAO 193 s. of 1998 pursuant to Sections 65 and 107 of RA 8550) • Capture of sabalo and other breeders/spawners (Sec. 98) • Exportation of breeders, spawners, eggs or fry (Sec. 99) • Gathering and marketing of shell fishes (Sec. 103, paragraph c)
<p>B. Based on location of fishery activity</p> <ul style="list-style-type: none"> • Commercial fishing vessels fishing within municipal waters (Sec. 86 in relation to Sec. 18) • Commercial fishing vessels fishing in bays and fishery management areas declared as overexploited (Sec. 86, paragraph 3) • Commercial fishing activities by municipal fisherfolk within municipal waters without being listed in the registry of municipal fisherfolks (Sec. 86, paragraph 5) • Poaching in Philippine waters (Sec. 87) • Fishing in overfished areas and during closed season (Sec. 95) • Fishing in fishery reserves, refuge and sanctuaries (Sec. 96) • Use of active gear in the municipal waters and bays and other fishery management areas (Sec. 90) • Illegal use of superlight (Sec. 93) 	<p>C. Other Prohibited/Regulated Activities</p> <ul style="list-style-type: none"> • Engaging in any fishery activity within Philippine waters without any license, lease or permit (Sec. 86, paragraph 1) • Importation or exportation of fish or fishery species in violation of the Code (Sec. 100) • Violation of catch ceilings (Sec. 101) • Aquatic pollution (Sec. 102) • Failure to comply with minimum safety standards (Sec. 103, subparagraph a) • Failure to conduct yearly report on all fishponds, fish pens and fish cages (Sec. 103, subparagraph b) • Obstruction to navigation or flow and ebb or tide in any stream, river, lake or bay (Sec. 103, subparagraph d) • Construction and operation of fish corrals/traps, fish pens and fish cages (Sec. 103, paragraph e) • Obstruction to defined migration paths (Sec. 105) • Commercial fishing vessel operators employing unlicensed fisherfolk or fishworker or crew (Sec. 104) • Obstruction to Fishery Law Enforcement Officer (Sec. 106)

Source: Environmental Legal Assistance Center. 2004. Mending Nets, A handbook on the prosecution of fishery and coastal law violations



Photo by USAID/Vic Kintanar

The prohibited acts in the Fisheries Code as well as other major laws such as NIPAS Act and Wildlife Act are summarized in **annex 8**.

E. Fishery Registry and Preferential Use Rights

Who maintains the registry of municipal fisherfolk?

The registry is maintained by the municipal government to determine the priorities among fishers, monitor fishery activities and set limits on the entry to municipal waters as provided in Section 19 of RA 8550:

Section 19. Registry of Municipal Fisherfolk.— The LGU shall maintain a registry of municipal fisherfolk, who are fishing or may desire to fish in municipal waters for the purpose of determining priorities among them, of limiting entry into the municipal waters, and of monitoring fishing activities and/or other related purposes: provided, that the FARMC shall submit to the LGU the list of priorities for its consideration.

The registry shall be updated annually or as necessary, and shall be posted in barangay halls or other strategic locations where it shall be open to public inspection to validate the accuracy and completeness of the list. The LGU, in consultation with the FARMCs, shall formulate the necessary mechanisms for inclusion or exclusion procedures that shall be most beneficial to the resident municipal fisherfolk. The FARMCs may likewise recommend such mechanisms.

The LGUs shall also maintain a registry of municipal fishing vessels by type of gear and other boat particulars, with the assistance of the FARMC.

Who has preferential rights to the fishery privileges issued by municipal/city governments?

Registered fisherfolk and cooperatives shall have preferential rights to the fishery privileges issued by the municipal/city government. (Section 17, RA 8550)

In addition, Section 21 of the Fisheries Code gives priority to resident municipal fisherfolk and their organizations/cooperatives in the use of municipal and demarcated fishery areas of the municipality.

What can be done to implement the preferential right option to fishery privileges of municipal fisherfolk?

Fisherfolk can, directly or through the Fisheries and Aquatic Resources Management Council, notify the LGU that their preferential rights have been overlooked or disregarded and request that they be granted fishery privileges. If the LGU doesn't take any action, the concerned fisherfolk can file a case in court against the LGU and the concerned officials to assert their rights under RA 8550 and the Local Government Code.

If the existing municipal/city fish ordinance was passed before the enactment of the Local Government Code in 1991 and the Fisheries Code in 1998, the municipal fisherfolk or their organization/cooperative can request the LGU to amend the ordinance.

F. Fishery Licences and Permits

Who has the power to issue permits or licenses to harvest fishery/aquatic resources in the coastal areas and municipal waters?

Section 16 of RA 8550 gives LGUs the jurisdiction over municipal waters, hence, the municipal and city governments have the exclusive authority to issue permits or licenses to fish within municipal waters and issue licenses for fishing gears. Before LGUs can issue licenses and permits, they need to pass an ordinance covering the procedures for granting permits, licenses and fishery privilege.

Catching or Taking of Aquarium Fishes

RA 8550 gives LGUs the jurisdiction over municipal waters. The LGUs, through an ordinance, can regulate the catching or taking of aquarium fish mainly by restricting the issuance of permits for the purpose.





Photo by USAID/Vic Kintanar

In addition, the Local Government Code provides that “municipalities shall have exclusive authority to grant fisheries privileges in the municipal waters and impose rentals, fees or charges.” {Section 149 (a), RA 7160}

LGUs are also responsible for the issuance of licenses for the operation of fishing vessels weighing three gross tons or less (Section 149 (b), RA 7160). The registration of fishing vessels, three gross tons and below, have been devolved to municipal and city governments (EO 305, series 2004 and its IRR). The examples of fishery-related licenses and permits that LGUs can issue are found in **annex 4**.

In which areas are LGUs not authorized to grant permits for fishery/aquatic resources privileges?

LGUs are not authorized to grant permits for fishery/aquatic resources privileges “in areas where there are special agencies or offices vested with jurisdiction over municipal waters by virtue of special laws creating these agencies such as, but not limited to, the Laguna Lake Development Authority and the Palawan Council for Sustainable Development (PCSD), said offices and agencies shall continue to grant permits for proper management and implementation of the aforementioned structures.” (Section 17, RA 8550)

The DENR has the authority to grant permits for allowable uses and activities in NIPAS areas subject to prior clearance and endorsement of the PAMB.

What are the fishery privileges and licenses that can be issued by municipal and city governments in coastal areas and municipal waters?

Under the Local Government Code, the municipality/city may grant fishery privileges to erect fish corrals, oyster, mussel or other aquatic beds or *bangus* fry areas within a definite zone of the municipal waters. It may also grant privileges to gather, take, or

catch fry of bangus, prawn or of other species and fish from the municipal waters using nets, traps, or other fishing gears to marginal fishermen free of any rental, fee, or charge. {Section 149 (b) (1) and (2); see also Section 447 (2) (xi), Section 458 (2) (xi)}

The permits and clearances on mariculture and fishery management that LGUs can issue are:

- (1) License/Permit to fish in municipal waters for municipal fisherfolks;
- (2) Special license/permit to gather/maintain/trade aquarium fish or live food fish;
- (3) Boat registration for fishing boat three gross tons or less;
- (4) Commercial fishing permit for small and medium scale commercial fishing under certain conditions;
- (5) Auxiliary invoice for fish and fisheries products to be transported outside the municipality; and
- (6) Zoning clearance for fishpond development requiring Environmental Impact Assessment (EIA).

To whom can municipal/city governments issue fishery licenses in municipal waters?

Municipal and city governments can issue fishery licenses to municipal fisherfolk and their cooperatives/ organizations that are listed in the registry of municipal fisherfolk. (Section 18, RA 8550)

Does registration constitute a permit to fish?

No, registration is not equivalent to obtaining a license. The registration of municipal fisherfolk and of municipal vessels/gear is only a prerequisite to obtaining a license to fish or operate a vessel/gear within municipal waters. The license authorizes fisherfolk to operate specific types of fishing boat/gear for specific durations.

Commercial Fishing

According to Rule 18.1 of the Implementing Rules and Regulations of RA 8550, municipal or city governments that intend to allow the entry of commercial fishing boats in the area 10.1 to 15 kms. from the coastline are required to:

- a) *Establish the boundaries of the allowable areas for commercial fishing, with possible assistance from the Department of Agriculture and/or National Mapping and Resource Information Authority (NAMRIA).*
- b) *Conduct a public hearing in consultation with FARMCs to present the following:*
 - *A map showing the area of municipal waters where small and medium commercial fishing vessels may be allowed to operate;*
 - *The type of fishing vessel and gear that may be allowed in such waters;*
 - *The draft municipal fisheries ordinance permitting or allowing such commercial fishing operations.*
- c) *Enact the appropriate municipal fishery ordinance permitting the operation of commercial fishing boats in the area 10.1 to 15 kms from the coastline.*





Photo by USAID/Vic Kintanar

Can LGUs issue a license to a commercial fisher?

Yes, LGUs can issue permits to small and medium commercial fishing vessels subject to the requirements of RA 8550 and its implementing rules and regulations (IRR). According to Section 18 of RA 8550, with appropriate ordinance, the municipal or city government through its local chief executives, may authorize or permit small and medium commercial fishing vessels to operate within the ten point one (10.1) to fifteen (15) kilometer area from the shoreline in municipal waters provided, that all the following conditions are met:

- (a) Commercial fishing is not allowed in municipal waters with depth less than seven (7) fathoms as certified by the appropriate agency;
- (b) Fishing activities should utilize methods and gears that are determined to be consistent with national polices set by the DENR;
- (c) Prior consultations with the M/CFARMC, through public hearing, have been conducted; and
- (d) The applicant vessel and the ship owner, employer, captain, and crew have been certified by the appropriate agency as not violated RA 8550, environmental laws and other related laws.

Section 18 further provides that “in no case shall the authorization or permit mentioned above be granted for fishing in bays as determined by the Department of Agriculture (DA) to be in an environmentally critical condition and during closed season as provided for in Section 9 of RA 8550.”

Can the municipality/city regulate the construction of fish pens and fish cages and other culture activities in the coastal area and municipal waters?

Yes. The municipality/city can submit appropriate ordinance/s to regulate the establishment of fishery-related structures including fish pens and cages and the conduct of mariculture activities within municipal waters through appropriate licenses and permit.

The LGUs may also participate in the regulation of aquaculture by coordinating and collaborating with BFAR regarding the implementation of the guidelines under the Code of Practice for Aquaculture (FAO 214 Series of 2001). LGUs can coordinate issues concerning site selection/evaluation; farm design and construction including Environmental Impact Statement (EIS) requirement; water usage and pondwater quality management; water discharge and sludge/effluent management; use of drugs, chemicals, potentially toxic pesticides and fertilizers; and introduction of exotic and genetically modified organisms (GMOs). (Please see **annex 9** for the Code of Practice of Aquaculture.)

How can the LGU ensure that the permittees follow the conditions of the permits?

LGUs can ensure that permittees follow the conditions of the permits by considering the following options:

- (1) Require the permittee to post a reasonable and substantial amount of performance bond. This bond can be forfeited by the LGU if the permittee fails to abide by the conditions of the permit. The amount of the bond will be used to pay for the value of damage or expenses incurred by the permittee's failure to abide by the conditions of the permit;
- (2) Collect fines or conduct forfeitures of improvements and other forms of penalties that will be commensurate with the failure to follow the conditions of the permit; and
- (3) Implement a combination of number 1 and 2 options.

These options should be specified in the municipal/city ordinance concerning the granting of permits.





Chapter 4

PROTECTION AND MANAGEMENT OF NON-LIVING RESOURCES IN COASTAL AND MARINE AREAS

Photo by USAID/Vic Kintanar

Aside from their role in the management of living resources, the LGUs have responsibilities in the conservation, development, and wise utilization of non-living resources found in the coastal and marine areas within their territorial jurisdiction. They have an important role in the sustainable utilization of quarry and mineral resources and in the prevention of land and water pollution by enforcing pertinent national laws such as the Mining Act (RA 7942), Peoples' Small Scale Mining Act (RA 7076), Ecological Solid Waste Management Act (RA 9003) and the Clean Water Act (RA 9275). The LGU should actively coordinate with proper authorities to influence decisions and actions over the management of water, mineral, land and energy resources.

A. Quarry Resources

What are quarry resources?

“Quarry resources” refer to any common rock or other mineral substances that do not contain metals or metallic constituents and/or other valuable minerals. Some examples of quarry resources according to the Philippine Mining Act of 1995 (RA 7942) are: andesite, basalt, conglomerate, coral sand, diatomaceous earth, diorite, decorative stones, gabbro, granite, limestone, marble, red burning clays for potteries and bricks, rhyolite, rock phosphate, sandstone, serpentine, shale, tuff, volcanic cinders and volcanic glass.

What is quarrying?

Quarrying is the process of extracting, removing, and disposing quarry resources found on or underneath the surface of private or public land. Only a qualified person/organization with a quarry permit can be allowed to extract and utilize quarry resources on public or private lands (Section 3, RA 7942).

Quarrying is considered as an environmentally critical project, hence it cannot proceed without an Environmental Compliance Certificate (ECC). **Annex 7** gives a more detailed information on projects that need ECCs and the specific role of LGUs in their issuance.

Who issues quarry permits in the coastal area?

Under Section 138 of the Local Government Code, the provincial governor has the exclusive authority to issue permits for small scale privilege (i.e., area of application is 5 hectares or less) to extract sand, gravel, and other quarry resources from public lands or from beds of seas, lakes, rivers, streams, creeks and other public waters within the LGU's territorial jurisdiction.

The provincial governor can also issue permits for commercial sand and gravel extraction as long as the extracted sand and gravel are used in their natural state, will not undergo processing; will be extracted from an area of not more than 5 hectares; and in quantities specified in the permit (Section 46, RA 7942).

The other types of permits that the provincial governor can issue by virtue of RA 7942 are the following: Exclusive Sand and Gravel Permit (Section 48), Government Gratuitous Permit (Section 49), and Private Gratuitous Permit (Section 50).



However, if the area being applied for a permit is more than 5 hectares and will necessitate the use of mechanical processing, an Industrial Sand and Gravel Permit is issued by the Mines and Geosciences Bureau of the DENR (Section 47, RA 7942).

What are the limitations on the issuance of permits for sand and gravel extraction?

Sand and gravel extraction are not allowed in offshore areas within the distance of 500 meters from the coast and 200 meters from the mean low tide level along the beach (Section 79, DAO 96-40). However, the issuance of permits for sand and gravel extraction is subject to the limitations of the Mining Act and its Implementing Rules and Regulations.

Section 79. General terms and conditions of a quarry/commercial or industrial sand and gravel/ government gratuitous/guano/gemstone gathering permit.

The following terms and conditions shall be incorporated in the quarry/commercial or industrial sand and gravel/guano/gemstone gathering permit:

No extraction, removal and/or disposition of one (1) kilometer from the boundaries of reservoirs established for public water supply, archaeological and historical sites or of any public or private works or structures, unless the prior clearance of the concerned Government agency(ies) or owner is obtained. No extraction, removal and/or disposition of materials shall likewise be allowed in offshore areas within five hundred (500) meters distance from the coast and two hundred (200) meters from the mean low tide level along the beach. (DAO 96-40)

What should the LGU do if there is sand and gravel extraction in the coastal area?

The LGU by itself or with the assistance of the Provincial Mining Regulatory Board can inspect the extraction operation to determine whether the quarry operation is done with the following considerations:

- (1) The extraction operation has corresponding permit from the Provincial Mining Regulatory Board or the Mines and Geosciences Bureau; and
- (2) The operation is within the area covered by the permit and outside the prohibited zones or areas closed to mining operations provided in DAO 96-40.

Significant areas within the coastal zone that are closed to mining operations include mangrove forests, bird sanctuaries, game refuge, marine parks, tourist zones and other areas covered by NIPAS.

What should the LGUs do if the sand and gravel extraction in the coastal area is not covered by a permit?

The extraction of sand, gravel or other quarry materials is illegal if done without a corresponding permit. The LGU can arrest the persons conducting the extraction, seize the quarry materials, and turn them over to the nearest Community Environment and Natural Resources Office (CENRO) of the DENR. The LGU should also file the corresponding criminal complaint against the operator.

The LGU can also report and coordinate with the CENRO and the Mines and Geosciences Bureau (MGB) for further investigation and/or filing of the corresponding criminal complaint against the operator.



Photo by USAID/Vic Kintanar

The Fisheries Code prohibits the gathering, selling or export of white sand, silica, pebbles, and any substances found in any marine habitat (Section 92 par. 3, RA 8550). Further, Batas Pambansa Blg. 265 prohibits the extraction of gravel, sand and other activities that would erode or diminish the natural beauty of beaches.

What cases can be filed against persons who extract sand, gravel and other quarry materials without a permit?

The LGU can file a complaint against any person who extract sand, gravel, and other quarry materials for theft of minerals. (Section 103, RA 7942)

Who will be responsible for the damage caused by illegal extraction of quarry materials and other minerals from the coastal area?

The person found guilty of illegal extraction of quarry materials and other minerals from the coastal area shall be liable to pay damages and compensation for the minerals that were removed, extracted, and disposed of, in addition to the criminal penalty imposed by the law. (Section 103, RA 7942)

What can be done if the quarry operation in a portion of the coastal area/s closed where mining is prohibited is found to be covered by a permit?

The LGU or any interested party can file an appropriate petition for the revocation of the permit with the Provincial or City Mining and Regulatory Board or the Mines and Geosciences Bureau citing the provisions of Section 79 of DAO 96-40 series of 1996. The LGU or any interested party may also file the appropriate administrative complaint against those who wrongfully and maliciously issued the permit.

B. Water Resources

What is aquatic pollution?

Aquatic pollution is “the introduction by human or machine, directly or indirectly, of substances or energy to the aquatic environment which result or is likely to result in such deleterious effects as to harm living and non-living aquatic resources, pose potential and/or real hazard to human health, and hindrance to aquatic activities such as fishing and navigation.” (Section 4, No. 4, RA 8550)

The term aquatic pollution includes “dumping or disposal of waste and other marine litters, discharge of petroleum or residual products of petroleum or carbonaceous materials/substances, and other radioactive, noxious or harmful liquid, gaseous or solid substances from any water, land or air transport or other human-made structure.” (Section 4, No. 4, RA 8550)

In addition, “land based activities such as deforestation, unsound agricultural practices such as the use of banned chemicals and excessive use of chemicals, intensive use of artificial fish feed, and wetland conversion, which cause similar hazards and deleterious effects shall also constitute aquatic pollution.” (No 4, Section 4, RA 8550)

Water pollution, on the other hand, is defined as “any alteration of the physical, chemical, or biological or radiological properties of a water body resulting in the impairment of its purity or quality.” (Section 4, RA 9275)

A pollutant “shall refer to any substance, whether solid, liquid, gaseous or radioactive, which directly or indirectly:



- i) Alters the quality of any segment of the receiving water body so as to affect or tend to affect adversely any beneficial use thereof;
- ii) Is hazardous or potentially hazardous to health;
- iii) Imparts objectionable odor, temperature change, or physical, chemical or biological change to any segment of the water body; or
- iv) Is in excess of the allowable limits or concentrations or quality standards specified, or in contravention of the condition, limitation or restriction prescribed in this Act.” (Section 4, RA 9275)

When the oil tanker M/T Solar 1, carrying 2.1 million liters of bunker fuel sank on August 11, 2006, it created the worst oil spill in the country's history. Oil siphoning operations from the sunken vessel's oil tank was completed in April 2007 with only some 9,000 liters of bunker fuel recovered.

The provinces of Guimaras, Iloilo and Negros Occidental shared the brunt of the huge ecological, economic, and social damage from the man-made disaster. In Guimaras alone, an estimated 1,143 hectares of marine reserves, more than 1,100 hectares of mangrove areas, 15 km² of coral reefs, and 50 hectares of seaweed farms were damaged. More than 245 kilometers of coastline were matted with thick, sludgy oil. The livelihood of around 26,000 residents was impaired. More than 700 residents reported ill health effects, with one fatality. While Guimaras has just been taken off the list of the 20 poorest provinces in the country, it may land in the list again because of the economic setback caused by the disaster, as communities dependent on fishing and tourism were severely affected.

The disaster was also a drain on national coffers as the national government had to allocate about Php867 million in supplemental government budget to finance the long term rehabilitation of the affected areas in the three provinces. The preliminary estimate of REECS placed the value of lost environmental services at Php8.3 billion (US\$ 16.6 million), tourism revenue loss at more than Php650 million, and Php3.4 million lost as a consequence of respiratory illnesses. In the Negros Occidental municipalities of Pulpandan and Villadolid, more than 7,000 families were affected and losses to the shrimps and anchovy industries were placed at Php100 million. In Iloilo, around 12,000 residents filed for damage compensation.

The environmental disaster clearly shows the interrelatedness of the environment, the economy, and people's well-being. It is also a stern reminder to policy makers that they need to reconsider the country's navigation policies and to strengthen its marine environmental emergency response system. This assumes greater significance because Philippine waters are part of the so-called coral triangle,¹ the area of highest marine biodiversity in the world.

What can LGUs do to prevent pollution in the coastal and marine areas under their territorial jurisdiction?

The LGUs have an important role in the prevention of pollution and implementation of laws against pollution in their area.

The Sangguniang Panlalawigan (Section 468 (1)(vi), RA 7160) Sangguniang Panglunsod (Section 458 (1)(vi) RA 7160) and Sangguniang Bayan (Section 447 (1)(vi) RA 7160) are mandated to protect the environment and to impose appropriate penalties for acts that endanger the environment and other activities that result to pollution.

Likewise, the LGUs “share the responsibility in the management and improvement of water quality within their territorial jurisdictions.” (Section 20, RA 9275)

Local governments are empowered to enforce laws on pollution. Sections 27 and 28 of RA 9275 enumerate the prohibited acts on water pollution and their penalties. LGUs may also use its power to issue ordinances if any other acts detrimental to water quality need to be prohibited (Rule 27.2, DAO No. 2005-10). They may likewise use their power under the Local Government Code to ensure compliance.

Under Section 389 (i) of the LGC, the barangay captain is also tasked to enforce laws and regulations to stop pollution and protect the environment.

What can the LGU do if a regulated wastewater is discharged in the coastal and marine area?

The LGU should ensure that the firm or individual in question has a discharge permit from the DENR. Section 14 of the Clean Water Act (RA 9275) requires owners or operators of facilities that discharge effluents to secure a permit to discharge effluents. If there is no permit or a condition of the permit is violated, the LGU can report the matter to the DENR.



Shipwrecks, sunken vessels and the treasures that they may contain are not part of the natural, non-living resources found in our coastal and marine areas. However, since the activities to find them can pose significant impact on the environment such activities are being regulated by the government.

The DENR is responsible for the issuance of permits for shipwreck/sunken vessel recovery, treasure hunting and disposition of recovered treasures and valuable cargoes, including hoarded hidden treasures. DENR Administrative Order (DAO) 2002-04 and 2004-33 mandate that an area clearance and a consent of the concerned government agency must be submitted before a permit can be issued to any activity which may affect public lands, government buildings, dams, watersheds and other areas; or sites reserved or used for purposes affecting vital national interest, military or naval camps, bases and reservations, shrines and other hallowed places, or within protected seascapes/areas or marine parks.

An area clearance and a consent from the LGU must be obtained by the applicant if the treasure hunting area is owned by the LGU or if the shipwreck/sunken vessel recovery area is within the municipal waters of the LGU.

What are the powers and functions of LGUs in the maintenance of water quality in coastal and marine areas?

The LGU through its Environment and Natural Resources Officer (ENRO) or in the absence of an ENRO, any DENR designated officer has the following powers and functions (Section 20, RA 9275):

- (a) Monitoring of water quality;
- (b) Emergency response;
- (c) Compliance with the framework of the Water Quality Management and Action Plan;
- (d) Active participation in efforts concerning water quality protection and rehabilitation; and
- (e) Coordination with other government agencies and civil society and concerned sectors in the implementation of measures to prevent and control water pollution.

What can LGUs do if vessels discharge oil, diesel and other fuel in coastal zones?

LGUs may use their legal authority under the Clean Water Act, Local Government Code, and Fisheries Code to enforce compliance with anti-aquatic pollution laws.

The LGU can also demand the conduct of emergency clean-up operations pursuant to Section 16 of the Clean Water Act which states:

Notwithstanding the provisions of Sections 15 and 26 hereof, any person who causes pollution in or pollutes water bodies in excess of the applicable and prevailing standards shall be responsible to contain, remove and clean-up any pollution incident at his own expense to the extent that the same water bodies have been rendered unfit for utilization and beneficial use.

If an emergency clean-up operation is necessary and the polluter fails to immediately begin the operations, the DENR, in coordination with other government agencies concerned, needs to conduct the containment, removal and clean-up operations and reimburse the expenses incurred to the persons who caused the pollution (Section 16, RA 9275).

Reimbursements of the cost incurred shall be made to the Water Quality Management Fund or to other funds where the disbursements were sourced.

Can LGUs designate navigational passage ways to regulate the passage of marine vessels that can pose harm to coastal and marine resources?

Yes, LGUs can designate navigational passage ways within municipal waters but only for small vessels.

The Marine Industry Authority (MARINA) and the Philippine Ports Authority (PPA) designate sea lanes, ports and berthing areas for large marine vessels. These agencies are governed by agreements and rules of the International Maritime Organization (IMO).

The LGU should coordinate with these national agencies for appropriate action in areas where passage of large vessels poses serious danger to the marine environment.

What can the LGU do about solid waste disposal in the coastal area?

The LGU is responsible for the implementation and enforcement of the provisions of the Solid Waste Management Act (Republic Act No. 9003). Under this Act, the LGUs need to form local solid waste management boards which will prepare their 10-year solid waste management plan.



The LGU can also enact ordinances on solid waste management consistent with RA 9003 to address sanitation and solid waste management in its municipality including the coastal area and to support the implementation of its 10-year solid waste management plan.

RA 9003 also provides for the mandatory segregation of waste (Section 21) and the establishment of a materials recovery facility (MRF) in every barangay or cluster of barangays (Section 32). Segregation and collection of waste shall be done in the barangay level especially for biodegradable, compostable and reusable waste. The collection of non-recyclable materials and special waste shall be the responsibility of the city and municipality.

What can the LGUs do if laws on sanitation and solid waste disposal are violated?

Sections 48 and 49 of the Solid Waste Management Act enumerate the prohibited acts and the corresponding penalties for violations on sanitation and solid waste disposal. The LGUs can enforce these provisions and choose to impose fines and penalties stated in their respective ordinances against the violator.

C. Energy Resources

What are the benefits that can accrue to LGUs and communities in relation to energy projects within the coastal and marine areas in their localities?

LGUs and communities can benefit from the proceeds from the utilization of energy resources found within their localities (Sections 289 to 294, RA 7160 and Section 5 (i) of RA 7638). Under Section 66 of the Electric Power Industry Reform Act of 2001 (RA

9136), the obligations of government agencies or government-owned or controlled corporation shall also apply to privately owned corporations or entities utilizing the national wealth of the locality.

Under Section 294 of the Local Government Code, the proceeds from the share of LGUs in the national wealth shall be appropriated by their respective Sanggunians to finance local development and livelihood projects. At least 80 percent of the proceeds from the development and utilization of hydrothermal, geothermal and other sources of energy shall be used solely to lower the cost of electricity in the LGU where the source of energy is located. The reduction in the cost of electricity in these communities shall follow the procedures prescribed in DILG-DOE circulars no. 95-01 and 98-01.

The benefit or royalty payment to LGU is equivalent to one centavo per kilowatt hour of the electricity sales from generation facilities and/or energy resource development projects located in all host barangays, municipalities, cities, provinces and regions.

For generation facility and/or energy resource located in non-highly urbanized city and in highly urbanized cities, the one centavo per kilowatt hour (kWh) proceed shall be used as follows:

If the energy resource is found in two or more provinces, in two or more municipalities/ cities, or two or more barangays, the following formula shall be used in the appropriation of respective shares: population (70%) and land area (30%).

The LGUs can use the royalty payments to fund reforestation and watershed management projects such as mangrove conservation. They can also provide livelihood projects such as aquaculture and ice-plant establishments or fund-development projects such as construction of fishport, seawalls and flood control measures.



Table 3. Utilization of proceeds from energy resources/generation facilities

	Non-Highly Urbanized	Highly Urbanized
Electrification Fund	50% (P0.005/kWh)	75% (P0.0075/kWh)
Development & Livelihood Fund	25% (P0.0025/kWh)	12.5% (P0.00125/kWh)
Reforestation, Watershed Management, Health and/or Environment Enhancement Fund	25% (P0.0025/kWh)	12.5% (P0.00125/kWh)

Chapter 5

REGULATING COASTAL LAND DEVELOPMENT ACTIVITIES



Photo by USAID/Bobby Timonera

Coastal land areas are centers of settlements and industrial development activities such as construction, rehabilitation, improvement, expansion, modification for settlements, commercial alteration and related works. In several major urban coastal cities, marine transport operations may pose considerable threats to public safety and the coastal environment. The littoral and riparian areas are also affected by coastal land development activities, their ownership and regulation are common issues that confront the LGUs.

A. Land Development in the Coastal Area

What are the powers of local governments over development activities in the coastal land area?

Under the provisions of the Local Government Code, the Sangguniang Bayan and the Sangguniang Panglunsod are given the powers to: (1) reclassify agricultural land within the jurisdiction of the municipality/city {Section 447 (1) (viii), Section 20}; (2) enact integrated zoning ordinances in consonance with the approved Comprehensive Land Use Plan (CLUP) {Section 447 (1) (ix)}; and (3) approve subdivision plan for residential, commercial, industrial or other development purposes {Section 477 (1) (x)}. The power under item 3 was strengthened and made operational by the issuance of Executive Order 71 on March 23, 1993 which devolved certain powers and functions of the Housing and Land Use Regulatory Board (HLURB) to cities and municipalities.

Section 20. *Reclassification of Lands.* — (a) 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.

(c) The local government units shall, 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. (RA 7160)

The following powers were devolved to cities and municipalities: (Section 1, EO 71)

- Approval of preliminary and final subdivision plans of all subdivisions, residential, commercial, industrial and other purposes;
- Approval of preliminary and final subdivision schemes and development plans of all economic and socialized housing projects;
- Monitoring of nature and land developments that it has approved and the imposition of measures to ensure compliance with the provisions of the permit;
- Evaluation and resolution of any opposition against the issuance of development permit;
- Assessment and collection of fees incidental to the exercise of the above mentioned powers.

The Sangguniang Bayan and Sangguniang Panglunsod have the power under Section 447(5)(iii) and Section 458 (5)(iii) of the Local Government Code, to authorize the establishment, maintenance, and operation of ferries, wharves, and other structures and marine and seashore activities intended to accelerate productivity.

Section 3(a) of EO 71 devolves the authority of the Housing and Land Use Regulatory Board (HLURB) to issue locational clearances for locally significant projects to cities and municipalities with duly reviewed and approved comprehensive land use plans.

What are the legal and practical implications of the devolved powers of cities and municipalities stated in RA 7160 and EO 71?

Municipal and city governments have control and supervision to direct the construction and development activities in the entire municipality/city including the coastal area. The municipal and city governments have the authority to approve or disapprove all development projects and constructions that violate existing laws or those which may affect public safety or welfare.

What can the LGUs do to regulate development activities in the coastal land area?

The LGUs should adopt a comprehensive land use plan and enact zoning ordinances.

Executive Order No. 72 of 1993 provides for the delineation of the power and responsibilities of the LGUs and the HLURB in the preparation and implementation of CLUPs. Section 2 of EO 72 devolved the powers of the HLURB to review and approve the implementation of the CLUPs of component cities and municipalities to the Sangguniang Panlalawigan {Section 468 (a-2-vii), RA 7160}. In addition, Section 3 of EO 72, devolved the authority of the HLURB to issue location clearances for locally significant projects to cities and municipalities with CLUP. Such cities and municipalities are likewise given the power to institute actions in the enforcement of the CLUP.





Photo by USAID/Vic Kintanar

Aside from directly regulating development activities and the use of coastal land areas through CLUP, zoning, licensing, and permitting, LGUs can also shape the decisions of national agencies which have control and jurisdiction over the use of coastal land areas, enforce existing laws and regulations, and enact appropriate ordinances as mentioned in chapter 2.

As the frontliner for Integrated Coastal Management (ICM) in their areas, LGUs also have a critical role in the implementation of best practices for ICM on integrated coastal management pursuant to EO 533. They can devise local programs and actions plans that support long-term vision and strategies for sustainable and integrated development of the coastal area. They can likewise formulate a fixed term program of actions to address priority issues and concerns that threaten the sustainable development of these areas.

What are the different types of coastal land clearances or permits issued by different national agencies of the government?

The major clearances and permits that the different national government agencies issue and the role of the LGUs in their issuance are summarized in **annex 4**. Other clearances and permits have also been discussed under the pertinent sections of this sourcebook.

Can the LGUs issue tenurial instruments over foreshore areas?

No. The LGUs cannot issue any tenurial instrument over foreshore areas. The issuance of tenurial instruments over foreshore areas is within the jurisdiction of the DENR, particularly the secretary or his duly authorized officer (regional executive director) who issues Foreshore Lease Agreement (FLA), Special Forest Land Use Agreement for Tourism Purposes (FLAgT) and Special Forest Land Use Agreement (FLAg) for coastal areas classified as timberland. In the case of foreshore areas declared and released by

the DENR for fishpond purposes, the DA-BFAR has the authority to issue Fishpond Lease Agreements.

The LGUs, however, have the power and authority to influence, if not regulate, foreshore management and development. According to the Joint Memorandum Circulars 98-01 (*Manual of Procedures for DENR-DILG-LGU Partnership on Devolved and other Forest Management Functions*, 1998) and 2003-01 (*Strengthening and Institutionalizing the DENR-DILG-LGU Partnership on Devolved and Other Forest Management Functions*, 2003), signed by DENR and the DILG, the LGUs shall be consulted before any tenure instrument involving forest lands (mangrove areas included) is issued by the DENR.

A summary of various tenurial instruments on foreshore land and the role of LGUs in their issuance are provided in **annex 10**.

Can the LGU issue tax declarations over foreshore areas?

No, the LGUs cannot issue tax declarations over foreshore areas. According to Section 85 of the Revised Forestry Code of the Philippines (PD 705):

Any public officer or employee who shall issue a tax declaration on real property without a certification from the Director of Forestry Development (now the Forest Management Bureau) and the Director of Lands (now the Lands Management Bureau) or their duly designated representatives that the area declared for taxation is alienable and disposable shall be penalized by imprisonment of not less than two (2) nor more than four (4) years and perpetual disqualification from holding an elective or appointive office. The only instance where the certification is not required is when the property is titled or has been occupied and possessed by members of the indigenous cultural communities prior to July 4, 1955.

Under this provision, tax declarations may only be issued on improvements made on the area if the foreshore area is covered by a valid tenurial instrument.

Security of tenure encourages good stewardship. It is also critical to the sustainability of coastal and marine resources. The proper allocation of rights and privileges through a system of permitting, licensing and tenure issuance is a key management tool for good CRM. This facilitates the regulation and monitoring of development and other activities that impact on the coastal and marine environment. LGUs play a key role in the proper issuance of permits and tenure instruments by other government agencies, requiring them to conduct proper consultation and joint review.

The law defines nuisance as “any act, omission, commission, establishment, business, condition of property, or anything which: (1) injures or endangers the health and safety of others; (2) annoys and offends the senses xxx; (3) obstructs or interferes with the free passage of any public highway, or street, or any body of water (Article 694 of the Civil Code).

Public nuisance affects a community or neighborhood or any considerable number of persons, although the extent of the annoyance, danger or damage upon individuals may be unequal.” (Article 695 of the Civil Code)

The LGU may file an appropriate action against the owner of any structure considered as public nuisance built on the coastal area that cause obstruction or endanger the safety of the people.

What can LGUs do on structures built/found in the coastal area that cause obstruction or endanger the safety of the people?

The LGU can file a case in court against the owners of the structures for violation of the provisions of the Water Code (PD 1067).

The Water Code prohibits the building of structures in the so-called salvage zone.

The banks of rivers and streams and the shores of the seas throughout their entire length and within a zone of three (3) meters in urban areas, twenty (20) meters in agricultural areas and forty (40) meters in forest areas along their margins are subject to the easement of public use. No person is allowed to stay in the zone longer than what is necessary for recreation, navigation, floatage, fishing, or salvage or to build structures of any kind. (Article 51, PD 1067)

Structures found in the coastal area (either private, such as walls or fences constructed by owners of adjacent lands, or public, such as wharves, seawall, causeways) may impede public access and may pose danger to public safety. Although everyone has the right to have access to the shore in many areas, such access is often denied to the public because of permanent structures.

Unauthorized obstruction of a river or waterway, or occupancy of a river bank or seashore without permission are also penalized with a fine of Php3,000 but not more than Php6,000 or imprisonment of three years but not more than six years or both fine and imprisonment. (Article 91, PD 1067)

The LGU may also invoke the provisions of the Civil Code on nuisance (Title VIII, Book II, RA 386) and file an action for abatement of nuisance. If the structure is found dangerous and ruinous, the local government may also cite the provisions of the

National Building Code of the Philippines (PD 1096). The texts of these provisions are as follows:

Section 214, *Dangerous and Ruinous Buildings or Structures.* — Dangerous buildings are those which are herein declared as such or are structurally unsafe or not provided with safe egress, or which constitute fire hazard, or are otherwise dangerous to human life, or which in relation to existing use, constitute hazard to safety or health or public welfare because of inadequate maintenance, dilapidation, obsolescence, or abandonment; or which contribute to the pollution of the site or the community to an intolerable degree.

Section 215. *Abatement of Dangerous Buildings.* — When any building is found or declared to be dangerous or ruinous, the building official shall order its repair, vacation, or demolition depending upon the degree of danger to life, health and safety. xxx

The LGU may also look for any violation of the Environmental Compliance Certificate if the project is covered by the Environmental Impact Assessment (EIA) System or see if there is a locational clearance or a violation thereof.

What can LGUs do to abate public nuisance in the coastal area?

The district or municipal health officer should ensure that one or all the following remedies against public nuisance is undertaken in the locality (Article 699 and Article 700 of the Civil Code of the Philippines, RA 386):

(1) Prosecution under the revised penal code or any other local ordinance;

Prosecution under the revised penal code or other local ordinance involves a criminal action filed in court where, in addition to the removal of the nuisance, the penalty of fine, imprisonment, or both, depending on the penalty provided by the law or ordinance, is imposed on the violator if found guilty.

The presence of informal settlers in the foreshore area is a pervasive problem. Shanties that block waterways increase the danger of flooding. Settlers themselves are endangered, especially during typhoon season when their shanties are likely to be washed away. Informal settlements that cause obstruction or endanger the safety of people constitute a public nuisance.

(2) Civil action;

A civil action is a civil case filed in court for the removal of the nuisance. Although a civil case does not carry the penalties of imprisonment and/or fine, the offender can be ordered to pay the damages. Civil action against a public nuisance is initiated by the city or municipal mayor. (Article 701, RA 386)

(3) Abatement without judicial proceedings;

Abatement without judicial proceedings is the removal of the public nuisance without a case in court. (Article 699, RA 386)

Are informal settlements on the salvage zone or foreshore considered public nuisance?

Yes. Informal settlements on foreshore land are public nuisance because foreshore land is considered part of the public domain. The Supreme Court defined foreshore land as the “part of the inalienable land of the public domain and may be disposed of only by lease and not otherwise. Foreshore land remains part of the public domain and is outside the commerce of man. It is not capable of private appropriation.” (*Republic vs. Court of Appeals*, G.R. No. 126316, June 25, 2004 and other cases).

What can the LGUs do regarding structures illegally constructed in the coastal area?

The LGU’s action will depend on the reason for the illegality of the construction. If the construction was considered illegal due to the absence of the necessary permits to build the structure, the city/municipal mayor is empowered to require the owner of the structure to obtain the necessary permit and to impose the corresponding fine or penalty prescribed in the legislation requiring such permits. If the structure

violates a law or ordinance prescribing the requirements for specific structures, the city/municipal mayor is empowered to require the owner to make the necessary changes in the structure. In both instances, the city/municipal mayor can order the demolition or removal of the house, building, or structure within the period prescribed by law or ordinance. (Section 455 (b)(3)(vi) and Section 444 (b)(3)(vi), RA 7160)

If the construction constitutes a public nuisance, the LGU can avail itself of any of the remedies for abatement of public nuisance discussed above.

Can the LGU undertake reclamation activities in the foreshore area?

No. The LGU can no longer undertake reclamation activities in the foreshore area.

RA 1899 (“An Act to Authorize the Reclamation of Foreshore Lands by Chartered Cities and Municipalities”) that was enacted in 1957, provided municipalities and chartered cities the authority to carry out reclamation activities by dredging, filling, or other means, of any foreshore lands bordering them. LGUs are also responsible for establishing, providing, constructing, and maintaining proper and adequate docking and harbor facilities.

However, Presidential Decree No. 3-A (“Amending Section 7 of Presidential Decree No. 3 dated September 26, 1972, by providing for the exclusive prosecution by administration or by contract of reclamation projects”) subsequently limited the reclamation of foreshore areas to the national government or any person authorized by it under a proper contract.

Today, reclamation projects are under the Philippine Reclamation Authority (PRA). {PD No.1084 (1977)}. This means that the LGU has to coordinate with PRA for reclamation activities within its jurisdiction.



Photo by USAID/Vic Kintanar

In a dispute involving a tract of land adjacent to Manila Bay, the Supreme Court applied Article 4 of the Spanish Law of the Waters of 1866 and held that the land created by the action of the waves of the sea is public land. As part of the public domain, the disputed land is intended for public use, and “so long as the land in litigation belongs to the national domain and is reserved for public uses, it is not capable of being appropriated by any private person, except in certain specific instances, e.g., when it is no longer needed for public purposes, etc.” (Heirs of Emiliano Navarro vs. IAC, Heirs of Pascual, G.R. No. 68166, February 12, 1997)

In the Supreme Court ruling in Government vs. Cabañgis (Republic of the Philippines vs. Court of Appeals, G.R. No. 100709, November 14, 1997) the Court annulled the registration of the land that is subject of cadastral proceedings when the land subsequently became foreshore land. In another case, the Supreme Court voided the registration decree of a trial court and held that said court had no jurisdiction to award foreshore land to any private person or entity. (Republic vs. Lozada, 90 SCRA 503, 510, May 31, 1979.)

Can foreshore areas be used for socialized housing?

No. Foreshore areas cannot be used for socialized housing as this impede public access and may pose problems on safety and waste management.

Under Section 61 and Section 59 of Commonwealth Act 141, foreshore, marshy lands or lands covered by water bordering the shores, or banks of lakes and rivers can only be disposed by way of lease.

Likewise Article 51 of the Water Code establishes an easement of public use in the interest of recreation, navigation, floatage, fishing and salvage and prohibits the building of structures of any kind within the salvage zone.

However, the areas in the coastal zone that are no longer within the foreshore and are classified as alienable and disposable may be identified and set aside as areas for socialized housing.

B. Regulating Activities of Littoral Owners

Can the LGUs regulate the activities of the owners of land that adjoin the sea?

Yes. The owners of these lands are subject to the land use plans and zoning ordinances of the LGU and the different laws, rules, and regulations governing foreshore.

The owners of the land that adjoin the sea are, strictly speaking, called littoral owners. The littoral owner has preferential right to register the land in case the land is not needed for public use.

Can the LGU prevent a landowner from reclaiming foreshore that is originally part of his private property?

Yes. When the invaded property becomes foreshore land and becomes part of the public domain, the original landowner cannot be allowed to undertake activities to reclaim the area.

The phenomenon of the sea advancing and invading privately owned land which becomes part of the shore or beach is called “de facto eminent domain.” The area becomes part of the public domain and the owner dispossessed does not have any right to the natural products from the new nature nor is he entitled to any indemnity or compensation.

When the sea moves towards the estate and the tide begins to invade the estate, the invaded property becomes part of the foreshore land and consequently becomes part of the public domain.

What is the role of the LGU in the retention of areas within salvage zone, buffer zones, or other similar easement areas as environmental protection areas?

The LGU has the authority to enforce the provisions of the laws governing easement areas, salvage zones, and buffer zones.

The LGUs should take salvage or buffer zones into consideration in the preparation of comprehensive land use plans and zoning ordinances. In case there are areas falling under any of these categories which were titled in favor of any person, the LGU should take the necessary steps to cancel the title or expropriate or amend the title. (PD 705)



The laws on easement areas, salvage zones, and buffer zones include: Section 1 of the Public Land Act (RA 1273) which amended Commonwealth Act No. 141; Article 51 of the Water Code; and Section 16.7 and Section 16.8 of Presidential Decree No. 705.

Section 1, RA 1273:

That the applicant agrees that a strip of forty meters wide starting from the bank of each side of any river and stream that may be found on the land applied for, shall be demarcated and preserved as permanent timberland to be planted exclusively to trees of known economic value, and that he shall not make any clearing thereon or utilize the same for ordinary farming purposes even after patent shall have been issued to him or a contract of lease shall have been executed in his favor.

Sections 16, 16.7, 16.8, PD 705:

The following lands, even if they are below 18% slope, are needed for forest purposes, and may not be classified as alienable and disposable:

- 16.7. Twenty-meter strips of land along the edge of the normal high waterline of rivers and streams with channels of at least 5 meters wide;
- 16.8. Strips of mangrove or swamplands at least twenty meters wide, along shoreline facing oceans, lakes, and other bodies of water, and strips of land at least twenty meters wide facing lakes.

C. Regulating Activities of Riparian Owners

Aside from the issues on the use of the foreshore area, there are also various concerns on the use of land bordering inland municipal waters (e.g., rivers, streams) and the role of the LGUs in regulating its use. The rights of the riparian owner and the activities that may be undertaken on the said areas also need to be clarified.

What can the LGUs do to regulate the activities of riparian owners?

The riparian owner or the owners of the land or property adjacent to a body of water such as a river or a stream is subject to the laws and regulations such as Article 51 of the Water Code (PD 1067) on buffer/salvage zone, provisions of the Civil Code (RA 386) on nuisance and the provisions of the Building Code (PD 1096). The LGU can cite these laws and the provisions of its land use plan and zoning ordinance to regulate the activities of the riparian owner.

The owners of the land adjoining the riverbanks own the accretion that they gradually receive from the effects of the water current. This form of accretion is known as alluvium. (Article 457, RA 386)

This provision is subject to certain conditions and to the provisions of the laws mentioned above. For instance, for alluvium to form part of the registered land of the riparian owner, the gradual alluvial deposits must be due to the effects of the river's current. Deposits made by human intervention are excluded. Thus, a riparian owner cannot register accretion to his land arising from special works or man-made dikes constructed for reclamation purposes. (Tolentino, *Civil Code*, vol. 2, pp. 126-127, 1992)

If a public service construction such as railroads, or roads, is made on the river bank, the owner of the land can no longer be considered a riparian owner. It is the government or the railroad company which will own the accretion. But if there is only an easement for navigation, floatage and salvage, the riparian owner still has the right to the accretion. In easements, ownership is not lost by the owner of the servient estate. (Paras, *Civil Code Annotated*, 11th ed., vol. 2, pp. 214-215)



Is the riparian owner entitled to receive compensation for loss of land due to construction works of the government?

Yes. The riparian owner is entitled to receive compensation for the loss of land due to government constructions. The Supreme Court has held in a case that “if the riparian owner is entitled to compensation for the damage or loss of his property due to natural causes, there is all the more reason to compensate him when the change in the course of the river is effected through artificial means. The loss xxx of the land covered by the canal was the result of a deliberate act on the part of the government when it sought to improve the flow of the xxx creek. It was therefore obligated to compensate the xxx for their loss.” (*Spouses Felix Baes and Rafaela Baes vs. Court of Appeals*, G.R. No. 108065, July 6, 1993)

If the property near the river is enclosed by a high wall that protected the estate, is the owner still entitled to the alluvium?

No. The presence of a wall protects any loss of land. This makes the owner ineligible to claim for any loss that may occur as a result of any development activity by the government. (*Guizon vs. City of Manila*, 72 Phil. 437)

What can the riparian owner do to protect his right of ownership over the alluvium on his land?

The riparian owner has to register the alluvium as part of his property.

Alluvial deposits do not automatically become registered land because the lot which receives it is covered by a Torrens Title. However, the owner of the land where the alluvial deposit is made becomes the automatic owner of the alluvial deposit. The law does not require any act of possession on the owner’s part from the moment the alluvial deposit is made.

However, for the alluvial property to be entitled to the protection of imprescriptibility, it should be registered with the Land Registration Authority (LRA). An unregistered alluvial property is subject to acquisition through prescription by third persons. (*Grande et al vs. Court of Appeals*, et al. L-17652, June 30, 1962)

What happens if the riparian owner loses part of his alluvial property?

The registered owner loses the portion of the lost land even if is protected with a Torrens certificate. (*Payatas Estate Improvement Co. vs. Tuason*, 53 Phil. 65)

Registration does not protect the riparian owner against the decrease of the area of his land through gradual changes in the course of the nearby stream. (*C.N. Hodges vs. Garcia*, L-12730, August 22, 1960)

Annexes

Annex 1

List of Rare, Endangered and Threatened Coastal and Marine Species

A. Rare Species

Gastropods:

Scientific Name

Bolma girgyllus
Clypeomorus aduncus
Recluzea lutea
Separatista blainvilliana
Malluvium lissus
Strombus thersites
Varicospira crispate
Tibia martini
Conus childreni
Conus beckii
Conus guttata
Conus porteri
Conus teramachii
Conus martini
Conus saulae
Conus katsuae
Conus leucodon
Conus aurantium
Conus valentia
Phenacovolva dancei
Cypraeacassis rufa
Phalium coronadoi wyvillei

English Name

Girgyllus star shell
Bent cerith
Recluzia snail
True separatista
Deep sea cap
Thersite stromb
Network beak shell
Martini's tibia
Children's cowrie
Beck's cowrie
Great spotted cowrie
Porter's cowrie
Teramachi's cowrie
Martini's cowrie
Saul's cowrie
Katsue's cowrie
White-toothed cowrie
Golden cowrie
Prince cowrie
Dance volva
Bullmouth helmet
Wyville's bonnet

Gastropods (continued):

Scientific Name

Phalium glabratum
Morum kurzi
Morum grande
Morum watsoni

English Name

Glabratum smooth bonnet
Kurzi's morum
Giant morum
Watson's morum

Bivalves:

Scientific Name

Amusium oblitteratum
Eufistulana mumia

English Name

Smudged Moon Scallop
Club-shaped Boring Clam

Source: Fisheries Administrative Order No. 208, Series of 2001 "Conservation of rare, threatened, and endangered fishery species"

Note: Readers are referred to the Philippines RED List of Threatened Species, and CITES I and CITES II list for updates on the list of threatened species.

B. Threatened Species

Gastropods:

Scientific Name

Turbo marmoratus
Trochus niloticus
Barnea manilensis

English Name

Green snail
Smooth top shell
Angel wing shell

Local Name

Laong, Bulatok
Samong, Simong, Tuwad
Diwal

Crabs:

Birgus latro

Coconut crab

Tatus, Umang, Alimangong Lupa

C. Endangered Species

Whales and dolphins:

Stenella longirostris
Stenella attenuata
Stenella coeruleoalba
Lagenodelphis hosei
Tursiops truncatus
Grampus griseus
Peponocephala electra
Feresa attenuata
Globicephala macrorhynchus
Pseudorca crassidens
Orcinus orca
Steno bredanensis
Kogia breviceps
Kogia simus

Spinner dolphin
Pantropical spotted dolphin
Striped dolphin
Fraser's dolphin
Long-snouted bottle-nose Dolphin
Risso's dolphin
Melon-headed whale
Pygmy killer whale
Short-finned pilot whale
False killer whale
Killer whale
Rough toothed dolphin
Pygmy sperm whale
Dwarf sperm whale

Lumba-lumba
Lumba-lumba, Balakiki
Lumba-lumba
Mayahon
Lumba-lumba, Lumod
Lumba-lumba, Kabang
Lumod
Lumod
Pakatang-ambuhatan
Balyena
Balyena
Lumba-lumba
Balyena
Balyena

Whales and dolphins (continued):

Scientific Name

Mesoplodon densirostris
Ziphius cavirostris
Physeter macrocephalus
Megaptera novaeangliae
Balaenoptera edeni
Balaenoptera physalus

English Name

Blainville's beaked whale
Cuvier's beaked whale
Sperm whale
Humpback whale
Bryde's whale
Fin whale

Local Name

Balyena
Balyena
Balyena
Balyena, Bongkaras
Balyena

Clams:

Tridacna gigas
Tridacna derasa
Tridacna squamosa
Tridacna maxima
Tridacna crocea
Hippopus hippopus
Hippopus porcellanus

True giant clam
Smooth giant clam
Fluted/Scaly giant clam
Elongated giant clam
Boring/Crocus clam
Strawberry/Horse hoof clam
China/Porcelain clam

Taklobo
Taklobo
Hagdan-hagdan
Manlet; Manlot
Let-let
Kukong kabayo
Kukong kabayo

Sea snakes:

Cerberus rhynchops

Dogfaced water snake

Kalabukab



Annex 2

Major Government Agencies with Mandate and Accountabilities Over Management of Coastal and Marine Areas

Government Agency	Major Areas of Interest/Specific Responsibilities Under Their Mandates
Department of Environment and Natural Resources (DENR)*	Coastal land use; tourism; conservation of biodiversity; pollution; mangroves; NIPAS protected areas; critical habitats; hazard mitigation; policies, plans and programs formulation; enforcement ¹
Coastal and Marine Management Office (DENR-CMMO)	Coordination of programs and activities for protection and management of coastal and marine environment
Mines and Geosciences Bureau (DENR-MGB)	Mining explorations, development and regulation; marine geological surveys
Ecosystems Research and Development Bureau (DENR-ERDB)	Mangroves, other coastal and marine habitats research
National Mapping and Resource Information Authority (DENR-NAMRIA)	Mapping and surveying
Lands Management Bureau (DENR-LMB)	Foreshore management, foreshore lands and miscellaneous lease applications
Forest Management Bureau (DENR-FMB)	Mangrove protection; watershed management
Protected Areas and Wildlife Bureau (DENRPAWB)	Management of protected areas under NIPAS; establishment and management of critical habitats

¹DENR's mandate also includes control and supervision of the exploration and development of fisheries (Sec. 1, Title XIV, EO 292) and promulgation of rules, regulations and guidelines on licenses, permits and concessions involving the use of freshwater, brackish water and over-all aquatic resources (Sec. 4, Title XIV, EO 292). However, above functions- fisheries regulations, licensing, research and law enforcement enforcement are presently being exercised by DA-BFAR

Sources: DENR-UNDP-MERF, 2004; DENR-UNDP, 2006; Philippine government agencies websites

Government Agency

Major Areas of Interest/Specific Responsibilities Under Their Mandates

Department of Science and Technology (DOST)*

Philippine Council for Aquatic and Marine
Research Environment and Development
(DOST-PCMARD)

Marine science research and policy formulation

Marine scientific research technology development and policy formulation

Department of Agriculture (DA)*

Bureau of Fisheries and Aquatic Resources
(DA-BFAR)

Well-being of fishermen, development and optimum utilization of fishery resources, food security

Fisheries production; conservation and proper utilization of fishery and aquatic resources; biodiversity; pollution; fisheries research; policy formulation; regulation of commercial fisheries; trade of aquatic products; technical assistance, training and extension

Bureau of Agricultural Research (DA-BAR)

Capture fisheries and aquaculture research; technology development

National Fisheries Research and
Development Institute (DA-NFRDI)

Fisheries research; technology development and extension

Department of the Interior and Local
Government (DILG)*

Fisheries; marine transportation and communications; local governance improvement; policy formulation, planning and implementation; local government monitoring

Philippine National Police (DILG-PNP)

Local peace and order; local fisheries law enforcement

PNP Maritime Command
(DILG-PNP Maritime Command)

Police functions over territorial waters and rivers and coastal areas

Local Government Academy (DILG-LGA)

Training/capability building support to LGUs (e.g., ICM)

Department of Foreign Affairs (DFA)*

National boundary delimitation, territorial defense, management of disputed areas, international fisheries agreements

Department of Transportation and
Communication (DOTC)*

Marine transportation and communications; policy formulation; regulations; marine transport; maritime training

Philippine Coast Guard (DOTC-PCG)

Fisheries; coastal land use; pollution; hazard mitigation; regulation and marine transport; military/defense uses; search and rescue; maritime law enforcement

Maritime Industry Authority
(DOTC-MARINA)

Maritime/shipping industry regulation and development; maritime safety

Philippine Ports Authority (DOTC-PPA)

Ports development and management

Government Agency

Department of Public Works and Highways (DPWH)

Department of Justice (DOJ)*

Department of Trade and Industry (DTI)*

Department of Tourism (DOT)*

Department of Energy (DOE)*

Department of Social Works and Development (DSWD)*

Department of Health (DOH)*

Department of Education (Dep Ed)*

Department of Labor and Employment (DOLE)*

Department of National Defense (DND)*

Armed Forces of the Philippines (DND-AFP)

National Security Council (NSC)

National Disaster Coordinating Council (NDCC)

Major Areas of Interest/Specific Responsibilities Under Their Mandates

Coastal land use; public works/infrastructure, flood control

National boundary delimitation, legal disputes management; policy clarifications

Coastal land development, tourism, trade

Tourism development; conservation of biodiversity

Energy resource exploration, development and regulation

Welfare management; hazard mitigation

Public health; sanitation; hazard mitigation; water pollution

Curriculum development; skills and training

Labor and employment management

National security; national territorial defense

National security; search and rescue; territorial defense; maritime law enforcement

National security matters, territorial defense, management of disputed areas

Disaster preparedness, prevention, mitigation and response

Coordination of various social and economic policies, plans, programs, and projects

*These agencies are mandated to support the implementation of integrated coastal management program (Sec. 5, EO 533).

Annex 3

Good Local Government Unit Practices in Coastal and Marine Resources Governance

Governance Functions	Sample Best Practices			
	Functionality	Transparency	Accountability	Public Participation
Planning	Formation and mobilization of a planning technical working group (TWG)	Publication/announcement of meetings and public consultations ahead of schedule	Clear roles and accountabilities of planning bodies/TWGs	Multisectoral composition of TWG
	Regular work schedule/ timeframe set			Conduct of stakeholders' analysis
	Formulation of management plan and programs, including policies on use rights and management zones	Public posting of proposals/plans/zoning maps	Formal designation (e.g., through Executive Order or Special Order) of officials, offices and bodies	Participatory resource appraisal/planning (including vision, mission, goals and objectives setting)
	Sufficient budgetary and technical support	IEC on planning activities and results (e.g., minutes of meetings, bulletins, posters, leaflets, radio announcements, local newspaper publication)	Clear schedule of activities and performance standards/key result areas	Public forum/hearing/ consultations
	Clear and doable vision, mission, goals and objectives		Sanctions and rewards	Social preparation activities
			Community validation of resource assessment results, issues, plans and priorities	
			Inter-LGU planning/integrated coastal management planning approach	
			Establishment of conflict resolution/ management mechanism	
			Consensus-building	



Governance Functions	Sample Best Practices			
	Functionality	Transparency	Accountability	Public Participation
Implementation and monitoring	Sustainable implementation of plan, program, projects and activities	Publication/ Announcement of progress/ monitoring reports (e.g., on LGU web site, local paper, radio, etc.)	Clear roles and accountabilities of implementation bodies/ offices/ staff	Establishment of public feedback system or citizens' watch
	Strict enforcement of ordinance, laws, use rights/zones			Regular public dialogue/ consultations
	Establishment and mobilization of functional CRM office/ management bodies		Performance monitoring of officials/ offices and multisectoral bodies	Social preparation/ community organizing/ people's organization federations/ capability-building activities for citizens and stakeholders
	Regular meetings and work schedule	Public access to database	System of rewards and sanctions and checks and balances	Multisectoral monitoring
	Updating and refinement of plans, programs, and policies based on M and E results	Proactive dissemination of information to the general public	M and E, response and feedback system	Multisectoral task forces/ implementation bodies
	Regular patrolling and IEC			
	Social and biophysical targets being met	Annual State of CRM Governance Report	Complaint box	Deputization of citizens as law enforcers
	Sufficient budgetary and manpower support			Inter-LGU/inter-agency/public-private sector collaboration/ networking/ alliance
	Standard processes/procedure/working protocols/rules formalized and regularly communicated through written instructions/formal documents			
	Intra and inter-office dialogues/communication and feedback			
Working database				
Capability-building activities				
Working mechanisms for resolving internal (e.g., within office) and external conflicts (e.g., among stakeholders)				

Governance Functions	Sample Best Practices			
	Functionality	Transparency	Accountability	Public Participation
Budgeting, disbursements, financial management	Allocation of sufficient manpower and budget to priority activities	Publication/Posting/ Announcement of date of budget hearing in advance	Clear roles and accountabilities of budget officers	Public hearing Sectoral consultations
	Implementation of sustainable financing mechanisms	Publication/Posting/ Announcement of LGU proposed budget and actual expenditures	Rules on budgeting and disbursement	Multisectoral budget prioritization workshops
	Sound fiscal management	Regular posting of audit results	Monitoring of expenses against targets	Regular public feedback
	Periodic budget review	Periodic publication/posting of financial statements/audit reports	Third party audits	
Contracting, bidding, procurement (CBP)	Functioning bids and awards committee	Publication of bidding systems and procedures including selection criteria	Clear roles and accountabilities	NGO members in Bids and Awards Committee (BAC)
	Standard CBP procedures being followed	Publication of bidding needs and results of transactions/ bidding/ procurement	System of checks and balances Incentives and sanctions system enforced	Citizens' procurement watch/public oversight
		Electronic procurement		

Sample Best Practices

Governance Functions	Functionality	Transparency	Accountability	Public Participation
Licensing, permitting and issuance of tenure and allocation rights	Functional office for fishers registration/licensing, permitting and tenure issuance	Posting of information on license/permits applications	Clear roles and accountabilities of permit/license/tenure holders	Regular public feedback/consultations Multisectoral monitoring bodies
	Efficient procedure for licensing, permitting and tenure issuance/one-stop shop	Posting of information/flowchart on system and procedure for permit/license/tenure issuance	Clear roles and accountabilities of office/staff for permit, license and tenure issuance	Dialogue with permittees/licensees/tenure holder Capability-building support to small fishers/tenure holders/licensees
	Database on tenure holders/licensees/permittees in a format useful for planning and decision-making	Public disclosure of names of permittees/licenses/tenure holders	Clear system for permit/license/tenure issuance	
		Public disclosure of information on performance of permittee/licensee/tenure holder	Regular monitoring of performance of permittees/licenses/tenure holders	
			Checks and balances	
Law enforcement	Formulation and updating of ordinances consistent with national laws	Public posting of proposed ordinances	Clear roles and accountabilities of law enforcers	Public consultations/hearings/ <i>pulong-pulong</i> sa barangay
	Laws and ordinances strictly enforced and violators punished	Public hearing	M and E of status of law enforcement	Deputized law enforcers
	Logistical requirements of law enforcers being met	IEC on local ordinances enacted		Multisectoral collaboration/ Inter-LGU alliance
	Regular and sufficient budget for law enforcement	Posting of law enforcement statistics	Sanctions for erring law enforcement officers	Incentives for people participation in law enforcement
	Training for law enforcers		Reward for good performers	Telephone hotlines/text brigade/complaint boxes

Annex 4

Major Clearances and Permits Issued by National Government Agencies and the Role of LGUs in their Issuance

Issuing Agency/Entity	Type of Permit/ Clearance Certificate	Purpose	Role of LGUs
Department of Environment and Natural Resources (DENR)/ Environmental Management Bureau (EMB)	Environmental Compliance Certificate (ECC) and Certificate of Non-Coverage (DAO 2003-30; PD 1586)	<p>The ECC certifies that the proposed project or undertaking will not cause significant negative environmental impact.</p> <p>The Certificate of Non-Coverage (CNC) certifies that the project is not covered by the Philippine Environmental Impact Statement System (EIS) and it is not likely to cause any adverse environmental impact. Some of the coastal and marine projects that need an ECC are listed in Annex 7.</p>	The LGU shall participate in the processes of scoping, public hearing, formation of the Multi-partite Monitoring Team (MMT), establishment of Environmental Guarantee Fund (EGF), and the process for determining social acceptability of the project or undertaking requiring an ECC. As part of its mandate under the LGC, the LGU shall also undertake the resolution of conflicts pertaining to the EIS process and the environmental issues and concerns associated with the proposed undertaking.
DENR or Department of Agriculture (DA) or the Palawan Council for Sustainable Development (PCSD) whichever has jurisdiction in accordance with Section 4 ¹ of the Wildlife Act. The process for the issuance of permits is cited in Section 20, RA 9147- Wildlife Resources, Conservation and Protection Act.	Wildlife farm or culture permit	Permit to develop, operate and maintain a wildlife breeding farm for conservation, trade and/or scientific purposes for duration of 3 to 5 years.	<p>LGUs can require the DENR or DA whichever is applicable to consult them regarding the issuance of this permit.</p> <p>Under Rule 7.4. of the IRR of the Wildlife Act (Joint DENR-DA-PCSD Administrative Order No. 01, series of 2004), a prior clearance from the concerned local government unit shall be obtained</p>
	Wildlife collector's permit	Permit to take or collect from the wild certain species and quantities of wildlife for commercial purpose for a duration of 1 to 3 years.	<p>LGUs can require the DENR or DA whichever is applicable to consult them regarding the issuance of this permit.</p> <p>Under Rule 7.4. of the IRR of the Wildlife Act, a prior clearance from the concerned local government unit shall be obtained</p>

¹ Section 4. Jurisdiction of the Department of Environment and Natural Resources and the Department of Agriculture. The DENR shall have jurisdiction over all terrestrial plant and animal species, all turtles and tortoises and wetland species, including but not limited to crocodiles, water birds and all amphibians and dugong. The DA shall have jurisdiction over all declared aquatic critical habitats, all aquatic resources, including but not limited to all fishes, aquatic plants, invertebrates and all marine mammals, except dugong. The secretaries of the DENR and the DA shall review, and by joint administrative order, revise and regularly update the list of species under their respective jurisdiction. In the Province of Palawan, jurisdiction herein conferred is vested to the Palawan Council for Sustainable Development pursuant to Republic Act No. 7611.

Issuing Agency/ Entity	Type of Permit/ Clearance Certificate	Purpose	Role of LGUs
Gratuitous permit		Permit issued to any individual or entity engaged in non-commercial scientific or educational undertaking to collect wildlife for a period of 1 year.	LGUs can require the DENR or DA or PCSD (in the case of Palawan) whichever is applicable to consult them regarding the issuance of this permit.
Local transport permit		Permit issued authorizing an individual to bring wildlife from one place to another within the territorial jurisdiction of the Philippines for a period of 1 to 3 months.	LGUs can require the DENR or DA or PCSD (in the case of Palawan) whichever is applicable to consult them regarding the issuance of this permit.
Export/Import/Re-export permit - 1 to 6 months.		Export permit authorizes an individual to bring out wildlife from the Philippines to any other country, import permit authorizes an individual to bring in wildlife from another country, reexport permit authorizes an individual to bring out of the country a previously imported wildlife	LGUs can require the DENR or DA or PCSD (in the case of Palawan) whichever is applicable to consult them regarding the issuance of this permit.
Clearance for introduction, Reintroduction or Restocking of Endemic or Indigenous Wildlife		The introduction, reintroduction or restocking of endemic and indigenous wildlife shall be allowed only for population enhancement or recovery purposes subject to prior clearance from the Secretary or the authorized representative pursuant to Section 6 of RA 9147	LGUs can require the DENR or DA or PCSD (in the case of Palawan) whichever is applicable to consult them regarding the issuance of this permit.

Issuing Agency/Entity	Type of Permit/ Clearance Certificate	Purpose	Role of LGUs
DENR or DA or the Palawan Council for Sustainable Development (PCSD), whichever has jurisdiction as defined under the Wildlife Act	Bioprospecting Undertaking (BU)	The execution of this undertaking allows the resource users ² access to biological resources for bioprospecting purposes ³ . (DENR-DA-PCSD-NCIP Administrative Order 01 series of 2005.	<p>LGUs may help ensure that the required community assembly/consultation for the proposed BU is properly conducted. The LGU may also, as part of its own initiative, assist the community resource provider negotiate for benefits under the BU.</p> <p>The punong barangay signs the prior informed consent (PIC) after the resource user has fully disclosed the intent and scope of the bioprospecting activity before any wildlife collection is undertaken.</p> <p>Local government units share in the amounts received by the national government consistent with the provisions of the LGC. The Sangguniang Pambarangay concerned is mandated to ensure that the funds received will be solely used for biodiversity conservation or environmental protection, including alternative or supplemental livelihood opportunities for community members.</p>
National Commission on Indigenous Peoples (NCIP) (RA 8371; NCIP Administrative Order No. 3, series of 2002; DILG Memorandum Circular No. 2002-89)	Certification Precondition (CP)	Attests that the area affected by any concession, license or lease, or agreements does not overlap with any ancestral domain; issued only after a field-based investigation is conducted and after a free and prior informed and written consent of ICC/IPs (FPIC) concerned is obtained.	The LGUs can coordinate with NCIP in the issuance of the CP in as much as Sec. 4 (i) of NCIP AO 2002-3 states among the operating principles for the issuance of CP and FPIC inter-agency/ LGUs and NGO collaboration and community support.

² Resource user refers to the local or foreign individual, company, organization, institution, or entity, either public or private that will utilize biological resources in a given area in the Philippines for bioprospecting purposes.

³ Bioprospecting is defined as the research, collection and utilization of biological and genetic resources for purposes of applying the knowledge derived from solely for commercial purposes (Section 5 DENR-DA-PCSD-NCIP Administrative Order 01 series of 2005).



Issuing Agency/ Entity	Type of Permit/ Clearance Certificate	Purpose	Role of LGUs
Indigenous Peoples (RA 8371; NCIP Administrative Order No. 3, series of 2002; DILG Memorandum Circular No. 2002-89)	Free and Prior Informed Consent (FPIC)	<p>The consensus of all members of the Indigenous Cultural Communities (ICCs)/IPs which is determined in accordance with their respective customary laws and practices that is free from any external manipulation, interference and coercion and obtained after fully disclosing the intent and scope of the program/ project/ activity, in a language and process understandable to the community.</p> <p>The FPIC is needed:</p> <ul style="list-style-type: none"> a) Before any activity is carried out as defined in Section 7 (c), 32,33 (a), 35, 46a, 57, and 58 of IPRA; and b) Before any Department or governmental agency can issue, renew or grant any concession, license or lease or enter into any production sharing agreement under Sec. 59 of IPRA. The activities needing a FPIC are as follows: <ul style="list-style-type: none"> a) When relocation of IPs is considered necessary as an “exception measure” to their right to stay in their territory (Section 7c of IPRA Law); b) In the use of community intellectual rights- cultural, intellectual, religious and spiritual (Section 32 of IPRA Law); c) In the exploration or diggings on archaeological sites of ICCs/IPs (Section 33a of IPRA Law). d) In the access to biological and genetic resources and indigenous knowledge within domains or lands of ICCs/IPs; (Section 35 of IPRA Law); e) In seeking permission to utilize and develop natural resources within ancestral domains of ICCs/IPs (Section57); and, f) Temporary transfer of responsibility to other government agencies over areas found to be necessary for critical watersheds, mangroves, wildlife sanctuaries, wilderness, protected areas, forest cover, reforestation (Section 58) <p>Section 35 of NCIP Administrative Order No. 3, s. 2002, waives the right to PFIC for programs, projects, plans, activities or any development assistance or intervention that do not involve the issuance of a license, permit, agreement, authority or concession from any government agency, regulatory body or local government units, or are solicited by the ICC/ IP community themselves through their council of elders/ leaders, provided the solicitation is signed by the majority members of the community.</p>	<p>LGUs are directed under DILG MC 2002-89 to uphold and ensure the free exercise of rights of ICCs/IPs in their respective jurisdictions as provided for in the IPRA; these rights include the exercise of FPIC.</p> <p>In the case of bioprospecting undertaking, the FPIC is given upon the signing of the memorandum of agreement between the IPs and the resource user containing the conditions, requirements, benefits as well as penalties of agreeing parties as basis for the consent (DENR-DA-PCSD-NCIP Administrative Order 01 series of 2005). While the bioprospecting guidelines does not assign roles to LGUs in the process of FPIC issuance, LGUs on their own may assist the IP document the FPIC and negotiate for benefits under the BU.</p>

Issuing Agency/Entity	Type of Permit/ Clearance Certificate	Purpose	Role of LGUs
Department of Tourism (DOT)	Tourism related establishments and facilities (i.e., hotels, lodging houses, tour operators and transport, etc.) accreditation	Accreditation purposes	One of the documents required to be submitted by an applicant for accreditation is the Mayor's Permit/ Business Permit. The Local Government Code (Section 447 (4) (iv) and Section 458 (4) (iv) empowers the Sangguniang Panglungsod and the Sangguniang Bayan to regulate the establishment, operation and maintenance of hotels, motels, inns, pension houses, lodging houses, and other similar establishment, including tourist guides and transports in its jurisdiction.
DENR-MGB	Industrial Sand and Gravel Permit	This permit is required if area of operation is more than 5 hectares and will require the use of mechanical processing.	LGUs can require the DENR to coordinate with them in the issuance of this permit.

Annex 5

Possible Priority Coastal and Marine Waters Use Zones

Biodiversity Conservation Zones. These are areas where critical habitats (mangroves, coral reefs, seagrasses) and endangered species are located (e.g., fish spawning areas, turtle nesting grounds). Biodiversity Conservation Zones can include various types of marine protected areas such as fish sanctuaries, mangrove rehabilitation areas, and species conservation sites. The locations of these areas are based on ecological considerations and are considered as “set aside” areas to ensure long term sustainability of the natural resource with other resources management interventions.

Fishery Management Zones are areas where major fishing grounds are located. Subzones can be indicated for non-motorized boats and specific gears specially fixed gears (e.g., fish, corrals).

Mariculture zones are areas where mariculture activities (e.g., seaweed farms, fish cages and pens) may be located based on site suitability (e.g., water quality, hydrography, substrate). These areas should have regulations on sizes, number and distances of structures and other standards for water quality.

Coastal Settlement Zones are areas where coastal communities are situated and/or relocated. Their development requires harmonizing present coastal settlement areas with the municipality’s CLUP and land use zoning regulation.

Marine Transport and Navigation Zone includes the designated navigation route/lane of marine transportation vehicles going in and out of the municipality; and where port/fish landing facilities are located;

Industrial Zones are areas where coastal industries are located. Industrial zones should consider the CLUP as well as the various effects of the different industries found in the area.

Recreation and Tourism Zones are areas where coastal tourism facilities, establishments, and services such as beaches, hotels, etc., are located.

Some priority use zones may exclude all other marine water uses as in the case of marine/fish sanctuaries. Other zones/subzones, on the other hand, do not necessarily exclude other uses but there should be careful consideration on which uses will be allowed in relation to the priority use designation of the area. Navigation lanes, for example, should be delineated in mariculture zones. Selected fishing activities (or seasonal use) may be considered in the recreation and tourism zone. Portions of biodiversity zones may be developed for ecotourism activities. On the other hand, some areas will not be compatible such as recreation and tourism zone and marine transport and navigation zones, as well as industrial

Annex 6

Clearances and Permits Issued by Local Government Units for Coastal and Marine Areas

A. Mariculture and Fisheries-Related

- Exclusive privileges to erect fish pens, fish cages, fish corrals, fish traps, mussels/oyster beds, pearl farm in specific zones or areas;
- Exclusive privileges to gather bangus fry, lapu-lapu fry and other fries;
- License/Permit to fish in municipal waters for municipal fisherfolks;
- Special license/permit to gather/ maintain/trade aquarium fish or live food fish;
- Boat registration for fishing boat three gross tons or less;
- Commercial fishing permit for small and medium scale commercial fishing under certain conditions;
- Auxiliary invoice for fish and fisheries products to be transported outside of the municipality;
- Zoning clearance for fishpond development requiring Environmental Impact Assessments (EIA).

B. Wildlife Collection

Under Rule 7.4. of the IRR of the Wildlife Act, a prior clearance from the concerned local government unit shall be obtained before a permit for wildlife collection can be obtained.

C. Quarrying/Mining

The provincial governor has the exclusive authority to issue permit for small-scale mining if the area of application covers 5 hectares or less. The permit can be provided for extraction of sand, gravel, and other quarry resources from public lands or from beds of seas, lakes, rivers, streams, creeks, and other public waters within the LGU's territorial jurisdiction. The permit can be any of the following types: Exclusive Sand and Gravel Permit, Government Gratuitous Permit, and Private Gratuitous Permit. A permit for commercial sand and gravel extraction may also be issued provided the following conditions exist: sand and gravel are used in their natural state, and will not undergo processing; and sand and gravel will be extracted from an area of not more than 5 hectares and in quantities specified in the permit.

D. Coastal Land Development

1) **Development permit/locational clearance.**

Municipalities/cities issued this clearance attesting that the proposed subdivision, residential, commercial, industrial or other development undertakings are consistent with local land use plan. This function has been devolved to the municipality/city with comprehensive use plans reviewed and approved in accordance with Executive Order No. 72, s. 1993. (See also Executive Order No. 71. s. 1993)

- 2) **Building Permit.** Issuance of this permit ensures that the provision of the National Building Code is followed in the construction of any building or structure. Under the Local Government Code, the city or municipal engineer acts as the Local Building Official (Section 447). Aside from issuing building permits, the building official is authorized to enter any building or premises at all reasonable times to inspect and determine compliance with the Building Code requirements and with the terms and conditions of the permit. Further, he is authorized to order the stoppage of work of any building found to be in violation of the provisions of the Code and to prescribe the terms and conditions for its resumption.

Annex 7

Projects that Need an Environmental Compliance Certificate (ECC) and Specific LGU Role in ECC Issuance

Projects and undertakings categorized as environmentally critical projects (ECPs) and projects located in environmentally critical areas (ECAs) cannot proceed without an Environmental Compliance Certificate (ECC) issued by the DENR. These projects are categorized as category A and category B, respectively, under DAO 2003-30.

The ECC is issued based on the submitted environmental impact statement (EIS) or initial environmental examination (IEE). EIS is required for category A project regardless of location. An IEE is generally required for category B projects, but the proponent maybe required by the DENR to submit an EIS based on the scale and magnitude of potential impact of the project.

Category A or Environmentally Critical Projects

ECPs have significant potential to cause negative environmental impacts. Some of the projects under Category A, as provided under Proclamation No. 2146, s. 1981 and Proclamation No. 803, s. 1996 and the procedural manual of DAO 2003-30 are:

- Heavy industries such as petroleum and petrochemical industries, smelting plants, non-ferrous metal industries, and iron and steel mills;
- Resource-extractive industries such as major mining and quarrying projects, (i.e., marine or off-shore mining, on-shore extraction of oil and gas), major forestry projects such as Integrated Forest Management Agreement (IFMA), Socialized Industrial Forest Management Agreement (SIFMA), and community-based forest management (CBFM) projects, dikes for/and fishpond development;
- Infrastructure projects such as major dams, power plants, reclamation projects, and roads and bridges;
- Golf course projects either as a single component or part of a recreation or other facilities.

Category B or Projects Located in Environmentally Critical Areas

Category B projects are not environmentally critical in nature but may cause adverse environmental impacts because they are located in ECA. The parts of the coastal or marine environment that may be considered ECA are:

- Areas declared by law as national parks, watershed reserves, wildlife preserves, and sanctuaries, and all other protected areas covered by NIPAS;

- Areas set aside as aesthetic, potential tourist spots by the Department of Tourism or other appropriate authorities for tourism development;
- Areas which constitute the habitat for any endangered or threatened species of indigenous Philippine wildlife (flora and fauna);
- Areas of unique historic, archaeological, geological, or scientific interests;
- Areas frequently visited or hard-hit by natural calamities (geologic hazards, floods, typhoons, tsunamis, volcanic activity, drought etc.) as defined under DAO 2003-30;
- Areas which are traditionally occupied by cultural communities or tribes;
- Waterbodies that are tapped for domestic purposes, within the controlled or protected areas declared by the appropriate authorities or which support wildlife and fishery activities;
- Mangrove areas (per Proclamation No. 2151 and Proclamation No. 2152);
- Coral reefs.

Category C or D

The projects that do not require an Environmental Compliance Certificate (ECC) are those that belong to category C (projects intended to directly enhance environmental quality or address existing environmental problems) or category D (projects not falling under other categories or unlikely to cause adverse

environmental impacts). Category C projects are required to submit a project description as basis for the issuance of Certificate of Non-Coverage (CNC). Some of the projects within the coastal zone or municipal waters belonging to category C are: sea walls, reforestation projects endorsed by FMB or PAWB, artificial reefs, embankment, and riverbank stabilization. Category D projects are outside the EIS System and are issued CNC; however, the DENR may require additional environmental safeguards as may deem necessary. Projects implemented prior to 1982 and have not stopped operation for at least two years prior to 1982, have not expanded in terms of production capacity, modified technology/process nor changed/added facilities or structures that can cause adverse environmental impact are example of Category D projects. Barangay Micro-business Enterprises (BMBE) projects as defined by RA 9178, except when they generate toxic or hazardous materials and/or highly pollutive wastes are also Category D projects. Detailed listing of Category D projects are found in Annex A of the Procedural Manual of DAO 2003-30.

Categories C and D projects are required to submit Project Description as basis for issuance of Certificate of Non-Coverage (CNC)

The table on the next pages show the limits of some projects in the coastal zone or municipal waters under the various categories. The procedural manual of DAO 2003-30 contains the complete list for other projects.

Projects or Undertakings	Category		
	A (EIS is required)	B (EIS or IEE is required)	D
Fishery/aquaculture projects (inland-based-lakes, rivers, bays)	Greater than or equal to 25 hectares	>= 1 hectare but less than 25 hectares	Less than 1 hectare
Fishery/Aquaculture projects in water bodies (coastal area)	Greater than or equal to 100 hectares	>= 1 hectare but less than 100 hectares	Less than 1 hectare
Extraction of ores (onshore)			
- Open pit method with mechanical operations, blasting or combination thereof	Regardless of capacity or area		
- Other methods	> or = 150,000 MT per annum or mining area > = 25 hectares		
Limestone quarry and extraction of sand, stone and gravel and other non-metallic minerals	Greater than or equal to 75,000 MT per annum or quarry area is greater than or equal to 20 ha	< 75,000 MT per annum and quarry area is less than 20 hectares	
On-shore extraction of oil and gas			
- extraction of oil	> or = 4,000 barrels (or equivalent) per day extraction rate	< 4,000 barrels (or equivalent) per day extraction rate	

Role of the LGU in the Environmental Impact Statement process and in Environmental Compliance Certificate issuance

The LGU has a crucial role in the environmental impact statement (EIS) process and evaluation of the application for ECC. Below are the activities/steps where the LGU can play a crucial role as provided and discussed in the DENR Administrative Order No. 30-2003 and the *Procedural Manual*.

Social Preparation

Social preparation is required in the conduct of EIA to arrive at a timely, meaningful, and informed participation of affected communities and stakeholders. It involves the identification and profiling of stakeholders and the conduct of information, education, and communication (IEC) to inform and develop the public's awareness and understanding of the project and the EIA process and the project. This can be done in the following stages of the EIA process: before and during scoping, baseline studies or validation, validation of identification/prediction, and evaluation of impact, negotiation and dispute resolution, environmental management planning, and environmental monitoring. While the proponent or preparer is responsible in conducting social preparation, the LGU should make sure that this important step is conducted during the EIA process.

Projects or Undertakings	Category		
	A (EIS is required)	B (EIS or IEE is required)	D
- extraction of gas	> or = 250,000 cu.m./day extraction/production rate	< 250,000 cu.m./day extraction/production rate	
Energy Projects			<ul style="list-style-type: none"> - Seismic, gravity, geo-scientific and geophysical surveys; reconnaissance, exploration; feasibility studies; piloting; core-drilling/sampling; research and development activities; all other activities that do not involve significant earth moving or ecological/vegetative disturbance activities using mechanical equipment that affect the environment - All power plants with < or = 1 MW rated capacity
Renewable energy projects such as ocean, solar, wind, tidal power		IEE: >= 5 MW but < 100 MW rated capacity	< MW rated capacity
Major reclamation project	>= 50 hectares	< 50 hectares	

Scoping

Scoping is a step in the process where most of the key issues and concerns are identified, discussed and clarified and the coverage, depth and scope of the EIA agreed upon by the key actors (proponent, preparer, EMB, DENR, National Government Agencies, Environmental Impact Assessment Review Committee, LGU, stakeholders, etc.). It is part of the process of assessing social acceptability of a project, where the LGU should play an active role in making sure that all stakeholders are involved and all community concerns and issues are aired.

Public Consultation/Hearing

Public hearing is a formal process that is initiated, planned, and conducted by the DENR. It is designed to promote dialogue or communication between and among the project proponent, the DENR, and the public, for the purpose of exchanging information, views and resolution of issues and conflicts. It is at this stage that affected communities are able to directly participate in planning or decisionmaking. The LGU should make sure that all stakeholders are able to participate meaningfully by choosing the right venue, conducting social preparation, and ensuring that agreements are documented and integrated with the EIA process.

Projects or Undertakings	Category		
	A (EIS is required)	B (EIS or IEE is required)	D
Treasure Hunting			If not located in NIPAS
Resorts and other tourism/leisure projects		EIS: <= 25 hectares IEE: < 25 hectares IEE Checklist: < 5 hectares	10 rooms/units or 1,000 square meters in land area
Causeways, ports and harbors (new)		EIS if > = 15 ha (reclamation) or > = 25 ha (without reclamation) IEE if less than above limits	
Causeways, ports and harbors (expansion or improvements)		EIS if > = 5.0 ha (reclamation) or >= 10 ha (without reclamation) (for RORO projects, proponent can use the prescribed IEE checklist)	< 1.0 ha (without reclamation)
Golf Course Projects/ Complex	>= 9 hole golf course	< 9 hole golf course	
Domestic wastewater treatment facility		EIS: >= 5,000 cu.m. daily capacity IEE: < 5,000 cu.m. daily capacity	< 30 cu.m daily capacity

Conflict Resolution

Projects sometimes result in conflicts between the proponent and affected communities or stakeholders (e.g., road right of way that will cause displacement of certain families). If cases like these happen, LGUs are mandated under the Local Government Code to mediate or facilitate the process of conflict resolution. The proof of conflict resolution maybe documented through the following: a memorandum of understanding (MOU) between disputing or conflicting parties; by firming up of negotiated agreement through a memorandum of agreement (MOA) between the proponent, DENR, LGU and legitimate stakeholders; preparation of mitigating plans such as Resettlement and Compensation Plan, Social Development Program, and Community Livelihood Plan.

Social Acceptability

The DENR's determination of social acceptability is not intended to imply that all stakeholders have found the project acceptable, but rather, that the proponent underwent or complied with all processes in good faith. Social acceptability, however, is not to be considered as project acceptability. Project acceptability requires determining the appropriate balance between socio-economic development and environmental protection. In this regard, the LGU has to make sure that there is informed decisionmaking, stakeholders are empowered

to decide for themselves, there is an agreement on process of decisionmaking, and there is acceptance and understanding of issues by those that are directly affected by the project. Proof of social acceptability may include the issuance of a free and prior informed consent (FPIC) by indigenous peoples (IPs), endorsement letter from NGOs/POs, municipal/barangay resolution endorsing the project. Endorsement by the LGUs of the proposed project/s, however, is not equivalent to social acceptability. It is only one of the key indicators of social acceptability.

Project Monitoring

There are various modes for monitoring of project compliance to ECC conditions depending on the characteristics of the project or facility. All projects that are issued ECC are subject to periodic monitoring by the Environmental Management Bureau (EMB) once they start. The LGU can also monitor the project through the multisectoral monitoring team (MMT). The MMT is a community-based multi-sectoral team organized for the purpose of monitoring the proponent's compliance with ECC conditions, EMP and applicable laws, rules and regulations.

The MMT shall be composed of representatives of the proponent and stakeholder groups, including representatives from concerned LGUs, locally accredited NGOs/POs, the community, concerned EMB Regional Office, relevant government agencies, and other sectors that may be identified during negotiations. An MMT shall be formed immediately after the issuance of ECC for projects classified as category A. The DENR may also require certain category B projects to form MMT. The cost of MMT operationalization shall be shouldered by the project proponent through the establishment of a corresponding Environmental Monitoring Fund not later than the initial construction phase of the project.

Environmental Guarantee Fund

An Environmental Guarantee Fund (EGF) shall be established for all co-located or single projects that have been determined by the DENR to pose a significant public risk or that which requires rehabilitation or restoration. An EGF Committee shall be formed to manage the fund. It shall be composed of representatives from the EMB Central Office, EMB Regional Office, affected communities, concerned LGUs, and relevant government agencies identified by the EMB.

Annex 8

Violations, Fees and Penalties for Unlawful Activities in Coastal Areas

I. Related to Mangrove and Corals

(a) *Unlawful Conversion of Mangrove*

A person found violating provisions of Section 94 or unlawful conversion of mangrove, shall be punished by imprisonment of six (6) years and one (1) day to twelve (12) years and/ or a fine of eighty thousand pesos (Php80,000.00): In addition, if the area requires rehabilitation or restoration as determined by the court, the offender should also be required to restore or compensate for the restoration of the damage. (Section 94, RA 8550)

(b) *Illegal occupation or introduction of improvements in areas released for fishpond development without a lease prior*

Any person illegally occupying or introducing improvements in areas released for fishpond development without a lease, prior to the effectivity of FAO 197 series of 2000, shall be penalized through forfeiture of all the improvements introduced thereon in favor of the government. They shall vacate the area immediately. Provided, however, that if the person occupying the said area is an applicant, he shall be charged double the ordinary rental charges. Upon failure or refusal to pay the charges mentioned, the said applicant shall be liable for prosecution and upon conviction shall suffer the penalty which is a fine of from

five thousand (Php5,000.00) pesos or imprisonment from six (6) months to four (4) years or both such fine and imprisonment in the discretion of the Court. (Section 25, PD 705)

(c) *Cutting, Gathering and/or Collecting Timber, or Other Forest Products such as Mangrove Without License*

Section 68 of RA 8550. As amended by EO 277— Any person who shall cut, gather, collect, removed timber or other forest products from any forest land, or timber from alienable or disposable public land, or from private land, without any authority, or possess timber or other forest products without the legal documents as required under existing forest laws and regulations, shall be punished with the penalties imposed under Articles 309 and 310 of the Revised Penal Code.

(d) *Corals*

Law prohibits any person or corporation to gather, possess, sell or export ordinary, precious and semi-precious corals, whether raw or in processed form, except for scientific or research purposes. Violation of this provision shall be punished by imprisonment from six (6) months to two (2) years and a fine from two thousand pesos (Php2,000.00) to twenty thousand pesos (Php20,000.00), or both such fine and imprisonment, at

the discretion of the court, and forfeiture of the subject corals, including the vessel and its proper disposition. (Section 91, Republic Act 8550)

II. Related to Rare, Threatened and/ or Endangered Species

(a) Fishing and/or taking of rare, threatened and/or endangered species, including their eggs/offsprings

Section 97. Fishing or Taking of Rare, Threatened or Endangered Species. — It shall be unlawful to fish or take rare, threatened or endangered species as listed in the CITES and as determined by the Department.

Section 11 and 97 of Republic Act 8550 bans the fishing and/or taking of rare, threatened and/or endangered species, including their eggs/offsprings as identified by existing laws in concurrence with concerned government agencies. Violation of the provision of this section shall be punished by imprisonment of twelve (12) years to twenty (20) years and/or a fine of one hundred twenty thousand pesos (Php120,000.00) and forfeiture of the catch and cancellation of fishing permit.

III. Related to Wildlife Resources in General

(a) Killing and destroying wildlife species, except in the following instances:

- When it is done as part of the religious rituals of established tribal groups or indigenous cultural communities;
- When the wildlife is afflicted with an incurable communicable disease;
- When it is deemed necessary to put an end to the misery suffered by the wildlife;
- When it is done to prevent an imminent danger to the life or limb of a human being; and,
- When the wildlife is killed or destroyed after it has been used in authorized research or experiments.

Wildlife Resources	Penalty/Imprisonment	Fine
Critical species	Minimum of six (6) years and one (1) day to twelve (12) years	And/Or one hundred thousand pesos (Php100,000) to one million pesos (Php1,000,000)
Endangered species	Four (4) years and one (1) day to six (6) years	And/Or fifty thousand pesos (Php50,000) to five hundred thousand pesos (Php500,000)
Vulnerable species	Two (2) years and one (1) day to four (4) years	And/Or thirty thousand pesos (Php30,000) to three hundred thousand pesos (Php300,000)
Other threatened species	One (1) year and one (1) day to two (2) years	And/Or a fine of twenty thousand pesos (Php20,000.00) to two hundred thousand pesos (Php200,000.00),
Other wildlife species	Six (6) months and one (1) day to one (1) year	And/Or ten thousand pesos (Php10,000) to one hundred thousand pesos (Php100,000)

(b) Inflicting injury which cripples and/or impairs the reproductive system of wildlife species

Wildlife Resources	Penalty/Imprisonment	Fine
Critical species	Minimum of four (4) years and one (1) day to six (6) years	And/Or fifty thousand pesos (Php50,000) to five hundred thousand pesos (Php500,000)
Endangered species	Two (2) years and one (1) day to four (4) years	And/Or thirty thousand pesos (Php30,000) to two hundred thousand pesos (Php200,000)
Vulnerable species	Six (6) months and one (1) day to one (1) year	And/Or twenty thousand pesos (Php20,000) to two hundred thousand pesos (Php200,000)
Other threatened species	One (1) year and one (1) day to two (2) years	And/Or ten thousand pesos (Php10,000) to fifty thousand pesos (Php50,000)
Other wildlife species	One (1) month to six (6) months	And/Or five thousand pesos (Php5,000) to twenty thousand pesos (Php20,000)

(c) Effecting any of the following acts in critical habitat(s):

- dumping of waste products detrimental to wildlife;
- squatting or otherwise occupying any portion of the critical habitat;
- mineral exploration and/or extraction;
- burning;
- logging; and
- quarrying

An imprisonment of one (1) month to eight (8) years and/or a fine of five (5) thousand pesos (Php5,000.00) to 5 (five) million pesos (Php5,000,000.00) shall be imposed.

(d) Introduction, reintroduction or restocking of wildlife resources

An imprisonment of one (1) month to eight (8) years and/or a fine of five thousand pesos (Php5,000.00) to five million pesos (Php5,000,000.00) shall be imposed.

(e) Trading of wildlife

Wildlife Resources	Penalty/Imprisonment	Fine
Critical species	Two (2) years and one (1) day to four (4) years	And/Or five thousand pesos (P5,000) to three hundred thousand pesos (Php300,000)
Endangered species	One (1) year and one (1) day to two (2) years	And/Or two thousand pesos (Php2,000) to two hundred thousand pesos (Php200,000)
Vulnerable species	Six (6) months and one (1) day to one (1) year	And/Or one thousand pesos (Php1,000) to one hundred thousand pesos (Php100,000)
Other threatened species	One (1) month and one (1) day to six (6) months	And/Or five hundred pesos (Php500) to fifty thousand pesos (Php50,000)
Other wildlife species	Ten (10) days to one (1) month	And/Or two hundred pesos (Php200) to twenty thousand pesos (Php20,000)

(f) Collecting, hunting or possessing wildlife, their by-products and derivatives; and gathering or destroying of active nests, nest trees, host plants and the like

Wildlife Resources	Penalty/Imprisonment	Fine
Critical species	Two (2) years and one (1) day to four (4) years	And/Or thirty thousand pesos (Php30,000) to three hundred thousand pesos (Php300,000)
Endangered species	One (1) year and one (1) day to two (2) years	And/Or twenty thousand pesos (Php20,000) to two hundred thousand pesos (Php200,000)
Vulnerable species	Six (6) months and one (1) day to one (1) year	And/Or ten thousand pesos (Php10,000) to one hundred thousand pesos (Php100,000)
Other threatened species	One (1) month and one (1) day to six (6) months	And/Or five thousand pesos (Php5,000) to fifty thousand pesos (Php50,000)
Other wildlife species	Ten (10) days to one (1) month	And/Or one thousand pesos (Php1,000) to five thousand pesos (Php5,000)

If the acts were perpetuated through the means of inappropriate techniques and devices, the maximum penalty shall be imposed.

(g) Maltreating and/or inflicting other injuries not covered by the preceding paragraph and transporting wildlife

Wildlife Resources	Penalty/Imprisonment	Fine
Critical species	Six (6) months and one (1) day to one (1) year	And/Or thirty thousand pesos (Php30,000) to three hundred thousand pesos (Php300,000)
Endangered species	Three (3) months and one (1) day to six (6) months	And/Or twenty thousand pesos (Php20,000) to fifty thousand pesos (Php50,000)
Vulnerable species	One (1) month and one (1) day to three (3) months	And/Or five thousand pesos (Php5,000) to twenty thousand pesos (Php20,000)
Other threatened species	Ten (10) days to one (1) month	And/Or one thousand pesos (Php1,000) to five thousand pesos (Php5,000)
Other wildlife species	Five (5) days to ten (10) days	And/Or two hundred pesos (Php200.00) to one thousand pesos (Php1,000)

All wildlife, its derivatives or by-products, and all paraphernalia, tools and conveyances used in connection with violations of this Act, shall be ipso facto forfeited in favor of the government: Provided, That where the ownership of the aforesaid conveyances belong to third persons who has no participation in or knowledge of the illegal acts, the same may be released to said owner. The apprehending agency shall immediately cause the transfer of all wildlife that have been seized or recovered to the nearest Wildlife Rescue Center of the Department in the area.

If the offender is an alien, he shall be deported after service of sentence and payment of fines, without any further proceedings.

The fines herein prescribed shall be increased by at least 10 percent (10%) every three years to compensate for inflation and to maintain the deterrent function of such fines.

IV. Related to Fishery Resources (RA 8550)

Section 86. *Unauthorized Fishing or Engaging in Other Unauthorized Fisheries Activities.* — No person shall exploit, occupy, produce, breed, culture, capture or gather fish, fry or fingerlings of any fishery species or fishery products, or engage in any fishery activity in Philippine waters without a license, lease or permit.

Discovery of any person in an area where he has no permit or registration papers for a fishing vessel shall constitute a prima facie presumption that the person and/or vessel is engaged in unauthorized fishing: Provided, that fishing for daily food sustenance or for leisure which is not for commercial, occupation or livelihood purposes may be allowed.

It shall be unlawful for any commercial fishing vessel to fish in bays and in such other fishery management areas which may herein-after be declared as over exploited

Any commercial fishing boat captain or the three (3) highest officers of the boat who commit these prohibited acts upon conviction shall be punished by a fine equivalent to the value of catch or ten thousand pesos (Php10,000.00) whichever is higher; and imprisonment of six (6) months, confiscation of catch and fishing gears, and automatic revocation of license.

It shall be unlawful for any person not listed in the registry of municipal fisher folk to engage in any commercial fishing activity in municipal waters. Any municipal fisher folk who commits such violation shall be punished by confiscation of catch and a fine of five hundred pesos (Php5,000.00).

Section 87. *Poaching in Philippine Waters.* — It shall be unlawful for any foreign person, corporation or entity to fish or operate any fishing vessel in Philippine waters.

The entry of any foreign fishing vessel in Philippine waters shall constitute a prima facie evidence that the vessel is engaged in fishing in Philippine waters

Violation of the above shall be punished by a fine of one hundred thousand U.S. Dollar (US\$100,000.00), in addition to the confiscation of its catch, fishing equipment and fishing vessel: Provided, That the Department is empowered to impose an administrative fine of not less than fifty thousand U.S. Dollar (US\$50,000.00), but not more than two hundred thousand U.S. Dollar (US\$200,000.00) or its equivalent in the Philippine Currency.

Section 88. *Fishing Through Explosives, Noxious or Poisonous Substance, and/ or Electricity.* — (1) It shall be unlawful for any person to catch, take or gather or cause to be caught, taken or gathered, fish or any fishery species in Philippine waters with the use of electricity, explosives, noxious or poisonous substance such as sodium cyanide in the Philippine fishery areas, which will kill, stupefy, disable or render unconscious fish or fishery species: Provided, That the Department, subject to safeguards and conditions deemed necessary and endorsement from the concerned LGUs, may allow, for research, educational or scientific purposes only, the use of electricity, poisonous or noxious substances to catch, take or gather fish or fishery species: Provided, further, that the use of poisonous or noxious substances to eradicate predators in fishponds in accordance with accepted scientific practices and without causing adverse environmental impact in neighboring waters and grounds shall not be construed as illegal fishing.

It will likewise be unlawful for any person, corporation or entity to possess, deal in, sell or in any manner dispose of, any fish or fishery species which have been illegally caught, taken or gathered.

The discovery of dynamite, other explosives and chemical compounds which contain combustible elements, or noxious or poisonous substances, or equipment or device for electro-fishing in any fishing vessel or in the possession of any fisherfolk, operator, fishing boat official or fishworker shall constitute prima facie evidence, that the same was used for fishing in violation of this Code. The discovery in any fishing vessel of fish

caught or killed with the use of explosive, noxious or poisonous substances or by electricity shall constitute prima facie evidence that the fisherfolk, operator, boat official or fishworker is fishing with the use thereof.

(2) Mere possession of explosive, noxious or poisonous substances or electrofishing devices for illegal fishing shall be punishable by imprisonment ranging from six (6) months to two (2) years.

(3) Actual use of explosives, noxious or poisonous substances or electrofishing devices for illegal fishing shall be punishable by imprisonment ranging from five (5) years to ten (10) years without prejudice to the filing of separate criminal cases when the use of the same result to physical injury or loss of human life.

(4) Dealing in, selling, or in any manner disposing of, for profit, illegally caught/gathered fisheries species shall be punished by imprisonment ranging from six (6) months to two (2) years.

(5) In all cases enumerated above, the explosives, noxious or poisonous substances and/or electrical devices, as well as the fishing vessels, fishing equipment and catch shall be forfeited.

Section 89. *Use of Fine Mesh Net.* — It shall be unlawful to engage in fishing using nets with mesh smaller than that with which may be fixed by the Department: Provided, That the prohibition on the use of fine mesh net shall not apply to the gathering of fry, glass eels, elvers, tabios, and alamang and such

species which by their nature are small but already mature to be identified in the implementing rules and regulations by the Department.

Violation of the above shall subject the offender to a fine from Two thousand pesos (Php2,000.00) to twenty thousand pesos (Php20,000.00) or imprisonment from six (6) months to two (2) years or both such fine and imprisonment at the discretion of the court: *Provided*, That the owner/operator of the commercial fishing vessel who violates this provisions shall be subjected to the same penalties provided herein: *Provided, finally*, That the Department is hereby empowered to impose upon the offender an administrative fine and/or cancel his permit or license or both.

Section 90. *Use of Active Gear in the Municipal Waters and Bays and Other Fishery Management Areas.* – It shall be unlawful to engage in fishing in municipal waters and in all bays as well as other fishery management areas using active fishing gears as defined in this Code.

Violators of the above prohibitions shall suffer the following penalties:

- (1) The boat captain and master fisherman of the vessels who participated in the violation shall suffer the penalty of imprisonment from two (2) years to six (6) years:
- (2) The owner/operator of the vessel shall be fined from two thousand pesos (Php2,000.00) to twenty

thousand pesos (Php20,000.00) upon the discretion of the court.

Section 91. *Ban on Coral Exploitation and Exportation.* It shall be unlawful for any person or corporation to gather, possess, sell or export ordinary precious and semi-precious corals, whether raw or in processed form, except for scientific or research purposes.

Violations of this provision shall be punished by imprisonment from six (6) months to two (2) years and a fine from two thousand pesos (Php2,000.00) to twenty thousand pesos (Php20,000.00), or both such fine and imprisonment, at the discretion of the court, and forfeiture of the subject corals, including the vessel and its proper disposition.

The confiscated corals shall either be returned to the sea or donated to schools and museums for educational or scientific purposes or disposed through other means.

The operator, boat captain, master fisherman, and recruiter or organizer of fishworkers who violate this provision shall suffer a penalty of two (2) years to ten (10) years imprisonment and a fine of not less than one hundred thousand pesos (Php100,000.00) to five hundred thousand pesos (P500,000.00) or both such fine and imprisonment, at the discretion of the court. The catch and gear used shall be confiscated.

Section 93. *Illegal Use of Superlights.* – It shall be unlawful to engage in fishing with the use of superlights in municipal waters or in violation of the rules and regulations which may

be promulgated by the Department on the use of superlights outside municipal waters.

Violations of this provision shall be punished by imprisonment from six (6) months to two (2) years or a fine of five thousand pesos (Php5,000.00) per superlight, or both such fine and imprisonment at the discretion of the courts. The superlight, fishing gears and vessel shall be confiscated.

Section 95. *Fishing in Overfished Area and During Closed Season.* — It shall be unlawful to fish in overfished area and during closed season.

Violation of the provision of this section shall be punished by imprisonment of six (6) months and one (1) day to six (6) years and/or fine of six thousand pesos (Php6,000.00) and by forfeiture of the catch and cancellation of fishing permit or license.

Section 96. *Fishing in Fishery Reserves, Refuge and Sanctuaries.* — It shall be unlawful to fish in fishery areas declared by the Department as fishery reserves, refuge and sanctuaries.

Violation of the provision of the is section shall be punished by imprisonment of two (2) years to six (6) years and/or fine of two thousand pesos (P2,000.00) to twenty thousand pesos (P20,000.00) and by forfeiture of the catch and the cancellation of fishing permit or license.

Section 98. *Capture of Sabalo and Other Breeders/Spawners.* — It shall be unlawful for any person to catch, gather, capture or possess mature milkfish or “sabalo” and such other breeders or spawners of other fishery species as may be determined by the Department: Provided, that catching of sabalo and other breeders/ spawners for local breeding purposes or scientific or research purposes may be allowed subject to guidelines to be promulgated by the Department.

Violation of the provision of this section shall be punished by imprisonment of six (6) months and one (1) day to eight (8) years and/or a fine of eighty thousand pesos (P80,000.00) and forfeiture of the catch, and fishing equipment used and revocation of license.

Section 99. *Exportation of Breeders, Spawners, Eggs or Fry.*

Exportation of breeders, spawners, eggs or fry as prohibited in this Code shall be punished by imprisonment of eight (8) years, confiscation of the same or a fine equivalent to double the value of the same, and revocation of the fishing and/or export license/permit.

Section 100. *Importation or Exportation of Fish or Fishery Species.*

Any importation or exportation of fish or fisheries species in violation of this Code shall be punished by eight years of imprisonment, a fine of eighty thousand pesos (Php80,000.00) and destruction of live fishery species or forfeiture of non-

live fishery species in favor of the department for its proper disposition: Provided, that violator of this provision shall be banned from being members or stock holders of companies currently engaged in fisheries or companies to be created in the future, the guidelines for which shall be promulgated by the Department.

Section 101. *Violation of Catch Ceilings.*

It shall be unlawful for any person to fish in violation of catch ceilings as determined by the Department. Violation of the provision of this section shall be punished by imprisonment of six (6) months and one (1) day to six (6) years and/or a fine of fifty thousand pesos (Php50,000.00) and forfeiture of the catch, and fishing equipment used and revocation of license.

Section 103. *Other violations.*

- a) **Failure to Comply with Minimum Safety Standards.** The owner and captain of a commercial fishing vessel engaged in fishing who, upon demand by proper authorities, fails to exhibit or show proof of compliance with the safety standards provided in this Code, shall be immediately prevented from continuing with his fishing activity and escorted to the nearest port or landing point. The license to operate the commercial fishing vessel shall be suspended until the safety standard has been complied with.
- b) **Failure to Conduct a Yearly Report on all Fishponds, Fish Pens and Fish Cages.** The FLA of the holder who fails to render a yearly report shall be immediately canceled: Provided, that if the offender be the owner of the fishpond, fish pen or fish cage, he shall be subjected to the following penalties: (1) first offense, a fine of five hundred pesos (P500.00) per unreported hectare; (2) subsequent offenses, a fine of one thousand pesos (P1,000.00) per unreported hectare.
- c) **Gathering and Marketing of Shell Fishes.** It shall be unlawful for any person to take, sell, transfer, or have in possession for any purpose any shell fish which is sexually mature or below the minimum size or above the maximum quantities prescribed for the particular species.
- d) **Obstruction to Navigation or Flow and Ebb of Tide in any Stream, River, Lake or Bay.** It shall be unlawful for any person who causes obstruction to navigation or flow or ebb of tide.
- e) **Construction and Operation of Fish Corrals/ Traps, Fish Pens and Fish Cages.** It shall be unlawful to construct and operate fish corrals/traps, fish pens, and fish cages without a license/permit.

Subject to the provision of subparagraph (b) of this section, violation of the above enumerated prohibited acts shall subject the offender to a fine ranging from two thousand pesos (Php2,000.00) to ten thousand pesos (Php10,000.00) or imprisonment from one (1) month and one (1) day to six (6) months, or both such fine and imprisonment, upon the discretion of the Court: Provided, that the secretary is hereby empowered to impose upon the offender an administrative fine of not more than ten thousand pesos (Php10,000.00) or to cancel his permit or license, or to impose such fine and to cancel his permit or license, in the discretion of the secretary: Provided further, that the secretary, or his duly authorized representative, and law enforcement agents are hereby empowered to impound with the assistance of the Philippine Coast Guard, PNP-Maritime Command: Provided, finally, that any person who unlawfully obstructs or delays the inspection and/or movement of fish and fishery/aquatic products when such inspection and/or movement is authorized under this Code, shall be subject to a fine of not more than ten thousand pesos (Php10,000.00) or imprisonment of not more than two (2) years, or both such fine and imprisonment, upon the discretion of the Court.

Every penalty imposed for the commission of an offense shall carry with it the forfeiture of the proceeds of such offense and the instruments or tools with which it was committed.

Such proceeds and instruments or tools shall be confiscated and forfeited in favor of the Government, unless they be the

property of a third person not liable for the offense, but those articles which are not subject of lawful commerce shall be destroyed.

Section 104. *Commercial Fishing Vessel Operators Employing Unlicensed Fisherfolk or Fishworker or Crew.*

The owner/operator of a commercial fishing vessel employing unlicensed fisherfolk or fishworker shall be fined five hundred pesos (Php500.00) each for every month that the same has been employed and/or one thousand pesos (Php1,000.00) for every month for each unlicensed crew member who has been employed.

Section 105. *Obstruction of Defined Migration Paths.*

Obstruction of any defined migration paths of anadromous, catadromous and other migratory species, in areas including, but not limited to river mouths and estuaries within a distance determined by the concerned FARMCs shall be punished by imprisonment of seven (7) years to twelve (12) years or a fine from fifty thousand pesos (P50,000.00) to one hundred thousand pesos (P100,000.00.) or both imprisonment and fine at the discretion of the court, and cancellation of permit/license, if any, and dismantling of obstruction shall be at his own expense and confiscation of same.

Section 106. *Obstruction to Fishery Law Enforcement Officer.*

The boat owner, master or operator or any person acting on his behalf of any fishing vessel who evades, obstructs or hinders any fishery law enforcement officer of the Department to perform his duty, shall be fined ten thousand pesos (Php10,000.00). In addition, the registration, permit and/or license of the vessel including the license of the master fisherman shall be canceled.

V. Related to Quarrying Resources

Section 92 (RA 8550) — It is likewise unlawful for any person or corporation to gather, sell or export white sand, silica, pebbles and other substances which make up any marine habitat.

The person or corporation who violates this provision shall suffer a penalty of two (2) years to ten (10) years imprisonment and a fine of not less than one hundred thousand pesos (Php100,000.00) to five hundred thousand pesos (Php500,000.00) or both such fine and imprisonment, at the discretion of the court. The Substance taken from its marine habitat shall be confiscated.

Section 103. *Theft of Minerals.* —Any person extracting minerals and disposing the same without a mining agreement, permit, license, or steals minerals or ores or the products thereof from mines or mills or processing plants shall, upon conviction, be imprisoned from six (6) months to six (6) years

or pay a fine from ten thousand pesos (Php10,000.00) to twenty thousand pesos (Php20,000.00), or both, at the discretion of the appropriate court. In addition, he shall be liable to pay damages and compensation for the minerals removed, extracted, and disposed of. In the case of associations, partnerships, or corporations, the president and each of the directors thereof shall be responsible for the acts committed by such association, corporation, or partnership. (Republic Act 7942)

VI. Related to Water Quality

Aquatic Pollution

Violation of the provision of this section shall be punished by imprisonment of six (6) years and one (1) day to twelve (12) years and/or a fine of eighty thousand pesos (Php80,000.00). An additional fine of eight thousand pesos (Php8,000.00) per day until such violation ceases is also provided for in the law. (Section 102, RA 8550)

Section 27 (RA 9275). *Prohibited Acts* – The following acts are hereby prohibited: (a) Discharging, depositing or causing to be deposited material of any kind directly or indirectly into the water bodies or along the margins of any surface water, where the same shall be liable to be washed into such surface water, either by tide action or by storm, floods, or otherwise, which could cause water pollution or impede natural flow in the water body; (b) Discharging, injecting or allowing to seep into the soil or sub-soil any substance in any form that would pollute groundwater; (c) Operating facilities that discharge

regulated water pollutants without the valid required permits or after the permit was revoked for any violation of any condition therein; (d) Disposal of potentially infectious medical waste into sea water by vessels unless the health and safety of individuals on board the vessel is threatened by great and imminent peril; (e) Unauthorized transport or dumping into sea waters of sewage sludge or solid waste as defined under Republic Act No. 9003; (f) Transport, dumping or discharge of prohibited chemicals, substances or pollutants listed under Republic Act No. 6969; (g) Operate facilities that discharge or allow to seep, willfully or through gross negligence, prohibited chemicals, substances or pollutants listed under R.A. No. 6969, into water bodies or wherein the same shall be liable to be washed into such surface, ground, coastal, and marine water; (h) Undertaking activities or development and expansion of projects, or operating wastewater/sewerage facilities in violation of P.D. No. 1586 xxx; (i) Discharging regulated water pollutants without the valid required discharge permit pursuant to this Act or after the permit was revoked for any violation of any condition therein; (j) Noncompliance of the LGU with the Water Quality Framework and Management Area Action Plan. In such a case, sanctions shall be imposed on the local government officials concerned; xxx. See also Section 28.

VII. Related to Solid Waste Management

Section 48. Prohibited Acts.—The following acts are prohibited:

(1) Littering, throwing, dumping of waste matters in public places such as roads, sidewalks, canals, esteros or parks, and establishment, or causing or permitting the same; (2) Undertaking activities or operating, collecting or transporting equipment in violation of sanitation operation and other requirements or permits xxx; (3) The open burning of solid waste; (4) Causing or permitting the collection of non-segregated or unsorted waste; xxs (6) Open dumping, burying of biodegradable or non-biodegradable materials in flood-prone areas; xxx (10) The manufacture, distribution or use of non-environmentally acceptable packaging materials; xxx (13) Transport and dumping in bulk of collected domestic, industrial, commercial and institutional wastes in areas other than centers or facilities prescribed under this Act; xxx.” (RA 9003)

Annex 9

Code of Practice for Aquaculture*

- A. *Site selection/evaluation* (Section 2) — Potential sites for aquaculture shall be thoroughly evaluated by Bureau of Fisheries and Aquatic Resources (BFAR) in consultation with Department of Environment and Natural Resources (DENR), Local Government Units (LGUs), and National Fisheries and Aquatic Resources Management Council (NFARMC) to ensure that ecological and social conditions are sustained and protected. The following practices shall ensure that the sites selected are appropriate for aquaculture farms:
- (a) Water source in the area shall be evaluated as to its quality and quantity;
 - (b) Tidal patterns, freshwater influences and flood levels, offshore currents and existing water uses shall be determined;
 - (c) Sustainability of topography, soil and ecosystem for siting and construction of ponds shall be ascertained;
 - (d) Long-term climatological records for the last five (5) years shall be acquired to determine the occurrence of floods, droughts, storms and other calamities in the area;
 - (e) Existing flora and fauna shall be determined relative to ecologically sensitive areas such as migration routes, nesting grounds, etc.;
 - (f) Alternatives to mitigate potential negative environmental and social impacts shall be considered;
 - (g) Regulatory requirements for the site shall be documented and possible alternatives shall be considered for compliance with regulations; and
 - (h) Availability of work force in the area shall be surveyed.
- B. *Farm design and construction* (Section 3) — Proven and accepted designs and construction procedures shall be adopted to overcome problems related to flood levels, storms, erosion, seepage, water intake and discharge points and encroachment on mangroves and wetlands as well as social impacts. The following practices shall
- (a) An EIS shall be required to be submitted to the DENR for review and evaluation before initiating any development activity or construction;
 - (b) Embankments shall be so designed as to prevent erosion and reduce seepage;
 - (c) Farm shall be properly designed in such a way that the arrangement of the pond compartments, water control structures and all other facilities shall mutually harmonize with each other giving the most efficient water management and manipulation of stocks;

* Fisheries Administrative Order No. 214, series of 2001.

- (d) An ideal farm shall have wastewater treatment and settling pond areas which are necessary for conditioning intake water as well as settling wastewater before discharging to the environment;
- (e) Structural design shall consider storms and flood levels;
- (f) Required buffer zones shall be maintained as well as vegetative cover for exposed earthwork:
 - 1) For brackish water, a buffer zone of at least 100 meters from the sea to the main peripheral dike and 50 meters along the river banks (for typhoon prone areas) and 50 meters from the sea and 20 meters along the river banks (for non-typhoon prone areas), shall be left undisturbed for ecological reasons and physical protection from flooding and wave action.
 - 2) For freshwater, a distance of 20 meters (for non-typhoon prone areas) away from the embankment and 50 meters (for typhoon prone areas) shall be maintained to serve as buffer zone to minimize flood risk and related environmental hazards.
- (g) Permit for the construction of deep wells for freshwater supply shall be obtained from the National Water Resources Board;
- (h) Fish cages, floating or stationary, shall be installed and kept at least one (1) meter between units and at 20 meters apart between clusters to provide water exchange.
- (i) Fish pens shall be spaced 200 meters apart; and
- (j) Marine cage farming shall be operated in definite zones established by the LGU concerned in consultation with the Municipal or City Fisheries and Aquatic Resources Management

Councils (M/CFARMC).

- C. *Water usage* (Section 4). — A good environment within the pond system shall be influenced by the following practices on water usage as well as the pondwater quality management:
 - (a) The construction and operation of deep wells for freshwater supply shall be based on a design which prevents salt intrusion into freshwater aquifers and subsidence of ground level;
 - (b) Closed recirculating water system shall be considered in the intensive and semi-intensive farming systems;
 - (c) Water exchange shall be minimized by maintaining good water quality through moderate stocking densities and feeding rates, using high quality feeds and good feeding practices.
- D. *Water discharge and sludge/effluent management* (Section 5) — There shall be emphasized increased awareness of proper waste management in the aquaculture industry that shall enhance the protection of coastal land and water resources through the following practices:
 - (a) Effluents, sediments and other wastes shall be properly disposed of through the use of wastewater treatment and settling ponds;
 - (b) Outfall shall be so designed that no significant impact of effluents on natural waters occurs beyond the mixing zone;
 - (c) Sediment from ponds, canals or settling basins shall be put back into the area from which it was eroded, used as earthfill or disposed on some other environmentally-responsible way; and

- (d) Discharged water shall meet water quality standards (determined qualitatively and quantitatively). Qualitative standards shall include prohibition of the release of turbid and odorous water to the receiving water while quantitative standards shall include the maximum and/or minimum levels of suspended solid, measure of acidity (pH), dissolved oxygen, ammonia and other nitrogenous compounds, phosphorus, carbon dioxide and the biochemical oxygen demand (BOD).
- E. *Use of drugs, chemicals, potentially toxic pesticides and fertilizers (Section 6)* —The following shall be practiced to foster awareness on the proper use of therapeutic agents and other chemicals without endangering food safety or threaten the environment.
- (a) Drugs, chemicals, pesticides and fertilizers including lime shall be used only when clearly justified to treat specific problems;
 - (b) If chemicals are used, pondwater shall not be discharged until they have degraded/dissipated or until the compound have naturally decomposed to non-toxic form;
 - (c) Records shall be maintained regarding the use of chemicals in ponds as suggested by the Hazard Analysis and Critical Control Points (or HACCP) method;
 - (d) Banned chemicals shall not be used for any purpose;
 - (e) Drugs, antibiotics and other chemical treatments shall be in accordance with recommended practices and comply with the national and international regulations;
 - (f) Aquaculture producers shall follow the information on product labels regarding dosage, withdrawal period, proper use, storage, disposal and other uses of the chemicals to safeguard environmental and human safety;
 - (g) Therapeutants shall be stored in a cool place and in a secure manner and unused compounds shall be disposed of by methods preventing environmental contamination;
 - (h) Biodegradable indigenous material such as derris roots, tea seed and tobacco dust shall be used to eliminate unwanted species in ponds instead of non-biodegradable compounds; and
 - (i) Regulations on labeling the contents and percentage of active ingredients in all chemicals including fertilizers and liming material shall be developed.
- F. *Stock selection, stocking practices (Section 7)* — The following practices shall assure increased production of good quality and disease-free stocks promoting profitable fish farming:
- (a) Moderate and appropriate stocking density by species shall be employed;
 - (b) Indigenous species shall be cultured whenever feasible;
 - (c) Stock only healthy fry and fingerlings. Genetically improved fish species for stocking shall be sourced from government and accredited non-government hatcheries; and
 - (d) Hatchery fry and fingerlings shall be encouraged for use rather than those caught from the wild.
- G. *Introduction of exotic and GMOs (Section 8)* — The introduction of exotic and genetically modified organisms (GMOs) shall be made after a sound ecological, biological and environmental justification based on scientific studies and subject to the bio-safety standard as provided for by existing laws and

regulations.

H. *Feed, feed use and management* (Section 9) — The following practices shall be adopted to improve the efficiency of supplemental feeds and feed management in aquaculture and reduce the amount of waste entering the ponds:

- (a) Feeds shall be selected as to their high utilization rates to reduce nutrient pollution from uneaten feeds and excretory products;
- (b) Feed characteristics shall include balanced levels of amino acids and other nutrients appropriate for the age of the fish, high palatability to stimulate rapid consumption, and high stability to prevent rapid nutrient release;
- (c) Ideally, extruded feeds shall be used;
- (d) Feeds shall be stored in cool, dry areas to prevent mold and other contaminants from forming;
- (e) Medicated feeds shall be used only if and when necessary for the control of specific disease;
- (f) Feeding management in lake-based aquaculture shall be in conformity with the carrying capacity of the lake as specified in chapter B of this order;
- (g) Good feeding practices shall include frequent feeding in small quantities of feed several times through the day, using feeding trays and even distribution of feeds in the pond;
- (h) DA Administrative Order No. 16 on the “Nutrient Standard for Aquaculture Feeds” and other regulations of the Bureau of Animal Industry shall be complied with; and
- (i) Records of daily feed application rates shall be kept to assess feed conversion ratio (or FCR).

I. *Fish health management* (Section 10) – The following practices shall be complied with to provide effective management of fish health focusing on disease prevention rather than disease treatment, eventually reducing the incidence of diseases and protecting the natural fisheries.

- (a) Sustainable farming practices shall be promoted;
- (b) Appropriate quarantine procedures, handling, transport and proper acclimatization of healthy fry and fingerlings prior to stocking shall be strictly observed;
- (c) Good water quality shall be maintained by using appropriate stocking and feeding practices;
- (d) For non-infectious diseases related to pond condition, specific corrective management measures shall be carried out;
- (e) For mild infectious diseases with potential to spread within a farm, the pond shall be quarantined and remedial measures shall be applied;
- (f) For serious infectious diseases that may spread widely, the pond shall be isolated and the remaining fish shall be harvested by net and the pond shall be disinfected without discharging the water;
- (g) Treatment shall be done only when necessary;
- (h) Dead, diseased fish shall be disposed of in a sanitary manner to prevent the spread of the disease;
- (i) When disease occurs, transfer of fish, equipment and

Annex 10

Various Foreshore Tenurial Instruments

Tenure Instrument	Issuing Agency	Description	Role of LGUs
Community-Based Forest Management Agreement (CBFMA)	DENR	<p>A Production sharing agreement entered into by and between the government (DENR) and a community as forest manager (represented by a People's Organization), for the latter to develop, utilize, manage and conserve, a specific portion of the forest lands (mangrove areas, designated areas within NIPAS, watershed reservations, included).</p> <p>The duration of the agreement is 25 years renewable for another 25 years. A Certificate of Stewardship over specific portions of the CBFMA may be issued by the DENR to individuals or families.</p>	<p>Pursuant to DAO 2004-29, concerned LGUs shall:</p> <ul style="list-style-type: none"> • Provide comments on the CBFMA application to the Working Group created pursuant to DENR-DILG JMC 98-01 and JMC 2003-01. • Participate in the consultations for the ratification of the Community Resource Management Framework (CRMF). • Jointly prepare a five-year work plan with the DENR and PO and assist the PO to ratify and implement this workplan. • Assist the PO link with the market and funding institutions. • Monitor PO outputs to ensure observance of technical requirements in the CBFMA. <p>The procedure for issuance of CBFMA for NIPAS Protected Areas is provided in DAO 2004-32.</p>
Foreshore Lease Agreement (FLA)	DENR	<p>It is an agreement executed by and between the DENR and the applicant to occupy, develop, utilize and manage foreshore lands, marshy lands or lands covered with water bordering upon the shores or banks of navigable lakes or rivers (DAO 2004-24).</p> <p>The duration of the contract is 25 years renewable for another 25 years. The salvage zone of the foreshore land is excluded from the agreement.</p>	<p>Since the FLA is an agreement solely between the DENR and the lessee, the FLA does not provide the roles or functions of the concerned LGU. However, LGUs play a role prior to the execution of the FLA, specifically in the issuance of the required certification from the municipal or city engineer's office and in the ECC requirement. Also, under new policy issuances, particularly DENR-DILG Joint Memorandum Circular (JMC) 2003-01, it is mandatory for pertinent DENR offices to submit any application for tenurial instruments, including resource extraction permits to LGUs for comments before these instruments or permits are issued. Pursuant to Sec. 7 of DENR-DILG JMC 2003-01, if the comments of the LGUs are not solicited, the tenurial or allocation instrument or resource extraction permit issued shall be reviewed and all activities in the foreshore land shall be suspended until comments are solicited.</p>
Special Forest Land Use Agreement for Tourism Purposes (FLAGT)	DENR	<p>A FLAGT is a contract between the DENR and a natural or juridical person, authorizing the latter to occupy, manage, and develop, subject to government share, any forestland of the public domain for tourism purposes and to undertake any authorized activity therein. Examples are:</p> <ul style="list-style-type: none"> • Bathing establishment • Camp Site • Ecotourism • Hotel Site (inclusive of related resort facilities) • Other Tourism Purposes 	<p>Participate in the identification and validation of areas for FLAGT sites.</p> <p>Endorsement by the concerned LGU Sanggunian (barangay, municipality, city or province) of the area as a FLAGT area</p> <p>Participation in the EIS system requirement.</p>

Tenure Instrument	Issuing Agency	Description	Role of LGUs
Special Forest Landuse Agreement (FLAG)	DENR	<p>A FLAG is a contract between the DENR and a natural or juridical person, authorizing the latter to temporarily occupy, manage and develop, in consideration of a government share, any forestland of the public domain for specific use defined in DAO 2004-59.</p> <p>Examples are:</p> <ul style="list-style-type: none"> • Drydock site/ shipbuilding/ship breaking site • Industrial Processing site • Nipa Plantation • Fish drying site • Communication Station site • Landing site (airstrip) <p>Period of contract is 25 years, renewable for another 25 years</p>	<p>Participate in the identification of areas for FLAG sites.</p> <p>LGU to form part of the composite team that will undertake consultations with adjoining communities and validate the suitability of the area, including the presence of existing valid claims and occupants.</p> <p>Endorsement by the concerned LGU Sanggunian (barangay, municipality, city or province) of the area as a FLAG area.</p> <p>Participation in the EIS system requirement</p>
Co-Management Agreement	DENR	<p>A Co-Management Agreement is an arrangement whereby the responsibility for the management, development, protection and utilization of a specified area of forest land, including mangroves, watersheds, and its forest resources within the geographic jurisdiction of the LGU or cluster of LGUs is shared between the DENR and the LGU or cluster of LGUs.</p>	<p>The Agreement between the DENR and the LGU will specify the roles and responsibilities of each party. The following are some of the LGU's roles under JMC 2003-01:</p> <ul style="list-style-type: none"> • Provide the necessary funds to make the devolution, partnership and co-management work; • Approve and enact as ordinance the LGU's forest land use plan (FLUP); • Inform DENR of the action taken by the LGU within 15 days from the date of receipt of documents from DENR regarding any tenure application within its jurisdiction.
Fishpond Lease Agreement	DA	<p>Agreement entered into by and between the Secretary of Agriculture and qualified fishpond applicant for the use of public land for fishpond development purposes for a period of 25 years renewable for another 25 years. Existing guidelines is provided under FAO 197 series of 2000.</p>	<p>LGU participation in the EIS process for fishponds covered by the EIS System.</p> <p>LGU jointly determines with the DA and DENR which fishponds are abandoned, underdeveloped and underutilized five years after the issuance of the Fishpond Lease Agreement, for reversion into the mangrove state.</p>

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Law/ Policy	Title/ Description
Act No. 3815	An Act Revising the Penal Code and other Penal Laws
Batas Pambansa Blg. 265	An Act Prohibiting the Extraction of Gravel and Sand along Beaches and Providing Penalties Therefore
Commonwealth Act 141	Public Land Act
DENR Administrative Order 99-34	Rules and Regulations Governing the Administration, Management and Development of Foreshore Areas, Marshy Land and other Lands Bordering Bodies of Water
DENR Administrative Order 15-90	Regulations Governing the Utilization, Development and Management of Mangrove Resources
DENR Administrative Order 96-40	Revised Implementing Rules and Regulations of Republic Act No. 7942, otherwise known as the "The Philippine Mining Act of 1995"
DENR Administrative Order 02-04	Rules and Regulations Governing the issuance of Permits for Treasure Hunting, Shipwreck/Sunken Vessel Recovery and Disposition of Recovered Treasures/Valuable Cargoes Including Hoarded Hidden Treasures
DENR Administrative Order No. 2004-24	Revised Rules and Regulations Governing the Administration and Management of Foreshore Lands
DENR Administrative Order 04-33	Amendments to DENR Administrative Order No. 2002-40, otherwise known as the "Rules and Regulations Governing the Issuance of Permits for Treasure Hunting, Shipwreck, Sunken Vessel, Recovery and Disposition of Recovered Treasures/Valuables, Cargoes, Including Hoarded Hidden Treasures".
DENR Administrative Order 05-10	Implementing Rules and Regulations of the Philippine Clean Air of 2004 (RA 9275)
DENR 2005-59	Rules and Regulation Governing the Special uses of Forestlands
Department of Justice Opinion no. 23, s. 1994	Interpretation of Section 71 of PD No. 705, as amended by RA 7161
Executive Order 71	Devolving the powers of the Housing and Land Use Regulatory Board to Approve Subdivision Plans, to cities and municipalities pursuant to RA No. 7160, otherwise known as the Local Government Code of 1991
Executive Order 72	Providing for the Preparation and Implementation of Comprehensive Land Use Plans of Local Government Units Pursuant to the Local Government Code of 1991 and other Pertinent Laws
Executive Order 305	Devolving to Municipal/City Governments the Registration of Fishing Vessels three (3) gross tonnage below
Executive Order 533	Adopting Integrated Costal Management as a National Strategy to Ensure the Sustainable Development of the Country's Costal and Marine Environment and Resources and Establishing Supporting Mechanisms for its Implementation



Law/ Policy	Title/ Description
Fisheries Administrative Order No. 124. s. 1979.	Regulating the gathering/catching/taking/removing of marine tropical aquarium fishes
Fisheries Administrative Order No. 143. s. 1983.	Banning the Exportation of Live Prawns (Sugpo) of the Species <i>Penaeus monodon</i>
Fisheries Administrative Order 148. s. 1984	Regulation on the gathering, catching, taking or removing our marine tropical aquarium fish
Fisheries Administrative Order.193. s. 1998	Ban on the taking or catching, selling, purchasing and possessing, transporting and exporting of Whale Sharks and Manta Rays
Fisheries Administrative Order 197-2000	Rules and Regulations Governing the Lease of Public Lands for Fishpond Development
Fisheries Administrative Order No. 198. s. 2000.	Rules and Regulations on Commercial Fishing
Fisheries Administrative Order 202-2000	Ban on Coral Exploitation and Exportation
Fisheries Administrative Order 208-2001	Conservation of Rare, Threatened and Endangered Fishery Species
Fisheries Administrative Order 214-2001	Code of Practice for Aquaculture
Joint Memorandum Circulars 98-01	Manual of Procedures for DENR-DILG-LGU Partnership on Devolved and other Forest Management Functions
Presidential Decree No. 3-A	Amending Section 7 of Presidential Decree No. 3 Dated September 26, 1972, by Providing for the Exclusive Prosecution by Administration or by Contract of Reclamation Projects
Presidential Decree No. 857	Providing for the Reorganization of Port Administration and Operation Functions in the Philippines, revising Presidential Decree No. 505 dated July 11, 1974, Creating the Philippine Port Authority, by Substitution, and for other purposes. (Revised Charter of the Philippine Ports Authority created under Presidential Decree No. 505 dated July 11, 1974)
Presidential Decree No. 705	Revising Presidential Decree No. 389, otherwise known as the Forestry Reform Code of the Philippines
Presidential Decree No. 1096	Adopting a National Building Code of the Philippines thereby Revising Republic Act No. 6541
Presidential Decree No. 1067	A Decree instituting a Water Code, thereby revising and Consolidating the Laws Governing the Ownership, Appropriation, Utilization, Exploitations, Development, Conservation and Protection of Water Resources (Water Resources Code of the Philippines)
Presidential Decree 1084	Creating the Public Estates Authority, Defining its Powers and Functions, Providing Funds therefore and for other Purposes (Charter of the Public Estates Authority)
Republic Act 386	An Act to Ordain and Institute the Civil Code of the Philippines (Civil Code of the Philippines)
Republic Act 1273	An Act to Amend Section Ninety of Commonwealth Act Number 141, known as "Public Land Act"
Republic Act 1899	An Act to Authorize the Reclamation of Foreshore Lands by Chartered Cities and Municipalities
Republic Act 6657	Comprehensive Agrarian Reform Law
Republic Act 7076	An Act Creating a People's Small Scale Mining Program and for other Purposes (People's Small Scale Mining Act of 1991)
Republic Act 7160	Local Government Code of the Philippines
Republic Act 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 (Tax Laws Incorporated in the Revised Forestry Code of the Philippines)

Law/ Policy	Title/ Description
Republic Act 7586	An Act Providing for the Establishment and Management of National Integrated Protected Areas System, and for other purposes (NIPAS Law)
Republic Act 7638	Department of Energy Act of 1992
Republic Act 7718	An Act Amending Certain Sections of Republic Act No. 6957, Entitled "An Act Authorizing the Financing, Construction, Operation and Maintenance of Infrastructure Projects by the Private Sector, and for Other Purposes". (The Philippine BOT Law)
Republic Act 7881	An Act Amending Certain Provisions of Republic Act No. 6657, Entitled "An Act Instituting a Comprehensive Agrarian Reform Program to Promote Social Justice and Industrialization, Providing the Mechanism for its Implementation, and for other Purposes."
Republic Act 7942	An Act Instituting a New System of Mineral Resources Exploration, Development, Utilization, and Conservation (Philippine Mining Act of 1995)
Republic Act 8371	An Act to Recognize, Protect and Promote the Rights of Indigenous Cultural Communities/ Indigenous People, Creating a National Commission of Indigenous People, Establishing Implementing Mechanisms, Appropriating Funds therefore, and for other purposes (Indigenous People's Right Act)
Republic Act 8550	An Act Providing for the Development, Management and Conservation of the Fisheries and Aquatic Resources, Integrating all Laws Pertinent thereto, and for other purposes (Philippine Fisheries Code of 1998)
Republic Act 9003	An Act Providing for an Ecological Solid Waste Management Program Creating the Necessary Institutional Mechanisms and Incentives, Declaring Certain Acts Prohibited and Providing Penalties, Appropriating funds therefore, and for other Purposes (Ecological Solid Waste Management Act of 2000)
Republic Act 9136	Electric Power Industry Reform Act of 2001
Republic Act 9147	An Act Providing for the Conservation and Protection of Wildlife Resources and their Habitats, Approaching Funds therefore and for other Purposes (Wildlife Resources Conservation and Protection Act)
Republic Act 9275	An Act Providing for a Comprehensive Water Quality Management and for other Purposes (Clean Water Act)



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