

**COASTAL ENVIRONMENTAL PROFILE**  
**OF**  
**NORTHWESTERN BOHOL, PHILIPPINES**

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Coastal Resource Management Project  
*of the*  
Department of Environment and Natural Resources  
*supported by the*  
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2000

*"This profile reveals anomalies in coastal resource destruction that are highly detrimental to the Philippine well being — let's stop them!"*

*Anonymous*

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# ***ACRONYMS and ABBREVIATIONS***

ATI	Agricultural Training Institute
BEMO	Bohol Environment Management Office
BFAR	Bureau of Fisheries and Aquatic Resources
BHW	Barangay Health Worker
BIDEF	Bohol Integrated Development Foundation Inc.
BIPC	Bohol Investment Promotion Center
BSWM	Bureau of Soil and Water Management
BSEZ	Bohol Special Economic Zone
BSPO	Barangay Services Point Office
CARE	Conservation of Rare and Endangered Species
CARP	Comprehensive Agrarian Reform Program
CBCRM	community-based coastal resource management
CBFMA	Community-Based Forest Management Agreement
CBRMP	Community-Based Resource Management Project
CENRO	Community Environment and Natural Resources Office/Officer
CEP	Coastal Environment Program
cm	centimeter
CPUE	catch per unit effort
CREED	Coastal Resource Enhancement through Enterprise Development
CRM	coastal resource management
CRMF	Coastal Resource Management Framework
CRMO	Coastal Resource Management Office
CRMP	Coastal Resource Management Project
CRMS	Coastal Resource Management Section
CVRP - I	Central Visayas Regional Project - I
CVSCAFT	Central Visayas State College of Agriculture, Forestry and Technology
CVWSP	Central Visayas Water and Sanitation Project
CWL	Catholic Women's League
DA	Department of Agriculture
DECS	Department of Education, Culture and Sports
DENR	Department of Environment and Natural Resources
DOF	Department of Finance
DILG	Department of Interior and Local Government
DOJ	Department of Justice
DOST	Department of Science and Technology
DOT	Department of Tourism
DSWD	Department of Social Welfare and Development
DTI	Department of Trade and Industry
ECC	Environmental Compliance Certificate
EIA	Environmental Impact Assessment
FAD	fish aggregating device

FARMC	Fisheries and Aquatic Resources Management Council
FCB	First Consolidated Bank
FLA	fishpond lease agreement
g	gram
GIS	geographic information system
GO	government organization
GOLD	Governance and Local Democracy
GOP	Government of the Philippines
ha	hectare
HVC	high-value crop
ICM	integrated coastal management
ICRI	International Coral Reef Initiative
IEC	information, education and communication
IMA	International Marinelife Alliance
IRA	Internal Revenue Allotment
IRRDP	Inabanga Rural Rehabilitation and Development Project
JICA	Japan International Cooperation Agency
kg	kilogram
km	kilometer
km <sup>2</sup>	square kilometer
kW	kilowatt
LEAD	Livelihood Enhancement and Development
LGU	local government unit
LHC	live hard coral
LMP	League of Municipalities of the Philippines
LOGODEF	Local Government Development Foundation
m	meter
m <sup>2</sup>	square meter
m <sup>3</sup>	cubic meter
MAFC	Municipal Agriculture and Fisheries Council
MAO	Municipal Agricultural Office/r
MARICOM	Maritime Command
mg	milligram
mg/L	milligram per liter
ml	milliliter
MLGOO	Municipal Local Government Operations Office
MLGU	Municipal Local Government Unit
mm	millimeter
MOA	Memorandum of Agreement
MPDC	Municipal Planning and Development Coordinator
MPDO	Municipal Planning and Development Office
MPCI	Multi-Purpose Cooperative Incorporated
m/sec	meter per second
mt	metric ton
mt/ha	metric ton per hectare
MTWG	Municipal Technical Working Group
NAMRIA	National Mapping and Resource Information Authority
NEDA	National Economic and Development Authority



NFA	National Food Authority
NFE	nonformal education
NGA	nongovernment agency
NGO	nongovernment organization
NIPAS	National Integrated Protected Areas System
NSO	National Statistics Office
OPA	Office of the Provincial Agriculturist
PAMB	Protected Areas Management Bureau
PCCD	Presidential Commission for Countryside Development
PCRA	participatory coastal resource assessment
PCRMTF	Provincial Coastal Resource Management Task Force
PCG	Philippine Coast Guard
PD	Presidential Decree
PENRO	Provincial Environment and Natural Resources Office/Officer
PLGU	Provincial Local Government Unit
PNP	Philippine National Police
PO	people's organization
PPDO	Provincial Planning and Development Office
PPFP	Provincial Physical Framework Plan
PROCESS	Participatory Research Organizing of Communities and Education towards Struggle for Self-Reliance
PTA	Philippine Tourism Authority
RA	Republic Act
RICH	Rehabilitation in Conservation Hotspots
RORO	roll on, roll off
SALT	Sloping Agricultural Land Technology
SB	<i>Sangguniang Bayan</i>
SEAFDEC/AQD	Southeast Asian Fisheries Development Center - Aquaculture Department
SP	<i>Sangguniang Panlalawigan</i>
SRA	Social Reform Agenda
SUML	Silliman University Marine Laboratory
TESDA	Technical Education and Skills Development Authority
TWG	Technical Working Group
$\mu\text{m}$	micrometer
USAID	United States Agency for International Development

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Municipality of Buenavista  
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Municipality of Clarin  
Municipality of Getafe  
Municipality of Inabanga  
Municipality of Loon  
Municipality of Tubigon  
Bohol Environment Management Office  
Provincial Planning and Development Office  
Provincial Environment and Natural Resources Office  
Community Environment and Natural Resources Offices  
(Tagbilaran City and Talibon)  
Bureau of Fisheries and Aquatic Resources  
Office of the Provincial Agriculturist  
National Statistics Office

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Any errors and unpopular views that remain are assumed by the authors.

# ***FOREWORD***

The Province of Bohol is composed of 47 municipalities and 1 city of which 30 are coastal including Tagbilaran, the capital. Our extensive coastline (642 km) contains a wealth of natural resources including: small islands, coral reefs, seagrass beds, mangrove forests and of course all the associated fisheries in nearshore and offshore areas. All these coastal resources provide livelihood, income and food for our people in the form of fisheries, forestry and tourism. The economic returns from these coastal resource-dependent activities cannot be underestimated.

Recent trends are alarming in this regard. Fish catch in many Bohol coastal areas has declined from what it was 15 or 20 years ago. Habitat destruction, illegal fishing practices and an open-access regime are usually the culprits in this decline. We must pay attention to this decline and its causes. We need to improve the management of our coastal resources, with the local government units (LGUs), fishing communities and other stakeholders as active participants, in order to enhance their awareness of the urgency of protecting these resources and strengthen their commitment to sustain the source of more than 50 percent of their animal protein requirement. Meanwhile, agro-industrialization and eco-cultural tourism, which are given the highest priority among the development thrusts of the province, will be drastically affected if its coastal resources continue to be threatened by all sorts of destruction.

The local governance of Bohol places primary importance on the environment and gives high priority to coastal resource management among its sustainable development thrusts. This is clearly manifested in its vision for the province, to wit: "Bohol is a prime eco-cultural tourist destination and a strong agro-industrial province with an empowered and self-reliant people who are God-loving, law-abiding, proud of their cultural heritage and committed to the growth and protection of the environment."

This coastal environmental profile is one of the first steps in fulfilling Bohol's vision as it provides some basic information upon which to build our plans, strategies and actions. It contains very useful data generated through active community participation in coastal resource assessment. Let us make this profile part of our Bohol data information upon which much improved coastal resource stewardship can be based.

**RENE LOPEZ RELAMPAGOS**  
*Governor of Bohol*

## ***PREFACE***

At first glimpse, the coast of northwestern Bohol consists solely of small islands, sandy beaches, shallow reefs with adjacent seagrass beds, mangrove stands and estuaries. A typical scene of a lush, serene, tropical island paradise. However, upon closer inspection, one begins to see a multitude of barren gaps that have been carved out of the surrounding environment.

While the area's natural resources hold potential for environmentally-sensitive economic development, they are currently in danger of being depleted into a state of nothingness. Past and present human interventions include a plethora of destructive fishing methods, overfishing, quarrying, slash-and-burn farming, sedimentation and water pollution. Over one-third of the total population depend upon dwindling marine resources for their livelihood. The majority of the coastal inhabitants live well below the poverty line in semi-permanent housing, with little access to electricity and potable water, and in polluted areas near critical environmental zones.

Since the northwestern coast of Bohol is a dichotomy of good and bad, it was 1 of 6 areas selected by the Coastal Resource Management Project implemented by the Department of Environment and Natural Resources (DENR) and funded by the United States Agency for International Development (USAID). The thrust of the project is to promote integrated coastal management among the various stakeholders in Bohol, and elsewhere in the Philippines.

Coastal resource management is the process of planning, implementing and monitoring beneficial and sustainable uses of coastal resources through participation, collaboration and sound decision-making. This is reached by involving the entire affected community, including resource users, local and regional government, nongovernment organizations and the private sector. The aim is to promote an integrated coastal management approach that focuses on sustainability in coastal resource use, and minimizes the direct impacts on coastal resources from fishing, aquaculture and tourism. Bohol will serve as 1 of 6 examples of how to implement integrated coastal management in the Philippines.

Preconditions for project success do exist within the area. The communities are aware of issues, largely due to the historical presence of the Central Visayas Regional Project-I (CVRP-I), and the presence of various nongovernment organizations. The dynamic leadership of Gov. Rene L. Relampagos and Vice Gov. Edgar M. Chatto has given top priority to environmental concerns in the development agenda of the province. With them at the helm, and with the collaboration of all concerned sectors, the Bohol Environment Code of 1998

was developed, opening up all kinds of possibilities and interventions towards solving the main issues mentioned above.

Because of the favorable political climate, government agencies at all levels (national, regional, provincial and municipal) closed ranks with various nongovernment organizations (NGOs), people's organizations (POs), the private sector, and the academe to develop strategies in response to the prevailing environmental issues. Meanwhile, recognizing the innovative yet participatory style of leadership and administration adopted by Bohol's new breed of leaders, the USAID supported the province's Governance and Local Democracy (GOLD) project, which advocates for participatory governance and full implementation of the Local Government Code. Many other foreign-assisted projects have been launched in Bohol and attained varying degrees of success in their implementation.

The integrated approach of participatory coastal management for the profile area has proven successful in other areas of the Philippines, and in other Asian countries. This approach depends on the dynamic actions of community groups with local and national government agencies responsible for resource utilization in the area. This management approach does not dictate to the people, but rather, equips them, who rely the most upon the coastal environment, with the necessary tools to make rational and sustainable decisions. The first step in this process is the development of baseline information for planning. This profile completes this step for northwestern Bohol.

