



GUIMARAS COASTAL STRATEGY



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GUIMARAS

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Guimaras Coastal Strategy

March 2020

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PEMSEA is an international organization based in Manila, Philippines, specialized in sustainable development at the coastal areas through the implementation of integrated coastal management (ICM).

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Republic of the Philippines
Province of Guimaras

Office of the Governor
San Miguel, Jordan, Guimaras

M E S S A G E



Guimaras, being an island province, is surrounded by coastal waters that are rich in natural resources. The province is also surrounded by pristine beaches that serve as major attractions to tourists. Aiming to become the agri-ecotourism capital of Western Visayas region, the province needs to maintain these natural assets, including the quality of its coastal waters to ensure the health and safety, not only of the tourists but more importantly, its populace.

Guimaras Province adopted Integrated Coastal Management (ICM) as the key strategy to support the vision of the province and achieve sustainable development of its coastal and marine areas and resources over the long term. ICM has provided the platform for various sectors, stakeholders and partners of the province to collectively plan in managing the coastal and marine areas and resources in a more integrated and coordinated manner.

The Guimaras Coastal Strategy, a result of the integrated planning process involving all stakeholders of the province, captures the positive expectations of the Guimarasnons toward achieving its shared vision of becoming an agri-ecotourism capital of Western Visayas. The implementation of the Coastal Strategy in support of the long- and medium-term plans and other sectoral plans of the province and the five municipalities is anticipated to facilitate the province's achievement of its commitment to the global Sustainable Development Goals (SDGs), particularly SDG 14 (Life Below Water).

The formulation of the Guimaras Coastal Strategy is a milestone legacy of the province. Coming up with this document was not an easy task. It represents the convergence of ideas, knowledge and aspirations of the stakeholders and partners from national government agencies, the municipal governments, the NGOs/POs, the academe and the private sector who have contributed to its development and completion. It also embodies the perseverance of the ICM Project Management Office of GENRO in coordinating the series of consultations and validation workshops to complete this final document, with assistance from PEMSEA, a partner of the province since the inception of the ICM program more than a decade ago.

Samuel T. Gumarin, MD, MPH
Governor



Republic of the Philippines
Province of Guimaras
OFFICE OF THE 9TH SANGGUNIANG PANLALAWIGAN
San Miguel, Jordan, Guimaras 6045



EXCERPTS FROM THE MINUTES OF THE REGULAR SESSION OF THE HONORABLE 9TH SANGGUNIANG PANLALAWIGAN, PROVINCE OF GUIMARAS HELD AT THE SP SESSION HALL, 2ND FLOOR, GTIC BUILDING ON JUNE 23, 2020.

PRESENT:

Atty. John Edward G. Gando -	Vice Governor and Presiding Officer
Hon. Cyril C. Beltran -	SP Member and Majority Floor Leader
Hon. Aurelio G. Tionado -	SP Member
Hon. David G. Gano -	SP Member and Deputy Majority Floor Leader
Hon. Diosdado G. Gonzaga -	SP Member
Hon. Josefina G. de la Cruz -	SP Member
Hon. Rex G. Fernandez -	SP Member
Hon. Raymond H. Gavileño -	SP Member
Hon. Karen Kaye A. Gadnanan -	Ex-Officio SP Member (SK Federation President)
Hon. Marilou S. Delumpa -	Ex-Officio SP Member (LNB Federation President)
Hon. Glicerio G. Edang -	Ex-Officio SP Member (PCL Federation President)

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ABSENT:

Hon. Luben G. Vilches - SP Member

RESOLUTION NO. 160

RESOLUTION ADOPTING THE GUIMARAS COASTAL STRATEGY 2020 OF THIS PROVINCE

WHEREAS, before this Honorable Body is the letter of the Honorable Governor endorsing the final draft of the Guimaras Coastal Strategy 2020 of this province;

WHEREAS, the Guimaras Coastal Strategy 2020 is a declaration of the positive expectations of Guimarasnons towards achieving the shared vision of transforming the coastal province into an agri-eco-tourism capital of Western Visayas Region with empowered self-reliant, resilient and healthy families enjoying a progressive economy and safe environment anchored on the principles of sustainable development;

WHEREAS, the Committee on Environmental Protection to where the Guimaras Coastal Strategy 2020 was referred, rendered a Committee Report which was adopted by the Honorable 9th SP in its regular session of even date, with the recommendation by the committee for the adoption of the same;

NOW THEREFORE, on motion of Honorable Raymond H. Gavileño, Chairperson Committee on Environmental Protection and duly seconded by all members;

THE 9TH SANGGUNIANG PANLALAWIGAN IN SESSION DULY ASSEMBLED:

RESOLVED AS IT IS HEREBY RESOLVED, to adopt the Guimaras Coastal Strategy 2020 of this province.

RESOLVED FURTHER, to send a copy of this resolution to the Honorable Governor, Guimaras Environment and Natural Resources Office for information and appropriate action.

APPROVED. June 23, 2020.

I hereby attest that the foregoing is a true and accurate copy of the resolution which was duly adopted by the 9th Sangguniang Panlalawigan of the Province of Guimaras during its regular session held on June 23, 2020.

[Signature]
Deputy Majority Floor Leader

Attested:

[Signature]
ATTY. JOHN EDWARD G. GANDO
Vice Governor
Presiding Officer

Approved:

[Signature]
SAMUEL T. GUMARIN, MD, MPH
Governor

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LIST OF ABBREVIATIONS AND ACRONYMS

BFAD	-	Bureau of Food and Drugs	FARMC	-	Fisheries and Aquatic Resources Management Council
BFAR	-	Bureau of Fisheries and Aquatic Resources	FL	-	Forest Land
BFAR PFO	-	Bureau of Fisheries and Aquatic Resources Provincial Fishery Office	FLUP	-	Forest Land Use Plan
BSWM	-	Bureau of Soils and Water Management	GAP	-	Good Agricultural Practices
CBFM	-	Community-Based Forest Management	GENRO	-	Guimaras Environment and Natural Resources Office
CBMS	-	Community-Based Monitoring System	GIC	-	Guimaras Investors Club
CCRF	-	Code of Conduct for Responsible Fisheries	GIP	-	Government Internship Program
CDA	-	Cooperative Development Authority	GNCRDPS	-	Guimaras National Crop Research Development and Production Support Center
CITES	-	Convention on International Trade in Endangered Species	GPA	-	Global Programme of Action
CLUP	-	Comprehensive Land Use Plan	GSC	-	Guimaras State College
CNC	-	Certificate of Non-Coverage	HFA	-	Hyogo Framework for Action
CS	-	Coastal Strategy	ICM	-	Integrated Coastal Management
DENR	-	Department of Environment and Natural Resources	ICM-PMO	-	Integrated Coastal Management-Program Management Office
Dep-Ed	-	Department of Education	IEC	-	Information, Education and Campaign
DILG	-	Department of the Interior and Local Government	IP	-	Indigenous People
DOLE	-	Department of Labor and Employment	IPM	-	Integrated Pest Management
DOST	-	Department of Science and Technology	ISF	-	Integrated Social Forestry
DOT	-	Department of Tourism	JBLFMU	-	John B. Lacson Foundation Maritime University
DPWH	-	Department of Public Works and Highways	KAMAMADO	-	Katilingban sang Magagmay nga Mangingisda sa Dolores
DRRM	-	Disaster Risk Reduction and Management	LCCAP	-	Local Climate Change Action Plan
DSWD	-	Department of Social Welfare and Development	LGBTQIA	-	Lesbian, Gay, Bisexual, Transgender, Queer or Questioning, Intersex, and Asexual or Allied
DTI-CITEM	-	Department of Trade and Industry-Center for International Trade Expositions and Missions	LGU	-	Local Government Unit
ECC	-	Environmental Compliance Certificate	LMI	-	Labor Market Information
EMB	-	Environmental Management Bureau	MCPI	-	Marine Colloids Philippines Inc.
FAP	-	Fishery Action Plan			

MENRO	-	Municipal Environment and Natural Resources Office	PWD	-	Person with Disability
MGB	-	Mine and Geosciences Bureau	RoRo	-	Roll-On/Roll-Off
MLGU	-	Municipal Local Government Unit	SALT	-	Sloping Agricultural Land Technology
MPA	-	Marine Protected Area	SDG	-	Sustainable Development Goal
MPDO	-	Municipal Planning and Development Office	SDS-SEA	-	Sustainable Development Strategy for the Seas of East Asia
MSMEs	-	Micro, small and medium enterprises	SEA-K	-	Self-Employment Assistant-Kaunlaran
NAMRIA	-	National Mapping and Resource Information Authority	SEC	-	Security and Exchange Commission
NGO	-	Non-Governmental Organization	SOC	-	State of the Coasts
NIPAS	-	National Integrated Protected Area System	SPES	-	Special Program for the Employment of Students
NSCB	-	National Statistical Coordination Board	SWM	-	Solid Waste Management
NSO	-	National Statistics Office	TESDA	-	Technical Education and Skills Development Authority
OIC	-	Officer-In-Charge	TINMR	-	Taklong Island National Marine Reserve
PAFC	-	Provincial Agriculture and Fisheries Council	UNCBD	-	United Nations Convention on Biological Diversity
PBSP	-	Philippine Business for Social Progress	UNCLOS	-	United Nations Convention on the Law of the Sea
PCC	-	Program Coordinating Committee	UNFCCC	-	United Nations Framework Convention on Climate Change
PCG	-	Philippine Coast Guard	UPV	-	University of the Philippines Visayas
PEDO	-	Provincial Economic Development Office	US-PCV	-	United States-Peace Corps Volunteer
PEMSEA	-	Partnerships in Environmental Management for the Seas of East Asia	WSSD	-	World Summit on Sustainable Development
PESO	-	Public Employment Service Office	YES-O	-	Youth for Environment in Schools Organization
PNLG	-	PEMSEA Network of Local Governments	ZSL	-	Zoological Society of London
PNP	-	Philippine National Police			
PO	-	People's Organization			
POAS	-	Provincial Office for Agricultural Services			
PPDO	-	Provincial Planning and Development Office			
PPFP	-	Provincial Physical Framework Plan			
PPP	-	Public-Private Partnership			
PSA	-	Philippine Statistics Authority			
PSDC	-	Provincial Seaweed Development Council			

ACKNOWLEDGEMENTS

The development of the Guimaras Coastal Strategy was initiated by the Partnerships in Environmental Management for the Seas of East Asia Resource Facility (PRF) in partnership with the ICM Project Management Office and in collaboration with the following government agencies, non-government organizations, the private sector, academe and other stakeholders:

- Governor's Office
- Office of the 9th Sangguniang Panlalawigan
- Guimaras Environment and Natural Resources Office
- Provincial Office for Agricultural Services
- Provincial Social Welfare and Development Office
- Local Disaster Risk Reduction and Management Section
- Provincial Economic Development Office
- Provincial Health Office
- Provincial Planning and Development Office
- Provincial Tourism Office
- Department of Environment and Natural Resources-Provincial Environment and Natural Resources Office
- Bureau of Fisheries and Aquatic Resources
- Guimaras State College
- John B. Lacson Foundation Maritime University
- University of the Philippines Visayas

Local Government of the following coastal municipalities:

- Buenavista
- Jordan
- Nueva Valencia
- San Lorenzo
- Sibunag

These municipal offices include:

- Municipal Agriculture Office/Office of the Municipal Agriculturist/Office of the Municipal Agricultural Services
- Sangguniang Bayan Office
- Municipal Disaster Risk Reduction and Management Council
- Municipal Engineering Office

- Municipal Health Office
- Municipal Planning and Development Office

People's Organization and other Stakeholders:

- KAMAMADO
- BFARMC
- MFARMC

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The staff of the ICM Project Management Office under the Guimaras Environment and Natural Resources Office is comprised of the following:

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- Mr. Nathan B. Legita
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- Mr. Neil P. Catalan
- Samantha Shedd

FOREWORD

What is the Guimaras Coastal Strategy?

The Guimaras Coastal Strategy is a declaration of the positive expectations of the Guimarasnons towards achieving the shared vision of transforming the coastal province into an agri eco-tourism capital of the Western Visayas Region, with empowered, self-reliant, resilient and healthy families enjoying a progressive economy and safe environment anchored on the principles of sustainable development. This is the image that the people desire their coastal situation to be after 20 years.

The Coastal Strategy is a document that highlights the social, economic and environmental aspects of the marine and coastal areas of the province, in relation to its values, and threats – existent or emerging – that damage those values. In order to translate the understanding of issues and threats into actions, the collective effort of the government, the civil society and relevant stakeholders of the Province is essential. This

primarily necessitates a change in attitude and behavior of the stakeholders and the people from a generally negative to positive outlook. The Coastal Strategy hopes to inculcate the value of integration requiring every level of society to do their shared responsibility in contributing to managing the coasts and marine resources of Guimaras.

The Coastal Strategy is a critical component of the integrated coastal management (ICM) program of the Province. It provides a framework for integrated planning and long-term management of the coastal and marine areas of the Province. It not only serves as a platform for policy reform that promotes good governance, but facilitates interagency consultation, multi-sector cooperation and stakeholders' participation. The Coastal Strategy identifies conflicts arising from multiple use of limited marine and coastal resources, proposes actions for protecting or enhancing environmental quality and biodiversity, while facilitating environment-friendly economic development and providing environmental investment opportunities. The Coastal Strategy will be translated into on-the-ground actions after its adoption by the stakeholders of the Province.



Why is it important?

The Guimaras Coastal Strategy complements existing environmental management strategies and initiatives by:

1. identifying and providing key and active roles for all sectors of society, particularly those with interest in Guimaras, within a single environmental management framework, including central and local government agencies, the private sector, civil society, the academe, local communities, international organizations as well as UN and donor agencies, and bilateral and multi-lateral financial institutions;
2. linking economic planning and development programs to environmental and resource management goals;
3. combining social issues, such as poverty alleviation, food security, public health, gender mainstreaming, education of youth, and the well-being of marginalized groups of society, with the rehabilitation and sustainable development of marine and coastal resources;
4. addressing emerging and priority concerns related to biodiversity conservation, climate change and mitigation and/or adaptation, fisheries and livelihood management, water use and supply management, pollution reduction and waste management, in line with national priorities and targets;
5. encompassing land and sea-based human activities which impact on the coastal and marine environment; and
6. shifting the financial model from government-supported environmental facilities and services to self-sustaining investment opportunities for the public and private sectors.



Basis of the Coastal Strategy

Partnerships

The Guimaras Coastal Strategy has been developed involving the stakeholders of Guimaras – public and private, local and national governments, non-government organizations, fisherfolk and farmers – and will be jointly implemented by working together as partners.

Sustainability

The Guimaras Coastal Strategy is designed to enhance understanding and build the capacity of stakeholders to recognize and overcome constraints, create a ‘win-win’ situation in having a shared vision, and harmonize the perspectives among the users and beneficiaries of the values of the coastal and marine resources. This is anticipated to elicit long-term commitment, self-reliance, consensus among the stakeholders, and active participation in the implementation of action programs.

Synergy

The diversity of stakeholders – different sectors and users with varying perspectives, skills and expertise – is not a hindrance, but a source of strength and dynamism. The Guimaras Coastal Strategy, by combining sector inputs and promoting province-wide interest, enhances effective planning, development and implementation, resulting in a synergistic effect towards the achievement of the common vision and shared mission.

National and local policies, plans and programs

The Guimaras Coastal Strategy builds upon the direction of national and local policies, plans and programs, consolidates sectoral initiatives, and provides a forum for interagency and multi-stakeholder information sharing and decision-making.

International conventions and agreements

The international conventions and agreements to which the Philippines has acceded to provide guidance for actions within the framework of the strategies.

Relevant International Conventions and Agreements

- | | |
|--|-------------------------------|
| • CITES | • FAP CCRF |
| • Ramsar Convention | • GPA |
| • UNFCCC | • Fund |
| • UNCBD | • Agenda 21 |
| • UNCLOS | • SDGs |
| • HFA | • SDS-SEA |
| • Sendai Framework for Disaster Risk Reduction | • WSSD Plan of Implementation |

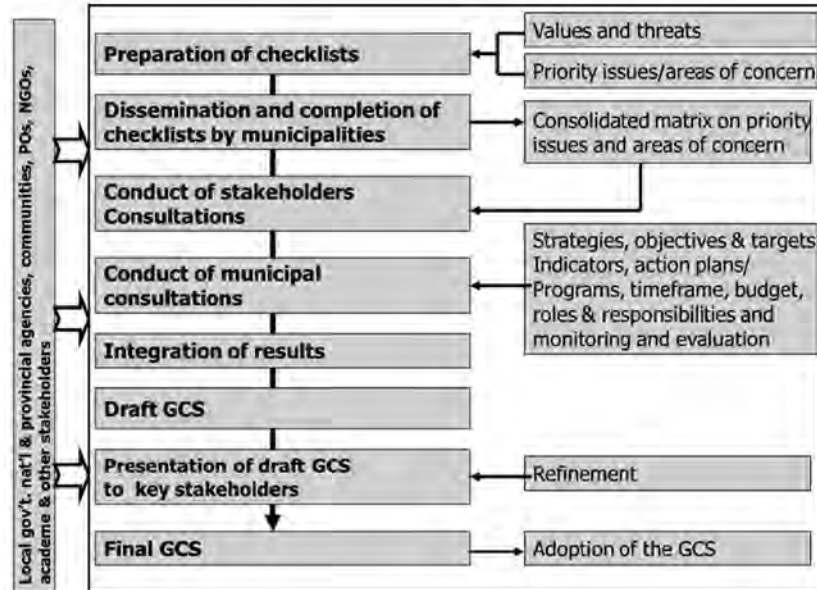
Scope of the Guimaras Coastal Strategy

The Coastal Strategy covers the entire Province of Guimaras including air, land and water on the seaward side of the coastal watersheds and the sea and seabed within the maximum 15 km municipal waters limit, as defined in the Republic Act 8550, in the 5 municipalities comprising the Province.

Within this boundary, the scope would include any activity or processes, which have impact on the coastal and marine environment and resources both at present and in the future.

The 470.29 km coastline of the Province is intersected by three (3) major river systems, namely the Cabano, Mantangingi and Sibunag Rivers located in the municipalities of San Lorenzo, Buenavista and Sibunag, respectively. In addition to the three major river systems, there are 29 river basins and 10 individual river basins in the Eastern and Western Watersheds, respectively. These rivers are threatened by impacts

Box 1. Consultation process on the formulation of Guimaras Coastal Strategy.



from land based-activities, which in turn serve as potential sources of threats to the coastal and marine ecosystems and environment. For this reason, land- and sea-based activities (e.g., shipping, coastal and marine tourism, mariculture, etc.) that have direct influence on water quality and ecosystems health are covered by the Strategy.

The timetable is not specified in the Coastal Strategy. The work programs to be developed and adopted including the time schedules to meet the desired outputs and outcomes are covered in the Coastal Strategy Implementation Plan. Having the sense of ownership, the stakeholders themselves will determine how fast the shared vision will be achieved by committing to the strategy and implementing the action programs. This may take 20 years or more, and will require political will and steadfast dedication of the stakeholders in order to effect the desired changes. The people's enjoyment and renewed interest in the marine and coastal environment of Guimaras will be the key indicator of progress, and this change will take place gradually, but evidently in due course.

How will the strategy be used?

The Coastal Strategy was developed as a result of a series consultations and reviews involving the key stakeholders from Guimaras. The development of the strategy transpired from the consensus of those who put sustainable development of the coastal and marine environment of Guimaras as the ultimate objective. This included policy makers, fisher folks, scientists, religious groups, government departments and agencies, women's organizations, environmental advocates, communities, industries, commercial enterprises, financial institutions and so on. These are the same partners, who in unison will use the strategy to manage Guimaras' coastal and marine areas.

A Guimaras Declaration will be signed by stakeholder groups to adopt the strategy upon its completion. The Declaration will serve as an affirmation of the commitment of the stakeholders in implementing the Guimaras Coastal Strategy. The Coastal Strategy and the action programs will be institutionalized through a supporting legislation.

GUIMARAS PROVINCE

THE PEOPLE OF GUIMARAS

History

For chroniclers who have intimate knowledge of its past, notably prominent Ilonggos who made written accounts of the Province, Guimaras is known to have a unique history.

According to Luhan, the island was formerly known as HIMAL-US. A prevailing legend has it that two of its inhabitants called Guima and Aras, who were lovers, went swimming and never returned. Thus, in their honor, Himal-us was changed to Guimaras by the pre-Spanish Ilonggos.

The beauty of the island attracted the attention of colonizers as related by Sonza and Gonzales.

The Spaniards headed by Gonzalo Ronquillo de Peñalosa who established the first Spanish settlement in Arevalo were struck by the beautiful sceneries in the island. They noticed that the verdant mountains abounded with forest timbers, limestone for building purposes, and excellent hunting and fishing grounds.

During the 19th century, two outstanding foreigners visiting Iloilo made favorable comments about Guimaras.



One was Sir John Bowring, the British Governor of Hong Kong, scholar, and author of the famous book, "A Visit to the Philippines." Bowring came in 1859 and noted that Guimaras was a blessing to the newly opened port of Iloilo by making it safe to navigation.

The second foreign visitor was Dean C. Worcester who later became a member of the Philippine Commission during the American Regime. Worcester came in 1887 while a zoology professor at the University of Michigan to collect specimens of Philippine fauna. He wrote that Guimaras was extremely beautiful. During the month we remained in Salag Dako, we not only regained our health but also gathered much valuable materials.

The Christianization of the people of Guimaras started almost simultaneously with that of Iloilo. For this purpose, the Spaniards organized the pueblucitos (villages) of Nayup, with San Pedro Apostol as patron saint; Nabilhan with San Juan Bautista as patron saint; and Igang whose patron saint was Santa Ana. For a long time, these small villages formed a *visita* of Oton. Governor General Dasmariñas reported to the King of Spain on June 20, 1591 that Oton had two friars, one of whom was assigned to visit Guimaras from time to time. In the 18th century, it was annexed to the parish of Iloilo. During this period, the island was frequently raided by pirates and the growth of population was slow.

In 1742, the island fell under the jurisdiction of Dumangas until 1751 when the Augustinian Order gave way to the Jesuits. In 1768, the Dominicans took over from the Jesuits the spiritual jurisdiction over Guimaras. In 1775, it was organized into the regular parish with Iloilo. Furthermore, the three villages mentioned earlier were formed into a single parish. When the population had increased considerably, the island was given its municipal status with the seat of government located in Tilad, now, Buenavista, and the old town site is what is now known as Old Poblacion.

When Guimaras became a municipality before the turn of the century, the first captain del pueblo was Eugenio Tarrazona. Those who succeeded him as chief executive of Buenavista, the mother town of the three municipalities in the Sub-province, were Manuel Garganera, Pedro Zaldivar, Marcelino Gabiazon, Jacinto Gabinete, Mariano Martir and Sergio Consing.

The American Regime brought faster progress to the island. In 1908, the Guimarasnons were given the right to elect their municipal president and Manuel Garganera was the first elected president. One great American military genius, General Douglas MacArthur left an indelible mark in Guimaras. Fresh from West

Point as a 2nd Lieutenant at the age of 23, he came to Iloilo as the head of the company of the Corps of Engineers. In Iloilo, he constructed roads and the wharf along Muelle Loney from Arroyo Street to the place of the Compania Maritima Building. He established his headquarters in Guimaras at Camp Jossman in Barrio Supang Buenavista. The Sto. Rosario wharf and the road from Sto. Rosario to Supang served as monuments of his stay in the island. MacArthur utilized the native laborers in addition to the army of engineers in constructing the wharf and road. The wharf is still in use after more than seventy years. On December 29, 1992, a resolution was passed by the Sangguniang Panlalawigan changing the name Sto. Rosario Wharf to Gen. MacArthur's Wharf in memory of Gen. Douglas MacArthur.

The development of Guimaras and the steady growth of its population necessitated the splitting of the island town into municipalities in 1918. Barrio Nagaba became the Municipality of Jordan with Valeriano Villanueva as the first Municipal Mayor and Licerio Segovia as Vice Mayor. The third municipality, Nueva Valencia, was created in 1941 with Florentino Gallopa as the first town executive.

These three municipalities remained integral parts of the Province of Iloilo until the creation of Guimaras into a Sub-Province, thereby giving the island more governmental autonomy, under the initiative and leadership of Senator Rodolfo Ganzon and Congressman Fermin Caram, Jr.

Governor Antonio G. Ortiz was the first appointed and eventually elected governor of the Sub-province. His original designation was Lieutenant-Governor but was later changed to Governor by virtue of Republic Act No. 5682, which was approved on June 21, 1969.

On July 1, 1984, Governor Antonio G. Ortiz filed a leave of absence and designated Atty. Gualterio B. Gelvezon

as Officer-in-Charge of Guimaras. The designation was officially concurred by Minister Jose A. Roño of the Ministry of Local Government. Unfortunately, Governor Ortiz succumbed to his lingering illness and died on July 17, 1984. Clouds of doubt as to who would become the legal successor of the governor arose in as much as the Sub-province has no Vice Governor and has a lone member of the Sangguniang Panlalawigan. This problem was solved when Governor Conrado J. Norada, by virtue of Section 2140 of the Revised Administrative Code assumed the power and function as Governor of Guimaras, at the same time Governor of the Province of Iloilo. On October 1, 1984, Governor Leopoldo H. Locsin, by virtue of an appointment issued by President Marcos assumed the post as Governor of Guimaras until October 23, 1986 when Dr. Catalino G. Nava acting on the designation issued by Minister Aquilino Pimentel assumed the position of OIC Governor. On November 3, 1986, a new OIC Governor was designated in the person of Abelardo D. Javellana, the former Buenavista Mayor who served the people of Guimaras until February 1, 1988.

The second and eventually last elected Governor of the Sub-province was Dr. Catalino G. Nava. It was on May 22, 1992 during his term when the Sub-province was converted into a full-fledged and regular province. He served his fellow Guimarasnons until June 30, 1992.

The euphoria that the Guimarasnons felt on the conversion of the island into a Province following the overwhelming YES vote in the plebiscite which was conducted simultaneously with the national election on May 11, 1992 has barely subsided when the new set of Provincial Officials appointed by the President to help steer the development of the place have buckled down to work on July 17, 1992. This new autonomous political status of the island with the able leadership of its first appointed governor, Emily R. Lopez was believed to usher in an era of better progress and prosperity to the Province.

By virtue of Republic Acts No. 7896 and 7897, which was approved by President Ramos on February 20, 1995, two (2) additional municipalities, Sibunag and San Lorenzo were created in the Province.

In the May 1995 election, Governor Emily R. Lopez won as the provincial governor with a clean sweep for her teammates, including the municipal mayors. From 1966 until May 7, 1995, Guimaras had been placed under the Second Congressional District of the Province of Iloilo. Also in the May 1995 elections, Dr. Catalino G. Nava won as the first representative of the lone district of Guimaras in Congress. Unfortunately, he passed away on December 3, 1995.

On May 11, 1998 election, Emily R. Lopez won as representative for the Province and Dr. Joaquin Carlos Rahman A. Nava as governor.

On May 14, 2001 election, Dr. Joaquin Carlos Rahman A. Nava won as governor as well as on May 10, 2004 election with Atty. Edgar T. Espinosa as the representative for the province.

In the May 2007 and 2010 elections, Dr. Joaquin Carlos Rahman A. Nava won as representative for the Province and Dr. Felipe Hilan A. Nava as governor, respectively.

In the May 2013 election, Dr. Joaquin Carlos Rahman A. Nava won again as representative for the Province for his last term with Dr. Samuel T. Gumarin as the newly elected governor.

In the May 2016 election, Dr. Ma. Lucille L. Nava won as representative for the Province for her first term with the re-elected governor, Dr. Samuel T. Gumarin.

In the recently concluded May 2019 election, Dr. Ma. Lucille L. Nava won again as representative for the Province for her second term with the re-elected governor, Dr. Samuel T. Gumarin serving his last term.

OVERVIEW OF GUIMARAS

Geography

The island province of Guimaras lies southeast of Panay Island and northwest of Negros Island. It lies between 10°25'00" and 10°46'09" north latitude and 122° 28'99" and 122° 28'40.53" east longitude. The island is separated from Panay by the 1.5 nautical mile long Iloilo Strait and acts as a natural breakwater for Iloilo. The six (6) nautical miles Guimaras Strait likewise separates the province from Negros (Figures 1 and 2).

The lone district of Guimaras is composed of five municipalities namely: Buenavista, Jordan, Nueva Valencia, San Lorenzo and Sibunag (Table 1).

The municipalities of San Lorenzo and Sibunag were created in 1995 by virtue of R.A. 7897 and R.A. 7896, respectively.

Guimaras has a total of 98 barangays, as approved by the NSCB Executive Board in 2003 based on the July 19, 1999 decision of the Regional Trial Court 6th Judicial Region, Branch 65, San Miguel, Jordan and recommendation of the DILG Legal Service.

Table 1. Number of barangays and coastal barangays per municipality.

Municipality	Number of Barangays	Number of Coastal Barangays
Buenavista	36	17
Jordan	14	8
Nueva Valencia	22	17
Sibunag	14	7
San Lorenzo	12	6
Total	55	98

Source: DENR Region VI.



The Province's total land area is 60,052 hectares (DENR-FLUP), comprising almost 3% of Western Visayas Region's land area (2,002,320 hectares). Of the total land area, 59,600 hectares comprise the mainland, Inampulugan, Panobolon and Guiwanon islands while the remaining 857 hectares comprise the unclassified public lands. (PPFP 2008-2035) (Table 2).

A total of 54,593 hectares or 90.91% of the Province's land area is classified as alienable and disposable; 2,215.77 hectares for Forest Land (Upland); 1,133.87 hectares for FL (Fishpond); 261.02 hectares (Mangrove); and 1,848.74 hectares are unclassified island and islets (DENR-FLUP).

The topography of Guimaras Island varies from level to steeply sloping, with land elevation ranging from 0 to

Table 2. Land area of municipalities.

Municipality	Area	Percent Share of Land Area (%)
Buenavista	13,410	22.3
Jordan	11,598	19.3
Nueva Valencia	10,852	18.1
Sibunag	13,600	22.6
San Lorenzo	10,592	17.6
Total	60,052	100.00

Source: DENR Region VI.

Figure 2. Administrative map.

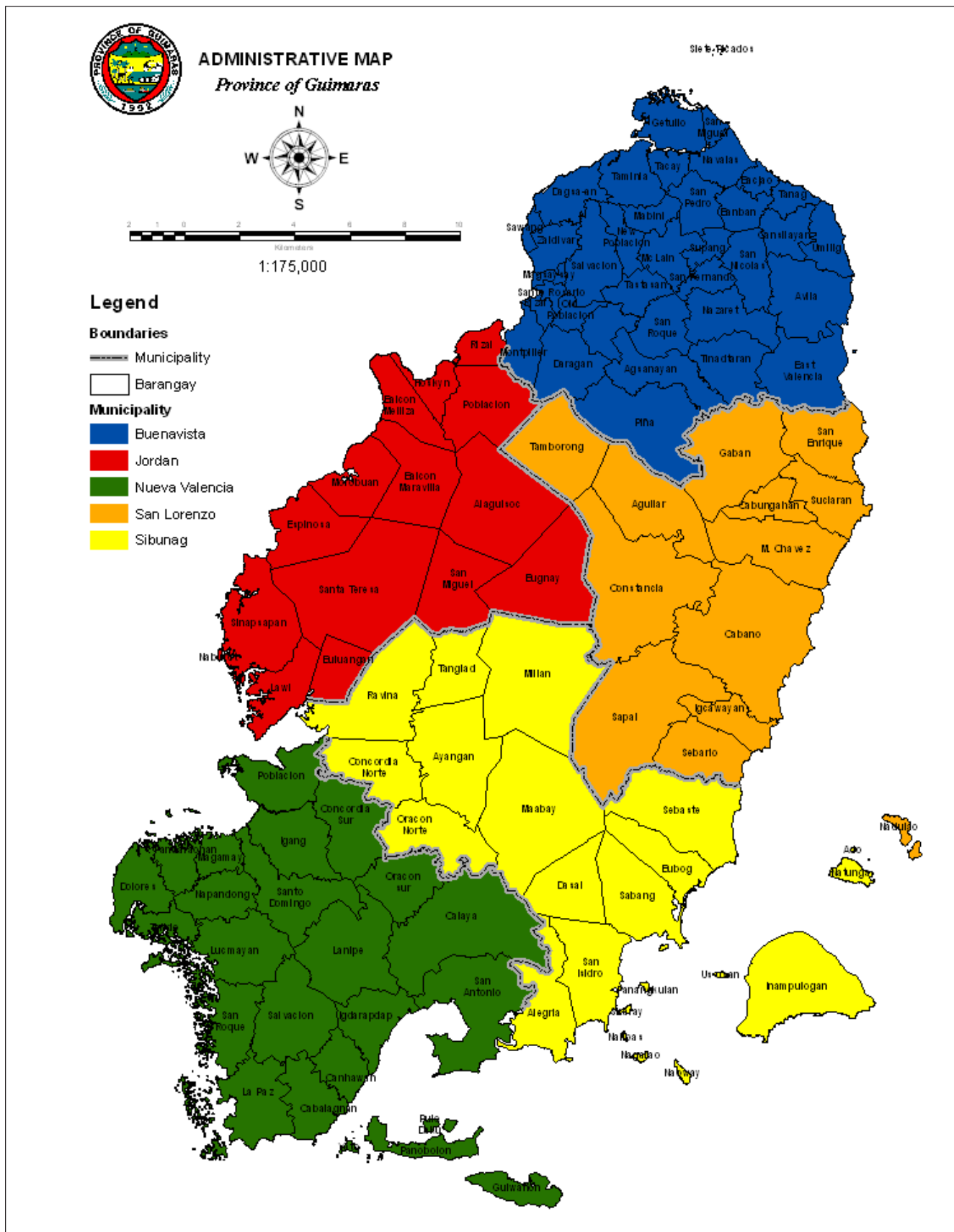


Figure 3. Slope map.

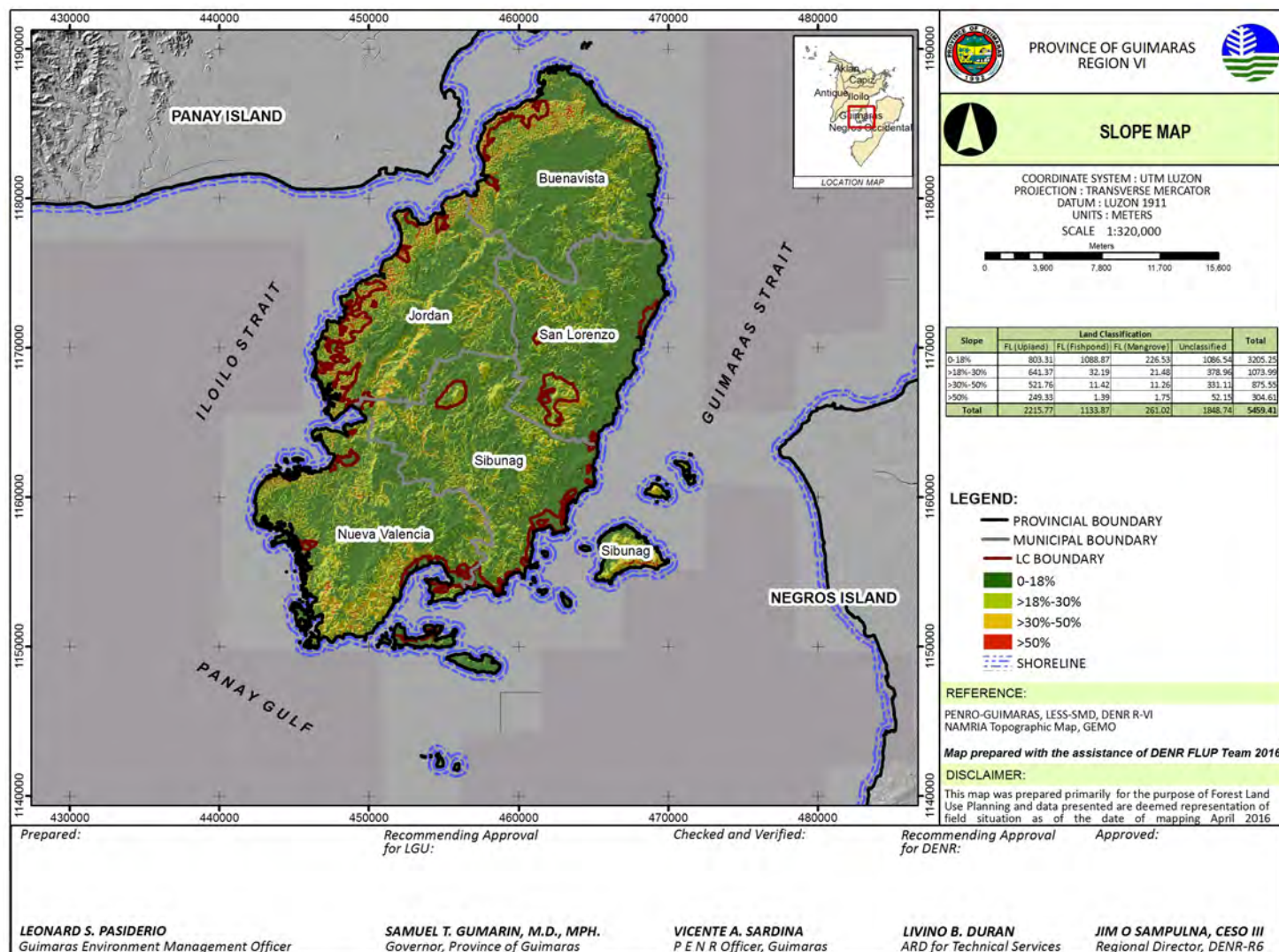


Table 3. Land distribution by slope range.

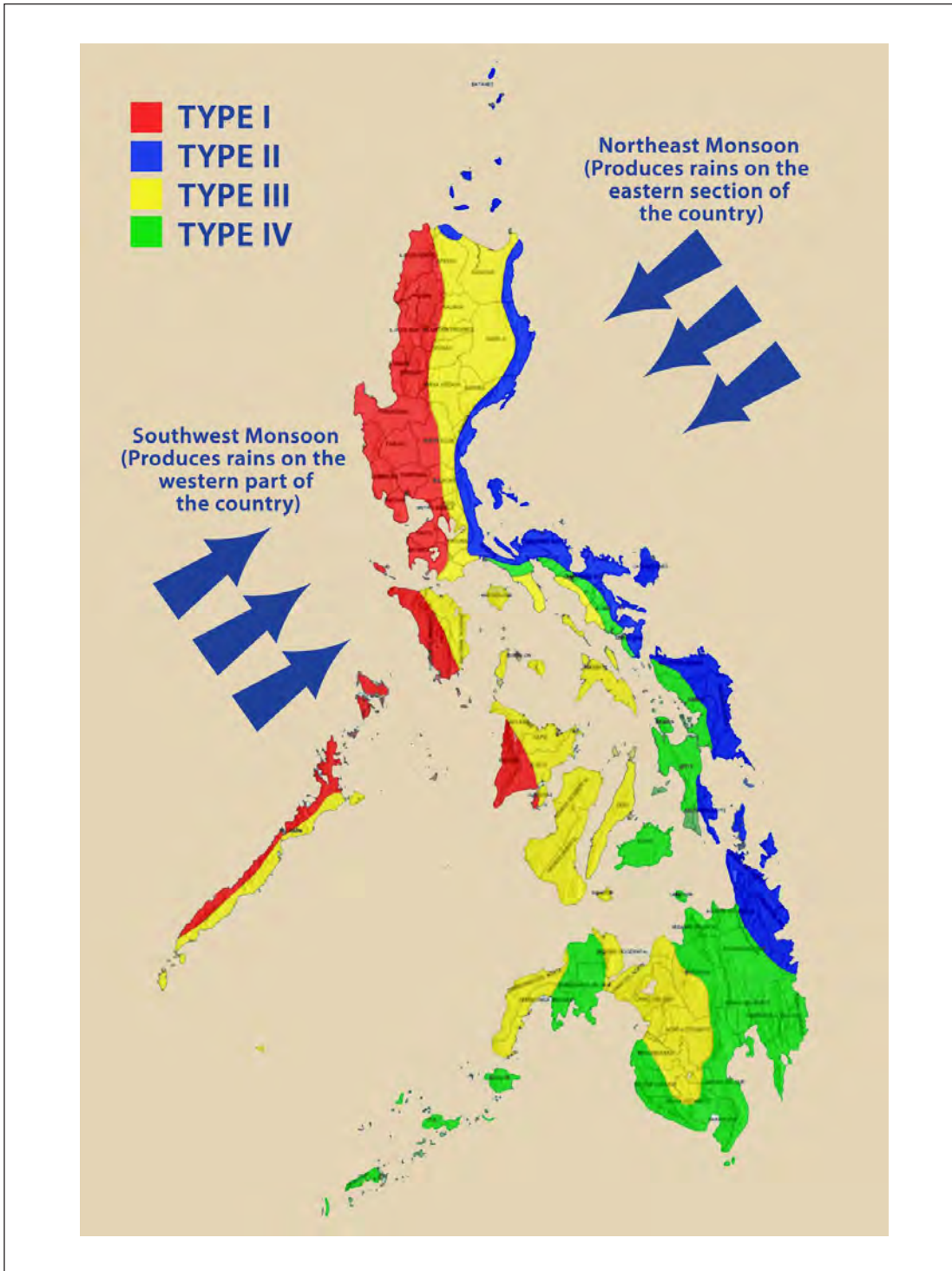
Slope Range %	Description	Area	Percent (%)
0-3	Level to nearly level	10,219	16.90
3-8	Gently Sloping to undulating	11,044	18.27
8-18	Moderately sloping to rolling	20,889	34.55
18-30	Strongly sloping to moderately steep	13,347	22.08
30-50	Steep hills and mountains	4,666	7.72
Over 50	Very steep hills and mountains	292	0.48
Total		292	100.00

Source: Bureau of Soils and Water Management (BSWM), 1991.

nearly 300 meters above sea level. Mt. Dinalman, located in Millan, Sibunag, has the highest elevation of 267 meters above mean sea level (Table 3).

A vast part of the island's land area is 100 meters above mean sea level. By comparing the topographic features from the 1956 topographic maps with the

Figure 4. Philippine climate map.



Source: PPDO-Guimaras.

present situation, it can be concluded that the island's topography has not been altered much by man-made activities.

The island's topography shows quite steep slopes on the western side of the island with plateaus and 3 peaks above 200 m in the central portion (Figure 3).

Climate Condition

Guimaras is classified as having Corona’s Type 1 and Type III climate. Corona Type I is characterized by two pronounced seasons: the dry season occurring between the months of November and April, and the rainy or wet season, which occurs during the rest of the year. Corona Type III season is not very pronounced, relatively dry during November to April and wet during the rest of the year (Figure 4).

Rainfall during the northeast monsoon is attributed to the occurrence of conventional thunderstorms, a result of intense heating causing rapid evaporation, or to a lesser extent, typhoons, which can occur in the region during October-November. The probability of typhoons hitting Guimaras is fortunately low. The island has a rare frequency passage of 0%-10% of the annual average of 19.8 typhoons.

The southwest monsoon (*Hanging Habagat*), which ushers in the wet season, starts in June and ends in September. It is characterized by moisture-laden maritime tropical (MT) winds prevailing from a southwesterly direction due to a high pressure system over the Australian Continent,

from which diverging winds move towards a low pressure system over South and Southeast Asia including Mainland China (Figure 4).

Temperature data from the GNCRDPSC over an 11-year period (2008-2018) shows a minimum monthly mean temperature of 23.16°C occurring in 2014 during the month of January and a maximum monthly mean temperature of 32.51°C occurring in 2010 during the month of May. The average temperature throughout the 11 years is 30°C and there is an increasing trend in the mean temperature levels, particularly notable in the 1990s (Table 4).

The highest average temperature recorded from 2008 – 2018 was 29.44°C recorded in 2010.

Based on the Koeppen classification Scheme, Guimaras has an —“Am” climate, that is, a tropical climate. According to Koeppen, an area has a tropical monsoon climate if temperatures throughout the year remain above 18 degrees Celsius and average monthly precipitation levels are above 60 millimeters with not more than three months falling below this.

Table 4. Monthly average temperature in degrees celsius, Guimaras (2008-2018).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave./Year
2008	25.85	25.00	25.82	27.28	25.19	26.58	25.47	23.23	26.24	26.51	27.00	25.57	25.81
2009	24.14	25.34	26.63	27.56	27.03	27.49	26.39	27.98	26.51	26.84	26.76	26.4	26.59
2010	27.49	29.09	30.66	31.50	32.51	29.27	28.22	28.91	29.81	29.15	29.31	27.4	29.44
2011	26.42	27.71	27.47	29.38	28.97	28.81	28.10	28.09	27.12	27.32	27.54	26.61	27.79
2012	26.25	26.29	26.45	28.43	28.46	27.05	26.98	27.33	26.40	26.92	26.77	25.80	26.92
2013	24.39	24.56	26.80	28.94	29.17	27.67	27.08	26.59	27.15	26.84	26.06	26.02	26.77
2014	23.16	24.24	25.64	27.13	28.79	27.80	26.65	27.59	27.42	27.54	26.97	26.13	26.59
2015	24.28	25.07	26.22	28.11	28.75	27.35	26.41	26.53	26.60	26.93	27.42	26.3	26.66
2016	27.14	25.74	27.97	29.65	29.26	27.51	26.38	26.03	26.31	26.40	25.64	25.60	26.96
2017	24.00	24.32	25.32	27.01	27.74	26.97	25.56	26.31	26.23	26.01	26.57	25.63	25.97
2018	24.7	25.16	25.56	27.10	27.23	26.54	25.95	25.93	25.76	27.43	26.66	25.78	26.17

Source: BPI- Guimaras National Crop Research, Development Support Center.

Table 5. Monthly average rainfall data, Guimarães (2008-2018).

Year	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Ave./Year
2008	4.48	2.63	2.39	5.18	11.18	14.83	8.30	8.63	10.86	4.85	4.49	5.35	6.93
2009	1.26	3.91	0.51	7.36	6.48	15.15	25.84	7.94	15.4	10.11	2.20	6.70	8.57
2010	0.70	0.00	0.16	0.53	2.73	3.59	11.98	12.52	7.76	13.8	2.22	3.77	4.98
2011	6.63	1.95	8.46	0.20	12.24	15.22	13.44	15.26	7.97	9.54	4.68	6.70	8.52
2012	0.83	0.96	3.12	0.96	6.19	19.11	14.19	4.21	8.37	4.2	5.03	2.35	5.79
2013	0.29	1.70	0.01	1.05	2.06	3.20	10.02	6.32	21.32	2.55	5.13	0.15	4.48
2014	1.33	1.57	1.64	3.03	2.75	3.73	22.56	8.58	10.02	14.69	2.87	3.18	6.33
2015	0.97	0.18	0.18	0.16	1.87	9.48	15.20	18.98	12.25	8.85	0.63	1.40	5.85
2016	5.00	9.00	0.00	1.00	11.00	11.00	14.00	19.00	22.00	21.00	13.00	16.00	11.83
2017	3.68	0.57	1.84	2.56	5.41	6.08	10.15	14.02	17.28	15.86	4.76	2.92	7.09
2018	4.35	3.89	1.30	1.41	7.63	13.00	29.86	23.84	27.93	3.97	9.63	6.44	11.10

Source: BPI- Guimarães National Crop Research, Development Support Center.

Table 6. Average daily weather data observation, Guimarães (2018).

Year	Temperature (°C)		Rainfall	
	Minimum	Maximum	Volume (mm)	No. of Rainy Days
January	23.18	26.22	4.35	13.0
February	23.36	26.96	3.89	8.0
March	24.04	27.07	1.30	4.0
April	25.21	28.98	1.41	4.0
May	25.71	28.82	7.63	11.0
June	24.62	28.82	13.00	18.0
July	24.06	27.83	29.86	23.0
August	24.18	27.68	23.84	19.0
September	23.71	27.80	27.93	18.0
October	24.95	29.91	3.97	6.0
November	24.36	28.96	9.63	15.0
December	23.74	27.82	6.44	17.0
Annual Average	24.26	28.07	11.10	13.0

Source: BPI- Guimarães National Crop Research, Development Support Center.

According to the precipitation data spanning a twenty five year period (1975 to 2001) of the Guimaras Experiment Station, now National Mango Research and Development Center (NMRDC), the three months with precipitation which fall below 60 millimeters are January, February and March with February posting the lowest mean of 29.26 mm.

The northeast, monsoon commonly known as the *Hanging Amihan* occurs from November to mid-February. It is called such because prevailing winds during this period originate from the northeast. The winds diverge from a high pressure system over the Asian mainland, specifically Siberia and moves towards a low pressure system over Australia passing across the Philippines and the equator along its path. The winds are usually cool and contain little moisture due to their continental polar origin, hence the low precipitation levels. Furthermore, geographic barriers, specifically the Sierra Madre in eastern and southern Luzon, further minimize the possibilities or rain bearing winds from the northeast even though the island is open to the northeast monsoon through the Guimaras Strait.

From 2008 to 2018, the highest monthly average rainfall was recorded in July 2009 at 25.84 mm while the lowest average rainfall was recorded in February 2010 and March 2016 at 0.00 mm (Table 5).

The Province of Guimaras experienced a total of 156 days of rain for the year 2018 at an average of 13 days per month with a total rain volume at 133.25 mm and an average monthly rainfall volume of 11.10 mm.

October is the hottest month in Guimaras Province with maximum temperature recorded at 29.91°C (85.84°F) and the coldest was recorded in January with minimum temperature of 23.18°C (73.72°F). The months of March and April are mostly sunny while the wettest month which recorded 23 days of rain at 29.86 mm rainfall is the month of July (Table 6).

Soil Classification

The major soil types are Guimaras Gravelly Loam (71.85% of the total land area), Faraon Clay (16.86%), Umingan Fine Sandy Loam (5.62%), San Rafael Loam (4.28%), Hydrosol (1.29%), Sta. Rita Clay Loam (0.03%), and Beach Sand (0.07%).

About 57 percent of the total area of Guimaras experiences moderate soil erosion while 8 percent is severely eroded. Only 16.90 percent of the land area has no apparent erosion.

Watershed

There are two principal watersheds in the island: the Eastern watershed covering 38,700 hectares or 65 percent of the total area, and the Western watershed covering 20,900 hectares or 35 percent of the total area including the inhabited islands (e.g., Inampologan, Guiwanon, Panobolon) with surface water sources. The remaining 900 hectares of the province are small-inhabited islands. The main watershed boundary is displaced westward and runs NE-SW along the island's long axis, coinciding roughly with the contact between the volcanic rocks and sedimentary formations of Buenavista Limestone and Jordan Clastics.

In the Eastern part of the province, there are 21 sub watersheds while in Western part there are 13 sub watersheds with a total of 34 sub watersheds. There are three major sub watersheds identified, the Sibunag River sub watershed with an area of 9,326.45 hectares; the Cabano River sub watershed with an area of 8,004.60 hectares and the Mantangingi River sub watershed with an area of 5,140.31 hectares. There are reports that these rivers, having comparatively large catchments areas, dry-up during prolonged dry season, indicating limited aquifer storage to support the base flow. Out of these three major sub watersheds, only Mantangingi has no forest and forestland area.

In Nueva Valencia, the source of spring water is the Surarik Spring in Concordia Sur and Bongga Spring in Sto. Domingo where water is collected in the reservoir and distributed in the town center and five other barangays through Levels I, II and III. Levels I, II and III water systems cover 86 percent of the total households while 2 island barangays are served by solar power.

Based on the Provincial Water Supply, Sewerage and Sanitation Sector Master Plan, 1994-2010, prepared in 1994 by Carl Bro International A/S, Denmark, more than 84 percent of all wells are less than 16 m deep and depth of groundwater level is less than 10 meters below ground surface in more than 73 percent of all wells. In more than 83 percent of wells, the water column is less than 2.5 m during the time of survey, indicating that many wells may dry up-during the dry season because the seasonal fluctuations of groundwater level are from 4-6 m.

The elevation of groundwater level follows closely terrain forms and ranges from 180 meters above sea level in the uplands to less than 10 meters above sea level near the coast.

A groundwater resource assessment in Guimaras Province was conducted by the Mines and Geosciences Bureau of DENR in 2016 with the aim of determining the chemical and physical properties of the groundwater sample at source for purposes of establishing the baseline data. Major findings and recommendations from the study included:

1. Sixty out of the 213 wells and springs assessed revealed a low pH reading, which was attributed to the timing of sampling (i.e., there was heavy rain before and during the sampling).
2. An average total dissolved solid is 500mg/L, which does not pass the Philippine National Standards for Drinking Water of below 500mg/L. The results were attributed to the concentration of dissolved organic and inorganic chemicals in the water.
3. Most of the sampled wells along the coastal areas has high salinity readings, which indicate possible occurrence of salt water intrusion.
4. Heavy withdrawal of water from wells must be regulated to prevent/minimize salt water intrusion.
5. Wells located in the rice fields have traces of insecticides and pesticides. Water contamination with these pollutants must be given attention.
6. Regular monitoring is encouraged to ensure potability of water from wells used for drinking purposes.
7. Bacteriological Test must be conducted for every source of drinking water before declaring it safe and potable.

Demography

Guimaras Province recorded the least population among the provinces of Western Visayas for the three most recent Population Censuses conducted as shown in Table 7. In the latest population census in 2015, Guimaras province has a total population of 174, 613, contributing to only 3.90 percent of the region's total population. On the other hand, the total population in the province has been increased by 33,163 in a span of 15 years. The region's population decreased to 4, 477, 247 in 2015 due to the separation of Negros Occidental by virtue of Executive Order No. 183 creating the Negros Island Region. In accordance with this, the province of Iloilo recorded the highest total population at 1, 936, 423 in 2015. At the national level, Guimaras shares 0.17 percent to the total Philippine population of 100.98 million in 2015 (Table 7).

Guimaras province ranked fourth in terms of annual population growth at 1.33 percent in 2015. Guimaras' population density recorded at 288 persons/sq.km. is higher than the region's population density of 221 persons/ sq.km. while it is still lower than the national population density of 336 persons/ sq. km. In terms of land area, the province of Guimaras has the least at 604.57 sq. km. which contributes to only 2.99 percent of the total regional area (Table 7).

Table 7. Population by province, Region VI and Philippines (2000, 2010 and 2015).

Province	Population			Population % Share to Regional Total		
	2000	2010	2015	2000	2010	2015
Aklan	451,314	535,725	574,823	7.27	7.54	12.85
Antique	472,822	546,031	582,012	7.61	7.68	13.00
Capiz	654,156	719,685	761,384	10.53	10.13	17.00
Iloilo	1,559,182	1,805,576	1,936,423	25.10	25.42	43.25
Iloilo City	-	-	447,992	-	-	10.00
Negros Occidental*	2,136,647	2,396,039	-	34.40	33.73	-
Guimaras	141,450	162,943	174,613	2.28	2.29	3.90
Region VI	6,211,038	7,102,438	4,477,247			
Philippines	76,498,735	92,337,852	100,981,437	-	-	-

Source: NSO & Philippine Statistics Authority, Census of Population.

Table 8. Population, annual population growth rate, density, area, by municipality in Guimaras Province (2000, 2010 and 2015).

Municipality	Population			Population % Share to Provincial Total			Annual Population Growth Rate (%)		Density (persons/sq km)			Land Area (sq km)	Area % to Provincial Total
	2000	2010	2015	2000	2010	2015	2010 – 2015	2010 – 2015	2000	2010	2015		
Buenavista	41,717	46,703	50,437	29.49	28.67	28.88	1.13	1.47	325	364	393	128.26	21.21
Jordan	28,745	34,791	36,096	20.32	21.35	20.67	1.93	0.70	228	276	286	126.11	20.86
Nueva Valencia	34,255	37,852	39,810	24.22	23.23	22.79	1.00	0.96	224	276	290	137.12	22.68
San Lorenzo	20,168	24,032	26,112	14.26	14.75	14.95	1.77	1.59	217	258	280	93.04	15.40
Sibunag	16,565	19,565	22,158	11.71	12.00	12.68	1.68	2.40	168	163	184	120.04	19.85
Guimaras	141,450	162,943	174,613	100.00	100.00	100.00	1.42	1.33	234	270	288	604.57	100.00

Source: PSA, 2015.

The total population of the 5 municipalities increased from 2000 to 2015. The municipality of Buenavista recorded the highest increase in population at 8, 720 from its 2000 population of 41,717. Buenavista also recorded the highest population among the municipalities of the province at 50, 437 in 2015 comprising 28.89 percent of the provincial total population. The municipality of Sibunag has the least population recorded in the latest three population censuses conducted with only 22,158

total population comprising 12.69 percent of the provincial total population.

The gross population density of Guimaras increased from 234 persons/square kilometer in 2000 to 270 persons/square kilometer in 2010 and to 288 persons/square kilometer in 2015. The municipality of Buenavista has the highest population density at 393 persons/square kilometer and second is the municipality of Nueva Valencia

with 290 persons/square kilometer population density where both municipalities have gross densities higher than the provincial gross population density in 2015. The municipality of Sibunag which has the least total population among the 5 municipalities also has the least gross population density at 184 persons/square kilometer.

Growth Rate

The annual population growth rate of 2.4 percent from 1995 to 2000 decreased to 1.42 percent in 2000-2010 and continued to decline to 1.33 percent in 2010-2015. From 2000-2010, Jordan had the highest population annual growth at 1.93 percent, and the lowest is Nueva Valencia with 1.00 percent. In the 2010-2015 survey, three municipalities of Guimaras posted high population growth rates, even higher than the population growth rate of the province. Sibunag had the fastest growing population with a rate of 2.40 percent; San Lorenzo- 1.59 percent, and Buenavista- 1.47 percent, with Jordan and Nueva Valencia having the least population growth rate of less than 1 percent each.

Household Distribution

A total of 35,462 households was recorded in 2010 and 40,575 in 2015 in the province. The municipality of

Buenavista consistently recorded the highest number of households at 10,444 in 2010 and 12,115 in 2015 comprising 29.45 percent and 29.86 percent of the total households in the province in 2010 and in 2015, respectively. While Jordan has 8,311 households (20.48 percent) and Nueva Valencia has 9,173 households (22.61 percent). San Lorenzo has 5,995 households (14.78 percent) and Sibunag with 4,981 households (12.28 percent) in 2015.

The average household size of the province decreased from 4.6 in 2010 to 4.3 in 2015. The municipality of Jordan has the highest average household size at 4.7 in 2010 and is the only municipality that exceeded the province's average household size. In 2015, the municipality of San Lorenzo and Sibunag had the highest average household size at 4.4 followed by Jordan and Nueva Valencia at 4.3 while the municipality of Buenavista still got the least average household size at 4.5 in 2010 and 4.2 in 2015 (Table 9).

Age-Sex Distribution and Sex Ratio

According to the 2015 Census of Population, the median age of the total population of Guimaras province is 26.2 years. This is higher than the median age of 24.6 years that was recorded in 2010. Moreover, 29.3 percent of

Table 9. Number of households and average household size per municipality, Guimaras (2010 and 2015).

Municipality	2010		2015	
	Number of households	Average household size	Number of households	Average household size
Buenavista	10,444	4.5	12,115	4.2
Jordan	7,357	4.7	8,311	4.3
Nueva Valencia	8,176	4.6	9,173	4.3
San Lorenzo	5,211	4.6	5,995	4.4
Sibunag	4,274	4.6	4,981	4.4
Guimaras	35,462	4.6	40,575	4.3

Source: 2016 Regional and Economic Trends Western Visayas, PSA.

the total population was under 15 years old. Children aged 0 to 4 years and 5 to 9 years (10.0 percent each) comprised the largest age groups, followed by those in the age groups 10 to 14 years and 15 to 19 years (9.4 percent each). Males outnumbered females in the age groups 0 to 64 years. On the other hand, there were more females than males in the older age groups (65 years and over) (Figure 5; Table 10).

The voting-age population or persons 18 years old and over accounted for 64.9 percent (113,279 persons) of the total population of the province in 2015, up from 62.6 percent in 2010. There were more males (51.1 percent) than females (48.9 percent) among the voting age population.

Dependency ratio was posted at 56 dependents per 100 persons in the working age group. Of the total population, 64.1 percent belonged to the working age population (15 to 64 years). Children below 15 years of age comprised 29.3 percent, while older persons (65 years and over) accounted for 6.6 percent.

In 2015, the median age of the population of the province was 28.1 years, which means that half of the population was younger than 28.1 years. This is higher than the median age of 24.6 years that was recorded in 2010.

Moreover, 29.33 percent of the total population was under 15 years old. Children aged 5 to 9 years (10 %) comprised the largest age group, followed by those in the age groups 15 to 19 years (9.44 %) and 10 to 14 years (9.38 %). Males outnumbered females in the age groups 0 to 64 years. On the other hand, there were more females than males in the older age groups (65 years and over).

The overall dependency ratio in 2015 was 56. This means that for every 100 persons aged 15 to 65, there were about 56 dependents (46 persons aged 0 to 14 – young dependents; and 10 persons aged 65 years and over – old dependents). The 2015 ratio was lower than the 70 ratio reported in 2010.

Indigenous People

There are 231 IP households, with a total of 303 IP families in the province of Guimaras as of February 2018. A total population of 1014 IPs were recorded which is higher than 842 recorded in 2017, staying in the six identified settlement areas of the four municipalities (excluding San Lorenzo) (Table 11).

Figure 5. Age-sex pyramid of the total population in Guimaras (2015).

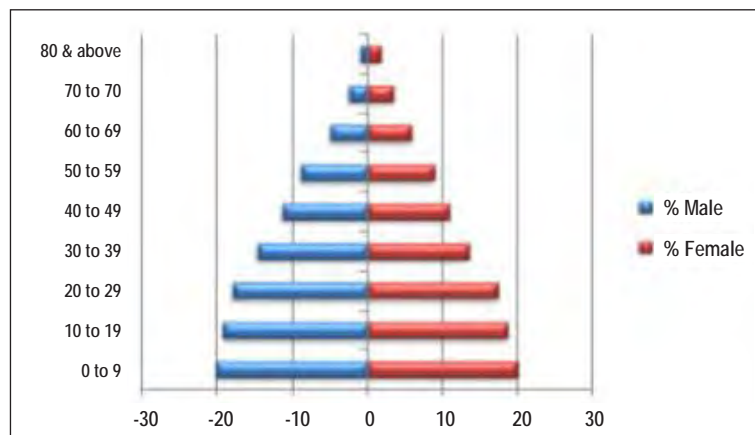


Table 10. Census of population by sex and age group, Guimaras (2010 and 2015).

Age Group	Total Population		Male		Female	
	2010	2015	2010	2015	2010	2015
All Ages	162,734	174,613	83,838	89,644	78,896	84,969
Under 1	3,137	3,055	1,601	1,603	1,536	1,452
1-4	13,490	14,339	6,953	7,357	6,537	6,982
5-9	16,742	17,454	8,703	8,933	8,039	8,521
10-14	17,290	16,374	9,067	8,496	8,223	7,878
15-19	16,911	16,489	8,789	8,627	8,122	7,862
20-24	14,953	16,022	7,997	8,218	6,956	7,804
25-29	12,973	14,719	6,833	7,767	6,140	6,952
30-34	11,402	13,054	6,091	6,894	5,311	6,160
35-39	10,201	11,415	5,382	6,146	4,819	5,269
40-44	9,443	10,141	4,924	5,366	4,519	4,775
45-49	8,540	9,133	4,398	4,720	4,142	4,413
50-54	7,335	8,231	3,763	4,221	3,572	4,010
55-59	5,870	7,123	2,961	3,627	2,909	3,496
60-64	4,381	5,571	2,109	2,800	2,272	2,771
65-69	3,332	4,075	1,545	1,885	1,787	2,190
70-74	2,889	2,850	1,253	1,257	1,636	1,593
75-79	1,924	2,272	778	911	1,146	1,361
80 & over	1,921	2,296	691	816	1,230	1,480

Sources: NSO, 2010 Census of Population; PSA, 2015 Census of Population.

Table 11. Population of indigenous people, Guimaras (2018).

Municipality	Barangay/Sitio	Total Population			No. of HH/ Families	Name of Head or Leader	Ethnic Group
		Male	Female	Total			
Buenavista	So. Serum, Brgy. San Nicolas	80	75	155	31 HH/ 35 Families	Sitio Mesahon	ATI
Jordan	So. Kati-kati, Brgy. San Miguel	203	190	393	101 HH/ 108 Families	Josephine Tahan	ATI
Sibunag	So. Lininguan, Brgy. Maabay	93	170	203	49 HH/ 49 Families	Iloilo	ATI
	So. Dagobdob, Brgy. Concordia	22	17	39	10 HH/ 43 Families	Iloilo City	ATI
Nueva Valencia	So. Tarog, Brgy. Poblacion	34	32	66	16 HH/ 43 Families	Negros Occidental*	ATI
	So. Ubog, Brgy. Lanipe	46	52	98	24 HH/ 25 Families	Guimaras	ATI
Total		478	536	1014	231 HH/ 303 Families		

Source: National Commission on Indigenous Peoples Guimaras.

Language Spoken

In 2000, nine out of ten of the household population in Guimaras classified themselves as Ilongo/Hiligaynon. A minority of 7 percent considered themselves as Karay-a/Kinaray-a and less than 1 percent Cebuano, Tagalog, or any other ethnicity.

Religion

According to 1990 survey in Guimaras, there were 88,903 Roman Catholics, 20,968 Aglipayans; 2,519 Baptists; 1,443 United Church in the Philippines; 999 Seventh Day Adventists; 877 other Protestants; 629 followers of Iglesia ni Cristo and 1,489 belonging to other religions and 41 were not stated.

Poverty

At the municipality level, San Lorenzo and Sibunag have recorded the highest poverty incidence, i.e., 28.7 per cent and 28.4 per cent, respectively, which may be attributed to insufficient access to nutrition, health, education, housing and leisure (Tables 12 and 13).

Employment

The unemployment rate for 15 years old and above showed a decrease in the Municipalities of Buenavista, Jordan and Sibunag for the period 2011-2012 and 2016-2017. The Municipalities of Nueva Valencia and San Lorenzo exhibited declining rates (Table 14).

Table 12. Poverty Incidence among families in Guimaras Province.

Year	Poverty threshold (PhP)	Poverty incidence	Magnitude of poor families
2009	16,204	13.4	4,665
2012	18,926	16.9	6,345
2015	23,136	4.8	1,594

Guimaras 2nd SOC Report.

Table 13. Municipal level poverty estimates (2012).

Municipality	Poverty incidence	Standard error	Coefficient of variation	90% Confidence interval	
				Lower limit	Upper limit
Buenavista	16.3	2.2	13.6	12.6	19.9
Jordan	17.5	3.0	17.3	12.5	22.5
Nueva Valencia	19.0	2.8	14.4	14.5	23.6
San Lorenzo	28.7	4.8	16.7	20.8	36.6
Sibunag	28.4	3.5	12.5	22.6	34.2

Guimaras 2nd SOC Report.

Table 14. Unemployment rate (15 years old and above).

Municipality	2011–2012		2016–2017	
	Magnitude	Proportion	Magnitude	Proportion
Buenavista	1,295	9.3	657	4.6
Jordan	741	6.4	694	6.0
Nueva Valencia	348	4.3	788	7.1
San Lorenzo	413	7.7	697	8.5
Sibunag	645	9.6	426	6.3

Source: CBMS data 2011–2012 & 2016–2017.

THE VALUE OF GUIMARAS

Historical and Cultural Values

Historical and Religious Sites

Guimaras is strategically located between the regional center (Iloilo) and sub-regional center (Bacolod) and boasts its own developmental history that dates back since the Spanish occupation until the American era.



There are century old structures in the island such as the Navalas Church in Buenavista and the Heritage Site of Guisi Lighthouse in Dolores, Nueva Valencia that reflect the old era.

The Navalas Church in Brgy. Navalas, Buenavista, Guimaras, built in 1880-1885, is the oldest existing Roman Catholic Church in the province of Guimaras that survived the ravages of time. A four feet tall bell which was placed



at the belfry was carted away and dumped into the sea near Siete Pecados by Muslim raiders. Only the facade remained untouched. The ceilings and structure inside the church have already been renovated.

Guisi Lighthouse was built by the Spanish Government in 1896 as part of the master plan for the lighting of the Maritime Coasts of the Philippine Archipelago. The lighthouse guided ships and served as a navigational aid to fishermen and sailors cruising the Panay Gulf. While the original lighthouse is no longer operational, the Philippine Coast Guard built a new one.



Guimaras hosts the Our Lady of the Philippines Trappist Monastery in San Miguel, Jordan which was established in 1972. It is the only male monastery in the Philippines



run by the order of the Cistercians of Strict Observance. Guimaras is also home to the Contemplative Trappist Catholic Christian Monks of the Philippines.

Another religious site in the province is the Balaan Bukid Shrine in Balcon Melliza, Jordan where the yearly celebration of *“Ang Pagtatal sa Jordan”*, a reenactment of the Lord’s Passion, is held every Good Friday. Hundreds of devotees visit this holy mountain to meditate during the Lenten Season.



Other religious sites include the Consolers of Immaculate Heart of Mary located in San Miguel, Jordan and the Holy Family in Tamborong, San Lorenzo.



One of Guimaras’ famous landmarks is the summer house of the Lopez Clan built on top of a hill, also known as Roca Encantada or “Enchanted Rock”. The house was built in 1910 in honor of Doña Presentacion Hofileña Lopez. Despite the modern exterior, the idyllic mansion is a “heritage house” as declared by the National Heritage Institute.

The summerhouse overlooks the legendary islets of the seven sins or the Siete Pecados with the 18th century lighthouse built on one of the islets and on the other side is the two mile beach area of El Retiro Beach Park. The National Historical Institute declared it as a historical house on August 14, 2002. This summerhouse was renovated and reclaimed for easy access to the main land.



The Good Shepherd’s Fold Academy located at Salvacion, Buenavista, Guimaras was built on July 8, 1946 with a vision of establishing a home for orphaned and destitute children. Philip Irabon, with financial assistance from

Filipino-Chinese, Mr. Edward Tan, organized the Good Shepherd’s Fold, Inc. A farmland was bought from the Adventist Mission in Buenavista, Guimaras where the Fold now stands. It offers elementary, secondary, vocational training, practical arts, and science courses.

The Augustinian Monastery Sta. Monica in Brgy. Calaya, Nueva Valencia is the newest faculty established in the Philippines by the Monastero Agostoniane based in Italy. It was initially considered in 2004 after the order received a donation from a Chinese friend, shared Sr. M. Virginia G. Rodriguez, OSA one of the two sisters who currently run the monastery. The place was blessed by the Augustinian Father General, Most Rev. Robert F. Prevost. The five-hectare property has a monastery and two guest houses while the remaining areas are utilized as a farm. The monastery and guest houses are open for those who want to pray and meditate. The facility also receives visitors for retreat activities.



The Guimaras Bulk Sugar and Molasses Plant in Jordan, Guimaras was opened in November 1959 by the Visayan Stevedore Transportation Company (Vistranco), becoming the first and biggest sugar bulk handling plant in Asia. Built in response to the requirements of international traders to modernize the handling and shipping of sugar, it stood on a port facility that was operating since the 1930s and



was rehabilitated soon after World War II. The installation included three bulk sugar warehouses with a total storage capacity of 60,000 long tons. The warehouses were made of reinforced concrete tunnel from end to end, equipped with belt conveyors with capacity of 300 to 500 tons per hour.

During the Spanish time, the presence of church and town plaza together signifies the location of the Poblacion or the town center. The Jordan Town Plaza was founded in Brgy. Poblacion, Jordan. With its total area of about 677 square meters, the plaza was featured in the “Western in the Philippines” column of the Philippine Free Press on January 4, 1960 as the “Smallest Town Plaza” in the Philippines. It is located in front of the Roman Catholic Church and is approximately 250 meters away from Jordan Municipal Hall. In the center of the plaza stands the statue of former Philippine President Ramon Magsaysay, who

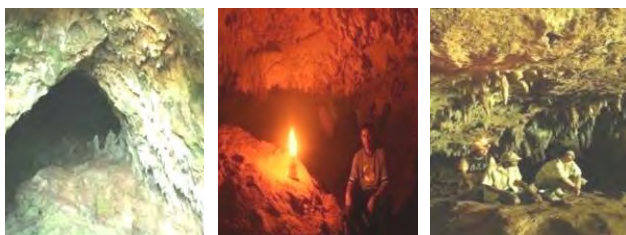


visited the island province in the early 1950s. He was the first Philippine President to visit Guimaras.

The Jordan Town Plaza holds recognition in the Guinness Book of World Record as the Smallest Town Plaza in the Philippines and the whole world. August Miranda, a freelance writer of Manila Bulletin was responsible in submitting the entry to the Guinness Book of World Record.

Geological and Archaeological Sites

There are numerous caves in Guimaras Island which are situated in the municipalities of Jordan, Buenavista and Nueva Valencia. The Bucoy and Capitoguan Caves located in Brgy. Balcon Maravilla, Jordan and Higante Cave in Brgy. Espinosa, Jordan. Daliran Cave on the other hand is located in Old Poblacion, Buenavista, while Kuweba



Tudyong is located in Lucmayan, Nueva Valencia and Kulani Cave at Brgy. Pandaraonan, Nueva Valencia.

Initial surveys identified artifacts left by early settlers in Tastasan, Buenavista and Ayangan, Sibunag. Substantial amount of shells and bones were found in Bulang Moros rockshelter, Getulio, Buenavista. Remains of ancient lime kilns can be seen along the northern, western to southern coastlines that are dominated by limestone.

Cultural Sites and Celebrations

The Guimaras Provincial Monument and Museum was built in 2006 by the then Governor and at the same time former Congressman of the Province of Guimaras, Joaquin



Carlos Rahman A. Nava, M.D. It is a one-story building that can be accessed on both sides of the structure. At the top is a sculpture of a man with a fishing tool and a plow. This symbolizes the main livelihood of the people of Guimaras: farming and fishing. Inside is an exhibit area of 12 x 20 meters which houses the memorabilia of the *Pagtaltal sa Bala-an Bukid* and other religious artifacts and paintings of the Guimarasnons. There are also multipurpose rooms as well as offices that are housed in the building.

Festivals

Manggahan Festival

Manggahan Festival is the signature festival of Guimaras, which is celebrated provincewide annually. It was established a year after the province was declared a full-pledged province through the leadership of the former Governor Emily Lopez to promote and protect the mango industry. It is almost a two-month long event celebrating the mango industry of the province by showcasing the culture, livelihood and products of the Guimarasnons. It boasts the traditions and abundant harvest of Guimaras mangoes through various activities that highlights the tourism as well as agriculture and fishery industry. Furthermore, it also commemorates the provincehood of Guimaras because the feast culminates on the exact day



that the province was declared as independent and no longer a sub-province of Iloilo.

The various activities lined up for the *Manggahan* Festival are facilitated by different offices, agencies and organizations. The festival maximizes the participation of stakeholders by involving them in the planning, implementation, monitoring and evaluation of the activities making the festival an inclusive celebration.



Bolantihan Festival of Municipality of Jordan

Celebrated every last Friday of January at the Municipality of Jordan, the *Bolantihan* Festival showcases the three major sources of income of the people of Jordan: farming, fishing and mango production. The products are brought to the market for “*bolante*” or trade. It is primarily a celebration of the economic endeavors that made Jordan what it is today.



Palayag Festival of Municipality of Buenavista

Celebrated every third Sunday of January by the municipality of Buenavista, this cultural festival showcases the rich cultural tradition of the oldest municipality of the province. The presentation of songs, dances and musical tableau depicts the various influences Buenavista have been subjected to. It is celebrated in honor of the town’s Patron Saint, Sto. Nino. “*Palayag*” marked a new footprint during the 2008 Buenavista Centennial Celebration. They defined “*Palayag*” as to sail through “*Layag*” musing water vessel, considered a *kinaradto* form of sea travel.

Sadsaran Festival of Municipality of Nueva Valencia

Celebrated every last week of January during the celebration of Municipal Foundation Day, *Sadsaran* was derived from the word “*sadsad*” which is a common term for dance. It is participated by five secondary schools: Nueva Valencia National High School, Simeon J. Jabasa National High School, Cabalagnan National High School and Salvacion National High School and one tertiary school: Philippine College of Business & Accountancy.



Photo by P.V. dela Cruz

Asinan Festival of Municipality of San Lorenzo

Celebrated every 20th of February, the festival marvels at how the ordinary salt has gravitated the people of the community in an annual gathering with all the delicious trimmings of specialty products. Not everything is salty though, as there are also spicy seafood, juicy citrus and crispy nuts. With the proper blend of unique hospitality and the natural smiles of the people, one looks forward for more *Asinan* spectacle.



Balsahan Festival of Municipality of Sibunag

Celebrated every 20th day of February by the municipality of Sibunag, it is Sibunag’s way of immortalizing the mystical Sibunag River, which makes its way thru most of the town’s barangays. The river holds many interesting myths and legends that tickle one’s imagination to unravel its secrets.

Natural Values

Ecological

Mangroves

Mangroves are one of the most important coastal ecosystems that serve as valuable nursery areas for fish and invertebrates. They also protect shorelines from storm surges and strong wave actions and help prevent erosion. In 1956, the mangrove area of the province was recorded at 1,743.1 hectares. It was reduced to only 395.6 hectares in 1995 (Ingles and Babaran, 1996). Mangrove rehabilitation efforts of the Province of Guimaras covered an estimated area of 596 hectares, which included rehabilitation efforts of various partners. As of 2015, NAMRIA recorded 817 hectares of mangrove forest in the province.

Seagrass and Coral Reefs

The seagrass cover of the province in 2005 is as follows: 52.5 percent has poor cover, 22.8 percent has fair cover, 9.8 percent has moderate cover, 10.6 percent has good cover, and only 4.1 percent has excellent cover.

For coral reefs on the same year, 25.6 percent is in poor condition, 24.3 percent in fair condition, 33.6 percent in

good condition, and 16.5 percent in excellent condition. Based on the data from NAMRIA, the total coral cover in 2015 was 1,174 has. These habitats are sporadically distributed along the coastal barangays around the island province.

Forest Land

The Forest Land Use Plan (2017-2026), which was adopted in 2017 included an estimate of the forest and forestland cover of Guimaras, which is placed at 5,459.40 hectares and are located in fifty-three barangays. The plan primarily focuses on the forest and forestland that are categorized as protection and production areas. The protection area, which is characterized by high biodiversity of forest and mangrove species, areas with aesthetic and natural landscape and unclassified forest lands (islands and islets) and riverbanks cover 3,611 hectares. The production area on the other hand, which covers 1,848.40 hectares are slated mainly for production of fuel wood, agro-forestry using high valued crops and fishpond development. The forest areas with slopes of 18 percent and above totaled 12,940 hectares, based on the GIS generated map of the province. Identified wildlife reserves located in the five Municipalities cover 620.96 hectares.

The Integrated Social Forestry (ISF) Project, in upland development, is designed to maximize land productivity, enhances ecological stability and improves socio-economic conditions of forest occupants and communities.

Some ISF sites were converted to Community-Based Forest Management (CBFM), which included sites in Dagsaan, Taminla in the municipality of Buenavista and Sapal in San Lorenzo. Areas that are directly issued with CBFM augmentation included Sabang, Sibunag, Constanacia, San Lorenzo and Espinosa, Jordan. The remaining ISF sites that are still subject to conversion to CBFMP are located at Barangay Guiwanon, Nueva Valencia, Hoskyn, Jordan, Tanglad, Sibunag and Tacay, Buenavista. These sites have undergone evaluation after 25 years of implementation except for Constanacia CBFMP and Espinosa, Jordan. The



Table 15. List of accommodation establishments, destinations, and attractions per municipality (2019).

Municipality	Religious Sites	Historical Sites	Agri-Tourism Sites	Resorts/Tourist Inn/Mabuhay Accommodation	Other Attractions
Buenavista	<ul style="list-style-type: none"> • Navalas Church • Marian Shrine 	<ul style="list-style-type: none"> • Mc Arthur's Wharf • Mc Arthur's Headquarters/ Camp Jossman • Punta Blanco • Roca Encantada • Heroes Park • Good Shepherd's Fold Academy • Old Municipal Building 	<ul style="list-style-type: none"> • Madrones Garden • Santarina Farm (endorsed) • Pama's Farm • Golden Hills Farm 	<ul style="list-style-type: none"> • Abelardo's Beach Resort • Daliran Spring Resort • Kelapa Gading Beach Resort • La Cheska Plants & Pools • Cecil Beach Resort & Island Grill • Miewa Pension House • Theotoks Apartelle • Neptune Pittman Garden Resort & Spa • Guimaras Mountain Resort 	<ul style="list-style-type: none"> • Dagsaan Eco Park • Guimaras Model Galleon Souvenirs & Crafts • Daliran Cave
Jordan	<ul style="list-style-type: none"> • Balaan Bukid & Chapel of Ave Maria Purisima • Consolers Immaculate Heart of Mary • OLP Trappist Monastery 	<ul style="list-style-type: none"> • Smallest Town Plaza • Guimaras Bulk Installation 	<ul style="list-style-type: none"> • Guimaras Wonder's Farm • Elle Gonzaga Friendly Farm • Leo Gania Farm • Clements Farm • The Fruit Project • Chocolate Farm • BPI-GNCRDPSC 	<ul style="list-style-type: none"> • Cabaling Beach Resort (on process DOT Accreditation) • Zempamps Chalet • Jm Backpackers Hometel • Sidewalkers Pension • Casa Guest House (on process DOT Accreditation) • Pine Haven Hotel • Mancoal Oasis Lodge • JL Pension House • Cantua Pension House (on process DOT Accreditation) • Stargazer Inn • Raja Inn • Isla Naburot • Natago Beach Resort • Sinagoura Beach Resort 	<ul style="list-style-type: none"> • Ave Maria Islet • Sadsad Falls • Macopo Falls • Balcon Falls • Ambakan Falls • Jordan Marine Reserve • Guimaras Landmark • Provincial Monument and Museum
Nueva Valencia		<ul style="list-style-type: none"> • Guisi Light House • Igang Plaza 	<ul style="list-style-type: none"> • Bikers Hill (on process DOT Accreditation) • Flores Farm • SEAFDEC • Mariquit Flower Garden 	<ul style="list-style-type: none"> • Andana Resort • Raymen Beach Resort • Villa Igang Beach Resort • Alobijod Cove Beach Resort • Jannhan Glycel Beach House • Kenyama Beach Resort • Sun Sea Beach Resort • Rico Beach Resort • Tahi Beach Resort • Guisi Clearwater Resort • California Coral Beach Resort 	
San Lorenzo	<ul style="list-style-type: none"> • Holy Family Hills 		<ul style="list-style-type: none"> • Reyley Farm Haven (on process for DOT Accreditation) • MJ Grapes Farm (on process for DOT Accreditation) • Banessa Farm 	<ul style="list-style-type: none"> • Vilches Beach Resort • Playa de Paraiso • Marceilly Point Inland Resort • Clara's Beach & Guest House 	<ul style="list-style-type: none"> • 54 MW San Lorenzo Wind Farm Project • Sapal Weaving Village • Payag-Payag sa San Lorenzo
Sibunag			<ul style="list-style-type: none"> • Spring Bloom Farm • Big Fortune Farm • Dasal Sibunag Vegetable Growers Association, Inc. Farm • Cruz Vineyard • JEM Home Farm • NJST Farm 	<ul style="list-style-type: none"> • Costa Aguada Island Resort • Valle Verde Mountain Resort • Nature's Trail Camp & Resort • Camp Alfredo (on process for DOT Accreditation) • Jessa Mar Beach Resort • Woodland Bike Park • Buko Beach Resort • Nagarao Island Resort 	

Note: Validated by the Provincial Tourism Office on July 15, 2019.

Legend:

- Endorsed (with Mayor's Permit)
- Not Endorsed (without Mayor's Permit)
- DOT Accredited
- Existing Attractions/Destinations/Sites

implementation of the project in collaboration with agencies/institutions has improved the biophysical conditions in the identified areas. However, there is still a need for additional livelihood projects to uplift the socio-economic conditions of the communities.

Tourism and Recreational

Beaches and Resorts

Beach resorts are found along the coastal areas of the five municipalities, including several island resorts. As the tourism capital of Guimaras Province in view of its abundant tourism potentials, Nueva Valencia harbors the highest number of beach resorts. Diving sites are identified at different locations along the coastal areas that are known for their rich, abundant and diverse marine resources.

Several inland and mountain resorts can also be found in the five municipalities. (Table 15)

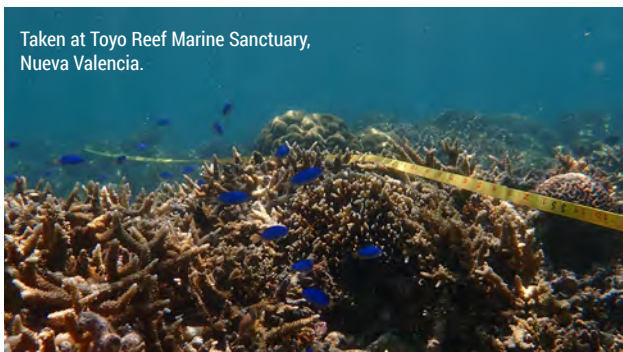


Natural Parks/Marine Protected Areas

Guimaras has one protected area under the National Integrated Protected Areas System (NIPAS) category, the Taklong Island National Marine Reserve (TINMR) which was established in 1990 through Presidential Proclamation No. 525 signed by President Corazon C. Aquino. The reserve is located in Nueva Valencia and is bordered by two coastal barangays, La Paz and San Roque, with an aggregate area of 1,143.45 hectares.

Table 16. Locally declared protected areas in Guimaras.

No.	Name of MPA	Area (ha.)	Ordinance No.	Location
1	Toyo Reef Marine Sanctuary	314.00	MO- 03, S. 1994	Nueva Valencia
2	Jordan Municipal Marine Reserve and Sanctuary	84.90	MO- 006, S. 1997 MO-006, S. 2016	Lawi, Jordan
3	Balcon Marine Protected Area	16.25	MO- 005, S. 2012	Balcon Melliza, Jordan
4	Tumalintinan Point MPA	303.49	MO- 005, S. 1999 Renamed MO- 03, S. 2015	Suclaran, San Lorenzo
5	Pamanculan Fish Sanctuary	362.73	MO- 52, S. 2014	San Isidro, Sibunag
6	Tan-Luc Marine Protected Area	100.00	MO- 4, S. 2012	Tando, Nueva Valencia
7	Igang Bay Marine Sanctuary	38.136	MO- 5, S. 2009	Poblacion, Nueva Valencia
8	Barangay Dolores Marine and Fish Haven	56.51	MO- 2, S. 2014	Dolores, Nueva Valencia
9	Avila Marine Sanctuary	189.8	MO- 256, S. 2014	Avila, Buenavista
10	Barangay Sinapsapan Marine Protected Area	24.46	MO- 004, 2017	Sinapsapan, Jordan
11	San Antonio Bay MPA	391.8	MO- 01, S. 2018	San Antonio, Nueva Valencia



Taken at Toyo Reef Marine Sanctuary, Nueva Valencia.

Meanwhile, there are eleven (11) locally declared marine protected areas (MPAs) established within the five municipalities which cover an estimated total area of 1,882.076 hectares (Table 16). Based on the coastal resource map of NAMRIA, the municipal waters of Guimaras has a total area of 160,202.48 hectares, of which 1.89 percent or 3,025.526 hectares of municipal waters are protected including TINMR. Among the 11 declared MPAs, only Balcon MPA, Jordan Municipal Marine Reserve and Sanctuary, TanLuc MPA, Brgy. Dolores Marine and Fish Haven, and Igang Bay Marine Sanctuary have existing management plans.

Research Centers

The Guimaras National Crop Research Development and Production Support Center (GNCRDPSC) located at San Miguel, Jordan supports researches and studies for the development of mangoes and other high value crops nationwide.





Studies on fisheries and other marine-related concerns are conducted at the Southeast Asian Fisheries Development Center (SEAFDEC) Igang Marine Substation in Barangay Pandaraonan, Nueva Valencia. The Igang Marine Station (IMS) of SEAFDEC Aquaculture Department (SEAFDEC/AQD) is located on the southwest coast of Guimaras Island. IMS is composed of four islets and clusters of floating fish cages interconnected by pontoon foot bridges. Currently, the station maintains captive broodstock of various commercially important species to provide eggs for research and production runs.

The University of the Philippines Visayas (UPV) has established a marine biological station in 1963 at the Taklong Island National Marine Reserve (TINMR) in La Paz, Nueva Valencia. The station currently serves as on-site laboratory for researches and special studies of students and researchers. The UPV initiated and spearheaded the proposal for the proclamation of the area as national marine reserve.

In 2017, TINMR won Para El Mar's most outstanding NIPAS MPA Award. Para El Mar, which means "for the Sea" is a National Award that highlights best practices in MPA management in the Philippines and recognizes outstanding local efforts in conserving and sustainably managing the country's coastal and marine resources.

DOST Philippine Science

A four-hectare lot was donated by the family of the late Vice Governor Guardilino Mosqueda in Balcon Maravilla, Jordan, Guimaras for the establishment of the DOST Phil Sci research station for the PSHS Visayas Campuses. Facilitated by the school's administrative officer, Mr. Jimmy Baban and Governor Rahman Nava, the school acquired this lot to be known as Mosqueda Campus of the school in Guimaras. These sites, complete with facilities of a functional research station, have served as training grounds for students in the conduct of their research studies. Friends and benefactors of the school, particularly the PSHS alumni continued their support in whatever means they could extend to help the scholars and the school's infrastructure needs.

Guimaras State College

The Guimaras State College is one of the public colleges in the Philippines. It is mandated to provide undergraduate and graduate courses in technology education, agriculture, fishery, engineering, arts and sciences, forestry, business, health, computer, criminology, nautical and short-term vocational-technical and other continuing courses. It is also mandated to promote research, advanced studies, extension work and progressive leadership in each area of specialization. Its main campus is located in McLain, Buenavista, Guimaras which is now officially called Guimaras State University through Republic Act 11335 signed in April 2019. The two campuses, namely Baterna and Mosqueda, are located in Constanca, San Lorenzo and Alaguisoc, Jordan, respectively.

THE ECONOMIC IMPORTANCE OF GUIMARAS



After becoming a full-pledged province in 1992, Guimaras is now gaining importance and is rapidly growing. The municipality of Jordan, the capital town, is a progressive agro-industrial and commercial growth center, and the gateway of Guimaras. Buenavista is the center for higher education in the Province of Guimaras and a better travel link between the Islands of Panay and Negros. Nueva Valencia is the tourism capital of Guimaras, a major

fishing ground and source of export quality mangoes. San Lorenzo is the leading agri-fishery and agri-tourism destination while Sibunag, a major producer of agricultural products and serves as a cargo port of entry linking Guimaras and Negros.

Guimaras was classified as a fourth class province based on its income and ranked 27th in the competitiveness index in 2017. The province has 2 colleges/universities, 3,706 enterprises. Envisioning to be the agri-ecotourism capital of the region, its priority investment areas are bed and breakfast facilities, agri-eco tourism, water sports related facilities, integrated transport terminal and retirement village.

The Provincial Economic Development Office (PEDO) continues to provide strategic direction to strengthen the province's economy through investment promotion, cooperative development, marketing promotion and job creation initiatives. It initiated policies for expansion of Micro Small and Medium Enterprises (MSME) in order to support the province's vision to become an agri-eco tourism capital of the region.

Investment Promotion

PEDO has participated in investment promotion events that provided the province avenue to present the investment priority areas, contained in the Guimaras Investment Code of 2017. PEDO together with representative of the Guimaras Investors Club (GIC) have attended an investment mission in Brno and Prague, Czech Republic to promote and seek possible collaboration in the field of environment, education, and site development for eco-tourism.

The initial outcome of Czech mission is the signing of Memorandum of Understanding between Mendell University in Brno and the Guimaras State College for a joint undertaking on research in tropical agriculture. Also, the Ministry of Trade and Commerce had invited the medium enterprises in Guimaras to participate in the 'Salina European Agricultural Trade Fair 2020'. The prime commodity of Guimaras especially mango, will be presented to the Eastern European Market.

Trade, Investment and Employment

In 2013, the total annual total capital investment for 470 new businesses amounted to PhP 43.3 M and 1711 business renewals that generated an annual capital investment of PhP 438.8 M.

In 2014, the total annual total capital investment for 513 new businesses amounted to PhP 308.4 M and 1853 business renewals that generated an annual capital investment of PhP 428.8 M.

On the establishment of Provincial Economic Database System Cum Manpower Skills and Labour Market Information (LMI), the PEDO generated data on registered businesses with 602 newly registered businesses, and 1, 885 business renewals, with a total capital of PhP 137.7 M and total gross sales of PhP 628.2 M for 2015. On Participation to Trade Promotion Activities, a total of 9 trade fairs were conducted/facilitated with a total gross sale of PhP 10.5 M markets linked 24 interested buyers.

In 2016, the total annual total capital investment for 456 new businesses amounted to PhP 480.6 M and 2,149 business renewals that generated an annual capital investment of PhP 727.3 M.

The Province of Guimaras has been instrumental in achieving remarkable economic milestone. In 2017, the province led in providing technical assistance to mango growers' cooperative in securing a collective mark for fresh mangoes from the Intellectual Property Office of the Department of Trade and Industry. This paved the way for more invitations to join 3 regional, 3 national and 2 international trade fairs which generated total gross sales of PhP 12.9 M for business owners and cooperative. Furthermore, these trade fairs have provided a venue for market linkaging which led to booked orders amounting to an estimated amount of

Table 17. Economic indicators (2013-2018).

	2013	2014	2015	2016	2017	2018
Internal Revenue Allotment	327,143, 868.00	396,445, 775.00	421,530, 605.00	461, 486, 054.00	519, 433, 996.00	558,337, 883.73
Locally Generated Income	58,678, 577.03	9,250, 332.52	33,790, 829.06	71,873, 736.36		
Real Property Tax	10,598, 246.25	11,785, 508.24	33,790, 829.06	5,887, 337.80	14,125, 606.80	17,570, 243.40
Business Tax	141,030.68	178,529.49	71,019.26	554,077.75	1,409, 548.91	2,033, 893.88
Other Taxes	397,193.60	369,053.40	180,616.54	1,449, 992.51		
Fees and Charge	3,150, 084.52	8,702, 749.63	6,700, 597.63	5,965, 953.16		
Interest Income	621,897.74		547,874.51	569,60.86		
Economic Enterprise	43,770, 124.24	43,724, 579.19	51,227, 359.03	57,446, 714.28	61,292, 733.41	74,831, 603.29

Php 573, 000.00. On the same year, the total annual capital investment for 862 new businesses amounted to Php 122.2 M and for the 2582 business renewals summed up to Php 2.2 B.

While the Province is assisting fully developed enterprises to have access to markets, the Province was able to provide technical assistance to newly formed organizations and cooperatives in their organizational development and livelihood projects. For 2017, assistance was provided to organizations to access livelihood funds from the provincial government, national government agencies and private organizations as startup capital for new organizations.

In 2018, PEDO conducted and participated in a total of 10 trade fairs that generated gross sales of Php 20,133,818.50 with Php 134,215.00 under negotiations and Php 686,000.00 booked sales. This activity promoted efficient marketing and distribution of local products and services, to expanded and strengthened linkages among MSMEs through information exchanges and market matching.

In the same year, the total annual total capital investment for 745 new businesses amounted to Php 100,679,890.00 and 2,963 business renewals that generated an annual capital investment of Php 1.050 B.

In summary, the total investments for new businesses in the Province increased by 143 percent from year 2013-2018. More investment opportunities are coming in the province through the Agri-Eco Tourism Circuit.

Livelihood Development

A well-qualified workforce is a prerequisite for economic growth. In 2018, the Provincial Economic Development Office has implemented twelve (12) Skills/Livelihood/Technology Transfer training to wit; skills training on seaweed processing, training on meat processing, training on native chicken production, training on hog raising, training in goat raising and training on food safety and handling. The DOLE Livelihood Projects for marginalized women with a



Coop Month Celebration, 2018.

total project cost of PhP 4.9 M was one of the major accomplishments under the institutional capability building for livelihood enterprise and development.

Cooperative Development

In 2017, several cooperatives had been provided with 10 mandatory trainings participated by 95 percent of trainees, as required by the CDA for them to maintain their good standing status. On the other hand, PEDO assisted 44 community-based organizations registered at DOLE, CDA and SEC.

PEDO also spearheaded the conduct of the 2018 Cooperative Month celebration participated by 18 cooperatives with their 333 cooperative leaders, officers and members. Furthermore, five cooperatives were given assistance in financial statements preparation and sixteen cooperatives in the submission of mandatory reports. These activities and trainings have enabled the

cooperative sector generate income and strengthen their organizational development.

PEDO also delivered different technical assistance to the cooperative sector in the province to continue maintaining their good standing status. The conduct of the mandatory trainings was participated by 189 coop officers to comply to the requirements of Republic Act 9520 or the Philippine Cooperative Code of 2008.

Employment Promotion

The Public Employment Service Office (PESO) is a local service unit that provides prompt, timely and efficient delivery of employment related services towards resolving the country's unemployment and underemployment problem.

Complementing the increased number of new enterprises in the province, PESO works on employment facilitation as Public Employment Service Office of the province. In 2017, PESO conducted and facilitated 4

job fairs with 308 job applicants. Of these, 25 registered applicants were hired on the spot. Another major function of PESO is career guidance to ensure that the labor force that will be developed matches the job market requirements. For 2017, PESO jointly facilitated with DOLE and GCNET the conduct of 11 career guidance activities providing global and national trends in employability to almost 95 percent of Grade 10 students from different schools.

In 2018, the PESO has facilitated job generation that included job fairs, Government Internship Program (GIP), Special Program for the Employment of Students (SPES), Special Recruitment Activities (SRA) and Referrals. This initiative generated 200 beneficiaries of SPES, 31 beneficiaries under GIP and 58 hired-on-the-spot applicants.

Furthermore, PESO is implementing measures to boost its networking and linking capacities through partnerships with different institutions in establishing career opportunities in the province. Other major functions of PESO are Career Guidance and Labour Market Information to ensure that the labor workforce is informed of career needs of different industries. In 2018, 10 Career Guidance Fiesta and 11 Labor Market Information were jointly facilitated by PESO and DOLE to Grade 10 students from 10 National High Schools in the province. The six (6) Employability Skills Enhancement Training conducted in 2017 provided the Students global and national trends in employability.

In summary, PEDO and PESO's efforts in attracting investments, developing micro and medium enterprises, finding market for major products and facilitating employment contributed to the growth of the province. These offices continue to work within their mandates to ensure that the Province will continue to achieve vibrant economic development

Aquaculture

Agriculture, fishery and tourism have been identified as the major economic drivers in Guimaras. For the agriculture sector, the major priority commodities identified based on suitability, market potential, impact to the poor and number of growers are mango, seaweeds, high value crops, particularly cashew, cacao, coffee and other fruit bearing trees and native chicken. As a staple food, rice is also considered but with importance on areas with irrigation facility and potential water source coupled with farm mechanization to ensure rice self-sufficiency

Rice

The province is included as one of the 49 focus provinces for the rainfed ecosystem. Out of the total physical area of 11,831.79 hectares, 81 percent is rainfed or an area of 9,577.47 hectares (Table 18; Figure 6). In terms of physical area, the municipality of Sibunag and San Lorenzo are the major rice producing municipalities with 3,987 and 3,415.68 hectares, respectively. The remaining 19 percent is shared by the 3 municipalities. In terms of production, the municipality of San Lorenzo is contributing 33 percent, Sibunag shares 29 percent and the remaining 38 percent of the total production is shared by the 3 municipalities. Based on the 2015 production of 40,154 MT, the Province has a 126 percent rice self-sufficiency level (Table 19; Figure 7).

In 2015, palay production generated 40,154 MT, which is considered the lowest for the past five years, posting a decrease of 27.5 percent over the previous year's production of 51,202 MT. Data released by the Philippine Statistics Authority revealed that palay production is on fluctuating trend for the past five years reaching its peak in 2012 at 55,425 MT.

Combined production of rainfed and irrigated palay in 2015 dropped to 40,154 MT from 51,202 MT recorded in 2014 posting a decrease of 21.6 percent.

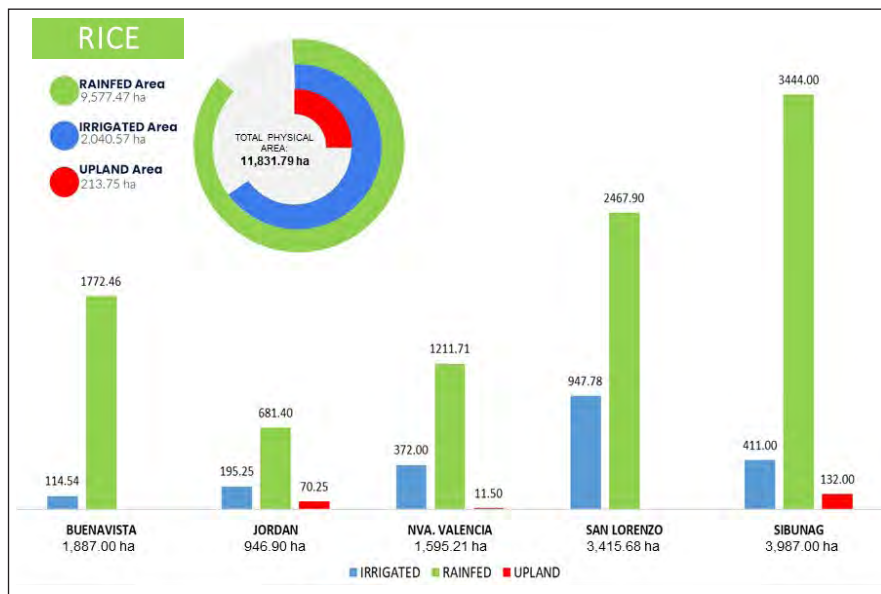
Table 20 shows that most palay farmers in Guimaras were dependent on rainwater supply. Almost two-third of palay production came from rainfed and only one-third was from irrigated farms.

Table 18. Physical areas by municipality and type, Guimaras (2019).

Municipality	Irrigated (ha)	Rainfed (ha)	Upland (ha)	Total (ha)
Buenavista	114.54	1,772.46	0	1,887.00
Jordan	195.25	681.40	70.25	946.90
Nueva Valencia	372	1,211.71	11.50	1,595.21
San Lorenzo	947.78	2,467.90	0	3,415.68
Sibunag	411.0	3,444.0	132.0	3,987.00
Total	2,040.57	9,577.47	213.75	11,831.79

Source: POAS.

Figure 6. Guimaras rice physical area (2019).



Source: POAS.

Table 19. Rice production by municipality, Guimaras (2017 and 2018).

Municipality	Production		Average Yieldd (Mt/ha)	
	2017	2018	2017	2018
Buenavista	9,084	9,884.14	2.84	3.19
Jordan	4,169	2,343.47	2.66	2.80
Nueva Valencia	7,265	7,922.06	2.88	2.94
San Lorenzo	17,867	20,391.07	3.04	3.0
Sibunag	16,837	16,581.79	2.52	2.42
Total	55,322	57,122.53	2.79	2.82

Source: POAS.

Figure 7. Distribution of rice production by municipality, Guimaras (2018).

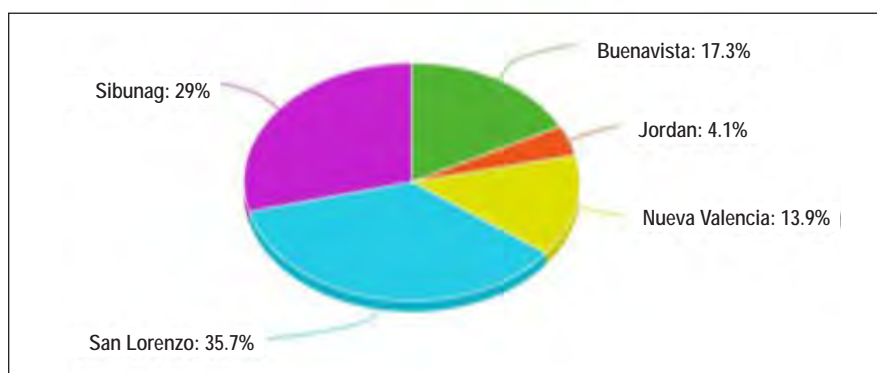


Table 20. Palay production by type, Guimaras (2011-2017).

Year	Palay Production (MT)		
	Rainfed	Irrigated	Total
2017	43,313	12,009	55,322
2016	33,293	9,256	42,649
2015	29,972	10,182	40,154
2014	38,383	12,819	51,202
2013	35,400	10,666	46,066
2012	38,803	16,622	55,425
2011	36,464	14,949	51,412

Source: Philippine Statistics Authority.

Mango

In terms of production, although the potential could reach up to 19,000 MT annually, not all trees are ready for induction every year. Only roughly 60-70 percent of the total fruit bearing trees may be induced for the year. Based on 4-year data, the highest recorded production was 2014- 10,025.68 MT; 2015- 11,839.55 MT; 2016- 11,075.14 MT and 2017- 11,238.79 MT. In terms of the province’s production performance compared with the neighboring provinces, Guimaras ranked third with Iloilo as the lead producer, followed by Negros Occidental, However, Guimaras ranked first in terms of production of export quality fruit.

Cashew

Cashew, locally called *kasuy* is an emerging commodity and has high potential for both local and export markets. The demand for cashew in the export market is huge and promising especially for unprocessed cashews. There is high demand from traders and exporters from Metro Manila. Back in 2005, the province’s local cashew producers had participated in the International Food Exhibition, one of DTI-CITEM organized trade fairs. The producers received inquiries from investors from Lebanon and Israel who were interested in placing orders

of 2-5 tons per month. The local producers found the requirements of the investors easier to meet in comparison with the requirements of investors from China who were requiring a 214-footer van per month of packed cashews which the locals cannot meet for lack of capacities to meet the required volume. Current production is predominantly backyard type with few farms cultivating cashew in orchards.

Although Guimaras produces good quality cashew, it does not have enough material resources to allow the province to get into the export market. The province realized the economic consequences of people’s past practices of cutting down cashew trees for firewood or charcoal making.

Cashew is considered as an alternative to mango considering that its production is relatively environment friendly. It can be produced without the use of hazardous chemicals compared to mango.

Guimaras is the highest producer of cashew products in Western Visayas for the last three years (2010-2014) producing 590 metric tons in 2010; 556.35 metric tons in 2011; 531.86 metric tons in 2012; 542.33 metric tons in 2013 and 593.03 metric tons in 2014. Antique ranked second and Aklan ranked third (Table 22).

Table 21. Mango production, Guimaras (2014-2017).

Mango Production	2014	2015	2016	2017
Guimaras	10,025.68	11,839.55	11,075.14	11,238.79

Source: Philippine Statistics Authority.

Corn

Corn production in Guimaras was erratic for the past five years. The highest production was recorded in 2014 at 923 metric tons and the lowest production was in 2012 at 613 metric tons (Table 23).

In terms of variety, white corn production contributed 66.7 percent to the corn production in Guimaras and 33.3 percent comes from yellow corn, which is usually used for animal feeds.

Table 22. Cashew production, by province, Region 6 (2010-2016).

Cashew Production	2014	2015	2016
Western Visayas	596.86		
Aklan	0.06		
Antique	2.47		
Capiz	-		
Guimaras	593.03	420.00	567.74
Iloilo	1.10		
Negros Occidental	0.20		

Source: Philippines Statistics Authority.

Table 23. Corn production in Guimaras (2011-2016).

Year	Production (MT)		
	Yellow	White	Total
2016	445.25	351.7	796.95
2015	212	425	637
2014	318	605	923
2013	153	473	626
2012	76	537	613
2011	150	565	715

Source: Philippine Statistics Authority, 2016.

Fisheries

In terms of marine fisheries production, Guimaras ranked 6th in 2013 among the provinces in the region, with Iloilo as number 1. However, in terms of self-sufficiency of its people on fish supply, only Iloilo is self-sufficient. Negros Occidental has the greatest deficit while Guimaras has the least deficit (Table 24).

As to inland fisheries production, Guimaras ranked 5th with Iloilo still the top producer.

Table 24. Marine municipal fisheries production (in MT), by province, Region 6 (2013).

Province	Production (MT)
Iloilo	58,824.09
Negros Occidental	38,977.96
Capiz	35,818.02
Antique	11,488.15
Aklan	7,066.77
Guimaras	4,439.22
Western Visayas	156,614.21

Source: BAS, 2013.

Guimaras Island has several rich fishing grounds including the Guimaras Strait, Iloilo Strait, Panay Gulf and the Visayan Sea. Fishing activities are concentrated in waters surrounding the island, especially along the 54 coastal barangays. Furthermore, there are a number of fishponds which can be improved, rehabilitated or expanded. With the demand and big potential of Guimaras for fish production, fisheries is one of the economic drivers that could greatly help boost the province's economic development.

Implementation of MPA and fishery laws

The fishing industry is one of the major contributors to the provincial economy and is showing potential growth. Recent data obtained from BFAR’s municipal fisherfolk registration program (FishR), showed that the municipal fisherfolk registry yielded a total record of 12,553 fisherfolks, which represented a 19 per cent increase in the total number of fishers from 2010 to 2017. As the number of fishers increased, the total catch per unit effort also increased, as shown in Table 25 for the three municipalities.

No production for commercial fisheries is available since the province is located between the Islands of Panay and Negros and thus, the fishing ground is limited to municipal fisheries.

Table 26 shows the volume of production by species of municipal fisheries for 2010-2017. Although the volume of production varied per species per year, in general, the volume of production has been increasing, which may be attributed to increase in effort and efficiency of the gears used by fishers.

Table 25. Total catch per unit effort in the Municipalities of Buenavista, Sibunag and Nueva Valencia: 2014-2017.

Municipality	Total catch per unit effort			
	2014	2015	2016	2017
Buenavista	160.97	331.90	275.37	367.51
Nueva Valencia	-	66.07	-	-
Sibunag	16.90	12.59	16.72	23.34

Source: BFAR-PFO.

Seaweed Farming

Generally, fish catch among the fisherfolks in coastal barangays of Guimaras has been declining due to a number of reasons. These include the intrusion of commercial fishing boats within municipal waters and proliferation of illegal fishing practices. Although the municipal waters are protected by municipal ordinance, enforcement of the ordinance is inadequate to address the low income of fisherfolks.

Recognizing the limited coastal resource base of the coastal communities in Sibunag, San Lorenzo, Buenavista and Nueva Valencia, the concerned municipal governments considered seaweed culture as alternative means to augment the incomes of the coastal communities.

The Office of the Municipal Agriculture Services provided the technical backstopping and the Department of Agriculture – Bureau of Fisheries and Aquatic Resources provided the technology support, propagation materials and seaweed cultivation skills training.

However, even with the existing production support, the income base of local households did not improve due to problems with the seaweed farmers’ capacity and the traders purchased the seaweed products at a very low price.

In addressing the Seaweeds Industry Value Chain, based on the experience of Sibunag, the following were undertaken:

- Finding the right market connections
 - DTI assisted in connecting the seaweed farmers to potential markets in Cebu- the Marine Colloids Philippines Inc. (MCPI). In order to consistently perform in the market, DTI supported concerned municipal LGUs in getting seaweed farmers organized at the town level and associated them with the Provincial Seaweed Development

Table 26. Guimaras municipal fisheries: Volume of production by species in metric tons (2010-2017).

Species	Annual							
	2010	2011	2012	2013	2014	2015	2016	2017
Acetes (<i>Alamang</i>)	104.21	121.69	40.24	15.62	15.88	18.50	15.07	24.15
Anchovies (<i>Dilis</i>)	220.27	388.50	367.48	202.67	182.57	273.15	546.72	489.37
Big-eyed scad (<i>Matangbaka</i>)	123.05	81.55	80.15	136.99	107.75	28.40	41.17	57.66
Bigeye tuna (<i>Tambakol/Bariles</i>)	1.61	1.40	1.13	3.25	3.45	4.40	1.04	1.30
Blue crab (<i>Alimasag</i>)	250.47	219.15	129.58	110.16	115.86	168.85	161.58	132.70
Caesio (<i>Dalagang-bukid</i>)	65.45	39.96	56.91	135.57	95.97	123.81	140.42	83.13
Cavalla (<i>Talakitok</i>)	225.16	116.56	132.16	273.02	395.37	708.63	853.37	504.03
Crevalle (<i>Salay-salay</i>)	25.53	216.24	124.20	53.26	35.42	9.15	24.75	49.10
Eastern little tuna (<i>Bonito</i>)	9.89	10.20	8.83	17.00	7.30	3.00	2.89	3.02
Fimbriated sardines (<i>Tunsoy</i>)	416.64	573.28	592.68	524.54	616.47	732.88	548.85	552.28
Flying fish (<i>Bolador</i>)	24.28	26.50	7.90	12.40	18.81	21.55	37.14	25.58
Frigate tuna (<i>Tulingan</i>)	24.59	13.30	26.52	40.79	25.18	11.70	18.58	8.52
Goatfish (<i>Saramulyete</i>)	162.96	149.86	156.75	252.65	210.44	192.06	215.01	164.07
Grouper (<i>Lapu-lapu</i>)	198.75	145.12	128.90	198.49	159.08	131.82	171.04	150.31
Haittail (<i>Espada</i>)	50.43	45.98	65.96	128.46	156.05	248.93	204.41	189.16
Indian mackerel (<i>Alumahan</i>)	64.86	42.61	70.04	185.56	148.74	61.36	77.64	108.81
Indian sardines (<i>Tamban</i>)	111.12	59.89	75.08	95.00	123.11	232.77	124.65	389.81
Indo-specific mackerel (<i>Hasa-hasa</i>)	20.52	14.29	37.38	91.96	56.13	27.52	13.91	20.20
Mullet (<i>Kapak</i>)	209.53	166.38	175.44	202.80	147.55	130.32	161.13	93.47
Parrot fish (<i>Loro</i>)	224.69	155.93	176.43	167.11	144.22	87.77	138.63	87.42
Porgies (<i>Pargo</i>)	193.36	124.22	190.32	299.60	209.53	215.17	214.99	161.00
Round herring (<i>Tulis</i>)	160.68	86.29	153.58	185.58	192.51	331.76	246.00	113.10
Roundscad (<i>Galunggong</i>)	26.30	21.84	15.82	2.58	2.03	1.47	44.90	37.53
Siganid (<i>Samara</i>)	216.72	123.26	193.08	348.58	341.32	338.16	325.87	252.73
Skipjack (<i>Gulyasan</i>)	14.69	7.74	7.06	2.73	1.55	2.30	1.41	5.83
Slipmouth (<i>Sapsap</i>)	159.53	248.74	200.59	161.45	129.29	142.66	140.52	124.40
Snapper (<i>Maya-maya</i>)	152.04	135.38	113.51	158.08	143.12	169.17	228.82	222.14
Spanish mackerel (<i>Tanigue</i>)	27.82	27.96	33.25	105.16	59.90	87.69	241.64	242.16
Squid (<i>Pusit</i>)	152.69	276.29	162.12	64.35	49.28	29.94	64.27	70.73
Threadfin bream (<i>Bisugo</i>)	151.05	121.47	145.64	199.72	229.56	260.69	238.43	138.07
Yellowfin tuna (<i>Tambakol/Bariles</i>)	10.13	--	--	--	--	--	--	--
Others	677.82	683.12	770.49	824.71	1,087.23	1,188.32	1,223.15	1,049.12
Total	4,476.84	4,444.70	4,439.22	5,299.84	5,210.67	5,983.90	6,468	5,550.90

Council (PSDC), a stronger and equitable base for government support and market leveraging.

- Training seaweed farmers as entrepreneurs.
- Tapping additional financing for consolidating growing volume of seaweed capture.

The municipal association of seaweed farmers in Sibunag assumed the role of consolidator of seaweeds to be transported to Cebu. As the seaweed farmers technically improved their production capacities, this resulted to increase in volume of seaweed capture. The association, however, lacked capital to buy the growing volume of seaweeds; hence they tapped the municipal government and the congressman for funding support.

- Establishing a buying station for seaweeds.

This facilitated the consolidation of seaweeds and cash flow. The municipality temporarily allocated a space in the municipal hall to serve as buying station for seaweeds. Seaweed farmers are paid cash enabling them to purchase rice grains, needed household commodities and provide for the schooling needs of their children.

- Hastening recovery from the oil spill tragedy
 - The Solar Tanker oil spill tragedy interrupted the steady growth of seaweed as an emerging industry

When Sibunag started with the seaweed industry, the production and marketing capacity from the 12 hectares reached 10 tons per 1.5-month cycle. Prior to the oil spill tragedy, it reached 16-20 tons. Currently, the seaweed industry is working its way towards recovery. Thus far, its capacity of 12 tons is being targeted to reach 20 tons, exceeding past production volumes.

There is lack of planting materials to hasten economic recovery in Sibunag. The Philippine Business for Social Progress (PBSP) and Department of Social Welfare and Development through its SEA-K Program provided support for the seaweed rehabilitation efforts through purchases of needed planting materials that were locally sourced from San Lorenzo.

General Impact of the Industry

Sibunag

The municipality of Sibunag was successful with the seaweed project. In less than a year, the municipality was able to sell dried seaweeds in big volumes and was able to break into the markets in Cebu. The industry has steadily improved and has sustained the income sources of seaweed growers which started with 18 registered members in 2004 and increased to 218 in 2006. Since the municipality was not significantly affected by the oil spill incident compared to other coastal barangays such as in Nueva Valencia, the industry complemented with the resiliency of the town folks and is expected to exceed its past peak performance.

Nueva Valencia

The municipality of Nueva Valencia has been likewise successful in seaweed farming. All households along the coast of the municipality have potential to increasingly augment their incomes from this livelihood opportunity. Nueva Valencia has replicated the standard marketing and pricing strategies of Sibunag. In fact, it embarked on the program even before Sibunag and had initially generated substantial employment opportunities for the coastal communities. Progress was anticipated to be higher than Sibunag but this was interrupted by the solar oil spill tragedy in 2006 where Nueva Valencia was the worst hit. In addition, illegal fishing, was rampant in the municipality.

Inspired by the resiliency of Sibunag, the municipality revived the industry in 2008 by taking advantage of new opportunities available to the town after the oil spill incident.

What made the seaweed farming different from past undertaking is that the farmers are now looking beyond being mere providers of materials with the substantial income of seaweed farming going to the traders. From a low seaweed unit selling price of PhP 4.00, the farmers using the farmer entrepreneurship approach achieved an average seaweed selling price of PhP 28.00.

Farmers sold their dried seaweeds to the association directly which in turn sold the seaweed to Cebu at PhP 38.00, a mark-up of PhP 10.00. The income went back to the association members, which effectively increased their income levels.

Tourism

The number of foreign tourist arrivals increased in 2018 resulting to the increase of foreign receipts of PhP 18,819,600 from the total receipt of PhP 17,509,600 in 2017. On the other hand, arrivals of foreign tourists recorded decreased to 8,177 in 2018 from 9,675 in 2017. Foreign tourists receipts therefore decreased by PhP 2,042,700 (Table 27).

Many local tourists and excursionists patronized the province of Guimaras in 2018 with an increase in the local tourist arrivals by 51,040 individuals and increase in the local tourist receipts of PhP 116,760,800. Local excursionists' arrivals amounted to PhP 631,009 in 2018 from PhP 457,839 in 2017. The increase in arrivals caused a good impact on the receipts amounting to a total of PhP 260,978,300 (Table 28).

Table 27. Foreign visitors arrivals and tourism receipts, Guimaras (2017-2018).

	Foreign			
	Tourist		Excursionist	
	2017	2018	2017	2018
Arrivals	4,455	4,792	9,675	8,177
Receipts	17,509,600	18,819,600	14,043,500	12,000,800

Source: Provincial Tourism Office.

Table 28. Local visitors arrivals and tourism receipts, Guimaras (2017-2018).

	Local			
	Tourist		Excursionist	
	2017	2018	2017	2018
Arrivals	99,725	150,765	457,839	631,009
Receipts	248,617,800	365,378,600	194,811,100	260,978,300

Source: Provincial Tourism Office.

Table 29. Total visitors arrivals and tourism receipts, Guimaras (2017-2018).

	Tourist		Excursionist		Total	
	2017	2018	2017	2018	2017	2018
Arrivals	104,180	155,557	467,514	639,186	571,694	794,743
Receipts	266,127,400	384,198,200	208,854,600	272,979,100	474,982,000	657,177,300

Source: Provincial Tourism Office.

Table 30. Tourist arrivals and receipts in accommodation establishments, Guimaras (2016-2018).

Year	Accommodation Establishments		
	Tourist Arrivals (Domestic and Foreign)	% Increased/Decreased	Tourism Receipts (Tourists)
2016	107,214	13.68 %	1,982,415,291
2017	128,256	20 %	2,366,621,784
2018	133,525	4 %	2,531,834,547

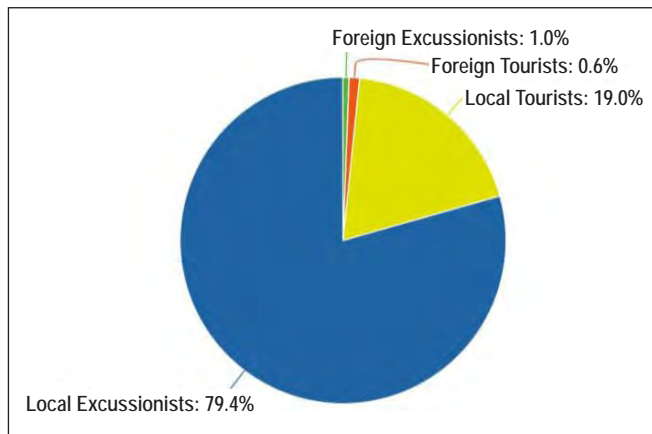
Source: Provincial Tourism Office.

Table 31. Same day visitors/excursionists and receipts in tourist attractions, Guimaras (2016-2018).

Year	Accommodation Establishments		
	Same Day Visitors/Excursionists	% Increased/Decreased	Tourism Receipts Same Day Visitors/Excursionists
2016	621,172	49 %	310,586,000
2017	893,291	44 %	446,645,500
2018	957,313	7 %	478,656,500

Source: Provincial Tourism Office.

Figure 8. Distribution of tourism receipts, Guimaras (2018).



Source: Provincial Tourism Office.

Receipts from local excursionists got the biggest proportion in the total tourism receipts in 2018 at 79.4 percent. Local tourist receipts covered about 19.0 percent of the total tourism receipts while foreign tourists and excursionists posted a proportion of 0.6 percent and 1.0 percent, respectively (Figure 8).

An increase of 4.0 percent was posted in tourist arrivals in Accommodation Establishments in 2018 from an increase of about 20.0 percent in 2017 and 13.68 percent in 2016. Tourism receipts from accommodation establishments amounted to PhP 2,531,834,574.00 in 2018 from PhP 2,366,621,784 in 2017 (Tables 30 and 31).

Agri-industry

Among the industries in Region 6, food processing accounts for a large share. Among the 6 provinces, Guimaras ranked third in terms of projected income of DOST-assisted entrepreneurs and share in the regional total (Table 32).

Fruit preserves, mainly originating from Jordan and Buenavista included dried fruits, jams, purees, concentrates and pickles. Processed nuts originating from Jordan and Nueva Valencia included roasted cashew nuts, salted cashew nuts, *bandi* and cashew butter. Delicacies include *piaya*, mango scotch, polvoron, barquillos, *pinasugbo* and banana chips.

Table 32. Projected provincial income and percentage share of DOST-assisted entrepreneurs based on their performance in recent years.

Province	Income	% Share
Negros Occidental	9,178,000	33.37
Iloilo	5,938,000	21.59
Guimaras	3,651,500	13.28
Aklan	3,564,000	12.96
Capiz	3,364,000	12.23
Antique	1,807,000	6.57
Total	27,502,500	100.00

Source: DOST Guimaras, 2008.

Table 33. Existing roads by category and conditions, Guimaras (2018).

Category	Paved in Km.				Unpaved in Km.		Total	
	Concrete	Concrete Asphalt	With Surface Treatment	DBST	Gravel	Earth	Length (Km)	% Share
National	121.132	7.220	—	—	—	—	128.352	10.61
Provincial	87.381	—	—	1.262	32.165	—	120.808	9.99
Mun./Brgy.	279.04	—	0.6300	—	154.6809	526.0391	960.66	79.40
Total	487.553	7.220	0.6300	1.262	189.8459	526.3091	1,209.82	100.00

Source: DPWH & PEO, 2018.

Existing support included packaging and label design from DTI and DOST, equipment for processing from DOST, barcoding from DTI, technical consultancy from DOST and conduct of seminars/trainings on capability buildings from DTI, TESDA and DOST.

Support potentials included common service facility for microprocessors, data banking on latest technologies, research and development and for promotions and transactions and information campaign and LGU support on massive production of raw materials for processing.

Overall constraints included insufficient supply of raw materials and technologies on processing are not in accord with recent developments. There is also no BFAD LTO which impeded the potential to expand market on malls and department stores.

Transportation, Access and Circulation

External Linkages

Guimaras can be reached by air and boat from Manila and other origins, via Iloilo City and by pumpboat from Pulupandan, Negros Occidental. There is a Roll-On-Roll-Off (RORO) which can ferry vehicles to and from Guimaras and Iloilo. All the five municipalities and most barangays

within the province are accessible by land transport. However, three island barangays can only be reached via pumpboat.

Sea/Water Transport

As of 2018, Guimaras Island can be reached by fastcrafts, RORO and pumpboats. A total of 107 sea-going vessels ply Iloilo Strait, which is about 2.5 km. in length and via Guimaras Strait from Negros. The origin/destination points in Iloilo City are located in Ortiz Street and Parola for pumpboats and ferryboats with regular trips. Travel time is about 15-20 minutes. There is a regular trip from Guimaras (San Lorenzo with 5 pumpboats) to Negros or vice-versa and the destination for special trips are Pulupandan and Valladolid in Negros Occidental. The pumpboats, because of their size and speed, have the advantage over the ferry in terms of number of trips made (at most 6 trips per day). They may also be hired for special trips.

These are the major wharves in the province:

- Jordan Wharf, Brgy. Rizal, Jordan
- Port San Jose, Brgy. Hoskyn, Jordan (RORO)
- Sebaste Port, Sibunag (RORO)
- Mc Arthur’s Wharf, Brgy. Sto. Rosario, Buenavista
- Cabalagnan Wharf, Brgy. Cabalagnan, Nueva Valencia
- M. Chavez, San Lorenzo
- Tumanda-Cabano, San Lorenzo

These wharves are utilized for passenger transport and hauling of products to and from Guimaras. The new port in Brgy. Hoskyn, Jordan can accommodate the RORO (Roll-On-Roll-Off) Sea Transport System capable of transporting passengers, vehicles and buses. The system is presently plying the route between Iloilo and Guimaras.

Internal Circulation

To date, the total length of roads existing throughout the Province is 1,209.82 kilometers where the national road comprises 10.61 percent; 9.99 percent belongs to the Provincial road and the municipal/ barangay roads comprise 79.40 percent. About 59 percent (713.155 km) of the total road network in the province remains unpaved. Recent report of the Provincial Engineering Office and DPWH indicated that 100 percent of the national road, 73.38 percent of the provincial road and 29.05 percent of municipal/ barangay roads are paved. Overall, 41 percent of the entire road length is already paved.

Air Transport

There is a feeder airstrip in Barangay McLain, Buenavista which has an existing structure of 18 m x 6 km runway with 4 m shoulder on both sides. The airstrip, however, is not operational at the moment. There is also a private airstrip in Inampulugan Island primarily for tourism purposes.

Mining and Quarrying

Only small-scale mining and quarrying are allowed in the Province of Guimaras. Limestone mining activities are being undertaken in Buenavista and Nueva Valencia while sand and gravel quarrying is common in all five municipalities (Tables 34-36).

Table 34. Number of quarry permit holders.

Year	Status of Operation		Total
	Expired	On-going	
2014	11	15	26
2015	1	13	14
2016	4	10	14
2017	-	11	11
2018	1	17	18

Source: GENRO.

Table 35. Number of approved sand and gravel permit holders.

Year	Status of Operation		Total
	Expired	On-going	
2014	3	4	7
2015	4	4	8
2016	0	4	4
2017	-	3	3
2018	4	3	7

Source: GENRO.

Table 36. Yearly production of quarry and commercial sand and gravel (in m³).

Year	Quarry (m ³)	CSAG (m ³)
2014	89,541.50	889
2015	57,366	3,051
2016	49,072.42	2,109
2017	47,548.84	2,612.50
2018	66,226.20	1,656

Source: GENRO.

Commercial Areas

Commercial and business areas flourish in San Miguel, Jordan, and New Poblacion, and McLain, Buenavista being the center of trade and commerce in the island province. The Jordan Food Terminal Market serves as a major trading center during market days, usually during Sundays.

Residential Areas

Most residential areas are located in San Miguel, Jordan. Several subdivisions have been built on this bustling urban community. Similarly, town centers such as New Poblacion and McLain, Buenavista and Poblacion, Nueva Valencia have developed residential zones where increasing settlements are beginning to rise in these areas.

RISK AND CHALLENGES



Guimaras' natural environment is facing various threats related to habitat and resource degradation, overfishing and destructive fishing, pollution from land primarily from agriculture and settlements and sea-based sources, unregulated extraction of fresh water, multiple use conflicts of resources, mining and quarrying, and lack of integrated planning and management.

Water Pollution

The Guimaras coastal water is threatened and disturbed by human activities due to increasing population and proliferation of settlements along the coastal areas, discharge of contaminated wastewater from municipal and agricultural sectors, land and sea-based transportation sector, oil spill and operational discharges from boats, and development of aquaculture along the coastal areas. These activities have caused deterioration of many water resources: canals, rivers, coastlines as well as marine ecosystems, and coastal water quality.

Concerns	Implications on Guimaras Natural Environment
Waste discharges from residential, commercial, agricultural and fisheries/aquaculture	Lack of sewage and wastewater treatment facilities for domestic and commercial wastes has led to the deterioration of water quality considering that most of wastewater finds their way to the rivers and other watercourses contributing to poor environmental condition especially on built up areas. This affects human health and well-being and has negative impact on the quality of coastal environment. Bathing in contaminated waters, and consumption of contaminated seafood pose risks to human health, including excessive use of pesticides and chemicals for agricultural and fishery production.
Oil spill and operational discharges from fishing boats and vessels	The 2006 Oil Spill tragedy brought about by the sunken M/T Solar I left debris in the form of cakes on beaches and oil absorbed in the bottom substrate of the seawater. Organisms exposed were observed to have oil compounds accumulated in their systems. These compounds have adverse effects on these organisms as well as to human beings.

Solid Waste

Concerns	Implications on Guimaras Natural Environment
Laxity in implementation and compliance to solid waste management	Solid wastes (i.e., garbage) generated from domestic, commercial, and industrial activities reach the coastal areas through the rivers and streams. Solid wastes cause pollution and damage to the coastal ecosystems by blanketing the habitats and smothering the organisms, affect aesthetics, and pose risks to public health.

Overexploitation of Resources

Concerns	Implications on Guimaras Natural Environment
Illegal fishing and use of destructive fishing gears	Fishing with destructive gears destroys the underlying habitats such as seagrass and coral reefs. It also threatens the social and economic viability of fishing communities, their livelihoods, and food security.
Upland areas that had been cleared of forest cover due to poaching, quarrying, and other activities, like <i>kaingin</i> (slash and burn method of crop cultivation), including encroachment of informal settlers	Upland areas with no forest cover pose serious problems to environment and people, both upstream and downstream. This results to soil erosion, landslides, diminishes water quality and quantity, loss of biodiversity and may impair ecological processes.
Rampant and unregulated water extraction.	Scarcity of freshwater sources for domestic, agricultural, industrial and other uses.
No firm legal instrument for the management of watersheds	Excessive extraction of water for domestic use and uncontrolled activities in the watersheds leading to pollution of tributaries
Limestone mining and quarrying of sand and gravel along the beach fronts	Mining activities may result to soil erosion and landslide; destroy the scenic beauty of the island and loss of habitats of wild populations of freshwater fish due to gravel extraction.

Siltation and Sedimentation

Concerns	Implications on Guimaras Natural Environment
<p>Siltation and sedimentation caused by natural processes of weathering and erosion as well as inappropriate development and disturbance along the coastline and watershed areas</p>	<p>Ecological</p> <ul style="list-style-type: none"> • Turbidity and impairment of photosynthesis • Changes in benthic community structure or suffocation of bottom-dwelling organisms and deterioration of remaining coral reefs and seagrass meadows • Degradation of water quality; acute and chronic toxicity with negative impacts on fisheries and human health • Loss of flora and fauna <p>Physical</p> <ul style="list-style-type: none"> • Shallowing of coastal waters, which affects navigational routes and access to ports • Clogging of waterways and navigation canals • Flooding and breaching of riverbanks due to blocking of waterways especially at river mouths • Changes in currents, bathymetry and shoreline position <p>Financial</p> <ul style="list-style-type: none"> • Accumulation of sediments near tidal entrance, particularly along harbors and wharves increases the need to invest in dredging facilities • Construction of and maintenance of seawalls and similar shoreline stabilization structures

Habitat and resource degradation

Concerns	Implications on Guimaras Natural Environment
<p>Degraded coastal ecosystem such as mangroves, seagrass beds and coral reefs</p>	<p>Destruction of mangroves, coral reefs and seagrass has huge ecological consequences due to loss or impairment of their ecological functions as breeding, spawning and nursery grounds for various marine organisms.</p> <p>This is due to human activities and the pursuit of economic gains that are putting tremendous pressures on the coastal and marine ecosystems. Mangrove forests have been significantly reduced for the last 30 years, and the coral reefs and seagrass beds likewise were damaged from the increased activities at the coastal areas.</p>
<p>Lack of data on ecosystem and fisheries productivity, carrying capacity and ecosystem services valuation</p>	<p>Economic viability of related enterprises cannot be determined that can result to less appreciation of the values of natural resources.</p>

Natural Hazards

Concerns	Implications on Guimaras Natural Environment
Increase occurrence and severity of natural calamities	Typhoons that are causing floods and landslides contribute to the degradation of coastal and marine habitats. Floods carry debris and garbage through the rivers and streams unto the coastal areas that result to sedimentation and poor visibility affecting the photosynthetic activities of corals and seagrasses as well as poor water quality.

Sea Level Rise

Concerns	Implications on Guimaras Natural Environment
Sea level rise as shown in the recent most satellite and ground observations.	<ul style="list-style-type: none"> • Sea level rise aggravates the effects of storm surges • SLR accelerates saltwater intrusion into the inland and upstream areas • Changes in relative sea level may alter the morphology and position of the shorelines, causing coastal flooding, water logging of soils, and loss or gain of land. Coastal ecosystems are bound to be affected, particularly coastal wetlands and salt marshes.

Multiple and Conflicting Uses

Concerns	Implications on Guimaras Natural Environment
Existence of conflicting multiple use of resources as evident by the varied interests and priorities of various users of the coastal areas, and the overlapping and conflicting policies and mandates of national government agencies and local government units resulting in competing priorities accorded to the use of the coastal resources.	<ul style="list-style-type: none"> • Decline in the resources and lower productivity in fisheries and other economic activities. • No harmonization in implementation of plans and programs and weak collaboration of stakeholders since there is no clear-cut regulation or framework on the appropriate use of the coast and its resources. • Settlements within the mangrove areas, rivers and beaches • Easement not observed
Public land including Islets are claimed by private individuals	<ul style="list-style-type: none"> • Conservation and protection measures cannot be implemented • Management intervention is very limited.

TRANSBOUNDARY ENVIRONMENTAL ISSUES



Five coastal municipalities comprise the province in between the two larger islands of Panay and Negros. Because of the nature of water, damages can occur and their effects felt at significant distances from the threat or source of the problem. Municipal boundaries in terms of rights of exploitation are defined according to the Fisheries Code. Migratory species, however, do not recognize these boundaries. Fisheries, shipping, habitat destruction and pollution from land- and sea-based sources all have transboundary impacts. A major problem in one municipality can be a threat to the adjoining municipalities. This implies that institutions need to be configured to facilitate decision-making and management at an inter-municipal scale.

Pollution

Wastes including garbage and other marine debris are usually dumped into the coastal areas and marine environment with the belief that the vastness of the

sea allows it to absorb large quantities of waste without showing noticeable damage. Certain types of pollutants, such as inorganic chemicals and micro plastics accumulate, not only in watercourses, but in the food chain as well and may bio accumulate in humans. As the zone of influence of pollutants extends beyond local boundaries and across time, the political difficulties of implementing comprehensive, cost-effective management interventions are compounded. Pollutants crossing political boundaries impose external costs, which are difficult to measure and monitor. There is no single jurisdiction, considering the various sources, pathways (e.g., water, air, food), and numerous targets (e.g., inhabitants, visitors, habitats and resources). Oil spills and operational discharges from ships and fishing boats not only threaten the ecosystem but the aesthetic quality of the coastal environment. A polluted and congested environment renders tourism development a high-risk investment. Health risks continue, and will only intensify the pressure on the government to put in additional resources for the provision of health and other social services.

Fisheries

Much of the municipal water of the island province is a common-property resource to governments as well as to individual fisher folk. There is a 15-km limit for municipal fisheries, but overlapping claims among the adjacent and opposite municipalities have created complications in the management of the coastal waters. Encroachment of commercial and illegal fishing boats into municipal waters has compounded the problem and continues to be a source of conflict with municipal fishers.

Unrestricted access to commercially valuable species will generally result in over-exploitation. This over-exploitation, in turn, results in overcapitalization, depressed incomes for fisherfolk, and depleted fish stocks. Destructive fishing practices have caused the degradation of the coastal habitat.

Migratory Birds

Census of migratory birds is conducted every January of the year and every quarter thereof. There are five (5) sampling areas in the province, namely: TINMR, San Roque and Lapaz, Nueva Valencia; Brgy. Poblacion, Nueva Valencia; Brgy. San Antonio, Brgy. Suclaran, San Lorenzo; Brgy. Alegria and Sabang, Sibunag, and Brgy. Getulio, Buenavista.

Available data for the last five years (2014-2019) showed that migratory birds were observed in the province of Guimaras (Table 37).

Table 37. List of migratory birds observed in the province.

Common name	Scientific Name	Remarks
Whiskered tern	<i>Chlidonias hybrida</i>	Least concern
Little egret	<i>Egretta gerzetta</i>	
Black winged stilt	<i>Himantopus himantopus</i>	
Black naped tern	<i>Sterna sumatrana</i>	
Chinese egret	<i>Egretta eulophotes</i>	vulnerable

These birds were observed during the months of September to March. About fifteen (15) to twenty (20) species of migratory birds were observed in Guimaras annually. They escape the cold winter of Siberia, North China, and Alaska and return there during the summer months through the East Asian/Australasian Flyway.

Marine Wildlife

Four out of five species of marine turtles were observed in Guimaras. Green, Olive Ridley, Hawksbill and Leatherback marine turtles are frequent visitors of the beaches where they feed and lay their eggs. Tagging of marine turtles has been undertaken.

Dugong (*Dugong dugon*) was observed in all municipalities particularly in Cabalagnan, Nueva Valencia, Balcon Melliza and Hoskyn at Jordan, East Valencia, Buenavista, Suclaran, San Lorenzo and San Isidro, Sibunag. Several strandings of dugong were reported usually during the months of September at Tumulintinan Point MPA in San Lorenzo.

The presence of endangered species in the Province serves as indicator of general ecosystem health, particularly in the areas where these species were sighted.

Habitats

Habitats straddle across administrative boundaries. In general, habitats have important ecological functions that benefit the people throughout the province. Mangroves and upland forests provide beneficial ecosystem services. They serve as carbon sinks which have positive effect on mitigating the impacts of global warming. Most of the habitats in the island of Guimaras, upland forests, mangroves, seagrasses and coral reefs are showing signs of degradation due to human activities and natural causes. Such degradation implies local, regional and transnational adverse environmental effects.

OUR DESIRED CHANGES AND OUTCOMES

In the next 20 years, Guimaras envisions a well-managed environment, which considers the inter-linkages between the ecosystems and socio-economic systems, with an institutionalized proactive participation of its stakeholders.

Desired outcomes are:

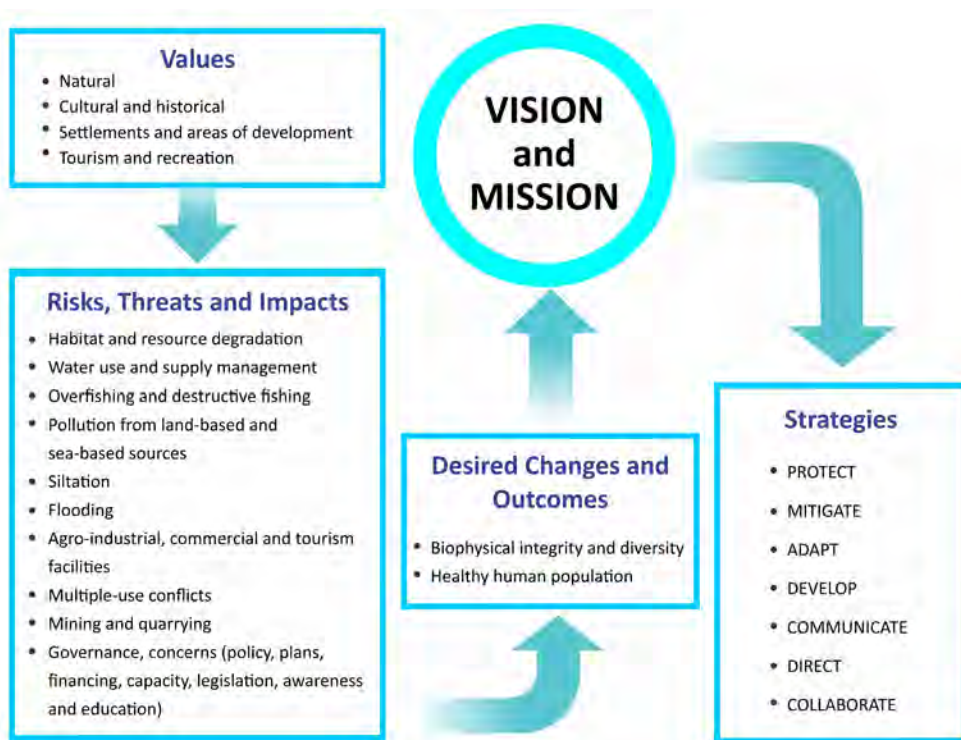
- Water quality in coastal waters and major tributaries within environmental standards.
- Habitat degradation arrested and restoration undertaken.
- Sustainable municipal fisheries achieved.
- Biodiversity effectively protected.
- Rivers and coastal waters safe for public recreation and utilization.
- 100 percent of households have access to safe, potable and sustainable water supply.
- Sufficiency in agri-fisheries products achieved and safe for human consumption.
- Systematic and safe management and disposal of different types of wastes achieved.
- Natural and cultural heritage preserved.
- Good practices for mango, agriculture and fishery production sustained.
- No informal settlers in coastal areas and occupants on public lands.
- Strong and committed stakeholders with strong political will to implement the Guimaras Coastal Strategy.
- Guimaras proactively demonstrating its contribution to achieving the sustainable development goals by 2030.



What is necessary to help achieve the shared vision and mission?

Institutional

- Environment and Natural Resources Offices/sections established at municipal levels to coordinate the implementation of local action programs and monitoring their impacts.
- Adoption and implementation of national and local coastal marine policy and supporting legislation.
- Local governments with responsibility and capacity to manage their coastal and marine environment.
- A functional intergovernmental, interagency and inter-sectoral mechanism coordinating and overseeing the implementation of the Guimaras Coastal Strategy.
- Environmental management programs incorporated into the economic development plans of national and local governments.
- Networking & partnership with international, national, regional and local governments (e.g. PNLG).
- Major international environmental instruments ratified by the Government of the Philippines, support and guidance for their implementation provided to local governments and relevant partner institutions.



Operational

- Integrated coastal management implemented by the 5 municipalities including river basins and adjoining watersheds throughout the Province.
- Capacity building programs in place to strengthen skills in marine and coastal resource management.
- Cooperation with adjacent local governments and national governments established to jointly address transboundary environmental problems that cross political boundaries.
- Joint research and sharing of information for the management of coastal and marine resources in place.
- Scientific input to policy and decision-making at the local and national levels.
- Integrated implementation of international environmental agreements at national and local levels.
- Civil society, coastal communities and other relevant stakeholders fully engaged in planning, development and management of marine and coastal resources on a Province-wide basis.
- A system of awards/recognition in place for organizations and stakeholders who provide outstanding contributions to the achievement of the shared vision for Guimaras coast.
- Public-private sector partnerships established to support investments for environmental programs.
- Innovative economic instruments set up to change people’s attitude and behavior toward the integrated management of the marine and coastal resources of the Province.

OUR RESPONSE

The stakeholders of Guimaras Province will:

Adopt the current vision statement of the Province by:

- Supporting the framework strategy to achieve the common goal for sustainable development of the province that can be undertaken at all levels of society;
- Becoming a signatory of the Guimaras Coastal Strategy Declaration confirming the roles and commitments of various stakeholders and partners for its implementation;
- Sharing responsibility to address complex environmental threats which are beyond the capacity of any single government, agency, community, group or individuals.

Governments will develop innovative partnerships to:

- Bring local government units and national agencies together to plan, develop and manage the marine and coastal resources of Guimaras Province, and surrounding watershed areas in a fair and equitable manner;
- Facilitate the participation of civil society and other stakeholders;
- Mobilize and encourage the private sector and establish partnerships to provide efficient and sustainable environmental solutions, including promotion of conservation practices;
- Work collectively with the donor community and international organizations, addressing obligations under environment-related international conventions and agreements and benefiting the marine and coastal environment of Guimaras Province.



Complementing the Provincial Vision are Visions of the 5 Municipalities, to wit:

Buenavista: A beautiful Buenavista, center for higher education in the Province of Guimaras, a better travel link between the Islands of Panay and Negros, with peaceful and progressive agro-industrial community of God-loving people, governed by a transparent leadership.

Jordan: “The gateway of Guimaras”, a progressive agro-industrial and commercial growth center, with a balanced ecological system where people are economically stable, empowered, law abiding, disaster resilient and enjoying high quality social services led by responsible leaders.

Nueva Valencia: “Nueva Valencia, the tourism capital of Guimaras, a major fishing ground and source of export quality mangoes, with empowered, God-loving, child-friendly, gender sensitive & healthy citizenry, anchored on stable governance, sustainable development, ecologically balanced environment and disaster resilient community.”

San Lorenzo: San Lorenzo, a leading agri-fishery and agri-eco-tourism destination where God-loving people enjoy a progressive economy, wholesome environment, and disaster resilient community anchored on a more participative governance.

Sibunag: “Sibunag as a major producer of agricultural products under a highly competent and dynamic local leadership anchored on people’s participation building a just, peaceful society and sound environment for a progressive, healthy and self-reliant Sibunagon.”

THE STRATEGIES

OUR VISION

GUIMARAS AS THE AGRI-ECO-TOURISM CAPITAL OF THE REGION WITH EMPOWERED, SELF-RELIANT, RESILIENT AND HEALTHY FAMILIES ENJOYING A PROGRESSIVE ECONOMY AND SAFE ENVIRONMENT ANCHORED ON THE PRINCIPLES OF SUSTAINABLE DEVELOPMENT.

OUR MISSION

TO IMPROVE THE QUALITY OF LIFE OF THE GUIMARASNONS THROUGH RESPONSIVE AND PARTICIPATORY GOVERNANCE.

Protect

human welfare and the ecological, historical, cultural and economic features of the Province of Guimaras for the benefit and security of present and future generations.

Mitigate

environmental risks that occur as consequence of human activities in the coastal areas and the surrounding watersheds of the Province.

Adapt

to impacts of climate change and other natural hazards including global economic opportunities.

Develop

areas and opportunities in the Province in consonance with environmental goals, policies and plans, thereby striking a balance between economic development and environmental management.

Communicate

with stakeholders regarding their rights and responsibilities, and issues concerning the coastal and marine environment, thereby ensuring their involvement and active participation in the development and implementation of environmental management programs.

Direct

the formulation and implementation of policies and institutional mechanisms to achieve sustainable development in Guimaras Province through interagency and inter-sectoral partnerships at national and local levels.

Collaborate

networking, partnership building, replication/transfer of knowledge, sustainability.

PROTECT

PRINCIPLES

- The Guimaras environment shall be protected from potential damages and irreversible changes since it provides the basis of human health and welfare, ecological well-being and direction of future development.
- Natural habitats and features of ecological, geological, cultural and historical significance are irreplaceable assets, and shall be preserved and sustained for present and future generations.
- Effective application of policies and laws shall ensure that the environment and the natural and cultural heritage are protected, preserved and conserved.

Ensure protection, restoration and sustainable development of resources, habitats, natural areas and historical, cultural, religious and archaeological sites that are essential in achieving the ecological, social and economic well-being of communities and stakeholders of Guimaras.

OBJECTIVES

1. To protect the coastal and marine habitats and associated flora and fauna.
2. To prevent destructive use and overexploitation of fishery resources and other coastal and marine resources.
3. To ensure that reserved public lands are protected and maintained.
4. To maintain and enhance biological diversity and ecological processes.
5. To protect and preserve areas with significant geological, ecological, cultural and historical values

The Partners

- National government agencies
- Local government units
- Shipping/sea transport sector
- Private and business sector
- Industries
- NGOs, Civic organizations
- Fisherfolks, farmers
- Recyclers, junk dealers
- Communities / households

OBJECTIVE 1

To protect coastal and marine habitats and associated flora and fauna.

Actions

- 1.1 An overall integrated program and mechanisms to protect and improve conservation and management of coastal and marine areas through ICM system implementation in the municipal and barangay levels.
- 1.2 Environmental risk assessment and its integration in planning and management programs.
- 1.3 Legal and economic instruments that will provide incentives for the protection of habitats and resources.
- 1.4 Integrated environmental impact assessment for development projects and human activities that may result in irreversible damage to important natural and cultural features.
- 1.5 Integrated planning, management and enforcement mechanisms to address mangrove conversion, deforestation, coral reef blasting and poison fishing and other destructive practices.
- 1.6 Priority rehabilitation areas for damaged coral reefs, seagrass beds, mangroves, mudflats, wetlands, swamps and forests.
- 1.7 Revert unsustainable/ abandoned fishponds and aquaculture areas back to mangroves.
- 1.8 Establishing/strengthening of environment monitoring system and enforcement mechanisms, such as of Bantay Dagat, etc.
- 1.9 Establishment of sanctuaries and protected areas and determining their management effectiveness.
- 1.10 Implementation of local shelter plan to address issues on informal settlers that are occupying areas with critical habitats.
- 1.11 Establishment and management of critical habitat areas and wildlife corridors (i.e., dugong, irrawaddy dolphin, migratory birds, etc.).

OBJECTIVE 2

To prevent destructive use and overexploitation of fishery resources and other coastal and marine resources.

Actions

- 2.1 Adaptive and responsive fisheries management plan, including indicators for monitoring and assessment, sustainable fish production and extension services.
- 2.2 Integrated program to improve aquaculture and prevent overexploitation of shellfish.
- 2.3 Mechanisms to monitor and eliminate destructive fishing practices facilitate fisheries cases and penalize violators.
- 2.4 Economic instruments to provide disincentives to destructive and unsustainable fishing and aquaculture practices.

OBJECTIVE 3

To ensure that reserved public lands are protected and maintained.

Actions

- 3.1 Inclusion in the integrated land-and sea-use plan the proper zoning of public lands, which identifies allowed uses and prohibited uses, and incorporates development schemes and enforcement system.
- 3.2 Implementation of FLUP 2017-2026 and Foreshore Management Plan (2019-2023)
- 3.3 Promotion of agroforestry and awareness on sustainable use of forest resources in production areas of public lands among beneficiaries
- 3.4 Promotion and implementation of agro-forestry on river and tributary easements
- 3.5 Enforcement of no-build zone in all public easements.

OBJECTIVE 4

To maintain and enhance biological diversity and processes

Actions

- 4.1 Formulation, adoption and implementation of guidelines, protocols and plans on protected and sensitive areas and critical habitats (e.g., forests, mangroves, coral reefs, seagrass beds, wetlands, etc.).
- 4.2 Enforcement mechanisms to redress process and activities that threaten biodiversity and habitats.
- 4.3 Periodic assessment and reporting of the status of habitats.

OBJECTIVE 5

To protect and preserve areas with significant geological, ecological, cultural and historical values.

Actions

- 5.1 Priorities for preservation and management of these areas, including community participation.
- 5.2 Develop, adopt and implement planning procedures and guidelines to protect the essential character of these areas and prevent irreversible damages.
- 5.3 Develop, adopt and implement sustainable ecotourism guidelines and business plans, using information on carrying capacities of priority areas and critical habitats.

MITIGATE



PRINCIPLES

- The environment should be protected from potential damages since it provides the basis of human health and welfare, ecological well-being and the direction of future development.
- Threats like marine and coastal pollution from land and sea-based sources, over extraction, physical destruction, and other damaging human activities must be mitigated and managed through integrated approaches and measures to lessen the ecological, economic and social impacts and sustain the goods and services provided by coastal ecosystems.
- Rehabilitation of key habitats/ecosystems is necessary in order to sustain the life support system of Guimaras' marine and coastal areas, for the benefit of the present and future generations.
- Transboundary issues will be identified and addressed through an integrated environmental management approach.
- Users pay and polluters pay principles will be pursued along with the application of other economic instruments to complement environmental laws, regulations and ordinances.
- Guidelines, criteria and standards for effluent discharges and dumping of wastes and other materials must consider the cumulative effects on the coastal/marine environment, and the health and well-being of the coastal communities.
- Integration of climate change adaptation and disaster risk reduction measures into various plans and programs of different sectors is necessary to promote and enhance resiliency of ecosystems and the people.

MITIGATE and control pollution and other human activities and impact of climate change that threaten the coastal and marine ecosystems and resources through integrated management process, effective mechanisms, and innovative partnerships among the different sectors and stakeholders to develop high resiliency in the Province of Guimaras.

OBJECTIVES

1. **Minimize adverse impacts from land-based activities that threaten Guimaras coastal and marine resources.**
2. **Manage and control threats from land- and sea-based activities that are affecting the health of estuarine and marine environment of Guimaras.**
3. **Mitigate siltation and sedimentation and rehabilitate damaged habitats and other significant natural, historical and cultural features of the island province.**
4. **Strengthen resiliency of vulnerable coastal communities to the impacts of climate change.**

The Partners

- **National government agencies**
- **Local government units**
- **Shipping/pumpboat sector**
- **Private sector**
- **Industries**
- **NGOs, Civic organizations**
- **Fisherfolks, farmers**
- **Recyclers, junk dealers**
- **Communities / households**

OBJECTIVE 1

Minimize adverse impacts from land-based activities that threaten Guimaras' Coastal and marine resources.

Actions

- 1.1 Compliance to the Philippine Clean Water Act and relevant guidelines on water quality and general effluents standards to sustain existing and future valuable uses of surface, ground, marine and coastal waters of the province.
- Characterize different water resources; formulate and implement local legislation.
 - Develop and issue policy guidelines, rules and regulations and establish monitoring and enforcement mechanisms on discharges of the following:
 - Municipal sewage;
 - Industrial, food and accommodation, and agricultural wastewater;
 - Solid waste collection and disposal;
 - Dredged materials;
 - Hazardous and infectious wastes;
 - Fertilizers and pesticides;
 - Feeds from poultry, livestock and aquaculture farms; and
 - Discharges from eco-tourism facilities.
 - Promote and sustain Integrated Pest Management (IPM) and Good Agricultural Practices (GAP) for agricultural production.
 - Reduce discharges of untreated and inadequately treated wastewater from residential, commercial, agricultural and fisheries/aquaculture and establish wastewater treatment facility to minimize impacts to coastal and marine resources.
- 1.2 Develop integrated monitoring program.
- 1.3 Establish and operate the following pollution reduction and waste management facilities and services through promotion and facilitation of investments in coordination with concerned sectors and public-private partnerships:
- Sewerage system for domestic and commercial waste;
 - Integrated ecological solid waste management facilities;
 - Toxic and hazardous waste management system;
 - In-farm waste treatment facilities, and recycling and recovery facilities for agricultural waste; and
 - Air pollution control devices.
- 1.4 Prevent illegal intrusion/encroachment and human settlements along waterways and in ecologically critical areas by:
- Providing tenurial and resource-use instruments to primary users (i.e., upland communities in watershed areas; coastal communities in coastal and marine areas), in order to sustain productivity of critical resources, and prevent destructive, illegal and conflicting use of resources;
 - Providing re-settlement areas with complete amenities and corresponding policy agreements as reflected in the Local Shelter Plan;
 - Providing alternative livelihood opportunities (e.g., tourism and recreation projects; resource management) for upland and coastal dwellers;
 - Formulating, adopting and implementing comprehensive land-and sea-use plans;
 - Strictly implementing and enforcing policies, laws and regulations pertaining to squatting and trespassing, and maintenance of ecologically sensitive areas, waterways and critical habitats; and
 - Capacity and institutional development and continuous monitoring of Certificate of Stewardship Contract holders.
- 1.5 Control the indiscriminate use of pesticides, fertilizers and other chemicals by:
- Enforcing the Toxic and Hazardous Waste Act (RA 6969), especially the selling and usage of banned pesticides for agricultural production; formulating policies on pesticides, herbicide and fertilizer usage, including setting of targets to reduce and ultimately phase out the use of harmful chemicals;
 - Implementing sustainably the IPM and GAP in agricultural production and post-harvest, and adopting alternative technologies like natural and organic farming (Organic Agriculture Act of 2010 Republic Act No. 10068) and planting of insect repellent trees; and
 - Advocating and building capacity in proper handling, application and management of pesticides, including management of used packaging and containers and residual pesticides.

OBJECTIVE 2

Manage and control threats from land- and sea-based activities affecting the health of estuarine and marine environment of Guimaras.

Actions

- 2.1 Implement sustainable fisheries and aquaculture production and management systems, including:
 - Aqua-silviculture and other ecosystem-friendly aquaculture, and
 - Proper use and application of feeds and pesticides in aquaculture farms; and Regulation of floating fish cages and offshore aquaculture.
- 2.2 Develop and activate a province-wide, multisectoral oil spill prevention and response program to prevent widespread damage to coastal and marine ecosystems of Guimaras coastline from operational and accidental spills and discharges.
- 2.3 Adopt and implement guidelines regulating discharges of operational waste from ships/motorboats, and use of anti-fouling chemicals and harmful paints.
- 2.4 Regulate indiscriminate dumping of waste through formulation of implementing rules, monitoring and enforcement mechanisms to prevent uncontrolled dumping of wastes and other marine debris in Guimaras and Iloilo Strait.
- 2.5 Implement sustainable agriculture production and management systems, including proper use, application and disposal of pesticides.
- 2.6 Harmonize regulation and legislation to control indiscriminate disposal of wastes and other pollutants in common water bodies.
- 2.7 Conduct environmental risk and impact assessment for development projects and ensure its integration into planning and management programs.

OBJECTIVE 3

Mitigate siltation and sedimentation, and rehabilitate damaged habitats of the island province.

Actions

- 3.1 Enhancement and implementation of FLUP and Foreshore Management Plan focusing on:
 - Reforestation of mangrove areas and conversion of abandoned fishponds back into mangroves;
 - Reforestation of upland watershed and catchment areas;
 - River and stream bank stabilization, and
 - Dredging of selected/sections of heavily silted rivers and streams and implementation of integrated river basin management.
- 3.2 Enforcement of setback and buffer zones along beaches, coastal shoreline, riverbanks and other water bodies.
- 3.3 Updating of data base and utilization on siltation and sedimentation for the whole province.
- 3.4 Promote the implementation of sustainable upland agricultural production and forest management systems.
 - Sloping Agricultural Land Technology (SALT) and agro-forestry system particularly in watershed and catchment areas;
 - Community-Based Forest Management (CBFM);
 - Monitoring and enforcement of slash-and-burn farming in upland areas, and
 - Develop a sustainable production forest management.
- 3.5 Regulate and monitor mining and quarrying, over extraction of groundwater, timber poaching in watershed, mangrove, and protected areas, and reclamation activities.
- 3.6 Strengthen community participation and awareness.

ADAPT

THE STRATEGIES



PRINCIPLES

- Formulation and implementation of climate change adaptation measures with integrated strategies foster long term efficiency and resiliency.
- Harnessing nature-based solutions reduces initial and running costs.
- Embedding climate resilience and adaptation measures help address vulnerability of coastal communities and across age levels to the many consequences of climate change
- Tap current and emerging economic opportunities to reduce the immediate and recurring impacts of climate change (e.g., ecotourism, agroforestry, etc.)

Adapt to impacts of climate change, natural and human-induced hazard and global economic opportunities.

OBJECTIVES

1. **Reduce social and economic losses due to disasters.**

The Partners

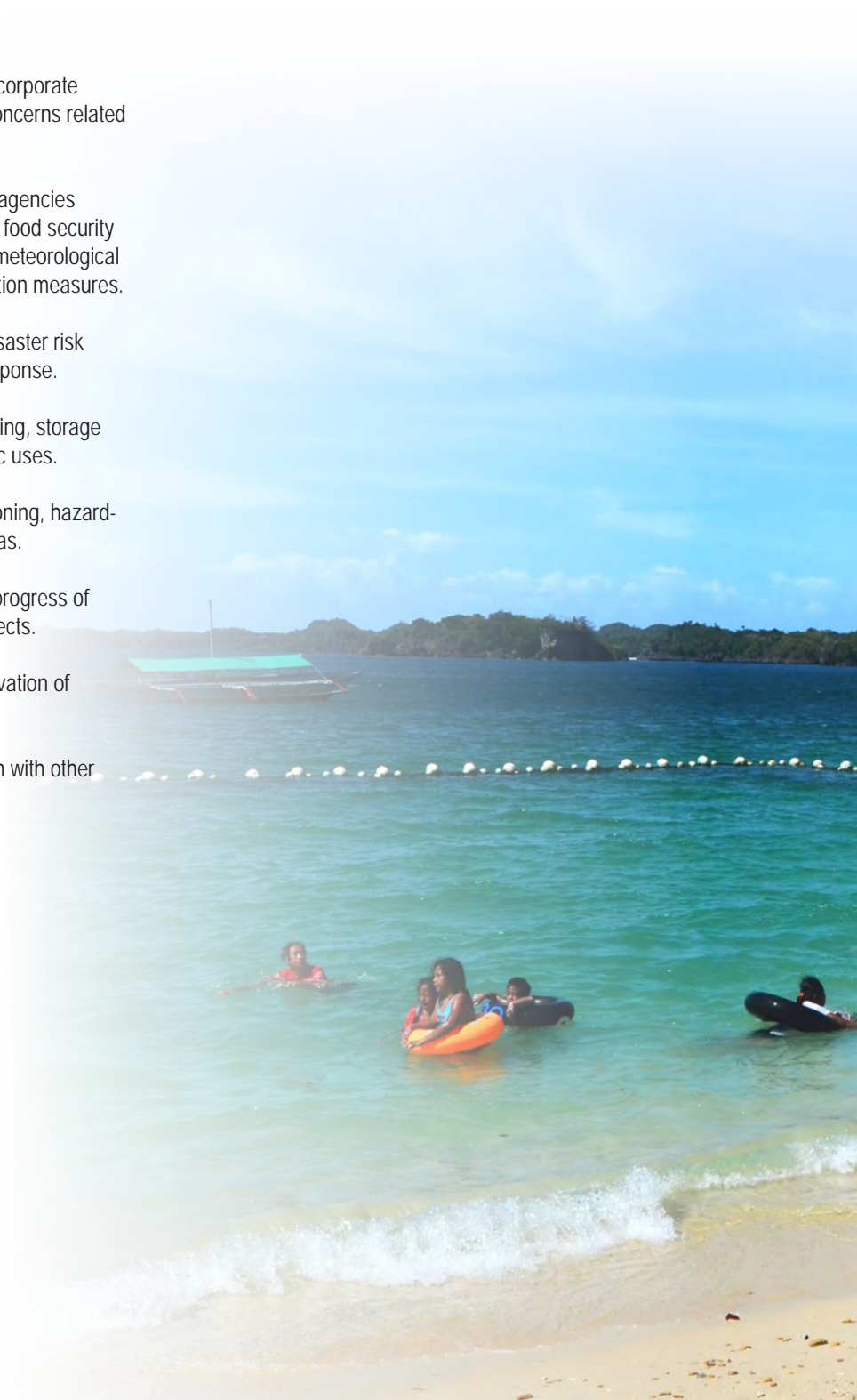
- National government agencies
- Local government units
- Non-government organizations/people's organizations
- Civic organizations
- Media
- Religious organizations
- Private sector
- Industry
- Academe
- Communities/Households
- Youth

OBJECTIVE 1

Reduce social and economic losses due to disasters.

Actions

1. Enhance the DRRM Plan and LCCAP to incorporate appropriate actions to address emerging concerns related to climate change.
2. Strengthen localized IEC activities of lead agencies focusing on hazards and risks to water and food security as a consequence of geological and hydrometeorological extremes as part of climate change adaptation measures.
3. Strengthen capability of stakeholders on disaster risk reduction management and emergency response.
4. Improve infrastructure on rainwater harvesting, storage and distribution for agriculture and domestic uses.
5. Enforce regulations on land and sea use zoning, hazard-prone areas, easements and protected areas.
6. Monitor, evaluate, report and validate the progress of climate change adaptation and DRRM projects.
7. Enhance ecosystem protection and conservation of habitats.
8. Facilitate integration of local DRR CCA plan with other sectoral plans.
9. Promote climate-resilient infrastructures.





DEVELOP



PRINCIPLES

- Economic development is of vital local, national and regional importance.
- In order to achieve sustainable development, environmental protection shall constitute an integral part of the development process and cannot be considered in isolation.
- The coastal and marine environments are long-term public assets, which shall not be sacrificed for short-term goals.
- The needs of the present generation shall not be met at the expense of future generations.
- Development and implementation of plans and programs, shall be anchored on sustainable development principles and shall seek consensus from concerned stakeholders.
- Empowered civil society can serve as advocates of ICM.
- Fragile communities shall be given special consideration because of their vulnerability to development projects.

Develop areas and opportunities in Guimaras natural resources in consonance with environmental goals, policies and plans, thereby striking a balance between economic development and environmental management.

OBJECTIVES

1. Productive coastal resources within Guimaras attaining the maximum sustainable yield.
2. Development of appropriate coastal and marine industries and commercial establishments.
3. A sustainable fisheries industry.
4. Coastal settlements developed in accordance with the coastal character and use of coastal areas.
5. Clearly define management boundaries and responsibilities for achieving developments in coastal areas.
6. Agri-ecotourism development for potential sites and festivals (wind farm, lighthouse, beaches, organic farms, agri-learning sites, archeological and bike trails) and ICM learning sites.
7. Operationalization of integrated information management system to support planning.
8. Determine carrying capacity to regulate level of activities within the identified critical areas.

The Partners

- National government agencies
- Local government agencies
- Shipping and sea transport sector
- Industries
- Fisheries sector
- NGOs, POs
- Fisherfolk, farmers
- Indigenous communities
- Financial institutions
- Intergovernmental institutions

OBJECTIVE 1

Productive coastal resources within Guimaras attaining the maximum sustainable yield.

Actions

- 1.1 Facilitate sustainable development of coastal areas by:
 - Implementing coastal and habitat management programs (e.g., establishment of artificial reef, mangrove reserve zone and coral garden, rehabilitation of threatened species and mangrove reforestation);
 - Regulating and enhancing aquaculture and salt production areas;
 - Conducting community level consultations to build consensus among local stakeholders on the proposed coastal and habitat management programs or coastal resources management plan;
 - Conducting research on maximum sustainable yield for aquaculture, commercial and municipal fisheries, and
 - Establishing closed season policy for specific species of fish, shellfish and fishing gears, and during spawning and breeding season.

OBJECTIVE 2

Development of appropriate coastal and marine structures and commercial establishments.

Actions

- 2.1 Encourage appropriate industrial and commercial development in coastal areas by:
 - Designating specific coastal land and water areas for industrial and commercial development as part of the integrated land and sea-use zoning plan;
 - Integrating environmentally responsible and resource efficient designs in the updating of zoning ordinances of the municipalities;
 - Capacitating government officials and project implementers on technical aspects (design and implementation methodology) of offshore and nearshore infrastructures;
 - Increasing awareness of civil society on the significance of adopting ICM in any infrastructure development in their respective areas;
 - Requiring coastal and marine establishments to provide the necessary infrastructure, facilities and services that are in compliance with the social, economic and environmental goals of the province;
 - Developing water supply and sanitation systems and establishment of sewerage systems;
 - Prohibiting the establishment of inappropriate structures along coastlines and prevent future preoccupation;
 - Exploring opportunities for recreation and tourism ventures which are sensitive to coastal settings;
 - Establishing targets for cumulative and long-term benefits to the sustainable development of Guimaras and local communities for any new coastal industry or large-scale expansion of an existing coastal industry or commercial establishment;
 - Promoting and facilitating investments in pollution reduction and waste management facilities through public-private partnerships;
 - Implementing an integrated environmental impact assessment and approval process for all major developments in Guimaras, particularly for environmentally critical projects and environmentally critical areas, and
 - Promoting rain water harvesting in commercial establishments and government facilities.

OBJECTIVE 3

A sustainable fisheries industry

Actions

- 3.1 Integrate fisheries management into environmental management programs at the local government level by:
- Strengthening the capacity of local governments to manage marine and coastal areas within their administrative jurisdiction, using an ecosystem management approach for the development and use of living and non-living resources;
 - Applying appropriate measures to protect the rights and livelihoods of small-scale fishers and fish workers;
 - Implementing measures against destructive fishing methods and practices that result in loss of habitat and waste of accidental catch of threatened species, and juveniles;
 - Applying appropriate fisheries and aquaculture technologies to bring about fish stock conservation and diversification of sources of income and food consumption pattern;
 - Promoting diverse and innovative approaches to fisheries management, pertaining to commercial, municipal and recreational fishing, to address the goals of tourism, culture, conservation and trade purposes;
 - Utilizing sustainable and environmentally safe indigenous/traditional knowledge and practices in fisheries management;
 - Developing farm to market roads, related infrastructure, post-harvest facilities and other extension services to reduce post-harvest losses and support fisheries management, and
 - Rehabilitate and protect fresh water fishery resources.
- 3.2 Implement no-catch fisheries in protected areas by:
- Agreeing on the selection criteria and process for identifying coastal areas which support regionally important fish stocks;
 - Incorporating no-catch fisheries protected areas into the PDPFP and municipal CLUPs and zoning ordinances, with due consideration to complementary land- and sea-use zoning schemes in the vicinity of such areas;
 - Adopting appropriate management regimes for no-catch fisheries protected areas, encompassing the various fisheries and providing an integrated approach to planning, development and use of the areas;
 - Institutionalizing innovative administrative and legal arrangements with fisherfolk and indigenous communities to manage the protected areas, and
 - Place at least 15 percent of the municipal waters under protected status to ensure sustainability of fisheries.

OBJECTIVE 4

Coastal settlements developed in accordance with the coastal characteristics and use of coastal areas.

Actions

- 4.1 Restructure existing settlements that are inconsistent with the shared vision for the health and well-being of coastal populations by:
 - Finalizing and implementing the Local Shelter Plans of the 5 municipalities, including profiling of existing informal settlements, their character and needs of the population in coastal areas);
 - Integrating into the updated PDPFP and CLUPs of the municipalities the sea-use plan and future coastal settlement plan by taking into account:
 - The characteristic of the coastal area;
 - The surrounding activities;
 - Population forecasts and settlement capacities;
 - High risk and vulnerable areas to disaster (natural and human-induced)
 - Infrastructure capacities, and the required environmental facilities and services to maintain compliance with the social, economic and environmental goals of the province, and
 - Present and future land use options.
 - Establishing a zoning system as well as guidelines, standards and criteria for siting, design and development plans of population centers and residential areas, industries, power plants, tourism establishments, ports, fisheries and aquaculture areas, fish/marine sanctuaries, protected areas and national parks, and
 - Developing assessments that take account into coastal and climate change and its associated impacts such as sea level rise.

OBJECTIVE 5

Clearly define management boundaries and responsibilities for achieving developments in coastal areas.

Actions

- 5.1 Settlement of political boundaries disputes in four municipalities (Jordan, Buenavista, Sibunag and San Lorenzo)
- 5.2 Conduct municipal planning that incorporates the nature and character of the coast and transboundary issues.
- 5.3 Harmonize local ordinances/laws especially in shared water bodies.
- 5.4 Update the base map and corresponding information system for use of local officials, planners and coastal managers to enable them to fully understand their spatial and legal jurisdiction and plan and implement appropriate development projects.
- 5.5 Update the ICM strategy/plan to align with recent international commitments and national policies and laws.

OBJECTIVE 6

Agri-ecotourism development for potential sites and festivals (wind farm, lighthouse, beaches, organic farms, agri-learning sites, archeological and bike trails) and ICM learning sites.

Actions

- 6.1 Assessment and enrichment of potential agri-ecotourism destinations.
- 6.2 Secure accreditation from relevant entities for agri-ecotourism destination (DA-ATI, TESDA, DOT).
- 6.3 Update the Provincial Tourism Master Plan.
- 6.4 Develop /update the management plans for agri-ecotourism sites.
- 6.5 Regular monitoring on implementation of management plans.

OBJECTIVE 7

Operationalization of integrated information management system to support planning.

Actions

- 7.1 Creation of MENRO to institutionalize data collection, management and reporting.
- 7.2 Regular collection of data, updating of database and reporting of ICM stakeholders.
- 7.3 Operationalization of information-communication system.

OBJECTIVE 8

Determine carrying capacity to regulate level of activities within the critical areas.

Actions

- 8.1 Conduct of scoping and inventory of critical areas and activities that need carrying capacity assessment.
- 8.2 Develop/update management plans to regulate activities within the critical areas and vicinity in consideration of the results and recommendations from the carrying capacity assessment.
- 8.3 Implement mechanisms for sustainability.
- 8.4 Monitor and evaluate impacts and recommend mechanisms to further improve sustainability measures.

COMMUNICATE



PRINCIPLES

- Awareness of the importance of the coastal and marine ecosystems and how their actions affect the capacity of the natural environment to provide optimum ecological services and socio-economic values.
- People need to understand the impacts and linkages of human activities to the integrity of the watershed areas and coastal and marine ecosystems.
- Public education and awareness on sustainable use, prevention of risks and continuous improvement of the environment are essential to long-term social, cultural and economic impacts.
- Continuing public involvement and consensus building among the different stakeholders facilitate commitment, transparency of process and interagency and inter-sectoral cooperation.
- Appreciation of the importance of the preservation of the natural, historical and cultural sites shall be achieved through continuing education and information drive efforts.
- Sound policies and decisions are based on reliable, understandable and accessible scientific and technical information.
- Educational curricula/program regarding sustainable use, prevention of risks and continuous improvement of the environment.

Communicate the rights, responsibilities, and privileges of stakeholders on issues concerning the coastal and marine environment, ensuring their involvement and active participation in the development and implementation of environmental management programs.

OBJECTIVES

1. Awareness and understanding of stakeholders of their rights and responsibilities, and priority issues concerning coastal and marine environment of Guimaras Province.
2. Public access to available data/information including results of research and development activities, environmental monitoring, and other studies and projects relevant to the development of Guimaras Province.
3. Multisectoral stakeholders as partners in the planning and management of Guimaras Province watershed areas and coastal and marine ecosystems.
4. Effective coordination and networking among stakeholders.
5. Stakeholders advocating environmental management in Guimaras.

The Partners

- National government agencies
- Local government units
- Non-government organizations/people's organizations
- Civic organizations
- Media
- Religious organizations
- Private sector
- Industry
- Academe
- Communities/Households
- Youth

OBJECTIVE 1

Awareness and understanding of stakeholders of their rights and responsibilities, and priority issues concerning coastal and marine environment of Guimaras Province.

Actions

- 1.1 Conduct baseline surveys on the knowledge, attitudes, skills and practices of stakeholders/target audiences.
- 1.2 Formulate and implement communication and advocacy plans for various stakeholders/target audiences focusing on improved policies and management programs for the coastal and marine environment.
- 1.3 Develop and disseminate IEC materials through appropriate channels.
- 1.4 Integrate environmental topics into educational curricula/program.
- 1.5 Institutionalize IEC campaigns, such as:
 - Annual coastal clean-up activities in all municipalities;
 - Regular assembly of fishers' group in all municipalities;
 - Conduct of Summer-EcoCamp;
 - Annual celebration of fish conservation week;
 - Strengthening Advocacy Measures (Advocacy on ICM);
 - Arbor Day Celebration;
 - Padyak sa Kalikasan;
 - Butlak (Provincial Government of Guimaras Newsletter);
 - Earth Day Celebration;
 - Farmers' Field School;
 - Gawad Pangulo sa Kapaligiran;
 - Bayan ko Linis Ko;
 - Malinis at Masaganang Karagatan;
 - Conduct of Agri-Eco Day;
 - IEC on SWM for the entire province, and
 - Drills and exercises for emergency scenarios (e.g., fire, flooding, earthquake, etc.).

OBJECTIVE 2

Public access to available data/information, including results of research and development activities, environmental monitoring, and other studies and projects relevant to the development of Guimaras Province.

Actions

- 2.1 Establish, operate and maintain media/information center, website, social media accounts and mini-library where stakeholders can easily access information on the environmental management programs of Guimaras.
- 2.2 Develop, operate, and maintain an information management and networking system such as the integrated information management system to serve as repository of data to include among others, natural resources, environmental monitoring, historical and cultural features, demographic and institutional data.
- 2.3 Encourage volunteers to be involved in various environmental management activities in Guimaras and share their experiences and relevant information.
- 2.4 Sustain the development of State of the Coasts report as a regular monitoring, evaluation and reporting tool to assess progress in ICM implementation.
- 2.5 Participate in tri-media network programs, if available.
- 2.6 Tap other communication channels like social media to expand the reach of awareness raising activities.

Target audience

- National and local governments, decision/policy makers
- Fisherfolks and farmers
- Women/women organizations
- Industries/business sector
- Parents
- Youth and school children
- Media
- Non-government organizations, people's organizations and civic organizations
- Academe
- Indigenous People
- Visitors
- Senior Citizens, PWDs, and LGBTQIA

OBJECTIVE 3

Multi-sectoral stakeholders as partners in the planning and management of Guimaras Province watershed areas and coastal and marine ecosystems.

Actions

- 3.1 Provide opportunities for multi-sectoral stakeholders to participate in various environmental management programs by providing adequate information, training and support.
- 3.2 Engage the Guimaras pool of hosts and other environmental advocates group comprising of various stakeholders representatives to become active partners in IEC activities.

OBJECTIVE 4

Effective coordination and networking among stakeholders.

Actions

- 4.1 Enhance the website of Guimaras Province to include environmental management programs and projects and linking with the regional network of local government's website (e.g., PNLG, etc.) for wider reach and visibility.
- 4.2 Institutionalize community forums/meetings, public consultations, etc., where stakeholders can discuss their engagement in the development and implementation of sustainable development programs for coastal and marine resources.
- 4.3 Sustain and strengthen the operation of the ICM program Coordinating Committee and other local special bodies and mechanisms.

OBJECTIVE 5

Stakeholders advocating environmental management in the Province.

Actions

- 5.1 Strengthen the capabilities of the pool of hosts and accredited tour guides and land and sea transport operators of Guimaras and other environmental advocates group in implementing IEC activities.
- 5.2 Develop education and training programs for managers and technical staff in advocating environmental management.
- 5.3 Train and educate stakeholders including children and youth to become partners in advocating environmental management in Guimaras.
- 5.4 Enhance the effectiveness of formal and informal environmental education at all levels of the educational system.

Examples of environmental advocacy groups in Guimaras Province:

- National government agencies
- Local government units
- Non-government organizations/people's organizations
- Civic organizations
- Media
- Religious organizations
- Private sector
- Industry
- Academe
- Communities/Households
- Youth

DIRECT



PRINCIPLES

- To protect and preserve the watershed areas, coastal and marine environment, the use of a full range of available management tools and financing options in implementing local or national programs of action, including innovative managerial and financial techniques, shall be promoted.
- To achieve sustainable development and higher quality of life for the people of Guimaras Province, the national and local governments shall work together to reduce and eliminate unsustainable patterns of production and consumption and promote appropriate demographic policies.
- Environmental policy shall take due account of those who depend on the resources for their livelihood while managing resources sustainably.
- Sustainable development shall only be achieved by involving all levels of society in environmental management programs.
- An integrated ecosystem approach in managing watershed, coastal and marine areas shall be promoted to address environmental threats, reduce multiple-use conflicts and strengthen institutional capabilities and effectiveness.

Direct the formulation and implementation of policies and institutional mechanisms to achieve sustainable development in Guimaras through interagency and inter-sectoral partnerships at the national and local levels.

OBJECTIVES

1. **Strengthen existing institutional arrangements to oversee, coordinate and direct the implementation of Guimaras Coastal Strategy.**
2. **Local governments effectively directing the management of marine and coastal resources within their administrative jurisdictions.**
3. **Establish partnership arrangements that serve as foundation for sustainable development of Guimaras Province.**

The Partners

- National government agencies
- Local government agencies
- Private sector
- Non-government organizations/people's organizations
- Civic organizations
- Academe
- Intergovernmental Institutions

OBJECTIVE 1

Strengthen existing institutional arrangements to oversee, coordinate and direct the implementation of Guimaras Coastal Strategy.

Actions

- 1.1 Adopt a clear and holistic approach in managing the marine and coastal resources of Guimaras by:
 - Implementing the Guimaras Coastal Strategy as a guiding framework for the sustainable development of Guimaras;
 - Delineating the roles and responsibilities of levels of government, government agencies, the private sector, civil society, international agencies, intergovernmental bodies, donors and financial institutions in implementing the Guimaras Coastal Strategy and committing the different players to achieve specified goals in the action programs;
 - Implementing integrated socio-economic development and environmental management master plan, detailing an integrated land-and sea – use zonation scheme for existing and future developments in the marine, coastal and watershed areas of Guimaras;
 - Operationalizing the Program Coordinating Committee (PCC) as the inter-agency, multisectoral coordinating mechanism to coordinate the monitoring of implementation of Guimaras Coastal Strategy, and
 - Adopting & implementing the Guimaras ICM Ordinance and Guimaras Environment Code.
- 1.2 Ensure that the Guimaras Coastal Strategy will be pursued and achieved over the long-term by:
 - Institutionalizing the mechanism through appropriate legislations;
 - Strengthening the Program Coordinating Committee (PCC) through capacity development;
 - Integrating national and local government development programs and plans into Guimaras Coastal Strategy;
 - Establishing an Environment Fund, aimed at leveraging environmental investments and stewardship at the local government and community levels, and sourced from the user fees, fines and penalties levied on users of the coastal resources, as well as donations, grants and endowments provided by foreign and domestic programs, and
 - Raising awareness and building capacity of stakeholders to fulfil their obligations as environmental stewards of Guimaras coastal and marine resources and surrounding watersheds.

OBJECTIVE 2

Local governments effectively directing the management of marine and coastal resources within their administrative jurisdictions.

Actions

- 2.1 Implement a systematic and sustainable environmental management framework and program as part of each local government unit by:
 - Sustaining the integrated coastal management (ICM) program of the province;
 - Defining the national & local governments' roles and strengthening capabilities in integrated environmental impact assessment for new developments;
 - Integrating community-based resource management agreements and programs (e.g., fisheries; marine protected areas) under the ICM programs of the local governments;
 - Developing, adopting and implementing the land-and sea-use zoning scheme;
 - Operationalizing the municipal office counterparts with responsibility of executing and/or coordinating the implementation of the local council's policies and decisions, as well as monitoring and evaluating the progress and effectiveness of the coastal strategy, and
 - Strengthening the "Bantay-Dagat" (coastal watch) at the local government level including development of vigilance and stewardship among community, and its integration with environmental monitoring and management.
- 2.2 Institutionalize environmental management programs at the local government level by:
 - Adopting legal, economic, and administrative instruments at the local government levels in support of the ICM framework and process;
 - Applying innovative financial mechanisms and market-based instruments to ensure that local users and beneficiaries of coastal and marine resources recognize the value of such resources and compensate accordingly;
 - Building local capacities pertaining to environmental management including ICM, community-based management of coastal resources, fisheries management, biodiversity conservation, integrated waste management and sustainable tourism;
 - Linking local scientific/ technical institutions with other stakeholders in the community to provide scientific advice and input into the planning and decision-making processes, and
 - Aligning operations of stakeholders and organization to global environmental management standard systems.

OBJECTIVE 3

Establish partnership arrangements that serve as foundation for sustainable development of Guimaras Province.

Actions

- 3.1 Develop partnerships with local and foreign operating companies, investors, international agencies, donors and financial institutions by:
- Seeking new and additional sources of technical and financial assistance through national, bilateral and multilateral technical assistance programs to develop environmental investment opportunities;
 - Promoting opportunities for investment in developmental activities and environmental facilities and services that are in accordance with the coastal strategy and vision for Guimaras, and offer long-term benefit to local communities in the immediate area, and
 - Adopting a public-private partnership (PPP) financing mechanism as an alternative to traditional approaches of planning, developing, financing and operating environmental facilities and services.
- 3.2 Enjoin local industry and commercial enterprises to contribute to the implementation of the Guimaras Coastal Strategy by:
- Developing voluntary agreements geared towards identifying targets for increased efficiency in the use of marine and coastal resources, the reuse and recycling of production residuals and the reduction in waste discharge per unit of economic output;
 - Formulating and adopting a code of conduct and incentives and disincentives for industrial and commercial enterprises in order to promote best environmental practice in Guimaras;
- Sharing technological know-how, expertise and skills in, safety, environmental management and emergency response among stakeholders;
 - Conducting self-audits on industrial plants and commercial operations to ensure compliance with all relevant environmental laws and ordinances;
 - Preparing and adopting a contingency plan for prevention and response to oil & hazardous chemical spills and contamination in land and sea involving the private sector, local governments and relevant agencies of the national government, and
 - Participating in community awareness and education programs.
- 3.3 Strengthen the role of NGOs, POs, communities and marginalized groups as partners for sustainable implementation of Guimaras Coastal Strategy by:
- Developing consumer awareness and participation programs aimed at women, emphasizing their critical role in achieving the changes necessary to reduce waste generation and avoid unsustainable use of marine and coastal resources in Guimaras;
 - Establishing alternative livelihood training and development for women and IPs, including access to credit and grants for the start-up of micro-enterprises, and
 - Providing resource centers for women and IPs, to serve as a foundation for capacity and awareness building, and for mainstreaming their participation in ecosystem management, public health protection, control of environmental degradation and sustainable development programs at the local community, municipality, provincial and national levels.

- Expanding educational opportunities for children, youth and IPs, including the development of education programs on the environment and environmental stewardship at the primary and secondary school levels;
 - Mobilizing communities in Guimaras Province through schools and local health centers so that children and their parents are sensitized to the roles and responsibilities of the individual and the community in the Coastal Strategy;
 - Incorporating the concerns of children, including access to a healthy environment, natural resources, food, housing and recreation, into the development of coastal area in Guimaras;
 - Seeking and channeling non-governmental organizations inputs into the planning, development and management process at Guimaras at all levels, especially in the fields of education, capacity building, poverty alleviation, youth education, environmental protection and resource rehabilitation;
 - Identifying means to include and expand the roles of NGOs in formal and informal education and public awareness, and
 - Providing access to available information and data to stakeholders at the community level to facilitate effective contribution to design, implementation and evaluation of action programs under the Guimaras Coastal Strategy.
- 3.4. Combine scientific input and traditional knowledge into decision-making processes and environmental management programs by:
- Forging partnerships between scientists and local governments, to encourage information and knowledge sharing in the development and implementation of ICM programs;
 - Supporting scientific research that advances knowledge of ecosystem management, environmental risk assessment/management, carrying capacity, quality –of-life indicators, etc., and provides input to decisions on sustainable economic development, and
 - Involving indigenous people and scientist in the gathering and interpretation of information on habitats and biological diversity in Guimaras, including the development and implementation of appropriate restoration programs and conservation of cultural heritage.

COLLABORATE



PRINCIPLES

- Our coastal and marine areas and the associated watershed are shared resources used for many purposes ranging from urban to industrial development, fisheries and aquaculture, recreation and tourism, ports development and many others.
- Our coastal and marine areas and associated watersheds, as preferred sites for development, are also facing mounting pressures; thus, issues and concerns are complex requiring multidisciplinary and inter-agency collaboration to address them.
- Experiences and good practices in addressing complex issues in the coastal and marine areas and associated watershed are available and have been proven to be beneficial when shared through various platforms.
- The PNLG, an established and sustainable network of local governments implementing ICM is one such platform where knowledge transfer and replication of good practices and capacity development among local governments and other partners including national agencies, academe, private sector, civil society organizations, and others can be facilitated.
- Effective coordination and networking among stakeholders facilitates transfer and replication of good practices.

Collaborate through effective networking and partnership building with entities that share the same goals and vision as Guimarães to facilitate the transfer of knowledge, replication of good practices and capacity development.

OBJECTIVES

1. **Organize policy and knowledge exchange forums that would serve as venue for raising awareness, interest and commitment for replication and scaling up, including fine tuning of processes and approaches.**
2. **Strengthen the PCC to be able to perform its function as multisectoral, interagency coordinating mechanism as indicated in Guimarães ICM Ordinance.**
3. **Establish partnerships with new and existing alliances involving adjoining provinces in Western Visayas region to address transboundary issues and concerns.**
4. **Maintain Guimarães' visibility at the international level by consistently reporting on SDG commitments through SAP implementation.**

The Partners

- National government agencies
- Local government units
- Non-government organizations/people's organizations
- Civic organizations
- Media
- Religious organizations
- Private sector
- Industry
- Academe
- Communities/Households
- Youth

OBJECTIVE 1

Organize policy and knowledge exchange forums that would serve as venue for raising awareness, interest and commitment for replication and scaling up, including fine tuning of processes and approaches.

Actions

- 1.1 Consolidate and share accomplishments and good practices from implementation of various plans and programs implemented by the local governments and other partners and stakeholders.
- 1.2 Organize policy and knowledge forum including cross visits and study tours to share experiences, best practices and lessons learned in ICM implementation with other interested local governments and organizations.
- 1.3 Incorporate policy actions and recommendations from the forum into the existing plans and programs and local action plans.

OBJECTIVE 2

Strengthen the PCC to be able to perform its function as multisectoral, interagency coordinating mechanism indicated in the Guimaras ICM Ordinance.

Actions

- 2.1 Explore the possibility of designating the PCC as a recommendatory body of the Provincial Development Council.
- 2.2 Provide capacity development opportunities to the members of the PCC.
- 2.3 Enforce ICM Ordinance and monitor compliance.

OBJECTIVE 3

Establish partnerships with new and existing alliances involving adjoining provinces in Western Visayas region to address transboundary issues and concerns.

Actions

- 3.1 Strengthen alliance between Metro Iloilo and Guimaras Economic Development Council and Regional Development Council.
- 3.2 Forge partnerships in managing Guimaras and Iloilo Straits.
- 3.3 Conduct targeted research on the migration patterns of marine mammals, migratory birds, commercial fishes and other important species.
- 3.4 Document occurrence and map the locations of seasonal transient fishers.
- 3.5 Delineate and settle boundary conflicts in disputed municipal waters with adjacent and opposite municipalities and provinces.

OBJECTIVE 4

Maintain Guimaras' visibility at the international level by consistently reporting on SDG commitments through SAP implementation

Actions

- 4.1 Regularly report on progress made on SDG commitments.
- 4.2 Participate in International Forum to share good practices and knowledge on sustainable island ecosystem management.
- 4.3 Share documents and reports for uploading based on existing rules in Intellectual Property Rights, when applicable, in various knowledge platforms ex. SEA Knowledge Bank, International Waters, MPA World Atlas, among others with approval from concerned author/writer.

EXECUTING THE COASTAL STRATEGY

Who will execute the Coastal Strategy

The Coastal Strategy requires everyone to do his/her own part. All stakeholders have their own role to play, at various levels and degrees.

National Government

- Support the establishment of an implementing mechanism, including national and local governments, regional authorities from national and local governments, regional authorities, the private sector, civil society, the media and academe, to coordinate the implementation of the Guimaras Coastal Strategy.
- Support the implementation of the Guimaras ICM program in line with the National ICM Program and promote best practices that fall within their respective mandates.
- Provide policy guidance, and technical and resource assistance.
- Enforcement of relevant coastal and marine policies and regulations.
- Directly consult with relevant LGUs in the development and implementation of national plans and projects affecting coastal and marine areas in their respective localities.

Local Government Agencies

- Develop and implement local plans of action in support of the Guimaras Coastal Strategy.
- Institutionalize local administrative and budgetary support, as well as planning and approval systems that are consistent with the Guimaras Coastal strategy.
- Forge partnerships with the private sector and civil society.
- Mobilize local stakeholders as stewards of the environment.
- Identify opportunities for economic development, which support the Guimaras Coastal Strategy.

- Identify and integrate existing activities of LGUs into the action programs.
- Set up monitoring and evaluation systems to monitor the progress and effects of implementing the Guimaras Coastal Strategy through the State of the Coasts reporting.
- Act as frontline agencies in the formulation, planning and implementation of ICM programs in their coastal and marine areas.
- Shall be in line with the National ICM Program and prepared in consultation with the relevant stakeholders.
- Shall establish ICM-PMO in every municipality

Private Sector

- Exercise corporate responsibility with regard to sustainable development and use of the resources of the Province.
- Invest in the environment, and in development of opportunities that benefit the people and the environment.
- Work in partnership with the government and communities to implement the Coastal Strategy in line with their CSR objectives and targets.

NGOs, POs, Civic Organizations

- Formulate and implement environmental information and education programs.
- Organize and mobilize communities and other sectors/stakeholders to implement the action programs.
- Strengthen linkages between environment and social programs (e.g., gender equity, poverty alleviation, alternative livelihood, youth education, and credit and extension services).
- Promote the rights of indigenous people and marginalized groups in the development and management of the province' resources.
- Assist to raise funds in support of the action programs.

Academe

- Provide expertise and advice on relevant information at the national and local levels.
- Interpret monitoring data and R & D information for use by local stakeholders.
- Participate in policy- and decision-making processes at the local and national levels.
- Undertake research programs that address information gaps and uncertainties relevant to policy and management issues in the province.
- Assist to build local capacity through training and formal education.

Communities

- Get informed of the environmental issues and community responsibilities as stewards of the environment.
- Support and participate in the development and implementation of action programs.
- Volunteer as communicators/educators/advocates of the environment, such as in:
 - Early warning system;
 - Environmental monitoring;
 - Cleanup campaign;
 - Tree planting; and
 - Fund-raising activities.

International Organizations and Donors

- Support the execution of the Guimaras Coastal Strategy by providing technical/financial assistance including:
 - Implementing capacity building programs;
 - Providing access to training and education opportunities;
 - Supporting demonstration projects/preparation of working models;

- Transferring experience from other regions;
- Networking among sites and external support groups;
- Applying new technologies and approaches;
- Strengthening effective implementation of international conventions;
- Forging partnerships between foreign investors, operating companies and local stakeholders; and
- Leveraging financing for environmental investments.

Financial Institutions

- Provide expert advice and assistance, such as:
 - Sustainable environmental facilities and services;
 - Soft loans;
 - Grants;
 - Loan guarantees;
 - Bonds and securities;
 - Green fund/environment fund; and
 - Microcredit program for micro-business and small – scale enterprises involving local communities and marginalized groups.

How to implement the Guimaras Coastal Strategy?

- Initiatives that contribute to the implementation of the Guimaras Strategy, whether unilateral or coordinated, contribute to the eventual realization of the shared vision of the province.
- Concerned stakeholders and partners determine their respective roles and interests in relation to the action programs at the national, regional and local levels.
- Well-coordinated implementation of the Guimaras Coastal Strategy at the national, regional and local level is the key to achieving the goals of the strategy systematically and within a given time frame.

Table 38. Essential institutional mechanisms by sector.

Sector	Institutional Mechanism/Arrangement	Responsible Agency	Area of Responsibility	Enforcement Capacity	Facilities/Services	Areas of Opportunities for Partnership
Fisheries	RA 8550/10654 Fisheries Code	LGU DA DENR DILG	Planning and policymaking for fisheries and aquaculture resources			Partnership with Phil Coast Guard, PNP, Maritime Command, DOST,
National:		Representatives of fisherfolk organizations, aquaculture operators, Academe, NGOs BFAR Phil Navy	Coordination Monitoring			
NFARMC (National Fisheries and Aquatic Resources Management Council)						
Local/Municipal:		LGUs, Municipal Development council, Municipal Agriculture office, DA-BFAR, NGOs, POs	Planning and coordination for fisheries and aquaculture resource management in the coastal zone and municipal waters of the LGU (as defined under RA 8550)			Partnership with or membership in the ICM Program Coordinating Committee; Partnership with DENR, PCG, Philippine Navy, DOST US-PCV, JBLFMU, ZSL, UPV, PNP MariCom
Municipal Fisheries and Aquatic Resources Management Council						
Forestry Resources	PD 705, various DAOs and Guimaras Environment Code, Chainsaw Act RA 9175 IPRA Law RA 8371	LGUs DENR POs	Conservation and protection of forestry resources and enforcement of laws and ordinances			Partnership with IPs, Private Sectors, NGOs,
Water Resources	PD 1067 Water Code of the Phil., Water Sanitation Code- PD 856 DAO 2016-08	DENR Philippine Water Resources Board	Rehabilitation and conservation of watershed areas and policy on water use			NGOs, POs & other civil society group can provide additional support
Wetlands and coastal habitats	PD 705 and various DAOs	DENR LGUs	Conservation of wetlands			NGOs, POs & other civil society group can provide additional support
Soils and minerals	Mining Act of 1995 (RA 7942), EO No. 79, Series of 2012 and Guimaras Environment Code	DENR-MGB DA-BSWM	Soil Conservation			NGOs, POs & other civil society group can provide additional support

Table 38. Essential institutional mechanisms by sector (cont.).

Sector	Institutional Mechanism/ Arrangement	Responsible Agency	Area of Responsibility	Enforcement Capacity	Facilities/ Services	Areas of Opportunities for Partnership
Pollution Control and Waste Management	Ecological Solid Waste Management Act (RA 9003), Clean Air Act (RA 8749), Clean Water Act (RA 9275) and Guimaras Environment Code	LGUs DENR DENR-EMB NSWMC	Maintain ambient air quality Segregation, proper collection and disposal			NGOs, POs & other civil society group can provide additional support
EIA	DAO 34, PD 1586 & other Environmental laws	LGUs DENR DENR-EMB	Issuance of ECC and CNC			Private industries can provide significant support along with NGOs & other civil groups
Tourism	National Laws and Municipal Ordinances (check relevant laws) Tourism Act (RA 9593), Provincial Tourism Code?	Provincial Municipal DOT DepEd				NGOs, POs & other civil society group can provide additional support
Agriculture	National Laws and Local Ordinances	LGU DA POAS	Proper farming techniques Coordination Monitoring			NGOs, POs & other civil society group can provide additional support
Education	National Laws and Local Ordinances	Dep-ED LGUs				NGOs, POs & other civil society group can provide additional support
Planning	National Laws and Local Ordinances	PPDO MPDO				NGAs, NGOs can provide inputs for planning
Finance and Budget	National Laws and Local Ordinances	LGU				NGOs, POs & other civil society group can provide additional support
Procurement Act	RA 9184	LGU	Procurement of supplies and equipment			NGOs, POs & other civil society group can provide additional support

MONITORING THE STRATEGY

As stated in Section 15 of Guimaras ICM Ordinance, physical and financial accomplishments of all stakeholders will be consolidated and reported by concerned Sub-Committees to the PCC. Relevant information will be then inputted into the Guimaras State of the Coasts Report, which will be updated every five (5) years.

The State of the Coasts reporting will serve as the monitoring, evaluation and reporting mechanism where a series of indicators have been developed to assess progress of the implementation of the Guimaras Coastal Strategy. The indicators provide a systematic method to each stakeholder group to track its movement toward management arrangements, systems and processes identified in the strategy.

Table 39. Guimaras State of the Coasts’ Indicators: current status and milestone targets for 2030 and 2040.

Governance

Indicator Description	Current Status	Milestone Target 2030	Milestone Target 2030
GOVERNANCE			
a) Policy, strategies and plans			
• Coastal profile and environment risk assessment			
• Coastal strategy and action plans			
• Local government development plan, including coastal and marine areas			
b) Institutional arrangements			
• Coordinating mechanism			
• Participation of stakeholders in the coordinating mechanism			
c) Legislation			
• ICM enabling legislation			
• Administration and monitoring compliance to legislation			
d) Information and public awareness			
• Public education and awareness			
• Stakeholder participation and mobilization			
• Local government development plan, including coastal and marine areas			
e) Capacity development			
• Availability/accessibility			
• Human resource capacity			
f) Financing mechanisms			
• Budget for ICM			
• Sustainable financing mechanisms			

The desired outcomes and changes to be achieved by the vision, strategies and objectives of the Coastal Strategy can be classified into two broad categories, namely: Governance and Sustainable Development Aspects.

Indicators for the State of the Coasts were determined based on PEMSEA's Framework for Sustainable Development of Coastal Areas thru ICM to indicate current status, management responses, targets and

impacts of management actions in each of governance elements (policy, strategies and plans; institutional arrangements; legislation; information and public awareness; capacity development; and financing mechanisms) and the five sustainable development aspects (natural and human-induced hazard prevention and management; habitat protection, restoration and management; water use and supply management; food security and livelihood management; and pollution reduction and waste management).

Sustainable Development Aspects

Indicator Description	Current Status	Milestone Target 2030	Milestone Target 2030
SUSTAINABLE DEVELOPMENT ASPECTS			
a) Natural and man-made hazard prevention and management			
• Level of preparedness for disasters			
• Degree of vulnerability to disasters			
• Social and economic losses due to disasters			
b) Habitat protection, restoration and management			
• Habitat management plan and implementation			
• Areal extent of habitats			
• Protected areas for coastal habitats and heritage			
• Reclamation and conversion			
c) Water use and supply management			
• Water conservation and management			
• Access to improved water source			
• Incidents/deaths due to waterborne diseases			
d) Food security and livelihood management			
• Fishery management plan and implementation			
• Fisheries production			
• Malnutrition rate			
• Poverty, education and employment			
• Livelihood programs			
e) Pollution reduction and waste management			
• Pollution management plan and implementation			
• Water quality			
• Air quality			
• Sanitation and domestic sewerage			
• Municipal solid waste			
• Industrial, agricultural and hazardous waste			



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