

AGRI-TOURISM MASTER PLAN

2006-2020



Province of Biliran

1.0 INTRODUCTION

This Agri-tourism Master Plan covers the period 2006 –2020. It adopts a growth-oriented planning that is focused on the integration of agricultural and industrial initiatives with environment protection, cultural and heritage preservation for intensive tourism development.

The Plan provides a direction for addressing the priority needs of the province relative to Agriculture and Tourism sectors that are both considered powerful engines for socio-economic development. It is consistent with and integrates the goals and objectives cited in the regional and national master plans.

It also considers the challenges posed by the country's fiscal constraints. The condition highlights the role of local governments and private sectors to prominently lead in harnessing the province's growth potentials as prescribed in the plan. More attention will be needed in improving the financial capability of LGUs in tapping local funding sources and in encouraging more initiatives and partnership with the private sector.

Like any other plans, this Agri-tourism Master Plan is also a product of a synergy of the different sectors and development partners. The stakeholders were invited to a series of consultations thru sessions and workshops. Their vision of the province 15 years after and their perceptions of what really should be done to translate their vision into reality were gathered. These were integrated and formed part of this document. The intent was to make the plan realistic, responsive and truly reflective of the aspirations of the Biliranons.

The vision set forth in this plan is seen to materialize in the long term – by the end of 2020. Meanwhile, some strategic interventions are prioritized to be carried out in short and medium terms. Such interventions are the milestones needed to lay the foundation for the realization of the beautiful vision for Biliran – that of becoming “ *The Agri-Garden of Eastern Visayas* “.

2.0 SUMMARY

The Biliran Agri-Tourism Master Plan is a document that translates the province's vision and missions for the year 2006-2020. The province's vision as the **“Agri-Garden of Eastern Visayas”** is designed to more effectively harness the agricultural and tourism growth of the province. There is a need to strengthen the local government and community dynamics to enhance safety and security, agricultural and environmental sustainability, local ground transportation, local road networks maintenance and development, marketing information, order and cleanliness and the need for a strong participation and partnership with major stakeholders.

The Planning Approach for Future Agri-Tourism Development - conceptualizes the general framework on how the plan should be implemented given the objectives and strategies and the current government policies. Part of this chapter enumerates the medium and long term targets of the sector guided by some underlying planning principles.

The Socio-Economic Profile of Biliran - presents the brief description of the province's social, economic, peace and order and other relevant information that determines the urgent needs and chances of making significant decisions.

Agriculture and Tourism Situationer - discusses in general the agriculture and tourism situation of the province which includes programs and projects implemented and its impact and contribution to economic development.

Development Challenges and Issues - this part presents issues and concerns that need to be addressed by the plan based on the result of the assessment made on the general situation of the province.

Development Objectives and Strategies for Agri-Tourism Development - listed down the missions and strategies .

Investment Programs - are the listings of programs, projects and activities.

Plan Implementation, Monitoring and Evaluation - discusses the process of gathering information on the progress or outcome of the project.

Timetable - reflects the period/duration of the program/project or activity implementation.

3.0 PLANNING FRAMEWORK FOR AGRI-TOURISM DEVELOPMENT

The Government's Policy is to promote sustainable tourism development that maximizes socio-economic contribution, conserves the environment, instill pride in culture and heritage, and foster partnership among stakeholders towards a resilient and competitive industry - as manifested in the National Tourism Action Plan for 2004 – 2010. The Regional Tourism Master Plan of Eastern Visayas also include Biliran province as one of the tourist destinations in the region.

Policies and investment programs are compiled in these documents, which lay out the basis of a strategy to accelerate sector development through mobilization of resources between the government at all levels (National and Local) and the private sector. The guiding principles set in the aforementioned development plans are sustained agricultural development, environmental protection, people participation, accelerated information technology applications and economic stability.

The formulation of the Provincial Agri-tourism Master Plan of Biliran give emphasis on the national and regional tourism policies and strategies while integrating policy and strategy inputs on agricultural initiatives.

3.1 Sector Objectives

1. Increase tourists visiting the province
2. Spread the benefits of agri-tourism in the rural areas, provide more employment opportunities, access to infrastructure facilities and alleviation of poverty.
3. Develop and establish a flexible Agri-tourism organizational structure at the local level that is responsive to the current and future needs of the sector and the industry in general.
4. Institutionalize the public-private sector participation in planning and development of Agri-tourism in the province.
5. Intensify agricultural development activities & programs to capture tourists interest.
6. To develop the capabilities of the LGU, private partners and stakeholders in the areas of planning, management, regulations and development, etc.

3.2 Current Sector Policies & Strategies

1. Full private-sector participation is encourage to bring into the sector business

principles and practices and provide capital to accelerate social and economic development.

2. An integrated Agri-tourism sectoral strategy has been adopted combining agricultural development initiatives to regular tourism programs. The objective is to undertake agricultural programs/projects having a quality tourism experiences while preserving the environment, the culture and heritage of the local communities.
3. Improve access and other infrastructures in support to the development of agriculture and tourism.
4. Encourage investment in small and medium enterprise
5. Develop among Biliranons a sense of responsibility and accountability for a clean, safe, secure and tourist friendly environment.
6. Formulate and implement tourism human resources development plan to raise the service quality and productivity levels.

3.3 Targets

Given the Province's Agri-Tourism development policy as well as the strategies the target shall be:

1. Increase productivity of key agricultural products through diversified farming technology
2. Increase tourist arrivals in the province
3. Increase SMEs activities
4. Increase employment opportunities

In the medium to long term the target in the agri-tourism sector are the following;

1. expand the number of micro, small and medium agri-tourism enterprises
2. expand and improve the government earnings, inter-agency linkages and employment generation in the rural areas

3.4 Major Legislation and Regulation Affecting the Sector

The Local government Code of 1991 mandates that the planning, development and management of tourism is the responsibility of the local government units (provincial, city and municipality)

The integration of agriculture with tourism is not a new idea, the tourism sector from the very start has already established linkages with the other sectors of the economy such as agriculture, transportation, construction, manufacturing, food processing, real estate and the financial services sector. The infrastructure support services are served by the National government Agencies (NGA's) such as DPWH, DOTC, DENR, etc.)

3.5 Planning Principles

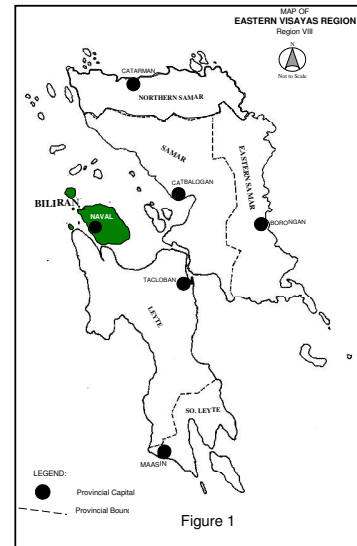
The Provincial Agri-tourism Development Master Plan shall be prepared to ensure that the sector investments are optimize under the constraints of funds as well as the planning capability of the Local Government Units, partner agencies and stakeholders. The overviews of the plan will be progressively adjusted and refined at different detailed implementation stage. The plan is considered to be flexible, concise and simple as possible to respond to the changing socio-economic condition of the province and the updated policy of the National and Local Governments allows its periodic upgrading.

4.0 PROVINCIAL PROFILE

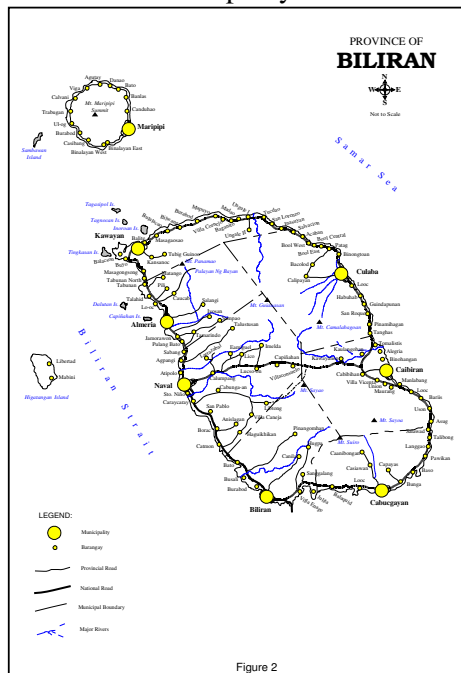
4.1 General

The island province of Biliran is nestled between the islands of Leyte and Samar (Figure 1). It is one of the six provinces comprising the Eastern Visayas Region (Region VIII). The island of Biliran was originally known as *Panamao*. The present name is derived from *borobiliran*, a native grass growing abundantly in the island during the pre-Spanish period. With the passage of time, local folks used the word Biliran when referring to the island.

Biliran was formerly under the jurisdiction of Leyte. On April 8, 1959, Republic Act No. 2141 made Biliran a sub-province of Leyte. When Leyte was later divided into two provinces, Leyte and Southern Leyte, Biliran remained a sub-province of Leyte. It became an independent province on May 11, 1992, pursuant to Republic Act No. 7160.



This island province is located 123 kilometers north of Tacloban City, the regional center. It is composed of the main island located off the northern tip of Leyte Island and one island municipality with several isles or islets. There are eight (8) municipalities and 132 barangays (see Figure 2), of which 19 are urban and 113 rural. As an island province, it is bounded by the vast Visayan Sea on the north, the Samar Sea on the east, the Strait of Biliran on the west, and the Bay of Carigara on the south.



Biliran is classified as a 4th class province and has a total land area of 555.42 square kilometers. This area is only 0.19% of the Philippines' total land area of about 300,000 square kilometers, and only 2.59% of the entire Eastern Visayas. The province of Biliran is represented as a lone district in the House of Representatives. The provincial total population based on the 2000 Census of Population and Housing conducted by the National Statistics Office was 140,274.

Among the municipalities, Naval, the capital town of the province, is the largest in area (107.08 sq. km.), followed by Caibiran (94.58 sq. km.). The smallest is Maripipi, having an area of 31.71 sq. km. Table 4.1 presents the breakdown per municipality of the land area, population and density, as well as administrative composition.

In 2000, Biliran had an average of 252.5 persons occupying every square kilometer of land, which is lower than the national average of 255 persons/km².

Table 4.1 Profile of Municipalities

Municipality		Land Area (km ²)	1995 Population		Number of Barangays		
Name	Class		Number	Density (person/km ²)	Urban	Rural	Total
Almeria	5 th	65.49	13,854	211.5	1	12	13
Biliran	5 th	86.29	13,817	160.12	2	9	11
Cabucgayan	5 th	49.38	17,691	358.26	3	10	13
Caibiran	5 th	94.58	19,606	207.29	3	14	17
Culaba	5 th	76.19	11,506	151.01	3	14	17
Kawayan	5 th	44.70	17,507	391.65	2	18	20
Maripipi	5 th	31.71	8,319	262.35	2	13	15
Naval	4 th	107.08	37,974	354.63	3	23	26
Provincial Total	4 th	555.42	140,274	252.55	19	113	132

4.2 Physical Characteristics

Area

According to the Bureau of Coasts and Geodetic Surveys, the province of Biliran has an area of 555.42 square kilometers. It has an approximate width of 25 kilometers at its narrowest portion and is 60 kilometers at its widest expanse.

Location

Biliran, which belongs to the Eastern Visayas region, is situated on the northern tip of Leyte Island. It is bounded on the east by the Samar Sea, on the north by the Visayas Sea, and on the south by the Carigara Bay. The Strait of Biliran lies off the western coast.

Topography

As a whole, the landforms of Biliran Province are largely rugged to very steep typical of composite type of volcanic structures and coalesced volcanic cones. From the uplands, however, the slopes abruptly levels off to rolling and gently sloping terrain. The municipalities of Naval and Caibiran have wide plains and rolling terrain approximately 7 kilometers inland from the coast. The rest of the municipalities have coastal lowlands with mountainous interiors.

Climate

The climate of Biliran belongs to the 4th type of climatic category based on the Coronas Classification of Philippine Climates. It is characterized as having no dry season with more or less evenly distributed rainfall throughout the year. Maximum rainfall generally occurs in December and January. On the average, the rainfall in December reaches 500 mm while in the driest month of April is 150 mm. Compared to other provinces in the region, Biliran is relatively cooler with temperatures ranging from 20°C to 40°C with an average of 27⁰C. The prevailing winds are the northers and trade winds.

Ecological Features

Biliran consists of a main island where the seven municipalities are located and an island municipality. There are also several isles and islets. The province has narrow coastal areas and a mountainous interior. Steep volcanic peaks dominate the central part of the province. It has one active volcano known as Caibiran Volcano Mt. Suiro rises on the southeastern portion with an elevation of more than 1,300 meters

Hydrology

The province is endowed with abundant water supply. It has numerous springs used for agriculture as well as for human consumption. Many inland water sources and waterfalls are found in the province.

Soil

An agricultural province, Biliran's soil types consist mainly of Guimbaloan Clay, Umingan Clay and Louisiana Clay, which are all suitable for planting to a wide range of crops.

Land Use

Forest area, located mostly in Mt. Maripipi and in the main island mountain ranges (Mts. Panamao and Sayao), constitutes about 23% of the total area of the province. Grassland and agricultural land occupy 17% and 56%, respectively. Built-up area is limited to about 3%. Primary settlements are concentrated along the coastal areas of the main island and in Maripipi. The existing land use pattern as presented in Table 4.2 must be enhanced by rehabilitation of watersheds in order to pursue a sustainable growth of the province. The remaining forest cover must be conserved to primarily serve as watershed rather than as source of timber.

Table 4.2 Current Land Use

Land Use	Area (km²)	Percentage to Total Land Area
Forest Land	130.25	23
Grassland	91.59	17
Built-up	18.72	3
Agricultural	308.81	56
Fishponds, Mangrove, Inland Water Area	6.05	1
<i>Provincial Total</i>	555.42	100

Source: Bu. of Soils and Water Management, Region 8, 1998

4.3 Demography & Socio-Economic Conditions

Demography

Based on the 2000 Census on Population and Housing conducted by the National Statistics Office, Biliran had a total population of 140,274, which consisted of 71,259 males and 69,015 females or a sex ratio of 103.2. This total population was higher by 8,065 persons compared to the 1995 census. The average annual population growth rate during the inter-censal period 1995 to 2000 was 1.28%, down from 2.15% during the 1990-1995 period. The same 2000 census showed that Biliran had 27,909 households, which translates to an average household size of 5.0.

Among the eight municipalities, Naval had the largest population comprising 27.07 % of the total provincial population. This was followed by the municipalities of Caibiran (13.98%), Cabucgayan (12.61%), and Kawayan (12.48%).

Population density was 252.5 persons per square kilometer. The major dialects are *Waray-waray*, which is spoken by 37.66% of the total population, and the *Cebuano* dialect, which accounts for 36.73%.

In 2000, the age dependency ratio of the household population was 85.2, a little bit higher than the regional average of 83.8. It may be noted that Region 8 had the highest number of dependents nationwide at this value.

In terms of fertility, Biliran and Leyte had a projected rate of 4.64 for the period 1995-2000, which compares to the regional projected fertility rate of 4.89, considered the second highest nationwide. Life expectancy in the province was estimated at 66.53 years in 1997 and 67.59 years in 2000. Compared to the national average, both figures are lower considering that the country had life expectancy estimates of 68.03 and 68.94 years for 1997 and 2000, respectively.

Agriculture

Biliran's economy is predominantly agricultural. The total agricultural production area is 30,881 ha or roughly 56% of the total land area of the province.

In 2002, based on the data given by the Bureau of Agricultural Statistics, palay production reached more than 55,500 metric tons. The total area planted to palay was 15,362 hectares; the average yield was estimated at 3.62 MT/ha. In 2004, there were 299 licensed rice retailers and there were 56 rice mills.

Corn production in 2002 was 710 MT from 650 hectares of land, or an average yield of 1.09 MT/ha.

Coconuts are also widely grown in the province. According to the Naval Office of the Philippine Coconut Authority, there were more than 23,346,000 coconuts that were harvested from January to October 2004 from 21,373 hectares of coconut plantations. In 2001, there were 12,783 farmers and farm workers in the coconut industry in addition to 63 coconut traders.

Various fruits also abound in Biliran. For banana alone 13,775 MT were produced from 2001 to 2003.

The following table shows the volume of crops produced from 2000 – 2002:

Table 4.3
Volume of Production by Type of Crop (in kilograms)
Province of Biliran, 1998-2002

Type of Crop	Year		
	2000	2001	2002
1.Abaca	21,164	15,450	15,450
2.Banana	13,882,523	13,693,726	13,693,726
3.Cacao	22,541	22,118	22,118
4.Calamansi	30,903	30,895	30,895
5.Coconut	33,166,768	34,439,479	34,439,479
6.Coffee	7,844	7,234	7,234
7.Mango	42,910	42,490	42,490
8.Papaya	9,541	9,912	9,912
9.Pineapple	136,027	134,490	134,490

Source: Bureau of Agricultural Statistics

Trade and Commerce

There are three major areas that help promote trade and commerce in the province. There is the municipality of Biliran where a bridge connects the province to mainland Leyte and the rest of the country through the national road network. It is the major gateway to Ormoc, Leyte and Metro Manila. The second, which is the most active in terms of economic activity, is the central business district of Naval. Medium-sized vessels and ferryboats that regularly ply the Naval - Cebu City route via the Naval Port help stimulate trade and commerce in the province. Major inflow and outflow of goods by land and sea transport are observed in this area. The other area is the Kawayan-Culaba-Caibiran-Cabucgayan coastal zone. Marine and agricultural products from these municipalities are sold directly to the cities of Ormoc and Tacloban in Leyte, and Calbayog City and Catbalogan in the province of Samar.

Principal goods shipped out of the province are copra, rice, bananas and dried fish. Its major markets are Cebu, Tacloban, Samar and Manila. Goods from Cebu, Tacloban and Ormoc entering the province include canned goods, garments, construction materials, metal products, pharmaceuticals, electronic appliances, school and office supplies, petrochemicals, plastic wares, and consumer items.

For the year 2000, a total of PhP 15.23 million in investments were generated by DTI-assisted employers resulting to the employment of 1,172 persons.

The table below presents the number of establishments in the province from 1991 – 2001.

Table 4.4
Number of Establishments by Major Industry Division
Province of Biliran, 1999-2001

Major Industry Division	1999	2000	2001
Agriculture, Hunting & Forestry	9	7	6
Fishery	1	1	1
Mining & Quarrying	-	-	-
Manufacturing	184	188	181
Electricity, Gas & Water	4	3	3
Construction	17	-	-
Wholesale & Retail	580	604	596
Hotels & Restaurants	75	76	72
Transport, Storage & Communication	141	145	142
Financial Intermediation	20	23	22
Services	25	26	26
Education	5	6	6
Health & Social Work	21	20	19
Other Community, Social & Personal Services	68	64	59
Provincial Total	1,150	1,163	1,133

Source: Regional Social and Economic Trends 2002

Employment

There were 82,000 people of working age (15 years old and above) in the province in 2003. Employment rate has greatly decreased from 95.0% in April 2002 to 85.1% in April 2003. The labor force participation rate (LPFR) in the province was placed at 84.8% or about 70,000 as of April 2003.

The tables below provide relevant statistical data on labor and employment in the province.

Table 4.5 Labor and Employment Data
Province of Biliran, 2002 and 2003

	April 2002	April 2003
Total Labor Force (in thousand)	72	82
Labor Force Participation Rate	76.8	84.8
Employment Rate	95.0	85.1
Unemployment Rate	5.0	14.9
Visible Underemployment Rate	26.0	13.5

Source: National Statistical Coordination Board

Table 4.6 Labor Force and Employment Status of Household Population
(15 years old and over)
Province of Biliran, 2000 and 2003 (in thousands)

	2000			2003		
	Total	Women	Men	Total	Women	Men
HH Population 15 years & over	89	46	43	95	46	49
In the Labor Force	47	23	24	70	29	41
Employed	54	21	33	66	27	39
Unemployed	3	2	1	4	2	2

Source: Regional Social and Economic Trends, NSCB

Health

(The following data were taken from the Biliran Province Health Investment Plan 2006 – 2010.)

The Biliran Provincial Hospital (BPH) is the only hospital in the province that caters to the 8 municipalities and nearby towns and barangays of Leyte. Its authorized bed capacity is 25. The average number of in-patients per day is 78 with a percentage occupancy rate of 311% owing to over-utilization of hospital services. Bed to population ratio is 1:5,611 (2004). It has an average outpatient consultation of 75 patients per day with a total annual consultation of 27,473.

Health infrastructures in the province consist of 8 Rural Health Units, 35 Barangay Health Stations, and 4 community hospitals that provide services to 132 barangays.

At the municipal level, doctor to population ratio is ideal compared to the standard ratio of 1:20,000 populations except for the capital town, Naval, which has 1:43,000-population ratio. There are only 3 dentists in the entire province, that is, 1 dentist covering 3 municipalities. Eight RHU's are Sentrong Sigla Phase I Level I accredited and PhilHealth accredited. Two RHU's namely Almeria and Kawayan are SS Phase II Level I accredited, the 1st RHU's in the region to be accredited as of October 2005. All RHU's are not yet TB-DOTS and Maternity Care Package accredited.

A general picture of the health situation in the province, as compared to the regional and national data, is shown in the table below.

**Table 4.7 Vital Health Indices
Province of Biliran, 2004**

Indicator	Province	Regional Data	National Data
IMR, per 1,000 live births	15	9.8	29
MMR, per 100,000 live births	235	122	172
CBR, per 1,000 population	23.03	23.25	-
CDR, per 1,000 population	5.08	4.17	4.80

The Crude Birth Rate (CBR) increased from 22.45 in 2002 to 23.03 per 1,000 population in 2004, which is more or less the same with the regional CBR of 23.25. The municipality of Caibiran has the highest CBR of 28.01 per 1,000 population, which is much higher than the regional situation.

Crude Death Rate (CDR) in 2002 was 5.8 and in 2004 was 5.08 per 1,000 population. Kawayan has the highest CDR of 7.08 per 1,000 population. This is higher than the national average of 4.8 and the regional rate, which is 4.17 per 1,000 population. Pneumonia is still the number 1 leading cause of death.

Infant Mortality Rate (IMR) was 12.47 in 2002 and increased to 15/1,000 live births in 2004, the second highest in the region. As shown in Table 3 there is a decreasing

trend compared to the past five years and pneumonia still ranks as the number 1 cause of infant death.

The Maternal Mortality Rate (MMR) in 2002 was 2.47. There were 8 maternal deaths in 2004, with MMR of 2.35/1,000 live births and reported to be the highest in Region 8. Hemorrhage due to Uterine Atony, Eclampsia, and Placental Retention was among the top three major causes of maternal deaths.

The table below clearly shows that while communicable and/or infectious diseases continue to be the leading causes of both morbidity and mortality in the province, non-communicable diseases and/or lifestyle diseases are emerging as major public health problems.

**Table 4.8 Leading Causes of Mortality
Number and Rate per 100,000 Population
Biliran Province
5 – year Average (1999 – 2003) & 2004**

Causes	5 year - average		2004	
	Number	Rate	Number	Rate
Pneumonia	163	112.35	153	103.32
HCVD	109	75.37	118	79.69
Cancer	70	48.26	76	51.32
Heart Disease	45	30.74	55	37.14
PTB	62	42.93	43	29.04
COPD	25	17.17	41	27.69
Bleeding Peptic Ulcer	26	18.18	26	17.56
Renal Diseases	39	26.66	25	16.88
DM	10	7.04	19	12.83
Accidents	28	18.87	11	7.43

Additionally, in terms of sanitation, Biliran had 18,681 households with water-sealed toilet facilities. (Although these data were reported in the 2004 RSET, they were based on the 2000 Census of Population and Housing.) Based on the 2004 Annual Weighing Report for children aged 0-71 months old, 20.4% was found to be below normal weight (low) and 2.8% to be below normal weight (very low). The majority, consisting of 75.6%, was of normal weight and only 1.1% was above normal.

Financial Institutions

Three financial institutions operate in the province: the Land Bank of the Philippines, the Philippine National Bank, and the Rural Bank of Naval. Both Land Bank and PNB have ATM's and provide on-line transactions. In addition, there are a number of lending investors and credit cooperatives that extend financial services.

Education

In response to the need for basic education, the Department of Education (DepEd) Division of Biliran has nine school districts in each municipality, except for Naval, which has two school districts. Naval likewise is the seat of the Division Office. Based on 2004 data, Biliran has a total of 125 public and 3 private elementary schools. It also has 18 secondary schools, with 16 under DepEd, 1 secondary laboratory school at NIT under CHED, and 1 private school. Moreover, there are 4 government-run learning institutions in the province that cater to tertiary level education, foremost of which is the Naval Institute of Technology.

Based on the May 2000 census, the simple literacy rate in the province for people 10 to 64 years old was 90.80%. The RSET 2004 published by NSCB showed that for the school year 2003 – 2004 Biliran had a gross enrolment rate of 84.27% for the elementary level and 52.78 for the secondary level, both of which are higher than the regional average of 82.03% and 42.66%, respectively.

Peace and Order

Biliran is generally a peaceful province and there is no known incidence of insurgency in recent times. The provincial command center is stationed in Naval.

As of 2004, the total number of police personnel in the province was 176, of which 52 were assigned in the Biliran Police Provincial Office, 18 in the mobile group, and the rest to the eight municipal police stations. For the period January to December 2005, the crime volume was 212, the average monthly crime rate was 11.17%, and the crime solution efficiency was 89.72%.

In 2004 the number of fire stations increased from 2 to 3 and correspondingly the number of fire trucks from 3 to 4. There were 42 personnel in the fire department.

4.4 Infrastructure and Utilities

Transportation

The existing transportation network in the province, specifically the national and provincial roads, is not adequate enough to provide easy access between municipalities and therefore prevents efficient inter-local and inter-provincial movement. Although there is the circumferential road that links the capital town of Naval with the rest of the municipalities along the island's periphery on the one hand, and the Naval-Caibiran cross-country road that links the two municipalities, located on opposite sides of the island, on the other hand, much still remains to be done in terms improving accessibility through concrete-paved roads. The 250-meter Biliran Bridge serves as the vital link between the province and mainland Leyte.

Moreover, there are scheduled ferry services from several municipal seaports in the province to other localities. The Naval seaport (see Figure 9.1), for example, serves commercial vessels plying the Naval-Cebu route, though the port itself has to be extended and improved so as to accommodate more ships traversing inter-provincial destinations. It would help Biliran greatly if the Naval seaport is given priority for expansion since it plays a very important role in the socio-economic development of the province.

Roads

A good road network helps stimulate business growth in a locality especially if it is coupled with efficient transportation and communication systems. This efficient transport network entices businessmen, traders, investors, financial institutions and entrepreneurs to invest in an area because it ensures fast and efficient transfer of goods and services within and outside the geographical limits of a locality.

Biliran Province has a national road network of 132.0 km. The Biliran circumferential road which is 110 km point to point links the seven (7) municipalities, while the 21.0 km cross-country road serves the shortest route between Naval and the municipalities of Caibiran and Culaba.

**Table 4.9 Status of National Road
Province of Biliran, 2004**

Category	2000	2001	2002	2003
National Road	132	132	132	132
Gravel	89	66	66	66.368
Concrete	43	66	66	65.393

Sources: RSET, NSCB for 2000 & 2001 data; DPWH-BED for 2002 & 2003 data

The province also has 57.0 km of road categorized as Provincial Road. Thirty-two (32) km are gravel roads, which represent 56% of the total road length while 24.0 km or 44% are concrete-paved.

**Table 4.10 Status of Provincial Road
Province of Biliran, 2004**

Category	2000	2001	2002	2003
Provincial Road	57	57	57	57
Gravel	34	34	34	32
Concrete	23	23	23	25

Sources: RSET, NSCB for 2000 & 2001 data; PEO-Biliran for 2002 & 2003 data

The total length of the existing rural roads is 361.229 km. Naval has the longest aggregate length with 85.833 km and Cabucgayen the shortest with 24.724 km. The municipality of Maripipi has the highest rural road density with 1.426 km/sq. km.; the least road density belongs to Culaba with 0.366 km/sq. km.

To complement the road network of the province are 54 bridges mostly of RCDG and Bailey type. Six (6) of these bridges are along the Biliran circumferential road, seven (7) are along the Naval-Caibiran cross-country road, and three (3) are along provincial roads. They are mostly nationally funded through the DPWH but other funding sources came from foreign donors like the UK, Spain & Germany.

Ports

All of the municipalities in the province have seaports but these ports can accommodate small vessels only. The commercial port in Naval, however, can accommodate small- and medium-sized vessels. The Naval seaport serves commercial vessels plying the Naval-Cebu route although the port has to be extended and improved so as to accommodate more ships traversing inter-provincial destinations. It would help Biliran greatly if the Naval seaport is given priority for expansion since it plays a very important role in the socio-economic development of the province. A roll-on/roll-off (RORO) type of port is being proposed for implementation in Kawayan under the Nautical Highway Program (Eastern Seaboard) of the government.

There is a 1-km airstrip that is located in the province but it requires improvement, especially the paving of the landing strip and by constructing a building.

Communication

Communication is indispensable in charting the course toward socio-economic development and cultural promotion of a community. It is essential that local government units desiring to attain economic progress must have efficient communication systems in place.

There are two telecommunications companies, namely Globe and Smart, that operate in the province and both are based in Naval. They offer cellular phone services in the poblacion areas of almost all of the municipalities (Figure B-8), except in Maripipi, which is served by Globe only. Globe Telecoms also operates a local phone exchange in the poblacion of Naval and its neighboring barangays that enable people to make national and international direct dial calls (NDD & IDD) and access the Internet through broadband and dial-up connections. Public calling offices, courier service companies (LBC & JRS), and money transfer centers are also available in Naval.

In addition, Biliran has access to tri-media facilities - radio, print, and broadcast. A radio station, DYRN, operating on the FM band is based in Naval. Besides, radio signals from AM and FM stations based in Tacloban, Cebu, Iloilo and even in the Bicol Region are being picked up in the province due to its geographic location.

National dailies are available via Tacloban City. Tabloids of regional circulation are being distributed in Naval daily and weekly. There is no local newspaper, however. Two companies provide cable TV; these are Bilinet and Naval Cable.

Energy and Electrification

Power supply for Biliran comes from the Tongonan Geothermal Plant in Kananga, Leyte. It is distributed by the Biliran Electric Cooperative (BILECO), which maintains a 5-MVA substation. BILECO serves the eight municipalities of the province including the island municipality of Maripipi and the island of Higatangan, Naval, both of which are under the National Power Corporation – Small Power Utilities Group (NPC-SPUG). It is believed that power coming from Tongonan can support the requirements for electricity of the province beyond 2020 since it is even exporting electric power to the Luzon and Visayas grids. However, a preliminary study is presently being conducted to determine the feasibility of putting up mini-hydro electric power plants as alternative source of reliable, affordable and more efficient source of energy.

As of 2004 all barangays in the province had been energized already but only 60.06% of the households had electricity. Table 4.11 shows the number of service connections by consumer type while Table 4.12 presents the household connections by municipality.

**Table 4.11 Service Connection by Type of Consumer by Municipality
Province of Biliran, 2004**

MUNICIPALITY	TYPE OF CONSUMER			
	Residential	Commercial	Industrial	Others
Almeria	1,781	46	0	32
Biliran	1,596	30	0	29
Cabucgayan	1,870	56	0	24
Caibiran	1,711	57	0	24
Culaba	1,056	34	0	16
Kawayan	2,010	45	0	39
Maripipi	540	14	0	20
Naval	4,617	529	0	120
Provincial Total	15,121	811	0	384

Source: Biliran Electric Cooperative

**Table 4.12 Household Connections by Municipality
Province of Biliran, 2001 – 2004**

Municipality	Y E A R			
	2001	2002	2003	2004
Almeria	1,641	1,703	1,832	1,858
Biliran	1,433	1,476	1,584	1,596
Cabucgayan	1,693	1,770	1,907	1,950
Caibiran	1,542	1,603	1,752	1,792
Culaba	954	1,002	1,094	1,106
Kawayan	1,898	1,945	2,083	2,094
Maripipi	478	540	565	574
Naval	4,726	4,852	5,203	5,266
Provincial Total	14,355	14,891	16,538	16,763

Source: Biliran Electric Cooperative

Water Supply

Biliran is known to be abundant in water resources. It is no wonder that seven of its eight municipalities have Level 3 water supply systems, with the exception of the island municipality of Maripipi primarily because of the nature of its terrain and the lack of underground and surface water sources.

According to the 2004 Regional Socio-Economic Trends (RSET) published by the National Statistical Coordination Board, Biliran had 24,858 households out of the 27,909 households (89.07%) with access to community water systems and tubed/piped shallow wells in 2004.

The Naval Water District supplies water in the capital town. Its main sources are the Bongot Spring and Pili Spring in Brgy. Lucso-on, Naval. Other municipalities have piped water systems provided by their respective LGUs. The data below show the water production and the number of household served by the water district for the period 2001 – 2004 and Table 4.13 shows the type of consumers served.

<u>Year</u>	<u>Water Production (cu. m.)</u>	<u>Households Served</u>
2001	1, 242,744	3,499
2002	1, 222,730	3,610
2003	1,346,386	3,769
2004	1,045,000	3,945

**Table 4.13 Type of Consumers Served
Municipality of Naval, 2001 – 2004**

Type of Consumer	Y E A R			
	2001	2002	2003	2004
1.Residential	3,117	3,233	3,360	3,480
2.Commercial	377	377	409	465
3.Industrial	-	-	-	-
Provincial Total	3,494	3,610	3,769	3,945

Source : Naval Water District

Rural Water Supply and Sanitation Sector Project (RW3SP)

The ADB-assisted RW3SP was aimed at addressing the basic social needs of the people particularly on water and sanitation. The Project answered partially the physical targets defined in the water supply, sewerage and sanitation sector plan of the province, which was prepared in 1999 with technical and funding assistance from the Japan International Cooperation Agency (JICA). It focused on the 20 poorest provinces covering the period 1997 – 2001; it was implemented in coordination with DPWH for the water supply implementation, DOH for the sanitation component, and DILG for institutional development.

The province of Biliran shared 10% and the Barangay Water and Sanitation Associations (BWSA's) another 10% for the cost of constructing the water supply facilities. Below is a summary of the projects implemented under RW3SP.

**Table 4.14 Rural Water Supply and Sanitation Sector Project
Province of Biliran, 1997-2001**

Municipality	Developed Spring	Spring Rehab	Deep Well	Deep Well Rehabilitation	Shallow Well	Total
Almeria	2	3	-	-	-	5
Biliran	-	3	-	-	3	6
Cabucgayán	4	-	3	1	23	31
Caibiran	15	13	-	-	-	28
Culaba	4	1	7	-	-	12
Kawayan	6	1	3	1	-	11
Maripipi	1	-	25	15	0	41
Naval	2	5	-	-	-	7
Total	34	26	38	17	26	141

Source: Provincial Planning & Dev't Office

Irrigation, Shore Protection and Flood Control

Figures B-18 and B-12 show respectively the existing infrastructure provision and additional infra requirements for irrigation, shore protection and flood control.

Determination of infrastructure requirements for irrigation, shore protection and flood control will be difficult to do, as there are no clear and specific provision standards. Provision of these types of infrastructures depend much on the approved resolutions as requested by the beneficiaries, the work programs of the implementing agencies, and the availability of funds for such structures.

Solid and Liquid Waste Disposal

Presently there is no existing tertiary level infrastructure provision for liquid and solid waste disposal in the province of Biliran. Liquid waste is generally collected in individual septic tanks. Solid wastes, on the other hand, are disposed of into open pits and controlled dumpsites.

As there are no sewerage systems and higher-level garbage disposal sites in the province, it is required that at least a 1-hectare sanitary landfill or controlled dumpsite be located in Naval in addition to its present 1-hectare open dumpsite in order to meet the future waste disposal requirements of the province's primary urban center and in compliance to RA 9003 or the Ecological Solid Waste Management Act of 2000.

Recreation and Leisure

The major sports center in Biliran is the Provincial Sports Center located in Brgy. Larrazabal, Naval. It has a 600-seater grandstand of reinforced concrete construction, a 450-seater wooden bleacher, and a 250-seater shed adjacent to an Olympic-size swimming pool. The sports center also has a 400-meter track oval, the center of which serves as standard fields for baseball and softball; and a soccer/football field and standard basketball, volleyball, and tennis courts. Although this center has hosted provincial- and regional-level competitions, it still requires the extension of the existing grandstand and the construction of a complementary multi- purpose gym to make it truly a provincial sports center.

The Municipal Government of Naval is presently constructing a spacious gymnasium in the poblacion. It is designed to host major sports events and large gatherings and it is expected that the structure will be finished in two or three years.

Another recreational facility of the Provincial Government is the Family Park that is located adjacent to the swimming pool at the Provincial Sports Complex. This park is landscaped, has a mini swimming pool, as well as kiosks and comfort rooms/dressing rooms. Still another facility owned by the province is the Masagongsong Swimming Pool in Brgy. Masagongsong, Kawayan. The water in this pool is always fresh and cool because it is supplied from a freely flowing spring source. There are also a conference hall, rest houses, kiosks, and dressing rooms in the area. There is also the San Bernardino Swimming Pool in Caibiran, which is similar in most aspects to the Masagongsong Falls.

Because Biliran is endowed with natural tourist attractions, a tourist or vacationer can take his/her pick from among waterfalls, beach resorts, water springs, coral reefs, caves and mountains and other natural scenic sites.

Waterfalls and natural water springs

Biliran has more than a dozen waterfalls, some of which have not been reached by the evaluating team from the provincial government or by nature-loving adventurers because of lack of access to the site. Two of these waterfalls that are being proposed to be developed into eco-tourism parks are the Kasabangan Falls in Sitio Tagaytay, Brgy. Balaquid, Cabucgayan and the Tinago Falls in Sitio Pulang Yuta, Brgy. Cabibihan, Caibiran. The other known falls include the Casiawan Falls in Cabucgayan, and the Bagombong, Kinaraha, and Pundol Falls in Almeria. And then there's the Tomalistis Falls, from which flows clear and sweet-tasting water that is believed to be one of the sweetest waters in the world. The Libtong Hot Spring is located in Naval while the Mainit Hot Spring can be found in the municipality of Caibiran.

White sand beaches, resorts, and seascapes

The island province takes pride in its white sand beaches: the Agta Beach resort in Almeria, the Banderahan Beach in Naval, the exotic island of Dalutan with its sculptured rock formations, the Sambawan Island with its rich marine life and coral gardens, the Higatangan Island, famous for its moving white sand bar, the Cogon Beach in Kawayan which is ideal for edible shellfish hunting, and the Genuruan Island in Kawayan which is ideal for water skiing and deep sea diving. There is also the Tingkasan Island, famous for its mysterious bat caves and edible shellfishes. The panoramic island of Maripipi has a beautiful marine seascape.

5.0 AGRICULTURE AND TOURISM SITUATIONER

5.1 Agriculture

Production

Biliran, being an agricultural province, has agriculture as the lifeblood of its economy as substantiated by the employment statistics in which about 61% of the 1995 labor force is engaged in agriculture, poultry, fishery and forestry sub-sectors.

The Provincial Government of Biliran is cognizant that agriculture can be an engine of growth if more resources are infused to make the sector more productive. Its continued development in a participatory and sustainable manner remains to be a major thrust.

Food production will be a major concern of the province. The food security situation of the province in the past years reveals a surplus in palay, fish and beef but deficit in corn, root crops, fruits, vegetables, pork, eggs and chicken as presented in Table 5.1.

Table 5.1 Food Security Situation, 2004

Commodity	Population	Per Capita Reqt. (kg)	Food Reqt. (MT)	Production (MT)	Surplus/Deficit (MT)
Rice	150,172	113.87	17,100.08	24,986.55	7,886.47
Corn	150,172	16.77	2,512.38	288.32	(2,230.06)
Root Crops	150,172	21.05	3,161.12	2,971.50	(189.62)
Fruits	150,172	28.0	4,208.82	856.50	(3,352.32)
Vegetables	150,172	39.0	5,856.71	366.88	(5,489.83)
Fish	150,172	30.66	4,604.27	7,222.95	2,618.68
Carabeef	150,172	1.6	240.20	27.75	(212.40)
Beef	150,172	0.88	132.10	151.20	19.10
Pork	150,172	6.29	944.50	123.40	(821.10)
Egg	150,172	2.65	397.90	3.26	(397.90)
Chicken	150,172	4.04	606.60	11.90	(594.70)
Coconut	150,172			14,180	

Rice production in 2004 (Table 5.2) shows the average production of palay per hectare.

Table 5.2 Rice Production, 2004

Province	Irrigated Area (ha.)	Total Production (MT)	Yield (MT/ha.)
Biliran	6,535	24,986.55	3.82

Although the province has a surplus production in rice, fish, and beef still the food security plan of Biliran necessitates the implementation of programs and projects that maximize farm productivity to sustain food requirements of the growing population and continuously attain self sufficiency level by the year 2007 and beyond.

Table 5.3 presents the projected yearly food requirements (MT) of the Province for the next three years (2006-2008).

**Table 5.3 Projected Yearly Food Requirements (MT)
(2006 – 2008)**

	<i>Y e a r</i>		
	2006	2007	2008
Population	153,175	156,238	159,362.76
Commodity			
Palay	17,442.08	17,790.92	18,146.74
Corn	1,036.99	1,057.73	1,079.88
Root Crop	3,224.34	3,288.83	3,354.61
Fruits	4,292.99	4,378.85	4,466.43
Vegetables	5,973.84	6,093.32	6,215.19
Fish	4,696.36	4,790.29	4,886.10
Carabeef	245.00	249.90	254.89
Beef	134.74	137.43	140.18
Pork	963.39	982.66	1,002.31
Chicken	618.73	631.10	643.72
Egg	405.86	413.98	422.25
Coconut	17,490.00	18,3640.00	19,282.00

Source: PPDO, OPAS

(Note: The above estimates are computed at 2% population growth rate with corresponding food requirements.)

Toward coping with this increasing demand, the province through its Agricultural Services Office together with or through LGUs, NGOs, POs and academic institutions recommend a number of advanced technological packages for productivity in crops, fishery, livestock, and in other commodities. Some farmers, however, especially those in remote areas, refuse to adopt the technology due to poor access to credit for their production capital requirements.

Table 5.4 shows the list of irrigation systems established in selected locations within the province. The total length of these irrigation canals established by or through LGUs/ NIA/ DA/ DAR/ARC/NGO is 38.16 km, servicing a total area of 2,718.5 hectares. Most of these canals, however, already need repair and rehabilitation. To complement these irrigation facilities are the pre- and post-harvest equipment acquired by the province which included 20 units Shallow Tube Well, 20 units Multi-Purpose Drying Pavement and 8 Floating Tillers, all these amounted to Php 335,767.

**Table 5.4 Irrigation Systems Established
Biliran Province (as of 2005)**

Municipality	Location	Length of Canal	Service Area (ha.)	Implementing Agency	Type of Project	Status of Project
Biliran	Pinangomhan	1.8 km	55	DAR/ARC	CIS/DD	Under repair
	Bato	1.5 km	56	NIA/LGU	CIS/DD	- do -
	Hugpa	1.0 km	105	DA/PLGU	CIS/DD	For rehab
	Sitio Kidya	1.0 km	40	DA/LGU	CIS/DD	- do -
Cabucgayan	Balaquid	1.6 km	70	NIA/LGU	CIS/DD	Functional
	Magbangon	1.0 km	40	LGU/NGO	CIS/DD	- do -
	Kapayas	1.2 km	30	DAR/ARC	CIS/DD	- do -
Caibiran	Cabibihan	200 m	35	DA/NGO	CIS/DD	For rehab
	Union	1.8 km	80	NIA/LGU	CIS/DD	- do -
	Kaulangohan	1.0 km	60	MPWH/LGU	CIS/DD	Functional/for rehab
	Victory	200 m	200	LGU/NGO	CIS/DD	do
	Guindaponan	400 m	150	- do -	CIS/DD	do
Culaba	Bacolod	1.4 km	55	NIA/LGU	CIS/DD	Functional/for rehab
	Viginia	1.0 km	40	LGU/NGO	CIS/DD	- do -
Kawayan	Tucdao	600m	100	DA/LGU/NG	CIS/DD	For repair
	Mapuyo	150	105	MPWH/LGU	CIS/DD	Functional/for rehab
	Tubig-Guino	845m	45	NIA/LGU	CIS/DD	- do -
Almeria	Iyusan	1.0km`	35	DA/LGU/NGO	CIS/DD	Func'l./for rehab
	Ilijan	900 m	60	LGU/DA/NGO	CIS/DD	- do -
	Caucab	1.2 km	30	NGO/Farmers	Prop.	For rehab
Naval	Kawayanon & Cogon	2.0km	128	DAR/ARC`	CIS/DD	Functional
	Caraycaray	1.4 km	72	DAR/ARC	CIS/DD	Functional
	Talustusan	1.2 km	50	DAR/ARC	CIS/DD	Under repair
	Calumpang	600 m	145.5	NIA/LGU	CIS/DD	Functional
	Agpangi	113 m	113.5	DA/LGU	CIS/DD	Functional
	Capinahan	0.25 km	267.25	NIA/LGU	CIS/DD	Functional
	Catmon	500 m	69	DA/LGU	CIS/DD	Functional
	Hagikhikan	11 km	113	NIA?LGU/NGO	CIS/DD	Needs repair
	PS Eamiguel	550 m	151	DA/LGU/NGO	CIS/DD	Needs repair
	Villaconsuelo	1.0 km	218.25	DA/LGU	CIS/DD	Functional

Source: OPAS, Biliran

As of 2004, the province through the Agrarian Reform Office has distributed a total of 11,613 hectares of both private and public agricultural lands to a number of landless Biliranons. This represents 80% of the total CARP scope. Distribution of this lands alone, however, does not assure of increased productivity. Capabilities of the Agrarian Reform beneficiaries (ARBs) should also be given priority attention to ensure productivity of the distributed lands.

Marketing

Markets for our crops, fishery products, poultry, livestock, and coconuts that command better prices are located mostly in urban centers. For these products to reach the markets with speed, adequate farm-to-market roads and transportation facilities are very vital. Lack of these support infrastructures as well as lack of storage facilities near production areas/centers lessens the ability of farmers to earn better income from their products. These are conditions that usually force our farmers to sell their products as

soon as they harvest them, without waiting for a more appropriate time for these products to command better prices or without adding value to them through processing.

A multi-layered market is also prevalent in the province. The price of farmers' produce is raised many times before it reaches the customer and end users due to inefficiencies or added costs in the distribution channels. This marketing system does not benefit our people in the province.

5.2 Environment and Tourism

The province of Biliran is gifted with life-giving natural wealth - fertile land, bountiful seas, and lush forests. Unfortunately the demands of an increasing population have combined with shortsighted and self over-exploitation that have undermined the capacity of our natural resources to sustain a decent quality of life for the Biliranons.

The province's remaining forest cover is only 11,040.99 hectares or 49.40% of the total forest area, which is 22,350 hectares. Deforestation has outpaced reforestation so much that most of the province's forests had experienced, and continues to experience, widespread soil erosion. This in turn, has caused heavy siltation and sedimentation of waterways, flooding, and landslides. Ecological balance had been disturbed.

At present, there is one proclaimed watershed forest reserve in the province - the Anas Watershed. The province has implemented logging moratorium in our dipterocarp forests since 1989. Domestic trading in forestry is focused on commercial forests or the Private Land Timber Permit.

More than half of the barangays are located along the coastlines. The waters surrounding the island province are sources of food, energy and raw materials as well as lifelines of transportation and communication including recreation. Effective management of the surrounding waters and control over activities that take place are crucial to the provinces environmental integrity, food security, safety, and well being of its constituents.

The number of tourist arrivals in the province lags behind other tourist destinations in the Visayas. This is perhaps due to the lackluster tourism promotion about Biliran and the absence or lack of tourist facilities near the tourist spots. It is therefore necessary that these beautiful natural sites be enhanced through park development or the construction of basic amenities in the their immediate vicinities.

6.0 DEVELOPMENT CHALLENGES AND ISSUES

The issues and challenges that are presented here cut across other sectors and sub-sectors and not only for tourism promotion and agricultural development because these issues and challenges are results of very recent planning workshops that included a general assessment of the Biliran situation.

6.1 Development Issues

Poverty

- Based on the 2000 survey, 34.8% or about 9,975 families are considered poor. They are the families whose annual per capita income fall below the annual per capita poverty threshold
- Around 27% of these poor families live in the urban area while 37.4 poor families live in the rural area.
- While the overall poverty incidence declined from 39.6% in 1997 to 34.8% in 2000, the number of poor families in the urban area increased from 18.8% in 1997 to 27.0% in 2000 while there was a remarkable decrease of poor families from 46.7% in 1997 to 37.4% in 2000.

Annual Per Capita Poverty Threshold and Poverty Incidence of Population Province of Biliran, Urban and Rural, 1997 & 2000

Province	Annual Per Capita Poverty Threshold ¹ (in pesos)		Magnitude of Poor Population ²		Incidence of Poor Population ³ (in percent)	
	1997	2000	1997	2000	1997	2000
Biliran	8,626	10,072	65,878	60,352	44.9	45.1
Urban	8,682	9,914	9,208	13,061	24.6	38.0
Rural	8,617	10,116	56,670	47,291	51.9	47.5

Source: National Statistical Coordination Board

Note:

1. The annual per capita income required or the amount to be spent to satisfy nutritional requirements (2,000 calories) and other basic needs.
2. The number of population whose annual per capita income falls below the annual per capita poverty threshold
3. The proportion of poor population to the total population.

Annual Per Capita Poverty Threshold and Poverty Incidence of Poor Families Province of Biliran, Urban and Rural, 1997 & 2000

Province	Annual Per Capita Poverty Threshold ¹ (in PhP)		Magnitude of Poor Families ²		Incidence of Poor Families ³ (in percent)	
	1997	2000	1997	2000	1997	2000
Biliran	8,626	10,072	11,877	9,975	39.6	34.8
Urban	8,682	9,914	1,417	1,931	18.8	27.0
Rural	8,617	10,116	10,461	8,044	46.7	37.4

Source: National Statistical Coordination Board

Employment

- The province has a total of 82,000 working age population (15 years old and above).
- Employment rate as of April 2003 has greatly decreased from 95.0% in April 2002 to 85.1 in April 2003.
- Labor Force Participation Rate (LPFR) in the province was placed at 84.8% or about 70,000 as of April 2003.

Labor and Employment, Province of Biliran, 2002 and 2003

	April 2002	April 2003
Total Labor Force (in thousand)	72	82
Labor Force Participation Rate	76.8	84.8
Employment Rate	95.0	85.1
Unemployment Rate	5.0	14.9
Visible Underemployment Rate	26.0	13.5

Source: National Statistical Coordination Board

Labor Force and Employment Status of Household Population 15 years old and over Province of Biliran 2000 and 2003 (in thousands)

	2000			2002		
	Total	Women	Men	Total	Women	Men
HH Population 15 years & over	89	46	43	95	46	49
In the Labor Force	47	23	24	70	29	41
Employed	54	21	33	66	27	39
Unemployed	3	2	1	4	2	2

Source: Regional Social and Economic Trends, National Statistical and Coordination Board

Family Income

1. As of 2000, 76.91% of the families engaged in entrepreneurial activities are engaged in agriculture as compared to year 1997 of 68.32% while there was a decline of about 7% in the non-agriculture sector of 23.02% in 2000 and 30.95% in 1997.
2. On the wage and salaries sector, there was also a decrease of about 11.41% from 39.91 in 1997 to 28.5% in 2000.
3. There is also a remarkable shift under the wage and salaries from agriculture to non-agriculture sector.
4. On the other sources of income, there was a slight increase of 2.85% from 1997 of 22.93% to 25.78% in 2000.

Main Source of Income, Province of Biliran, 1997 and 2000

Main Source of Income	No. of Families	
	1997	2000
Wage and salaries	11,962	8,187
Agriculture	6,310	1,576
Non-agriculture	5,653	6,611
Entrepreneurial Activities	11,134	13,073
Agriculture	7,607	10,063
Non-Agriculture	3,447	3,010
Other Sources of Income	6,875	7,387

Source: National Statistics Office

6.2 Problem Analysis

(A clearer analysis is presented in the SWOT Analysis in the following pages.)

Heavy dependence on agriculture of the province beset with low productivity is its foremost concern. The various factors that contributes to the problem on low productivity is as follows:

- a. The major constraint to become productive is capital. Lack of access to credit among the farmers/fisher folks and the limited investments from the private sector, restrained efforts to go into innovative and more efficient enterprises. This situation perpetuated the economy to be dependent on traditional crops such as palay, coconut and banana.
- b. Low income/savings from limited production. This further led to limited capital or limited access to credit as many small farmers are considered credit risks because of their minimal net worth that can be pledged as collateral.
- c. Loose link between the research and educational system and the demand for skilled manpower and better technologies also made a significant impact on the efficiency of the agricultural sector.
- d. The deficiencies in skills, knowledge and technologies in turn deplete the capacity of the resource to produce more or regenerate.
- e. The capability of the government to deliver basic services, facilities and policy support affected the investment levels, farm technologies, skills of labor and the depletion of resources of the sector.

6.3 Development Challenges

The province abounds with two very important resources, the human and natural resources that are not effectively put to use. The main challenge that confronts the province is in harnessing the full potentials of its people and its rural endowment to productive use in areas where it has the potentials and comparative advantage. These challenges includes:

- a. Improving the productive capacity of the agriculture sector along agri-processing and non-traditional commodities;
- b. Shifting employment opportunities to small and medium industries and the service sectors;
- c. Expansion of the industry and service sectors in the rural areas;
- d. Provision of cheaper and reliable power to ensure that our abundant energy resources could be effectively used to attract investors into the province;
- e. Application of advancement in transport and telecommunications as useful tools in various economic activities;
- f. Developing the skills of the human resources to support the manpower requirements of the industry and service sectors.

Table 6 - A
SWOT ANALYSIS

STRENGTHS	OPPORTUNITIES
<ol style="list-style-type: none"> 1. Abundance of water resources: springs that can be tapped for the supply of potable water; waterfalls and rivers for irrigation and the establishment of a mini hydroelectric power generation plant; and other inland bodies of water for aqua culture and as breeding grounds for fresh and brackish water fishes. 2. Good climate and fertile soils favorable for the cultivation and propagation of a wide range of agricultural crops. 3. Strategic location because of its proximity and access to three major growth centers: the cities of Tacloban and Ormoc in the Eastern Visayas region, and Cebu City, which can be reached by boat from the capital town of Naval in just 12 hours. 4. The labor force has a high potential. In 2003, the working population in Biliran aged 15 to 65 years old was 82,000 and estimated to increase annually by about 1.5%. With this trend, the province can meet the workforce requirements even of large investment projects that will be located here. 5. Presence of mineral deposits such as gypsum, red and white clay, and sulfur; Biliran also has a potential geothermal field. The proper utilization of these resources can provide additional income to residents for many years. 6. Abundant supply of raw materials for handicraft and cottage or small industries – clay for ceramics; bamboo and rattan for furniture making; romblon, abaca and nito for bags, hats & similar items; citronella for essential oil extraction; and coconut by-products that can be made into novelty items. 7. Beautiful scenery consisting of white beaches, water springs, waterfalls, rice terraces, caves, and dive sites that can be developed for tourism. 8. Presence of medical and educational facilities for the provision of basic services to residents. 	<ol style="list-style-type: none"> 1. The inclusion of Biliran in the Regional Tourism Master Development Plan as a major tourist destination in Eastern Visayas. 2. The establishment of a Government Center and Sports Complex in a provincial government-owned 60-hectare land in Naval. The program aims to relocate offices of government agencies in this area, which will result to more efficient coordination of projects in the province. 3. The establishment of a 10-hectare resettlement project and a 19-hectare low-cost housing subdivision with commercial area for government and private sector employees. 4. The improvement of transport infrastructure like roads, bridges, and ports. 5. The support of line agencies of government to agricultural production and the implementation of the Agriculture and Fishery Modernization Act. 6. Biliran is a recipient of a number of foreign-assisted projects, namely: SEDIP, ARISP, JICA's MCH, European Commission's and GTZ's ODA, etc. 7. A supportive provincial leadership. 8. A harmonious political environment.

WEAKNESSES	THREATS
<ol style="list-style-type: none"> 1. A weak human resources base. In 2000, more than 50% of the school-going population in the province completed elementary education only; academic degree holders comprise just below 10% of the population. Malnutrition is still prevalent among pre-schoolers. 2. The lack of telecommunication facilities. 3. Undeveloped road network. 4. Widespread poverty, which affects 37.4% of the total number of families in Biliran in 2000. Poverty is manifested in the low standard of living, poor health and nutrition, low level of education, and low income of farm workers and fishermen. Estimated income of poverty groups amount to less than P2,000.00 a month or less. 5. The high power rate in Biliran, which discourages investors and entrepreneurs to venture into business activities here. 6. Low revenue generation. In the year 2005, the province generated only PhP 184,817,240.25 and received PhP 177,238,903 in internal revenue allocation (IRA) from the national government. These amounts are inadequate to support even the basic development programs of the provincial government. 	<ol style="list-style-type: none"> 1. The province lies within the geologic fault line; it is also threatened by a potential volcanic activity due to the presence of one active volcano. 2. Biliran is likewise located within the typhoon belt. 3. Continued forest denudation makes around 50% of Biliran's forestland susceptible to erosion. Erosion results in significant loss of soil fertility of upland areas, loss of crop due to flooding or decreased water availability during the dry season. 4. Marine and fishery resources have been largely damaged due to over fishing and the proliferation of the use of fishing gears that destroy the natural reefs and fish habitat. 5. The limited access to credit, support services, technology and markets of the farmers in Biliran aggravate their low earning capacity and worsens the unemployment situation. .

STRENGTH-OPPORTUNITY STRATEGIES (Maxi-maxi)	WEAKNESS-OPPORTUNITY STRATEGIES (Mini-maxi)
<ul style="list-style-type: none"> • Promote tourism • Modernize, diversify agricultural production • Develop the human resource base, particularly the working groups • Implement water supply, irrigation, farm-to-market roads, and mini hydroelectric power projects with foreign funding • Promote cottage industries and ceramics • Locate national and local government agencies in the government center for convergence and better coordination 	<ul style="list-style-type: none"> • Expand, improve the coverage of telecom facilities • Develop the road network by prioritizing the circumferential and cross-country roads • Provide livelihood opportunities • Establish a mini hydroelectric power plant • Improve revenue generation • Formulate development programs for external funding
STRENGTH-THREAT STRATEGIES (Maxi-mini)	WEAKNESS-THREAT STRATEGIES (Mini-mini)
<ul style="list-style-type: none"> • Intensify the environmental protection, preservation and regeneration program • Tourism development should not destroy the environment, particularly coastal areas • Improve access to credits, technologies, and markets • Establish fish sanctuaries, marine parks • Promote organic farming and CRM • Require ECC for major projects • Strengthen law enforcement 	<ul style="list-style-type: none"> • Promote anti-poverty programs by improving access to credit • Rehabilitation of forests and coastal areas • Increase revenue generation and allocate substantial amounts for economic development • Construct mitigating infrastructure (sea walls, flood control devices, drainage, etc.) & establish proper waste disposal sites • Advocate integrated sustainable farming/fishing practices

7.0 DEVELOPMENT OBJECTIVES & STRATEGIES FOR AGRI-TOURISM

As this plan contains strategic interventions for the promotion of tourism and agricultural development for the province of Biliran, the development objectives have to be clear and the interventions doable. The proposed strategies/interventions as outlined in this chapter are based largely on the objective analysis and evaluation of the current situation.

7.1 Vision

The vision set forth for this plan is “Biliran Vision 20/20: The Agri-Garden of Eastern Visayas.”

7.2 Mission

The major objectives for the tourism and agriculture sub-sectors as embodied in the master plan are stated as targets that the proponents, the Provincial Government of Biliran and the other major stakeholders, wish to attain within the plan period. These mission statements are the following:

- ☐ Increase employment rate to _____% by 2020
- ☐ Minimize crime incidence to/by _____%
- ☐ Double investments in tourist facilities
- ☐ Increase investments in agri-production and processing to/by _____% and _____%, respectively
- ☐ Increase forest cover to _____%
- ☐ Increase revenues through agri-tourism by _____%
- ☐ Increase land access to agricultural production areas and tourist spots to 80%
- ☐ 80% utilization of agricultural lands
- ☐ Increase the volume of aquamarine products to _____MT
- ☐ Enactment of an Environment Code 2007
- ☐ Enactment of Investment Incentive Code
- ☐ Increase the coverage of Level III water supply to _____%
- ☐ Improve the delivery of basic social services
- ☐ Adoption of efficient solid waste management by all barangays
- ☐ Provision of reliable, affordable and sustainable power supply
- ☐ Full access to transportation and communication facilities
- ☐ Increase availment of finansng services to /by _____(% or Php)
- ☐ Increase to tenfold the participation of agri-tourism based small and medium enterprises
- ☐ Strengthen public-private sector partnership on agri-tourism initiatives
- ☐ Rationalize the agri-tourism industry

7.3 *Strategies*

The attainment of the province's vision and mission would depend largely on the adoption of the following strategic interventions, which could fully tap the opportunities and at the same time minimize the magnitude of the problems, issues and threats to the development of the agriculture and tourism sub-sectors:

1. Increase employment rate to _____% by 2020
 - Capability building for Agri-tourism development (All sectors – women, farmers, tourist experts, tourism councils, etc.
 - Institutionalization and strengthening of PESO for private sector tie-up for overseas and domestic employment
 - Jobs fair
 - Establishment of off and on-line PhilJobnet
2. Minimize crime incidence to / by _____%.
 - Intensify Peace and Order Initiatives
3. Double investments in tourist facilities
 - Collection of artifacts for the provincial museum
 - Pilot Investor Matching Program
 - Establish mangrove sanctuaries
 - Develop medical tourism
 - Encourage private individuals to put up hotels
 - Establish and manage fish sanctuaries
 - Higitangan, Maripipi, Biliran Island Hopping
 - Development of Parks
4. Increase investments in agri-production and processing to /by _____% and _____%, respectively
 - Promotion of rice production technology through the use of certified & high yielding varieties & utilization of cost reduction technology such as IPM and Organic Farming
 - Implementation of Animal Dispersal Program
 - Management and Maintenance of the Provincial Cattle Breeding Center
 - Implement an effective Animal Health Management Program
 - Intensify Artificial Insemination of Hogs and Large Cattle
 - Management and Maintenance of the Provincial Livestock and Poultry Center
 - Increase yield of coconut per hectare to be pegged at 0.50 MT/ha.
 - Boost the Provincial Coconut Industry through the implementation of SICAD in coconut areas
 - Establishment of Mini-Mango Processing Plant
 - Provision of credit access to ARBs for the purchase of pre harvest facilities

- Construction of fish port with cold storage
 - Establishment of Livestock Auction Market
 - Construction of new slaughterhouse
 - Provision of pre/post harvest facilities
 - Maximum utilization of coconut products and by-products
 - Establishment of Agri-tourism Marketing Assistance & Information System
 - Maximize utilization of romblon, abaca, nito and coconut by-products
 - Proliferation of income-generating livelihood projects (IGP) specially to agrarian reform beneficiaries
 - Application of the whole net strategy to generate coco value added products
5. Increase forest cover to _____%
- Massive reforestation and rehabilitation of denuded uplands and watershed areas (200 has./yr. from 2006 – 2008)
 - Invite private citizen in the rehabilitation of open and denuded public lands thru socialized industrial forest management agreement
6. Increase revenues through agri-tourism by _____%
- Enhancement of Aquamarine livelihood options through specialized credit windows
 - Promotion of ARC products waged at provincial and national level would generate revenue in return
- Note: All other proposed programs and projects in this Master Plan would eventually lead to the increase in revenues of the province.*
7. Increase land access to agricultural production areas & tourist spots to 80%
- Construction/concreting of access roads
 - Construction of farm-to-market roads
 - Construction of bridges among FMRs
8. 80% utilization of agricultural lands
- Encourage the planting of fruit-bearing and flowering trees along the highways for aesthetics
 - Provision of efficient agri-infra support facilities like irrigation systems
 - Promotion of intensified and diversified farming
 - Strengthen the local seed industry
 - Construction/rehabilitation of irrigation systems
 - Construction of farm-to-market roads
 - Promotion/production of high-value commercial crops
 - Construction of river/flood control

- Coconut planting/replanting of senile/old unproductive trees to coconut hybrid varieties
 - Contract Growing
 - Completion of Land Acquisition and Distribution (LAD) of all CARPable public and private agricultural lands by 2010 and the subsequent installation of farmer-beneficiaries.
 - Intensify cassava production as source for raw materials for cassava by-products
9. Increase the volume of aquamarine products to _____MT
- Adopt a Provincial Coastal Resource Management Plan
 - Provision of budget for any CRM activities in barangay, municipal and provincial level
 - Declaration/establishment and maintenance of marine protected areas or fish sanctuaries regulation for use of active gears and fine mesh nets
 - Promotion of freshwater aquaculture (Tilapia) brackishwater and marine aquaculture.
10. Enactment of an Environment Code by 2007
- Enactment of Municipal Environment Code
 - Provide logistic support to task force kalikasan
 - Unification of the 8 Municipal Fishery Ordinances based on RA 8550
 - Prohibit littering in all areas and making it the responsibility of residents, institutions, commercial and industrial establishments to clean their surroundings
 - Create an environment and natural resources office (LGU-ENRO)
 - Emission testing of vehicles and firms
 - Execution of MOA in the delineation of municipal marine water of each concerned municipalities
 - Creation of Municipal Task Force Kalikasan
Procurement /construction/deployment of permanent buoys
11. Enactment of Investment Incentive Code
- Enactment of Municipal Investment Incentive Code
12. Increase the coverage of Level III water supply to _____%
- Availment of Agrarian Reform Infrastructure Support Project (ARISP), RWS component particularly with potential ARCs
 - Increase volume and coverage of Level III WSS
13. Improve the delivery of basic social services
- Advocacy in agri-tourism and solid waste management program in schools at all levels

- Logistic support for sustainable operation of social welfare service centers to include hospitals, crisis center and medical clinics
- Home and Camp-stay Program
- Provide logistic support and insurance benefits to deputized fish wardens/FLET members

14. Adoption of efficient solid waste management by all barangays

- Promote the practice of waste segregation and waste minimization at source.
- Strict enforcement of Waste Management Ordinances
- Encourage the component municipalities to have their own sanitary landfill
- Implementation of Waste Segregation & Reduction Program in all barangays
- Improvement of Naval Waste Disposal System
- Construction of Sanitation & Sewerage Project

15. Provision of reliable, affordable & sustainable power supply

- Development of alternative power supply
- Development of Geothermal Power Source

16. Full access to transportation and communication facilities

- Construction of new bus terminal
- Construction of seawalls/shore protection
- RORO port development
- Biliran Circumferential Road
- Naval-Caibiran Cross Country Road

17. Increase availment of financing services to/by _____(% or PhP)

- Credit assistance for crop damage protection fund
- Livelihood credit assistance for crops and farmers association
- Credit access or micro financing to ARB organizations for production purposes
- Expand the service coverage of NLSF Livelihood Credit Assistance Program (LCAP) to increase the entire scope of the ARC clusters
- Increase the ceiling of ARISP Agri-Development component from P 250,000.00 to P 500,000.00
- Intensify resource mobilization through accessing from funding agencies through release of grants or livelihood projects

18. Increase to tenfold the participation of agri-tourism-based small and medium Enterprises (SMEs)

- Implementation of sustainable Agri-based Rural Enterprise Development Program (SARED)
- Trainings on improved Production and Management technologies (Crops, Livestock and fisheries)
- Field exposures / Lakbay Aral to outstanding farms/projects
- Market promotion through for a, symposium ,agri-fairs and market encounters
- Provide direct market linkage/matching
- Proper packaging and product development
- Activation of two KALAHI Farmers Centers (KFC)

19. Strengthen the public-private sector partnerships on agri-tourism initiatives

- Tap cooperation of private individual and entities in agri-tourism councils
- Creation and strengthening of provincial, municipal and barangay tourism councils
- Sustain complementation / collaboration schemes with LGUs and other stakeholders
- Concerted efforts of LGUs (municipal and provincial government) in fishery protection, management and conservation
- Encourage partner NGOs and NGAs and other institutions mobilize technology transfer and financial resources in any CRM initiatives
- Create / activate Municipal Fishery Law Enforcement Team and FARMCs
- Conduct trainings on PARA Vets
- Net working with National Offices (DA)
- Forge a closer collaboration with different stakeholders so that their distinct yet complementary programs/projects will have greater impact on ARC development.
- Build solidarity across and among different interest groups to harness the full potentials of the countryside as the foundation for sustainable and equitable AR
- Share responsibility for capital, technology and social resource infusion among partners from other government/line agencies, civil society organizations and business/private sector

20. Rationalize the agri-tourism industry

- Increase the number of tourism experts
- Institutionalizing a provincial beautification program
- Creation of Tourism and Investment Promotion Office

8.0 INVESTMENT PROGRAM

As the agri-tourism master plan is a long-term plan that covers the period 2006-2020, it is necessary to identify programs and projects that have to be undertaken within the medium term or from 2006 to 2010 so that some of the targets can be significantly achieved, objectives that cut across other sectors or sub-sectors.

This chapter then presents the programs and projects that are prioritized to be implemented over the medium term. The detailed investment program, which presents the investment requirements for implementing the various activities that will be funded and implemented during the plan period, can be found in Annex A in matrix form.

In keeping with the 20/20 vision, twenty PPA's are hereby listed as priorities.

Priority Investment Programs and Projects

1. Development of Parks (Tinago Falls, Kasabangan Falls)
2. Capability Building Program for Agri-Tourism Development
3. Pilot Matching Program for Agri-Tourism
4. Creation of Tourism and Investment Promotion Office
5. Development of Alternative Power Supply (Mini Hydro Power Plant)
6. Reforestation & Rehabilitation of Denuded Uplands and Watershed Areas
7. Construction/Concreting of Access Roads to tourist sites
8. Construction of Farm to Market Roads (FMRs)
9. Construction of Bridges along FMRs
10. Promotion of Intensified and Diversified Farming
11. Construction/Rehabilitation of Irrigation Systems
12. Land Acquisition and Distribution of CARPable public and private agricultural lands
13. Construction of Level III Water Supply Systems
14. Establishment of Sanitary Landfill
15. Construction of Seawall/Shore Protection
16. Concreting of Biliran Circumferential Road
17. Concreting of Naval-Caibiran Cross Country Road
18. Construction of Fish Port with Cold Storage
19. Promotion of Rice Production Technology through the use of high yielding varieties and utilization of cost reduction technology such as IPM and Organic Farming
20. Implementation of Animal Dispersal Program