

VOLUME II: LAND USE PLAN

MUNICIPAL GOVERNMENT OF PINAMALAYAN

MESSAGE FROM THE MUNICIPAL MAYOR

This Comprehensive Land Use Plan (CLUP) is one of the mandated plans that the Local Government Code (RA 7160) has directed local governments to “continue to prepare and enact into a zoning ordinance” (Sec. 20, c). The policy embodied the genuine and meaningful local autonomy of the Local Government Unit in attaining their fullest development as a self-reliant community with the utilization of limited resources.

Currently, Pinamalayan has evolved from a typical agricultural area into an agro-commercial area and striving to become the metropolis of the south. The opportunities that we enjoyed are part of the strategic location of Pinamalayan, being the center of the province of Oriental Mindoro that provides very easy access to the provinces of Marinduque, Romblon, and Quezon.

Our Comprehensive Land Use Plan will serve as the blueprint and guide to the Local Government of Pinamalayan on its policies, plans, and programs towards the responsible utilization of our land resources in the next 30 years. Furthermore, this plan is coherent with the development goals of the current administration, making it sustainable and pro-environment.

Our journey towards greater development will never be easy, as they say, that the road to development is always under construction. But with the unending support of our people, the unity of our leaders, and the blessing of the Almighty, we are certain that Pinamalayan is now ready to face the challenges of globalization.

I, therefore, urge every municipal official as well as other stakeholders to make a full understanding on the information contained in this plan, keeping in mind our long-term vision to become the Central Trading Hub of Oriental Mindoro and the rest of the MIMAROPA region.

Very truly yours,

ARISTEO A. BALDOS, JR.
Municipal Mayor

MESSAGE FROM THE MUNICIPAL VICE MAYOR

The land is a natural resource that we should preserve and conserve for the present and future use. Hence, this local government unit strived hard to make a framework of a Comprehensive Land Use Plan (CLUP) because of its enthusiasm to work on it. This was done not only as a compliance on the mandates of the Local Government Code of 1991, that every city and municipality should prepare their respective CLUP but also promote the health, safety, and welfare of people and communities. Likewise, this plan aims to preserve the comfort and convenience of our inhabitants and achieve a balanced ecology.

This plan will be the blueprint for future use of land and natural resources, as a tool in order to regulate land uses in an efficient way and to manage developments within our territorial jurisdiction.

As the environmentalist, Aldo Leopold once said: “We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect”.

Pinamaleños, we are all accountable in our actions, so let us begin to use land wisely towards a better quality of life and sustainable development.

RODOLFO M. MAGSINO
Municipal Vice Mayor

RESOLUTION ADOPTING THE CLUP AND ZONING ORDINANCE

FOREWORD

The Comprehensive Land Use Plan (CLUP) of the municipality of Pinamalayan for the year 2015-2045 was accomplished in compliance with the mandate of the Local Government Code of 1991 (RA 7160) that holds LGUs throughout the country to be responsible for their development paths. In particular, this output is crucial for the allocation of scarce resources such as land and aims to balance competing land uses for the next 30 years.

The CLUP is composed of three volumes, namely the (1) Socio-economic and Physical Profile (SEPP), (2) Land Use Plan, and (3) Zoning Ordinance. The results of another supporting document, the Climate and Disaster Risk Assessment (CDRA), has been successfully integrated with the planning process. This was accomplished in response to the Climate Change Act of 2009 (RA 9729) and the Disaster Risk Reduction and Management Act (RA 10121) due to the increasing need to mainstream climate change adaptation and disaster risk reduction and management to planning in the local level.

Aside from mainstreaming the CDRA, the improved CLUP 2015-2045 has also adopted the use of spatial techniques such as Geographic Information System (GIS), Global Positioning System (GPS), sectoral analysis matrix, and scalogram analysis. Integration of key ideas and concepts from the HLURB guidelines were also ensured. These include the ridge-to-reef approach, as well as thematic concerns such as ancestral domains, biodiversity, watershed management, and urban design to ensure the sustainable management of critical resources and conserve environmental integrity. The local plans were also kept in line with the various global, national, regional, and provincial development plans.

The formulation of these documents was guided by the CLUP Guidelines Volume I to III and the Supplemental Guidelines on Mainstreaming Climate Change and Disaster Risks, all of which are from the Housing and Land Use Regulatory Board (HLURB). The data were acquired through primary and secondary data gathering from barangay site visits, municipal, provincial, and national agencies. The base year of this output is 2014 due to the conduct of the Community-Based Monitoring System (CBMS) in the same year. For projection purposes, however, the Philippine Statistics Authority (PSA) 2015 census was used. For the maps, the boundary used was based on the cadastral survey conducted in 2012 and the 2014 CBMS households. Conversely, the area of the municipality and barangays used were both from the existing cadastral and tax maps.

According to the HLURB Guidelines, the minimum planning period for the Comprehensive Land Use Plan (CLUP) is nine years, which coincides with the term of office of elected officials. However, it was already reasonable to consider 30 years of planning period instead. Given the rapid development of Pinamalayan, this document will be subject to religious review every five years to ensure that the development intent is still applicable.

The road to the CLUP has been filled with difficulties, but cooperation made us finish the outputs. We highly appreciate the successful collaboration between the HLURB-Southern Tagalog Region, Department of Community and Environmental Resources-College of Human Ecology (DCERP-CHE) in UPLB, municipal Technical Working Group (TWG), members of the Sangguniang Bayan (SB), various national and provincial agencies, barangay officials, and the private sector.

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- Municipal Planning and Development Office
- Zoning Division
- Municipal Agriculture Office
- Municipal Assessor's Office
- Municipal Disaster Risk Reduction and Management Office
- Municipal Engineering Office
- Municipal Environment and Natural Resources Office
- Municipal Health Office
- Municipal Social Welfare and Development Office
- Municipal Tourism Office
- Municipal Treasurer's Office
- Permits and Licensing Division
- Community eCenter
- Provincial Planning and Development Office
- Community Environment and Natural Resources Office – Socorro
- Philippine Statistics Authority – Oriental Mindoro
- Municipal Police Station
- Bureau of Fire Protection
- Office of the Senior Citizen's Affairs
- Oriental Mindoro Electric Cooperative Incorporated – District V
- Pinamalayan Sub Provincial Jail
- Pinamalayan Water District

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LIST OF ACRONYMS

ACBS	Agricultural Center and Breeding Station	NEDA	National Economic and Development Authority
AFF	Agriculture, Forestry, and Fisheries	NIA	National Irrigation Administration
AFMA	Agriculture and Fisheries Modernization Act	NWRB	National Water Resources Board
AO	Administrative Order	ORMECO	Oriental Mindoro Electric Cooperative
APGR	Average Population Growth Rate	PCCARD	Philippine Council for Agriculture, Aquatic and Natural Resources Research and Development
ARI	Acute Respiratory Infection	PD	Presidential Decree
ASEAN	Association of Southeast Asian Nations	PDP	Philippine Development Plan
BP	Batas Pambansa	PDPFP	Provincial Development and Physical Framework Plan
BPO	Business Process Outsourcing	PENRO	Provincial Environment and Natural Resources Office
BSWM	Bureau of Soils and Water Management	PIZO	Pinamalayan Integrated Zoning Ordinance
CADT	Certificate of Ancestral Domain Title	PP	Programs and Projects
CALABARZON	Cavite, Laguna, Batangas, Rizal, Quezon	PSA	Philippine Statistics Authority
CAR	Cordillera Administrative Region	PUGC	Primary Urban Growth Center
CBMS	Community-Based Monitoring System	PUV	Public Utility Vehicle
CDP	Comprehensive Development Plan	RA	Republic Act
CDRA	Climate and Disaster Risk Assessment	RDP	Regional Development Plan
CGA	Coastal Greenway Area	RE	Renewable Energy
CLUP	Comprehensive Land Use Plan	RGC	Rural Growth Center
DA-AMAS	Department of Agriculture-Agribusiness Marketing Assistance Service	RORO	Roll-On/Roll-Off
DAR	Department of Agrarian Reform	ROW	Right-of-Way
DENR	Department of Environment and Natural Resources	RTW	Ready-To-Wear
DOE	Department of Energy	SAFDZ	Strategic Agriculture and Fisheries Development Zone
DOH	Department of Health	SDGs	Sustainable Development Goals
DPWH	Department of Public Works and Highways	SPUG	Small Power Utilities Group
GDP	Gross Domestic Product	SRNH	Strong Republic Nautical Highway
GRDP	Gross Regional Domestic Product	TWG	Technical Working Group
ELA	Executive-Legislative Agenda	UDHA	Urban Development and Housing Act
HLURB	Housing and Land Use Regulatory Board	UN	United Nations
ICC	Indigenous Cultural Communities	ZO	Zoning Ordinance
IPs	Indigenous Peoples		
IRA	Internal Revenue Allotment		
LDIP	Local Development Investment Program		
LGU	Local Government Unit		
MC	Memorandum Circular		
MDGs	Millennium Development Goals		
MDRRMO	Municipal Disaster and Risk Reduction Management Office		
MGB	Mines and Geosciences Bureau		
MERALCO	Manila Electric Company		
MIMAROPA	Mindoro, Marinduque, Romblon, Palawan		
MFTF	Municipal Food Terminal Facility		

GLOSSARY OF TERMS

Agricultural Land – per RA 6657, refers to land devoted to agricultural activity and not classified as mineral, forest, residential, commercial or industrial land.

Alienable and Disposable (A&D) Lands – refer to those lands of the public domain which have been the subject of the present system of classification and declared as not needed for forest purposes (PD 1559).

Ancestral Domains - per the Indigenous Peoples Rights Act of 1997 (RA 8371), these refer to all areas generally belonging to Indigenous Cultural Communities/Indigenous Peoples (ICCs/IPs) comprising lands, inland waters, coastal areas, and natural resources therein, held under a claim of ownership, occupied or possessed by ICCs/IPs.

Aquaculture - fishery operations involving all forms of raising and culturing fish and other fishery species in fresh, brackish, and marine water areas.

Commercial Fishing - the taking of fishery species by passive or active gear for trade, business or profit beyond subsistence or sports fishing to be further classified as:

Easement - open space imposed on any land use/activities sited along waterways, fault lines, road-rights-of-way, cemeteries/memorial parks, utilities and the like.

Ecotourism – a form of sustainable tourism within a natural and cultural heritage area where community participation, protection and management of natural resources, culture and indigenous knowledge and practices, environmental education and ethics, as well as economic benefits are fostered and pursued the enrichment of host communities and the satisfaction of visitors.” (Tourism Act and DENR AO2 013-19 Guidelines on Ecotourism Planning and Management in Protected Areas)

Fisheries - refer to all activities relating to the act or business of fishing, culturing preserving processing marketing, developing, conserving and managing aquatic resources and the fishery areas, including the privilege to fish or take aquatic resource thereof.

Fish Pond - a land-based facility enclosed with earthen or stone material to impound water for growing fish.

Forest – refers to either natural vegetation or plantation of crops mainly of trees, or both, occupying a definable, uninterrupted or contiguous area exceeding but not less than one hectare with tree crown covering at least ten percent (10%) of the areas, exclusive of the associated seedlings, saplings, palms, bamboos and other undercover vegetation. A natural forest is a stand dominated by trees whose structure, functions and dynamics have been largely the result of the natural succession process. A natural forest is classified as either 1) primary or virgin forest which has not never been subjected to significant human disturbance, or has not been significantly affected by the gathering of forest products such that its natural structure, functions and dynamics have not undergone any major ecological change; or 2) secondary or residual forest that may be classified into either degraded or productive type (DENR DAO No. 99-53).

Forestland – include the public forest, permanent forest or forest reserves, and forest reservations.

Institutional Uses – uses that pertain to the provision of government, social, religious, educational, cultural, police/military and other services such as, but not limited to, government offices, schools, hospitals/clinics, academic/research, convention centers and police stations.

Light Industrial Uses – refer to industrial manufacturing/processing activities that are non-pollutive/non-hazardous and non-pollutive/hazardous.

Mariculture - a specialized branch of aquaculture involving the cultivation of marine organisms for food and other products in the open ocean, an enclosed section of the ocean, or in tanks, ponds or raceways which are filled with seawater.

Poblacion – refers to an area in the Municipality comprising barangays Zone I, Zone II, Zone III, Zone IV, and Wawa.

Prime Agricultural Lands – pertain to irrigated rice lands

Residential Uses – uses that pertain to dwelling/housing purposes and their customary accessory facilities.

Setback - the open space left between the building and lot lines.

Socialized Housing – as defined in the UDHA, this refers to housing programs and projects covering houses and lots or home lots only undertaken by the Government or the private sector for the underprivileged and homeless citizens.

Urban Core – shall refer to an area in the municipality comprising the Poblacion, barangay Cacawan, Marfrancisco, and Sta. Rita.

Warehouse – refers to a storage and/or depository of those in the business of performing warehouse services for others, for profit.

SCOPE AND LIMITATIONS

According to the HLURB Guidelines, the minimum planning period for the Comprehensive Land Use Plan (CLUP) is nine years, which coincides with the term of office of elected officials. Initially, it was suggested that planning period for this document will be based on the doubling time of the municipality. It was also decided that in computing for doubling time, the Average Population Growth Rate (APGR) will be based from the 1990 to 2015 census which is higher than the 2010 to 2015 census by 0.61. Hence, doubling time was derived using 1.64 APGR. This yields a doubling time of 42 years, suggesting a longer timeframe. However, by looking at the development pace of Pinamalayan, it is reasonable to consider 30 years of planning period instead. This output will be subject to religious review every five years to ensure that the development intent is still applicable.

EXECUTIVE SUMMARY

Pinamalayan is a first-class municipality located in the eastern part of the province of Oriental Mindoro, Mindoro Island. It is approximately 71 kilometers away from the provincial capital of Calapan City and has an estimated total land area of 28,226 hectares, as certified by the Department of Environment and Natural Resources (DENR). This is comprised of 37 barangays, wherein eight are classified as urban and 29 are categorized as rural. Furthermore, there are ten coastal barangays. Among the barangays, Sabang has the largest land area at 8,799.20 hectares while Zone IV has the smallest land area at 10.65 hectares.

According to the PSA, in 2015 Pinamalayan has a total population of 86,172 with a growth rate of 1.03 percent. A total number of households is at 19,276 based on the CBMS Survey (2014). It is the most populous municipality after Calapan City and Naujan. Out of the 37 barangays, Marfrancisco is the most populous followed by Papandayan, with the latter expected to be the most populous barangay in the coming years. The level of urbanization increased in the last 25 years. In 2000, 2010, and 2015, the urbanization level of Pinamalayan was higher than the provincial level.

In total, there are 56 schools in the municipality with an enrollment of 25,235 in the school year 2016-2017. The average student-teacher and student-classroom ratio are 1:28 and 1:33 respectively. Moreover, Pinamalayan has six health facilities with 32 attending physicians as of 2016. In addition, every barangay has its own health center. For the past five years, the leading cause of morbidity was Acute Respiratory Infection (ARI) while cerebrovascular accidents had the leading cause of death. Housing units to household ratio are nearly 1:1 which means that doubled-up households are not prevalent in the municipality. However, due to the presence of informal settlers and households living in hazard-prone areas among others, there is a total demand of 5,312 housing units which will need a total of 75 hectares of land. For protective services, the current ratio of policemen to population is approximately 1: 1,795 which is below the prescribed standard ratio. The leading type of crimes is non-index. Furthermore, firefighter to population ratio is approximately 1: 7,833 which is also below the prescribed ratio. The leading cause of fires is electrical short circuits.

Economically, Pinamalayan is heavily dependent on agriculture. It has an estimated 16,997.46 hectares utilized for various agricultural uses. The main crops in this municipality are rice, banana, and coconut. Rice, the dominant crop, is produced through both irrigated and rain-fed cultivation. As of December 2016, the major agricultural land utilization is as follows: rice (3,973 hectares); banana (2,325 hectares); and coconut (4,687 hectares) with a total production reaching 36,305 metric tons annually. While farming is the predominant source of livelihood, fishing is also another source of income with an area utilization of 93.26 hectares with 766.91 metric tons of production in 2016. The eastern coast of Pinamalayan is facing the Tablas Strait, which is known for harboring abundant marine life. Moreover, aquaculture or inland fishing is being practiced where 293.26 metric tons were produced in 2016. In addition, milkfish or *bangus* (*Chanos chanos*) is being predominantly raised.

Both commercial and industrial establishments are mainly concentrated in the *Poblacion* areas and some are situated in adjacent barangays. Commercial establishments at present range from *sari-sari* stores, groceries, general merchandising, and dry goods, among others. A total of 1,617 establishments were present in 2016 and had 2,350 employed individuals. The most common type of business is wholesale and retail trading. In terms of industrial development, there has been a considerable increase in establishments for the past years, with a total of 534 in 2016. Furthermore, these are mostly micro to small-scale industries. Regarding tourism, there were 4,076 visitor arrivals in 2016. Moreover, the municipality also has numerous existing and potential tourism sites. However, some of these places, as well as their access roads, are still largely underdeveloped and in need of further improvement to enhance promotions.

The municipality has a total road length of 289.09 kilometers, the majority of which are paved with concrete and are in good condition. Likewise, 12.35 kilometers are classified as national roads, 82.05 kilometers are provincial roads, 40.43 kilometers are National Irrigation Administration (NIA) roads, 146.12 kilometers are classified as barangay roads, 6.66 kilometers are categorized as municipal roads, and 1.49 kilometers are privately-built roads. A total of 83 bridges and 296 culverts are distributed throughout. For its land transport, the number of public utility vehicles plying the municipality are 2,545 tricycles and 537 vans. Regarding other types of transport, it has one seaport in Barangay Zone I and one airport in barangay Pambisan Munti.

For the utilities, electricity is supplied by the Oriental Mindoro Electric Cooperative, Inc. (ORMECO), with the Global Business Holdings Power Plant in barangay Papandayan as its power source. Water, especially that of Level III service,

is supplied by the Pinamalayan Water District with the Babahurin River as its main source. The most number of connections as well as water consumption are from households. There are 16 communication towers present in the municipality, with ownership by Smart Communications, Inc., Globe Telecommunications, Inc., Calapan Telephone System Inc, and Sun Cellular. These communication facilities provide either cellular, telephone, or internet connections.

The scalogram analysis ranked barangays based on their existing functions. Results show that barangays Zone II and Marfrancisco have the most number of functions with centrality indices ranging from more than 300 to more than 400. These barangays are mostly where commercial activities thrive. The Municipal Public Market is located in Zone II while major fast-food chains are concentrated in Marfrancisco.

Cultural heritage present in Pinamalayan are largely in the form of various festivals, whether these are of barangay or municipal-wide celebration. Furthermore, the municipality is also endowed with natural wonders such as the Sabang falls, Cawa-Cawa falls, Marayos falls, and the Marine Protected Area, that should be conserved in order to be passed on to posterity. Different legends, stories, and creative cultural industries such as pottery and basket weaving are also present.

Given the current situation on the rapid progress of Pinamalayan, continuous and controlled development is crucial. As a result, this Plan has been guided by and integrated with global, national, regional, and provincial initiatives.

In the global context, the recently ratified 17 Sustainable Development Goals (SDGs) from the United Nations (UN) serve as a guide for stimulating development towards people-centered and planet-sensitive change. For the national level, the Philippine Development Plan (PDP) 2017-2022, intends to attain inclusive growth, high-trust and resilient society, and a globally competitive knowledge-based economy. This is based on the *Ambisyon Natin 2040* which aims to achieve the *Matatag, Maginhawa, at Panatag na Buhay* for the country. Consequently, the Regional Development Plan (RDP) 2017-2022 of the MIMAROPA region aspires to strengthen its agriculture, industry, and services-based economy. Its main strategy is to increase the regional economy by playing with the unique endowments of each province. In the case of Oriental Mindoro, its roles include the following: 1) Gateway for trade and investments in the eastern side of the country 2) One of the premier tourism destinations in the country, 3) Food Basket for Luzon and Visayas region, providing a reliable and stable supply of agri-based, aquaculture, marine products and livestock to CALABARZON, the National Capital Region and the provinces of Aklan, Iloilo, Capiz, Guimaras, Negros Oriental and Antique, 4) Region and country's top producer of calamansi, and 5) Region's top producer of banana and palay. Next, the Provincial initiative aims to accelerate poverty reduction thru urbanization, agri-industrialization, environment conservation, eco-tourism, as well as urban and rural development. The Provincial Development and Physical Framework Plan (PDPFP) 2016-2025, is the development framework that focuses on accelerating poverty reduction thru strategies of urbanization, agri-industrialization, environmental conservation, and eco-tourism development.

The vision of Pinamalayan is being the future central trading hub of Oriental Mindoro and the rest of MIMAROPA and to become the second city in the province of Oriental Mindoro, taking advantage of both its economic growth and strategic location.

The municipality has various development potentials and constraints; however, these were put into consideration regarding its development path. It mainly aims to balance agricultural development with urbanization and industrialization, given their abundant agricultural lands and land supply for future development.

For this Plan, the municipality allotted the Poblacion area (barangays Zone I, Zone II, Zone III, Zone IV, and Wawa) to become the Primary Growth Urban Center or where low-density commercial establishments will be located. The Secondary Growth Center is at barangay Pambisan Munti due to the presence of the airport. Rural Growth Centers are placed in barangays Sto. Nino, as the agricultural research and development center; fish production center in Sitio Aplaya, Papandayan; health and medical services center in Mataas na Bayan, Papandayan due to the presence of the Community hospital; and barangay Sabang where the cultural heritage center is assigned because this has the largest Indigenous Peoples (IPs) population with Certificate of Ancestral Domain Title (CADT). Agro-industrial and tourism expansion areas are placed in barangays Malaya, Pambisan Munti, Calingag, and Maliangog. Tourism development is also set aside in barangays Pili, Guinhawa, Banilad, and Ranzo because of their coastal nature and presence of beach resorts. An Urban Corridor was also placed to accommodate the future expansion of built-up areas along the national road. This has a depth of 250 meters from Sta. Rita to Papandayan, and 100 meters from Panggulayan to Pambisan Munti, and another 100 meters from Quinabigan to Del Razon.

For the next 30 years, the municipal total population is estimated to reach 117,186. Hence, this was considered for computing the spatial requirement for future urban development. The derived total land area requirement in the year 2045 is 336.96 hectares.

An aggregate number of 11,435 households were considered in need of residential lands. In total, land demand for residential use is at 162.34 ha. Moreover, an additional 49.64 hectares of built-up area is needed for commercial use while 12.87 hectares is needed for institutional use. Based on the 2045 estimated population and the standard 500 sq.m per 1000 population requirement for a municipal park, additional 5.86 hectares must be allotted for such purpose. With the municipal strategies of increasing the number of industrial investment in the locality, a total of 93.75 hectares is needed for the industrial area. Demand for additional area for cemetery use is at 4 hectares. The estimated area requirement for sanitary landfill is 5.67 hectares but was raised to 8.5 hectares.

Given the demand, available land supply shows that a total of 5,119.71 hectares is considered buildable considering the compliance to basic laws and the physical constraints that applies to the locality, which are DENR AO 15-90 on the Development and Management of Mangrove Resources, The Revised Forestry Code, Philippine Water Code, Indigenous People's Rights Act, Agricultural Fishery and Modernization Act, AO 20 or the Interim Guidelines on Agricultural Land Use Conversion, Disaster Risk Reduction and Management, and the existing land use.

Among the barangays, Pambisan Munti has the highest available land for development with 879.15 ha, followed by Maliancog with 580.22 ha, and Calingang with 548.34 ha. On the other hand, there are available lands suitable for development in each barangay except for Cacawan and Poblacion.

I. NATIONAL AND REGIONAL DEVELOPMENT FRAMEWORK

Planning is being done at various scale i.e. local, regional, national, and international. For the achievement of larger goals, it is important to synchronize plans across sectors and spatial levels. Hence, the following plans were reviewed and summarized, highlighting relevant planning direction at the national, regional, and provincial level; Therefore, drawing the alignment and bringing context to the aspirations of Pinamalayan for its development in the next 30 years.

1.1 SUSTAINABLE DEVELOPMENT GOALS

After the Millennium Development Goals (MDGs) ended, the 193 member states of the United Nations (UN) once again affirmed their commitment towards ending all forms of poverty, fighting inequalities, increasing country's productive capacity, increasing social inclusion, curbing climate change, and protecting the environment while ensuring that no one is left behind over the next fifteen years. Hence, a new global plan of action was adopted by the UN member states in September 2015 entitled "Transforming Our World: The 2030 Agenda for Sustainable Development." With the aim to stimulate people-centered and planet-sensitive change, Sustainable Development Goals (SDGs) otherwise known as Global Goals is composed of 17 goals and 169 targets which are integrated and indivisible, global in nature, universally applicable, taking into account different national realities, capacities and levels of development, and respecting national policies and priorities. The 17 targets are listed below.

- Goal 1. End poverty in all its forms everywhere
- Goal 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture
- Goal 3. Ensure healthy lives and promote well-being for all at all ages
- Goal 4. Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all
- Goal 5. Achieve gender equality and empower all women and girls
- Goal 6. Ensure availability and sustainable management of water and sanitation for all
- Goal 7. Ensure access to affordable, reliable, sustainable and modern energy for all
- Goal 8. Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all
- Goal 9. Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation
- Goal 10. Reduce inequality within and among countries
- Goal 11. Make cities and human settlements inclusive, safe, resilient and sustainable
- Goal 12. Ensure sustainable consumption and production patterns
- Goal 13. Take urgent action to combat climate change and its impacts
- Goal 14. Conserve and sustainably use the oceans, seas and marine resources for sustainable development
- Goal 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss
- Goal 16. Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels
- Goal 17. Strengthen the means of implementation and revitalize the global partnership for sustainable Development

1.2 PHILIPPINE DEVELOPMENT PLAN

Philippine Development Plan (PDP) 2017-2022, in the long run, aims to achieve the AmBisyon Natin 2040 *Matatag, Maginhawa, at Panatag na Buhay* by laying the foundation for inclusive growth, a high-trust and resilient society, and globally-competitive knowledge economy by 2022. The strategies to achieve this target fall under three major pillars: *Malasakit, Pagbabago, and Patuloy na Pag-unlad*.

Social Sector

The first pillar ensures people-centered, clean, and efficient governance. To broaden opportunities for inclusive development, high-trust among the citizenry, the private sector, and the government is necessary. This will be achieved through reducing corruption, achieve seamless service delivery, enhance administrative governance, strengthen the civil service, and fully engaged and empowered citizens.

Economic Sector

The second pillar capitalizes on boosting economic growth by expanding opportunities in agriculture, forestry, and fisheries (AFF). The performance of AFF in the past years indicate that revitalization must be reinforced. Crops subsector, the primary driver of AFF, pulled down the overall growth due to typhoons and El Niño, coconut scale infestation in CALABARZON, and limited adoption of high-yielding varieties of commodities. Moreover, fisheries maintained a weak performance. Livestock and poultry, on the other hand, buffered the sluggish growth of crops and fisheries. Meanwhile, forestry sub-sector growth significantly declined. To address this, one of the strategies includes facilitating the use of appropriate farm and fishery machinery and equipment. For rice production to become more competitive, especially when the quantitative restrictions on the commodity are lifted, the government will encourage the adoption of farm machinery and equipment to reduce production costs. This will be undertaken especially in selected provinces of the Ilocos Region, Central Luzon, and MIMAROPA—regions whose yields are above the national average (4 metric tons/hectare) but have relatively higher production costs. Another strategy is the diversification of commodities with high value-adding and market potential. Specifically, this focuses to mango for Ilocos, coffee for the Cordillera Administrative Region (CAR), dairy cattle for CALABARZON, calamansi for MIMAROPA, abaca for the Bicol Region and Eastern Visayas, rubber for the Zamboanga Peninsula, banana for Northern Mindanao, and cacao for the Davao Region.

Infrastructure Sector

Under the administration of President Rodrigo Duterte, acceleration of infrastructure development is seen as one of the foundations for the sustainable development of the country. Hence, the BUILD BUILD BUILD Program was launched aiming to yield robust growth across the archipelago, create jobs, and uplift the lives of Filipinos by increasing connectivity and mobility. Among the flagship infrastructure projects is the Mindoro-Batangas Floating Super Bridge which according to the Department of Public Works and Highways (DPWH) is a 15 km bridge that will link Mindoro Island to the Province of Batangas. This aims to maximize the current position of Mindoro Island as “Luzon's Gateway to the South” to the Island Provinces of Visayas and Mindanao Region through opening roads leading to faster and efficient transport of goods and people along the existing Nautical Highway. Based on the National Economic and Development Authority (NEDA) website, the project is expected to start in 2020. Another strategy for this sector is the improvement of port facilities to ensure that inter-island shipping, including a stronger Roll-On/Roll-Off (RORO) network, will remain a viable option for transporting people and cargo. Aside from these, there are several other projects in different regions in lined to increase mobility across the country either by land, water, or sea.

1.3 REGIONAL DEVELOPMENT PLAN

The MIMAROPA Regional Development Plan (RDP 2017-2022) is the first of the four medium-term regional development plan anchored on the 0-10 Point Socioeconomic Agenda of the President, geared towards national long-term vision – AmBisyon Natin 2040.

The region of MIMAROPA: The Destination of Choice, on the average, contributes 2% to the national economy which is among the 13 regions with minimal contribution. However, with the improved economic activities on agriculture, processing of products, and tourism, the economy of the region hopes to increase. This can be achieved by playing the roles of each province given its unique endowments. In the case of Oriental Mindoro, its roles include the following: 1) Gateway for trade and investments in the eastern side of the country 2) One of the premier tourist destinations in the country, 3) Food Basket for Luzon and Visayas region, providing a reliable and stable supply of agri-based, aquaculture, marine products and livestock to CALABARZON, the National Capital Region and the provinces of Aklan, Iloilo, Capiz, Guimaras, Negros Oriental and Antique, 4) Region and country's top producer of calamansi, and 5) Region's top producer of banana and palay.

Agriculture and Fisheries Sector

Agriculture and fisheries sector is one of the primary growth drivers of the region's economy. However, there are challenges faced by this sector such as high cost of production input, limited public sector investment, insufficient use of technologies, and etc. which create deficiencies in the agricultural value chain. Hence, the following strategies will be prioritized: adoption of sustainable farming practices, provision of infrastructure and logistics systems, shift from commodity-based development, more agri-processing projects, promotion of self-help food production activities, intensifying technology transfer and extension, and provision of other support services particularly training with capital/micro credit support and marketing assistance.

Moreover, RDP also layouts the following endeavors that must be taken to carry out the priority strategies. One of which is the promotion of agritourism, ecotourism, and agri-entrepreneurship. In the case of Oriental Mindoro province dubbed as the "Pearl of Mindoro," priority areas for agriculture development include fruit processing of calamansi, rambutan, and mango juice concentrates, preserved or dried candies/pastilles, marmalade and jelly. Also, it includes the processing of banana (saba) into sauce, catsup, chips, strings, powder, and flour.

Aside from the strategies, RDP also proposed a legislative agenda to address some challenges and implement the development strategies. These are 1) incorporating agribusiness in industrial incentives and zoning scheme, 2) Increase budget for agriculture programs including research and development and extension activities, 3) Amendment in the National Irrigation Administration Law or RA 3601 to grant free irrigation to farmers, 4) Support Organic Agriculture Act, and 5) Adoption of Fisheries Code by LGUs.

Industry and Services Sector

The industry and services sector contributed significantly to the growth of the regional economy. The challenge in order to achieve full development of this sector is to increase investment on the processing of major commodities and provide infrastructure support to tourism. This will include tourism promotion; strengthening the campaign for accreditation of tourism-related establishments; developing attractions and facilities related to arts, culture, and cuisine; having permanent tourism officer; and tourism infrastructures such as ports, airports, and roads.

Discussed in the agriculture and fisheries sector of RDP, aside from priority areas for agriculture development, it also mentioned the priority areas for tourism development of Oriental Mindoro including Lake Naujan, Mount Halcon, Bulalacao, Pinamalayan, and Mangyan crafts village and living museum.

Infrastructure Sector

MIMAROPA is composed of island provinces which make traveling difficult. Hence, there is a need for physical integration through an efficient and reliable network of roads, ports, and airports. With this, the movement of goods and people will be easier, propelling the economic growth of the region.

At present, the Strong Republic Nautical Highway (SRNH) connects Luzon to Visayas through Mindoro Island which contributed to the improvement of trade and tourism. Aside from this, there are several ports linkages as well between Visayas and MIMAROPA namely Libertad-Magsaysay, Malay-Bulalacao, Malay-Odiongan, Roxas City-San Fernando, Masbate-San Fernando, and Ilo-ilo City-Puerto Prinsesa. On the other hand, air transport is also present although it remains a challenge. Out of the 11 airports in MIMAROPA, only four have regular commercial flights namely Busuanga and Puerto Prinsesa in Palawan, San Jose in Occidental Mindoro, and Romblon.

Some of the priority strategies to increase connectivity in the region includes integrated planning of seaports and airports; formulation of strategic transport master plan; implementation of strategic regional development agenda for Port Master Plan and Strategic Road Development; pursue development of RORO route connecting San Jose; Antique to Palawan through port of Taytay and Cuyo; enhance necessary construction standards of roads and bridges; and improving access to far-flung areas.

Moreover, for power and energy, overall demand for electricity in the region is estimated at 123.644 MW while overall dependable supply is at 188.199 MW. Peak demand is expected to increase by 6.3% annually. Currently, over 90% of the region's electricity demand is concentrated in Palawan Mainland, Oriental Mindoro, Occidental Mindoro, Marinduque, Tablas Island, and Busuanga Island. In particular, Oriental Mindoro has a projected demand of 51.096 MW this 2018 and will increase to 64.506 MW by 2022. When it comes to power generation, the region relies heavily on oil-based power plants. Of the 51 power plants, 44 are land-based, 3 hydropower, and 4 barge-mounted diesel power plants. In 2015, distribution of utilities attained an average system loss of 11.50%. Specifically, ORMECO distribution utility has a system loss of 10.42%.

The renewable energy (RE) potential of the region totaled to 343.98 MW where Oriental Mindoro shares a total renewable energy potential of 142.25 MW from hydro, wind, geothermal, and biomass. The Montelago Geothermal Power Plant in Naujan, Oriental Mindoro is expected to contribute 40 MW of electricity to the Mindoro Island by 2018. Despite this, there is still a need to develop more reliable power delivery system in Mindoro Island. There is a proposed interconnection facility that will transmit power to interconnection point in Calapan City. This interconnection would make Mindoro island a viable location for new generating plants such as coal-fired and renewable powerplants. In DOE's Philippine Energy Plan (2007-2014), Mindoro is identified containing significant coal deposits.

Given the challenges in power and energy, priority strategy will include facilitating completion of power projects, intervening in case of non-compliance by power providers, promoting investments in Small Power Utilities Group (SPUG) area and RE in remote areas, fast-tracking implementation of priority transmission projects such as Batangas-Mindoro transmission project, among others.

Moving to water sources, from 2011 to 2015, a total of 15,532 households have access to a safe water supply which exceeds RDP 2016 target. Oriental Mindoro ranks 2nd in having the highest rate of households with access to safe water (98.98%) bested by Puerto Princesa at 1st with 99.95%. For irrigation, the region has a potential of 138,718 ha irrigable areas, but only 57.77% are developed. Oriental Mindoro has the biggest area for irrigation development at 29,343.62 hectares. Some of the priority strategies for water sources include encouraging private sector investment in construction of water supply facilities; implementing environmental measures to protect, rehabilitate, and maintain water sources in watersheds; implementing strategic flood control projects; ensuring the protection of flood-prone areas; and etc.

Some of the programs, projects, and activities for the infrastructure sector mentioned in RDP are: 1) Mindoro-Batangas Super Bridge; 2) Port development projects in Calapan, Puerto Galera, Bulalacao, Odiongan, Puerto Princesa, Coron, El Nido, and Cuyo; 3) Abra de Ilog-Puerto Galera Road Project; 4) Victoria-Sabluyan Cross Island Road Project; 5)

Opening of Pola-Naujan Road; 6) Road widening of Calapan South Road; and 7) Batangas-Mindoro Power Interconnection

1.4 PROVINCIAL DEVELOPMENT AND PHYSICAL FRAMEWORK PLAN, ORIENTAL MINDORO

The Provincial Development and Physical Framework Plan (PDPFP) for Oriental Mindoro is a long-term planning document covering years 2016 to 2025. This document is anchored to the vision of “*A province with healthy, upright and empowered citizenry, living in safe and green environment, prepared and resilient to climate change and disaster risks and governed by dynamic and responsive leadership. By 2020, Oriental Mindoro is Luzon and Visayas’ Food Base, Premiere Tourism Destination and Center for Investments.*” The development framework of this plan focuses on accelerating poverty reduction thru strategies of urbanization, agri-industrialization, environmental conservation, and eco-tourism development.

The Settlement Framework of Oriental Mindoro gives emphasis to urban and rural development. The urban development entails transforming Calapan City, Pinamalayan and Roxas into highly urbanized, socio-economically progressive settlements. These areas are envisioned to be the center of tertiary level services for education, health and social welfare.

II. LOCAL GENERAL DEVELOPMENT PERSPECTIVES

MUNICIPAL VISION

Vision statement of Pinamalayan was first crafted in 2009 during a plenary session in the second term of former municipal mayor Wilfredo L. Hernandez, Sr. This was attended by various local and regional stakeholders and agencies including all department heads, business leaders, and non-government organizations. Later on, the vision was revisited and enhanced during the term of incumbent municipal mayor Aristeo A. Baldos, Jr. in 2016. From “rest and recreational area”, it was changed into “central trading hub.” Below is the vision statement of Pinamalayan.

**PINAMALAYAN CITY,
the central trading hub of Oriental Mindoro and the rest of MIMAROPA,
demonstrating a robust-investor and tourist-centered economy
with diversified agro-industrial activities
anchored on sustainable growth
and social equity.**

MISSION

Along with the vision statement, the mission statement of Pinamalayan was also crafted in 2009 and was retained ever since.

**To boost local economy by providing dynamic investment opportunities and
creating conducive climate for tourism, livelihood and
growth enterprises development while ensuring
rational increase in agricultural production
as well as promoting competitiveness in
diversification of trading and industrial activities,
sustained and governed by structures and mechanisms
which allow redistributive measures.**

In order to assess the progress of the municipality in attaining the vision, success indicators were formulated during a workshop with the municipal Technical Working Group (TWG) and can be seen in Appendix A.

2.1 DEVELOPMENT POTENTIALS AND CONSTRAINTS

2.1.1 DEVELOPMENT POTENTIAL

The municipality of Pinamalayan, being a first-class municipality, aims to excel in all aspects of development that would contribute to local, provincial, regional, and national growth given its potentials which are enumerated below:

Available Land Supply for Urban Development

Land demand and supply analysis considering basic laws and planning principles related to land use planning show that a total of 5,120 hectares are suitable for future urban development. Available land supply will encourage more investment since policy restriction has very minimal impact on the development process.

Strategic Location

Pinamalayan has direct linkage to the province of Marinduque, Romblon, Coron, Busuanga, and Manila. It is also easily accessible to the urban centers in Mindoro namely Calapan City, Puerto Galera, Roxas, and San Jose. The possibility of connecting Pinamalayan airport to Puerto Princesa is always open. Because of its strategic location, the municipality also evolves as a commercial and educational center of the province’s central district.

Vibrant and Diverse Local Economy

Compared with other municipalities within the province, Pinamalayan has a vibrant and diverse economic structure. Records from Business Process Outsourcing (BPO) shows that the municipality is not largely dependent on agriculture. Secondary and tertiary services prosper in the locality contributing 11-15 million pesos to locally regenerated revenue growing approximately 4 percent per year. Data also shows an increase in employment in wholesale and retail trading activities.

DOE Rules on Profit Sharing to Host Barangay and Municipality

A diesel power plant of the Global Power Holdings, Inc. is located in barangay Papandayan and currently has a dependable capacity of 7.5 megawatts.

As a result, the municipality earns additional income through profit shares. It is stated in the RA 7160 (Local Government Code), RA 7638 (Department of Energy Act), and RA 9136 (Electric Power Industry Reform Act), that Pinamalayan should be compensated as a host municipality to the said power plant. This means that one percent of the gross sales or receipts of the preceding calendar year goes to the LGU. In other words, there is one centavo income for every kilowatt-hour consumed.

National Government Support to Local Farmers

The Department of Agriculture provides financial and marketing assistance to the local farmers through the food terminal system. In fact, Pinamalayan has the largest food terminal facility on the island of Mindoro. The PHP 2 million assistance from the Department of Agriculture-Agribusiness Marketing Assistance Service (DA-AMAS) was utilized for the development of a 360 sqm Municipal Food Terminal Facility (MFTF). The MFTF extension plan increasing the floor area by 360 sqm entails additional PhP2.7million also coming from the DA. This serves as the drop-off point of local traders and farmers including traders from San Jose, Occ. Mindoro, Panay island, and other neighboring towns. The food terminal system intends to develop farmer-retailer direct marketing system.

Decreased in productive capacity by CALABARZON and Central Luzon due to massive agricultural land conversion

In the study conducted by Cardenas of PCAARRD, Cavite alone lost 12,414 hectares of agricultural lands from 1986-1994. While there is no available regional statistical data showing the number of agricultural lands being converted for urban development, for the past ten years, the development pattern manifests that CALABARZON and Central Luzon have lost vast tracks of agricultural lands. In this regard, Oriental Mindoro including Pinamalayan is holding a steady position as a supplier of agricultural products. Because of high suitability to diverse agricultural products Pinamalayan is producing about 1,182MT/year of coconut, 12,064 MT/year of banana, 38,876 MT/year of premium quality rice as of 2015 data.

2.1.2 DEVELOPMENT CONSTRAINTS

Despite the various economic opportunities, land availability, and other opportunities of Pinamalayan, it also has constraints that hinder its full development.

Exposure to Various Hazard

Records of previous disasters from 2009-2015 show that Pinamalayan is affected by strong typhoon annually affecting lives and properties. Based on the conducted Climate and Disaster Risk Assessment (CDRA), approximately 5 percent or 1,518.21 hectares are exposed to flood with high susceptibility while 31 percent or 8,843.06 are exposed to landslide with similar susceptibility. Typhoon with storm surge was observed twice since 2009. The cost of total damage in the municipality since 2009 from various disasters amounted to PhP1,031,870,000.

High Rates of Electricity

In terms of electricity prices, the Philippines is the second highest in the ASEAN region and the ninth highest out of 44 international markets worldwide. This was according to an article by Visconti (2012) about a study commissioned by the Manila Electric Company (MERALCO) during the beginning of 2012.

The said article cites four reasons why this scenario occurs. First, the government does not subsidize energy, unlike neighboring countries. Second, it is expensive to produce energy in the Philippines. Despite reserves of natural gas, setting up processing facilities will take years; hence the reliance of the country to international fuel. Third, there is a lack of a unified electricity grid, and there are multiple service providers because of the challenging geography of the country, which is comprised of thousands of islands. Basically, more decentralized grids mean more transmission costs and these will be later passed on the electric bills of consumers. Fourth, the majority of power plants have become ineffective and have minimal energy reserves. This makes the country more susceptible to brown-outs.

In the case of Pinamalayan, the average electricity rate per kilowatt-hour, inclusive of system loss, varies depending on the type of consumer. On average, the electric rate for residences is at PHP 10.45 per kilowatt-hour. Average electricity rates are also said to be higher than the rate in Manila. The current situation of electric rates may deter further industrial investments in the municipality, since future investors may find these power costs to be difficult for sustaining operations in the long run.

Commercial Fishing in Municipal Marine Waters

Despite the unavailability of statistical data to show the presence of commercial fishing activities, it was observed in the locality. Accordingly, the commercial fishers are competing with approximately 628 households who are engaged in fishing activities or three percent of the total households. Local people suspected that the declining fish catch can be partially attributed to the presence of commercial fishing within the municipal water.

Lack of marketing and financial assistance to the local farmers

Because of financial and technical incapacity of farmers to market their products and put an added value, the prices of agricultural products are largely dictated by the middlemen. Most of the local farmers are trained to improve the volume of production. The marketing aspect is more often neglected. Farmers lack the option of storing their products when the prevailing market price is low due to immediate cash need.

Unsustainable and Non-Productive Agriculture/Livelihood Programs

For many years, the agricultural office work on technology transfer to improve the level of agricultural production in a sustainable manner like organic farming and integrated farming. More often, there is low acceptance of the new techniques being introduced. If adopted, sustainability becomes an issue. Majority of the local farmers still prefer the use of traditional farming techniques.

Uncontrolled Development

Pinamalayan is classified as a large town in the hierarchy of settlements of the PDPFP. The occurrence of rapid development growth, therefore, is inevitable which is already evident. The proliferation of fast foods, commercial banks, real estates and other businesses providing more than basic services indicates progress. However, flooding incidence

is becoming more frequent. During CDRA, it was accepted that flooding may be attributed to changing climate. However, ground validation revealed that uncontrolled development apparently contributed to flooding. Particularly urban development encroachment to waterways. During CDRA, seven (7) waterways have been occupied by commercial establishments. Not to mention obvious violation to the national building code, legal easement on roads, and local ordinances.

2.2 DEVELOPMENT GOALS AND OBJECTIVES

2.2.1 GENERAL PUBLIC SERVICES

GOAL

A dynamic and responsive government organization with professionalized bureaucracy observing efficient systems and procedures and administering a comprehensive and participatory development planning approach supported by needed legislation.

DEVELOPMENT AGENDA

- Promote pro-active Administration and institute a receptive, professional and dynamic core organization that is both enabled and guided by efficient systems and procedures;
- Encourage active participation of all sectors to ensure that all plans and programs are synchronized, complementary and in line with the development direction of achieving cityhood, as well as to promote stewardship among stakeholders;
- Review, revise, or otherwise implement guidelines and/or local ordinances to increase and expand internal capacity and capability and enhance local fiscal resource generation;
- Institute appropriate measures and implement necessary methods to promote autonomy and self-sufficiency among barangay LGUs;

2.2.2 ECONOMIC SERVICES

GOAL

An accelerated economy anchored on the agriculture-based business environment, adequate infrastructure and amenities that serve as a haven for locators, transients and world class tourists.

DEVELOPMENT AGENDA

- Maintain effective agricultural practices, introduce innovative and sustainable high-yield farming procedures, and institute efficient product-market linking practices and procedures to ensure a rational increase in agricultural output;
- Promote business tourism as the primary economic foundation and reinforce all related development efforts with necessary technical services and appropriate infrastructure support facilities;
- Cause the adoption or composition and implement appropriate legislation that will enhance investment opportunities, ensure business sustainability and promote equitable labor practice
- Consistently enforce environmental protection laws and ordinances to ensure ecological sustainability;

2.2.3 SOCIAL SERVICES

GOAL

A socially developed city with healthy, highly skilled, globally competitive individuals, and well-protected citizenry with access to basic social services in a well-balanced environment.

DEVELOPMENT AGENDA

- Promote the upgrading, expansion and modernization of community health facilities and manpower resource;
- Strengthen partnerships with other local government agencies, the private sector and NGOs in the delivery of basic health services;
- Coordinate closely with NGAs to actively pursue the modernization and professionalization of protective services;
- Encourage private sector participation in instituting an effective and sustainable force multiplier approach in maintaining peace and order and other similar protective services;
- Promote the expansion of social welfare development programs to accommodate more beneficiaries;
- Strengthen community-based organizational development to ensure timely delivery of appropriate interventions;
- Rigorously implement and observe IP welfare-related laws;
- Encourage a dynamic education system that allows accessibility to more individuals;
- Expand the low-cost housing program to accommodate the relocation of informal settlers located along environmentally-sensitive areas, and institute measures to prevent further encroachment;
- Consistently enforce environmental protection laws and ordinances to ensure ecological sustainability

- Enhance awareness, comprehension and appreciation of local history, culture and arts.

2.3 DEVELOPMENT THRUSTS AND STRATEGIES

Pinamalayan has a focused development direction, to become a city. Therefore, two major areas must be considered in the planning process; increasing locally generated revenue of at least PhP100 million for two consecutive years and either increasing the number of population to 150,000 or having a contiguous territory of at least 100 square kilometers. These are the primary requirements to become a city. In this regard, the municipality is challenged to satisfy the above requirements.

At a glance, there was seemingly shift in the municipal primary economic foundation; agriculture-based economy to business investment. However, it was recognized that despite the cityhood development direction, the municipality cannot simply graduate from agriculture. The biggest local resource that may entice investment apparently belongs to the agriculture sector. It was estimated that 39.34 percent or 11,106.84 hectares of the total municipal land area are being utilized for agricultural crop production. Whereas it was observed that economic activities are largely agriculture related. This shows that economic structure is still strongly anchored to agriculture. In addition, there are laws that protect agricultural land for food security. One of which is DAR MC No. 54 which limits Pinamalayan to convert only 10 percent of agricultural lands into non-agricultural use.

However, unless extreme growth in agriculture sector took place, minimum impact in the local economy and social needs is expected. There is a need to intensify local revenue sources thru accommodating significant new development from non-resident investors. The municipality must take advantage of its strategic location to generate additional income.

Taking into consideration the development focus, potentials and challenges, development vision, higher development plans, and the economic structure, two development thrusts were recommended.

2.3.1 TRADING AND TOURIST CENTERED ECONOMY

To attain the economic status of being a center of the trading hub, key areas of interest will include the following:

Create a Business Friendly Environment

A business-friendly environment is creating ease in the processing of legal documents for business operation and protecting the investment through the implementation of a legal instruments like investment and incentive code. Building up the business environment will encourage more business endeavor, hence, increasing demand for commerce and trade. It will also directly impact the increase of revenue from local sources, an important factor to graduate from being Internal Revenue Allotment (IRA) dependent and move towards attaining the development direction. Aside from the inherently direct impact on revenue collection, more investment will steer up local power consumption creating an avenue for the in-house power generating company to level up generation capacity. This means additional revenue thru profit sharing.

A promising investment venture in the municipality is warehousing. Given the strategic location of Pinamalayan in the middle of Oriental Mindoro as well as the presence of the airport, the warehousing system is expected to bring mutual economic benefits to both the investor and the municipality. Furthermore, this system requires minimum government investment and allows the LGU to utilize idle spaces that are not suitable for agricultural production.

Enhance Efficient Inter-Regional Transport Facilities

By geographic location, Pinamalayan is only 4 hours away from San Jose, the premier town of Occidental Mindoro, and only 1 hour away from Calapan City. It is also connected to Marinduque and Romblon via sea transport and to Western Visayas via sea and land transport thru the SRNH. Direct linkage to Puerto Princesa, Palawan is always possible because of the existing airport facility.

The existing inter-regional transport facilities brought advantage to the municipality. Accessibility is a catalyst to economic development, especially to the business community. Travel time, safety, and convenient transport system play important role in the economic interchange and mobility of the people. Establishing alternate route for light vehicles and construction of centralized transport terminal improved the traffic situation in many urban and urbanizing

municipalities. The same is expected in the locality specifically transport system connecting the existing airport to the central business district and adjacent municipality.

Promote Pinamalayan as DESTINATION CAPITAL in MIMAROPA

In many instances, the municipality is the priority option for conducting training and seminars even with less promotion effort. However, due to the absence of adequate facilities to host such events, a neighboring town like Naujan was selected instead. Looking at the geographic location, it is possible to develop the municipality as a destination capital in MIMAROPA in terms of investment, rest and recreation, social functions, family gatherings, MICE market (Meetings, Incentives, Conventions and Exhibition) and other events. The establishment and development of tourism sites and support structures like recreation type tourism convention center may be a good take-off. As a marketing promotion, Pinamalayan may bring-in inter-regional sports and other related activities. To broaden marketability, the LGU should aspire and work to be included in the national map of LGUs' best practices. The possibility to prosper in the arena of health tourism may also be considered to maximize investment in health facilities. Built-in agenda is the development of basic social services that will further strengthen the *must-see/visit and stay* character of the municipality.

2.3.2 AGRICULTURAL DEVELOPMENT

In support of agricultural development, the following strategies shall be adopted:

Agro-Industrial Development

Industries had become the major contributor to local revenue in various cities and municipalities in the country. According to the RDP of 2017-2022, a major contributor to the Gross Regional Domestic Product (GRDP) or the total income or output of goods and services in the region of MIMAROPA is the industry and services sector. However, data also shows that agriculture is still the top contributor to the country's GDP. This illustrates that combining industry and agriculture will substantiate the local economy mainly in terms of revenue and population growth. Pinamalayan is also looking forward to benefit from the rubber tree and abaca industry. Banana chips industry still shows potential but overwhelming economic impact is anticipated if the said industries will be added.

Intensify Production

Being the major local economic driver, the town is considered as one of the significant contributors to the over-all agricultural output of the province. For the period covering 2009 to 2011 alone, the average rice production of Pinamalayan reached 4.3 metric tons per hectare/year. This translates to a 23% contribution to the total provincial rice produced for the same period. For the period 2014 to 2016, the municipality has an average production of 4.81 metric ton/annum.

Despite impressive agricultural production, there is a need to further strengthen production capacity of the agriculture sector. It is crucial to coping with the development trend and increasing food requirement. A comprehensive review of implemented programs should be conducted. The appropriate modification shall be made if necessary to improve sustainability and enhance benefits. To initiate productivity enhancement, soil suitability analysis must be done to properly identify the location of soil type that is best suited to a particular variety of crops such as high-yield variety crops. Encourage more research and development programs including development of new farmlands were also incorporated in the agricultural development action.

Expanding production area is another option to scale up production capacity. Mechanical and irrigation support will be provided to marginal agricultural areas to maximize per unit yield.

Strengthening Market Capacity

Generally, training intended for local farmers focused on productivity enhancement and management. However, looking at the agricultural processes, key areas of concerns are practically attached to production, harvesting, and marketing. In the situation analysis, the marketing system of farm products is significantly influenced by the middlemen. More often they took advantage of the financial incapacity of the local farmers. To break the ties between the farmers and the middlemen, the LGU will reinforce farmer-retailer/wholesaler direct marketing system thru extension and promotion of local food terminal. The development target is not only to upgrade the existing facility but to connect the

same to other operating food terminals in the region or even in the whole country if possible. This also intends to increase the net profit of individual farmers, hence, increase financial capacity.

Develop Support Facilities (Pre and Post-Harvest Facilities)

Low return of investment has been one of the major economic issues in the agriculture sector. According to many agricultural technicians, insufficient pre-and-post harvest facilities primarily contributes to profit loss. Other than the availability of supply, one of the major contributing factors that directly affect the price of farm products is the quality of produce which is attributed to pre-and-post harvest facility. Agricultural products are perishable goods. Without a proper facility, good quality cannot be preserved. In effect, local farmers are obliged to market their products regardless of the prevailing market price. To get even is rather preferred than losing the principal capital. Agricultural warehouses, solar and mechanical dryers, irrigation facility and other basic pre-and post-harvest facility are among the agricultural facilities that will enhance both the productivity and the quality of products.

III. LAND USE PLAN

3.1 URBAN FORM AND LAND USE PATTERN

Generally, the majority of the functions and services are situated in the *Poblacion* that attracts diverse economic investment and influence settlement development. Concentric development is still evident in *Poblacion* with higher densities. Since 2008, vertical expansion becomes an option with increasing multi-level structures. Moreover, traditional mixed commercial-residential uses within the urban core are still prevalent with new multi-level buildings. Highly pollutive industrial establishments were entirely phased out and are replaced by mixed commercial-residential and institutional structures, though some low-intensity processing of construction materials still operates within the *Poblacion*. It was observed that critical waterways have been eliminated and have built-up structures. Easements are not uniformed where few permanent structures protrude. Few dilapidated buildings and structures are vulnerable to fire hazard. An improved municipal park is the only functional open space, but vacant lots are still dispersed which serves as a breathing space. Educational facilities and financial institutions have significantly increased in numbers, while a wide array of perfectly aligned streets was preserved.

It was noted that outward expansion evolved from 2000-2012 converting agricultural areas into urban uses within the periphery of the *Poblacion*. Barangays Sta. Rita, Marfrancisco, Wawa and Cacawan seemed to decongest and contain the urban activities which were used to concentrate in the *Poblacion*. The Marfrancisco triangle becomes a preferred investment location, turning into another commercial area (Figure 1). Rapidly urbanizing areas tend to be located within the designated urban corridor, as was first indicated in the 2000 CLUP. The urban fringes are to be utilized for higher land use intensity but still maintain a low density of built-up areas.

Sub-urban areas on the other hand, exhibited a combination of linear and concentric urban form with scattered pocket settlements. Linear settlements usually follow a major road system or a river system while the concentric form of settlement is commonly found within the barangay centers. Public utility transport regularly plies along major thoroughfares but becomes a bit difficult to exterior roads linking sub-urban centers to the major urban center. Dwelling units are dominated by bungalow-type housing forming low-density residential areas, whereas tourism and tourism-related establishments are mainly in coastal areas. Major health facilities and infrastructures, including industrial functions, have also started to develop within sub-urban territory.

3.2 INVENTORY OF EXISTING LAND USES

The existing land uses in Pinamalayan fall into five broad categories, namely Urban Use, Agricultural Use, Forest Land Use, Water Use, and Other Land Uses (Appendix B). Their respective sub-categories, area utilization, and percent share are displayed in Table LU-01. The urban use areas have a total allocation of 584.64 hectares and comprise about 2 percent of the municipal land area. These are further classified into residential areas, commercial areas, agro-industrial areas, recreational or parks and open space, and tourism, and infrastructure.

The majority of compact urban development are primarily concentrated within the Urban Core: Cacawan, Marfrancisco, Sta. Rita, Wawa, Zone I, Zone II, Zone III, and Zone IV (Appendix C). In rural barangays, urban development is concentrated in the barangay proper. Both areas manifested traditional urban land uses with different intensity.

The town proper of Pinamalayan is known for convenient mobility due to a well-planned grid of wide, parallel streets. Three main roads, namely: Del Pilar, Mabini and Madrid have convenient 20 meters right-of-way. However, some encroachment and intrusions mostly within the road shoulders remained uncontrolled over the years.



Figure 1. Rainbow Triangle, Brgy. Marfrancisco

The Urban built-up areas are divided into two: Urban Core (*Poblacion*, Marfrancisco, Sta. Rita and Cacawan) and the Urban Corridor. The Urban Core is designated to assume the center of urban functions while the urban corridor performs

complementary functions to the core and is designated to contain urban sprawl. This area accommodates the public market, major business establishments, banks, municipal government compound, Public Park, private and public schools, fish port, food chains, telecommunication facilities, transport terminals, and others.

Local residents prefer to dwell along road networks where mobility is quick and convenient, and basic services and facilities are accessible. Dwelling units are mostly made of various materials, ranging from concrete to light and salvageable materials. Bungalow-type dwellings are most common though multi-storey dwelling structures are emerging in urban areas. More often, lower levels of multi-level dwelling structures are simultaneously utilized for commercial purposes. Subdivision types also exist, following either BP 220 or PD 957 design standards. In the 2014 CBMS, there were 13 subdivision projects accounted and were constructed by private developers, government agencies, and civic organizations. Approximately, subdivision type residential areas occupied 63 hectares composed of 2,424 lots or roughly 200 square meters of residential lots, deducting the required open spaces. In addition, there are also nine resettlement projects providing 276 housing units under the collective effort of the municipal and provincial government, including the barangay. Based from the land use inventory, the municipality has a total residential area of 442.67 or 1.57 percent of the total municipal territory.

In this area, however, it is quite ironic that the highly publicized fire-gutted area in the market compound remained undeveloped and unproductive over the years, despite the pressing need for more commercial space. Nothing has changed as well for the patrimonial property in between Luna and Jaena Streets, just beside the municipal park. This prime commercial lot measuring 4,000 square meters is occupied by various business establishments that are paying high rents to private people claiming rights over the property. This is supposed to be developed as the Pinamalayan Central Mall, as stipulated in the comprehensive development plan. Similarly, the provincial jail still occupied the 4,800 square meters of municipal-owned property located along Manrique St. in barangay Zone IV. With those unutilized areas, this resulted to lost development opportunities for the municipality. Commercial establishments are generally located in the *Poblacion* area and has an estimated land area of 24.11 hectares or 0.09% of the total land area. As of 2016, there were a total of 1,617 registered businesses.

On the other hand, the Recodo Port in Zone I is now a much-improved fish port and the long concrete seawalls stretching from the shores of barangay Wawa to Recodo now have better construction design as well as protection capacity.

Within the Urban Core, the most impressive developments appeared around the Marfrancisco Triangle vicinity. Huge buildings emerged, accompanied by popular business brands such as Jollibee, Mang Inasal, Mercury Drug, RUSCO, Europhil, Motortrade, and LBC, among others. Commercial banks like Metrobank, Landbank, PNB and Allied Bank are also located within the Urban Core.

Barangay Sta. Rita also benefited from the opening of the SRNH where a bus stopover terminal operated to cater the passengers, bus drivers, and crews. Other significant developments include the ice plant, rice mills, warehouses, junk shops, welding shops, gasoline stations, and motor shops. Compared with the urban core barangays, Cacawan is the

least developed. Except for the expansion of the Pamana Village Housing project and some small welding shops, new subdivisions, hollow blocks manufacturer, and small stores, not much has changed in the said barangay.

Agriculture still is the predominant use in Pinamalayan. Outside the Urban Core, almost every barangay has vast fertile of land devoted to agriculture. Major crop is palay while calamansi, lanzones, rambutan, durian and banana are widely found in barangays Sabang, Marayos, Inclanay, Pambisan Malaki, Calingag, Buli, Sta. Isabel and Maningcol. Mango plantations are also found in Malaya, Pambisan Munti and Calingag. The barangays of Ranzo, Banilad, Guinhawa, Pili and Sta. Isabel is mostly planted with coconut trees.

The northeastern and southeastern coastlines are characterized by beaches, swamps, and marshes with tourism-oriented facilities. These can be found in barangays Ranzo, Banilad, Pili, Guinhawa, Papandayan and Quinabigan. The most remarkable tourism-related transformation is best exemplified by the stretch of beach resorts that suddenly sprouted along the Guinhawa-Pili coastline (Figure 2). New structures and attractions are present in the area demonstrating a new order of development perspective. Hence, declaring its land use following the acceptance and promotion of the natural trend of development is inevitable. Aside from this site, other resorts such as the Bulaklak, La Emilia, Español, Magdalena and other resorts exist in Pili and Ranzo shorelines. Not much improvements are seen in the remaining coastal barangays. In contrast, an oil depot was constructed in Barangay Papandayan and a gasoline station in Zone I. Both structures are near the seashore.



Figure 2. Puting Buhangin Resort, Brgy. Pili

As mentioned in the text, the development trend is inevitable. Other resorts exist in Pili and Ranzo shorelines. Not much improvements are seen in the remaining coastal barangays. In contrast, an oil depot was constructed in Barangay Papandayan and a gasoline station in Zone I. Both structures are near the seashore.



Figure 3. Sanitary Landfill, Brgy. Maningcol

The 3.774 hectares dumpsite (Figure 3) in Barangay Maningcol situated on a hilly area has a classification of Controlled Dumpsite. It should have been classified as Sanitary Landfill Category I a long time ago.



Figure 4. Pinamalayan Airport, Brgy. Pambisan Munti

There is an existing airport (Figure 4) within the municipality located in barangay Pambisan Munti. It has a 1.2-kilometer long runway and has also been newly renovated. This has ceased operation for several years until its re-opening last October 15, 2017, where chartered domestic flights are being initially accommodated. The existing routes provide transport between Marinduque, Manila, and Pinamalayan. Since an airport is considered an edge compared with other LGUs in the province, keeping the airport operational is relevant to achieve the municipal vision of being the central trading hub of Oriental Mindoro in the future.

The areas of Pambisan Munti and Maliancog, which has been formerly assigned as the Urban Expansion Area, remained undeveloped in the absence of the full operation of the airport. But since it is already operational, it will be established as a new development site for agro-industrial development and warehousing.

There are 55 industries distributed in 27 barangays that are mostly rice mills. Other industries include 18 manufacturers, 16 contractors, one diesel power plant, and one oil depot. The latter two industries are both located in Papandayan, a barangay that is also located within the Urban Core and the proposed Coastal Greenway Area. About 21 of these industries fall under the micro and cottage types while 12 industries are considered small-scale, based on capitalization. Approximately 17.01 hectares are used for industrial purposes.

Existing private cemeteries and memorial gardens have consistently expanded over the years while the crowded Public Cemetery owned by the municipal government, despite reaching full capacity, still continues to serve the indigents.

To summarize, the Urban Core is the concentrated developments and dwellings in the urban barangays. Meanwhile, the Urban Corridor represents the strip of land on both sides of the SRNH and along the Airport road (provincial road) from Sto. Niño to the boundary in Gloria with a depth of 250 meters on both sides from the road right-of-way. With the exceptions of areas with pocket development, there were no dramatic changes at the Urban Corridor in general. Mixed commercial-residential uses are found in the urban areas and agricultural use in rural areas. Not much conversions were recorded over the past years and a huge section of the area remains agricultural in classifications.

Table LU-1. Existing General Land Use of Pinamalayan, Oriental Mindoro

Land Use	Area (hectares)	% to Total Land Area
URBAN USE		
Recreational	2.23	0.01%
Parks and Open Space	6.46	0.02%
Institutional	54.30	0.19%
Residential	442.67	1.57%
Commercial	24.11	0.09%
Tourism	12.33	0.04%
Industrial	17.01	0.06%
Infrastructure	25.53	0.09%
AGRICULTURAL USE		
Mixed Agricultural Areas.	17,266.536	45.39%
Irrigated Rice land	3,553.71	12.59%
Rain-fed Rice land	538.45	1.91%
FOREST AND OTHER FOREST USE CATEGORY		
Forest	5,587	35.58%
INLAND WATER USE		
Mangrove	75.63	0.27%
Fish Pond	93.26	0.33%
Quarrying	11.77	0.04%
Rivers/Creeks	302.20	1.07%
OTHER LAND USES		
Cemetery	9.58	0.03%
Post-Harvest	2.46	0.01%
Roads	170.42	0.60%
Open Beach	26.56	0.09%
Waste Disposal Site	3.774	0.01%
TOTAL	28,226.00	100.00%

Source: Satellite Image (2014), Ground Survey (2017), DENR

3.3 STRUCTURE PLAN

The structure plan layouts the overall strategy for the development of this CLUP. While development will concentrate on urban barangays, a new development site will also be developed in the Airport area. Moreover, satellite growth centers were also identified. Appendix D shows the graphical representation of the structure plan.

A. Primary Urban Growth Center

The primary urban growth center (PUGC) is categorized as a built-up area with the highest concentration of commercial and institutional establishments and residential structures. It is composed of barangays Zones I to IV Wawa, Cacawan, Marfrancisco and Sta. Rita with a total land area of 871 hectares. The area exhibits generally-symmetrical road grids with a pronounced increase in building density from local market going to Marfrancisco Triangle. The Urban Core area is considered as the central business district and seat of government. It is characterized by low to medium intensity developments with interspersed single to three-storey commercial buildings. Commercial activities are dominated by establishments engaged in product retailing and community services.

The three (3) major roads in the municipality are Del Pilar Street, Mabini Street, and Madrid Boulevard. Both Del Pilar and Mabini Street have convenient 20-meters right-of-way while Madrid Boulevard has 60 meters road right-of-way that may accommodate future increase in traffic volume. Institutions within the *Urban Core* include the municipal government center, national government offices, public and private education facilities (schools and colleges) and hospitals. Other major community facilities, such as the municipal theme park and gymnasium, are also located in the area.

Within the last 10 years, rural growth centers (RGC) developed in Barangay Sto. Nino in the northern part of the SRNH, as well as in barangays Papandayan and Quinabigan in the southern entry point of the SRNH. This illustrates the centrifugal development influence of the primary urban center in these areas including exponential expansion of the urban fringe. Along with the existing modernization of the current municipal public market and the increase in commercial activities, the PUGC will maintain its position as the major commercial center. However, it will level up in terms of services rendered and commodity options. A high-class commercial business district is expected to locate in PUGC, such as lifestyle malls, which may serve as recreation facility at the same time.

B. Secondary Growth Center - Pambisan Munti

The development opportunity areas which was already identified in the 2000-2010 CLUP is situated in the western part of the municipality particularly in Pambisan Munti where provincial road connecting Sto. Nino to the municipality of Gloria traverses. The expected development, however, did not prosper because the catalyst of change, the Pinamalayan airport, stopped its operation. In 2017, the airport became operational, accommodating chartered flights.

Despite slow development in the area, it was perceived that Pambisan Munti is still the best location for secondary growth center. The physical location remains favorable for such development due to the following:

1. The area is gradually elevated and free from flooding hazard;
2. Existing land use is either idle or vacant;
3. There is always a possibility that Pinamalayan airport will be in full swing of operation; and
4. It is an ideal location to facilitate warehousing system.

Though the area is considered an ideal location for urban development, the municipality cannot discount the fact that it is hardly possible without an operational airport. Enhancement of airport facility including access roads is the most essential element to redirect development into the secondary growth center. The projected development for secondary growth center is to become a host to warehouses and real estate development including agro-industrial development. In support thereof, cargo tracks shall be rerouted to Sto. Nino-Gloria access road via airport road. For several years, development of the said access road is considered less important.

As a secondary growth center, portions of Pambisang Munti shall also be declared as special economic zone for Sustainable Information Technology/Techno Park. It will be intended to accommodate Information Technology-Business Process Management (IT-BMP).

C. Rural Growth Center

1. *Barangay Sto. Niño (Agricultural Research and Development Center)*

Barangay Sto. Nino is approximately 7.5 kms. away from the town proper of Pinamalayan and categorized as rural growth node under the structure plan of Pinamalayan CLUP. At present, portion of the barangay serve as a small trading center to nearby barangays namely: Sabang, Calingag, Nabuslot, Sta. Maria, Pambisang Munti, Pambisang Malaki, Maliangcog, Pagalagala, Calingag and Bacungan. Business establishments are located in So. Gumamela like construction & hardware store, bakery, motorcycle spare parts store and meat shop.

Agricultural Center and Breeding Station (ACBS) was also located in Sto. Nino. The facility is intended to showcase programs and projects and technologies implemented or advocated by the Municipal Agriculture Office such as vermiculture/vermi composting, Trichoderma laboratory cattle raising and others. For the next 10 years, the barangay is envisioned to be a Research and Development Center for agriculture-related activities. The ACBS will be the venue of training and seminars research and studies and serve as the demo area of various agricultural technologies.

2. *Sitio Aplaya, Papandayan (Fish Producer)*

The area is actually home to the prominent fishing families who own the “bakulong” that may have triggered commercial activities related to the fishing industry. The site has now evolved into a dynamic trading post especially during summer where traders from other towns do business with local traders. In support of the economic activities in Papandayan, the fish landing was constructed.

With the growth of the fish trading activities informal market started to occur with *ukay-ukay*, groceries, ready-to-wear (RTW), dry goods, foods, other assorted merchandize being offered.

3. *Mataas na Bayan, Papandayan (Health and Medical Services Center)*

A portion of Barangay Papandayan along the Strong Republic Nautical Highway is declared as a Health and Medical Services Center which will be initiated by the presence of a Community Hospital. This facility served out-patients and patients for confinement residing in other towns such as Bansud, Gloria, Socorro, Pola and sometimes from the nearby island of Concepcion and Simara.

Continuous improvement of medical facility is anticipated in the future that subsequently improve services to the general public enticing investment in adjacent properties. Support establishments and facilities like drugstores, eateries/carinderias, groceries are likely to develop at the periphery of the community hospital.

4. *Sabang (Cultural Heritage)*

Sabang is the largest barangay of Pinamalayan with an area of 8,799.20 hectares with a total population of 3,157 based on 2014 CBMS Survey. The northwest part covering Safa, Mabawayan, Tibong and Paglagnan is home to Tau-Buid Mangyan tribe. In fact, 168 hectares was proclaimed as Mangyan Reservation by virtue of Proclamation No. 843 dated September 12, 1935. There is an existing trading post in the area which serves as a local venue for the exchange of goods and local products.

This barangay plays an important role in agriculture. They have the largest banana plantation in the locality with fruit and vegetable terminal serving barangays Inclanay and Marayos. For the next ten years the general character of the area shall be maintained with basic infrastructure development that includes the: (1) Rehabilitation of roads and bridges to improve access, (2) building permanent structure for trading purposes including display and showcase indigenous arts, culture and history, (3) social facilities for easy access, and (4) electrification. Tramline may be introduced as an alternative transport mode for local produced. However, tourism potential was perceived and may be enhanced for economic benefit. It is also a way of promoting indigenous technology. Abacca production will also be considered in the future.

D. Urban Corridor

The Urban Corridor conceptualized in CLUP 2001-2010 refers to the strip of land on both sides of the National Road from the Socorro to the Gloria boundaries. It also includes the strip of land along the Airport Road from Barangay Sto. Niño to the boundary with Gloria. This will be maintained with adjustment specifically indicated in the land use proposal.

E. Agro-Industrial-Tourism Areas combined with Special Economic Zone

Rubber tree production is gaining widespread acceptance to the farmers of Pinamalayan. In Barangay Malaya, about seven kilometers southwest of Poblacion, an initial five hectares of land are planted to rubber tree several years ago. Rubber latex already extracted to the first 2,500 trees. Initial production is 40-50 kilograms of raw latex per hectare, per month. It is expected to increase production every year more than double. According to the Bureau of Soil and Water Management (BSWM), soil type in Malaya and the adjacent barangays of Pambisan Munti, Calingag and Maliangcog are suited for rubber tree production. At present, there are about 25 hectares planted to rubber tree in Malaya, Calingag and Marayos. Later, rubber farmers are planning to organize themselves into an association to be able to manage the processing and marketing of the harvested latex. The rubber plantation area may be later developed as a tourism product.

Other portions of Malaya, Calingag, Pambisan Malaki, and Maliangcog shall also be another special economic zone similar with what will be developed in Pambisan Munti, as identified by the provincial and national government.

F. Tourism Development

With the municipality's vision to be recognized as a tourist-centered economy, Barangays Pili, Banilad and Ranzo which hold the 3-kilometer stretch of white sand known as the *Mahabang Buhangin*, will be promoted as a tourist destination. The area is ideal for diving, snorkeling and for other recreational activities. Fiscal incentives may be given to potential operators in order to encourage them to invest in the tourism industry. Further, special building regulations shall be formulated geared towards creating a distinct resort and recreational atmosphere.

G. Protected Areas

1. Marine Protected Areas and Fish Sanctuaries

Fish Sanctuary was first established in Barangay Ranzo on September 2005. An estimated 16 hectares of municipal water was declared thru an ordinance by the LGU of Pinamalayan as Marine Protected Area or commonly known as a fish sanctuary. Before the establishment of a sanctuary in Ranzo, average daily fish catch of fisherman in this barangay is 1-2 kilograms. Today, 4-5 kilograms are easily caught by every fisherman. Aside from this, lobster, shells, squids, octopus and other fishery products are caught by fishermen. This is the reason why Banilad and Pili, two adjacent barangays of Ranzo also established their own fish sanctuaries. At present, Banilad has two sites, Sitio Simborio, 10.4 hectares; Sitio Mahabang Buhangin, 10.28 hectares and Pili (Sitio Bongol), 24 hectares. By 2023, expansion of MPAs may be done in other coastal barangays namely; Lumangbayan, Quinabigan, Ranzo, and Banilad.

2. Watersheds

Forest areas, watersheds in particular plays vital role in the overall development of the Municipality in terms of sustaining ample water supply and decreasing surface run-off during rainy season. In order to sustain the ecosystem services of the area, there shall be no settlement encroachment within the declared watersheds except for IP community. It will also be a policy that these areas should not be converted into agricultural use.

a. Pula Watershed

Pula watershed project was initiated by DENR and the initial budget was funded by the World Bank thru grants. Its goals are to protect the Forest ecosystem, Lowland ecosystem and Bodies of water. To develop and protect the watershed areas covering 8,587 hectares of the municipality, to develop effective agricultural practices leads to product and resources, to promote environmental awareness and solid waste management program, and to protect all barangays along Pula Watershed Project from further flooding affecting the settlement areas are also priority goals of the project.

Municipalities of Gloria, Pinamalayan, Socorro, Pola and Victoria are part of the project. During the initial stages of the project, the DENR thru PENRO conducted a series of consultation meetings with the five LGUs. Seminars and training were also attended by the representatives of different stakeholders including the IPs. Cross visits to different regions with existing watersheds were made. Part of the project is the identification of the priority programs that will be implemented. As for Pinamalayan, the rehabilitation of the farm-to-market road and construction of a footbridge at Sitio Safa in barangay Sabang was prioritized. Desilting, declogging and tree planting along Pula river from barangay Sabang to Bacungan was also prioritized. These programs among others will be of great help if materialized because several barangays of Pinamalayan were always affected when this Pula River overflows.

b. Babahurin Watershed

Babahurin Watershed is the source of potable water in Pinamalayan since the pre-war period. It's approximately 100-150 hectares with a catch basin reservoir and constructed dam in the area located at Sitio Babahurin in Barangay Guinhawa. The government declared 80 hectares of forested areas as a watershed but a small portion of it effectively serves the purpose. There are parts of the watershed and water source have no more vegetation cover due to encroachment in the area. Also, the northern portion of the watershed is titled to private persons.

There are development intentions to rehabilitate and maintain the watershed area through cancelation of the title along the watershed with the help of the Solicitor General; regulate the use of titled properties through Zoning ordinance; massive planting of fruit-bearing trees, and organization of a group called "Bantay Gubat" that will protect the area.

H. Linkages

Pinamalayan has a good road network. Structurally, all 37 barangays are interconnected via grid of strategically linked National Highway, Provincial Roads, Municipal Streets, Barangay Roads and Irrigation Roads. All major thoroughfares contribute to convenient, efficient and quick rural-urban mobility.

Perhaps the most astonishing feature of Pinamalayan's road network is the wide array of perfectly aligned streets comprising the Poblacion road network. The exceptional road pattern was made possible through the American planner Thomas Weeks, as written in the town's history. To date, the Poblacion is still considered a model for town planning envied by adjacent municipalities.

The flagship project of the last two administrations which focuses on the development of Farm-to-Market road contributed to the town's good road network, especially in the rural areas. The "Konkreto sa Barangay" which later evolved to the Barangay Development Program is a development program specifically designed to focus on construction/concreting of roads in all barangays. For more than a decade, the program appropriates the largest chunk of the 20% Development Fund equally distributed among the 37 barangays in every year. In the spirit of convergence, the municipal government provides the construction materials while the barangay shoulders the labor cost. The long concrete roads in the rural areas are the enduring outputs of the program.

Although Pinamalayan has a good transportation grid, there is an apparent need to immediately plan for additional routes of exit to decongest the traffic flow which by now is gradually showing signs of heavy urbanization. Hence, secondary exit roads should be conceptualized as early as possible to prepare the network to the future traffic situation. The completion of the unfinished Pinamalayan Coastal Road otherwise introduced as Coastal Greenway Area (CGA) in the previous CLUP should be a top priority. Other proposed road should also follow to complement the growth centers identified in the Structure Plan in order to maximize the full potentials of these selected development nodes.

Another area of concern needing immediate attention is the remaining rough road at the hilly portion of Sitio SImborio, Barangay Banilad. Said portion is the only hassle left to complete a comfortable journey to reach Barangay Ranzo which is at the extreme north-east tip of the municipality. Concreting said portion will establish Ranzo's strong link to the main grid of the poblacion.

With the adjustment made in the Urban Corridor, the idea of opening a road network to directly connect the new development site to the urban core was recommended to promote cost-efficient transport system. Improving

accessibility to increase public safety and convenience going to Lumambayan is also a top priority, as this barangay was identified to be the most critical decision area in CDRA.

3.4 DEMAND AND SUPPLY ANALYSIS

3.4.1 ADDITIONAL AREA REQUIREMENT

Considering the municipal vision, development thrusts and strategies, potentials and constraints, the sectoral analysis matrix or current needs, local development trends for the past 10 years, the basic laws that requires the integration of specific spatial concerns in the allocation of future land uses and the national standard, the designated technical working group for comprehensive land use planning computed the required land area to be allocated for the next ten years to satisfy the demand for future urban development and other support use to urban development.

For the next 30 years, the municipal total population is estimated to reach 117,186. Hence, this was considered for computing the spatial requirement for future urban development. The derived total land area required to satisfy 2045 urban development is 336.96 hectares. The estimated additional land requirement was categorized as follows with corresponding assumptions:

A. Residential

In total, an aggregate number of 11,435 households were considered in need of residential lands. In computing for the additional needs, considerations were households situated within highly susceptible areas to flood and landslide according to the Mines and Geosciences Bureau (MGB) map which constitutes 3,345 households (3,002 households for flood and 343 for landslide) and those households within the lands owned by someone else constituting approximately 1,053 households based on actual survey by MSWDO in 2017. Both are considered due for relocation. Another consideration is the household formation computed based on projected population. In total additional households would be 7,037. This was derived by subtracting households in 2015 from projected households in 2045.

Using an average residential lot of 142 sq.m./household, the total land demand for residential use is at **162.34 ha**. The average residential lot was derived using the 64 sqm/household residential requirement for informal settlers and the local average residential lot at 220 sqm/household. A local average residential lot was computed based on the residential area in 2017 which is 442.67 ha and projected household size of the same year which is 19,956. Of the total land demand for residential use, about 62 hectares shall be allotted to Socialized Housing Sites in compliance to Urban Development and Housing Act (UDHA) or RA 7279.

B. Commercial

An additional **49.64 ha** built-up area is needed by 2045. A total of 26.48 hectares was derived using the 7.7% local increase based on historical data. However, the municipal development thrusts, business, and tourism suggest a much bigger requirement, hence, 37.71 hectares was allotted thru brainstorming. This assumption, however, does not include the area needed for the warehousing strategy. Assuming an average new investment of 2 warehouse/year occupying 1,657 sq.m./warehouse and a 20% additional space for roads and open spaces, 11.928 hectares is needed by 2045.

C. Institutional

Considering the HLURB standards provided by the concerned national agencies, it was noted that most of the elementary schools in the locality have inadequate areas. To satisfy the standard area requirement, a total of 8.87 hectares will be needed for educational facilities. Likewise, the existing district hospital located in Papandayan requires an additional space of 1 hectare. Anticipating cityhood, the municipality considered looking for a better government seat that suits the requirement of a one-stop-shop government complex. Accordingly, 3 hectares is sufficient for that purpose. In total institutional demand will is projected at **12.87 ha**.

D. Parks and Open Space

Based on the 2045 estimated population and the standard 500 sq.m/1000 population requirement for a municipal park, additional **5.86 ha** must be allotted for such purpose. The 5.86 ha will be allotted for a sports and recreation complex, increasing the existing parks and open space by 90%.

E. Industrial

With the municipal strategies of increasing the number of industrial investment in the locality, a total of **93.75 hectares** will be allotted for an industrial area. It was derived using the HLURB standard requirement for low-intensity industrial areas.

F. Municipal Public Cemetery

Using an average crude death rate of 4 persons per 1000 population, based from 2012-2016 CDR, and the standard plot size of 1.0 m. x 2.44 m., the proposed Municipal Public Cemetery was computed at 1,144 sqm. However, the TWG decided to increase the Municipal Public Cemetery into **4 hectares** because the municipality is also serving adjacent areas. Inclusive in the 4 hectares is an open space, parking, and other space requirement that needs to comply. Not to mention that the existing Municipal Public Cemetery is highly congested.

G. Sanitary Landfill

In compliance with the Solid Waste Management Act or RA 9003 projected area for the sanitary landfill was computed using an average waste generation of 0.5 kg/person/day. The estimated area requirement for sanitary landfill is 5.67 hectares. This was raised to **8.5 hectares**. However, due to in-migration that may be brought by industrial investments and warehousing, this will significantly increase the daily local waste generation.

The total additional land requirement for future urban development based on the above land use categories summed up to 1,706.62 hectares or 290% increase in urban use.

3.4.2 AVAILABLE SUPPLY

An inventory of available land supply shows that a total of 5,119.71 hectares is considered buildable considering the compliance to basic laws and the physical constraints that apply to the locality (Appendix E). Overlay mapping or sieve mapping facilitate the identification of buildable and unbuildable areas. The result of the said analysis shows that there are available lands suitable for development in each barangays except for Cacawan and Poblacion area composed of barangays Zone I, Zone II, Zone III, Zone IV, and Wawa. Among the barangays, Pambisan Munti has the highest available land for development with 879.15 ha, followed by Maliancog with 580.22 ha, and Calingang with 548.34 ha.

Table LU-2. Available Land Supply per Barangay, Year 2017

NO.	BARANGAY	AREA (ha)	NO.	BARANGAY	AREA (ha)
1	Pambisan Munti	879.15	20	Banilad	59.77
2	Maliancog	580.22	21	Panggulayan	56.10
3	Calingag	548.34	22	Papandayan	50.64
4	Malaya	455.08	23	Sta. Rita	36.68
5	Del Razon	325.05	24	Bangbang	36.54
6	Pambisan Malaki	255.86	25	Marfrancisco	34.20
7	Inclanay	253.40	26	Ranzo	25.35
8	Marayos	227.37	27	Palayan	22.87
9	Quinabigan	213.87	28	Sta. Maria	17.16
10	Maningcol	189.93	29	Anoling	14.23
11	Rosario	166.96	30	Sto. Nino	2.08
12	Guinhawa	115.61	31	Lumambayan	1.20
13	Nabuslot	98.67	32	Cacawan	0.00
14	Buli	87.43	33	Wawa	0.00
15	Sta. Isabel	86.07	34	Zone I	0.00
16	Pili	81.47	35	Zone II	0.00
17	Bacungan	75.43	36	Zone III	0.00
18	Sabang	62.74	37	Zone IV	0.00
19	Pagalagala	60.21		TOTAL	5,119.71

Source: ArcGIS Computations (2017)

In the overlay mapping process, the following areas were considered not suitable for development as compliance to basic land use and land-related laws and issuances applicable to the municipality which are enumerated below:

- **DENR AO 15-90: Development and Management of Mangrove Resources** states that all mangrove and mangrove resource must be protected and shall not be utilized for economic gain and/or any other purpose

except for its natural purpose, windbreaker and coastal protection, fish habitat and breeding ground and ecological balance. A total of 75.63 hectares is covered by mangrove.

- **PD 705: The Revised Forestry Code.** All areas having a slope of 18% and above shall be non-alienable and disposable land and shall not be subject to land titling and ownership. However, 50% above was considered in the overlay process. The slope map provided by the BSWM shows that 50% and above slope covered 6,657.35 hectares.
- **PD 1067: Philippine Water Code.** All water bodies including rivers and lakes covering 307.15 hectares.
- **RA 8371: Indigenous People's Rights Act.** All areas with Certificate of Ancestral Domain Title (CADT) covering 1,490.67 hectares.
- **RA 8435: Agricultural Fishery and Modernization Act and AO 20** which states that irrigable and irrigated areas should be protected and shall not be subject to land conversion. A total of 3,553.71 hectares are covered by this law.
- **RA 10121: Disaster Risk Reduction and Management.** Integrating the disaster risk management in local plans and adopt necessary measures to mitigate the impact. Based on the assessment, the municipality may be exposed to five types of geologic and hydrological hazards namely landslide, flooding, storm surge, liquefaction, and earthquake. However, only flood and landslide with high to moderate susceptibility were considered due to the availability of maps. The landslide may affect 12,549.05 hectares while flooding may submerge 2,656 hectares.
- Existing land use such as commercial, residential, and institutional areas covering 504.33 hectares and road networks covering 174.30 hectares were also considered.

3.5 PROPOSED LAND USE

In crafting the land use proposal, CLUP 2000-2010 became the major reference materials that influence the allocation of future land uses. It is because the plan has been implemented for the last decade. The strength and weaknesses including challenges in implementation stage have been tested. The CLUP 2015 to 2045 is an attempt to carry out lessons learned from the previous plan. The use of doubling time for this planning cycle was decided to allow early preparation and necessary adjustment of the anticipated scenario. This is to at least advance planning so it is not easily overtaken by events. On the contrary, it cannot be discounted that if planning fall-short, outdated development concept can still happen. Hence, it is a must to review the plan every five years and make the necessary adjustment if needed to cope with the changing situation.

The protection policy covering irrigated lands is another major consideration in shaping the urban form and assigning future land uses. Food security versus investment opportunity became the subject of argument in several consultations which resulted in adjustment of the Urban Corridor identified in the previous CLUP.

Appendix F shows the Proposed General Land Use Map while Appendix G shows the Proposed Urban Land Use Map. In addition, Appendix H shows the Proposed Land Use for Northern Barangays

3.5.1 THE URBAN CORRIDOR

The depth of the Urban Corridor is 250 meters on both sides of the said roads, reckoned from the edge of the road rights-of-way. It covers portions of the following barangays: Bangbang, Cacawan, Del Razon, Malaya, Maliancog, Nabuslot, Pagalagala, Palayan, Pambisan Malaki, Pambisan Munti, Panggulayan, Papandayan, Quinabigan, Sta Isabel, Sta. Maria, Sta. Rita and Sto. Niño.

The contention behind the identification of the Urban Corridor is simply to pave the way for future development opportunities by preparing spaces to accommodate commercial activities and providing legal grounds to the relaxed conversion process. However, it was realized lately that there might have been some potential consequences overlooked. In particular, the allowed depth of 250 meters on both sides of the Urban Corridor literally translates to 1,189.98 hectares majority of which are prime agricultural lands. Conversion of such a huge area will undoubtedly affect agricultural production should the future allow. Hence, an argument of opening the 1,189.98 hectares to urban development. After a series of consultative workshops, adjustments were made on the Urban Corridor which tantamount to the preservation of wider prime agricultural land and the opening of huge marginal lands for urban development. The adjustment made in the Urban Corridor include the following:

- The development along the Urban Corridor traversing Sta. Rita to Papandayan will be maintained in 250 meters depth on both sides.
- From Panggulayan to Pambisan Munti and from Quinabigan to Del Razon, Urban Corridor will be trimmed down to 100 meters on both sides

Maliancog shall be used for agro-industrial development and industrial-based commercial particularly warehousing. Whereas, residential-commercial-institutional development may be directed towards unutilized agricultural areas in Pambisan Munti that will serve as a new development site

As a general policy however, prime agricultural areas that incidentally fall within the specified urban corridor will remain as agricultural and will be certified prime agricultural areas if needed.

The Urban Corridor follows the “natural” tendency of urban growth forming linear sprawl following major roads. While the Land Use Plan allows this pattern, the following issues shall be addressed:

- The corridor has a tendency to have a sideward expansion impacting on prime agricultural areas.
- The high level of population and intensity of land use along these major roads causes roadside frictions and increases the occurrence of road accidents.
- Restrictions on usage of the National Highway

The following policy directions shall address these key issues:

- The 250-meter and 100-meter “urban limit” shall be strictly implemented.
- Deep building setbacks shall be required in accordance with the regulations of the DPWH, with at least 10 meters on both sides of the National Highway. Parking lots shall have clearly defined entry and exit points and layouts that cause the backing of vehicles to the major roads shall be discouraged.
- Permitted uses within the Urban Corridor shall include residential, commercial, institutional, parks and recreation and light industrial. Light industrial use, however, shall be subject to specific conditions that may be deemed necessary to maintain compatibility with other uses.
- Buildings with 4 storeys and above are subject to additional requirements (e.g. structural design analysis, soil testing, etc.) prepared and signed by a licensed structural engineer.

3.5.2 THE URBAN CORE

The Urban Core Development Area originally includes the Poblacion Zone I-IV and Wawa will now incorporate Sta. Rita, Cacawan and Marfrancisco which was previously known as the Urban Core Fringe District. As the center of commerce and trade, compact development thru densification and in-filling will be maintained in Urban Core to maximize land value. The Urban Core will be characterized by compatible mixed uses of commercial-residential-institutional but will be dominated by high-intensity commercial at Poblacion Zone I-IV and Wawa. In particular, Marfrancisco Triangle has a high tendency to form high-intensity commercial area influencing Mindoro island and the rest of MIMAROPA.

Priority infrastructure development within the Urban Core is the construction of a well-planned drainage system to address flood issues.

3.5.3 RURAL GROWTH CENTER

Rural developments that are normally found within the barangay centers are largely dominated by residential use with interspersing basic institutional and neighborhood type commercial. It will be maintained as it is in this plan. Generally, if new development needs to be introduced the following will dictate the proper location:

- Land use is marginal agricultural as indicated in this plan
- Slope category is not more than 30% if located in upland barangay or not more than 18% if located in lowland barangays
- Not within high flood susceptibility or high/moderate landslide susceptibility as indicated in the MGB map

In the case of Sta. Isabel, Guinhawa, and Pili additional 76.07 hectares will be allocated for residential use explicitly shown in the proposed land use map. In barangay Pili, the proposed agro-industrial area in 2000 which did not prosper for 17 years, will be converted into tourism area. It will cover a total of 3.08 hectares parallel to Tablas Strait, extending past the provincial road.

Working to become a city, Pinamalayan anticipates 11.75 hectares of one-stop shop government complex to be located in barangay Papandayan either along the national road or 500 meters to one kilometer away from SRNH. In the same barangay, an auction market with holding a pen for fowls and livestock can also be placed beside the existing slaughterhouse.

3.5.4 AGRICULTURAL AREAS

The technical working group of Pinamalayan where the Municipal Agriculture Office is properly represented conducted a GPS survey to update the Strategic Agriculture and Fisheries Development Zone (SAFDZ) map. Primarily, the updating is an attempt to map-out production areas in five categories namely irrigated rice areas, rainfed rice areas, fishpond areas, mangrove areas and other agricultural areas. Basic laws and issuances that protects Irrigated rice areas include RA 7160, AFMA, AO 20 and MC 54, not to mention other issuances. In compliance therewith, agricultural areas will be categorized into protected agriculture areas and general agricultural areas. Mangrove, being protected by other laws will be disaggregated from the general production area. Obviously, non-agricultural development may intrude in general agricultural areas (except in fishpond) but are highly restricted in protected agricultural areas.

3.5.5 FOREST AREAS

As per land use accounting forestlands has a total land area of 10,042.55 hectares which today only 5,587 hectares remained as forested. This plan is concerned with protecting forested areas and remaining forestlands for purposes of having a life support system particularly to have ample water supply. Forest areas will have two general categories, protection and production forest in consideration of economic activities, legal land status and physical characteristics. Protection forest shall include the following:

- Forestlands which remains forest vegetation cover accounted to 5,587 hectares or 55 percent
- Forestlands with a slope of more than 50 percent but no forest vegetation having a total land area of 1,504.9 hectares or 26.93
- Considered watershed covered by either national law or local ordinance

Similarly, indicators used to identify protection forest will be considered to identify production forest. Production forest will be as follows:

- Forestlands issued with the tenurial instrument by the Department of Environment and Natural Resources (DENR)
- Forestlands not classified above

All activities within the forestland covered by CADT/C shall be subject to free and prior consent by the existing indigenous group.

3.5.6 OTHER LAND USES

Residential

Proposed residential areas are located in barangays Guinhawa (21.00 ha), Pili (5.64), Sta. Isabel (49.33), Cacawan (2.56 ha), Papandayan (8.33 ha), and Pambisan Munti (27.49 ha). This will have an aggregate area of 114.45 ha based on GIS computations. Currently, these lands are classified as agricultural or residential. These sites were chosen due to their low to moderate susceptibility to flood and landslide. There are also existing roads in the area, hence making it accessible.

Commercial

The proposed commercial areas have an aggregated area of 16.88 ha located in barangays Zone II (0.824 ha), Zone III (0.777 ha), Marfrancisco (1.508 ha), Cacawan (1.326 ha), Sta. Rita (1.525 ha), Papandayan (4.602 ha), and Maliancog (6.321 ha). These areas are mostly located in urban barangays proximate to existing commercial areas and are in line with the development direction of Pinamalayan because it is within the Urban Corridor. Furthermore, these areas have moderate susceptibility to flooding. The commercial area in Maliancog is intended as a warehouse facility characterized as low susceptibility to a landslide.

Institutional

Chosen sites for proposed institutional areas are in barangay Papandayan (8.99 ha) and Sta. Rita (4.82 ha). The former is located in two different sites, one along SRNH and one approximately 400 meters from SRNH. The latter is also along SRNH where the Municipal Disaster Risk Reduction and Management Office (MDRRMO) and Municipal Evacuation Center is located. In total proposed institutional areas accounts to 13.80 ha. The location based on the MGB map is low susceptibility to flooding.

Industrial

Proposed industrial site is located in barangays Maliancog (23.37 ha) and Malaya (23.11 ha) which is near the Secondary Growth Center and approximately 600-2,000 m away from the airport. It has an aggregate area of 50.49 ha with low susceptibility to a landslide. Currently, it is classified as agricultural land.

Parks & Recreation

Located in barangay Cacawan within the Urban Core, the proposed recreational area is at 6.01 ha. The chosen site currently classified as agricultural is where the sports complex intended to be built.

Cemetery

The location of the proposed cemetery is near SRNH located in barangay Papandayan. It has an area of 3.52 ha and is currently classified as agricultural with moderate susceptibility to flooding. Another proposed cemetery is located in barangay Calingag with 4.3 ha with low susceptibility to a landslide. Combined, this constitutes 7.82 ha in total.

Sanitary Management Facility

The proposed sanitary landfill has an area of 7.68 ha located in barangay Calingag. It is characterized by flat to level slope currently classified as agricultural. The area is approximately 1,000 meters away from the proposed industrial site.

Tourism

The proposed 12.45 hectares in the coastline of barangays Guinhawa and Pili is currently classified as agricultural. Since it is adjacent to the current tourism area, it will serve as an extension.

Roads

To decrease travel time from proposed Secondary Growth Center to Urban Core, a 20.079 km road was proposed from Pambisan Munti going to Quinabigan via Malaya, Pambisan Munti to Papandayan via Maningcol, and Pambisan Munti to Nabuslot via Calingag.

Another proposed road that will serve as an alternate route to ease traffic is the Coastal Greenway Area. It is a delineated strip of land located 40 meters away from the shoreline and is parallel to the SRNH. This will be a coastal road from the *Poblacion* and then exiting to Quinabigan.

Based on the Arable Land of 16,904.20 hectares and the Existing Rural Road of 229.67 kilometers, the projected road network requirement until year 2057 for the Municipality of Pinamalayan is 23.89 kilometers.

Table LU-3. Projected Road Requirement

Year	Urban Population	Projected Road Requirement (km)	
		Urban	Rural
2019	32,823	19.3557	23.88888
2020	33,160	79.5840	
2025	34,905	83.7720	
2030	36,741	88.1784	
2035	38,672	92.8128	
2040	40,704	97.6896	
2045	42843	102.8232	
2057	48,450	116.2800	

Auction Market

Another proposed land use is the Auction Market with holding pen at 1.21 ha beside the existing slaughterhouse.

In summary, Table LU-4 shows the existing land use, demand projection, proposed land use, and the proposed total areas per land use category. Among the land uses that will increase includes residential, commercial, institutional,

industrial, parks and open space, cemetery, and auction market. On the other hand, agricultural mixed areas will decrease by 214 ha. The summary table also shows that the proposed land use development does not exceed 10% of present agricultural areas (1,692. 42 ha).

Table LU-4. Summary Table for New Land Use Allocation

Land Use Category	Land Area (ha)			Increase/ Decrease	Proposed Total Areas
	Existing	Demand	Proposed		
URBAN USE	584.64	324.46	201.62	201.62	786.26
Residential	442.67	162.34	114.45	114.45	557.12
Commercial	24.11	49.64	16.88	16.88	40.99
Institutional	54.3	12.87	13.8	13.8	68.1
Industrial	17.01	93.75	50.48	50.48	67.49
Infrastructure	25.53	0	0	0	25.53
Recreational	2.23	0	0	0	2.23
Parks and Open Space	6.46	5.86	6.01	6.01	12.47
Tourism	12.33	0	0	0	12.33
AGRICULTURAL USE	16,904.20	0.00	0.00	214.03	16,690.17
Mixed Agricultural Areas.	17266.536	0	0	214.03	12,598.01
Irrigated Rice land	3,553.71	0	0	0	3553.71
Rain-fed Rice land	538.45	0	0	0	538.45
FOREST AND OTHER FOREST USE CATEGORY	10,042.55	10,042.55	10,042.55	0	10,042.55
Forest	10,042.55	0	0	0	0
INLAND WATER USE	482.86	0	0	0	482.86
Mangrove	75.63	0	0	0	75.63
Fish Pond	93.26	0	0	0	93.26
Quarrying	11.77	0	0	0	11.77
Rivers/Creeks	302.2	0	0	0	302.2
OTHER LAND USES	211.74	13.5	12.41	12.41	224.15
Cemetery	9.58	4	3.52	3.52	13.1
Sanitary Landfill	2.72	8.5	7.68	7.68	10.4
Post-Harvest	2.46	0	0	0	2.46
Roads	170.42	0	0	0	170.42
Auction Market	0	1	1.21	1.21	1.21
Open Beach	26.56	0	0	0	26.56
TOTAL	28,226	10,381	10,257	428	28,226

Notes: Increase Decrease

3.6 PROPOSED LAND USE POLICY

In 2012, consultative meeting participated-in by members of Sangguniang Bayan and the TWG was conducted purposely to formulate proposed land use policies that will be incorporated in the Pinamalayan Integrated Zoning Ordinance (PIZO). During deliberation, relevant policies adopted by other municipalities were presented to guide the participants in decision making. At that time, CDRA is not integrated yet, hence, necessary policies recommended after CDRA shall herein be incorporated. Common complaints encountered in the implementation of 2000-2010 zoning ordinance were also considered. Suggested land use policies are herein enumerated:

3.6.1 PROPOSED GENERAL POLICIES

1. Farm-to-market roads and other barangay roads shall have a minimum right-of-way (ROW) of eight meters, wherein 6 meters is the roadway and the remaining 2 meters are inclusive of curbs, gutter, and covered canals, which will also serve as sidewalks for pedestrians.
2. All roads within the *Poblacion* should have provisions for sidewalks and pedestrian lanes.
3. Interior tourism sites shall have a minimum road width of six meters and pathways of three meters.
4. No PUV terminals for bus, van, or multicab shall be allowed within Poblacion area; instead, a grand terminal will be allowed in barangays Marfrancisco, Papandayan, Sta. Rita.
5. Land use for residential purposes shall be prioritized over all other land uses, especially in the allocation of hazard-free areas. The settlements exposed to hazards in both urban and rural areas shall be relocated to safer areas provided by the LGU.
6. Vulnerable settlements that cannot be relocated shall have an operational community-based disaster management plan.
7. Developments along shorelines, riverbanks, creeks, and the like, are allowed. However, these structures shall be required to install/construct protection walls and other forms of infrastructure-related mitigation measures, mangrove planting, tree planting, etc. or in any way depending on the situational needs. Moreover, these developments shall conform to the existing rules and regulations and other related existing laws. Regular assessment of old infrastructures as well as strengthening the monitoring capacity shall be done.
8. Future developments must comply with the legal easement provided in the Water Code of the Philippines.
9. The DENR policies on forest use, forest management, and other existing forest-related matters shall apply to all areas where other land uses have been identified within forest zones. Specifically, these concern the titled lands found in both Babahurin and Sabang watersheds, and within areas declared as ancestral domains.
10. The Barangay Captains shall monitor any development, such as renovation or construction of houses and other establishments and report any illegal construction at the Office of the designated Zoning Officer/Zoning Administrator/Engineering Office.
11. No advance ground works/site development in any form shall be allowed to proposed subdivisions, commercial, residential buildings, and the like, prior to the issuance of development and building permit unless granted with special consideration.
12. In order to ensure public safety, development will be prohibited in environmentally critical areas unless these provide necessary engineering solutions or mitigations. Based on the Republic Act on National Land Use Policy, an environmentally critical area refers to areas declared by law as:
 - a. Areas for natural parks, watershed resources, wildlife preserves and sanctuaries;
 - b. Areas set aside as aesthetic or potential tourists spots;
 - c. Areas which constitute the habitat of any endangered or threatened species or indigenous Philippine wildlife (flora and fauna)
 - d. Areas of unique, historic, archeological or scientific interests;
 - e. Areas which are traditionally occupied by Indigenous People (IPs)
 - f. Areas with critical slopes
 - g. Areas frequently visited and/or hard hit by natural calamities.
 - h. Prime agricultural lands
 - i. Recharge areas of aquifers
 - j. Water bodies
 - k. Mangrove areas
 - l. Coral reefs
 - m. Mossy and virgin forests
 - n. Rivers and river banks
 - o. Swamp forest and marshlands

- p. Foreshore lands
- 13. Littering is prohibited in all areas within the municipality.
- 14. Anchorage of both commercial sea vessels and commercial fishing vessels for temporary shelter during emergency situations shall be allowed in the river deltas of barangays Wawa and Lumambayan. However, docking is not allowed under normal circumstances.
- 15. Marine Protected Areas shall not be opened to Mariculture activities.
- 16. The following structures and activities shall not be allowed within the Urban Core area.
 - a. Drying of *copra* or *palay* on the road networks.
 - b. All types of warehouses
 - c. Structures of light material or makeshift houses, including informal settlers
 - d. Any form of backyard or commercial-scale poultry and piggery
 - e. Rice or corn mills
- 17. Promote the use of green technology in urban development in compliance to green building code

3.6.2 PROPOSED POLICIES FOR SPECIFIC PROJECT AND LOCATION

The identified projects and location enumerated below shall be subject to specific conditions.

1. All Car Wash Businesses
 - Presence of water supply
 - Additional requirements such as certification from NWRB for their water supply
 - Provide drainage system if there is no existing drainage canal/water disposal treatment /catch basin
 - Sanitary design shall be followed
 - Minimum area requirement should be 25 square meters
 - If the suggested location is near bodies of water, the establishment should have a wastewater disposal system
 - With wastewater separator
2. Industries classified as High Intensity may be allowed within agricultural areas except for irrigated rice lands, classified as General Agricultural Zone in the PIZO, provided that the following requirements are complied:
 - Must comply with the minimum design standards of national agencies/concerned regulatory agencies (e.g. DOE, DENR, NWRB, DOH etc.)
 - Must secure necessary permits as may be required by the Local Government Unit
3. Cockpit arenas shall be subject to the following regulations:
 - Ratio of one (1) arena for every 100,000 population-based from the PSA survey
 - Ample parking space must be provided to avoid road obstruction
 - Must have a distance of 100 meters from the nearest residential area
 - Located within the agricultural areas except for irrigated rice lands, classified as General Agricultural Zone in the PIZO
 - Easement of 10 meters from major road networks
4. Public Utility Vehicle (PUV) terminals
 - Minimum area requirement of 500 sq. m
5. Motor shop and repair shop
 - Should be located outside of the Poblacion
 - Not allowed within residential areas
6. Supermarkets
 - Provision of parking space is required
7. LPG retailer/selling
 - Maximum of 5 cylinders only if located within Poblacion
 - Not allowed in residential areas

8. Warehouses
 - Minimum area of 3000 sq. m.
 - Specified location at barangay Maliancog
 - 20% is a non-buildable area
 - Ample parking area is required
9. Development on elevated areas with a slope of 18% and above
 - Drainage must be constructed following the contour
 - A split-type structural design must be adapted
 - Structural design signed by a licensed structural engineer
 - Slope protection measures must be provided (e.g., contouring, gabion, riprap, and others)
10. Junkshops shall be allowed within the Urban Corridor except in Sta. Rita and Marfrancisco, which is classified as General Commercial Zone in the PIZO, provided that the following conditions are complied:
 - Not within the major thoroughfares (e.g. national and provincial roads)
 - Shall be enclosed with a perimeter fence of at least 3 meters high.
 - Upon approval of the Zoning Ordinance, non-conforming junkshops shall not be allowed to operate
 - Minimum lot size is 500 sq.m.
 - Loading and unloading inside the property
 - With Garage and Parking inside
 - Works outside the property is not allowed (setback, easements/streets/access roads/shoulder)
 - 100 meters away from bodies of water
11. Upon approval of the Zoning Ordinance, non-conforming junkshops shall not be allowed to operate.
12. Funeral parlors should adhere to the HLURB guidelines and Sanitation Code
13. Lumberyards shall only be allowed to establish outside the Urban Core.
14. Vulcanizing shops will be allowed within the *Urban Core*, provided that there is enough space so that the customers are within three meters of the establishment. All necessary permits (e.g. Mayor's permit) and fire safety equipment (e.g. fire extinguisher) should be secured.
15. Firecrackers/fireworks manufacturers will be allowed only in agricultural areas, provided that the 200-meter radius of the said establishments are free from any structures. These should also be outside of residential areas.
16. Firecrackers/fireworks stores will not be allowed within Poblacion.
17. Rice mills are allowed only in agricultural areas.
18. Business operations withdrawing groundwater resources
 - Secure clearance from NWRB thru Pinamalayan Water District
 - Secure Barangay Clearance prior to the drilling of a water pump in their jurisdiction;
 - Drilling will only be allowed if local water system services (Level II and III) are not accessible
19. Copra/Palay buying station shall not be allowed within the Poblacion
 - Agricultural stores
 - Specifically, those selling additional fertilizers, feeds, agricultural inputs, charcoal, or other easily flammable materials, as well as cement
20. There should be a limit of stock in the store (e.g. maximum of 50 bags displayed) then the rest will be located in the warehouse; the supply should be replenished after selling all displayed items
21. LPG Warehouses
 - Should not be allowed in Urban Core
 - Minimum area requirement is at 600 sq. m inclusive of buffer and easement based on Building Code, with firewall and required planting strips
22. Welding Shops
 - Should not be allowed in Poblacion areas

- Must comply with requirements of ORMECO, or must have own transformer
 - Parking space is required
 - Strict provisions on setback and easement
 - Working outside the property is not allowed (e.g. on setback, easements/streets/access roads/road shoulder)
 - Provide concrete perimeter fence of at least three meters in height for shops with the industrial classification of B and C
 - Classified according to minimum areas:
 - a. Purely welding shops – 50 sq. m
 - b. Welding shops and body/motor repair and repainting (light to medium based on LTO criteria); minimum of 200 sq. m.
 - c. Large vehicles assembly (for heavy trucks) – minimum of 500 sq. m
23. Gasoline refilling/depot
- Should not be allowed in Urban Core
 - Should not be located in the general residential area
 - Located at commercial areas
 - 100 meters distance from school /bodies of water/hospital/church/public places (sabungan, plaza)
 - Consent for adjacent/among nearby properties
 - Firewall at both sides and near of the station; but if it's a corner lot facing roads, no need firewall
 - Wastewater treatment (covered with DENR Regulations)
 - Permits issuing division/personnel must see to it that applicants place business outside the Poblacion area
 - For existing, should have phase-out period of at least 5 years
24. Inclusion of Marine/Coastal Resources Management in the CLUP
- Review policies
 - Observe implementation and management
 - Adopt and implement best practices
 - Expand policy influence/enforcement to include the entire coastal area within the municipal jurisdiction
 - CRMF enforcement parameters are non-negotiable
25. Tourism
- those located along municipal/national/provincial roads require for their setbacks for planting trees (adherence to Building Code)
 - agri-tourism will not be allowed within prime agricultural lands
 - promotion of environment-friendly approaches on the development of tourism sites (e.g. regulate design standards, adopt best practices, etc.)
 - Imposition of strict waste management laws on tourism areas
 - Require establishments to have adequate power and water supply
 - Strict compliance of environmental laws among tourism establishments
 - Fish sanctuary development

IV. IMPLEMENTATION AND MONITORING SCHEME

The CLUP has an accompanying Zoning Ordinance that includes the CLUP's implementation and monitoring scheme in terms of land use regulations. This instrument includes the composition of all special committees that will be involved in the implementation, monitoring and review of CLUP and the ZO itself, wherever revision or updating is necessary. Duties and responsibilities of the implementing officers and committees are likewise stipulated in the local Zoning Ordinance.

With regards to the alignment of the CLUP to the national and regional development framework, the development vision, as well as the development thrust and strategies, provide a proper connection that will be implemented thru various programs and projects (PPs). These PPs shall be specifically integrated into the comprehensive development plan (CDP). The CDP, indicating the programs and projects towards achieving the municipal vision serves as an instrument for sectoral development. It shall be implemented thru the local development and investment program (LDIP) where prioritization took place. To streamline the local development agenda, joint executive and legislative development agenda are carried out.

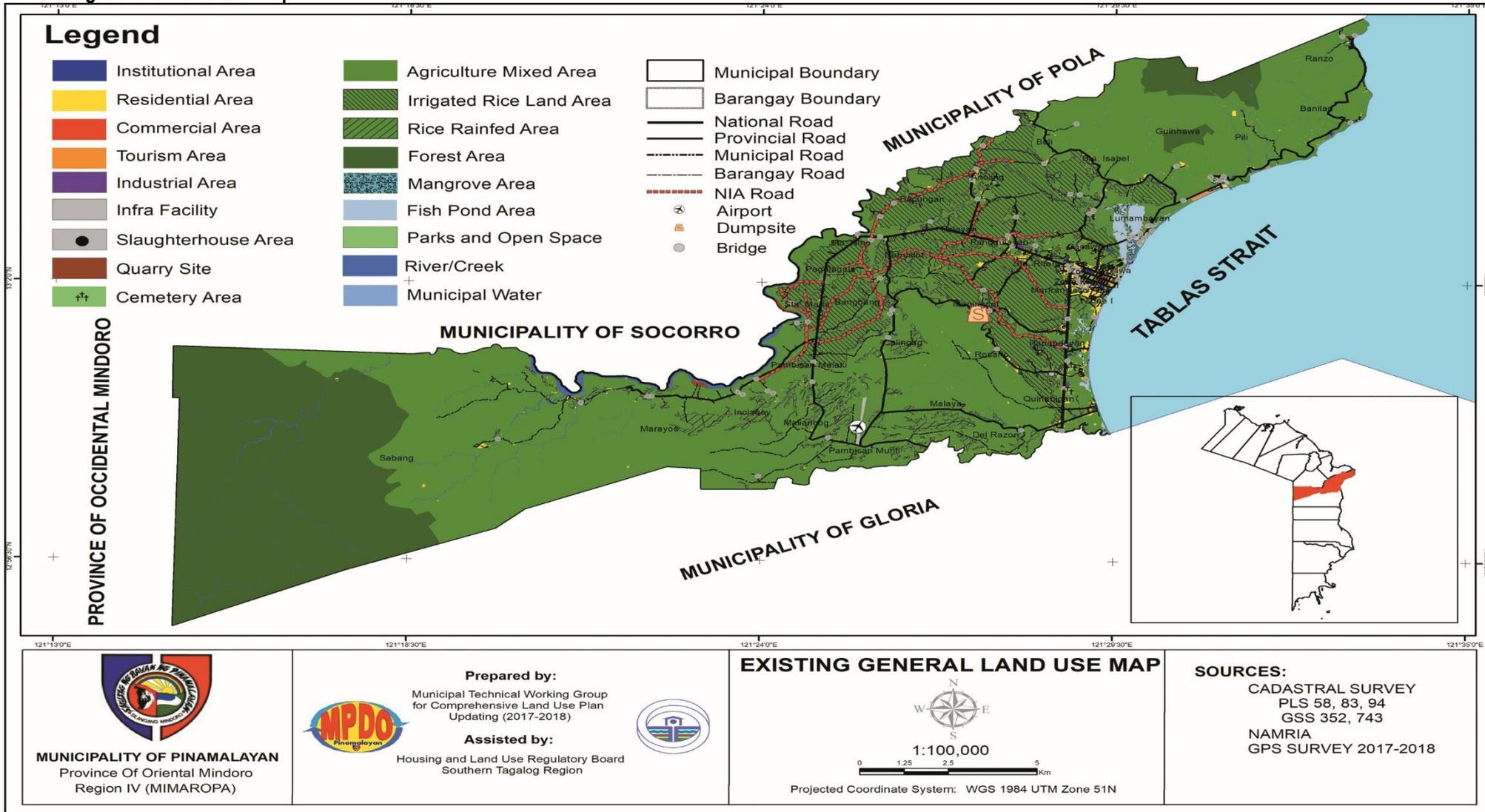
Hence, the implementing and monitoring scheme of the CLUP may be referred to the Zoning Ordinance for land use regulations, and it may be referred to the CDP for alignment to national and regional plans, as well as to the Local Development Investment Plan (LDIP) and Executive-Legislative Agenda (ELA) for prioritization of development agenda.

APPENDICES

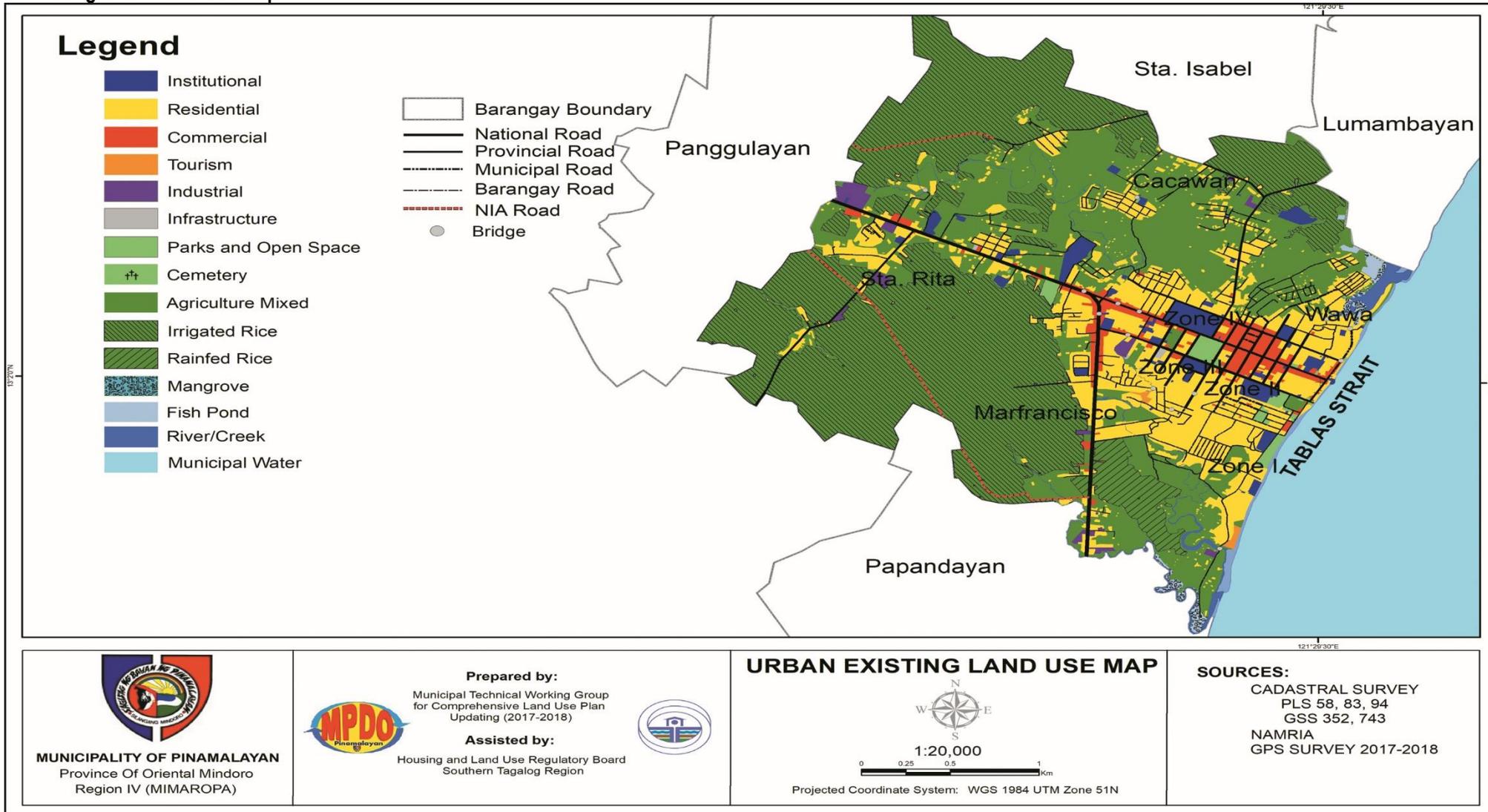
A. Success Indicators

DESCRIPTORS	SUCCESS INDICATORS
Central trading hub	• Establishment of malls
	• Functional/fully operational airport and seaport
	• Centralized and functional transport terminal with <i>pasalubong</i> center
	• Centralized trading posts
	• Constructed and functional warehouse
	• Sports complex
	• Presence of convention centers
	• Gaming and amusement center (such as casino, cockpit arena)
	• National/regional/provincial government center
Robust Economy	• More than P 100 M locally generated income
	• Continuous increase in number of investors
	• Increase in production of high-value commercial crops
	• Implementation of investment incentive code
	• Establishment of real estate offices
	• Increase in job opportunities
Tourist-centered economy	• Developed tourists spots of Pinamalayan
	• Presence of tourism support facilities
	• Trained in English language
	• Peace and order situation is acceptable
	• Available tourism code
	• Has tourism master plan
	• Three-star hotel
	• Presence of DOT-accredited hotels
	• Increase in travel agencies
	• Recognized for health and wellness program
	• Establishment of recreational facilities
	• 50,000 tourist arrivals per year
	Diversified agro-industrial activities
• Livestock processing plants (meat, dairy, and poultry products)	
Sustainable growth	• More than P 100 M locally generated income
	• Pursuance of organic farming
	• Low rate of households below poverty threshold
	• To be awarded as cleanest and greenest city
Social equity	• Presence of tertiary hospital
	• Presence of science school and state university
	• Increase in job opportunities (employment for IPs and PWDs)
	• Existence of socialized housing
	• Less informal settlers
	• Provision of welfare institutions for children, elders, women, drug dependents, mental disorder patients
	• Presence of GAD friendly establishments
	• Zero casualty in times of disasters

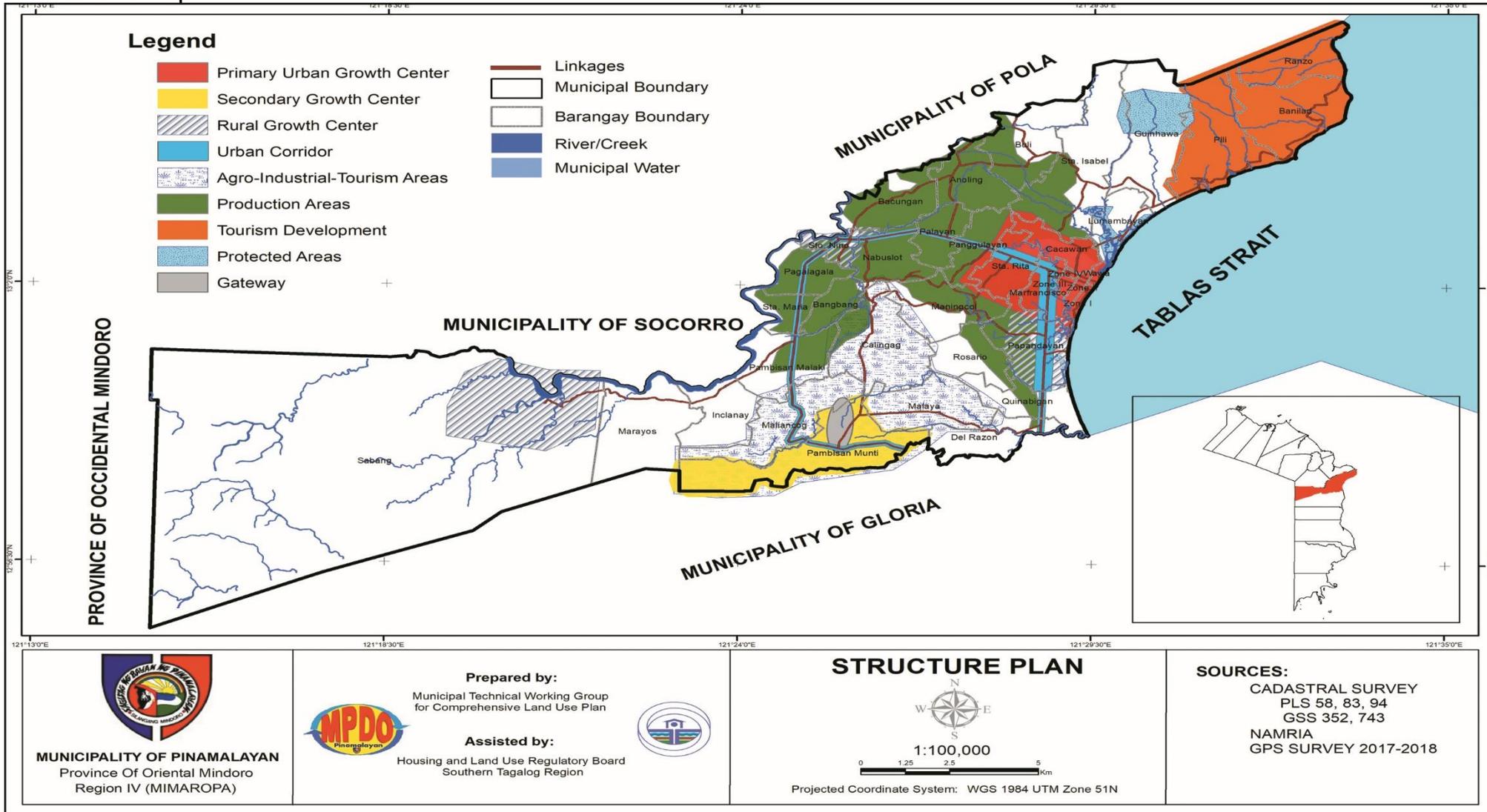
B. Existing General Land Use Map



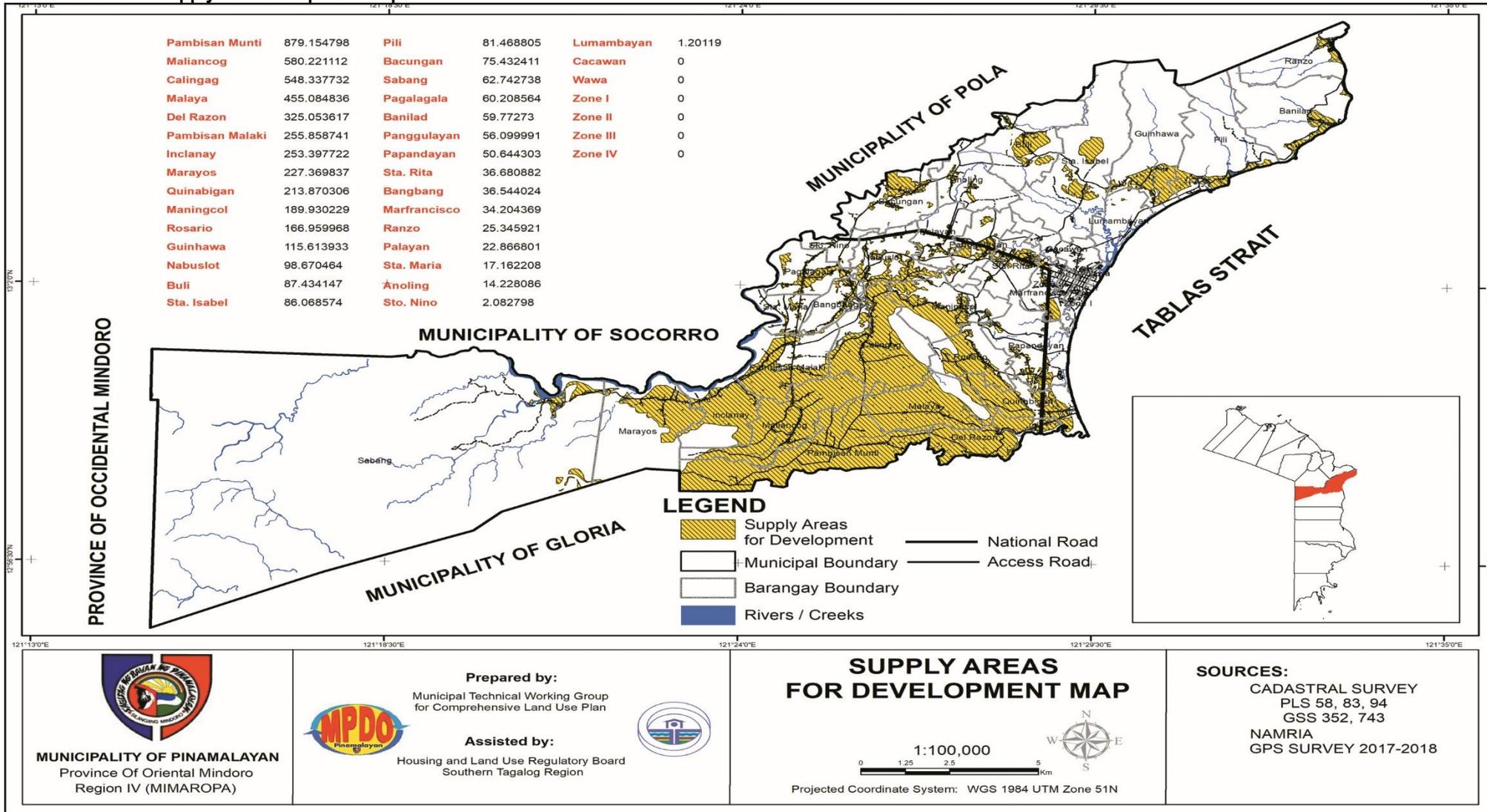
C. Existing Urban Land Use Map



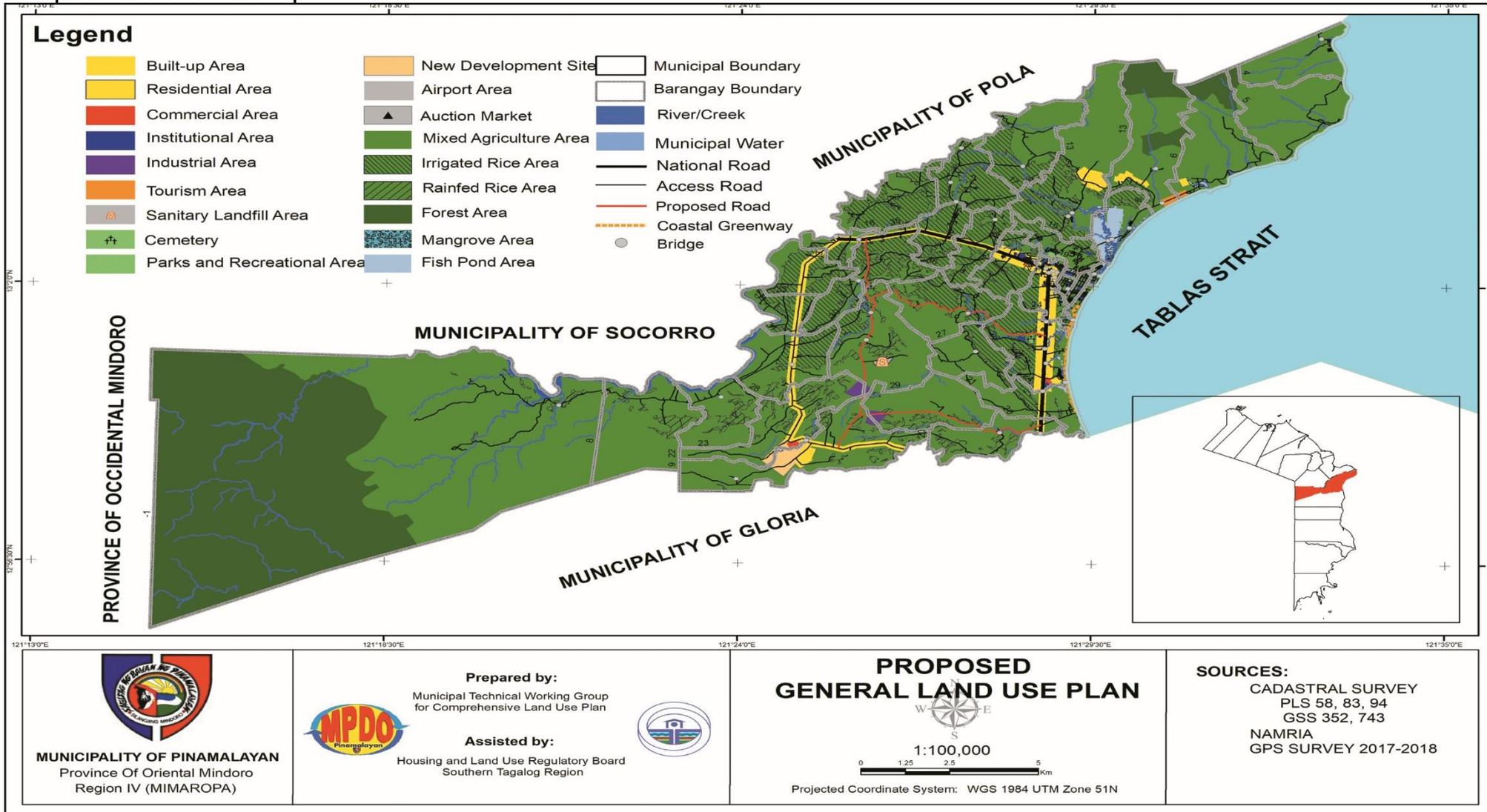
D. Structure Plan Map



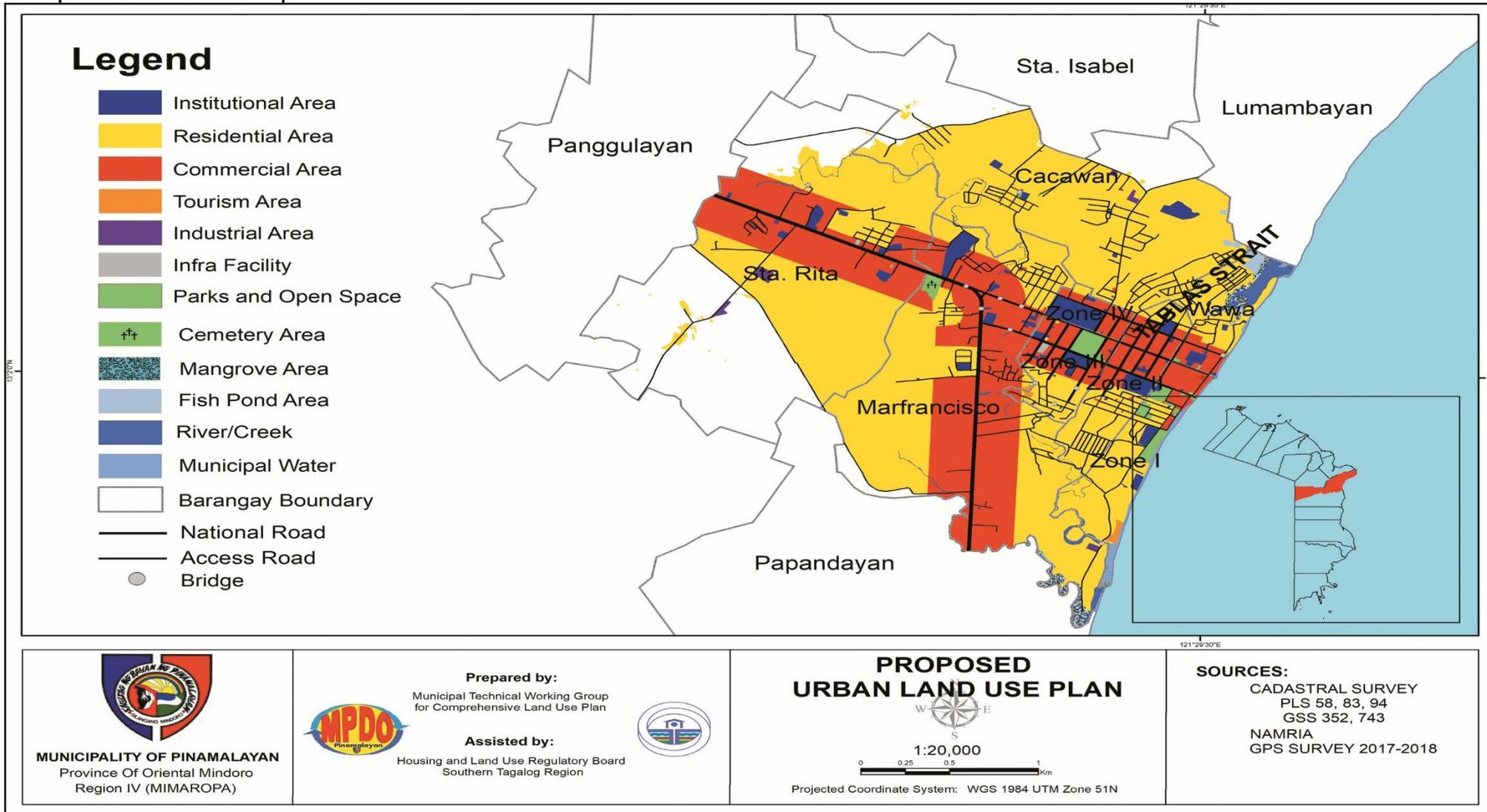
E. Available Land Supply for Development Map



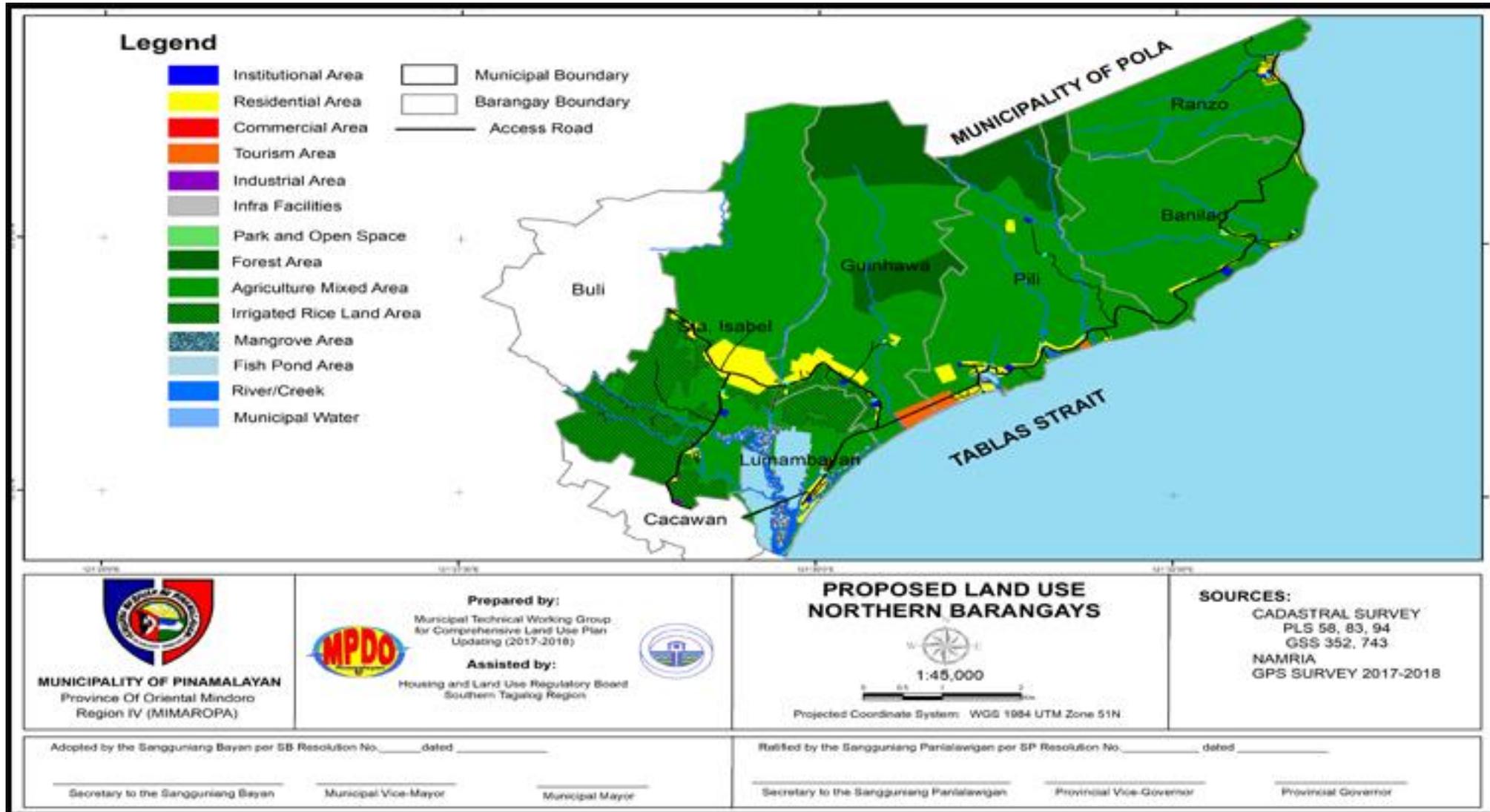
F. Proposed General Land Use Map



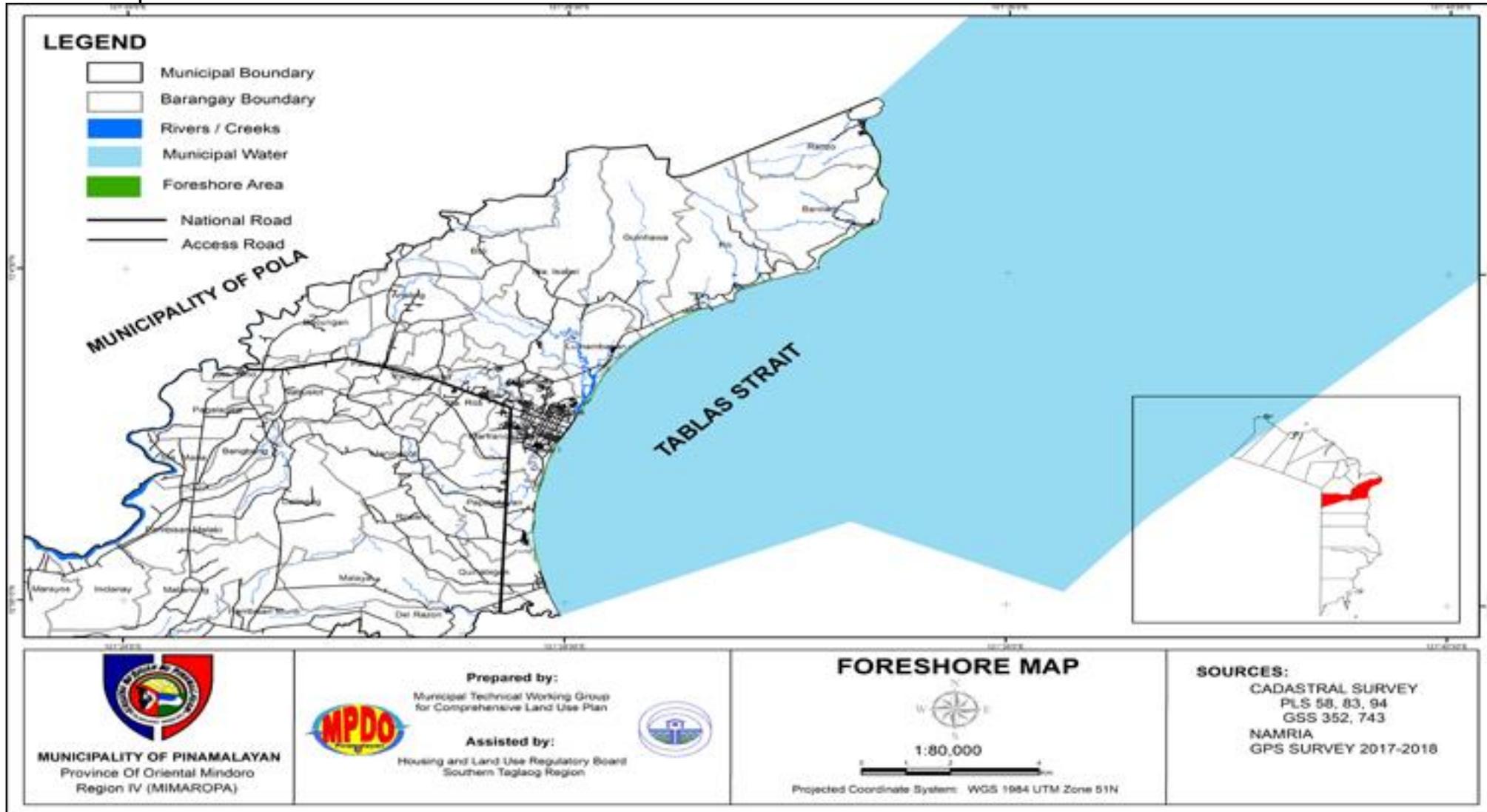
G. Proposed Urban Land Use Map



H. Proposed Land Use for Northern Barangays



I. Foreshore Map



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