

CREDO

WE BELIEVE THAT ...

God, in his infinite wisdom and generosity, guides man towards the path of happiness and the good life.

Our country is endowed with bountiful resources and its people gifted with sterling qualities of patience, intelligence and strength to meet whatever challenge may come their way.

True development is best guided by the democratic ideals of social justice, freedom and people empowerment.

With its resources and favorable geographic location, Legazpi City is endowed with the possibility of serving as center of Trade and Industry in Southern Luzon, in support of the National Development Vision.

The City Government of Legazpi propelled as it is by the committed and visionary leadership of its officials will be able to bring the community to higher levels of achievement for the good of all.

The workers in the City Government of Legazpi are all committed to serve the people to the best of their ability in an atmosphere of mutual respect and dignity.

Personal discipline, industry and perseverance of every Legazpeño shall enable us to help achieve the beautiful and intrinsic vision of the City's future.

VISION

The City of Legazpi shall stand as the model of a progressive community, where governance draws strength from an active and empowered citizenry and where social, economic and physical development is tempered by a commitment to democracy, social justice, balanced ecology, cultural integrity and the welfare of the future generation.

MISSION

The City Government of Legazpi shall promote economic growth and sustainable development and provide effective and efficient delivery of basic services under a climate of social justice with the active participation of all sectors of the community.

INTRODUCTION

This Land Use Plan as an integral part of the Comprehensive Development Plan of the City of Legazpi for the planning year 1999-2008, gives spatial dimension to the development strategy earlier adopted by the City Planning and Development Council through the City Land use Committee, and technically assisted by the City Planning and Development Office.

It serves as the basis for the development that will guide investments to be made by the private sector in the future, as well as the resource allocation of the local government of Legazpi in its annual investment plan.

In the allocation of land uses for the planning years 1999-2008, the adopted development strategy of agri-industrial cum-commercial development, the City of Legazpi's role as the emerging Commercial and Industrial Center of the Province of Albay and its mandated role as Administrative Center of the Bicol Region, were taken into consideration.

I - EXISTING LAND USE

1. Built-up Area

Legazpi City from 1990 to 1998 registered an increase in its built-up area from 1,890.00 hectares to 2,187.00 hectares. This averages to 37.12 hectares/per annum of land converted to urban uses such as Residential, Commercial, Industrial, Institutional, Agro-Industrial, Infrastructure & Utilities, among others, during the past 8 years. (see Annex "A").

Residential areas are dedicated for housing projects and dwellings of people. These areas will respond to the current and projected housing needs of the people in Legazpi City. Among major projects in this zone are residential subdivisions, resettlement areas, housing projects, condominiums, and tenement and socialized housing sites.

Commercial areas includes all types of wholesale, retail, and service activities addressing the needs of the city and even the contiguous areas of Daraga, Camalig, Manito, Sto. Domingo, and most municipalities of the Province of Albay. It comprises the Central Business District and the Alternative Business District created by the opening of the Tahao Road and which gave rise to aggressive commercial pockets in the area, as well as along highways, and the poblacions of most barangays of the city.

Industrial areas are intended for manufacturing, refining, fabrication, assembly, storage, mass production, including food processing, cottage industry, sawmills, and similar activities.

Institutional areas cover the major public and semi-public uses such as educational, cultural, religious, health, protective and government services to respond to the needs of the current and projected population.

Infrastructures and utilities focuses on the transport and circulation network, social transportation and public utility systems, among others. It includes the drainage system, communication, power, electrification and water resource infrastructures.

Parks and open spaces are dedicated for outdoor recreational and leisure activities such as public parks and playgrounds. It also includes cemeteries, memorial parks, among others.

This trend towards urbanization is the function of the role of the City of Legazpi as the regional administrative center of Bicol, the hub of commerce and trade; and the emerging center for urban services, such as those provided by banks, hotels, convention accommodations, restaurants, and communication facilities. It has also emerged as the institutional center of Bicol with its 61 schools for the three levels of education. Forty-four (44%) percent of these institutions is urban-based, while 56% is rural-based.

This urbanization pattern was regulated by the implementation of the existing City Zoning Ordinance (Ordinance No. 778, series of 1977, as amended by Ordinance No. 05, series of 1990) where urban land uses are judiciously decided to maximize utilization of the City's land area.

2. Agriculture

Agriculture as the major land user in the City, has a total of 12,000.00 hectares allocation as of 1990. Due to reclassification and conversion to other non-agricultural uses, among other reasons, this area reduced to 11,198.09 hectares or an approximate decrease of 6.68% (801.91 hectares) over the 8-year period.

It is projected to decrease by about 10% to give way to urban uses that are likely to happen in the course of population increase, diversified economic and industrial activities and related demographic movements.

3. Forest

Forest land in the City was targeted in 1990 to be at 864.70 hectares. This same area remains classified as forest land to ensure ecological balance (see Annex “E”). This is despite the fact that portions thereof in actual utilization, are noted to be open grass/shrub lands. Public and private interventions in these areas will be limited to reforestation, rehabilitation and maintenance of the vegetation.

This retention is due to the national policy on forest land classification, that land areas with slopes 50% or greater shall remain classified as forest lands. These are located mostly in Barangay Buenavista and portions of Barangay Cagbacong, and San Francisco in the southernmost tip of Legazpi. The same is true with the identified forest areas within the national park at the slope of Mayon Volcano which needs to be retained.

4. Grassland/Pasture

The 1990 figures for this land use category was 4,807.80 hectares. However, in 1998 it was estimated to be at 4,969.58 hectares or a 3.36% (161.78 hectares) increase over the 8-year period. This may be partially attributed to the continuous cutting of coconut trees without a determined plan for replacement, which transforms the area into grassland/pastureland.

Areas mostly affected by this phenomena are the southern barangays of Legazpi, specifically Estanza, Taysan, Homapon, Banquerohan, San Francisco, Imalnod, Mariawa, Bariis and Cagbacong, where licensed operators for coco lumber dealership and processing are in existence.

5. Special Uses

Five special uses are identified for Legazpi City, viz: Mining and Quarrying, Military Reservation, Airport, Sanitary Landfill and National Park. These categorization are in conformity with the 1998 HLURB Guidelines. Except for National Park (with 857.90 hectares) these were not specified in the 1990 Land Use of Legazpi.

A total of 1,201.03 hectares are delineated for these uses.

5.1 Mining/Quarrying

In 1998, about 274.31 hectares or 1.34% of the City's total land area are devoted for this purpose. Activities under this category are mineral extraction and sand/gravel/boulder quarrying. These are mostly in barangays Taysan, Estanza, Homapon, Maslog, Puro and Lamba, for the former and barangays Padang, Matanag, Boña and Mabinit, for the latter.

5.2 Military Reservation

This type of special land use covers an estimated total land area of 12,07 hectares, and is situated within the limits of the City's urban center, particularly Barangay EM's Barrio (#1).

5.3 Airport

Considered as one unique feature in the locality, this special land use type occupies an approximate area of 56.75 hectares or about 0.28% of the City's total land area, located within Barangays Cruzada and Bogtong in the urban center.

5.4 Sanitary Landfill

This environmentally critical use is arbitrarily being classified as a special use due to the special concern in its location. This is a use not identified either in 1990 nor in 1998. A specific location which answers the DENR's requirement is being identified for this purpose within the planning period. Estimated to answer the solid waste concerns of the City's more than 141,000 population, a 15.00 hectare lot will serve for 20-25 years.

5.5 National Park

In compliance with certain national mandates, the 1990 area allocation of 857.90 hectares for this type of special use was retained in 1998. (see Annex “E”).

Details of the comparative use of land in Legazpi City from 1990-1998 are in the following tables.

Table 1 enumerates the Comparative General Land Use for the entire City of Legazpi for the period 1990-1998.

Table 1. **Comparative General Land Use**
City of Legazpi: 1990 & 1998

Land Use Category	1990 Land Use Plan		1998 Existing Land Use	
	Area (Has.)	%	Area (Has.)	%
Built –Up	1,890.00	9.26	2,187.00	10.71
Agriculture	12,000.00	58.77	11,198.09	54.84
Forest	864.70	4.23	864.70	4.23
Grassland/Pasture	4,807.80	23.54	4,969.58	24.34
Special Uses				
Mining/Quarrying	-	-	274.31	1.34
Military Reservation	-	-	12.07	0.06
Airport	-	-	56.75	0.28
Sanitary Landfill	-	-	-	-
National Park	857.90	4.20	857.90	4.20
Totals	20,420.40	100.00	20,420.40	100.00

Built-Up Area/Urban Land Uses

Table 2 following enumerates the Comparative Built-up Area (Urban Land Uses) in Legazpi City for 1990-1998.

Table 2. **Comparative Built-up Area (Urban Land Uses)**
City of Legazpi: 1990 & 1998

Land Use Category	1990 Land Use Plan		1998 Existing Land Use	
	Area (Has.)	%	Area (Has.)	%
Residential	980.00	51.85	1,160.00	53.04
Commercial	200.00	10.58	139.42	6.38
Industrial	300.00	15.87	300.00	13.72
Institutional	145.00	7.67	212.43	9.71
Infrastructure and Utilities	250.00	13.23	285.33	13.05
Parks/Playground & other Recreational Spaces	-	-	3.57	0.16
Tourism	-	-	14.47	0.66
Others				
Buffer Zone/Greenbelt	15.00	0.80	14.28	0.65
Agro-Industrial	-	-	57.50	2.63
Totals	1,890.00	100.00	2,187.00	100.00

1. Residential

Residential land in Legazpi has increased by 18.37% or 180.00 hectares from 980.00 hectares in 1990, to 1,160.00 hectares in 1998. This is mainly due to the establishment of 91 residential subdivisions from 1993 when approval of subdivisions was devolved to the local government. An average of 20 hectares per annum was developed as settlement areas in the city. This significant performance in this sector was triggered by the supportive national housing policies of the five (5) shelter agencies: HLURB, HIGC, HDMF, HUDCC, and NHMFC. (see Annex “B”).

2. Commercial

The City’s existing commercial land covers approximately 139.42 hectares less than what was projected in 1990 of 200 hectares. Commercial development was adversely affected by the economic crisis that hit Asia with its effect felt in all the countries within the Asean Region. The Philippines was one of those hardly affected, with its effect on the region.

3. Industrial

In 1990, land allocation for industrial use was 300.00 hectares. As of 1998 however, majority of the 300.00 hectares which were originally intended for industrial use, still remained in its original under-utilized agricultural and open grassland status. These are mostly areas in Banquerohan, Lamba, Maslog and Padang. Among the proposed projects under this use is the Special Economic Zone, approved under Presidential Proclamation No. 1249. The performance of the industrial sector was affected similarly by the Asian economic crisis.

4. Institutional

A total of 145.00 hectares for this use was allocated in 1990. In 1998, this use covered an estimated area of 212.93 hectares brought about mainly by the increase of areas for school buildings, government offices, and other public buildings. This use is dispersed in the urban and rural areas of Legazpi.

5. Infrastructure & Utilities

The 1990 allocation of 250.00 hectares was intended only for transportation, specifically, roads and streets. Area devoted for this purpose is recorded (as of 1998) at 285.33 hectares, showing a 35.33 hectare or 14.13% increase.

Under the new HLURB guidelines, coverage for this land use category include not only roads and bridges, but other utilities such as: drainage system, communication, power and water facilities.

6. Parks/Playgrounds & Other Recreational Spaces

About 0.02% or 3.57 hectares of the City's total land area is devoted for this purpose, as of 1998. As the category implies, covered are those areas used for recreation and leisure.

7. TOURISM

An estimated total land area of 14.47 hectares is classified under this category. Covered by this type of land use are those areas considered as tourist attractions/destinations – both natural or historical and man-made.

8. OTHERS

8.1 Buffer Zone/Greenbelt

Under this sub-category, identified primarily are the strips of land parallel to the Legazpi Airport runway, both sides. As of 1998, estimated land area for this purpose is at 14.28 hectares.

8.2 Agro-Industrial

This refers to the proposed Bicol Regional Agricultural-Industrial Center (BRAIC) endorsed by the Regional Development Council (RDC) ROV, consisting of 57.50 hectares. Closely tied to the economic condition of the country, the development of this area was likewise on-hold.

II - GENERAL OBJECTIVES

1. Sustainable development to give meaning and substance to the globally accepted dictum of “meeting the needs of the present generation without compromising future generations to meet their own needs”.
2. Maximum agricultural production through modernization and industrialization.
3. Industrial estate/ecozone development and commercial development involving the utilization of more capital investment drawn from within and outside the city.
4. Environmental protection and management, alongside disaster mitigation and preparedness.
5. An effective and responsive delivery of basic services with the complementation of both government and private sectors.

Note: As taken from the City Comprehensive Development Plan , 1999-2008 of which this Land Use Plan is an integral part.

III - DEVELOPMENT STRATEGY

Agri-Industrial Cum Commercial Development

IV - LAND USE SECTORAL GOALS, OBJECTIVES & POLICIES

GOAL:

To effect a rational and judicious allocation, development and management of land to ensure that it can be used across many generations without jeopardizing, but in fact enhancing, its value.

OBJECTIVES:

- To allocate land uses that will promote productivity, ensure harmonious settlement patterns and provide access and mobility to areas of productivity.
- To promote the efficient and equitable acquisition, utilization and disposition of land as a limited resource and valuable commodity.
- To regulate the rational allocation of land by various land uses based on population growth and economic development trends; and the vision of the City.
- To effect an efficient settlement pattern for better access by the population to basic services, facilities and utilities.
- To identify environmentally critical areas to deflect development, population centers and other high-risk activities from locating in these areas.
- To accelerate growth in less developed areas within the City through regulatory measures such as investment incentives and identification of priority development areas.
- To minimize land use related conflicts that arise from incompatible uses.

GENERAL POLICIES:

- Sound land use implementation measures, e.g. Zoning Ordinance should be reviewed and revised over time to achieve the land use objectives and goal.
- Compatible land uses should be grouped together; non-compatible uses should be separated.
- Land uses in flooded areas should be strictly regulated to uses that are not subject to substantial damage from flood.
- Standards to be adopted in the land use plan of Legazpi City are those recommended by relevant government agencies in relation to population, whenever applicable.

SPECIFIC POLICIES:

➤ **Agricultural Uses:**

- 📁 Existing agricultural lands in both the urban and rural areas, with soil classification, topography and land suitability not conducive to prime agricultural uses shall give way to urban uses.
- 📁 DAR policy on non-negotiable lands shall be adopted.

➤ **Urban Expansion Development Areas:**

- 📁 Urban development and other non-agricultural uses should be directed as much as possible to land not suited for prime agricultural use.
- 📁 Urban expansion is proposed to include the following barangays:
 - ❑ Barangay Dap-dap
 - ❑ Barangay Buraguis
 - ❑ Barangay Rawis

- ❑ Barangay Arimbay
- ❑ Barangay Taysan
- ❑ Poblacion of Banquerohan
- ❑ Barangay Tamaoyan
- ❑ Barangay Puro
- ❑ Barangay Homapon

➔ **Commercial Uses**

- 📁 The Central Business District of Legazpi should be expanded to include Bonot, Gogon, and Cruzada.
- 📁 Land for neighborhood shopping centers should be centrally located in residential subdivisions and residential districts, whenever possible, to provide for adequate shopping facilities to residents taking into consideration:
 - ❑ The adequacy of existing business district, and
 - ❑ The services provided by sari-sari stores.It should not be located at intersections of major roads and streets. They should be approximately square in shape rather than long shallow ribbons along major roads.
- 📁 Existing agricultural land, which can be converted to commercial uses in view of its strategic location, and other physical, topographical justification, will be encouraged for conversion to such commercial uses subject to limitation of RA 7160.
- 📁 Commercial uses should be categorized as Commercial 1 and Commercial 2 districts.

➔ **Forest Areas**

- 📁 All existing forest lands shall be retained as such forest areas.
- 📁 Interventions in forest areas shall be limited to rehabilitation and maintainance.

↻ **Industrial Uses**

- 📁 Existing industrial uses which are classified as highly hazardous and pollutive such as gasoline and liquefied petroleum gas depots and warehouses and other similar enterprises must be relocated outside of the urban area within the planning period.
- 📁 Areas for industries of types requiring water transportation should be located adjacent to navigable water; and in so far as feasible, areas within navigable waters should be reserved for such development.
- 📁 Industries most likely to be detrimental to residential and commercial areas in view of their pollution and/or hazardous character should be located as far as possible from such residential and commercial areas and preferably downwind from them.
- 📁 Industrial activities classified as medium and heavy, shall be within the Industrial Zone.
- 📁 Existing agricultural lands not suited for prime agricultural productivity due to physical, climatic, geographical reasons which can have better economic value when converted to industrial uses shall be encouraged to be so converted.
- 📁 Access roads shall be provided in the Industrial Zone.

↻ **Institutional Uses**

- 📁 Expansion of institutional uses should be in areas with compatible land uses.

↻ **Open Spaces**

- 📁 Portion of the open space such as the Marshes and Swamps, Seaside land/Foreshore areas between high and low water lines, City banks, and legal easements along water bodies that go beyond the areas recommended for open spaces may be developed for other uses. Provided, that such development will enhance the ecological and economic values of the area and its vicinities.

➤ **Residential Uses**

- 📁 Residential areas should be planned as self-contained neighborhoods, bounded by man-made or natural barriers and should be provided with adequate drainage systems, sidewalks and other neighborhood facilities.
- 📁 Residential areas should not be located near heavy industrial areas, downwind from industries likely to produce air pollution, in the approach of zone of airports, nor in erosion and flood prone areas
- 📁 Population in high-density areas must accept the phenomenon of high rise dwelling units such as tenement buildings over time.
- 📁 Residential areas should be categorized as Residential 1, Residential 2 and Residential 3 districts.

➤ **Infrastructure and Utilities**

- 📁 Land to be designated for infrastructure and utilities should conform to the standard of the Department of Public Works and Highways (DPWH) and the result of feasibility study, and other relevant government agencies as to kilometrage, width and surfacing, areas, facilities and other requirements.
- 📁 Within the planning period, some 50 hectares of land must be converted for transportation use, specifically, 36.6 hectares for rural roads and 13.4 hectares for urban roads. The same must be included in the Annual Investment Plan on a phase basis.

➤ **Zoning**

- 📁 No amendment to the Zoning Ordinance should be done that is inconsistent with the Comprehensive Land Use Plan.
- 📁 Review, revision and/or amendment of the Zoning Ordinance should be initiated not sooner than every five years.

➤ **Policies for Special Uses**

- 📁 ***Airport*** - some 250 hectares of land for the establishment of an international airport in Legazpi City as recommended in the JICA study commissioned by the Government of the Philippines must be given priority in this plan.
- 📁 ***Mining and Quarrying*** - lands presently utilized for mining must have a rehabilitation plan. To regulate mining and quarrying activities of the city, the City should enact an ordinance requiring the Bureau of Mines and Geo-physical Sector (BMGS) to secure city recommendation prior to grant of permit.
- 📁 ***Sanitary Landfill*** - an initial 10-15 hectares for this use must be allocated and developed within the planning period in the southern area of Legazpi City.
- 📁 ***National Park*** - lands identified as National Park shall be retained as such pursuant to national mandates. Intervention thereof must be in the form of rehabilitation and reforestation.

V – SECTORAL PLAN

SPATIAL DEVELOPMENT STRATEGY

The spatial development strategy expressed in the proposed land uses provides the physical direction of the city within the planning year 1999 – 2008 (see Annex “C” & “D”). This results from analysis of the city’s physical, natural, economic, social and political resources, its emerging urbanizing trend, and a realistic appreciation of the constraints. For the planning period, the proposed 1999 – 2008 General Land Uses and Built-up area (Urban Land Uses) are shown in the tables following.

Table 3. **Proposed General Land Uses**
City of Legazpi, 1999 - 2008

Land Use Category	Proposed	
	Area (Has.)	%
Built –Up	3,286.50	16.10
Agriculture	10,132.73	49.62
Forest	864.70	4.23
Grassland/Pasture	4,656.00	22.80
Special Uses		
<i>Mining/Quarrying</i>	275.00	1.35
<i>Military Reservation</i>	12.07	0.06
<i>Airport</i>	320.50	1.57
<i>Sanitary Landfill</i>	15.00	0.07
<i>National Park</i>	857.90	4.20
Totals	20,420.40	100.00

Table 4. **Proposed Built-up Area (Urban Land Use)**
City of Legazpi, 1999 - 2008

Land Use Category	Proposed	
	Area (Has.)	%
Residential	1,330.00	40.47
Commercial	420.00	12.78
Industrial	300.00	9.13
Institutional	239.50	7.29
Infrastructure and Utilities	472.00	14.36
Parks/Playgrounds & Recreational Spaces	200.00	6.09
Tourism	175.00	5.32
Others		
<i>Buffer Zone/Greenbelt</i>	50.00	1.52
<i>Agro-Industrial</i>	100.00	3.04
Totals	3,286.50	100.00

INTEGRATED PRODUCTION PLAN

The **production plan** consists of activities within the city, both in the rural and urban areas to intensify agriculture, commerce, industries and tourism activities. It also covers production forest and mining activities. A total of 11,085.23 hectares is allotted for this purpose located in the various barangays of the city (Annex F. Production Plan Map)

The **goals of the production plan** are poverty alleviation, promotion of social equity, food security, sustainable development, global competitiveness and rational use of land resources.

The agricultural component of the production ensures that:

1. food demands of present and future population is considered;
2. alternative strategies to increase farmer's income are identified;
3. intensive productivity towards agro-industrialization for industrial lands which are suitable for this purpose due to topography, land suitability and climate condition be pursued.

Agricultural production land is estimated to be 10,132.73 hectares for the planning period, a decrease of 1,065.36 from the 1998 figure, but below the 10% maximum allowable for conversion. Six production zones are identified in the city as detailed in the table following.

Table 5. **Matrix of Agricultural Production Zones**
City of Legazpi

Production Zones	Barangays Covered	Estimated Area * (In has.)
1. Strategic Crop Development Zone	Portions of Buyuan, Matanag, Mabinit, Bagong-Abre, Tamaoyan, Bigaa, Dita, Padang, Bonga, Arimbay, Pawa, Rawis, Mariawa, San Joaquin, Maslog, Homapon, Imalnod, Banquerohan, San Francisco, Buenavista, Bariis	8,555.4
2. Strategic Livestock Development Zone	Portions of Homapon, Center of San Francisco, Part of Bagong-Abre	200.0
3. Strategic Fishery Development Zone/ Fishing Ground	Bagacay, Homapon, Maslog, Dita, Portion of Banquerohan, Buyuan	83.2
4. Strategic Crops & Livestock Integrated Development Zone	Portions of Banquerohan, Homapon, Bagong-Abre, San Joaquin, Portion of Matanag	167.0
5. National Protected Areas for Agricultural Development (NPAAD)	Portions of Buenavista, Bariis, San Francisco, Cagbacong, Estanza, Lamba, Boundary of Homapon & Maslog, Boundary of Puro & Taysan	1,127.31
6. Watershed Zone	Buenavista, Buyuan, San Francisco	(Part of NPAAD)

* Based on SAFDZ Plan

The **strategic crop development plan** seeks to increase production in palay, corn, vegetables, fruit trees, industrial plantation and coco-intercropping.

The **livestock development plan** seeks to increase livestock production through improved pasture management, genetic upgrading, and improvement of production financing schemes, among others. It includes fishery production in fresh water, brackish water and marine fishing areas.

To achieve the maximum benefit of the production plan, support infrastructures as farm-to-market roads, bridges, irrigation facilities, small water impounding projects, pump irrigation projects and post harvest facilities must be included in the annual investment plan.

The **commercial and industrial areas** as part of the production plan seek to ensure that more employment is generated in non-agricultural activities such as in production, manufacturing, services, sales and trading, banking, mining, and technical and professional activities.

Its goal is to maximize the utilization of commercial areas for its intended use, stimulate investment capital and contribute significantly to the economic activities of the city, consistent with its perceived role in the Province and throughout the Bicol Region as an emerging Commerce and Trade Center, aside from its mandated role as Administrative Center of the region, as well as its growing popularity as a Convention Center given the existing physical, social and economic resources for this particular activity.

These areas are situated in the **Central Business District**, the alternative Business Center stimulated with the opening of the Tahao Road and the alternate Legazpi-Daraga Roads; and the expanded urban area which includes Rawis, Arimbay, Buraguis, Dap-Dap, Taysan, Puro, Homapon, Poblacion of Banquerohan, Gogon, Bonot, and Cruzada. An estimated 420 hectares are allotted for this purpose during the planning year.

The **industrial land** proposed to be retained at 300 hectares will likewise stimulate economic growth through employment generation, attract direct investment and technology from both local and foreign entrepreneurs, increase the purchasing power of the laborers, achieve a credit rating that will enable it to have access to national capital markets, and create a niche in the global competition of products and services.

Agro-Industrial land is projected to increase to 100 hectares through the implementation of the Agricultural & Fishery Modernization Act which seeks to transform subsistence farming to the industrial level with government's focussed support in this sector.

The expected result of the full utilization of these production areas is the overall improvement of the economic level of the people, thereby contributing to the enhancement of the quality of life of the people. The employment structure is likewise expected to change from dominantly agricultural workers, to the secondary and tertiary sectors.

INFRASTRUCTURE & UTILITIES PLAN

This component of the land use plan serves as the connection between the shelter plan or the space for living, and the integrated production plan which are spaces for making a living. It consists of the transport networks, economic infrastructures and the various utilities.

It includes the port development, airport development, special eco-zone development, water resource development & distribution, the electrification development, urban drainage and the communication infrastructures development. (see Annexes “G” and “G-1”).

For the **road and transportation land use**, the plan envisions to provide an adequate, safe and integrated network that can serve as linkage among the different land uses within the city as well as the neighboring municipalities. It seeks to facilitate the free flow of goods and reduce riding time from area of production to the market, as well as from residence to places of work.

To achieve this objectives, an approximate 36.6 hectares for **rural roads network** is being allotted for the planning year. This will provide the necessary farm-to-market access and barangay-to-barangay linkages that will stimulate farm productivity and crop diversity in support to the production plan.

These are identified to be opened in Homapon, Banquerohan, San Francisco, Buenavista, Cagbacong, Bariis, Mariawa, Bagacay, Taysan, Maslog in the south; and in Pawa, Rawis, Bigaa, Puro, Lamba, Tamaoyan, Bagong-Abre, Bogtong and Arimbay in the north, over the planning period. This projected kilometrage is based on the historical performance of the city of an annual average of 4.5 kms. of road opening per year for both urban and rural roads. This excludes rehabilitation and upgrading.

For the **urban roads network**, estimated to cover 13.4 hectares over the planning period, proposed road openings are mostly in Albay District, in the area encompassed by the Capt. F. Aquende Drive (former Washington Drive) and Alternative Business District where the Central Market and the Bus Terminal are located. It shall adhere to the **Urban Road Network Development Plan** approved by the Sangguniang Panlungsod through SP Resolution No. 110 s. 1990. At least one urban road section thereof must be implemented per year, in tandem with similar targets for the rural roads. This projection for urban road network land use is expected to meet the current and projected mobilization demand of both goods and people. (see Annex "G-2").

Proposed International Airport - An estimated 264 hectares for the proposed international airport to be located at Barangays Bariis and Banquerohan, as recommended by the JICA study for the national government airport development program, is being set aside within year 2000. The pre-implementation activities that are being undertaken by the City Government of Legazpi are the identification of lots that will be traversed; consultation with lot owners towards signing of an Intent to Sell; the certification from the DOTC of the availability of funds for land acquisition; and, the NEDA RDC V endorsement for the full blown feasibility study and detailed engineering design. It is estimated that the feasibility study and detailed engineering will consume 2 – 3 years (2001-2003) and construction works to be undertaken over a minimum of 5 years to a maximum of 10 years.

Urban drainage involves basically the river improvements of Tibu, Macabalo, Ruran, Sagumayon, Sagumayon after Ruran, and Panal rivers, and consists of construction of infra-structures such as new dike, raising dike height, and widening of river's channels.

It also includes pump drainage through the construction of 4 units of pump stations at Tibu river and 2 units at Macabalo river, construction of floodgates (5 in Tibu and 3 in Macabalo) and the establishment of two retention ponds, one each for Tibu and Macabalo rivers. The retention ponds shall use approximately 12.5 hectares.

Land utilization for these urban drainage structures is estimated to be as follows:

Construction of new dikes	=	2,849 l.m.
Raising dike height	=	1,138 l.m.
Widening of river channels	=	931 l.m.

Flood control projects as integral part of the master urban drainage plan focuses on the improvement of the Yawa River system along Pawa-Burabod section, and Budiao-Anoling portion in Daraga, Albay, the Arimbay River System and Padang River System. Major activities includes construction of Sabo Dam, Spur Dike, and Training Dike which will utilize approximately ½ hectare of land. (see Annex “G3”).

THE SETTLEMENT PLAN

This component of the Land Use Plan ensures the allocation of adequate areas for residential purposes with the necessary facilities and amenities. These amenities must include a circulation network, basic social infrastructures such as schools, churches, water resources, communication facilities, and socio-economic opportunities, among others. As the land use districting advocated in this plan is of the flexible type wherein compatible uses shall be allowed per designated zones, and since residential areas are generally compatible with almost all uses, except in highly pollutive and hazardous industrial and high density commercial zones, existing residential zones in all the urban and rural barangays of the city shall be maintained.

Standard residential density per HLURB guidelines are as follows:

low density	-	less than 150 persons/hectare of residential area
medium density	-	151 – 250 persons/hectare of residential area
high density	-	more than 250 persons/hectare of residential area

Reconciled against these standards, overall, Legazpi City as of 1995 is still a low residential density city. By urban and rural disaggregation, the urban area is medium density, while the rural area is low density. However, when disaggregation is by barangay, of the 41 urban barangays, 12 or 29% is high density; 17 or 41% is medium density; and, 11 or 30% is low density.

In 1998, six barangays – EM's Barrio East; Imperial Court Subdivision; PNR Peñaranda; Bigaa; and Buyuan – were noted to have become medium residential density barangays from low residential density, and Banquerohan from medium residential density in 1995 became high residential density in 1998.

In barangays with high residential density, the concept of duplex; apartments; rowhouses and even tenement housing will have to be considered by the people, as an inevitable scenario within the next 10 years. This is a function of population increase and family formation overtime, against the finiteness of the land resource. This scenario will create major changes in the physical make-up of some barangays in the city.

In the barangays with medium and low residential densities, the populace has still the option to prefer single detached housing.

Specific residential density per barangay is supplied by the following table.

Table 6. **Residential Density by Barangay**
City of Legazpi, 1995

Brgy. #	Barangay Name	Total Land Area	Population	Residential Area (Has.)	Residential Density (Person/has.)	
TOTAL		20,420.40	141,657	1,160	122	L
URBAN		1,382.55	75,265	352.24	214	M
1	EM's Barrio	43.67	3,544	12.03	295	H
2	EM's Barrio South	42.66	1,473	3.69	399	H
3	EM's Barrio East	13.76	1,159	7.90	147	L
4	Sagpon	15.04	920	4.85	190	M
5	Sagmin	15.21	677	7.06	96	L
6	Bañadero	37.56	1,040	4.13	252	H
7	Baño	8.82	876	2.50	350	H
8	Bagumbayan	36.57	3,495	8.50	411	H
9	Pinaric	17.27	944	4.52	209	M
10	Cabugao	8.59	486	2.50	194	M
11	Maoyod	14.20	901	3.37	267	H
12	Tula-Tula	12.40	2,403	10.54	228	M
13	Ilawod West	8.51	720	5.52	130	L
14	Ilawod	8.93	772	4.90	158	M
15	Ilawod East	35.81	1,674	10.80	155	M
16	Kawit-East Washington	73.90	4,719	11.67	404	H
17	Rizal St.-Ilawod	61.92	1,271	9.68	131	L

(Continuation of Table 6 – Residential Density...)

Brgy. #	Barangay Name	Total Land Area	Population	Residential Area (Has.)	Residential Density (Person/has.)	
18	Cabagñan West	56.61	3,198	17.43	183	M
19	Cabagñan	14.41	1,257	5.50	229	M
20	Cabagñan East	17.14	685	6.70	102	L
21	Binanuahan West	7.90	858	3.21	267	H
22	Binanuahan East	16.95	1,141	7.33	156	M
23	Imperial Court Subd.	11.76	604	4.17	145	L
24	Rizal street	13.34	1,820	6.77	269	H
25	Lapu-Lapu	17.44	978	8.52	115	L
26	Dinagaan	13.05	827	3.90	212	M
27	Victory Village South	10.01	1,016	8.14	125	L
28	Victory Village North	12.93	1,962	8.69	226	M
29	Sabang	10.22	1,332	6.66	200	M
30	Pigcale	8.70	2,039	5.49	371	H
31	Centro-Baybay	19.11	1,071	5.35	200	M
32	San Roque	38.25	4,981	14.14	352	H
33	PNR-Peñaranda	30.87	2,354	16.92	139	L
34	Oro Site-Magallanes	9.84	2,202	4.38	503	H
35	Tinago	6.88	756	4.27	177	M
36	Kapantawan	71.92	518	8.62	60	L
37	Bitano	63.79	4,967	17.79	279	H
38	Gogon	146.31	4,431	15.61	284	H

(Continuation of Table 6 – Residential Density...)

Brgy. #	Barangay Name	Total Land Area	Population	Residential Area (Has.)	Residential Density (Person/has.)	
39	Bonot	57.23	3,164	24.25	130	L
40	Cruzada	139.77	3,548	15.95	222	M
41	Bogtong	133.30	2,482	18.29	136	L
RURAL		19,037.85	66,392	849.43	78	L
42	*Rawis	222.64	6,091	25.64	238	M
43	*Tamaoyan	53.14	850	13.38	64	L
44	Pawa	522.52	2,587	47.13	55	L
45	Dita	51.09	1,072	14.85	72	L
46	San Joaquin	54.67	1,568	14.08	111	L
47	*Arimbay	113.60	2,584	8.84	292	H
48	Bagong Abre	135.24	922	18.35	50	L
49	Bigaa	131.73	4,415	31.83	139	L
50	Padang	380.17	1,887	30.20	62	L
51	Buyuan	464.41	2,746	18.31	150	L
52	Matanag	421.72	1,250	10.34	121	L
53	Bogña	546.93	2,690	42.36	64	L
54	Mabinit	674.45	916	10.21	90	L
55	Estanza	831.79	2,809	56.91	49	L
56	Taysan	1464.46	5,375	58.47	92	L
57	*Dap-Dap	26.25	1,451	21.00	69	L
58	*Buraguis	243.70	2,976	43.25	69	L
59	Puro	275.47	2,701	30.40	89	L
60	Lamba	267.39	771	26.39	29	L

(Continuation of Table 6 – Residential Density....)

Brgy. #	Barangay Name	Total Land Area	Population	Residential Area (Has.)	Residential Density (Person/has.)	
61	Maslog	815.19	3,335	37.33	89	L
62	Homapon	840.16	3,216	34.92	92	L
63	Mariawa	921.08	1,313	27.40	48	L
64	Bagacay	175.96	1,338	23.71	56	L
65	Imalnod	479.50	1,273	24.95	51	L
66	*Banquerohan	1,814.71	4,507	31.41	143	L
67	Bariis	1,279.19	1,561	34.94	45	L
68	San Francisco	1,297.64	1,847	33.32	55	L
69	Buenvista	1,477.39	793	38.44	21	L
70	Cagbacong	12,197.76	1,748	38.17	46	L

* Proposed as urban barangays in this Comprehensive Land Use Plan, 1999-2008

L – Low Residential Density M – Medium Residential Density H – High Residential Density

10 Densest Urban Barangays in Terms of Residential Area

- | | |
|--------------------------------------|----------------------------|
| 1. Oro Site-Magallanes (Brgy. #34) | 6. San Roque (Brgy. # 32) |
| 2. Bagumbayan (Brgy. #08) | 7. Baño (Brgy. #07) |
| 3. Kawit-East Washington (Brgy. #16) | 8. EM's Barrio (Brgy. #01) |
| 4. EM's Barrio South (Brgy. #02) | 9. Gogon (Brgy. #38) |
| 5. Pigcale (Brgy. #30) | 10. Bitano (Brgy. #37) |

5 Densest Barangays in the Rural Area

1. Arimbay (Brgy #47)
2. Rawis (Brgy. #42)
3. Buyuan (Brgy. #51)
4. Banquerohan (Brgy. #66)
5. Bigaa (Brgy. #49)

Area Requirement

The internally generated **projected housing needs** of the City of Legazpi is computed at 8,457 dwelling units (d.u.) to address new construction due to population growth (7,144 d.u.) and due to backlog (1,313 d.u.). HLURB guidelines for residential zoning districts are:

Low density residential zones	-	500+ sq. m./d.u.
Medium density residential zones	-	196 sq. m./d.u. (average)
High density residential zones	-	120 sq. m./d.u. (average)
Socialized Housing (BP 220)	-	87 sq. m./d.u. (average)

Using these suggested space requirement or average lot size and assuming that 5% of the dwelling units will be for low density residential zones; 25% for medium density residential zones; and, 50% for high density residential zones, and 20% for Socialized housing over the planning period a total of approximately 160.1749 hectares must be provided for the various internally generated housing needs, as follows:

Low density residential zones	-	21.1425 has.
Medium density residential zones	-	41.4393 has.
High density residential zones	-	82.8786 has.
Socialized housing (BP 220)	-	14.7151 has.

Also included in the projection is a conservative 9.8251 hectares for externally generated housing needs as a function of in-migration. This brings the total land allocation for shelter to 170 hectares, hence the total projected residential land use is 1,330 hectares up to year 2008.

The achievement of this projection, however, will depend on a number of politico-economic administrative factors such as the policy of the national government vis-à-vis the housing sector to include the support financial portfolio; the aggressiveness of the developers to continue venturing into this sector and the efficiency of national government agencies involved in land conversion. Also critical is the political will of the local government unit to pursue with utmost rationality and judiciousness the policy of supporting the initiatives of the concerned stakeholders for this particular sector.

With this projected land area requirement for settlement, the most likely source of supply will be agricultural areas which are not productively used as such, or open grasslands and pastures, which could either be public lands, government land or private land.

Land Tenure

Another concern this Settlement Plan must address is the issue of land tenure of some 9,034 families included in the Potential Socialized Housing Beneficiaries register. Tenure is the concern for homeowners to own the land through a legitimate title in their names. While this residential area is included in the projected space requirement, the legalities involved in acquiring land tenure is a long, tedious and expensive process.

The legal fundamentals have already been provided by the city government in the form of city resolutions waiving the city's pre-emptive right over public lands actually occupied; over abandoned camino real ; and, advocacy for DENR to award available public lands to present occupants and the passage of Ordinance No. 94-011 or the Comprehensive Program for the Urban Poor, creating the Local Housing Board, among others.

Physical target up to Year 2008 are 569 families occupying public lands, e.g. camino real; 1,084 families occupying government lands; and. 158 families occupying private lands.

The assistance of the city involves fund-sharing for the conduct of subdivision survey, preparation of subdivision scheme, and approval of Preliminary Approval and Locational Clearance (PALC) and Development Permit.

Socialized Housing Sites

An estimated 14.7151 hectares to address specifically the socialized housing needs of the urban poor is projected. These comprises government lands such as abandoned PNR property (Bonot-Renilisan, Rawis, San Joaquin, Padang, San Roque, and PNR Peñaranda) and public lands, e.g. camino real and the like. These are located mostly in the urban barangays but some sections can be found also in the rural areas. Abandoned camino real are located in almost all rural barangays.