

**ECONOMIC  
SECTOR  
STUDY**

# GUIDE TO ECONOMIC SECTOR STUDY

## Volume 2

### **A Guide to Sectoral Studies in the CLUP Preparation**

The study of Economic Sector in the context of Comprehensive Land Use Planning basically involves the assessment of the current state and growth pattern of local economy with the end view of building and strengthening the economic activities in a sustainable manner.

The key areas/parameters for this study include employment and workforce development, volume and value of production, land utilization, investments in the form of policies, infrastructure and marketing facilities, etc. The broad framework for analyzing the economic sector is provided by the following guideposts:

- What is the economic structure of the city/municipality in terms of economic activities?
- What is the extent of contribution of each activity?
- Which among these activities drive(s) the local economy?
- Where are these economic activities located?
- What are the observed economic development trend/s?
- What are the strengths, weaknesses, opportunities and threats of the local economy?
- How well are the economic activities supported with physical infrastructure, investment/finance, and promotion and marketing strategies?
- What is the extent of capability of the local workforce to produce quality goods and services? Are there measures to enhance skills?
- Are the current economic policies supportive of the development vision of the locality?
- Are these policies supportive of the role of the locality under the development framework of the province or region?
- What policies are needed to accelerate economic growth? Is there a need to formulate policies to achieve equity in business and employment opportunities?

- How much space is needed for economic expansion? Are there potential areas for development and where are these located?
- What environmental concerns/factors need to be addressed/considered?
- What are the vital concerns of this sector? How are these inter-related to other sectors' concerns?

A detailed analysis of the component sub-sectors namely: **AGRICULTURE, INDUSTRY, TOURISM, and COMMERCE AND TRADE** shall be undertaken using the steps provided in each sub-sector and consistent with the parameters of the above framework. Results of the sub-sector analysis shall be crosschecked and validated through a participatory process to come up with an integrated economic sector analysis. The guide to an integrated sector analysis follows after the last sub-sector study.

**STEPS:**

**I. Data Gathering and Processing**

**A. Generate the following data/information and present in table format:**

1. Existing Major Agricultural Crops by Area and Production, Year \_\_\_\_ (Table 49)
2. Comparative Agricultural Crop Areas and Production,  $Y_1 - Y_2$  (Table 50)
3. Existing Livestock and Poultry Farms, Year \_\_\_\_ (Table 51)
4. Existing Fishing Grounds and Aquaculture Production, Year \_\_\_\_ (Table 52)
5. Area and Location of Forestlands by Sub-Category and Primary Use, Year \_\_\_\_ (Table 53)
6. Volume of Production by Forest Concessionaire, Year \_\_\_\_ (Table 54)
7. Existing Agricultural Support Facilities and Services, Year \_\_\_\_ (Table 55)
8. Major and Minor Agricultural Occupations/Groups in Urban and Rural Areas, Year \_\_\_\_, (Table 56)
9. Agrarian Related Concerns, Year \_\_\_\_ (Table 57)
10. Comparative Area Utilization of Significant Agricultural Activities, Year \_\_\_\_ (Table 58)
11. Agriculture Related Projects, Approved/Funded for Implementation, Year \_\_\_\_ (Table 59)

*The output tables are basic information from which assessment of the state of the agriculture sector may initially proceed. Other relevant information may be gathered through a consultation process.*

**B. Determine the felt needs, aspirations and issues of the community relative to agriculture through consultations such as general assembly, focused group discussion, barangay consultation or other consultative meetings with identified stakeholders.**

Gathering of information on felt needs and aspirations of the population maybe facilitated by designing /structuring questions such as:

1. *What issues and concerns related to agriculture would you want to be addressed?*
2. *In what ways can you (as a resident/community member, stakeholder) address/resolve these issues and concerns?*
3. *In what ways can the government address/resolve these issues and concerns?*
4. *What are your aspirations to improve the level of the agriculture sector?*

**C. Gather additional information if warranted by the result of the consultations /meetings**

*conducted.*

## II. Data Analysis

Assess the existing situation of the agriculture sector and prepare a narrative report covering the following:

### A. Agricultural Production

- Historical utilization of city/municipal land for agriculture and forest related activities for the past 3 years (Comparative Area Utilization of Significant Agricultural Activities -Table 50)

#### 1. Crop Production

- Location and area of lands devoted to agricultural crop production (Table 49)
- Percentage of the municipality's land area devoted to agricultural crop production
- Area devoted to each crop and percentage of agricultural land planted to each crop

Percentage of crop production area to municipal/city land area	=	$\frac{\text{Area devoted to crop production (ha.)} \times 100}{\text{Total municipal/city land area (ha.)}}$
Percentage of agricultural land area devoted to each crop	=	$\frac{\text{Area devoted to a specific crop (ha.)} \times 100}{\text{Total agricultural area (ha.)}}$

- Comparative area and volume of production per major crop (Table 50)
- Average production per hectare for irrigated agricultural land and those under private irrigation (Table 49)
- Total production and the value of production per major crop (Table 49)
- Discuss the agricultural/market distribution per crop and determine the volume of product for local and other consumptions (Table 49)

#### 2. Livestock and Poultry

- Location, volume and value of livestock and poultry production. Refer to Table 51.
- Percentage of production value with that of total agricultural production value.
- Livestock and poultry market distribution and volume of product for local and other consumptions.

#### 3. Fisheries and Aquaculture

- Location and description of the Fishery Strategic Development Zones (FSDZs), if any. The FSDZs shall likewise be delineated on the map.

*Coordinate with the MAO or DA Regional Office if the locality was identified as one of the Fishery Strategic Development Zones (FSDZs).*

- Area and location of the existing fishing grounds/ aquaculture areas in the city/ municipality. Refer to Table 52.
- Types of marine, aquatic and inland fishing resources by volume and value of production. Include such other activities like seaweed culture, etc.
- Types of fishing activities, whether commercial fishing, municipal fishing or both.
- Compare the production value with the total agricultural production value.
- Availability and adequacy of existing storage/ processing facilities.
- Degree and source of pollution/degradation of marine and aquaculture resource areas, if any.

**B. Forestry**

- Area coverage of forest lands (public lands) from the total city/municipal area. Refer to Table 53.

Percentage of Forest/ Public Lands	=	$\frac{\text{Total area devoted to forestry (ha.)}}{\text{Total land area of city/municipality}}$	x 100
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- Area and location of production and protection forests and percent distribution from the total forest area.

Percentage of production forest	=	$\frac{\text{Total area devoted to production forest (ha.)}}{\text{Total land area of forestlands (ha.)}}$	x 100
Percentage of protection forest	=	$\frac{\text{Total area devoted to protection forest (ha.)}}{\text{Total land area of forestlands (ha.)}}$	x 100

- Discuss the existing economic activities of production forest including the number of concessionaires, area covered, type, volume and value of production. Refer to Table 54.
- Any reforestation /conservation programs/activities and areas covered
- Discuss the distribution flow of forest products either as raw materials or as semi-processed products.
- Compare the forest production value with the total agricultural production value.
- Discuss environmental issues/concerns that need to be addressed.

**C. Support Systems**

1. Physical Infrastructure

- Existing irrigation facilities in terms of location, condition, source of water supply, extent

or coverage of service area.

- Existing condition of farm-to-market roads and the type and frequency of transportation used in transporting goods and services to and from the farm.
- Availability of post-harvest facilities such as milling, warehouse, drying and processing facilities. Refer to Table 52.
- Existing physical infrastructure within production forest.

## 2. Credit and Finance

- Existing agricultural support programs in terms of loans/credit facilities, total or average amount of loan extended/awarded to farmers/farmers' cooperatives.
- Existing market linkages for agricultural and forest products within and outside the LGU.
- Discuss the available financing scheme/s extended to agriculture and forestry activities.

## 3. Agricultural and Forest Support Program and Technical Assistance

- Existing programs and projects provided by local, provincial, and national agencies and those provided by NGOs and POs.
- Service coverage and number of beneficiaries of these programs/projects.
- Types of technical assistance and extension services available in the locality.

## 4. Employment and Income by Activity

- Percentage distribution of agricultural and forestry employment by type (owner-cultivator, share cropper, lessee, farm laborer) and other minor agricultural income groups. (Refer to Table 53).
- Comparative analysis of LGU revenues derived from agriculture and forestry with other revenue sources.

## 5. Areas Covered by National/Local Policies

### a. Network of Protected Areas for Agricultural and Agro-Industrial Areas for Development (NPAAAD).

- ❖ Area, location and impact of NPAAAD to the city/municipality

*The NPAAAD ensures the sustained production of the country's basic agricultural and fisheries commodities through the stewardship and utilization of the most productive agricultural and fishery land resources for optimal production, processing, and marketing. The NPAAAD includes:*

- i. All irrigated areas;*
- ii. All irrigable lands already covered by irrigation projects with firm funding commitments;*
- iii. All alluvial plains highly suitable for agriculture, whether irrigated or not;*
- iv. Agro-industrial croplands or land presently planted to industrial crops that support the*

- viability of existing agricultural infrastructure and agro-based enterprises;*
- v. *Highland or areas located at an elevation of five hundred (500) meters or above and have the potential for growing semi-temperate and high-value crops.*
- vi. *All agricultural lands that are ecologically fragile, the conversion of which will result into serious environmental degradation;*
- vii. *All fishery areas as defined in the fisheries code of 1998.*

*Confer with the DA-BSWM on the actual location of the NPAAAD in the locality, the area covered and delineate these NPAAAD areas on the map.*

b. Strategic Agriculture and Fishery Development Zones (SAFDZs).

*SAFDZ refers to the areas within the NPAAAD identified for production, agro-processing and marketing activities to help develop and modernize, the support of government, the agriculture and fisheries sectors in an environmentally and socio-culturally sound manner. (RA 8435 or Agriculture and Fisheries Modernization Act of 1997)*

*SAFDZ should be recognized and incorporated into the local plans and implemented because they contribute or have the potential to contribute to attaining food self-sufficiency. These should be designated as key production areas and should be protected from land conversion.*

c. CARPable Areas/Lands

- Location and area of lands covered by CARP and number of actual beneficiaries (Table 54)
- Location and number of Agrarian Reform Communities (ARCs).

d. Conversion /Reclassification

The LGU need to coordinate with the MAO and the Department of Agrarian Reform (DAR) for information regarding the following:

- Total area of agricultural lands approved for conversion to non-agricultural uses.
- Total area of lands which are no longer subject to reclassification such as:
  - Agricultural lands distributed to Agrarian Reform beneficiaries;
  - Agricultural lands with a Notice of Acquisition already issued or voluntarily offered for coverage under CARP;
  - Agricultural lands covered by Office of the President Administrative Order No. 20, series of 1992, declaring these as non-negotiable for conversion.

*Section 4 of DAR Administrative Order No. 1, Series of 2002 defines the areas which are non-negotiable for conversion even when some portions thereof are eligible for conversion. Section 8.4 thereof states that when the agricultural land which is the subject of the application for conversion has been acquired under RA 6657, its conversion shall be allowed only if the applicant is the agrarian reform beneficiary and after the applicant has fully paid his obligation as required under Section 65 of RA 6657.*

*The authority of cities and municipalities to reclassify agricultural lands to non-agricultural uses and to provide the manner of their utilization and disposition is provided for under Section 20 of RA 7160. The same law also provides the percentage limit of agricultural areas for reclassification as follows:*

- ❖ *For highly urbanized and independent component cities – 15%*
- ❖ *For component cities and first to third class municipalities – 10%*
- ❖ *For fourth to sixth class municipalities – 5%*

*“...Rule 5, Articles 36 of the Rules and Regulations Implementing the Local Government Code of 1991 cites the approved zoning ordinance as a requirement for reclassification...The abovementioned condition is further re-affirmed by Article 41 as follows: The comprehensive land use plans shall be the primary and dominant basis for future use of local resources and for reclassification of agricultural lands.” (Joint DAR, DA, DILG and HLURB Memorandum Circular dated 25 March 1995)*

For the updated rules and regulations regarding the reclassification and conversion of lands, please refer to the following issuances:

- ❖ DAR Administrative Order No. 1, S. 2002 – 2002 Comprehensive Rules on Land Use Conversion
- ❖ DAR Administrative Order No. 05, S. 2007 – Amendments to the 2002 Comprehensive Rules on Land Use Conversion
- ❖ DA Administrative Order No. 2, S. of 2002 – Guidelines for the Implementation of EO 45 dated October 24, 2001... (II. Legal Bases provides the rules governing land use reclassification within and outside NPAAADs and SAFDZs)

### **III. Current and Projected Needs**

#### ***A. Identify and discuss the pressing development problems/issues, and constraints being experienced by the agriculture sector in the area as well as the underlying causes:***

1. Decrease in agricultural and forest area
2. Decrease in volume of production
3. Environmental degradation
4. Land use conflicts
5. Insufficient infrastructure support facilities
6. Inadequate market linkages
7. Inadequate capital resources and technology
8. Agriculture and forestry employment and income opportunities
9. Status of land tenure/implementation of agrarian reforms
10. Rural-urban migration
11. Suitability of agricultural land uses (*Refer to Annex 18 for the Criteria for Suitability of Agricultural Land Uses*)

#### ***B. Determine the need for agricultural products of the current and future population. All projected information/data arrived at should be examined in relation to other sectors.***

## 1. Production / Supply Projection

In coordination with the City/Municipal Agriculture Office, determine the following:

- ❖ Current production level of major agricultural crops (rice, corn, vegetables, etc.) from the current yield and the size of the area planted.

*Volume of Production = Total Area planted to (ex: Rice) x current yield per hectare*

- ❖ Projected volume of major agricultural crops

*Use the same formula as above but substitute current yield with potential yield or the highest possible yield of that crop under the most ideal conditions. This can also be determined by using FAO crop yield prediction model or by obtaining data from the Department of Agriculture (DA), particularly from the Bureau of Agricultural Statistics (BAS).*

- ❖ Current and projected volume of other agricultural products

The following data may be available from the Bureau of Agricultural Statistics:

- ❖ Livestock and poultry production by city/municipality
- ❖ Fishery production by fishing grounds

## 2. Demand Projection for Agricultural Products

Determine the capacity of projected agricultural products to meet future demands by considering the volume of agricultural product consumed for human nutrition or actual demand.

- ❖ To arrive at the city/municipality’s annual demand, multiply per capita consumption with projected population using the formula:

$$\text{Actual Demand/Required Food Intake} = \text{Per Capita Dietary/Food Requirement}^* \times \text{Projected Population at a given year}$$

It must be noted that actual demand is not the same as Required Food Intake as used by the Food and Nutrition Resource Council (FNRC).

Actual demand is the amount of food that an individual can consume/afford considering income and preferences.

Food requirement or Recommended Dietary Allowances (RDAs) are the levels of intake of energy and essential nutrients considered adequate to maintain health and provide reasonable levels of reserves in body tissues of nearly all healthy persons in the population.

Use the standards recommended by the Food and Nutrition Resource Council in projecting the dietary/ food requirement for the planning period as presented below:

<b>Per Capita Dietary/ Food Requirement Agricultural Product</b>	<b>Standard Requirement (Kg./year)</b>
Cereals and Cereal Products	124
Sugars and Syrups	70
Starchy Roots and tubers	60
Vegetables	39
Fruits	28
Dried Beans, Nuts and Seeds	4
Milk and Milk Products	16
Eggs	4
Fish, Meat and Poultry	54
Miscellaneous	7

- ❖ Compare potential or projected agricultural food production with the projected actual demand by the total population in terms of meeting the standard nutritional requirement level.
- ❖ Determine/identify the necessary inputs or support services to increase production at a level satisfying the target.

#### IV. Sectoral Analysis Matrix

**A. Consolidate and validate the findings of the above steps with the result of the consultation/s.**

1. List the key issues, problems, and concerns of the agriculture sector.
2. Determine the possible implications/impacts of the key issues, problems, and concerns.

**B. Recommend interventions such as:**

1. Realistic policy options and appropriate strategies
2. Programs and projects for implementation with due consideration of current and pipeline projects (Refer to Table 56).

**C. Prioritize, tabulate, and present the results in matrix form as follows:**

**(Sample) Agriculture Analysis Matrix**

<b>Technical Findings/ Observation</b>	<b>Implications (Effects)</b>	<b>Policy Options/ Interventions</b>
Decreasing percentage of croplands/area	-Low crop production -Low income -Insufficient food	Preservation of agricultural lands: -moratorium on agricultural land reclassification
Environmental degradation of fishing grounds	- Low fish and aquatic production - Low income for fishermen	Strict implementation of City/Municipal Fishery Ordinance or coastal environmental laws.

## TABLES

**Table 49. Existing Major Agricultural Crops by Area, Production and Market, Year\_\_\_\_\_**

Major Crops	Barangay	Area		Production		Product Market	
		Hectares	% Total	Volume	Value	Local	Export*
1. Rice							
- irrigated							
- Non - irrigated							
2. Corn							
3. Others							
TOTAL							

Source: Municipal Agricultural Office

\*Identify extent re: provinces, regions, outside Philippines.

**Table 50. Comparative Agricultural Crop Areas and Production, Y<sub>1</sub> - Y<sub>2</sub>**

Major Crops	Area			Volume of Production		
	Y <sub>1</sub>	Y <sub>2</sub>	Increase/ Decrease	Y <sub>1</sub>	Y <sub>2</sub>	Increase/ Decrease

Source: Municipal Agricultural Office.

**Table 51. Existing Livestock and Poultry Farms, Year\_\_\_\_\_**

Type	Barangay	Area	**Classifi- cation	Production		***Product Market
				Volume	Value	
<b>*Livestock</b>						
1.						
2.						
3.						
<b>*Poultry</b>						
1.						
2.						
3.						

Source: Municipal Agricultural Office

\* Type: Livestock – Piggery, cattle, carabao, horse, etc.  
Poultry – Chicken, duck, ostrich, etc.

\*\* Classification: Commercial or Backyard

\*\*\* Product Market: Local (w/in city/mun.); Export (Outside LGU-prov., region)

*Note:* If this industry plays a significant role in the local economy, prepare a comparative data similar to Table 47.

**Table 52. Existing Fishing Grounds and Aquaculture Production, Year \_\_\_\_**

Fishing Grounds	Barangay	Production		Product Market	
		Volume	Value	Local	Export
Marine					
1. Sea					
2. Bay					
3. Gulf					
Inland					
1. River					
2. Lakes					
3. Marshes/Swamps					
4. Fishponds/cages					

Source: BFAR, MAO

Note: If this industry plays a significant role in the economy, a comparative data should be prepared similar to table 47.

**Table 53. Area and Location of Forestlands by Sub-Category and Primary Use, Year \_\_\_\_**

Category	Location	Area (has.)	%
A. PRODUCTION FORESTS*			
1. Timber production (natural)			
2. Timber production (plantations)			
3. Agro-forests			
4. Pasture/Grazing Land			
5. Mineral Areas			
6. Watershed areas			
7. Community-Based Forest Management Area			
8. Other Special Uses (tourism, fish farms/ponds,, etc.)			
Sub-Total			
B. PROTECTION FORESTS			
1. NIPAS Areas			
2. Non-NIPAS Areas			
Sub-Total			
<b>G R A N D T O T A L</b>			

Source: Community Environment and Natural Resources Officer/ Provincial Environment and Natural Resources Officer (CENRO/PENRO)

\* Production forests refer to all forest lands not classified as protection forests. These forests are devoted mainly for the production of forest products (both timber and non-timber) and other services.

**Table 54. Volume of Production by Forest Concessionaires, Year \_\_\_\_**

Forest Concessionaire	Area Covered (has.)	Dominant Tree Specie/ Other Products derived	Production		Estimated Number of Workers	Reforestation Activities (has.)
			Total	Value		
Total						

**Source:** Provincial Environment and Natural Resources Officer/Community Environment and Natural Resources Officer (PENRO/CENRO)

**Table 55. Existing Agricultural Support Facilities and Services, Year \_\_\_\_**

Post harvest facilities and support services	Location	Number	Type/ Capacity	% Utilization	Remarks (whether Operational, Needs repair, etc.)
1. Milling					
2. Cold Storage					
3. Multi-purpose drying pavement					
4. Market centers					
5. Warehouse					
6. Others (Fish Storage/ Processing, fish landing ports, etc.)					

Source: MAO, C/MPDO

**Table 56. Major and Minor Agricultural Occupations/Groups in Urban and Rural Areas, Year \_\_\_\_**

Major and Minor Occupation Groups	Location	Urban	Rural	Total
Farmers				
Farmworkers				
Fishermen				
<i>Crop farmers</i>				
<i>Orchard farmers</i>				
<i>Ornamental and Other Plant Growers</i>				
<i>Livestock and Dairy farmers</i>				
<i>Poultry farmers</i>				
<i>Other Animal Producers</i>				
<i>Aqua-farm cultivators</i>				
<i>Inland and Coastal Waters Fishermen</i>				
<i>Deep Sea Fishermen</i>				
<i>Other farm workers not elsewhere classified</i>				
TOTAL				

Source: National Statistics Office

**Table 57. Agrarian Related Concerns, Year \_\_\_\_**

Concerns	Location	Area (has.)	No. of Farmer - Beneficiaries
A. CARPable Lands			
1. Covered			
2. To be Covered			
B) Agrarian Reform Communities (ARCs)			
Total			

Source: MARO, PARO

**Table 58. Comparative Area Utilization of Significant Agricultural Activities**

Activities	Y1		Y2		Y3	
	Area	%	Area	%	Area	%
Crop Production						
Livestock/Poultry						
Fishing						
Forest Product						

Source: MAO, C/MPDO

**Table 59. Agriculture Related Projects, Approved/ Funded for Implementation, Year \_\_\_\_**

Name/ Type of Project	Location	Type	Proponent (Government, Private, Other)	Estimated Start Date	Estimated Date of Completion
<ul style="list-style-type: none"> <li>• Reforestation Project</li> </ul>					

Source: Local Gov't Unit, CENRO/PENRO, DA – BFAR, BSWM, NIA, etc.

## *Annex 18*

### **CRITERIA FOR SUITABILITY OF AGRICULTURAL LAND USES**

1. The site for agricultural purposes should be plains and plateaus and areas of moderate slopes so that modern farm machinery can be used effectively. Moderate slopes (15% maximum for cultivation) favor good drainage, which is required by most crops.
2. Agricultural lands should be of soil type A, B, and C as defined by the Bureau of Soils and Water Management (BSWM). These types are friable and relatively easy to work with. They are fertile, rich in minerals and other plant nutrients required by most crops. Impervious subsoil that holds water are excellent for paddy rice culture.
3. It should have favorable temperature conditions for various crops. The cold limit of rice is from 28-29°C; of commercial corn production is a mean summer isotherm of 19°C; of cotton, 25°C; of coffee, 15.55-25.55°C. The site meets the moisture requirements of plants.
4. It is accessible to irrigation, transport and electricity.
5. Lands to be devoted as grazing lands are those that have a topography not suited for cropland purposes. The slope ranges from 25% - 50%.
6. Areas covered by the CARP and those considered as prime agricultural lands.

These lands should be taken within the landscape ecological context, whereby parameters are measurable and verifiable, and anchored on a more stable land quality or land characteristics. The physical land quality should serve as the backbone criteria. Equally important, the socio-economic criteria in conjunction with other transitional parameters provide complete suitability insights of a given landscape. Likewise, the latter should be categorized into high, moderate, marginal, and not suitable. More so, suitability should be equally specific as to what crops it is most suitable to, needed inputs, etc.

#### **Fishing Area and Fishing Facilities**

1. Fishing areas should be preferably have types I\* and II\*\* climate.
2. It should have clay and loam or loam type of soil.
3. Fish collection centers should be located in commercial fish landing ports to maximize use of facilities.
4. Where landing ports are non-existent or could not be built, inland fish collection centers should be located in a locality with the largest production potential or in a place around which the fishing areas are more or less clustered. The rationale is to concentrate supply and thereby possibly induce or justify the putting up of infrastructure support.

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\* Type I climate – have two pronounced seasons, wet from May to October, dry the rest of the year.

\*\* Type II climate – No dry season, very pronounced maximum rain period from November to January.

5. In areas where there are large inland fishing resources that are not accessible by motorized transport from landing ports and/or highly populated settlements, the collection center should be located in locality with the largest production potential or in a place around which the fishing areas are more or less clustered.

### **Grazing Lands**

1. At least seventy five percent (75%) of the area must have a slope of not more than fifty percent (50%).
2. The area should be predominantly covered by herbaceous species well distributed throughout the area and producing at least 500 kilograms air dry weight or 1,000 kilograms green weight per hectare, preferably taken during the first 60 days of the rainy season.
3. The area should be contiguous and not less than 1,000 hectare for economical management.
4. Soil should be stable, medium to heavy texture and erosion resistant. Erosion, if any, must be moderate to slight and can be easily controlled.
5. There must be accessible, continuous and adequate supply of water.
6. The land shall not prevent any restriction in the form of cliffs, ravines, swamps, thick brushes and other similar barriers in the movement of livestock, men, and equipment.

The area must be free from forest occupancy that may hinder range management.

**Commerce  
and Trade**

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**STEPS:**

**I. Data Gathering and Processing**

**A. Generate the following data/information and present in table format:**

1. *Inventory of Commercial Areas by Type of Activity, Year\_\_ (Table 60)*
2. *Historical Data on Commercial Areas, Y1 – Y2 (Table 61)*
3. *Number of Business Permits Issued by Type, Y1 – Y2 (Table 62)*
4. *Inventory of Commercial Establishment by Economic Activities, Y1–Y2 (Table 63)*
5. *Employment by Type/Classification/ Type of Business and Trade, Y\_\_ (Table 64)*
6. *Existing Programs and Plans for Commerce and Trade, Y\_\_ (Table 65)*

*The output tables are basic information from which assessment of the state of commerce and trade may initially proceed. Other relevant information may be gathered through a consultation process.*

**B. Determine the felt needs, aspirations and issues of the community relative to commerce and trade through consultations such as general assembly, focus group discussion, barangay consultation or other consultative meetings with identified stakeholders.**

*Gathering of information on felt needs and aspirations of the population maybe facilitated by designing /structuring questions such as:*

1. *What issues and concerns related to commerce and trade would you want to be addressed?*
2. *In what ways can you (as a resident/community member, stakeholder) address/resolve these issues and concerns?*
3. *In what ways can the government address/resolve these issues and concerns?*
4. *What are your aspirations to improve the level of the commerce and trade sector?*

**C. Gather additional information as warranted by the result of the consultations/ meetings conducted.**

## II. Data Analysis

Assess the existing situation of commerce and trade in the city/municipality and provide a narrative report covering the following aspects:

1. Types of commercial activities, location, and areas occupied (mall, CBD, Commercial strip, neighborhood center, etc.). Include also other areas being served (Table 60).

*Reflect all commercial areas on a map.*

2. Growth of commercial activities in terms of rate of increase in number of establishments, increase in area, and direction of growth. (Tables 61 and 63)

A simple assessment of rate of increase is done using the following formula:

Rate of increase of establishments	=	$\frac{\text{Current no. of establishments} - \text{Previous no. of establishments}}{\text{No. of years between current year and any year} \times \text{No. of establishments in the previous years}}$
Example:	=	$\frac{1250 (2003) - 950 (2000)}{(2003 - 1998) \times 950}$
	=	$\frac{300}{5 \times 950}$
	=	$\frac{300}{4750}$
	=	$0.06315$
On the average, the rate of increase is equal to 60 commercial establishments per year.		

3. Other factors affecting the sector such as:

- Presence of infrastructure support facilities (water, power, roads, transportation, terminal/parking space, etc.)
- Production index of the province. This has influence on the emergence and number of specialization shops, and the nature of goods sold.
- Private sector investments
- Shopping trends within the municipality as a result of changes in fashion,
- New inventions/technologies or new manufacturing methods brought about by improvements in the standard of living.
- Employment status of persons 15 years old and over by major occupation group and major industry group (Table 64)

- Average family income and sources of income.
4. Percentage of commercial areas against the total built-up area.

Compare the land ratio of the commercial area with the total built up area or the total area of lands devoted to urban uses (refer to table on existing land use categories in Step 4 – Situation Analysis, Volume 1 of the CLUP Guide.)

5. Service area of the existing commercial centers.
  - a. Identify other areas or clienteles outside the town/city being served by these centers.
  - b. Unique or specialized commercial products or services offered in the town/city.
6. Percentage share to total city/municipal income of business activities in terms of business licenses /permits issued.

### **III. Current and Projected Needs**

Assess and discuss the pressing needs of the sector in relation to:

1. Factors/constraints that inhibit the growth of commerce and trade in the locality such as the following:
  - Adequacy of the existing commercial service centers to serve the municipal population considering the nature and distribution of commercial area, location criteria and standard, as well as its influence areas outside the municipality.
  - Efficiency of support facilities such as garbage collection/solid waste management in all commercial establishments especially the market and slaughter areas.
  - Adequacy of power/water requirements.
  - Efficiency of infrastructure and traffic problems within the vicinity of the public market and commercial establishments.
  - Needs of the population for certain facilities/services. The gap between the total demand and the existing services constitute the development needs.
  - Need for financing source for commercial development
  - Need for a particular manpower skill and the corresponding training based on existing trends/ demand of the commerce and trade sector. Relate this to the employment profile of the city/municipality.
2. Specific type of commercial activities/services which would require future expansion/development, considering the current trends and needs in commercial activities, as well as its role in achieving the municipal/city's vision.

3. Future space requirement for commercial purposes.

Projection of area requirement may be guided by the standard: 1.5% to 3% of the total built-up area as shown in the example below:

Example:

Given:

Existing commercial area	=	1.0 ha.
Projected built-up area increase	=	107 has.

$$\begin{aligned} \text{Area requirement} &= \left[ \begin{array}{cc} \text{Space} & \text{Projected} \\ \text{Standard} & \text{Built-up Area} \end{array} \right] \times - \text{Existing} \\ &= \left[ \begin{array}{cc} .015 & \text{x } 107 \text{ has.} \end{array} \right] - 1.0 \text{ ha.} \\ &= 0.61 \text{ ha.} \end{aligned}$$

*The space standard may not be applicable to certain areas especially those with identified functional role as a commercial center. Thus, area allocation for expansion depends on the chosen development strategy and role of the sector in promoting the city's/municipality's vision, its comparative advantage over adjacent cities/municipalities, and by any planned vertical expansion.*

4. Possible location/site for future commercial development/expansion, if any. Present proposed location/s in map form. (Refer to Annex 19 for Site Selection Criteria for Commercial Area).

#### IV. Sectoral Analysis Matrix

**A. Consolidate and validate the findings of the above steps with the result of the consultation/s.**

1. List the key issues, problems, and concerns of the commerce and trade sector.
2. Determine the possible implications/impacts of the key issues, problems, and concerns.

**B. Recommend interventions such as:**

1. Realistic policy options and appropriate strategies
2. Programs and projects for implementation with due consideration of current and pipeline projects (Refer to Table 65).

*C. Prioritize, tabulate, and present the results in matrix form as follows:*

**(Sample) Commerce and Trade Analysis Matrix**

<b>Technical Findings/ Observation</b>	<b>Implications (Effects)</b>	<b>Policy Options/ Interventions</b>
<ul style="list-style-type: none"> <li>• Deteriorating condition of the public market</li>   <li>• Increased traffic volume and inadequate parking areas in the CBD</li>   <li>• Increased and uncollected volume of market wastes</li> </ul>	<ul style="list-style-type: none"> <li>• Decreasing revenue from public market operations</li>   <li>• Area is prone to traffic accidents; Loss of revenue for most establishment.</li>   <li>• Danger to health</li> </ul>	<ul style="list-style-type: none"> <li>• Improvement/Relocation/ Replacement of the existing public market</li>   <li>• Implement a workable traffic improvement plan</li>   <li>• Regular and more frequent collection and disposal of market wastes</li> </ul>

**TABLES**

**Table 60: Inventory Of Commercial Areas, Year \_\_\_**

<i>Type of Commercial Areas</i>	<i>Location</i>	<i>Area (in sq.m)</i>	<i>Market Catered</i>	
			<i>Local</i>	<i>Outside (export)</i>
1.	Bgy. A			
2.				
3.				

Source: Treasurer’s Office/Market Administrator/Primary Survey

Note: Commercial areas include:

- Commercial Business District (CBD)
- public market
- commercial strips/talipapa (wet/dry neighborhood commercial center)
- commercial complex (range of dry goods store, boutique shops, recreational/entertainment establishments and service shops such as food chain branches/establishments)
- malls (with department stores, supermarket and various shops in one building)
- other types

**Table 61: Historical Data On Commercial Areas**

<i>Location</i>	<i>Commercial Areas (in ha.)</i>		<i>% Increase/ Decrease</i>
	<i>Year 1</i>	<i>Year 2</i>	
Brgy. 1			
Brgy. 2			
Brgy. 3			
Brgy. 4			

Source: LGU Business Permits Department/Primary Survey

Note: LGUs may opt to present a 5-year interval data for the last 5 to 10 years

**Table 62: List of Business Permits Issued By Type**

<i>Type of Business Permits Issued</i>	<i>Year 1</i>	<i>Year 2</i>	<i>Year 3</i>	<i>Year 4</i>	<i>Year 5</i>

Source: Treasurer’s Office/Mayor’s Office

**Table 63: Inventory of Commercial Establishment By Economic Activities**

<i>Economic Activities</i>	<i>Year 1</i>		<i>Year 2</i>		<i>% Inc/(Dec.) Over Previous Year</i>	
	<i>No. of Establishments</i>	<i>No. of Employment</i>	<i>No. of Establishments</i>	<i>No. of Employment</i>	<i>No. of Establishment</i>	<i>No. of Employment</i>
Wholesale and Retail Trade						
Hotel and Restaurants, Transport & Storage						
Communication						
Financial Intermediation						
Real Estate Renting and Business Activities						
Public Administration and Defense						
Education						
Health and Social Work						
Other Community, Social and Personal Service Activities						
Private Household with Employed persons						
Extra Territorial Organizations and Bodies						
TOTAL						

Source: LGU Business Permits Department/Primary Survey

Notes:

1. The enumerated economic activities are based on Philippine Standard Industrial Classification (PSIC) of the National Statistics Coordination Board (NSCB).
2. Group/summarize existing commercial establishment according to the economic activities based on PSIC classifications for consistency and comparability.
3. Year 1 and year 2 should at least correspond to last two census years. Compare with provincial data.

**Table 64: Employment by Type/Classification/Type Of Business and Trade**

<i>Type/Classification Kind of Business and Trade</i>	<i>No. of Employment</i>	<i>Revenue (in pesos)</i>	<i>Population served Markets catered</i>	
			<i>Local</i>	<i>Outside (export)</i>
Wholesale Trade and Retail				
Banking and Finances				
Real Estate/ Construction				
Services				
Others				
TOTAL				

Source: Treasurer's Office/Mayor's Office

Note:

Services includes Hotels and Restaurants, transport, storage, communication, education, health and social work, public administration and defense (refer to PSIC).

**Table 65: Existing Programs And Plans for Commerce and Trade, Year\_\_\_**

<i>Programs/ Projects *</i>	<i>Location</i>	<i>Budget Allocation</i>	<i>Schedule of Implementation</i>	<i>Funding Sources</i>	<i>Implementing Agency/ies</i>

Source: Interview with MPDC, Peoples Economic Council (PEC)

\* Includes Capital Credit Schemes, Tax Holidays/Incentives and the like, Commerce And Trade Prioritization Plan

## *Annex 19*

### **SITE SELECTION CRITERIA FOR COMMERCIAL AREAS**

1. The site must be located in the most desirable general area as established by the economic survey;
2. The site must be owned or controlled by the developer, or offers the possibility of acquisition;
3. Land cost must be in keeping with overall economic consideration;
4. Existing zoning must permit shopping center development or reasonable likelihood of rezoning must exist;
5. The site must contain sufficient land to permit construction facilities to meet the sales potential;
6. The land must be in one piece, free of intervening roadways, right-of-way, easements, major waterways, or other obstacles that would force development in separated portions;
7. The topography and shape of the site must permit advantageous planning and reasonable construction;
8. The surrounding road pattern and accessibility must allow full utilization of the business potential;
9. The structure must be visible from major thoroughfares;
10. The surrounding areas should be safeguarded against blight;
11. Retail facilities should be exposed to maximize foot traffic;
12. Various mechanized traffic types and foot traffic be separated and distinct from one another;
13. Maximum comfort and convenience for shoppers and merchants should be provided for; and
14. Orderliness, unity and beauty should be achieved.

#### Site Selection Criteria for Market/Trading Sites or Trading Centers

1. It should be in urbanized area;
2. There should be relatively developed economic and servicing activity, as well as an established link with other key areas of the municipality;
3. It should be in strategic and convenient locations preferably along existing and proposed land and other modes of transportation to facilitate communication and distribution of goods to other areas dependent on this center for their shopping needs;

4. On the basis of market potentials, it should be along major arteries and with more than one line of access.

#### Parking and Loading Space Requirements

Provision on parking and loading requirements shall conform with *RULE XIX* (Parking and Loading Space Requirements) of the *National Building Code*.

#### Recommended Distances Expressed in Travel Time on Foot or Kilometers:

1. From residential zones to:
  - a) Neighborhood center – 750 meters or 15 minute travel on foot (maximum);
  - b) Minor CBD – 12 kms.; maximum walking distance, 15-30 minute travel time by public transport service;
  - c) Major CBD – 45 minutes to one hour travel time from the farthest areas served by the center by public or private transport.
2. From the education center (schools) – a minimum travel time of 15 minutes by public transport.
3. From the health center (hospital) – a minimum of 300 meters or 10 to 20 minutes travel time.
4. From the police station – 5 minutes travel time.
5. From the fire station – 3 to 5 minutes travel time.
6. From the garbage or disposal area – 5 to 10 kms. or 15 to 20 minutes travel time of garbage truck.

The industry study shall focus on industries classified according to capitalization, pollution/hazard potential and employment size. Classification of industries is shown in *Annex 20*. The local government unit is encouraged to concentrate on small and medium-scale industries since it has the capability to plan for these types of industries. However, LGUs lacking in potential may as well dismiss plans for industrial development. For areas identified as economic zones by PEZA, or industrial centers by national and regional development plans, the LGU shall coordinate with the PEZA, DTI, and other implementing agencies for the planning, establishment, and operation of such zones/centers.

**STEPS:**

**I. Data Gathering and Processing**

**A. Generate the following data/information and present in table format (as required):**

1. *Historical data on industrial areas for the last 5 years (if applicable), (Table 66)*
2. *Inventory of Existing Industrial Establishments by Intensity, Capitalization, and employment, Year \_\_\_\_\_ (Table 67)*
3. *Inventory of Existing Industrial Establishment By Manufacturing/ Industrial Process; Raw Material Input; Production And Markets, Year \_\_\_\_\_ (Table 68)*
4. *Local Revenue and Industrial Establishment for the last 5 years, (Table 69)*
5. *Product flow*
6. *Existing hazardous and/or pollutive industries*
7. *Natural resources with potential for industrial development:*
  - *mining*
  - *manufacturing*
  - *logging, etc.*
8. *National and local policies on industrial development to include incentives (e.g. Regional Industry Center, RAICs, PIC, EPZA), Year \_\_\_\_\_ (Table 70)*

*The output tables are basic information from which assessment of the state of the industry sector may initially proceed. Other relevant information may be gathered through a consultation process.*

- B. Determine the felt needs, aspirations and issues of the community relative to industry through consultations such as general assembly, focus group discussion, barangay consultation or other consultative meetings with identified stakeholders.**

Gathering of information on felt needs and aspirations of the population maybe facilitated by designing /structuring questions such as:

1. *What issues and concerns related to industry would you want to be addressed?*
2. *In what ways can you (as a resident/community member, stakeholder) address/resolve these issues and concerns?*
3. *In what ways can the government address/resolve these issues and concerns?*
4. *What are your aspirations to improve the industry sector in the locality?*

The consultation shall also serve as venue for gathering feedback on or validate data/information on needs, issues and other concerns.

Participation of the following key stakeholders are recommended:

- Industrial establishment owners/key officers or association of owners/officers
- Representatives of rank-in-file employees and skilled workers
- Selected residents in the immediate vicinity of the industry
- Disadvantaged men and women in the sector, e.g., handicapped

## **II. Data Analysis**

1. Present a brief situationer of industrial development in the locality in terms of the following:
  - Number/type of industries
  - Location and area utilization (refer to land use survey results)
  - Capitalization
  - Input (raw materials)/source
  - Employment /local revenue from industries
  - Product flow
  - Waste disposal system
  - Support services/utilities/facilities (refer to appropriate sector studies, e.g. infrastructure and commerce and trade sectors)

*All existing industries by type shall be depicted in a map.*

2. Establish the trend of industrial development as well as the causes of such trends in terms of increase/decrease in the following:
  - Areas occupied by industrial activities
  - Employment in the industry sector
  - Revenue generated from industries
  - Volume of products
3. Assess the current support facilities, utilities and services related to:

- Accessibility
  - Support services (refer to concerned sector, i.e. infrastructure, commerce and trade)
  - Reliability/quality of service
4. Identify any existing hazardous and/or pollutive industries, the location and areas occupied, as well as the type (land, air, water) and extent of pollution brought about by these industries. For this study, it may be necessary to coordinate with the DENR-EMB and concerned groups.
  5. Adequacy of any anti-pollution device/technology employed to mitigate pollution/degradation.
  6. Identify areas affected by air/water pollution due to industry and assess extent of degradation.
  7. Identify emerging industrial activities and natural resources/areas with potential for industrial development. Match these with local policies and expressed “wants” of stakeholders derived during the participatory assessment.

Coordinate with the Mines and Geo-Sciences Bureau (MGB) for the identification and delineation of areas with metallic and non-metallic mineral reserves of known commercial quantities and to determine the potential of a mining industry in the locality.

### III. Current and Future Needs

Considering the current trends and needs in industrial activities, assess and provide a report on the needs of the sector as to:

1. Adequacy of the existing industrial establishments considering the nature and distribution of industrial area, location criteria, etc.
2. Other needs and vital growth requirements:
  - ❖ Capital financing for industry generation and/or expansion
    - Identify all agencies/sectors which provide financial assistance/grants for specific industries.
  - ❖ Required manpower skill/s and the corresponding training for such.
    - This can be deduced from the analysis of manpower or employment presently utilized by existing types of industries.
  - ❖ Marketing strategies and market for perceived surplus products or goods.
  - ❖ Power requirements of existing and projected industries.
  - ❖ Infrastructure support facilities

- ❖ Anti-pollution devices for pollutive and hazardous industries and economic activities.
    - Need for regulating any identified indiscriminate mining and quarrying, and the need for proper monitoring to ensure compliance to established laws.
3. Future expansion/development of industries.
  4. Considering the potentials and limitations for industrial development, determine the industry classification (refer to *Annex 20*) and intensity suitable for the LGU.
  5. Compute for the minimum and maximum allowable industrial allocation per industrial land intensity standard as follows:

***Industrial Land Intensity Standards***

<i>Intensity<sup>1</sup></i>	<i>Hectare per 1,000 Population</i>	<i>Hectare per Person</i>
Light (I <sub>1</sub> )	0.80	.0008
Medium (I <sub>2</sub> )	2.50	.0025
Heavy (I <sub>3</sub> )	4.00	.004
GROSS	7.30	.0037

Source: Sectoral Planning Guidelines for Industry, 5<sup>th</sup> Edition, HLURB

<sup>1</sup> Intensity is based on pollution and hazard potential (Refer to HLURB Vol. X: Model Zoning Ordinance for the detailed listing of industries per intensity).

Given these parameters, the formula for computing the industrial land requirement will be as follows:

Industrial Area Requirement = Population x Standard Area per 1,000 population
---

Example:

Using the formula, industrial land requirement (for light industries<sup>2</sup>) will be computed as follows:

$$\begin{aligned}
 \text{Y1 Industrial Land Requirement} &= \frac{50,000}{1000} \times 0.80 \text{ has.} \\
 &= 40 \text{ hectares}
 \end{aligned}$$

Projection can be made following the sample table below:

**Current and Projected Industrial Area Requirement Y1 to Y5**

<i>Year</i>	<i>Population</i>	<i>Area Requirement</i>
Y1	50,000	40 has.
Y2	55,000	44 has.
Y3	60,000	48 has.
Y4	65,000	52 has.
Y5	70,000	56 has.

<sup>2</sup>Use the standard recommended for the particular land intensity to be adopted by the LGU. The example used the light intensity standard in the case of a LGU who intends to allow only light industries in the area. It is recommended that low level assumptions should be used unless the locality is an identified RAIC, PIC, or Ecozone.

***Actual land area allocation for industrial development will depend on the following:***

- LGU adopted vision, goals, objectives, and spatial /development strategy
- available land supply vis-à-vis the actual demand
- adherence to the principles of sustainable land use planning principles

6. Identify possible site for future development/expansion of industries and reflect on a map.

*The following location criteria and considerations shall guide the evaluation of sites for industrial development:*

- Impact on the environment;
- Impact on the traffic and the provision of services and utilities like water and sewerage collection systems, telecommunications facilities, electric power, and service roads;
- Proximity and access to transport nodes like ports, airports, bus terminals, and train stations.
- Measures and safeguards against pollution and means to preserve its natural ecosystems as per approved standards on human settlement and environmental sanitation requirement of the Local Government Code (RA 7160)

*Maximum physical characteristics criteria:*

<b>Particulars</b>	<b>Criteria</b>
1. Topography	Relatively flat
2. Slope	Level to nearly level (Type A or 0.0to 2.5%)
3. Ground water resources	Good
4. Land capability	Very good, good or moderately good (A, Be, Ce, and Cw) respectively
5. Land suitability for urban use	Suitable
6. Erosion Potential	None
7. External and internal natural drainage	Good
8. Flooding hazards	None
9. Prevailing wind direction	Away from other functional zones especially residential zones.

#### IV. Sectoral Analysis Matrix

**A. Consolidate and validate the findings of the above steps with the result of the consultation/s.**

1. List the key issues, problems, and concerns of the industry sector.
2. Determine the possible implications/impacts of the key issues, problems, and concerns.

**B. Recommend interventions such as:**

1. Realistic policy options and appropriate strategies
2. Programs and projects for implementation with due consideration of current and pipeline projects (Refer to Table 70).

**C. Prioritize, tabulate, and present the results in matrix form as follows:**

**(Sample) Industry Analysis Matrix**

<b>Technical Findings/ Observation</b>	<b>Implications (Effects)</b>	<b>Policy Options/ Interventions</b>
Industries polluting adjacent river	<ul style="list-style-type: none"><li>- Environmental degradation</li><li>- Decreased aquatic production</li></ul>	<ul style="list-style-type: none"><li>- Require all industries to put up their own anti-pollution device.</li><li>- Strict monitoring of industries.</li></ul>
No industry locators in designated industrial area for the last 5 years.	<ul style="list-style-type: none"><li>- Land remains idle/ undeveloped</li><li>- Projected income not realized</li></ul>	<ul style="list-style-type: none"><li>- Consider rezoning the area or portion thereof to other uses (i.e. agricultural, residential, etc.)</li><li>- Develop an investment promotion plan in close coordination with DTI, BOI, etc.</li></ul>

**TABLES:**

**Table 66: Historical Data on Industrial Areas**

Location	Industrial Areas (in ha.)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Brgy. 1					
Brgy. 2					
Brgy. 3					
Brgy. 4					

Source: Planning Office/Primary Survey

**Table 67: Inventory of Existing Industrial Establishments by Intensity and Capitalization, Year \_\_\_\_\_**

Barangay	Name of Industrial establishment	Land Area (hectares)	Intensity Classification	Capitalization	Employment

Intensity Classification: I<sub>1</sub> - Non-Pollutive/Non-Hazardous  
 I<sub>2</sub> - Pollutive/Hazardous  
 I<sub>3</sub> - Highly Pollutive/Highly Hazardous

**Table 68: Inventory of Existing Industrial Establishment by Manufacturing/Industrial Process; Raw Material Input; Production and Markets**

Name of Industrial Establishment	Manufacturing Industrial Process	Raw Material		Production			Product Market	
		Material	Source	Product	Volume	Value	Local	Export (other)

Source: Treasurer's Office/Mayor's Office

Note: Process: Fabrication; dyeing; canning; molding with chemicals; food processing; etc.  
 Raw material: Wood; iron; flour; fish.  
 Source: Locally produced; imported  
 Product: Steel bars; canned fish; flour  
 Volume: M.T.; actual no.; cubic meters  
 Value: In pesos

Product market: Locally consumed; exported  
 Export: Other LGUs; province; foreign

**Table 69: Local Revenue and Industrial Establishment**

<i>Year</i>	<i>Revenue</i>	<i>Increase/ decrease</i>	<i>Employment</i>	<i>Increase/ Decrease</i>
Y1				
Y2				
Y3				
Y4				
Y5				

Source: Treasurer's Office/Mayor's Office

**Table 70: Inventory of Local Policies relating to Industrial Development, Year \_\_\_\_**

<i>P/P</i>	<i>Location</i>	<i>Budget</i>	<i>Implement- ing Agency</i>	<i>Sources of Fund</i>	<i>Time Frame</i>
1. Establishment of PIE	Bgy. Wawa	P 10M	LGU/DTI	LGU/DTI	1998 - 2000
2. Establishment of Seaport	Bgy. Suba	P 3M	LGU/DPWH	LGU/ DPWH	1998 - 1999

## *Annex 20*

### **INDUSTRY CLASSIFICATION**

#### **A. According to Capitalization**

This is useful in determining industry types that a city/municipality can afford to pursue and the amount of land required to support these:

##### **Industry Classification According to Capitalization**

<b>SCALE</b>	<b>CAPITALIZATION ASSETS</b>
Micro-Industry	P150,000 and below
Cottage Industry	Above P150,000 – 1.5 M
Small-Scale Industries	Above 1.5 M – 15 M
Medium-Scale Industries	Above 15 M – 60 M
Large-Scale Industries	Above 60 M

Source: Department of Trade and Industry

#### **B. According to Employment Size**

This is useful in determining which industry types a city/municipality will pursue given the number and skills of the Labor Force Population in search of job in the locality.

##### **Industry Classification According to Employment Size**

<b>SCALE</b>	<b>EMPLOYMENT SIZE</b>
Micro-Industry	No specific number
Cottage Industries	Less than 10 workers
Small-scale Industries	10 to 99 employees
Medium-Scale Industries	100 to 199 employees
Large-Scale Industries	200 or more employees

Source: Department of Trade and Industry/ NEDA

#### **C. According to Degree of Hazard and Pollution**

This is useful as decision criteria for the municipality in the choice of specific types of industries that conform to environmental protection.

##### **C.1. Hazardous Industries**

These industries are fire and health hazards, i.e. their wastes have large amounts of combustible and toxic materials. Non-hazardous industries discharge negligible amount of combustible or toxic wastes.

## C.2. Pollutive Industries

These industries discharge large amounts of air, water, and solid pollutants. Non-pollutive industries on the other hand emit little or negligible amounts of these pollutants.

Based on the hazard and pollution potential, \* industries are classified into:

- |  |   |
|--|---|
| <b>Light Industries (I<sub>1</sub>)</b>  | - Non-pollutive / Non-hazardous<br>- Non-pollutive/ Hazardous   |
| <b>Medium Industries (I<sub>2</sub>)</b> | - Pollutive / Non-hazardous<br>- Pollutive / Hazardous  |
| <b>Heavy Industries (I<sub>3</sub>)</b>  | - Highly pollutive / Non-hazardous<br>- Highly pollutive / Hazardous<br>- Highly pollutive /Extremely hazardous<br>- Pollutive / Extremely hazardous<br>- Non-pollutive / Extremely hazardous |

\* Refer to HLURB Guidelines for the Formulation/Revision of CLUP, Volume X: Model Zoning Ordinance, 1996, for detailed listing.

## Economic Sector

# Tourism

## Volume 2

### **A Guide to Sectoral Studies in the CLUP Preparation**

Tourism study at the local level is focused on the identification of local attractions or areas that have tourism potential in order to generate tourist traffic to these areas. Generally, tourism sites (areas) are endowed with natural or manmade physical attributes and resources that are conducive to recreation, leisure, and other wholesome experiences (e.g. educational) and are intended for use of travelers and tourists.

These resources can be characterized at two levels: first level, natural and cultural characteristics indigenous to an area; and second level, attractions, activities and facilities needed to draw, entertain, and accommodate the tourists and travelers in the area.

However, where it is found that the locality does not have any tourism potential, there is no need to prepare a study on tourism.

### STEPS:

#### I. Data Gathering and Processing

##### A. *Generate the following data/information and present in table format:*

1. *Inventory of Tourism Establishments, Year \_\_\_\_ (Table 71)*
2. *Accessibility of Existing Tourism Establishment and Tourist Attraction, Year \_\_\_\_ (Table 72)*
3. *Facilities in Existing Tourism Establishments and Markets Catered, Year \_\_\_\_ (Table 73)*
4. *Inventory of tourism Support Facilities and Services, Year \_\_\_\_ (Table 74)*
5. *Local Revenue and Employment by Tourism Activities, Year \_\_\_\_ - Year \_\_\_\_ (Table 75)*
6. *Inventory of Tourists by Country of Origin, Year \_\_\_\_ - Year \_\_\_\_ (Table 76)*
7. *Cultural and Tourism Activities, Year \_\_\_\_ (Table 77)*
8. *Potential Tourist Attractions in the Locality (Table 78)*

*The output tables are basic information from which assessment of the tourism sector may initially proceed. Other relevant information may be gathered through a consultation process.*

- ##### B. *Determine the felt needs, aspirations and issues of the community relative to tourism through consultations such as general assembly, focus group discussion, barangay consultation or other consultative meetings with identified stakeholders.*

Gathering of information on felt needs and aspirations of the population maybe facilitated by designing /structuring questions such as:

1. *What issues and concerns related to tourism would you want to be addressed?*
2. *In what ways can you (as a resident/community member, stakeholder) address/resolve these issues and concerns?*
3. *In what ways can the government address/resolve these issues and concerns?*
4. *What are your aspirations to improve tourism in your locality?*

**C. Gather additional information as warranted by the result of the consultations/meetings conducted.**

**II. Data Analysis**

Assess the state of tourism industry in the locality and present a brief situationer in terms of:

1. Nature, location, area of existing tourist spots/attractions. Include facilities, services, and attractions (e.g. white sand beach, boating, cottage, food, etc.) offered by tourist establishments;

*Present all tourist attractions and establishments in map form.*

2. Presence of cultural/traditional festivals/activities, description and calendar of activities;
3. Average number of visitors, tourists visiting the tourist attractions on a daily or monthly basis;
4. Peak season of arrival of visitors, trend of arrival;
5. Capacity of tourist establishments and facilities to accommodate the influx of visitors to the area;
6. Accessibility of the tourist attractions, road conditions, frequency of transport services, etc.;
7. Gross annual receipt or income derived from tourism related establishments and rate of revenue compared to total city/municipal revenue;
8. Number of employment generated by the tourism industry (% of labor force employed).

**III. Current and Future Requirements**

Assess the requirements of tourism sector in terms of the following:

1. Comparative standing of tourism facilities with the requirements for specific types of resorts, restaurants, hotels, etc. as embodied in the following:

- a. Rules and regulations to govern the business operation of apartment-hotels (apartelles), tourist inns, pensions, motel-hotels (motels), lodging houses and other similar establishments;
  - b. Rules and regulations governing the business of travel and tour guides;
  - c. Hotel Code of 1974;
  - d. Adequacy of the existing personnel based on staffing requirements set by the Philippine Tourism Authority (PTA);
  - e. Peace and order situation in the area;
  - f. Identification of other factors to further enhance the beauty of the tourist spots.
2. Based on the existing capacities determined in the inventory vis-à-vis the targeted/projected visitors, establish the additional facilities and services required to handle additional volume of visitors.
  3. Analysis of other potentials/possible sites for the establishment of tourist industry using the criteria set by the Philippine Tourism Authority (PTA) as listed in *Annex 21*.

*The attraction evaluation will determine the appropriateness for development of tourist attractions. It will likewise be the basis of prioritization/ranking/phasing of development. This evaluation will also identify the factors which need to be improved as well as the strengths to be harnessed, to enhance the appeal of the area to visitors/tourists.*

- a. Identify potential tourist areas. Related livelihood projects such as souvenir production and handicrafts can also be identified.

*To avail of government incentives on tourism projects, consult the Department of Tourism (DOT) for the annual listing of tourism activities to be encouraged and given priority, and the tourism facilities required to supply the needs of local and foreign tourists and travelers (Refer to Annex 21 for the tourism resources and activities).*

- b. If the city/municipality has strong tourism potential and if there are supportive industries which could be developed in the area, explore the possibility of a joint venture with the national government and/or tie-up with the private sector to establish a tourist industry.
- c. In the determination of tourism project sites, consider government policies with respect to the preservation of the natural environment and the maintenance of ecological balance. Tourism development must also consider national guidelines and standards promulgated by the DOT, PTA, and other concerned agencies.
- d. In the effort to develop a tourist area, ensure the existence of strong and reliable support mechanism, e.g. necessary linkages and legal support, capacity development, improved transport facilities and access roads, promotion campaign, etc.
- e. Identify the positive and negative impacts of tourism. Programs to mitigate the negative impacts and harness the positive impacts should be in place.
- f. Prepare local ordinances to regulate tourism development and operations (as to design, character, height of structure, distance from the water, signages, etc.)

4. Prepare map reflecting proposed/identified tourist spots/attractions.

#### IV. Sectoral Analysis Matrix

##### A. Consolidate and validate the findings of the above steps with the result of the consultation/s.

1. List the key issues, problems, and concerns of the tourism sector.
2. Determine the possible implications/impacts of the key issues, problems, and concerns.

##### B. Recommend interventions such as:

1. Realistic policy options and appropriate strategies
2. Programs and projects for implementation with due consideration of current and pipeline projects.

##### C. Prioritize, tabulate, and present the results in matrix form as follows:

(Sample) Tourism Analysis Matrix

Technical Findings/ Observation	Implications (Effects)	Policy Options/ Interventions
<ul style="list-style-type: none"> <li>• Decreasing rate of visitors/tourists arrival</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease in tourism-generated revenues</li> <li>• Employees laid off from work</li> </ul>	<ul style="list-style-type: none"> <li>• Intensify promotion campaign</li> <li>• Improve access to tourist attractions</li> <li>• Improve peace and order situation</li> <li>• Develop other amenities/ attractions/activities that appeal to tourists</li> </ul>
<ul style="list-style-type: none"> <li>• Increasing cases of prostitution/pedophilia in tourist areas</li> </ul>	<ul style="list-style-type: none"> <li>• Moral corruption and crimes committed against the youth</li> </ul>	<ul style="list-style-type: none"> <li>• Increase police visibility and anti-crime operations</li> <li>• Increase education and awareness campaigns against crimes and dangers of tourism.</li> </ul>
<ul style="list-style-type: none"> <li>• Increasing pollution of beaches</li> </ul>	<ul style="list-style-type: none"> <li>• Decrease in tourist attraction</li> </ul>	<ul style="list-style-type: none"> <li>• Strict implementation and monitoring of pollution control measures</li> </ul>

**TABLES:**

*Table 71: Inventory of Tourism Establishments, Year \_\_\_\_*

<b>Location (Barangay)</b>	<b>Name of Tourism Establishment</b>	<b>Area (Hectares)</b>	<b><sup>1</sup>Type of Attraction</b>	<b>Facilities</b>	<b><sup>2</sup>Ownership</b>

<sup>1</sup>Type of Attraction: Natural; Man-Made; Cultural; Festival (event); Religious, Historical and Others

<sup>2</sup>Ownership : LGU; NGA-DOT; PTA; Proteted area; A & D lands; private sector

**Table 72: Accessibility of Existing Tourism Establishment and Tourist Attraction, Year \_\_\_\_\_**

Name of Tourism Establishment	<sup>1</sup> Means of Transportation Available	Distance from Nearest Airport (km)	Distance from Nearest Seaport (km)	Distance from National Highway (km)	<sup>2</sup> Access Road		<sup>3</sup> Accessibility
					Pavement	Condition	

<sup>1</sup>Means of Transportation: Land, Air, Water

<sup>2</sup>Access Road:

Paved	-	cement, asphalt
	-	good, fair, poor condition
Unpaved	-	gravel, earth
	-	good, fair, poor condition
No road access		

<sup>3</sup>Accessibility:

- 1 - accessible all year round by ordinary vehicle
- 2 - accessible only during the dry season by ordinary vehicle
- 3 - accessible all year round by 4-wheel drive vehicle only
- 4 - accessible during the dry season by ordinary vehicle and by 4-wheel drive vehicle only during the wet season
- 5 - accessible by walking/trekking/climbing only
- 6 - served by regular transport services (jeepney, tricycle, bus)
- 7 - served by regular boat service or by contracted boat service

**Table 73: Facilities in Existing Tourism Establishments and Markets Catered, Year \_\_\_\_**

<i>Name of Tourism Establishment</i>	<sup>1</sup> <i>Facilities Present</i>							<i>No. of Employees</i>	<i>Markets Catered</i>		
	<i>af</i>	<i>ff</i>	<i>cf</i>	<i>mf</i>	<i>ef</i>	<i>s/f</i>	<i>others</i>		<i>Local</i>	<i>National</i>	<i>International</i>

<sup>1</sup>Facilities:

- af* - accommodation facilities (hotels, resorts, picnic huts, cottages, comfort rooms, dressing/change rooms, swimming pool, vehicular parking)
- ff* - financial facilities (banks and money changers)
- cf* - communication facilities (Telecommunications)
- mf* - medical facilities (hospitals, clinics)
- ef* - eating facilities (restaurants and other food and beverage facilities)
- s/f* - shopping facilities (shopping centers/malls, handicraft stores/souvenir shops)
- others* - travel agencies and tour operators, airline offices, passenger ferry/shipping services, tourist transport operators, airline offices, passengers ferry/shipping services, tourist transport operators/rent-a-car, churches and other religious facilities, town plaza/parks/zoos, recreational facilities, other entertainment facilities.

**Table 74: Inventory of Tourism Support Facilities and Services, Year \_\_\_\_**

<i>Barangay</i>	<sup>1</sup> <i>Accommodation Facilities</i>	<i>Restaurants</i>	<i>Travel Agencies/Offices</i>	<sup>2</sup> <i>Transport Services</i>

<sup>1</sup>Hotels, resorts, lodging houses

<sup>2</sup>Transport operators (e.g. car rentals, tourist buses), Terminals, Tourist Information Centers

**Table 75: Local Revenue and Employment by Tourism Activities,  
Year \_\_\_\_ to Year \_\_\_\_**

<i>Year</i>	<i>Local Revenue</i>	<i>Employment</i>	<i>Increase/(Decrease)</i>
Year 1			
Year 2			
Year 3			
Year 4			
Year 5			

Source: LGU

**Table 73: Inventory of Tourist by Country of Origin, Year \_\_\_\_ to Year \_\_\_\_**

<i>Name of Tourist Attraction/ Establishment</i>	<i>No. of Tourists/Visitors</i>									
	<i>Year 1</i>		<i>Year 2</i>		<i>Year 3</i>		<i>Year 4</i>		<i>Year 5</i>	
	<i>Local</i>	<i>Foreign</i>	<i>Local</i>	<i>Foreign</i>	<i>Local</i>	<i>Foreign</i>	<i>Local</i>	<i>Foreign</i>	<i>Local</i>	<i>Foreign</i>

Source: DOT

Foreign tourist – indicate Country of Origin, e.g. USA, Canada, France, Italy, Korea, Japan, etc.

**Table 77: Cultural and Tourism Activities/Festivals**

<i>Activity</i>	<sup>1</sup> <i>Frequency of Activity</i>	<sup>2</sup> <i>Duration of Activity</i>

<sup>1</sup>Frequency of Activity : yearly, semestral, quarterly or monthly activity

<sup>2</sup>Duration : e.g. number of days the activity is held

**Table 78: Potential Tourist Attraction in the Locality**

<i>Barangay</i>	<sup>1</sup> <i>Potential Attraction</i>	<sup>2</sup> <i>Within Forest Land (Area in Ha.)</i>	<i>Within A &amp; D Lands (Area in Ha.)</i>

Source: LGU

<sup>1</sup>Potential Attraction : cave, falls, mountains, beaches, natural forest river, lakes, wetlands (e.g. mangroves)

<sup>2</sup>Within Forest Lands : indicate whether production or protection area

*Annex 21*

**CRITERIA TO DETERMINE ATTRACTIVENESS OF AN AREA  
and Their Corresponding Weights**

<b>Group Heading</b>	<b>Criteria</b>	<b>Weight</b>	<b>Consideration</b>
Lodging and food	❖ Lodging and Facilities	12%	Hotels, inns, resorts, private homes, restaurants, drive inns
	❖ Food facilities	6%	
Recreation and Shopping	❖ Shopping facilities	3%	Handicrafts store, gift shops, department stores Nightclubs, discotheques, theaters, cinema Hot springs, mineral water springs, picnic grounds, hiking trails, parks Zoos, botanical gardens, aquariums, museums Hunting, fishing, scuba diving, swimming, golf, tennis, pelota, horseback riding
	❖ Night time recreation	2%	
	❖ Facilities conducive to health, rest	2%	
	❖ Education facilities	2%	
	❖ Sports facilities	2%	
Infrastructure and Utilities	❖ Accessibility	6%	Highways, roads, airports, bridges, piers Land, sea, air facilities Radio, TV, telephone, telegram
	❖ Transport facilities	6%	
	❖ Communication facilities	4%	
Natural factors	❖ Natural beauty	15%	General topography of the area, flora and fauna, lakes and river, sea, island, springs, waterfalls Amount of sunshine, temperature, fresh air
	❖ Climate	5%	
Peace and Order	❖ Security for tourists	10%	
Social and Cultural factors	❖ Artistic and architectural features	2%	Local architect -mosques, monuments, old buildings, forts Religious, sports, music/ dance festivals Folk dances, costumes, music, souvenirs Commercial/non-commercial Local congeniality and treatment of tourists
	❖ Festivals	4%	
	❖ Distinctive local	2%	
	❖ Fairs and exhibits	2%	
	❖ Attitude towards tourists	2%	

Historical	❖ Ruins	4%	Condition and accessibility
	❖ Monuments, memorials, religious and historical landmarks	4%	The extent to which a site may be well known due to important historical events.

**Rating Score:**

<u>Score</u>	<u>Points</u>	<u>Descriptive Rating</u>
91 – 100	3.1 – 4	Excellent
80 – 90	2.1 – 3	Very Satisfactory
66 – 79	1.1 – 2	Satisfactory
65 – below	0.1 – 1	Unsatisfactory

## INTEGRATED ECONOMIC SECTOR ANALYSIS

1. Convene technical/sectoral-working groups.
2. Conduct participatory assessment of the local economy using SWOT assessment and/or other applicable tool (refer to Annex 22 for the procedural step in conducting SWOT).
3. Analyze the structure of the local economy using any or combination of the following parameters: Employment, value or volume of production, LGU revenue, and Land utilization. This will provide an approximate view of the economy and establish the economic driver(s).

For dominantly rural cities/municipalities or where data is not available, the local economic driver(s) may be determined through a participatory process involving the business sector, local government concerned departments such as Permits and Licenses Office, Assessor's Office, Treasurer's Office, Planning and Development Office, and other key stakeholders.

In some cases, the SWOT analysis earlier conducted may already establish an approximate view of the economy and establish the economic driver(s).

- 3.1 Cull out data from the sub-sector studies and generate data on employment by type of economic activity using the following format:

**Table 1: Employment by Type of Economic Activity**

Economic Activity	City/Municipality *				Province**			
	Y1		Y2		Y1		Y2	
	No.	%	No.	%	No.	%	No.	%
Agriculture, Hunting & Forestry								
Fishing								
Mining & Quarrying								
Manufacturing								
Electricity, Gas & Water Supply								
Construction								
Wholesale & Retail trade/repair of motor vehicles/ motorcycles personal & household goods								
Hotels/Restaurants								
Transport, Storage & Communication								
Financial Intermediation								

Real Estate, Renting & Business Activities								
Public Administration & Defense/ Compulsory Social Security								
Education								
Health & Social Work								
Other Community, Social & Personal Service activities								
Private Household w/ Employed Persons								
Extra-Territorial Organizations & Bodies								

Y1 and Y2 represent past two census years, or any recent data (Y2) and census data preceding the recent data (Y1)

\* Generally derived from municipal operating units

\*\* Taken from NSO

- 3.2 Compute for the changes in share of employment of each economic activity to the number of employed persons in the locality for both Y1 and Y2. Reflect results in the appropriate columns in Table 1 above. Use the following formula:

% Share of employment (of a particular economic activity)	=	$\frac{\text{Employment (in the particular activity)}}{\text{Total employment (in all economic activities)}}$	x 100%
Example: % of employment (Mining & quarrying)	=	$\frac{\text{Employment (mining and quarrying)}}{\text{Total employment (in all economic activities in the municipality /city)}}$	x 100%

- 3.3 Cull out data from Table 1 and summarize as follows:

**Table 2: Employment by Major Sector**

Sector/Activity	Municipality				Province			
	Y1		Y2		Y1		Y2	
	No.	%	No.	%	No.	%	No.	%
Primary								
Secondary								
Tertiary								
TOTAL		100%		100%		100%		100%

Note:

- Primary - sum of the number and % shares respectively (taken from table 1) of agriculture, fishing, hunting, forestry and mining and quarrying (Major divisions A, B and C of PSIC)
- Secondary - sum of the number and % shares respectively (taken from table 1) for manufacturing, electricity, gas, water supply and construction (Major division D, E and F)

- *Tertiary - sum of the number and % shares of all other economic activities (taken from table 1) not included in the primary and secondary sectors (Major division G to Q)*

- 3.4 Prepare graphical presentation of the result of step 4.3 using pie chart in aid of analysis.
- 3.5 Determine the level of urbanization of the locality for both Y1 and Y2 using the % shares of employment data in Table 2.

Level of employment (LU) = % employment in secondary +  
% employment in tertiary sector

Or simply computed as follows:

$$LU = 100\% - (\% \text{ share of employment in primary sector})$$

- 3.6 Analyze result of steps 4.1 to 4.5 above. This step is best undertaken in a participatory manner, e.g., meeting of TWG members/sectoral representatives. Analysis of % shares and the shifting of shares of economic activities over a period of time Y1 to Y2 will present a picture of the growth/trend of local economy.

Analysis can be guided by the following questions:

- What economic activity/sector has the highest/lowest employment share in Y1 and Y2?
- What changes (increase/decrease) are noted in the shares of employment from Y1 to Y2?
- What are the reasons/causes behind the changes?
- What are the possible implications?

Interpretations:

- Increasing share of employment in the tertiary (services) sector indicates increasing urbanization in the city/municipality.
- Decreasing share of primary sector over time (Y1 to Y2) shows economy is shifting from agriculture to non-agricultural economic activities.

If % share of employment in primary sector is more than 50%, locality is still predominantly rural, if less than 50%, the city/municipality is deemed urban.

- 3.7 Cite possible factors/reasons for changes and shifts of % shares of employment of the different economic activities. Among which are:
- Thrust/vision, economic related policies of the city/municipality
  - Peace and order, creativity
  - Private sector participation
  - Potential for development/strength and comparative advantage of the city/municipality
  - Functional role of city/municipality
  - Other factors such as national policies affecting the overall development of the city/municipality

4. Repeat the same process (Steps 4.1 to 4.7) using revenue, volume or value of production and reflect results in appropriate columns of Table 3 and Table 4, if such data are available. This will help in validating/supporting analysis of the **local** economy using employment data previously done. In this step the following tables will be generated:

**Table 3: Value (or Volume) of Protection by Type of Economic Activity**

<i>Economic Activity</i>	<i>City/Municipality *</i>				<i>Province**</i>			
	<i>Y1</i>		<i>Y2</i>		<i>Y1</i>		<i>Y2</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Agriculture, Hunting & Forestry								
Fishing								
Mining & Quarrying								
Manufacturing								
Electricity, Gas & Water Supply								
Construction								
Wholesale & Retail trade/repair of motor vehicles/ motorcycles personal & household goods								
Hotels/Restaurants								
Transport, Storage & Communication								
Financial Intermediation								
Real Estate, Renting & Business Activities								
Public Administration & Defense/ Compulsory Social Security								
Education								
Health & Social Work								
Other Community, Social & Personal Service activities								
Private Household w/ Employed Persons								
Extra-Territorial Organizations&Bodies								

*Y1 and Y2 represent past two census years, or any recent data (Y2) and census data preceding the recent data (Y1)*

*\* Generally derived from municipal operating units*

*\*\* Taken from NSO*

**Table 4: LGU Revenue by Type of Economic Activity**

<i>Economic Activity</i>	<i>Y1</i>		<i>Y2</i>		<i>Y1</i>		<i>Y2</i>	
	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>	<i>No.</i>	<i>%</i>
Agriculture, Hunting & Forestry								
Fishing								
Mining & Quarrying								
Manufacturing								
Electricity, Gas & Water Supply								
Construction								
Wholesale & Retail trade/repair of motor vehicles/motorcycles personal & household goods								
Hotels/Restaurants								
Transport, Storage & Communication								
Financial Intermediation								
Real Estate, Renting & Business Activities								
Public Administration & Defense/Compulsory Social Security								
Education								
Health & Social Work								
Other Community, Social & Personal Service activities								
Private Household w/ Employed Persons								
Extra-Territorial Organizations & Bodies								

*Y1 and Y2 represent past two census years, or any recent data (Y2) and census data preceding the recent data (Y1)*

*\* Generally derived from municipal operating units*

*\*\* Taken from NSO*

*Note:*  
*Information on gross sales and/or local revenue is optional or as maybe available, if employment is adequate/readily available. However, for highly urbanized LGUs, this information are recommended to be gathered and analyzed for a more accurate analysis of the sector.*

- Determine the area of specialization of the locality using the index of the concentration of economic activities called Location Quotient (LQ). LQ is a concentration index measurement of a certain economic activity, e.g., manufacturing in the LGU as compared to a larger area, the province. LQ is computed as follows:

Location quotient	=	$\frac{\frac{\text{Employment (in an economic activity)}}{\text{Total Employment in LGU}}}{\frac{\text{Employment (economic activity), in the Province}}{\text{Total Employment in the Province}}}$
-------------------	---	---

- 5.1 Compute for the LQ for each of the economic activities enumerated in Table 1 for both Y1 and Y2.

Sample Computations:

$$\begin{aligned} \text{LQ manufacturing} &= \frac{\% \text{ Share of employment in manufacturing (municipal)}}{\% \text{ Share of employment in manufacturing (province)}} \\ &= \frac{35\%}{20\%} = 1.75 \end{aligned}$$

$$\begin{aligned} \text{LQ agriculture} &= \frac{\% \text{ Share of employment in agriculture (municipal)}}{\% \text{ Share of employment in agriculture (province)}} \\ &= \frac{30\%}{40\%} = 0.75 \end{aligned}$$

*Note:*

*The use of ratio or % share (ratio expressed in %). This will result to same value of LQ.*

- 5.2 Reflect/tabulate the result in the following table:

**Table 5: Location Quotient**

Economic Activity	Y1	Y2
Agriculture, Hunting & Forestry	0.75	-
Fishing	-	-
Mining & Quarrying	-	-
Manufacturing	1.75	-
Electricity, Gas & Water Supply	-	-
Construction	-	-
Wholesale & Retail trade/repair of motor vehicles/ motorcycles personal & household goods	-	-
Hotels/Restaurants	-	-
Transport, Storage & Communication	-	-
Financial Intermediation	-	-
Real Estate, Renting & Business Activities	-	-
Public Administration & Defense/ Compulsory Social Security	-	-
Education	-	-
Health & Social Work	-	-
Other Community, Social & Personal Service activities	-	-
Private Household w/ Employed Persons	-	-
Extra-Territorial Organizations & Bodies	-	-

5.3 Interpret the Location Quotient (LQ) as follows:

- Specific economic activity, e.g., manufacturing with LQ greater than 1 indicates greater concentration of the activity in the city/municipality rather than in the province. This means that the city/municipality is relatively specialized in manufacturing activities as compared to the whole province manufacturing activities.
- If LQ is less than 1, the city/municipality is less specialized in the sector/activity than the province or there is less concentration of the activity in the LGU compared to the province.

If LQ is equal to 1, both the city/municipality and the province have the same level of specialization or concentration of the activity.

6. Determine the economic base or the “driver” of the city’s/municipality’s economy.

*Note:*  
 The Economic Base Model (EBM) for analyzing local economy will be used in this study. It is based on the concept that the local economy is divided into two sectors: the basic sector and the non-basic sectors.

*Local economy = Basic sector/activities + non-basic sector*

*The basic sector comprises the economic activities resulting in the export of goods/products and services (including labor) and generating income from outside the municipality / city. Generates income that fuels non-basic service sector.*

The model requires computing for the Economic Base Multiplier (EBM) as follows:

<b>EBM</b>	=	$\frac{\text{Total Employment}^*}{\text{Employment in Basic Sector (export oriented activities)}}$
------------	---	--

*\*Employment is only among the parameters that can be used as earlier mentioned.*

6.1 Determine/list industries/economic activities that are deemed basic or export-oriented using primary survey. Export-oriented in this study refers to distribution/consumption of goods/services outside the LGU including international market. If primary Survey cannot be undertaken, assume which among the listed economic activities in Table 1 are basic, on the basis of stock knowledge/interview.

*Note:*  
 Please refer to Annex 23 for determining the classification of economic activities.

Example:

*Assume:*

*Basic sector = activities listed as major division A to F*

*Non-basic sector = activities listed as major division G to Q*

6.2 Compute for the Economic Base Multiplier (EBM) using employment data.

$EBM = \frac{ET}{EA + EB + EC + ED + EE + EF}$
<p>Where:</p> <p>ET = Total employment in the municipality / city</p> <p>EA = employment in agriculture, fisheries, hunting</p> <p>EB = employment in forestry</p> <p>EC = employment in mining and quarrying</p> <p>ED = employment in manufacturing</p> <p>EE = employment in electricity, water and gas</p> <p>EF = employment in construction</p>

6.3 Interpret results as follows:

<i><b>EBM Value</b></i>	<i><b>Interpretation</b></i>
1:2	means for every job in the basic sector 2 more jobs are generated in the non-basic or service sector or a total of 3 jobs
1:3	means for every job in the basic sector 3 more jobs are generated in the non-basic or service sector or a total of 4 jobs

7. Determine which economic activity will be pursued/promoted to achieve the vision, given the results/findings in the previous steps
8. Translate the chosen activity to spatial requirements/using appropriate/agreed criteria.
9. Determine contribution of the sector to the quality of life of the population based on the following indicators by comparing the current or latest information with the previous data:
  - a) Employment rate
  - b) Population below poverty level
  - c) LGU revenue
  - d) Average family income
  - e) Number of investors
  - f) Others, as maybe necessary
10. Cross-check/validate results of sub-sector studies for any duplication and/or inconsistencies of interventions (policies, programs and projects).
11. Prioritize issues and problems using the following criteria:
  - Urgency of problem
  - Seriousness of the problem
  - Extent/magnitude of population directly or indirectly affected

- Impact of problem on the strengths, potentials, opportunities and on the achievement of the vision of the locality.
- Other applicable criteria as maybe agreed upon

12. Tabulate prioritized issues/problems with corresponding interventions (policies, programs and projects). This can be presented as follows:

<b><i>Priority Issues/ Problems</i></b>	<b><i>Possible Intervention</i></b>	<b><i>Responsibility Center</i></b>
1. Pollution of water bodies due to industrial discharges	<ul style="list-style-type: none"> <li>• Strict implementation of waste treatment policies</li> <li>• Community participation in monitoring industrial wastes disposal.</li> </ul>	<ul style="list-style-type: none"> <li>• LGU/DENR/DOH</li> <li>• LGU/NGOs/NGAs</li> </ul>
2. Conflicting economic activities, e.g. manufacturing industries and tourism (beach resorts)	<ul style="list-style-type: none"> <li>• Strict enforcement of CLUP and ZO.</li> <li>• Formulation and application of other development control measures.</li> </ul>	LGU (SB Committee concerned, Zoning officer, Planning officer)

## Annex 22

### SWOT ANALYSIS TECHNIQUE

SWOT Analysis is a method that enables a planner to generate feasible alternative strategies for the LGU through an assessment of the present conditions, characteristics, and current state and utilization of the LGU's natural/physical, human and fiscal resources.

- Serves as basis for evaluating where the LGU's strength lies. Thus, serves as guide in determining which aspect to pursue and what weaknesses and threats to overcome to take advantage of opportunities.
- Internal strengths can be used to take advantage of external opportunities or to overcome external threats.
- The planners can formulate and pursue defensive-type strategies aimed at overcoming weaknesses and avoiding external threats.
- The planners can formulate and pursue strategies that will improve on the LGU's internal weaknesses by taking advantage of external opportunities.

The SWOT Matrix is an important strategy-formulation matching tool that results in the development of four types of strategies: **Strengths-Opportunities (SO) strategies, Weaknesses-Opportunities (WO) Strategies, Strengths-Threats (ST) strategies and Weaknesses-Threats (WT) strategies.**

#### HOW IS SWOT ANALYSIS DONE?

*SWOT Analysis is done through a workshop with the participation of the local officials and the various representatives of the different sectors of the LGU and key stakeholders.*

**Step 1** *Divide the participants into groups/sectors. Assign a presenter for each group/sector.*

**Step 2** *Using the SWOT Matrix (refer to example below), each group/sector can now proceed to the succeeding steps.*

#### SWOT MATRIX

Always leave this blank	STRENGTHS (O)	WEAKNESSES (W)
OPPORTUNITIES (O)	SO STRATEGIES	WO STRATEGIES
THREATS (T)	ST STRATEGIES	WT STRATEGIES

**Step 3** *List the key internal strengths in the upper middle cell.*

*Strengths* refer to the present or inherent features, attributes or characteristics of the LGU that enhance or aid in its development or progress. Strengths should be identified to be able to enhance them. (e.g. vast tract of agricultural roads and power supply, strong political will among local officials)

**Step 4** *List the key internal weaknesses in the upper right cell.*

*Weaknesses* refer to the present human, fiscal or physical attributes that tend to or inhibit the development or progress of the LGU. Weakness should be analyzed to be able to overcome them. (e.g. inadequate irrigation facilities poor maintenance of existing facilities)

**Step 5** *List the key external opportunities in the middle left cell.*

*Opportunities* refer to the external economic, social, political, technological and competitive trends, conditions, events or circumstances that could significantly benefit the LGU to further improve its existing situation, (e.g. Location of foreign assisted projects, within the BIMP-EAGA)

**Step 6** *List the key external threats in the lower left cell.*

*Threats* consist of external economic, social, political, technological and competitive trends and events that are potentially harmful to the LGU's present and future development or progress, (e.g. presence of EPZA in the adjacent city/municipality)

**Step 7** *Match internal strengths with external opportunities and record the resultant SO Strategies in the middle right cell. SO strategies are based on using key internal strengths to take advantage of external opportunities.*

**Step 8** *Match internal weaknesses with external opportunities and record the resultant WO strategies in the middle right cell. WO strategies are based on overcoming of weaknesses by taking advantage of opportunities.*

**Step 9** *Match internal strengths with external threats and record the resultant ST strategies in the lower center cell. ST Strategies are based on using strengths to avoid threats.*

**Step 10** *Match internal weaknesses with external threats and record the resultant WT Strategies in the lower right cell. WT strategies are on minimizing weaknesses to avoid threats.*

*The purpose of each matching tool is to generate feasible alternative strategies, not to select or determine which strategies that were developed in the SWOT Matrix will be selected or implemented.*

**Step 11** *Let each group/sector present their respective output: SWOT Analysis Matrix (Refer to sample SWOT analysis matrix below)*

### SWOT MATRIX

	STRENGTHS (O)	WEAKNESSES (W)
Always leave this blank	<p>Vast tract of agricultural Land</p> <p>Adequate roads, bridges and power supply</p> <p>Strong political will among local officials</p>	<p>Inadequate irrigation Facilities</p> <p>Poor maintenance of existing utilities</p>
OPPORTUNITIES (O)	SO STRATEGIES	WO STRATEGIES
<p>LGU is among the small irrigation project areas of the JICA</p> <p>Within the BIMP-EAGA</p>	<p>Local officials to make representations with the JICA project team for early implementation.</p> <p>Expansion and development of commercial and production areas.</p>	<p>To cooperate with the JICA authorities to facilitate construction of irrigation facilities in the area.</p> <p>Rehabilitation and maintenance of existing facilities</p>
THREATS (T)	ST STRATEGIES	WT STRATEGIES
<p>LGU is located within the typhoon belt</p> <p>Traffic congestion</p>	<p>Raise crops which can withstand typhoon.</p> <p>Develop alternative roads.</p>	<p>Construct facilities to mitigate floods during heavy downpour.</p> <p>Provide additional roads and improve or maintain existing roads.</p>

**Step 12** Generate comments from other groups, select common entries from the groups' outputs and agree to come up with a final matrix using the group work as inputs.

***Annex 23***

***Philippine Standard Industrial Classification (PSIC)***

The Philippine Standard Industrial Classification (PSIC) is a statistical classification of economic activities obtained in a country.

The PSIC consists of seventeen (17) major divisions as listed below. For assessment purposes, the PSIC classification is further grouped into three major groupings, as follows:

*Primary sector* – are basically agriculture and natural resource-based economic activities referred to as extractive industry.

*Secondary sector* – consists of the manufacturing, utilities and construction activities referred to as manufacturing sector.

*Tertiary sector* – consists of trade, services, finance, and real estate economic activities referred to as service sector.

<b>MAJOR PSIC CLASSIFICATION*</b>	<b>PSIC MAJOR DIVISIONS</b>	<b>ECONOMIC ACTIVITIES</b>
Primary (Extractive Industry)	Division A. Division B. Division C.	Agriculture, Hunting and Forestry Fishing Mining and Quarrying
Secondary (Manufacturing Industry)	Division D. Division E. Division F.	Manufacturing Electricity, Gas and Water Supply Construction
Tertiary (Service)	Division G.  Division H. Division I. Division J. Division K. Division L.  Division M. Division N. Division O.  Division P. Division Q.	Wholesale and Retail trade, repair of motor vehicles, motorcycles and personal and household goods Hotels and Restaurants Transport, Storage and Communication Financial Intermediation Real Estate, Renting and Business Activities Public Administration and Defense; Compulsory Social Security Education Health and Social Work Other Community, Social and Personal Service activities Private Household with Employed Persons Extra-Territorial Organizations and Bodies