

Analysis of Agricultural Sector Economic Potentials in Lebong Regency Bengkulu Province

Joti Pauzia, Bambang Sumantri, and Ellys Yuliarti

Department of Agriculture Socio-Economics, Faculty of Agriculture, University of Bengkulu

Corresponding author: bsumantri1719@yahoo.com

ABSTRACT: Analysis of the Economic Potential of the Agricultural Sector in Lebong Regency, Bengkulu Province. The purpose of this research is to analyze the potential of the agricultural sector in Lebong Regency and identify the competitiveness of the agricultural sector in Lebong Regency. This study uses the LQ (Location Quotient) and Shift Share analysis methods to identify the agricultural sector in the development of the Lebong Regency. This study uses secondary data on the PDRB of the Lebong district and Bengkulu Province from 2017 to 2021. Based on the analysis of the food crops sub-sector and plantation crops sub-sector, these are the leading sub-sectors or the current base sub-sector. Analysis of the proportional growth component (KPP) shows that the estate crops sub-sector is the most advanced in Lebong Regency.

Keywords: Agricultural sector, location quotient, shift-share.

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INTRODUCTION

Regional economic development is a series of activities carried out by the regional government and the community in managing and utilizing existing resources and forming a pattern of partnership between the regional government and the private sector to create new jobs and stimulate economic growth in the region. Therefore, local governments and their community participation and using existing resources, must be able to assess the potential resources needed to design and develop the regional economy (Tumangkeng, 2018).

The main objective of regional economic development is to improve people's welfare by increasing the number and types of job opportunities for the local community. To achieve this goal, local governments must be able to make predictions about all the potential existing resources, and local governments and their communities must jointly take regional development initiatives. Therefore, local governments and their community

participation using existing resources, must be able to explore the potential resources needed to design and develop the regional economy (Arsyad, 2009).

The agricultural sector has a crucial role in regional development, among others, in increasing regional income, providing employment and meeting the needs of people's consumption. Indonesia, known as an agricultural country, relies more on the agricultural sector and other leading sectors. The agricultural sector consists of several sectors: the food crops sub-sector, horticulture sub-sector, fisheries sub-sector, livestock sub-sector and forestry sub-sector. These sectors are the dominant sectors needed by the people of Indonesia.

The area of Lebong Regency is one of the areas that have the potential of the agricultural sub-sector which is quite potential. The agricultural sector plays an important role in the economy, especially in Lebong Regency. Development in Lebong Regency from 2017 to 2021 has experienced regional developments where development shows the value of economic growth. And the

level of economic growth in Lebong Regency is supported by leading economic sectors used as the regional potential for development. It is known that Lebong Regency in the contribution of the agriculture, forestry and fisheries categories to GRDP in 2021, based on current prices, is IDR 1.51 trillion or 41.56 per cent. In 2021, this category will grow by 2.53 per cent. This figure is

higher compared to 2020, which was 0.53 per cent. (BPS Lebong Regency, 2021).

The agricultural sector is one of the most significant contributors to the Gross Regional Domestic Product (GRDP) in Lebong Regency's economic growth. In developing various superior commodities, it can create progress in the agricultural sector and support the economy of Bengkulu Province. Can be seen in Figure 1.

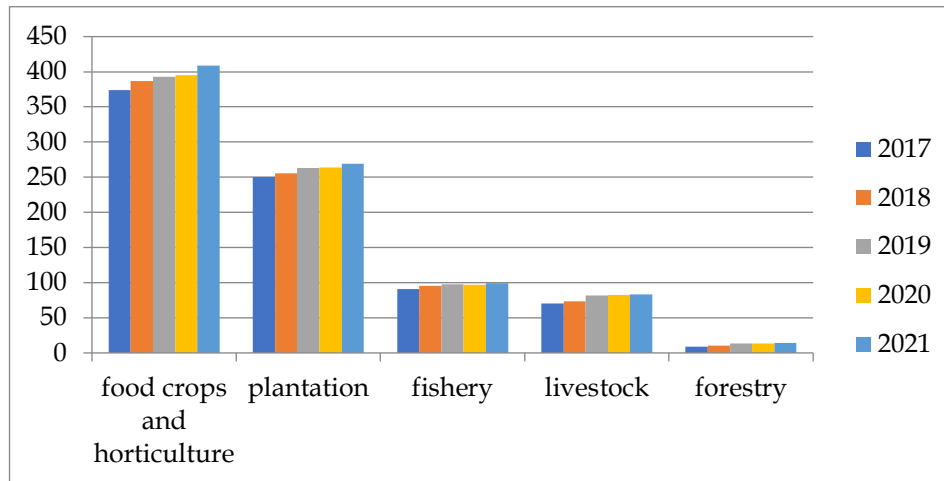


Figure 1. GRDP of the Agricultural Sector in Lebong Regency at Constant Prices by Business Field in 2017-2021 (Million Rupiah)

Figure 1. shows that the GRDP data for Lebong Regency at constant prices according to the 2017-2021 business field has increased overall in 5 sectors. The business field consists of several sectors, namely the food crop sector, plantation crop sector, fishery sector, livestock sector, and forestry sector.

This study aims to determine the potential of the agricultural sector in Lebong Regency and the competitiveness of the agricultural sector in Lebong Regency.

RESEARCH METHODS

The research location was carried out purposively, carried out in a deliberate manner determined by the field study supervisor, where the research location chosen was Lebong Regency.

In this research, the object of research is the area in Lebong Regency. The period used in this study covers 2017-2021 using data series (time series). While the type of data that the authors use in this study is secondary data, namely data obtained from the processing of second parties (external data), and the data used is annual data.

The data used in this study is secondary data using GRDP data at constant prices from 2017-2021 regarding the agricultural sector/sub-sector in Lebong Regency. This data was obtained from related government agencies directly on the Lebong Regency BPS (Central Statistics Agency) website and other literature supporting this research.

Analysis Method

The data analysis used in this research is Location Quotient (LQ) and Shift-Share.

Location Quotient (LQ) data analysis is used to answer the objectives of the potential of the agricultural sector in the Lebong Regency. Shift-Share analysis is used to answer the objectives of the competitiveness of the agricultural sector in the Lebong Regency.

Location Quotient (LQ) Analysis

The LQ method is used to identify the internal potential of an area, namely which sectors are the base sector and the non-base sector, by presenting a relative comparison between the capabilities of one sector between the areas investigated and the capabilities of the same sector in the broader area (Kartikaningdyah, 2013).

Location Quotient Analysis is an analytical tool that can be used to determine the base and non-base sectors in Minahasa Regency. Systematically the calculation of LQ is stated as follows:

$$LQ = \frac{Si/S}{Ni/n}$$

Information:

LQ = Nilai Location Quotient (LQ).

Si = GRDP of sector I in Lebong Regency

S = total GRDP in Lebong Regency

Ni = GRDP of sector i in Bengkulu Province

N = total GRDP in Bengkulu Province

The criteria for LQ values are: (a) $LQ > 1$ means that the commodity is the basis; production does not only meet the needs of the region concerned but has a surplus that can be exported outside the region; (b) $LQ < 1$ means that the commodity is classified as non-base, commodity production cannot meet the needs of the region itself so it needs supplies from outside the region; (c) $LQ = 1$ means that the commodity is classified as non-basic, does not have advantages, the production of this commodity is only able to meet the needs of its region and is unable to export (Saragih *et al.*, 2021).

Shift-Share Analysis

Shift-share analysis is a quantitative technique that can be used to analyze changes in regional economic structure relative to the economic structure of higher administrative areas as a comparison or introductory information that can be obtained from Shift-Share analysis (Putu Karismawan *et al.*, 2020).

Shift share analysis is used to see changes in total employment or total GRDP of an analysis area based on the shift component and the share component based on a specific period according to the time used. This analysis is used to find out how much the total GRDP has changed from the analysis area. At the same time, the shift component is the deviation from the national share in the growth of GRDP in the analysis area, which can be seen from the value of the proportional share component and the differential shift. So that the added value of the GRDP of a sector can be broken down from the value of the National Share, Proportional Shift and Differential Shift (Ridlo & Susilowati, 2018).

The components in the shift-share analysis (Budiharsono, 2005):

1. National Growth Component (NGC)
2. Proportional Growth Component (PGC)
3. Regional Share Growth Component (RSGC)

$$NGC = \left(\frac{Y_t}{Y_o} - 1 \right)$$

$$PGC = \left(\frac{Y_{it}}{Y_{io}} - \frac{Y_t}{Y_o} \right)$$

$$RSGC = \left(\frac{Y_{it}}{Y_{io}} - \frac{Y_{it}}{Y_{io}} \right)$$

Information :

Y_t = Total number of provinces in the final year (2021)

Y_o = Total number of provinces in the first year (2017)

Y_{it} = First sector in province final year (2021)

Y_{io} = First sector in the province of the initial year (2017)

Y_{it} = First sector in final year district (2021)

Y_{io} = The first sector in the initial year district (2017)

RESULTS AND DISCUSSION

Location Quotient (LQ) Analysis

Location Quotient (LQ) is a method for calculating the relative ratio of the added value contribution of a sector in a region (Regency/City) to the contribution of the added value of the sector concerned on a regional or national scale. This technique is used to identify the internal potential of an area, namely dividing it into two groups, the base sector, and the non-base sector (Budhi, 2019).

Static Location Quotient analysis is intended to identify and formulate the composition and shifts in the base sector of a region by using Gross Regional Domestic Product (GRDP) data as an indicator of regional growth. (Pantow *et al.*, 2015)

Determining the base and non-base sectors in a region is the first step towards sustainable development based on the concept of efficiency to gain a comparative

and competitive advantage in a region. The base sector at the district level is an economic sector where the sector has a more prominent role compared to its role at the provincial level. Meanwhile, the non-base sector is a regional economic sector that is equal and not prominent compared to its role at the provincial level. So the base sector is a sector that is superior to other sectors or can also be called a superior sector. At the same time, the non-base sector is supporting in the structure of the regional economy.

In this calculation, the analysis area is Lebong Regency, and the reference area is Bengkulu Province. The data used is the Gross Regional Domestic Product (GRDP) of Lebong Regency and Bengkulu Province from 2017 to 2021. This data is official data released by the Central Bureau of Statistics for Lebong Regency and Bengkulu Province. By using this method, the Location Quotient (LQ) analysis results are shown in table 1.

Table 1. Location Quotient (LQ) Analysis Calculation Results

No	Subsector	LQ					Average
		2017	2018	2019	2020	2021	
1	Food crops and Horticulture	1.10	1.10	1.10	1.11	1.14	1.11
2	Plantation	1.87	1.84	1.83	1.80	1.73	1.81
3	Fishery	0.48	0.49	0.48	0.47	0.46	0.48
4	Livestock	0.61	0.61	0.66	0.65	0.64	0.63
5	Forestry	0.52	0.61	0.78	0.81	0.86	0.72

Source: Processed data, 2022

In the agricultural sector, the food crops sub-sector (LQ = 1,11) and the plantation sub-sector (LQ = 1,81) are currently the basic sub-sectors; the other sub-sectors are still non-basic sub-sectors today. From the results of this analysis, it can be concluded that in the agricultural sector, especially the food crops sub-sector and the plantation sub-sector, there was a concentration of activity in Lebong Regency from 2017 to 2021.

Rizani's research (2017) explains that leading sectors with competitiveness allow these sectors to become good prospects and

can develop potential sectors even though they do not yet have good competitiveness. So, the leading sub-sector that can encourage growth and allows it to be developed even though it does not yet have a competitive advantage is the plantation crops sub-sector.

The results of calculations using the LQ method show that from 2017 to 2021, there has been no significant change. The base sector in each agricultural sector tends to be the same; not many sectors experience changes from the non-base sector to the base sector and vice versa. This indicates that

development in Lebong Regency from 2017 to 2021 has not experienced much change. In total, the following can explain the results of the LQ analysis for each sector for 5 years from 2017-2021.

Shift Share Analysis

A shift-share analysis is widely used in regional economic analysis to identify sectors with a comparative advantage in a region. A shift-share analysis is a descriptive analysis tool that systematically describes the differences in growth rates by sector and region between two points in time. This model disaggregates the growth of sectors within the economy of a region to identify the

components of these changes and calculate the effects of regional economic structure on overall regional economic growth (Kogoya *et al.*, 2018)

The shift-share analysis also compares the differences in the growth rate of various sectors/sub-sectors in our region and the national territory. This analysis uses the method of isolating various factors that cause changes in a region's industry in its growth from one period to the next (Pratama *et al.*, 2017).

When analyzed using the Shift-Share method, the growing agricultural sub-sector can be seen in full in table 2.

Table 2. Shift Share Analysis Calculation Results

No	Subsector	National Growth Component (NGC)	Proportional Growth Component (PGC)	Regional Share Growth Component (RSGC)
1	Food crops and Horticulture	26.42	-11.50	8.19
2	Plantation	26.42	26.56	4.18
3	Fishery	26.42	6.58	-21.84
4	Livestock	26.42	1.99	-15.94
5	Forestry	26.42	-23.64	-11.58

Source: Processed data, 2022

Based on the provincial growth component analysis (NGC) results, all agricultural sub-sectors have a positive value (+). It means that the agricultural sub-sectors in this regency in Bengkulu Province are growing faster than the same agricultural sub-sectors in Bengkulu Province.

Based on the results of proportional growth component analysis (PGC), it is known that the estate crops sub-sector is the most advanced in Lebong Regency. It can be seen in the PGC value of the estate crops sub-sector in Lebong Regency, which has the largest positive (+) sign, namely 26,56. The Fisheries and Livestock sub-sector is one of the sub-sectors that is in the advanced category because it has a positive (+) PGC

value, where the Fisheries sub-sector has a PGC value of 6.58 and the Livestock sub-sector has a PGC value of 1,99.

While the analysis of the growth component of area share (competitive advantage) in Lebong Regency obtained mixed results, where the food crops and horticulture sub-sector had a positive (+) RSGC value of 8.19. It proves that the food crops and horticulture sub-sector in Lebong Regency has competitiveness. Meanwhile, the fisheries sub-sector with the lowest RSGC score (not competitive) was -21.84.

CONCLUSIONS

Based on the results of the study, it can be concluded that the leading agricultural

sub-sector based on the results of the Static Location Quotient (LQ) analysis, which is currently the basic sub-sector, is the food crops and horticulture sub-sector (LQ = 1,11) and the plantation sub-sector (LQ = 1,81), other sub-sectors are still under development. Non-base sub-sector at present. Based on the shift-share analysis, it is known that the value of the positive proportional growth component (KPP) is 26.56. It shows that the estate crops sub-sector is the most advanced in Lebong Lebong Regency. And the food crops and horticulture sub-sector has a positive KPPW value of 8.19. It proves that the food crops and horticulture sub-sector in Lebong Regency has competitiveness so that the two sectors have competitiveness in Lebong Regency.

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