Analysis of Leading Commodities of Plantation Sub-Sector in Jombang Regency

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ABSTRACT

Plantations are part of the agricultural sector which has an important role in improving the economy in a region. Jombang Regency is one of the regencies in East Java that has great potential in developing its plantation subsector by knowing the leading commodities of the plantation subsector in Jombang Regency. This study aims to analyze the basic commodities of the plantation sub-sector in Jombang Regency, analyze the development of commodities based on the plantation sub-sector in Jombang Regency, analyze the leading commodities of the plantation sub-sector in Jombang Regency. The data used in this study is secondary data in the form of plantation production results of Jombang Regency in 2019-2020. The data analysis methods used in this study are Location Quotient (LQ) and Shift Share. The results showed that the leading commodities in Jombang Regency were coffee, tobacco, sugarcane and cocoa.

Keywords: Featured Commodities; Location Quotient (LQ) ; Shift Share

INTRODUCTION

The agricultural sector is one of the sectors that has a very important role in economic development because the agricultural sector is one of the factors of economic development and recovery in Indonesia. The important role of the agricultural sector includes providing jobs, preparing clothing, food and shelter, providing raw materials for industrial interests, contributing high national income, increasing state foreign exchange. The agricultural sector has a strong nature against economic shocks that occur (Saragih, 2017).

The agricultural sector in a broad sense includes several sectors, among others, the agricultural sector, animal husbandry, fisheries, forestry and plantations. The plantation sub-sector has a major influence on economic growth in Indonesia so this needs to be managed properly by the government to maximize the yield of its own plantation sub-sector (Syahza *et al.*, 2021).

According to (Bachrein, 2003) the determination of superior commodities in a region becomes a must by considering commodities that are able to compete sustainably with the same commodities in other regions with the consideration that the commodities cultivated are efficient in terms of technology and socio-economy. With the existence of this leading sector, regional potential will be known that can be used to implement regional sustainability policy strategies and plans (Farista Aristin et al., 2017).

Jombang Regency is one of the districts in East Java that has great potential in developing the plantation subsector, which based on BPS data, the plantation subsector in Jombang Regency has increased very significantly every year. So that the development of plantation subsectors in Jombang Regency is expectedto be able to improve the economy of the Jombang community. Efforts that can be made to develop the plantation sub-sector in Jombang Regency are in accordance with the objectives of this study by determining the base commodities of the plantation sub-sector in Jombang Regency, then analyzing the

development of the basic commodities of the plantation sub-sector in Jombang Regency and determining the leading commodities of the plantation sub-sector in Jombang Regency using the priority table for the development of superior commodities of the plantation sub-sector.

RESEARCH METHODS

This study used Location Quotient analysis method and shift share analysis. Location Quotient analysis is a technique used to measure the concentration of an economic activity or sector in a region by comparing its role in the regional economy with the role of economic activity sectors at the national level (Indah et al., 2017), Location Quotient analysis according to Tarigan (2005) can be formulated as follows:

LQ = (Vij/Vj)/(Yin/Yn)

Information:

Vij : production of plantation subsector *commodities i* in sub-district *j* Jombang Regency

Vj : total production of plantation subsector commodities in District *j* Jombang Regency

Yin : commodity production of plantation subsector *i* in Jombang Regency

Yn : Total production of plantation subsector commodities in Jombang Regency

The analysis used to answer the second goal is shift share analysis, According to Akhmadi (2019) the Shift Share analysis component consists of four components, namely Regional Share Growth, Regional Growth, Net Growth, and Proportional Growth, following the shift share analysis formula:

KPPW = ri (ri'/ri – nt'/nt)

KPP = ri (nt'/nt – Nt'/Nt)

Information:

RI = Production of Commodities *I* District Early Year

RI' = Production of Commodity *I* District Final Year

NT = Commodity Production *I* District Early Year

nt' = commodity production *i* district end year

Nt = total district production of the initial year

Nt' = total district production final year

RESULTS AND DISCUSSION

Identifying the base plantation sub-sector commodities in each Jombang Regency sub-district uses the Location Quotient (LQ) approach, which calculates the LQ value of each plantation sub-sector commodity produced in Jombang Regency.

Plantation sub-sector commodities in each Jombang Regency District in 2019-2020 based on the results of the average LQ analysis are as follows:

Table 1 results of location quotient analysis of plantation subsector commodities

Analysis of District Location Quotient value in Jombang Regency												
District	**Coffee**		**Average**	**Cacao**		**Average**	**Sugar cane**		**Average**	**Tobacco**		**Average**
	2019	2020		2019	2020		2019	2020		2019	2020	
Bandarkedung Mulyo							10,35	15,02	12,685			
perak							10,35	15,02	12,685			
Gudo							10,35	15,02	12,685			
Diwek							10,35	15,02	12,685			
Ngoro							3,11	15,02	9,065			
Mojowarno							10,35	14,98	12,665			
Bareng	0,21	3,44	1,825	0,85	12,69	6,77	0,34	12,59	6,465	1,09	0,09	0,59
Wonosalam	31,2	60,95	46,095	28	55,67	41,835	1,38	2,83	2,105			
Mojoagung							10,35	15,022	12,686			
Sumobito							10,35	15,022	12,686			
Jogoroto							10,35	15,022	12,686			
Peterongan							10,35	15,022	12,686			
Jombang							10,35	15,022	12,686			
Megaluh							10,35	15,022	12,686			
Tembelang							10,35	15,022	12,686			
Kesamben							10,35	15,022	12,686			
Kudu							0,62	0,13	0,375	1,07	1,08	1,075
Ngusikan							0,23	2,26	1,245	1,12	0,92	1,02
Ploso							0,04	0,03	0,035	1,14	1,085	1,1125
Kabuh							0,1	0,02	0,06	1,13	1,08	1,105
Plandaan							0,06	0,0002	0,0301	1,14	1,09	1,115

Source : BPS Data (processed, 2023)

Based on the table above, the results of the location quotient analysis of plantation subsector commodities in each sub-district in Jombang Regency are several basic plantation subsector commodities, which means tilapia LQ > 1, including sugarcane commodities in Bandarkedung Mulyo, Perak, Gudo, Diwek, Ngoro, Mojowarno, Wonosalam, Mojoagung, Sumiboto, Jogoroto, Peterongan, Jombang, Megaluh, Tembelang and Kesamben Districts. In addition to sugarcane commodities, there are also coffee and cocoa base commodities found in Wonosalam District. In Jombang Regency, in addition to sugarcane, coffee and cocoa commodities, there are also basic commodities of the plantation subsector, namely tobacco commodities in Kudu, Ngusikan, Ploso, Kabuh and Plandaan Districts.

Base plantation sub-sector commodities in each sub-district in Jombang Regency are analyzed using the *Shift share* analysis tool, to determine their growth and non-base commodities, growth is not analyzed. Analysis of the commodity growth component of the base plantation subsector in the area of each Jombang Regency District is focused on the proportional growth component and regional share growth.

Table 2 Results of shift share analysis of plantation subsector commodities

Shift Share Analysis of Plantation Commodities in Sub-districts in Jombang Regency							
District	Coffee		Cacao		Sugar cane		Tobacco	
	PPij	PPWij	PPij	PPWij	PPij	PPWij	PPij	PPWij
Bandarkedung Mulyo					-26.664	-8945		
perak					-53.328	-37,9		
Gudo					-13.332	202,5		
Diwek					-246.642	-313,2		
Ngoro					-266.640	-19.456		
Mojowarno					-106.656	91.218		
Bareng								
Wonosalam	-40.461	19.657	-57.876	-3733	-106.656	275.217,60		
Mojoagung					-147.652	245.799,20		
Sumobito					-353.298	-13.249,20		
Jogoroto					-4	-60.410,00		
Peterongan					-47	-345,00		
Jombang					-47	-48,10		
Megaluh					-7	-5.736,40		
Tembelang					-13.332	-18.472,80		
Kesamben					-113.322	31.481,20		
Kudu							346.365,80	2.052.654
Ngusikan							525.635	525.635
Ploso							512.355,80	1.628.333
Kabuh							549.980,20	19.661.027
Plandaan							578.751,80	-3.149.207

Source : BPS Data (processed, 2023)

Based on the diartas table, the results of shift share analysis show that the proportional growth value and regional share growth in base commodities in Jombang Regency have different results. In Bandarkedung Mulyo, Perak, Diwek, Ngoro, Sumiboto, Jogoroto, Peterongan, Jombang, Megaluh and Tembelang sub-districts which only plant one type of plantation tananamn, namely sugarcane has a negative proportional growth value and negative area share growth which means that the commodity has low growth and competitiveness. In Gudo, Mojowarno, Wonosalam, Mojoagung and Kesamben sub-districts, sugarcane commodities have negative proportional growth values and positive area share growth, which means that sugarcane commodities in these sub-districts have slow growth but have high competitiveness. In Wonosalam District, there are coffee commodities that have a negative proportional growth value and have a positive regional share growth value, which means that coffee commodities in Wonosalam District have slow growth and high competitiveness. In addition to coffee and sugarcane commodities in Wonosalam District, there are also cocoa commodities, where cocoa commodities have a negative proportional growth value and negative regional share growth, which means that the growth and competitiveness of cocoa commodities in Wonosalam District is slow. In Kudu, Ngusikan, Ploso, Kabuh and Plandaan sub-districts there are tobacco commodities. Tobacco commodities in Kudu, Ngusikan, Ploso and Kabuh sub-districts have positive proportional growth values and positive area share growth values, which means that tobacco commodities in Kudu, Ngusikan, Ploso and Kabuh sub-districts have high growth and competitiveness. And

tobacco commodities in Plandaan District have a positive proportional growth value and a negative area share growth value, which means that tobacco commodities in Plandaan District have fast growth and low competitiveness.

Table 3 Prioritization of development of leading commodities in plantation subsector

District	Development Priorities		
	Main	Second	Third
Bandarkedung Mulyo			Sugar cane
perak			Sugar cane
Gudo		Sugar cane	
Diwek			Sugar cane
Ngoro			Sugar cane
Mojowarno		Sugar cane	
Bareng		Coffee, Sugar Cane	Cacao
Wonosalam		Sugar cane	
Mojoagung			Sugar cane
Sumobito			Sugar cane
Jogoroto			Sugar cane
Peterongan			Sugar cane
Jombang			Sugar cane
Megaluh			Sugar cane
Tembelang		Sugar cane	
Kesamben	Tobacco		
Kudu	Tobacco		
Ngusikan	Tobacco		
Ploso	Tobacco		
Kabuh		Tobacco	

Source : Primary Data (processed, 2023)

The determination of the leading commodities of the plantation subsector in Jombang Regency using location quotient analysis and shift share analysis shows that the main leading commodities are tobacco commodities in Kudu, Ngusikan, Ploso and Kabuh Districts. While the second leading commodities are sugarcane, coffee and tobacco commodities found in Gudo, Mojowarno, Wonosalam, Mojoagung, Kesamben and Plandaan Districts. The third leading commodity is sugarcane and cocoa commodities found in Bandarkedung Mulyo, Perak, Diwek, Ngoro, Wonosalam, Sumiboto, Jogoroto, Peterongan, Jombang, Megaluh and Tembelang Districts.

CONCLUSION

Based on the results of the study, it can be concluded that in the plantation subsector in Jombang Regency there are superior commodities which are divided into three levels based on development priorities. Namely the main leading commodities consisting of tobacco commodities found in Kudu, Ngusikan, Ploso and Kabuh Districts. The second leading commodity is sugarcane, coffee and tobacco commodities found in Gudo, Mojowarno, Wonosalam, Mojoagung, Kesamben and Plandaan Districts. The third leading commodity is sugarcane and cocoa commodities found in BandarkedungMulyo, Perak, Diwek, Ngoro,

Wonosalam, Sumiboto, Jogoroto, Peterongan, Jombang, Megaluh and Tembelang Districts.

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