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ECONOMIC GROWTH'S DECOMPOSITION OF AGRICULTURAL HOUSEHOLDS IN KALIMANTAN SELATAN

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ABSTRACT

The economic growth rate of South Kalimantan over the last decade (2012-2022) is approximately 4.7 percent per year. Although the agricultural sector accounts for only about 11.4% of the total economy of South Kalimantan, the agricultural workforce absorbed is as much as 31.87%. Then there is one important question related to that economic growth, namely 'who' benefits from that economic growth. Thus, this research aims to review the impact of the distribution of economic growth in South Kalimantan during the period of 2012-2022 using the Fields decomposition method based on the dual economic model of Lewis. Additionally, this study also employs multiple linear regression analysis to examine the relationship between various variables, particularly education, farmer demographics, and patterns with the magnitude of economic growth enjoyed by agricultural households assumed to be in the 'low-income' group. This research indicates that in South Kalimantan, agricultural households enjoy approximately 38.5% of economic growth during the period of 2012-2022, through the 'expansion' effect of non-agricultural households (3.28%) and the 'enrichment' effect of agricultural households (35.22%). The study also finds that years of schooling expectation, along with the economic role of the industrial sector and the age of farmers, are statistically significantly related to the magnitude of economic growth enjoyed by agricultural households.

Keywords: Economic Growth, Fields Decomposition, Agricultural Households.

1. INTRODUCTION

1.1 Background

The rate of economic growth is a macro indicator for assessing the economic development of a region, allowing for a general measurement of the success of regional development. For this reason, this indicator can be used for future development planning, both by observing economic growth periodically and by examining the economic growth of potential sectors. (Bappeda Kalsel, 2019).

The level of progress in development (especially economic development) in a country, measured by the rate of economic growth, has been assessed even before the 1970s (Todaro and Smith, 2006), including in Indonesia.

The economy of South Kalimantan continues to experience growth. Despite showing fluctuations, the economic growth of South Kalimantan demonstrates a fairly stable pattern. The

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economic growth rate of South Kalimantan Province, from 2012 to 2022, has been around 4.7% per year.

The agricultural sector is the second supporter of economic growth in South Kalimantan after the mining and excavation sector (11.4% for the agricultural sector and 32.05% for the mining and excavation sector). Other sectors contribute no more than 9% to the economy per sector. This indicates that the economy of South Kalimantan's agricultural sector continues to be eroded by sectors other than agriculture. The contribution of the agricultural sector has continued to decline from 15.09% in 2011 to 11.4% of the total GRDP of South Kalimantan in 2022.

Although it only contributes 11.4% to the economy of South Kalimantan, the agricultural sector was able to absorb 31.87% of the workforce in 2021, far exceeding the mining sector, which only absorbed 3.33% of the workforce. On the other hand, while the agricultural sector can absorb nearly one-third of the total workers in South Kalimantan, the contribution of the agricultural workforce has continued to decline, from 41.51% in 2012 to 31.87% in 2021.

GDP can illustrate the general condition of the economy, but it does not provide information on the level of community welfare. The level of community welfare is often measured by GDP per capita, the Gini coefficient, as well as poverty and unemployment rates.

If we look at the population distribution in South Kalimantan, the bottom 40% group accounts for 20.79%. This figure is above 17%, thus it falls into the category of low inequality. However, the level of inequality in rural areas is lower compared to urban areas. The reason is that the bottom 40% of the population is larger in rural areas (23.69%) compared to urban areas (19.17%).

One measure of welfare, namely the poverty rate in South Kalimantan, shows a fairly good development from 2012 to 2021, decreasing from 5.06% in 2012 to 4.83% in 2021. If viewed by residential area, the poor population in South Kalimantan is more concentrated in rural areas compared to urban areas. Although there are more people in rural areas, the poverty rate in rural areas has decreased compared to the urban poverty rate, which has actually increased. In terms of both percentage and the number of poor people, the population living in poverty in rural areas has always been higher than that in urban areas. One of the reasons is that the average income of residents in urban areas is higher compared to those in rural areas. (BPS, 2022)

From the things that have been explained earlier, a question arises: who is actually enjoying the relatively high economic growth during the period of 2012-2022? Do the farmers in South Kalimantan, who are often assumed to be low-income rural communities, sufficiently enjoy the benefits of that significant economic growth?

Knowing who benefits from the results of economic growth is very important in relation to the goal of equitable welfare for society. Thus, it is necessary to evaluate economic growth by studying, for example, whether a third of society, namely farmers, have also enjoyed the benefits of the economic growth that has been achieved.

Objectives

The objectives of this research are as follows:

1. To present and discuss various characteristics of agricultural households in South Kalimantan, particularly their welfare during the period of 2012-2022.
2. To analyze the decomposition of economic growth experienced by agricultural households in South Kalimantan.
3. To analyze the factors influencing the decomposition of economic growth experienced by

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agricultural households in South Kalimantan.

2. METHODOLOGY

Place and Time of Research

This research was conducted in South Kalimantan Province. The research started in February 2023, beginning with the proposal preparation stage, followed by data processing, and concluded with the report completion in June 2024.

Types and Sources of Data

The types of data collected in this research consist of secondary data, namely the Susenas Kor and Consumption Module data from March 2012 and March 2022 for South Kalimantan Province, collected by the Central Statistics Agency (BPS). The Susenas data is used to decompose economic growth, create price indices, and calculate several indicators that are believed to influence the decomposition of economic growth. (harapan lama sekolah, umur petani, dan jumlah tanggungan petani). The other data used is the GDP and rice productivity data in South Kalimantan, sourced from the BPS publication release.

Data Analysis

The analysis methods used in this research are descriptive and inferential analysis. Descriptive analysis using the Fields decomposition model is employed to address the first objective, which is to analyze the results of economic growth decomposition experienced by agricultural households during the period of 2012-2022, both at the provincial level and for each district/city in South Kalimantan.

Lewis (1954) formulated a theoretical model regarding a two-sector economy, also known as the "Lewis two-sector model." This model explains the process of economic development in two sectors, traditional and modern, with the traditional sector experiencing a surplus of labor supply. In the traditional sector, total output is determined solely by changes in labor, while other input variables (capital and traditional technology) are considered constant. Regarding the workforce, Lewis stated that 80 to 90 percent of the labor force is concentrated in the traditional sector. (Todaro dan Smith, 2006).

There are two assumptions regarding the traditional sector. First, there is a "surplus of labor" or the marginal productivity of labor is equal to zero. This means that if part of the workforce is taken from the traditional sector, that sector will not experience a decrease in output. Second, the real wage level in the traditional sector is determined by the average labor productivity, not by the marginal labor productivity. This means that all workers in the traditional sector are assumed to produce the same level of output. As in the traditional sector, total output in the modern sector is only determined by changes in labor. However, all the profits gained in the modern sector are assumed to be reinvested, which will increase the capital stock in the modern sector. This increase in capital stock will boost total output, and ultimately, the demand for labor in the modern sector will also rise.

The increase in labor demand in the modern sector is addressed through a surplus of labor supply in the traditional sector. Employers in the modern sector can recruit as much labor as needed due to the assumption that real wages in the modern sector are higher than in the traditional sector. At this level of real wages, the labor supply from the traditional sector is perfectly elastic. The labor market in the modern sector is also assumed to be perfectly competitive, allowing it to maintain real wages in the modern sector at a constant level until the surplus labor supply from the traditional sector is exhausted.

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Based on Lewis's theoretical model of a two-sector economy, Fields (1975) developed a decomposition model of economic growth to show the extent to which the traditional and modern sectors benefit from dualistic economic growth over a specific period. This information cannot be explained by a single aggregate economic growth figure. (PDRB). Various measures of income distribution in society (such as the Gini coefficient, the share of income received by the bottom 40 percent) still cannot provide that information.

The various measures mentioned above focus only on measurements at a single point in time (static perspective). These measures are often used to assess and compare income distribution in society at two or more points in time. In fact, the distribution of income within an economy changes over time, necessitating a dynamic measure (dynamic index). Therefore, Fields developed a dynamic measure of income distribution through a model of economic growth decomposition, examining what happens to income distribution during periods of economic growth. The model of economic growth decomposition consists of three components: the enrichment effect of the traditional sector, the enrichment effect of the modern sector, and the enlargement effect of the modern sector.

Table 1: Definition of the three components of the economic growth decomposition model.

Component Type	*Distribution of Active Players in Modern and Traditional Sectors*	*Income in the Modern Sector*	*Income in the Traditional Sector*
Enrichment effect in the traditional sector	Stable	Stable	Meningkat
Enrichment effect in the modern sector	Stable	Increased	Same
The number of people in the	Orang-orang di sektor modern semakin	Stable	Stable

In its application, the Fields decomposition model uses two time points. (dalam tahun, misalnya). Below is a description of the decomposition following the discussion in Asra (1988), who previously applied this model to the case of Indonesia.

Every year, the total per capita income is a weighted average of the average income from both sectors, namely:

$$\bar{X}_j = \sum_{i=1}^{2} W_{ij}\bar{X}_{ij} \qquad (1)$$

Description:

i: 1, 2 (1 for the modern sector, 2 for the traditional sector)

j: 1, 2 (1 for year 1 or base year, 2 for year 2 or current year)

$\bar{X}$j: represents per capita income in year j

Wij: percentage of people in sector i in year j

$\bar{X}$ij: represents the average per capita income in sector i in year j

Economic growth in the two sectors is measured through changes in total per capita income over a period and is decomposed into several components, namely:

$$\Delta\bar{X} = \bar{X}_2 - \bar{X}_1 = \alpha + \beta + \delta + \sigma \qquad (2)$$

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Table 2. Definisi efek/komponen dari model dekomposisi Fields

Effects		*Definition of effects*
α	Enlargement effect of the modern sector Percentage change of people in the modern sector multiplied by the difference between the income of the modern and traditional sectors in the base year	$(W_{12} - W_{11})(\bar{X}_{11} - \bar{X}_{21})$
β	Enrichment effect of the modern sector Change in income in the modern sector multiplied by the percentage of people in that sector in the base year	$(\bar{X}_{12} - \bar{X}_{11})W_{11}$
δ	Interaction effect between enrichment and enlargement of the modern sector Change in income in the modern sector multiplied by the change in percentage of people in that sector	$(\bar{X}_{12} - \bar{X}_{11})(W_{12} - W_{11})$
σ	Enrichment effect of the traditional sector Change in income in the traditional sector multiplied by the percentage of people in that sector in the base year	$(\bar{X}_{22} - \bar{X}_{21})W_{22}$
Total		$\Delta\bar{X}$

The traditional sector is associated with low-income groups, while the modern sector is linked to high-income groups. As stated by Fields (1977) and Asra (1988), the portion of economic growth enjoyed by low-income groups is (α+σ) percent, when equation (2) is expressed in percentage form ($\Delta\bar{X}$ = 100 percent). In other words, low-income groups can benefit from economic growth in two ways: (i) more low-income groups are absorbed into the increasingly developing modern sector, and/or (ii) they remain in the traditional sector but receive higher incomes.

The Fields decomposition method adapted in this research divides the economy into two sectors: agricultural households (as an approach to the traditional sector), which are low-income groups, and non-agricultural households (as an approach to the modern sector), which are high-income groups. This research will use expenditure data as an approach to income data.

To use the Fields decomposition model, the inflation factor of commodity prices will be removed first so that the data on expenditure changes at two points in time used for each group will remain constant. (tidak dipengaruhi faktor harga). The Laspeyres price index will be used as a price deflator. In this study, the food price index was calculated for each group: low-income (agricultural households) and high-income (non-agricultural households), at both provincial and district/city levels.

Inferential analysis is used to address the second objective, which is to analyze various factors related to the magnitude of economic growth experienced by agricultural households. The model used is a multiple linear regression (MLR) model with the backward method. The MLR model employed is as follows.

$$Y_i = \beta_0 + \beta_1 X1_i + \beta_2 X2_i + \beta_3 X3_i + \beta_4 X4_i + \varepsilon_i \qquad (3)$$

Where:

Y = the magnitude of economic growth enjoyed by agricultural households

bo = constant

b1, b2, b3, b4, b5 = Regression coefficients

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X1 = change in the expected years of schooling (HLS) of agricultural households
X2 = change in the age of the head of the agricultural household
X3 = change in the contribution of the industrial sector to GDP
X4 = rice productivity
i = district/city
ε = error term

3. RESULTS AND DISCUSSION

Overview of Agricultural Households

Expenditure and Purchasing Power

Based on the processed data from Susenas, in 2012, the average per capita expenditure of agricultural households was Rp 577,065. The share of per capita expenditure of agricultural households is only 25.9% of the total expenditure of all households in South Kalimantan. In 2022, the average per capita expenditure of agricultural households increased to Rp 1,140,215, and its share of total expenditure of all households in South Kalimantan slightly rose to 26.8%. At a glance, the average per capita expenditure of agricultural households has nearly doubled (197.59%). However, in reality, the real increase in average per capita expenditure is not as significant due to the price changes that occurred between 2012 and 2022.

The food price index for agricultural household groups in South Kalimantan is 154.25, which is higher than the food price index for non-agricultural household groups at only 151.0. This reflects that agricultural households faced higher price changes in their food basket (compared to non-agricultural households) in 2022. This difference could arise from variations in food consumption patterns or differences in prices experienced by the two household groups.

After applying the price index deflator to both household groups, as shown in Figure 6, in 2022, the average real per capita expenditure of agricultural households increased to Rp 741,602 (Rp 1,140,215 without the price index), while the average real per capita expenditure of non-agricultural households rose to Rp 1,019,820 (Rp 1,539,972 without the price index). The increase in per capita expenditure for agricultural households was higher, amounting to Rp 162,113, compared to the increase in per capita expenditure for non-agricultural households, which was Rp 139,939. The level of agricultural household expenditure is in line with the high price index received by agricultural households, which is also higher than the price index received by non-agricultural households.

If observed based on districts/cities, most districts/cities have a higher food price index for agricultural households compared to non-agricultural households (Figure 1). There are only three districts/cities where non-agricultural households have a higher food price index than agricultural households, namely Hulu Sungai Utara, Tabalong, and Banjarmasin.

The food price index varies among agricultural households, ranging from 134.84 in Balangan Regency to 190.28 in Hulu Sungai Tengah Regency. The non-agricultural households with the highest food price index are in Banjarmasin City at 164.10, while the lowest index is in Balangan Regency at 136.51.

Dependents

The number of household members supported by working household members is closely related to the welfare of that household. With a larger household size, the allocation of spending for per capita consumption of those household members will decrease.

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The size of agricultural household units in South Kalimantan decreased from 3.58 people in 2012 to 3.32 people in 2022. Meanwhile, the number of members in non-agricultural households also decreased from 3.51 in 2012 to 3.37. The change in the number of household members was more significant in agricultural households, with a decrease of 0.26. A household size of 3.32 people signifies that in one household, a group of individuals, usually bound by familial ties, eats and lives together in one residence, typically consisting of 3 to 4 people. It can be assumed that a family consists of a father, a mother, and 1 or 2 children. The decrease in the number of household members indicates that families in South Kalimantan tend to separate from their extended families to form smaller households.

Farmer's Age

In addition to the size of the household and the number of dependents working, the age of the head of the household also affects the welfare of agricultural households. From the analysis of Susenas data, it is known that the age of agricultural household heads tends to be older compared to non-agricultural household heads. In 2012, the age of agricultural household heads was 39.2 years, while the age of non-agricultural household heads was 25.1 years. By 2022, the age of agricultural household heads increased by 4.64 years to 43.85 years, while the age of non-agricultural household heads saw a smaller increase of 2.93 years, reaching 28.03 years in 2022. This is in line with research where more senior farmers are able to achieve better income levels, as stated by Agustiyani. (2010). However, it can also be interpreted as a lack of farmer regeneration occurring.

Education

One of the indicators of education for farming households is the expected years of schooling. (HLS). HLS means that the likelihood of a child continuing their education at subsequent ages is equal to the proportion of the population that is currently enrolled in school for the same age group. HLS is used to assess the state of educational system development at various levels, represented by the expected duration of education (in years) that each child is anticipated to achieve.

The household life expectancy (HLS) of agricultural households in South Kalimantan in 2022 was 11.91, meaning a child from a farming household in South Kalimantan has the opportunity to receive education up to the third year of high school. Meanwhile, the HLS of non-agricultural households was 12.80 years, indicating that a child growing up in a non-farming household will have the chance to attend college.

Basically, the household living standards of agricultural households are indeed lower than those of non-agricultural households. However, it turns out that from 2012 to 2022, the life expectancy of agricultural households increased from 10.03 years in 2012 to 11.91 years in 2022, or by 18.76%. This increase is greater compared to the increase in life expectancy in non-agricultural households, which was already higher, rising from 13.11 years in 2012 to 12.8 years in 2022, or by 8.2%.

Industrial Sector GDP

Over the course of 10 years, the agricultural sector experienced a significant decline in its contribution to the economy, amounting to 7.83%. According to Fields' theory, the agricultural sector will be eroded by the industrial sector. In South Kalimantan, the industrial sector saw an increase in contribution from 9.04% in 2012 to 11.39% in 2022, an increase of 2.35%.

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The same pattern is also observed in the districts/cities in South Kalimantan. Almost all districts/cities experienced a decline in the contribution of the agricultural sector, except for Banjarmasin City. Similarly, in the industrial sector, almost all districts/cities saw an increase in the contribution of the industrial sector. Only Tanah Laut, Barito Kuala, and Banjarbaru experienced a decline in industrial sector contribution over a span of 10 years.

Rice productivity is one of the factors believed to influence the welfare level of farmers. As seen in Table 4, rice productivity in South Kalimantan increased from 2.68 tons per hectare of harvested rice in 2012 to 3.81 tons per hectare of harvested rice in 2022. It can be said that over a span of 10 years, rice productivity in South Kalimantan increased by 1.14 tons per hectare or by 42.49%. In other words, in 2022, each hectare of harvested rice was able to produce 3.81 tons of rice measured in terms of milled dry grain. (GKG).

Overview of Agricultural Households

Based on calculations using the Fields model, the results of the economic growth decomposition in South Kalimantan can be seen in Figure 1 below. Agricultural households that reflect the traditional sector of South Kalimantan enjoyed 38.5% (the sum of α and σ) of South Kalimantan's economic growth during the period of 2012-2022. Of this 38.5%, 3.28% (α) was enjoyed by agricultural households through their participation in the non-agricultural sector, while 35.22% (σ) was used to improve their living standards while remaining in the agricultural sector.

Meanwhile, the majority of South Kalimantan's economic growth during this period, amounting to 59.98% (β), was enjoyed by non-agricultural households that reflect the modern sector. The remaining 4.38% (δ) represents the interaction effect between the expansion effect and the enrichment effect of the modern sector. (non pertanian).

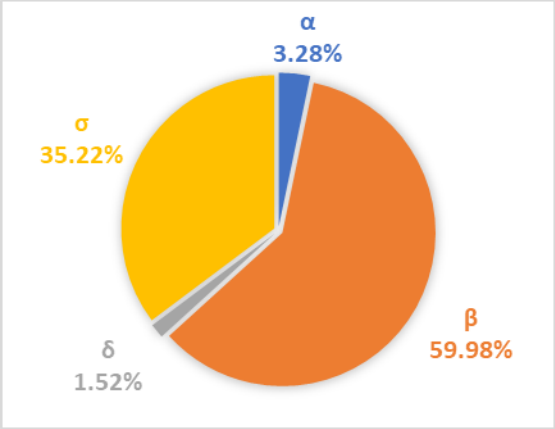

Figure 1: Results of the decomposition of economic growth in South Kalimantan, 2012-2022.

Description:

α: effect of the enlargement of the modern sector

β: effect of the enrichment of the modern sector

δ: effect of the interaction between the enrichment effect and the enlargement effect of the modern sector

σ: effect of the enrichment of the traditional sector

The results of the economic decomposition of South Kalimantan are still in line with previous studies conducted by Fields (1977), Bigsten (1986), and Asra (1988), which indicate that most of the economic growth, even over the last 10 years, has still been enjoyed by the

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modern sector through the enrichment effects of the modern sector. The results of this decomposition are also in line with the research by Saputri (2018), which more specifically assumes that the traditional and modern sectors form groups of agricultural households and non-agricultural households. However, the economic growth enjoyed by agricultural households in South Kalimantan during the period from 2012 to 2022, according to this research, is greater (38.5%) than the findings of Saputri, which covered the period from 2008 to 2017, which was only 29.55%. This further confirms that there has indeed been a shift in the economic structure in South Kalimantan from the traditional sector (agriculture) to the modern sector (non-agriculture). Additionally, the economic growth experienced by agricultural households in South Kalimantan is indeed higher than the national average, which is only 27%.

In the period from 2012 to 2022, there was a 1.65% participation of the traditional sector in the non-agricultural sector (people moving from the traditional sector to the modern sector), as illustrated in Figure 2. They enjoyed an additional real income of 302,816 rupiah as a result of participating in the modern sector (non-agriculture).

An improvement in living standards was felt by 33.08% of traditional sector households during the period from 2012 to 2022. They experienced a more prosperous life while remaining in the agricultural sector due to an increase in income earned, which amounted to 162,113 rupiah. On the other hand, there is also a group in the modern sector that is becoming increasingly prosperous while staying in the non-agricultural sector. As much as 65.27% of the high-income group during the period of 2012-2022 enjoyed an additional income of 139,939 rupiah.

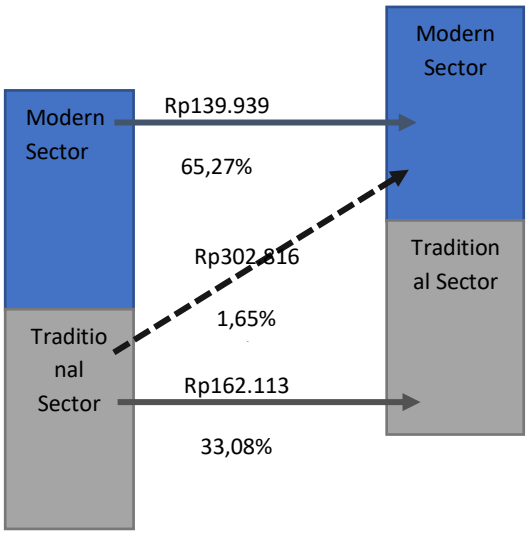

Figure 1: Theoretical model on how traditional and modern sector groups in South Kalimantan enjoyed economic growth during the years 2012-2022..

In South Kalimantan, during the period from 2012 to 2022, the additional income of residents who remained in the traditional sector was higher than that of residents in the modern sector. However, if people moved from the traditional sector to the modern sector, the additional income they would earn would be even higher. This contradicts the research by Saputri (2018), which found that the largest additional income was achieved by residents who were already in the modern sector from the beginning, while the smallest additional income was experienced by those who remained in the traditional sector.

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The smaller increase in income experienced by the modern sector or non-agricultural household group occurs because, from the beginning, the average per capita income (approached through expenditure) of non-agricultural households has been higher than that of agricultural households. In 2012, the average income of non-agricultural households was Rp 913,933 per capita per month, while the average income of agricultural households was Rp 578,349 per capita per month. With such low income, agricultural households will have a greater opportunity to increase their earnings.

The percentage of economic growth enjoyed by both sectors varies in each district/city in South Kalimantan. In the traditional sector, the percentage of economic growth experienced by traditional sector groups ranges from -3.34% to 212.98%. Agricultural households in Hulu Sungai Tengah Regency benefit from regional economic growth with the highest percentage compared to agricultural households in other regencies/cities.

In addition to Hulu Sungai Tengah Regency, there are five other regencies/cities where a significant portion of regional economic growth is enjoyed by agricultural households, namely Balangan (67.39%), Tapin (61.42%), Banjar (59.99%), Kotabaru (54.47%), and Tanah Laut (51.74%).

Meanwhile, agricultural households in Banjarbaru City experience the least percentage of economic growth, even facing a decline of 3.34%. This is due to the average income of agricultural households in Banjarbaru decreasing by 110,287 rupiah over the period from 2012 to 2022. In contrast to agricultural households in Hulu Sungai Tengah Regency, which experienced a decline in income, non-agricultural households saw an increase of 27,194 rupiah.

Just like in agricultural households, the percentage of economic growth enjoyed by non-agricultural household groups also varies. The values vary, ranging from -108.01% (Hulu Sungai Tengah Regency) to 101.09%. (Kota Banjarbaru). Based on Figure 10, most of the regional economic growth in each district/city is enjoyed by the modern sector group, with only 4 districts/cities where the modern sector group experiences regional economic growth below 50%, namely Hulu Sungai Tengah, Balangan, Tapin, and Banjar. Meanwhile, for the expansion effect, which is the percentage of economic growth enjoyed by people moving from the traditional sector to the modern sector, it shows negative signs for several districts/cities, namely Tanah Laut, Kotabaru, Barito Kuala, Hulu Sungai Selatan, and Tanah Bumbu. This is happening because the percentage of the population in the modern sector has decreased, while the percentage of the population in the traditional sector has increased over a span of 10 years.

Factors Influencing the Magnitude of Economic Growth Experienced by Agricultural Households in South Kalimantan

Based on the results of the exploration of variables that are suspected to influence the level of economic growth experienced by agricultural households, the following equation was obtained:

$$\widehat{PEP} = -2{,}407 + 6{,}894\Delta HLStani + 6{,}982\Delta Umurtani + 0{,}882\Delta ShareInd \quad (4)$$

Description:

(PEP)ˆ: The magnitude of economic growth enjoyed by agricultural households

ΔHLStani : Expected Years of Schooling (EYS) of agricultural households (years)

ΔUmurtani : Age of the head of the agricultural household (years)

ΔShareind : Contribution of the industrial sector to Gross Regional Domestic Product (GRDP) (persen)

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In the formation of the multiple linear regression model using the backward method, the variables that are significant in relation to the economic growth benefiting low-income groups are HLS, the age of the household head, and the contribution of the agricultural sector to GDP, as the t-statistics of these three variables are greater than the t-table (which is 2.92). These three variables are statistically significant at a 5 percent significance level.

Overall, all independent variables are statistically significantly related to the dependent variable at a 5 percent significance level, as indicated by the F-statistic (which is 23.989) being greater than the F-table (which is 2.92). The three independent variables in the model can explain 88.9% of the variation in economic growth experienced by agricultural household groups, as seen from the R^2 value of 0.889.

When all variables are valued at 0, meaning there is no increase in the expected years of schooling for agricultural household heads, no increase in the age of agricultural household heads, and no increase in the proportion of industrial sector GDP, the economic growth experienced by agricultural households in the region will be -2.407%.

The years of schooling (HLS) have a significant effect (p-value 0.005) on the economic growth experienced by agricultural households. If there is a change in HLS of agricultural households by 1 year, the economic growth experienced by agricultural households in the region will increase by 6.894%. This reinforces the findings of various studies that an improvement in the quality of education will enhance welfare levels, and this also applies to agricultural households.

The results indicate that the improvement in farmers' education has an impact on their productivity in the agricultural sector. However, in addition to increasing their income, this productivity boost also facilitates the flow of agricultural labor resources to other sectors. Thus, the higher the level of education among farmers, the greater the benefits they experience from economic growth, both due to increased income and participation in other sectors.

With a p-value of 0.000, the age of the agricultural household head shows a significant influence on the level of economic growth experienced by agricultural households. If there is a change in the age of the agricultural household head by 1 year, the economic growth experienced by agricultural households in the area will increase by 6.982%. This means that the older the agricultural household head, the greater the economic growth enjoyed by agricultural households in that area. This aligns with the meaning that more senior farmers are able to achieve a better income level. However, it can also be interpreted that there has been a lack of farmer regeneration. The change in the contribution of the industrial sector to GDP also has a significant impact with a p-value of 0.014. If there is a change in the contribution of the industrial sector to GDP in a region by 1%, the economic growth experienced by agricultural households in that region will increase by 0.882%. This increase indicates that the industrial sector has absorbed a considerable amount of labor.

The increase in rice productivity does not have a significant effect (p-value 0.542) on the growth of economic benefits enjoyed by farming households. This can be interpreted that the food crop subsector, particularly rice, is not a lever for farmers' welfare. There are other subsectors that have greater potential to improve the welfare of farmers in the period from 2012 to 2022.

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4. CONCLUSION AND SUGGESTIONS

Conclusion

Based on the results of the discussion that has been conducted, the author can draw the following conclusions.

1. Agricultural households in South Kalimantan experienced a decline in purchasing power during the period from 2012 to 2022 that was greater than that of non-agricultural households. The age of heads of agricultural households tends to be older than that of non-agricultural households. The education level of agricultural households is lower than that of non-agricultural households.
2. Based on the Fields decomposition, only 38.5% of the economic growth in South Kalimantan during the period of 2012-2022 was enjoyed by agricultural household groups, which is lower than the non-agricultural household groups that enjoyed 60% of the economic growth.
3. The factors influencing the magnitude of economic growth enjoyed by agricultural household groups in South Kalimantan are changes in expected years of schooling, changes in the age of the head of the agricultural household, and growth in the contribution of the industrial sector to GDP.

Suggestions

Several things can be suggested from the findings of this research as follows.

1. Agricultural households in South Kalimantan require greater attention because they have more inferior characteristics compared to non-agricultural households, particularly in terms of household purchasing power, education levels, and farmer regeneration. Furthermore, in terms of the share of economic growth enjoyed by agricultural households, it is also smaller than that of non-agricultural households, thus necessitating programs aimed at improving the welfare of agricultural households.
2. The government needs to enhance programs aimed at improving the welfare of farmers, particularly in increasing the education of farming households, enhancing skills and farmer regeneration, as well as focusing on the industrial sector, especially in rural areas.
3. In addition to programs aimed at increasing rice productivity to improve farmers' welfare, there is a need for programs that enhance subsectors beyond food crops, especially rice, such as in horticulture and plantations. Further research is needed on the subsectors that have greater potential to improve farmers' welfare.

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Author Profile

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