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Agricultural Sector Performance Existence For Reducing The Poverty Rate : An Empirical Study in Tanah Laut Regency, South Kalimantan Province, Indonesia

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Abstract
The Mining and Quarrying sectors, which dominates almost 30 percent of the Tanah Laut's economic structure, is experiencing a slowdown in economic growth and has resulted in an increase in the percentage of poor people in Tanah Laut District over the past five years. Agricultural Sector which occupies second position in Tanah Laut Regency economy is expected to be the driving force of the economy and reduce the poverty rate. The objective of this study is to identify factors affecting agricultural sector performance and poverty rate in Tanah laut Regency.
The data used in this research is secondary data during 2001-2016 obtained from the Department of Agriculture of Food Crops and Plantations of Tanah Laut Regency, BPS-Statistics Indonesia, Indonesia Bank and other related institutions. Analytical tool used is Analysis of Econometrics Model with Multiple Linear Regression. There are 2 models used in this research. The first model with the dependent variable is the economic growth of the agricultural sector that is affected by the realization of agricultural credit, the area of agricultural land and agricultural labor. As a result, realization of banking credit in agricultural sector has significant effect on economic growth of agricultural sector. The second model with the dependent variable is the percentage of the poor affected by the predicted growth of the agricultural sector, the growth of the industrial sector, the rate of population growth and the percentage of unemployment. In poverty model, it is found that economic growth of agricultural sector and population growth rate have a significant influence on poverty rate in Tanah Laut.

Keywords: *economic growth, agricultural sector, poverty*

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I. Introduction

The objectives of economic development policies are to improve living standard, inequality reduction, and increase employment while still taking into account the resources sustainability aspects for the next generation. The success of fiscal policies reflects from economic growth which can be measured by Gross Regional Domestic Product (GRDP).

Data of BPS-Statistics Indonesia (2016) shows that economic growth of Indonesia during 2012-2016 was quite volatile. Economic growth was recorded at 4.88 percent in 2015 from 6.03 percent in 2012, and less than the earlier data of 5.02 percent in 2016. Likewise, economic growth during 2012-2016 in Kalimantan Selatan Province and Tanah Laut Regency followed similar trend. (Chart 1).

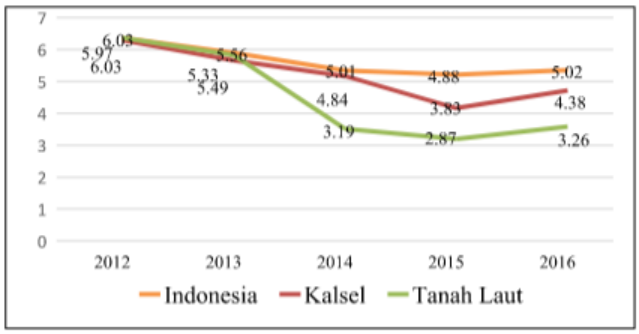

Chart 1. Economic growth in Tanah Laut Regency compared by South Kalimantan Province and Indonesia during 2012-2016

Deceleration of economic growth was driven by the decrease in Mining and Quarrying Sectors. GDRP Share of mining and quarrying sector in Tanah Laut Regency was quite large, at 25-30 percent (BPS-Statistics of Tanah Laut Regency, 2016). Global crisis caused the slowing down of demand for coal, as reflected in failing coal prices and declining volumes of coal trades (both of export and import). This condition impacted the coal producer country.

Poverty rate was the result of sluggish economic growth in Tanah Laut Regency. During 2013-2016, poverty rate in Tanah Laut regency was increasing, recorded at 4,33 percent (2013); 4,38 percent (2014); 4,58 percent (2015); and 4,65 percent in 2016 (BPS-Statistics Indonesia, 2016).

Furthermore, this condition of economic growth caused employment percentage on agricultural sector, recorded 46,27 percent (2012); 47,36 percent (2013); 48,12 percent (2014); and 48,29 percent in 2015. The increments came in cause of desisting of mining sectors and employment expansion of agriculture to services (BPS-Statistics of South Kalimantan Province, 2015).

Considering those conditions, the agricultural sector in Tanah Laut needs to be continuously developed because the percentage of poor people working in the agricultural sector is greater than those working in other sectors. By 2016, there are about 47.19 percent of the population working in the agricultural sector and 26.34 percent working in non-agricultural sector. The remaining 26.47 percent constitutes the non-working population (BPS-Statistics Indonesia, 2016).

The poverty used in this study is the poverty measurement determined based on the criteria of BPS-Statistics Indonesia (2016) with the basic needs approach, is the poor are the people who can not meet the basic needs of food and other needs. The poor population according to the criteria of this study is the number of people who are below the headcount (headcount measure). The determination of the poverty line is based on the measurement of income / expenditure of the population to meet the basic needs of the need for energy consumption of 2100 kcal per capita per day, so that if the income is under the conversion then included in the category of poor people.

Anita Faiziah et.al (2014) in her research using multiple linear regression models found that the number of agricultural labor, agricultural sector exports, investment and credit banking in the agricultural sector have a significant effect on the agricultural GRDP in Aceh Province. In the study of Andrian Sasongko (2015) found that agricultural labor, agricultural land and agricultural expenditures affect the economic growth of the agricultural sector in Aceh Province. Furthermore, the economic growth of the agricultural sector, the number of unemployed and the minimum wage has a significant effect on poverty at a real level of 5 percent.

Nia Permatasari (2015) found that factors affecting poverty include the share of agricultural sector GRDP, population growth rate, unemployment percentage and education. Only variable population growth rates are positively correlated with the increase of the poor population. Made (2013) states that the population, GRDP, share of agricultural sector and industrial sector share have a significant influence on the increasing number of poor people in Bali Province. While the level of education does not significantly affect the meaning of 9 years of education has not been able to reduce poverty in Bali. Ainul Hayati (2012) added that the variables of village classification, number of household members, head of household education and agricultural credit aid proved to have an effect on poverty at 5 percent level of significances.

The agricultural sector in Tanah Laut has a large contribution in the economic structure and is supported by the large absorption of labor should be able to reduce poverty. The objectives of this research are to identify and analyze the factors that affect the performance of agriculture and poverty rate in Tanah Laut Regency.

II. Research Methods

This study uses secondary data with the type of time series data for the period of 2001-2016 covering: economic growth of agriculture sector, economic growth of industrial sector, number and rate of population growth, percentage of population working in agriculture sector, land area of agriculture, the agricultural sector, the percentage of the poor and the percentage of unemployed. Secondary data is obtained from the Department of Agriculture of Food Crops and Plantations of Tanah Laut Regency, BPS-Statistics Indonesia, Indonesia Bank and other related institutions. Analytical tool used is Analysis of Econometrics Model with Multiple Linear Regression. There are two models used in this research, namely the model of agricultural economic growth and poverty model described as follows:

Economic growth model of agricultural sector

The agricultural growth of the t-year is predicted to be influenced by labor in agriculture sector (, realization of banking credit in agricultural sector () and also agricultural land area (. The determination of the variables affecting the economic growth of agriculture sector refers to Andrian (2013) research which states that the area of land, capital and labor will increase the economic growth of agriculture sector. In addition, Anita

Faiziah et.al (2014) also mentions that labor and credit realization of the banking sector also will increase agricultural output.
Model used in this study to explore factors affecting economic growth pf agricultural sector in Tanah Laut Regency formulated as follows:

Explanation:
= Economic growth of agricultural sector (%)
= Manpower of agricultural sector
= realization of banking credit in agricultural sector
= agricultural land area
= Intercept
= regression coefficient (i=1,2,3)
= *error term*
t = number of *time series*; t = 2001, 2002, ..., 2016

Poverty model

The percentage of poor people in year t () is predicted to be influenced by estimation of economic growth of agricultural sector (, economic growth of industry sector (, population growth rate (and unemployment rate (. The variable) is the estimator of the economic growth of the agricultural sector derived from the previous equation. Variables in the previous econometrics model is the dependent variable dependent variable () and in this poverty model transformed into independent variable.

The determination of poverty variables refers to Nia Permatasari (2015) study which states that poverty is influenced by the share of agricultural GDP, population growth rate and unemployment. While Made (2013) states that the population, share of agriculture and industrial sector share has a significant effect on the increase of the poor. Andrian (2013) mentions that there is a significant positive relationship between the variables of agricultural economic growth and the unemployment rate with changes in poverty levels.

Model used in this study to analyze the correlation between performance of agricultural sector and poverty rate:
+

Explanation:
K = Poverty rate, which is measured by percentage of poor people
= Estimation economic growth of agricultural sector
= Economic growth of processing industry
= Population growth rate
TPT = Unemployment rate
= Intercept
= regression coefficient (i=4,5,6)
= *error term*
t = number of *time series*; t = 2001, 2002, ..., 2016

III. Result And Discussion

Economic growth model of agricultural sector

Indicators used to predict factors affecting economic growth of agricultural sector in Tanah Laut Regency are manpower of agricultural sector (TKPt), realization of banking credit in agricultural sector (KPt), and agricultural land area (LPt). Transformation of independent variables using Ln were utilized to simplify the interpretation. Eviews 9 package program was used for analysis using multiple regression model, as the result below.

Table 1. Factors affecting economic growth of agricultural sector in Tanah Laut Regency (processed data, 2017)

Predictor	Coefficient	SE Coefficient	t	Sig.
Constant	-43.646	12.394	-3.521	0.004
	2.259	0.834	2.709	0.019
	2.699	1.850	1.459	0.170
	4.543	3.558	1.277	0.226
				R^2 = 73.13%
				F-Anova = 10.889
				Level of significance α = 5%

The coefficient of determination which is valued at 73.13 percent shows that 73.13 percent of variation in economic growth of agricultural sector (is explained by predictors; manpower in agricultural sector (, realization of banking credit in agricultural sector () and agricultural land area (. While the rest of it, (26.87 percent) is due to unexplained variables in this research. F-test can be strengthened the statement before, which is shows that the correlation between economic growth of agricultural sector and independence variable is statistically significant, valued at 10.889 with the F-table is at 8.74.

From result of data processing also got result that only variable of credit realization of banking credit in agricultural sector () have positive and significant relation influence to economic growth of agriculture sector on level of significance α = 5% with regression coefficient equal to 2.259. Agricultural credit is indeed one of the capital of farmers in running their business. However, sometimes small farmers find it difficult to access credit due to problems in the guarantee and nature of agricultural production that have high risk (Munajat, 2009). Therefore, the government's attention and concern to farmers can access credit with low interest rate and small installment.

Poverty Model

Indicators used to predict factors affecting poverty rate, which is measured by percentage of poor people on t-year () in Tanah Laut Regency are estimator of economic growth in agricultural sector (, economic growth of processing industry sector (, population growth rate (and unemployment rate (.

Table 2. Factors affecting poverty rate in Tanah Laut Regency (Processed data, 2017)

Predictor	Coefficient	SE Coefficient	t	Sig.
Constant	4.812	1.506	3.195	0.008
	-1.053	0.292	-3.601	0.004
	-0.131	0.080	-1.631	0.131
	2.034	0.520	3.906	0.002
	0.072	0.256	0.280	0.784
				R^2 = 96.65%
				F-Anova = 79.35
				Level of signifinace α = 5%

The estimation result from the model shows that determination coefficient is valued at 96.65 percent. It means that 96.65 percent the proportion variation in poverty rate (explained by the the predictors; estimator of economic growth in agricultural sector (,, economic growth of processing industry sector (population growth rate (and unemployment rate (. While the rest of it, means that the are 3.35 percent unexplained variables on this research. F-test can be strengthened the statement before, which is shows that the correlation between percentage of poor people and independence variables is statistically significant, valued at 79.35 with the F-table is at 3.36.

From the result of data processing, it was found that only 2 independent variables had an effect on the poverty level that is the predictor variable of economic growth of agricultural sector (and population growth rate variable (.

Estimator of economic growth in agricultural sector variable has a “negative” correlation with poverty rate at the 5% level of significance and regression coefficient at -1.053. Development of the agricultural sector is essential to reduce poverty. This is because the reality shows the agricultural sector has a close relationship with the poor. The agricultural sector is an important and strategic sector because the poor work in the agricultural sector and can provide jobs for the labor force in the area (Munajat, 2009).

Population growth rate has a positive correlation and statistically significant affecting percentage of poor people which the regression coefficient is valued at 2.034. This result shows us that it is important to control population growth, where one of the characteristics of poor households is the large number of household members. Thus, the Family Planning program is more of a concern to the local government of Tanah Laut Regency with a focus on poor family.

IV. Conclusion And Suggestion

Conclusion

In the model of economic growth of agricultural sector, it is found that only variables of agricultural credit realization have a significant influence on agricultural economic growth variables. In poverty model, it is found that the variables of economic growth predictor of agricultural sector and population growth rate have significant influence on poverty rate variable in Tanah Laut.

Recommendation

Recommendation that can be proposed to local government are:

- Escalating performance of agricultural subsectors in increasing the agriculture products among others by applying warehouse receipt system so the farmer can save the products in the harvest season and resell during famine season.
- Facilitate sales access by collaborating with the manufacturing sector.
- Train and nurture farmers to enrich their skill using modern agricultural technology and the modern farming methods. Moreover, there needs to be accessibility for farmers.
- Some policies in reducing poverty are increasing agricultural production, establishing partnerships between the agricultural sector and the industrial sector and the re-establishing of the Family Planning program, which are focused on poor family.

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