

THE IMPACT OF SPECIAL AUTONOMY FUNDS ON POVERTY LEVELS IN PAPUA PROVINCE

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Abstract

This study analyzes the impact of Special Autonomy Funds (SAF) on poverty levels in Papua Province. Despite the increase in regional development budgets due to the SAF, the poverty level in Papua remains high, reaching 27.38% in September 2021. This study employs time series regression analysis to examine data from 2010 to 2021. The results indicate that SAF significantly contributes to poverty reduction, with each increase in SAF resulting in a 6.558% decrease. However, poverty rates continue to stagnate because of other unidentified factors. Therefore, better management of these funds is essential to enhance the welfare of the Papuan people and effectively address poverty.

Keywords: *Special Autonomy Funds, poverty*

Background

The issue of poverty has been a serious concern since the 1970s, often making it a central topic in development studies (Ahluwalia, 1976; Fields, 1980b; Kakwani, 1980). As a developing country, Indonesia also faces poverty challenges, particularly due to its ethnic, cultural, linguistic, and religious diversity, which exposes societal inequalities (Ismail, 2021). According to de Janvry and Sadoulet (2010), poverty alleviation can be achieved through two instruments: transfers, and pro-poor growth. In this context, transfers refer to fiscal decentralization policy. Studies investigating sectoral poverty structures in Indonesia (Huppi & Ravallion, 1990; Ravallion & Huppi, 1991) show that while overall poverty levels have declined, the reduction has not been uniform across regions and sectors, with significant poverty reduction primarily occurring in the agriculture sector. Additionally, Friedman (2003) found that poverty in Indonesia responds significantly to economic growth in Indonesia. Nevertheless, disparities in poverty levels persist across regions despite measures to control income levels at the provincial level, indicating that local factors play a crucial role in determining poverty.

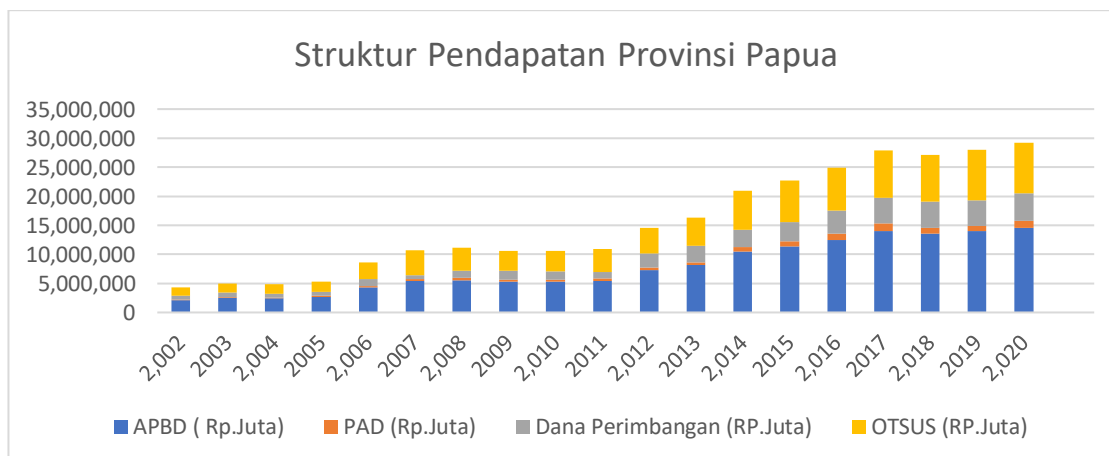
Nationally, the percentage of poor people in Indonesia in September 2021 was 9.71%. Comparatively, the highest percentage of poor people is in Papua Province at 27.38%, followed by West Papua Province at 21.82%. The lowest percentage is in South Kalimantan Province at 4.56% (BPS Papua Province 2022). This situation highlights the alarming poverty conditions in Papua, which have shown no improvement since regional autonomy began. From 2010 to 2021, the average poverty rate in Indonesia was 11.85%, while in Papua, it was 31.93%. Although poverty rates have significantly declined in Papua, income inequality remains the highest in Indonesia.



Data source: processed 2024

Papua is one of the regions granted special autonomy following demands to resolve prolonged conflict and accelerate economic development. This is regulated by Law Number 21 of 2001 on Special Autonomy for the Papua Province, amended by Law Number 2 of 2021. Since the implementation of the Special Autonomy Law, Papua Province has benefited from decentralization, even having the highest per capita development budget compared to other provinces in Indonesia. However, history has shown that economic growth and fiscal wealth alone are insufficient to reduce poverty levels and enhance the benefits of development in Papua. This situation has led the World Bank to recommend that the Papua provincial and district/city governments improve the management of revenues and expenditures in the short and medium terms (World Bank, 2005).

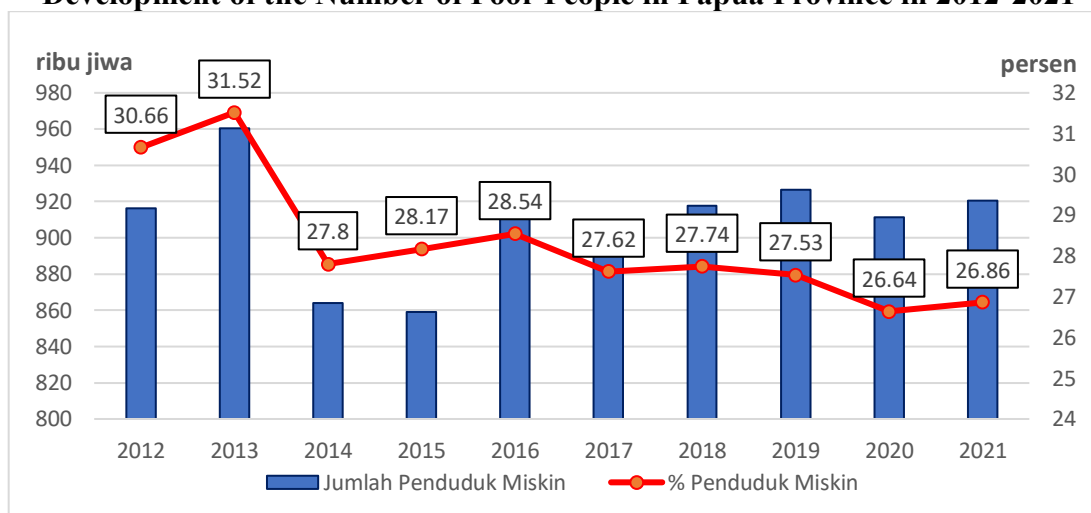
In the regional budget (APBD), local revenue consists of three main components: Local Own Revenue (PAD), Transfer Funds, and Other Legal Revenues (OLR). According to the DJPK Ministry of Finance report (2022), Transfer Revenue is still higher than Local Own Revenue, indicating a low level of autonomy in Papua Province and continued reliance on the Central Government. The average contribution of Special Autonomy Funds (SAF) and other transfer funds to the Papua provincial budget is 64.9% of the total local revenue, followed by transfer funds at 28.6%, and Local Own Revenue at only 8.1%.



Data source: Processed 2024

Overall, over the past ten years, the poverty level in Papua Province has decreased in percentage terms. The percentage of poor people fell from 30.66% in 2012 to 26.86% in 2021, with the largest decline occurring in 2014. However, in terms of the absolute number of poor people, there was an increase from 916.36 thousand people in 2012 to 920.44 thousand people by 2021.

Development of the Number of Poor People in Papua Province in 2012-2021



Source: BPS Papua Province, Data Processed (2022)

The weak management of local revenues, despite the presence of special autonomy funds, is evident in the increase in local revenues not being accompanied by accelerated regional development performance, particularly in poverty alleviation. The low poverty indicators, which lag far behind other provinces, indicate that the outputs and outcomes of development programs are biased and stagnant. In relation to the implementation of fiscal decentralization, facts on the ground show that the granting of substantial authority does not correspond with regional autonomy, as evidenced by low fiscal independence.

The implementation of fiscal decentralization and special autonomy policies for the Papuan community is expected to accelerate significant development and economic growth in Papua. Based on the authority granted to the Papua Provincial Government to manage transfer funds and substantial special autonomy funds, it is hoped that this will spur development acceleration, economic growth, and improvement in community welfare. The outcomes of fiscal decentralization and special autonomy will heavily depend on the local government's ability to manage finances optimally through prudent expenditure structures in governance, public services, and regional development.

In general, while the implementation of fiscal decentralization and special autonomy has addressed the fundamental problems faced by districts/cities in Papua Province, it has not demonstrated optimal performance. Many previous studies recommend that granting financial management authority to local governments positively impacts poverty alleviation in these regions. However, numerous empirical studies have demonstrated that this policy is not optimal for reducing poverty. For instance, Hiktaop et al. (2020) showed that fiscal decentralization did not significantly affect poverty alleviation in Papua Province.

The increase in expenditures by districts/cities, specifically sourced from Special Autonomy Funds in Papua Province, indicates the local government's commitment to addressing development issues (such as poverty, unemployment, and income distribution). Ensuring that expenditures benefit the poor is a prerequisite for reducing current poverty and unemployment rates, especially when considering fiscal opportunities.

Research Objectives

By conducting an empirical study on the community in Papua Province, the specific goal of this study is "to determine the influence of the Special Autonomy Fund on the poverty level in Papua Province".

Empirical Review

Definition of Poverty

The perception of poverty has developed over a long period of time and is diverse. Poverty is defined as a lack of property or valuable things suffered by a person or group of people, which results in the person or group feeling less able to provide for their needs. Various views on poverty have emerged over time, but poverty is fundamentally related to the inability of individuals or groups to meet their basic needs. (Suparlan, 1984) (Mikkelsen, 2003)

Law Number 13 of 2011 concerning the Handling of the Poor explains that poverty means those who have no source of livelihood at all or have a source of livelihood but do not have adequate basic needs for their lives or their families. Meanwhile, the Central Statistics Agency uses the term poverty to refer to the inability of individuals to meet the minimum basic needs to live a decent life.

There are two general approaches to defining poverty: (1) the absolute approach, which considers those who do not have access to goods and services for their minimum needs as poor, and (2) the relative approach, which considers those poor whose income is substantially less than the average income of the population. Measurement indicators that are generally used to assess poverty are the Poverty Line (GK) and the percentage of the poor population ((Zastrow, 2017, hlm. (114) headcount index), poverty gap index, and poverty severity index. (Foster dkk., 1984)

Theory of Poverty and Income Inequality

Poverty has always been a serious topic for developed and developing countries because this condition is experienced by almost all countries worldwide. However, the level of poverty can vary because of differences in the social, economic, and political conditions of a country.

Poverty is a major developmental problem. Rapid population growth puts pressure on unemployment and triggers poverty. Kuntjoro-Jakti views that the problem of poverty arises as a result of development policies, especially unbalanced rural-urban development. According to Sumardjoko, efforts to reduce poverty should be aimed at cutting the circle and trap of poverty. (Todaro & Smith, 2008) (Kuntjoro-Jakti, 1986) (2018)

Data Analysis Methods

This study uses time-series data, namely, poverty levels and special autonomy funds in Papua Province from 2010 to 2021. The data were processed using time-series regression analysis. Because the data of special autonomy funds are in the form of a large nominal, natural logarithmic transformation is carried out with the following regression model:

$$Y_t = \beta_0 + \beta_1 \ln X_t + \varepsilon_t$$

Information:

Y = Kemiskinan

X = Special autonomy fund

β_{or} = Constant

β_1 = Slope

ε = error term

Data on Poverty Level (Y) and Special Autonomy Fund (X)

Year	Poverty Rate (%)	Special Autonomy Fund (Rupiah)	Ln Special Autonomy Fund
2010	34.100	3,494,864,788,000	28.88231580
2011	34.110	3,957,459,547,550	29.00662341
2012	30.660	3,833,402,135,000	28.97477381
2013	31.520	4,355,950,048,000	29.10256385
2014	27.800	4,777,070,560,000	29.19484862
2015	28.170	7,190,429,880,000	29.60377207
2016	28.540	7,382,551,859,000	29.63014048
2017	27.620	8,205,152,407,000	29.73578342
2018	27.740	8,020,854,115,000	29.71306603
2019	27.530	8,674,676,695,000	29.79142917
2020	26.640	7,999,969,920,000	29.71045890
2021	26.860	7,911,837,607,000	29.69938119

Research Results

This section examines the influence of the special autonomy fund as an independent variable on the poverty rate in Papua Province. The data were processed using time series regression analysis with the help of IBM Statistics SPSS 26 software.

Classical Assumption Test

The estimation of *the time series* regression model uses ordinary least squares, which still requires classical assumption testing, such as regression analysis in general.

- Normality Test

The assumption of normality is a very important requirement for testing the significance of the regression coefficient. In this study, *the Kolmogorov Smirnov test* was used to test the normality of the regression model, and the results are presented in the following table.

Results of the Normality Assumption Test One-Sample Kolmogorov-Smirnov Test

		Unstandardized Residual
N		12
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.32764102
Most Extreme Differences	Absolute	.196
	Positive	.135
	Negative	-.196
Test Statistic		.196
Asymp. Sig. (2-tailed)		.200 ^{c,d}

a. Test distribution is Normal.

b. Calculated from data.

c. Lilliefors Significance Correction.

d. This is a lower bound of the true significance.

In the table above, it can be seen that the probability value (Asymp.sig.2-tailed) obtained from the Kolmogorov-Smirnov test was 0.200. Since the probability value of the Kolmogorov-Smirnov test was greater than the error rate of 5% (0.05), it was concluded that the regression model was normally distributed.

• Heteroscedasticity Test

The purpose of the heteroscedasticity test is to test whether there is a variance inequality in the regression model from the residual from one observation to another. A good regression model is one in which heteroscedasticity does not occur. The heteroscedasticity test was carried out using the *Spearman rank test* (Gujarati & Porter, 2009), which correlated the independent variables to the absolute value of the residual.

Results of Heteroscedasticity Assumption Test Correlations

			Absolut Residual	Ln Special Autonomy Fund
Spearman's rho	Absolut Residual	Correlation Coefficient	1.000	-.413
		Sig. (2-tailed)	.	.183
		N	12	12
	Ln Special Autonomy Fund	Correlation Coefficient	-.413	1.000
		Sig. (2-tailed)	.183	.
		N	12	12

In the table above, it can be seen that the significance value of the correlation coefficient of independent variables with absolute residual is still greater than 0.05. Thus, it can be concluded that there is no heteroscedasticity in the regression model.

- Uji Autokorelasi

In the autocorrelation test, the Durbin-Watson test is used to determine whether there is an autocorrelation in the regression model, and the following Durbin-Watson values are obtained from the estimation results of the regression model.

Durbin-Watson values for autocorrelation tests

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.868a	.753	.728	1.39244	1.983

a. Predictors: (Constant), Ln Dana Otsus

b. Dependent Variable: Kemiskinan

In the table above, it can be seen that the Durbin-Watson (D-W) statistical value of the regression results is 1.983. From Table d for the number of independent variables = 1 and the number of observations n = 12, the lower limit of the table value (d_L) = 0.971 and the upper limit (d_U) = 1.331 are obtained. The Durbin-Watson value of the regression results (1.983) is between d_U (1.331) and $4-d_U$ (2.669), which is in an area where there is no autocorrelation; therefore, it can be concluded that there are no autocorrelation symptoms in the regression model.

Regression Equation

The results of estimating the model of the influence of special autonomy funds as an independent variable on the poverty level using time series regression are as follows.

Regression Model Estimation Results

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Mr.
		B	Std. Error	Beta		
1	(Constant)	222.222	34.956		6.357	.000
	Ln Special Autonomy Fund	-6.558	1.188	-.868	-5.520	.000

a. Dependent Variable: Kemiskinan

Based on the values of the unstandardized coefficients contained in the table above, the regression equation can be formed as follows:

$$\text{Poverty} = 222,222 - 6,558 \text{ Ln Special Autonomy Fund}_t$$

The coefficients in the equation can be interpreted as follows:

1. The constant of 222.222% indicates the average value of the poverty rate in Papua Province if there is no special autonomy fund.

2. The special autonomy fund has a negative coefficient of 6.558, indicating that any increase in the special autonomy fund in exponential multiples will reduce the poverty rate in the Papua Province by 6.558 percent.

Coefficient of Determination

The determination coefficient is used to determine how much the special autonomy fund, as an independent variable, affects the poverty rate in Papua Province. The value of the determination coefficient was obtained through the results of processing using IBM Statistics SPSS 26 software, as presented in the following table.

Coefficient of determination of special autonomy funds against poverty

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.868a	.753	.728	1.39244	1.983

a. Predictors: (Constant), Ln Dana Otsus

b. Dependent Variable: Kemiskinan

Based on the *adjusted R-squared* value of 0.728, the special autonomy fund has a 72.9% influence on the poverty rate in Papua Province. The remaining 27.2% is influenced by other factors that were not studied.

Hypothesis Testing

Furthermore, hypothesis testing was conducted to prove whether the special autonomy fund had an effect on the poverty level in Papua province. The t-test was used by comparing the significance value to 0.05. If the significance value is less than 0.05, it can be concluded that there is a significant influence on the dependent variable. The following is an excerpt of the results of testing the special autonomy fund on the poverty level in Papua Province.

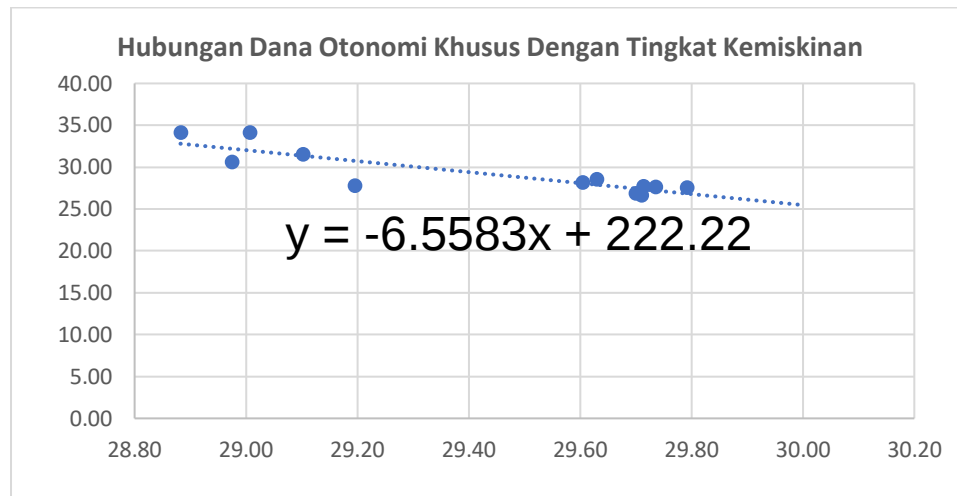
Test t the effect of special autonomy funds on poverty levels

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Mr.
		B	Std. Error	Beta		
1	(Constant)	222.222	34.956		6.357	.000
	Ln Special Autonomy Fund	-6.558	1.188	-.868	-5.520	.000

a. Dependent Variable: Kemiskinan

The t-value of the variable calculation of the special autonomy fund on the poverty rate in Papua Province is -5.520 with a significance value of 0.000. Because the significance value is less than 0.05, it can be concluded that the special autonomy fund significantly influences the poverty level in Papua Province. A negative regression coefficient indicates that an increase in special autonomy funds can reduce poverty rates in the Papua Province.



Based on the *adjusted R-squared* value of 0.728, the special autonomy fund has a 72.9% influence on the poverty rate in Papua Province. The remaining 27.2% is influenced by other factors that were not studied.

Conclusion

The results show that the Special Autonomy Fund (DOK) in Papua Province significantly influences reducing the poverty rate in the area. Although there is a decrease in the percentage of poverty from 30.66% in 2012 to 26.86% in 2021, the number of poor people is still increasing, which shows that the challenges in poverty alleviation in Papua are still large. Regression analysis shows that any increase in DOK reduces the poverty rate by 6.558%. With a determination coefficient value of 72.9%, it can be concluded that DOK plays an important role in influencing poverty, although there are still 27.2% of other factors that also contribute. Therefore, better financial management and more effective policies are needed to maximize the benefits of the fund in addressing poverty in Papua and West Papua.

Bibliography

- Ahluwalia, M. S. (1976). **Inequality, Poverty, and Development**. Journal of Development Economics.
- World Bank. (2005). **Recommendations for Revenue and Expenditure Management in Papua**.
- BPS Papua Province. (2022). **Poverty Statistics in Papua**.
- de Janvry, A., & Sadoulet, E. (2010). **The Global Food Crisis: The Impact on Poverty and the Role of Social Protection**. The World Bank.
- Friedman, J. (2003). **Growth and Poverty in Indonesia: An Overview**. Journal of Asian Economics.
- Gujarati, D. N., & Porter, D. C. (2009). **Basic Econometrics**. McGraw-Hill.
- Huppi, M., & Ravallion, M. (1990). **Growth and Poverty: The 1980s in Retrospect**. World Bank.
- Kakwani, N. (1980). **Income Inequality and Poverty: A Comparative Study**. The World Bank.

Ismail, F. (2021). *Social Welfare and Poverty Alleviation in Indonesia*. Journal of Economics and Development.

Mikkelsen, L. (2003). *Poverty: A Global Perspective*. Routledge.

Ravallion, M., & Huppi, M. (1991). *Measuring Changes in Poverty: A Methodological Case Study of Indonesia*. The World Bank.

Suparlan, P. (1984). *Poverty in Indonesia: Definition and Measurement*. Center for Economic Research.

Sumardjoko. (2018). *Poverty Reduction Policies in Indonesia: Review and Challenges*. Journal of Economic Development.

Todaro, M. P., & Smith, S. C. (2008). *Economic Development*. Pearson.

Zastrow, C. (2017). *Understanding Poverty*. Oxford University Press.