

Measuring the Ability of Poverty Alleviation Programs in Reducing Rural Poverty Levels in Eastern Indonesia

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Article Info	Abstract
<p><i>Article history:</i> Received June 13, 2024 Revised September 4, 2024 Accepted November 28, 2024 Available December 6, 2024</p> <p>Keywords: Rural Poverty, Poverty Alleviation Programs, Eastern Indonesia</p> <p>JEL Classification: I30; I31; I38; R10</p>	<p><i>Poverty is still a problem in many developing countries, including Indonesia, especially in eastern Indonesia such as the provinces of East Nusa Tenggara, Maluku, West Papua, and Papua. Based on Statistic Indonesia data, the poverty rate in eastern Indonesia shows a downward trend but is still well above the national average. This raises questions about the achievements of poverty alleviation programs. To overcome this problem, the government has created several programs to alleviate poverty. These programs include increasing social assistance, improving community access to basic services, empowering communities and promoting inclusive development. This study aims to measure the ability of poverty alleviation programs to reduce poverty levels in Eastern Indonesia. This study uses the Blundell-Bond System GMM (Sys-GMM) analysis technique in measuring the short-run and long-run effects of these programs. The data in this study used secondary data obtained from official institutions such as Statistics Indonesia and the Ministry of Finance of the Republic of Indonesia. The data collected includes the government budget in the field of social assistance, average years of schooling, life expectancy, human development index and Gini ratio. Based on the results obtained in this study during the research period from 2010 to 2022, it shows that (1) the government budget in the field of social protection as a proxy for social assistance programs has no significant effect on poverty, (2) the average length of schooling as a proxy for programs to improve access to basic services in the field of education has no effect on poverty, (3) life expectancy as a proxy for programs to improve basic services in the health sector significantly reduces poverty, community empowerment programs and inclusive development proxied by (4) the human development index has no significant effect on poverty, and (5) the Gini ratio has a significant effect on poverty.</i></p>

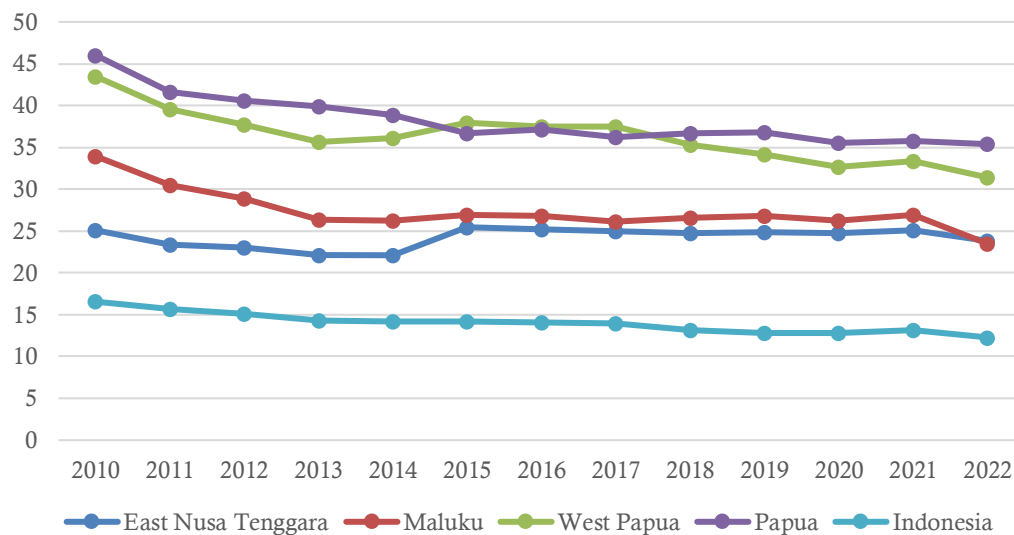
INTRODUCTION

This research is motivated by the problem of poverty in Indonesia, especially in Eastern Indonesia, where there is an understanding of poverty which is still the biggest challenge in the region despite massive regional development efforts over the past few years (Murdiyana & Mulyana, 2017). Eastern Indonesia has abundant natural resources but has not been able to be managed independently (Kurniasari & Oktavilia,

2023), causing economic problems, such as inequality, low productivity in the economy and poverty (Febriandika et al., 2022).

Sustainable Development Goal 1 requires countries to end all forms of poverty. Poverty has many dimensions, but its causes include unemployment, social exclusion and the high vulnerability of certain communities to disasters, diseases and other phenomena that prevent them from being productive (United Nations, 2023). Furthermore, poverty itself refers to a lack of physical needs, assets and income. Poverty can be distinguished from other dimensions of deprivation such as physical weakness, isolation, vulnerability and powerlessness that interact with it (Chambers, 1995). Meanwhile, poverty is associated with hunger, homelessness and having no budget for medical treatment when sick. Since most of the poor do not go to school, they lack basic skills such as reading, leading to unemployment. Poverty is defined as helplessness, isolation, and lack of self-reliance (Ravallion, 2001).

Figure 1. Rural Poverty Levels, 2010-2022 (Percent)



Source: Statistics Indonesia (BPS), Data Processed

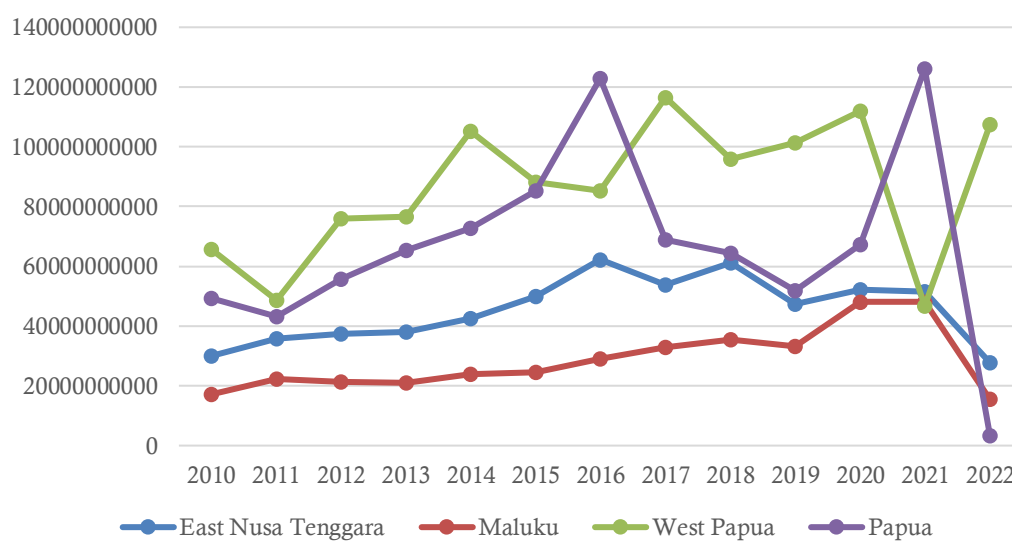
Based on data from Statistics Indonesia (Badan Pusat Statistik/BPS), Eastern Indonesia has a high rural poverty rate. In 2022, rural poverty was highest in Papua Province with a rural poverty rate of 35.4 per cent, followed by West Papua Province at 31.42 per cent, East Nusa Tenggara Province at 23.9 per cent and Maluku Province at 23.5 per cent. Poverty in provinces in the eastern region is statistically worse on average than poverty in the western region (Soleman & Soleman, 2022). Therefore, poverty alleviation in Eastern Indonesia requires a well-planned poverty alleviation strategy to improve economic equity (Erlando et al., 2020).

In Indonesia, the poverty criterion commonly used by Statistics Indonesia (BPS) is based on the poverty line measured using per capita expenditure per month. Statistics Indonesia (BPS) uses a basic needs approach in measuring poverty, where poverty is seen as an economic inability to fulfil basic needs. Thus, people in Indonesia

who are considered poor are those whose average expenditure per capita per month is less than the poverty line. Furthermore, the existence of a poverty line can also be a consideration for the government in designing poverty alleviation programs (Adji et al., 2020).

So far, the Indonesian government has implemented several programs to alleviate poverty. This is based on the poverty alleviation strategy formulated by the National Team for the Acceleration of Poverty Reduction (Tim Nasional Percepatan Penanggulangan Kemiskinan/TNP2K), a special agency established by the government to help plan poverty alleviation programs. Some of the programs created by the agency are, first by increasing social assistance, second by increasing access to basic services, third by empowering the poor and fourth by inclusive development. These four programs are the basic programs for accelerating poverty reduction. According to the National Team for the Acceleration of Poverty Reduction, several activities are carried out in support of the four basic programs such as (1) providing social assistance directly to the poor to ensure the fulfilment of basic rights and improve the quality of life of the poor, (2) increasing access to basic services for the poor can be done by providing assistance or subsidies and developing related infrastructure to ensure the poor can access basic services, (3) empowerment of the poor is carried out by encouraging the poor to develop their creativity and potential, besides that, this program also aims to encourage the poor to move out of poverty and ensure that vulnerable groups do not return to poverty, lastly, (4) inclusive development that encourages equitable development to ensure that there is no gap so that all levels of society can participate in development. Based on the description above, this study will analyze the ability of these programs – proxied by several macroeconomic variables – to reduce the level of rural poverty, especially in Eastern Indonesia.

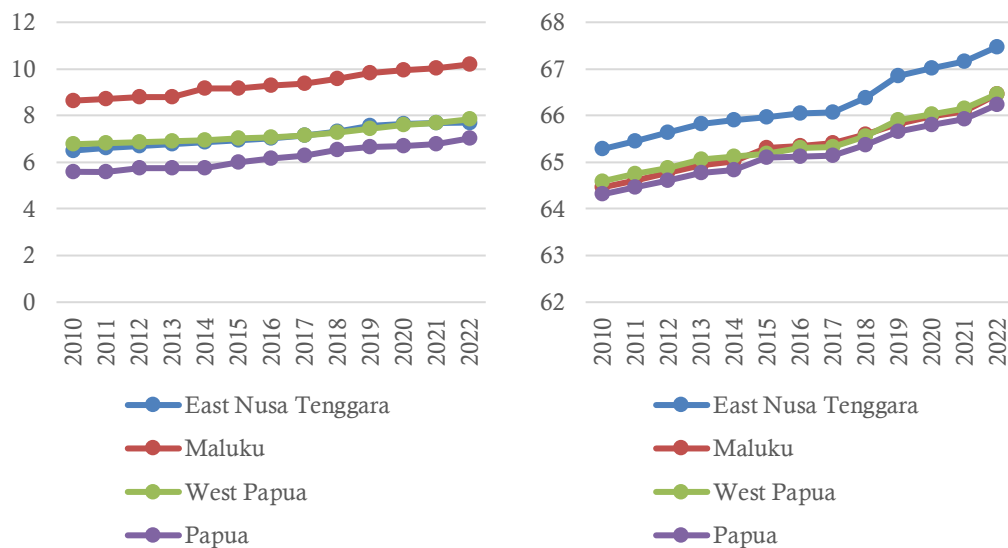
Figure 2. Social Assistance, 2010-2022



Source: Ministry of Finance of the Republic of Indonesia, Processed Data

The first poverty alleviation program is social assistance. Social assistance programs, such as cash transfers and conditional cash transfers, can significantly reduce poverty by providing direct financial assistance to families in need (Agustanta et al., 2024). Figure 2 above shows an increasing trend in Maluku and East Nusa Tenggara provinces, but the social assistance budget fluctuates in Papua and West Papua provinces.

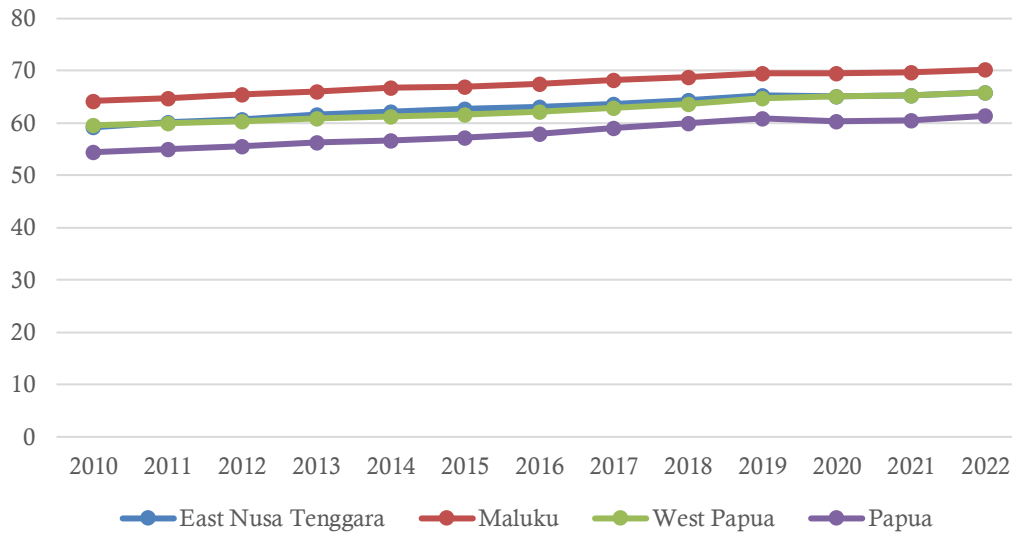
Figure 3. Average Years of Schooling (left) & Life Expectancy (right), 2010-2022



Source: Statistics Indonesia (BPS), Processed Data

The second poverty alleviation program is to increase access to basic services, particularly in education and health. This study uses average years of schooling as a proxy for access to education and life expectancy as a proxy for access to health services. Figure 3 above shows that access to education and health has increased every year. In several previous studies, increasing access to basic education can contribute significantly to poverty alleviation (Haidir & Setyari, 2023) (Suhendar et al., 2024). Furthermore, poor health can perpetuate poverty by reducing productivity and increasing the cost of health services. In Indonesia, the availability of health facilities and the quality of health services can have a significant impact on poverty levels (Pangeran et al., 2022).

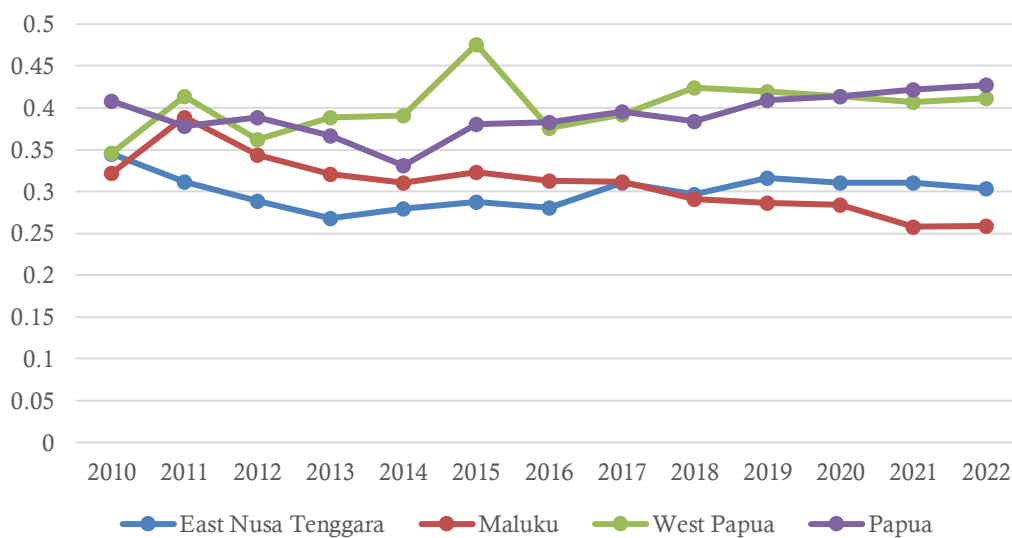
Figure 4. Human Development Index, 2010-2022



Source: Statistics Indonesia (BPS), Processed Data

The third poverty alleviation program is the empowerment of the poor. In this study, this program is proxied by the human development index. The HDI combines indicators such as life expectancy, education, and income to provide a comprehensive picture of human well-being (Ramadhani, 2021). Higher HDI scores are associated with lower poverty rates, as education and health services improve economic opportunities and overall well-being (Hasanah et al., 2022). Based on Figure 4 above, the Human Development Index in Eastern Indonesia shows an increasing trend every year although it is still in the medium (60-69) and low (<60) classifications.

Figure 5. Gini Ratio, 2010-2022



Source: Statistics Indonesia (BPS), Processed Data

The fourth poverty alleviation program is inclusive development. This study uses the Gini index, which measures income inequality, as a proxy for inclusive development or development that can be felt by all levels of society equally. In Figure 5 above, over the past few years, there has been a downward trend in inequality in Maluku Province, while it has fluctuated in East Nusa Tenggara, Papua and West Papua Provinces. Decreasing inequality will have an impact on reducing the poverty rate. This is because a more equitable income distribution can lift people out of poverty, especially in low-income countries where income redistribution can make a significant difference (McKnight, 2019).

Several previous studies have discussed poverty in Indonesia, but not many have examined poverty specifically in Eastern Indonesia and only a few have used rural poverty data. For example, research from Gibson et al., (2023) Which analyzes poverty influenced by the growth of urban areas, research from Anita et al., (2023), Hajad et al., (2023), Sudaryanto et al., (2023), Erlando et al., (2020) and Mai & Mahadevan, (2016) which use poverty data for each province in general, research from Purwono et al., (2021) which uses provincial-level poverty line data and panel data periods in the short term. Thus, this study provides novelty and differences from several previous studies by using rural poverty data. On this basis, rural poverty in Eastern Indonesia is the main focus of this study, considering that rural poverty in Eastern Indonesia is very high. This research is important to measure the ability of poverty reduction programs to reduce poverty in Eastern Indonesia. Thus, this research can be a consideration for the government in evaluating all poverty reduction programs that have been made. Furthermore, if poverty reduction programs succeed in reducing poverty, it is expected that the problem of poverty in Eastern Indonesia, especially in rural areas, can be handled properly. In addition to the lack of utilization of rural poverty data, the Generalized Method of Moments dynamic panel data analysis technique has also not been widely used in several studies on poverty, especially in Eastern Indonesia. The advantage of this technique is that it can describe the long-term effect of a variable on panel data so this technique is appropriate for studying poverty in Eastern Indonesia, which requires time for a poverty reduction program or policy to affect the poverty rate. Thus, in addition to the use of rural poverty data, this study also provides new insights into the use of GMM dynamic panel data analysis techniques in analyzing rural poverty in Eastern Indonesia.

RESEARCH METHODS

In alleviating poverty in Indonesia, several strategies are needed as described above. In this study, the four programs are proxied using macroeconomic variables. First, the program to increase social assistance is proxied by the government budget in the field of social protection (AID). Second, the program to improve access to basic services in education is proxied by average years of schooling (EDU). Improved access to education leads to higher school enrollment rates, which in turn contributes to an increase in average years of schooling (Angrist et al., 2020). Meanwhile, the program to improve access to basic services in health is proxied by life expectancy (HEALTH). Improved access to basic services in health is closely related to increased life

expectancy (Daindes et al., 2022) so it is important to ensure adequate access to health services to improve overall health and longevity (Zarulli et al., 2021).

Third, the community empowerment program is proxied by the Human Development Index (HDI). The HDI is a broad statistic that covers many dimensions of human development, such as health, knowledge and living standards (Klasen, 2018). These dimensions are closely related to community empowerment as they represent the well-being and skills of individuals within a community (Korankye et al., 2020). Fourth, inclusive development programs are proxied by the Gini Ratio (GINI). Many studies use the Gini ratio to measure income inequality. A lower Gini coefficient indicates a more equitable distribution of income, which is an important component of inclusive economic development (World Economic Forum, 2018). As such, a lower Gini ratio can be considered an indicator of more inclusive economic growth (Azizah, 2022), where the benefits of development are distributed more evenly across society (Nurlina et al., 2021).

Based on the explanation in the previous paragraph, a formula for poverty alleviation programs in Indonesia is formed, as follows.

$$POV_{it} = \beta_0 + \beta_1 POV_{i(t-1)} + \beta_2 AID_{it} + \beta_3 EDU_{it} + \beta_4 HEALTH_{it} + \beta_5 HDI_{it} + \beta_6 GINI_{it} + u_{i,t} \dots \dots \dots (1)$$

The data collected in this study is secondary data obtained from Statistics Indonesia (Badan Pusat Statistik/BPS) and the Ministry of Finance of the Republic of Indonesia (Kementerian Keuangan). This study focuses on four provinces in Eastern Indonesia, namely Papua Province, West Papua Province, Maluku Province, and East Nusa Tenggara Province. The data collected is secondary data from Statistics Indonesia 2010-2022. The analysis technique used in this study uses dynamic panel analysis with the Generalized Method of Moments (GMM) method calculated using STATA.

RESULT

Estimation Results

The objective of this study is to measure the ability of poverty alleviation programs in Eastern Indonesia, the results of the study are analyzed below.

Table 1. Comparison of GMM Model Estimation Results

Variables	FD-GMM		Sys-GMM	
	Coefficient	P-value	Coefficient	P-value
POV(-1)	0.4821034	0.000	0.7374939	0.000
AID	0.4035176	0.177	0.6856267	0.057
EDU	2.032138	0.117	0.4934413	0.624
HEALTH	-1.52765	0.035	-1.334401	0.014
HDI	-0.20331	0.312	0.1958667	0.401
GINI	7.126647	0.149	14.90436	0.000

From Table 1, in the First Difference GMM or Arellano-Bond GMM (FD-GMM or AB-GMM) model, the variables that are significant to poverty based on P-value below α are health (HEALTH) and lag poverty (POV[-1]). Meanwhile, in the Blundell and Bond System GMM (Sys-GMM) model, the variables that are significant for poverty are health (HEALTH), inequality (GINI) and lag poverty (POV[-1]).

FD-GMM Validity Test

Table 2. Validity Test

Sargan test value	P-value
55.68207	0.1114

Based on Table 2, the Sargan test is used as a validity test or a test that identifies the validity of the entire instrument variable with a P-value of 0.1114 or above 0.05 so that the null hypothesis (H_0) can be accepted, namely that the instrument variable has met the 'valid' criteria or the instrument variable is not correlated with errors.

FD-GMM Consistency Test

Table 3. Consistency Test

Order	Arellano-Bond test values	P-value
1	-1.9896	0.0466
2	0.22959	0.8184

In Table 3, the consistency test is carried out using the Arellano-Bond test, in the second order or AR (2), the test value is 0.22959 or is between the $Z_{\alpha/2}$ value and the P-value is 0.8184 or insignificant to α so that hypothesis 0 (H_0) can be accepted or the estimate is consistent and there is no autocorrelation.

FD-GMM Unbiasedness Test

In the unbiased test on the FD-GMM model, the lag coefficient value of the dependent variable will be compared with the results of the Fixed Effect Model and Pooled Least Square. The FD-GMM model is said to have met the unbiased assumption if the lag coefficient value of the dependent variable is between the Fixed Effect Model and Pooled Least Square.

Table 4. Unbiasedness Test

Variables	FD-GMM	FEM	PLS
POV(-1)	0.48210335	0.57589975	0.89443896

Based on Table 4, the lag coefficient value of the dependent variable is below the lag of the dependent variable in the Fixed Effect Model (FEM) estimation so the above model using FD-GMM does not meet the unbiased assumption and cannot be continued.

Sys-GMM Validity Test

Table 5. Validity Test

Sargan test value	P-value
72.23025	0.0595

Based on Table 5, the validity test using the Sargan test shows a P-value of 0.0595 or above 0.05 so that the null hypothesis (H_0) can be accepted, namely that the instrument variable has met the 'valid' criteria or the instrument variable is not correlated with errors.

Sys-GMM Consistency Test

Table 6. Consistency Test

Order	Arellano-Bond test values	P-value
1	-2.1112	0.0348
2	0.65958	0.5095

In Table 6, the consistency test on the second order or AR(2) obtained a test value of 0.65958 or is between the $Z_{\alpha/2}$ value of -1.96 to 1.96 and a P-value of 0.5095 or insignificant to α so that hypothesis 0 (H_0) can be accepted or the estimate is consistent and there is no autocorrelation.

Sys-GMM Unbiasedness Test

Just like the FD-GMM model, the Sys-GMM model is said to have met the unbiased assumption if the lag coefficient value of the dependent variable is between the Fixed Effect Model and Pooled Least Square.

Table 7. Unbiasedness Test

Variables	FD-GMM	Sys-GMM	FEM	PLS
POV(-1)	0.48210335	0.73749387	0.5758975	0.89443896

Based on Table 7, the lag coefficient value of the dependent variable in the Sys-GMM model is between the lag coefficient of the dependent variable in the Fixed Effect Model (FEM) and Pooled Least Square (PLS) so that the above model using the Sys-GMM model has met the unbiased assumption and can be continued as the best modelling.

Parameter Significance Test

After knowing the best model between the two models, the next step is to test the relationship in the selected model both simultaneously and partially.

Table 8. Simultaneous Test

Wald-test statistical value	P-value
349.85	0.0000

In Table 8, the simultaneous parameter significance test was conducted using the Wald test. The results show a statistical value of 349.85 with a P-value of 0.0000 or significant to α , which means that there is at least one significant coefficient.

Table 9. Partial Test

Variables	Coefficient	Standard Error	Z-test value	P-value
POV(-1)	0.73749387	0.0827434	8.97	0.000
AID	0.68562667	0.3607477	1.90	0.057
EDU	0.49344132	1.006986	0.49	0.624
HEALTH	-1.334401	0.5444931	-2.45	0.014
HDI	0.19586672	0.2330921	0.84	0.401
GINI	14.904356	1.918204	7.77	0.000

Based on Table 9, it is known that the social assistance variable (AID), the education variable (EDU) proxied by the average years of schooling and the human development variable (HDI) have no significant effect on poverty. The health variable (HEALTH) proxied by life expectancy has a significant effect on poverty reduction.

Finally, the inequality variable (GINI) has a significant effect on poverty reduction. After conducting various tests, the model of the rural poverty alleviation program in East Indonesia is obtained through the following equation.

$$POV_{it} = -1,334401HEALTH_{it} + 14,904356GINI_{it} + 0,73749387POV_{(it-1)} + v_{it} \dots\dots\dots(2)$$

Based on the regression results, the model above shows the effect of poverty alleviation programs on the poverty rate in Eastern Indonesia. Where the health variable (HEALTH) shows a coefficient value of -1.334. This means that the health variable proxied by life expectancy has a negative influence on the poverty rate, or in other words, it has a unidirectional relationship so that if government programs in the health sector increase, it will reduce the poverty rate. Furthermore, the inequality variable (GINI) has a coefficient value of 14.904. This means that the income inequality variable has a positive influence on the poverty rate, or in other words, it has a unidirectional relationship so that if the inclusive development program is successfully implemented, which is proxied by a decrease in income inequality, it will reduce the poverty rate.

Short-term and Long-term Effects

Table 10. Short-Term and Long-Term Effects on the Model

Predictors	Short term		Long term	
	Coefficient	P-value	Coefficient	P-value
POV(-1)	0.73749387	0.000		
AID	0.68562667	0.057	2.61185	0.013
EDU	0.49344132	0.624	1.879733	0.631
HEALTH	-1.334401	0.014	-5.083314	0.039
HDI	0.19586672	0.401	0.7461415	0.430
GINI	14.904356	0.000	56.77717	0.006

Based on Table 10, there are short-term and long-term effects of each variable. In the short-term effect, there are HEALTH and GINI variables that have a significant effect on poverty. The HEALTH variable has a negative coefficient sign, which means that every 1 per cent increase in HEALTH can reduce the poverty rate by 1.33 per cent. The GINI variable has a positive coefficient sign which means that every increase in GINI by 1 percent can increase poverty by 14.90 percent. Meanwhile, in the long run, there are AID, HEALTH and GINI variables that have a significant influence on poverty. The AID variable has a positive coefficient sign, which means that every 1 percent increase in AID can increase poverty by 2.61 percent. The HEALTH variable has a positive coefficient sign, which means that every 1 percent increase in HEALTH can reduce the poverty rate by 5.08 percent. The GINI variable has a positive coefficient sign which means that every increase in GINI by 1 percent can increase poverty by 56.77 percent.

DISCUSSION

The Effect of Social Assistance on Poverty

This study, which is sourced from local government expenditure data in the field of social protection from 2010 to 2022, has not had a significant effect on the rural poverty rate in Eastern Indonesia, as seen from the probability of 0.057 in the short term. However, in the long term, this variable has a significant effect on the poverty rate with a probability of 0.013 but with a unidirectional relationship. The short-term

and long-term effects lie in how much poverty alleviation programs can affect the poverty rate. In this study, social assistance programs did not have a significant effect on poverty in the short term. This means that in a short period, assistance programs cannot affect the poverty rate in Eastern Indonesia. Meanwhile, in the long term, social assistance programs have a positive and significant effect on poverty. This indicates that the increase in social assistance provided in Eastern Indonesia, cannot reduce the poverty rate sustainably. Thus, this program is not effective in reducing poverty in Eastern Indonesia.

The amount of social assistance provided by the government depends on the poverty conditions in the area (Sangadah et al., 2020). Reducing the poverty rate indicates that social assistance programs in Eastern Indonesia have not been able to lift people from poverty. In line with research by Sumanto et al. (2021), where social assistance funds increase poverty. This can be caused by social assistance programs that are less targeted or social assistance funds that cannot be fully utilized by the poor for productive things so social assistance programs from local governments do not affect reducing rural poverty levels in Eastern Indonesia. This statement is supported by Mahanani & Adelia (2023) who argue that there are findings from The Audit Board of the Republic of Indonesia (Badan Pemeriksa Keuangan/BPK) regarding the results of local government financial reports which show that the distribution of social assistance funds has experienced many problems as mentioned. Therefore, for social assistance programs to be successful in reducing poverty, a thorough evaluation must be conducted of the results of each program that has been implemented (Parekh & Bandiera, 2020).

The Effect of Life Expectancy on Poverty

Life expectancy is used in this study as a proxy for programs to improve access to basic services. Life expectancy can illustrate the condition of health development, especially in Eastern Indonesia where life expectancy in the region is still below the national level. In this study, life expectancy has a significant effect on the poverty rate in both the short and long term with coefficients of -1.334 and -5.083 respectively. This means that every increase in life expectancy by 1 percent in the short term will reduce the poverty rate by 1.33 percent and in the long term will reduce the poverty rate by 5.08 percent. Human capital theory can help us understand the relationship between poverty and life expectancy. An increase in life expectancy will lead to an increase in productivity and economic growth, which in turn helps reduce poverty (Baland et al., 2022). This dynamic is reinforced by the positive effect of health on productivity and the role of economic growth in reducing poverty (Baland et al., 2021). In line with previous studies, poverty will decrease as life expectancy increases (Setiawan et al., 2023). Improving a person's health will increase productivity which will ultimately also increase income (Sudaryati et al., 2021). Based on these findings, it is important for the government to always monitor the implementation of the program to improve access to basic services in the health sector, considering that this program affects the poverty rate in Eastern Indonesia. In this case, the government can improve the quality of health services, build adequate health facilities, and guarantee public health through health assistance, especially for the rural poor.

The Effect of Inequality on Poverty

In this study, the level of inequality using the Gini ratio indicator has a significant effect on poverty in both the short and long term with coefficients of 14.904

and 56.777, respectively. This indicates that inequality has the greatest influence on the rise or fall of rural poverty in Eastern Indonesia. Statistically, it means that every 1 percent increase in rural inequality in Eastern Indonesia will increase the poverty rate by 14.90 percent in the short run and by 56.78 percent in the long run. Based on this figure, it can be interpreted that inclusive development or development that can benefit more fairly and equitably all levels of society, which in this study is proxied by the increasing equality of income distribution (the Gini ratio is getting closer to 0), has a great opportunity and sustainable effect in reducing inequality, which in turn will also reduce poverty more permanently.

The theory of inclusive economic growth ensures that the benefits of economic growth are distributed fairly to all levels of society to reduce poverty and inequality (Ngepah, 2017) (Anita & Udjianto, 2024). Furthermore, according to the National Development Planning Agency (Badan Perencanaan Pembangunan Nasional/Bappenas), inclusive economic development is economic development that creates broad access and opportunities for all levels of society equitably, can improve welfare, and reduces gaps between groups and regions. In line with previous research, where inclusive growth moderates the negative impact of income inequality on poverty (Amponsah et al., 2023), and plays a role in improving the welfare of the population (Chaikin & Usiuk, 2019), inclusive growth that prioritizes employment and leads to a fairer income distribution will eliminate poverty (Ochi, 2023). With a focus on inclusive development that aims to reduce inequality, the government needs to create fairer and more equitable conditions for all levels of society. Reflecting on the development conditions in Eastern Indonesia, the government needs to be more active in carrying out development there, of course by still involving local communities in every development carried out to ensure they are not left behind in the development process.

CONCLUSION

This study provides new insights into the effectiveness of poverty alleviation programs in Eastern Indonesia, both in the short and long term. This study focuses on Eastern Indonesia due to its high poverty rate, especially in rural areas. Based on the results described above using the Sys-GMM model, it is found that the level of inequality has the greatest influence on rural poverty reduction, followed by improved access to health in both the short and long run. Therefore, improving the gap in relative income distribution among the population and increasing access to health services are strategies that need to be sustained to reduce rural poverty in Eastern Indonesia, now and in the future. About maintaining this strategy, as described in the discussion paragraph above, the government is also encouraged to always monitor and evaluate the course of each poverty alleviation program. After that, it is necessary to follow up on the each of evaluation results, such as improving supporting facilities and increasing broad community participation in every development so that the strategy can achieve maximum results in alleviating poverty. Lastly, this study only focuses on poverty in Eastern Indonesia, so if there are similar studies in the future, it is recommended to expand the research area, such as other major islands in Indonesia.

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