

# The Development of Human and Poverty in Indonesia

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**Abstract.** The Human Development Index (HDI) and poverty have a complex relationship. Generally, HDI is negatively correlated with the poverty rate. This research aims to examine the influence of the Human Development Index on the poverty rate in Indonesia. The research utilizes a quantitative approach and relies on secondary data from the Central Statistics Agency of the Republic of Indonesia, which is analyzed using simple linear regression. Based on the data analysis results, significant values (t-test and F-test) were obtained at 0.000, which is less than the significance level ( $\alpha$ ) of 0.05. Thus, the Human Development Index (X) has a negative and significant influence on poverty in Indonesia (Y). Meanwhile, the coefficient of determination (R Square) yielded a value of 0.836, indicating that 83.6 percent of the variation in poverty is influenced by the Human Development Index, while the remaining 16.4 percent is affected by other variables outside the model. HDI reflects a country's level of development through three key dimensions: health, education, and living standards. A high HDI can contribute to poverty reduction by improving access to education, healthcare, and a better standard of living. Efforts to enhance HDI and reduce poverty must be accompanied by integrated and sustainable strategies, including investments in education, healthcare, economic empowerment, and inequality reduction.

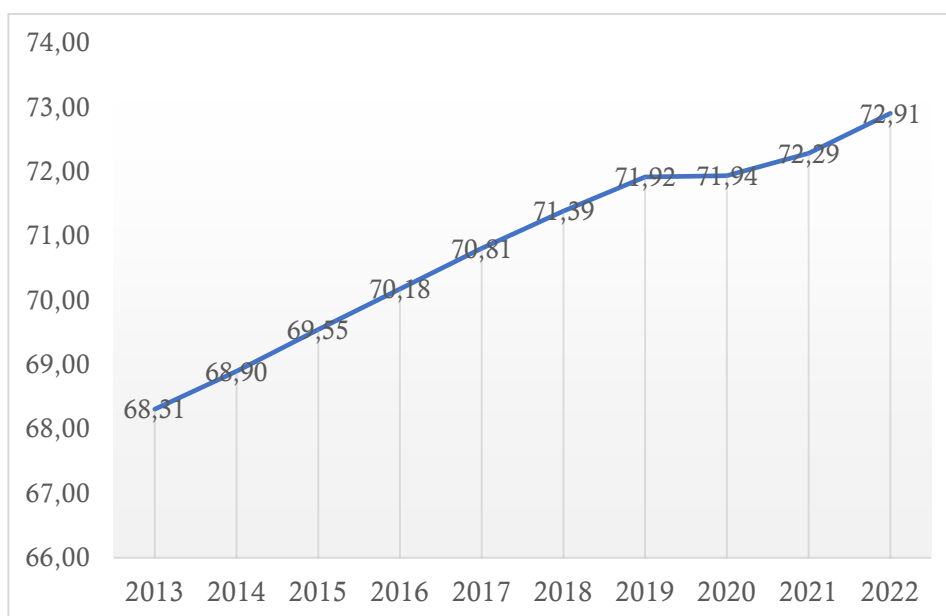
**Keywords:** Human Development Index; Poverty

## 1 Introduction

Indonesia, as the world's largest archipelagic country with over 270 million inhabitants, has experienced rapid development in recent decades. Significant economic growth, rapid urbanization, and various social and economic development programs have characterized Indonesia's transformation from an agrarian nation to the largest economy in Southeast Asia. However, poverty rates remain a serious challenge that hinders the achievement of sustainable development goals. Poverty is one of the biggest challenges facing Indonesia in its efforts to achieve widespread prosperity (Purwono et al., 2021). Data from the Indonesian Central Bureau of Statistics indicates that in 2023, approximately 9.36% of Indonesia's population lives below the national poverty line. This means that more than 24 million Indonesians still struggle to meet basic needs such as food, housing, education, and access to adequate healthcare services.

In the effort to address the issue of poverty, one concept that has received significant attention is the Human Development Index (HDI). The Human Development Index (HDI) is an indicator used to measure the quality of life in a country or region based on several fundamental components, such as income, health, and education. HDI serves as a tool to evaluate to what extent the population can access the benefits of development in terms of income, health, education, and more (Mukhtar et al., 2019). In the context of Indonesia, HDI is used to measure

human development achievements at the national, provincial, and district/city levels. Indonesia's HDI has improved, rising from below 70 to above 70 in the period from 2013 to 2023. This increase indicates progress in human development in Indonesia.



**Fig. 1.** Human Development Index of Indonesia for the Years 2013-2023  
Source: Central Statistics Agency of Indonesia, 2023

The Human Development Index (HDI) and poverty have a complex relationship that can vary depending on the context. In general, HDI is negatively correlated with the poverty rate. This means that, generally, as HDI increases, the likelihood of a lower poverty rate also increases (Syaifulah & Malik, 2017). However, there is research indicating that the relationship between the Human Development Index (HDI) and poverty is not always linear. Some studies suggest that the relationship between HDI and poverty can vary depending on the context (Sayifulah & Gandasari, 2016). Several factors can influence the relationship between HDI and poverty, including the level of economic growth, unemployment rate, access to education and healthcare, and inequality (Utami, 2020). Increasing HDI can help reduce the poverty rate by improving people's access to income, health, and education. However, raising HDI alone may not be sufficient to significantly reduce poverty. Comprehensive efforts are needed, such as improving access to decent employment, empowering communities, and reducing inequality.

Based on the research conducted, there is a relationship between the Human Development Index (HDI) and poverty in Indonesia. The results of a study by Mukhtar et al., (2019) show that HDI has a significant negative impact on poverty in Indonesia. This means that as HDI increases, the likelihood of a lower poverty rate also increases. However, the results of a study by Harman et al., (2022) indicate that HDI has a significant positive impact on poverty in Indonesia. This means that as HDI increases, the likelihood of a higher poverty rate also increases. Another study conducted in Samarinda shows that HDI has a significant negative impact on poverty. This study also indicates that economic growth and unemployment have a negative impact on poverty (Nurlita et al., 2017). Another study conducted in the Province of

Banten shows that HDI has a significant positive impact on poverty. This study also indicates that unemployment has a negative and significant impact on poverty (Sayifullah & Gandasari, 2016). A study by Prasetyoningrum & Sukmawati (2018) shows that HDI, economic growth, and unemployment have indirect effects on poverty in Indonesia. This study indicates that economic growth has a positive impact on HDI, which in turn has a negative impact on poverty.

This research aims to examine the influence of the Human Development Index on the poverty rate in Indonesia. This is important because understanding the relationship between human development and poverty can provide valuable insights for the government, non-governmental organizations, and other stakeholders in designing more effective policies to reduce the poverty rate.

## 2 Literature Review

The theory of poverty suggests that poverty is caused by structural and systemic factors within society, such as social injustice, economic inequality, and a lack of access to resources (Payne, 2018). This theory emphasizes that poverty is not the fault of individuals but a result of unfair policies and social structures. Some factors considered as causes of poverty according to this theory include racial, gender, and ethnic discrimination, which can lead to social injustice that hinders the economic and social progress of specific individuals and groups. Inequality in the distribution of resources and economic opportunities can also lead to poverty. Lack of access to education, healthcare, and decent employment can contribute to poverty.

The theory of human development, on the other hand, suggests that development should be measured not only in economic terms but also in terms of human well-being, such as health, education, and freedom (United Nations Development Programme, 2020). This theory emphasizes that development focused solely on economic growth will not create sustainable and equitable prosperity for the entire society. Some key factors in the theory of human development include good health as a prerequisite for sustainable human development. Development should pay attention to affordable and quality healthcare access. Quality education is crucial for creating an educated and skilled society. Development should consider affordable and quality education access. Individual freedom to make decisions and participate in political and social life is a prerequisite for sustainable human development.

Human development and poverty are two interconnected concepts. The Human Development Index (HDI) is one of the indicators used to measure the level of human well-being. HDI includes three dimensions: health, education, and a decent standard of living. A low HDI can indicate the presence of poverty in a region or country. Conversely, increasing HDI can help reduce poverty (Bappeda Provinsi Kepulauan Bangka Belitung, 2020). Poor health can be a cause of poverty. People who are sick or unhealthy tend to have difficulty working and generating sufficient income to meet their basic needs. Quality education can help improve a person's skills and knowledge, enabling them to secure better jobs and higher incomes. Therefore, human development that focuses on education can help reduce poverty (Kurniawan, 2018).

Individual freedom to make decisions and participate in political and social life can also influence poverty. People who lack the freedom to make decisions or participate in political and social life may have difficulty finding decent jobs and earning enough income to meet their needs (Dewi, 2018). High economic growth can help reduce poverty by creating new jobs and increasing people's income. However, economic growth that is not balanced with sustainable

human development can lead to greater social and economic inequality, ultimately increasing poverty (Jhingan, 2016).

### 3 Method

This research adopts a quantitative approach. The data used in the study are secondary data from the Central Statistics Agency of the Republic of Indonesia, including the percentage of the population living in poverty by province from 2013 to 2022 and the Human Development Index (HDI) data by province from 2013 to 2022. Poverty, as defined by the Central Statistics Agency, refers to individuals living below the poverty line. Poverty is included as a variable measured in percentage terms. The percentage of the population living in poverty represents the proportion of the population with absolute poverty measurements below the poverty line, calculated based on the criteria set by the Central Statistics Agency, also known as the poverty rate. The poverty rate in this study is treated as the dependent variable. HDI is an indicator used to measure the quality of human life, comprising three dimensions: longevity and health, knowledge, and a decent standard of living. Each of these dimensions is assigned an index value, and the HDI is calculated as a percentage using geometric mean formula.

In this study, simple linear regression analysis is used. The form of the simple linear regression equation is as follows:

$$\hat{Y} = a + bX + e_i$$

Explanation:

- $\hat{Y}$  : Dependent variable (Poverty)
- $X$  : Independent variable (Human Development Index)
- $a$  : Constant (the value of  $\hat{Y}$  when  $X = 0$ )
- $b$  : Regression coefficient value
- $e_i$  : Error caused by other variables that affect  $\hat{Y}$  but are not included in the study

### 4 Result and Discussion

This research employs a simple regression analysis method. Based on the data processing using SPSS 26 software, the regression equation results are obtained  $\hat{Y} = 42.088 - 0.449X + e_i$ .

**Table 1.** Coefficient Values

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	42.088	4.980		8.451	.000
IPM	-.449	.070	-.914	-6.390	.000

Source: Data Analysis Results, 2023

The constant value is 42.088, indicating the magnitude of the dependent variable (poverty) when the Human Development Index (HDI) is equal to zero. The coefficient value of the Human Development Index (HDI) is -0.449, meaning that if the Human Development Index (HDI)

increases by one unit, poverty will decrease by 0.449 units. The variable  $e_i$  represents external variables that affect poverty apart from the Human Development Index.

Based on the data analysis results, the significant value (t-test probability) is 0.000, which is less than the significance level ( $\alpha$ ) of 0.05. Therefore,  $H_a$  (the alternative hypothesis) is accepted, and  $H_0$  (the null hypothesis) is rejected, indicating that the Human Development Index variable (X) has a negative and significant impact on poverty in Indonesia (Y).

**Table 2.** Significance Test Value

	Sum of Squares	df	Mean Square	F	Sig.
Regression	4.304	1	4.304	40.832	.000 <sup>b</sup>
Residual	.843	8	.105		
Total	5.148	9			

Source: Data Analysis Results, 2023

Meanwhile, based on the coefficient of determination (R Square) test results, a value of 0.836 was obtained, which means that 83.6 percent of the variation in the poverty variable is influenced by the Human Development Index variable, while the remaining 16.4 percent is influenced by other variables outside the model.

**Table 3.** Coefficient of Determination (R Square) Values

R	R Square	Adjusted R Square	Std. Error of the Estimate
.914 <sup>a</sup>	.836	.816	.32468

Source: Data Analysis Results, 2023

The relationship between the Human Development Index (HDI) and poverty is complex and closely interconnected. HDI, developed by the United Nations as an indicator of human well-being, reflects a country's level of development by considering three key dimensions: health, education, and standard of living. Poverty is a social condition characterized by individuals or groups' inability to meet their basic needs, such as food, shelter, education, and health. The relationship between HDI and poverty can be explained in various ways, ranging from the potential impact of HDI in reducing poverty levels to how poverty can affect HDI components. HDI is a multidimensional measure that includes health, education, and standard of living. One of the key components of HDI is education, which reflects access and participation in both basic and higher education. Individuals with higher levels of education have better job prospects and tend to have higher incomes. Therefore, increasing HDI can directly contribute to reducing poverty. Empirical studies, such as the one conducted by Khan and Saboor (2015), found that improving access to higher education significantly reduces poverty rates in Pakistan. Thus, enhancing the educational aspect within HDI can be an effective way to address poverty.

The health component of HDI includes life expectancy and access to healthcare services. Poor health conditions are often a cause of poverty, as individuals who are sick may not be able to work or face high medical costs. Improving access to affordable healthcare services and increasing life expectancy can help reduce the risk of falling into poverty. According to research by Chen et al. (2019), investments in basic healthcare services in developing countries have a

positive impact on poverty reduction and HDI improvement. Meanwhile, the standard of living component includes per capita income and access to adequate housing, which also plays a crucial role in the relationship between HDI and poverty. Higher HDI often reflects better access to decent jobs and higher incomes. Increasing per capita income can help individuals and families escape poverty. Research by Alkire and Santos (2014) showed that increasing per capita income in several Latin American countries positively contributed to improved HDI and reduced poverty.

The relationship between HDI and poverty is not always one-way. Poverty can also negatively affect HDI components. For example, individuals living in poverty may have limited access to quality education, adequate housing, and proper healthcare. This can result in a decline in HDI components, such as increased dropout rates, low educational quality, and higher child mortality rates. Moser and Felton (2007) highlight how poverty can hinder achieving good education and health outcomes in various countries. Moreover, income distribution inequality and access to resources can also affect the relationship between HDI and poverty. When human development is only enjoyed by a small segment of society, high income inequality can increase disparities and create persistent poverty conditions for marginalized individuals. According to Wilkinson and Pickett (2010), economic inequality can negatively impact social well-being and overall public health. Therefore, to effectively reduce poverty, it is essential to ensure that the benefits of improved HDI are distributed equitably across society.

In addition to internal factors within a country, external factors can also influence the relationship between HDI and poverty. Development aid from donor countries or international organizations can play a significant role in enhancing HDI and reducing poverty in developing countries. According to Sen (1999), appropriate development aid can be used to improve access to education and healthcare services, which, in turn, can enhance HDI and reduce poverty. In this context, it is essential to remember that HDI is just one indicator of human development and does not encompass all aspects of human life. Therefore, in poverty reduction policy planning, a holistic approach is needed that also considers other aspects such as food security, decent employment, and social protection. Overall, the relationship between HDI and poverty is interrelated and complex, with various factors influencing and being influenced by both concepts.

## **5 Conclusion**

The Human Development Index (HDI) has a significant negative impact on poverty in Indonesia during the period from 2013 to 2022. HDI reflects a country's level of development through three key dimensions: health, education, and standard of living. A high level of HDI can contribute to reducing poverty by improving access to education, healthcare, and a better standard of living. Both internal factors such as income distribution and external factors like development aid play a role in this relationship.

Efforts to improve HDI and reduce poverty must be accompanied by integrated and sustainable strategies, including investments in education, healthcare, economic empowerment, and reducing inequality. Only through such a comprehensive approach can we achieve sustainable development goals that encompass the improvement in the quality of life for everyone.

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