Increasing Green Economic Growth Through Education and Income Levels

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Abstract

Green economic growth can have a negative impact on poor communities. The green economic transition can cause an increase in energy prices which can have a negative impact on poor communities. The green economic transition can cause job losses, especially for sectors whose supporting materials depend on intensive natural resources. This research aims to analyze the influence of poor people's income with the independent variables being the level of income and education on the affected green economists. This research uses primary data and secondary data. The research results show that people's income has a negative influence on the impact of the green economy. An increase in people's income can reduce the negative impact of the green economy. Education has a positive effect on increasing the growth and sustainability of the green economist program in the Jepara region.

***Keywords**: green economic growth; community income; education; government programs.*

Abstrak

Pertumbuhan ekonomi ramah lingkungan dapat berdampak negatif pada masyarakat miskin. Transisi ekonomi hijau dapat menyebabkan kenaikan harga energi yang dapat berdampak negatif pada masyarakat miskin. Transisi ekonomi hijau dapat menyebabkan hilangnya lapangan kerja, terutama bagi sektor-sektor yang bahan pendukungnya bergantung pada sumber daya alam yang intensif. Penelitian ini bertujuan untuk menganalisis pengaruh pendapatan masyarakat miskin dengan variabel independen tingkat pendapatan dan pendidikan terhadap green economizer yang terkena dampak. Penelitian ini menggunakan data primer dan data sekunder. Hasil penelitian menunjukkan bahwa pendapatan masyarakat mempunyai pengaruh negatif terhadap dampak ekonomi hijau. Peningkatan pendapatan masyarakat dapat mengurangi dampak negatif ekonomi hijau. Pendidikan berpengaruh positif terhadap peningkatan pertumbuhan dan keberlanjutan program ekonom hijau di wilayah Jepara.

Kata Kunci: pertumbuhan ekonomi hijau, pendapatan masyarakat, pendidikan, program pemerintah.

INTRODUCTION

Green economic growth is an effort to increase economic growth while maintaining environmental sustainability. This condition can be implemented by integrating environmental aspects into the economy(Jaya and Fitria, 2021). One of the main ways to increase green economic growth is to increase people's income and education levels (Nasution, 2022). Therefore, green economic growth is an alternative for increasing economic growth by paying attention to the sustainability of natural potential.

A high level of people's income will increase people's purchasing power. Not only will people's purchasing power increase, but they will also pay more attention to the resourcefulness of natural resources and environmentally friendly products will be increasingly paid attention to(Romli, 2021). The condition of people in the highlands will always look for products offered by manufacturers that prioritize environmentally friendly products (Literatur, 2021). Therefore, people with a high level of education tend to care more about the environment and are more willing to pay more for environmentally friendly products.

A high level of public education will also increase public awareness of the importance of improving welfare and environmental quality for health. People who understand the importance of maintaining a healthy environment in carrying out their economic activities are on average highly educated(Hamenda et al., 2022). The public realizes this because with a healthy environment, all activities, both economic and other activities, are easy to carry out. The experience of the Covid-19 pandemic is a very important lesson.

The vulnerability of green economic growth can have a negative impact on the conditions of the poor or lower class. Green economic policies can cause energy prices to increase, resulting in poor people having to pay higher costs for living(Widyastuti, 2019). The prices of basic needs that service providers will get higher in the market (Digital and Aksi, 2021). On the other hand, changes towards a green economy also result in job losses, especially in sectors that depend on increasingly intensive use of natural resources.

Low public income prevents the green economy from running. This condition is a transition caused by the green economy which results in prices for people's needs increasing and technology investment also following suit (Fitrianti, 2022). So it is very difficult for low levels of social reform to adjust to the green economic conditions that occur if subsidies are not provided to support it.

Government spending is increasing due to the green economy. The policy of increasing people's income for the economically poor through social assistance programs, such as price subsidies for basic necessities, energy subsidies and skills training is the impact of a green economy(Kurniawati, 2022). Apart from that, the government must also open up new job opportunities in green economy sectors, ranging from sustainable transportation, and waste management, to sectors supporting renewable energy for the running of the green economy.

The low level of income and education among the poor is a fundamental problem. This condition increases government spending through investment, training, and skills

programs to encourage people to be able to manage their income (Saputra and Ali, 2022). However, developing community skills to support the sustainability of the green economy cannot be done instantly, so large investment expenditures are required (Rasdi, 2020). Sustainable subsidies for the poor are very vulnerable to conditions in countries that are not ready to maintain the desire for a green economy (Hardianto and Desa, 2022). Large energy subsidies ranging from electricity subsidies, fuel subsidies to subsidies on the price of basic commodities, if the educational skills and training provided to the community are not immediately absorbed into employment (Ihsani, 2022). This condition means that the level of education has an influence on the desire for a watertight green economy program. Thus, efforts to help poor communities who are vulnerable to adapt to the green economic transition can run well.

Jepara Regency is an area located in Central Java Province which has the potential to develop green economic growth. Jepara Regency has diverse natural resources, such as marine natural resources, agriculture, forests, and renewable energy potential. Apart from that, this region has the potential for creative economic development, through the furniture industry and tourism.

RESEARCH METHODS

This research was conducted in the Jepara region, which is an area that has the potential for green economic development. This research uses quantitative and qualitative methods. The multiple regression analysis approach is used to measure the influence of independent variables on the dependent variable and understand the complex relationship between variables. The data used in this research is secondary data and primary data to support research, such as community conditions, average level of income, education, and economic growth occurring in the community. Jepara Regency economic growth data was obtained from Jepara Regency BPS data, education, income, and other supporting data.

a.Multiple Linear Regression Analysis

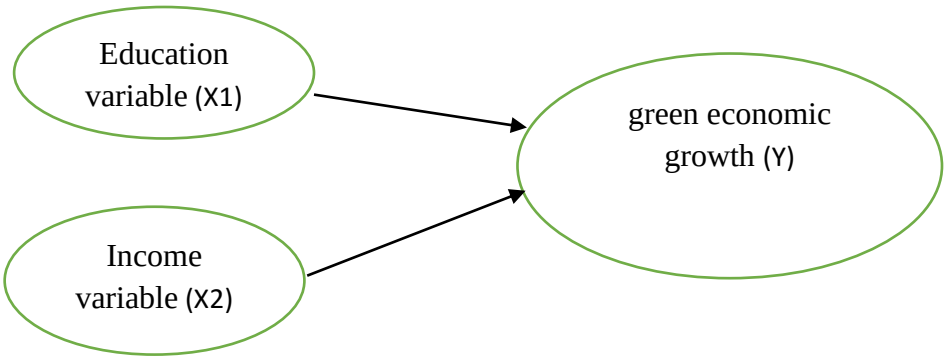
Multiple linear regression analysis tools were used in this research to determine the direction of the relationship between the independent variable and the dependent variable. Multiple linear regression analysis model, with the following equation:

$Y = \alpha + \beta 1X1 + \beta 2X2 + €$

Where:

Y = green economic growth variable
α = constant
$\beta 1$ = regression coefficient for the education variable
$\beta 2$ = regression coefficient for the income variable
X1= education variable
X2= income variable
€ = error term

Figure 1.
Research model



RESULTS AND DISCUSSION

Education data is a proxy for literacy rates in Jepara Regency and green economic growth is presented in Table 1. The results of the determinant efficiency analysis (R2) using the SPSS program are presented in Table 2.

Table. 1
Statistical Data on Jepara Regency Economic Growth for 2013-2023

Year	Green Economic Growth Variable	Average Education	Average Income
2013	0.96	7.09	69.11
2014	0.72	7.29	69.61
2015	0.59	7.31	70.02
2016	0.33	7.32	70.25
2017	0.77	7.33	70.79
2018	0.83	7.43	71.38
2019	0.7	7.44	71.88
2020	0.15	7.68	71.99
2021	0.51	7.79	72.36
2022	1.09	8.09	73.15
2023	0.96	8.26	73.85

Source: Jepara Regency BPS in figures, 2023

Table. 2
Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.271[a]	.073	-.158	.30372

a. Predictors: (Constant), Income, Education

Based on Table 2, the model summary shows, R: 0.271, R Square: 0.073, Adjusted R Square: -0.158, and Std. Error of the Estimate: 0.30372, so it can be interpreted that the R value shows that 27.1% of the variation in green economic growth is explained by independent variables (education and income). R Square: 7.3% of the total variation in green economic growth is explained by models. Based on Table 2 of the analysis output of the Determination Efficient Model Summary, it is known that the Adjusted R Square value is -0.158, so it can be concluded that the contribution of the independent variable's influence on the dependent variable simultaneously is only -15.8%.

Table. 3
Regression Equation

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.989	8.541		.350	.735
	Education	.510	.813	.660	.627	.548
	Income	-.086	.198	-.458	-.436	.675

a. Dependent Variable: Green Economic Growth Variable
Source: processed data

Furthermore, based on table 3 of the Regression Equation, it can be interpreted that the results of the regression analysis test the relationship between green economic growth (dependent variable) and two independent variables, namely education and income. Coefficient: Represents the effect of each independent variable on the dependent variable.

Education: The education coefficient is positive (0.510) but not statistically significant (p-value = 0.627). This shows that although there is a positive relationship between education and environmentally friendly economic growth, the data does not

provide strong evidence to show a clear cause and effect relationship. Income: The income coefficient is negative (-0.086) and also not statistically significant (p-value = 0.675). This implies that there is no clear relationship between income levels and green economic growth based on this analysis.

Standardized Coefficient (Beta): These values indicate the relative strength of the relationship between the independent variable and the dependent variable, regardless of the unit used to measure them. t-value and Sig. (Significance): These values assess the statistical significance of the coefficient. Since both p values are greater than 0.05, we cannot reject the null hypothesis which states there is no relationship between education/income and green economic growth.

Table. 4
Regresi

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.058	2	.029	.317	.737[b]
	Residual	.738	8	.092		
	Total	.796	10			

a. Dependent Variable: Green Economic Growth

b. Predictors: (Constant), Income, Education

Based on table 4, it can be explained that regression: This row represents the portion of the variance in green economic growth that can be explained by the linear model (income and education in this case). The value under "Sum of Squares" (0.058) indicates this explained variance.

Residual: This row represents the unexplained variance, or the error, in the model. The value under "Sum of Squares" (0.738) indicates this unexplained variance.

Total: This row represents the total variance in green economic growth.

F-statistic and Significance Level:

F-statistic (0.317): This statistic tests whether the explained variance (regression) is statistically significant compared to the unexplained variance (residual). In this case, the F-statistic is quite low (ideally, it should be much higher than 1).

Significance Level (0.737): This value represents the probability of observing an F-statistic this high or higher by random chance, assuming there's no real relationship between the variables. A significance level greater than 0.05 suggests we fail to reject the null hypothesis, which is that income and education have no significant impact on green economic growth.

Interpretation:

Based on the ANOVA results, the model (income and education) explains a very small portion (around 7.3%) of the variance in green economic growth (refer to 1 - 0.058 /

0.796). The F-statistic is also low, and the significance level is high, further indicating that the relationship between these variables is not statistically significant.

In simpler terms, this ANOVA table suggests that there's likely no evidence to conclude that income and education levels directly influence green economic growth based on this data. Possible Reasons and Next Steps: There might be other relevant factors not included in this model that contribute more significantly to green economic growth.The data itself might not be strong enough to capture a clear connection.A different analysis method might be better suited to explore these relationships. It's important to consider these limitations and potentially explore further analyses to get a more comprehensive understanding of the factors driving green economic growth.

a. The Influence of Education on Green Economic Growth

Based on the results of the analysis in Table 2, the influence of education on green economic growth shows a positive influence of 0.510. This condition means that the influence of education on green economic growth will change by 1 percent, which will increase program sustainability by 0.510 in Jepara Regency. This is in accordance with the theory put forward by Panayotou, (1993) that education in many developing countries is a way to save themselves from poverty by increasing the sustainability of green economic growth. The higher the population's education, the more they will think about saving the environment when the economy is uncertain or declining so as not to destroy nature as part of life. Higher academic intelligence will increase maturity of thinking to not only prioritize personal welfare achievements, but also damage the environment.

b. The influence of income level on Green Economic Growth

Based on the results of multiple linear regression analysis seen in Table 2, it shows that the level of income has a negative sign and has an effect on green economic growth with a coefficient value of -0.086. This condition means that if there is an increase in people's income by 1 percent, it will reduce green economic growth in Jepara Regency by 0.086 percent. This refers to research conducted by Paul Ehrlich (1968) in Review (1991) that there is a direct influence between increasing people's income on environmental or economic sustainability programs that prioritize environmental ecological sustainability. According to Paul Ehrlich, the sustainability of the green economic environment will not grow in developing countries, when their people experience an increase in income, instead the opposite will happen. Society will not pay attention to the sustainability of the green economy, instead it will damage it by increasing pollution and environmental damage. This is due to increasing consumption of energy and raw materials which supports green economic growth. Therefore, the theoretical assumption of a positive relationship between income and consumption of natural resources applies. The higher the income, the higher the consumption of natural resources. So that natural damage will become greater, without paying attention to the sustainability or sustainability of green economic programs.

CONCLUSION

Based on the results of this research, it can be concluded that people's income has a negative influence on green economic growth in Jepara Regency. This condition means that increasing people's income will reduce green economic growth. So this is in accordance with the theory expressed by Paul Ehrlich, that increasing income will cause an increase in consumption of natural resources, which results in a decrease in environmental quality.

On the other hand, education has a positive value for the sustainability of green economic growth. This means that increasing public education will increase the sustainability of the green economy program in the Jepara region. This is in accordance with the theory expressed by Panayotou, that education will increase public awareness of the importance of protecting the environment.

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