

# The Relationship Between Environmental Quality And Human Development: Study In Malang City

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## Abstract

This research investigates the negative impact of uneven economic growth and high levels of poverty on the human development index on the island of Java, with Malang City as the focus. This phenomenon indicates that there is inequality in human development in the region. This research aims to understand the relationship between natural resources, the environment and the economy by using IKLH and spending on environmental protection functions as proxy variables. This research method uses qualitative and involves analysis of statistical data obtained from tables presenting Malang City IKLH, human development index, and poverty data during the research period. The research results show that fluctuations in the IKLH of Malang City indicate serious challenges in maintaining the quality of the environment in the city. In addition, high levels of poverty are an obstacle to efforts to increase human development. Therefore, this research recommends the need for more targeted and sustainable policies in overcoming the negative impacts of uneven economic growth and high levels of poverty. Concrete steps, such as strengthening basic infrastructure, increasing access to education and health services, and developing targeted social assistance programs, are proposed as solutions to overcome these problems.

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## 1. Introduction

Indonesia faces significant challenges in both national and regional development, including issues of uneven economic growth and high levels of poverty that impact the Human Development Index (HDI). The island of Java, which is the center of economic, political and cultural activities in Indonesia, offers an interesting picture of the dynamics of human and economic development. Among the 6 provinces that span this island, such as DKI Jakarta, West Java, Central Java, DI Yogyakarta, East Java and Banten, there are two provinces with the highest Human Development Index (HDI) nationally, namely DKI Jakarta and DI Yogyakarta. Economic growth and poverty levels apparently have a negative impact on the human development index on the island of Java. This indicates that despite economic growth, human progress does not always follow the same direction. High levels of poverty and uneven economic growth can hinder social progress and community welfare (Saputro, 2022). Therefore, addressing the problem of poverty and improving sustainable economic growth needs to be the main focus in efforts to increase human development on the island of Java, while still paying attention to and maintaining a good quality environment.

In this context, Malang City in Java Island serves as a typical example where the management of natural resources and environmental protection are crucial efforts for sustainable

development. Uneven economic growth often leads to disparities in quality of life and human development, necessitating integrated policies addressing both economic and environmental concerns (Umami et al., 2019). The measurement of HDI in a region, such as Malang City, encompasses dimensions of longevity and healthy living, education, and decent living standards, all of which are influenced by economic and environmental factors. Badan Pusat Statistik (BPS, 2019) emphasizes the continuous revision of HDI calculations to accurately depict the prevailing conditions, particularly in the face of evolving economic and environmental challenges. One indicator used to assess environmental quality is the Environmental Quality Index (EQI). Arni et al., (2019) assert that the EQI, which evaluates air, water, and forest cover quality, is a vital tool for monitoring the impact of economic activities on the environment. In Malang City, fluctuations in EQI reflect how environmental conditions are affected by or affect economic and social factors.

This study will utilize statistical data related to HDI, EQI, and poverty rates to analyze the relationship between economy, environment, and human development in Malang City, aiming to identify effective policies to mitigate the negative impacts of uneven economic growth and high poverty levels. Through a qualitative approach, this research seeks to comprehend the complex dynamics at play in sustainable development and provide sustainable and targeted policy recommendations for the future (Haris & Purnomo, 2016) and (Ongan et al., 2021).

## **2. Methods**

The research method used in this study is qualitative. Sugiyono, (2013) states that basically, qualitative research is a method used to study natural situations. This approach allows researchers to explore the phenomena of human, economic, and environmental development in Malang City through in-depth analysis of available data, such as the environmental quality index, human development index, and poverty data. Qualitative methods allow researchers to understand local contexts, social dynamics, and factors that influence these situations through descriptive data collection and analysis. Thus, this research will explore the views of the community, the policies that have been implemented, and the impact of these policies on the quality of life of the people in Malang City.

## **3. Results and Discussion**

### **Results**

Initially, there exists a discernible adverse impact of economic growth and poverty levels on the Human Development Index (HDI) on Java Island. This underscores that despite economic expansion, social advancement and welfare do not uniformly progress, and elevated poverty levels can impede endeavors to bolster human development. Notably, within Malang City, the uptick in the city's HDI signifies the culmination of concerted efforts by both governmental authorities and the local populace to enhance human well-being and development. The study underscores that factors such as enhanced accessibility to healthcare services, augmented educational standards, and improved living conditions markedly contribute to HDI elevation. This trend reflects the implementation of developmental policies, which have positively influenced societal welfare. Subsequent analyses should delve into the efficacy of these developmental policies and their resultant impact on augmenting community welfare, predicated on these findings. According to (Setiawan & Primandhana, 2022), it is crucial to assess how policies and practices across various sectors impact environmental quality. This insight aligns with the findings of the research, which highlight the fluctuating Environmental Quality Index (EQI) in Malang City over the study period. For instance, Setiawan et. al emphasize the importance of implementing environmental regulations in the industrial sector to mitigate its adverse effects on the environment. Moreover, the researchers suggest leveraging Malang City's strategic position as a hub for education and tourism to enhance the quality of human resources and stimulate economic growth. This aligns with the broader goal of steering Malang City towards a human development paradigm oriented towards community welfare, not only locally but also nationally.

Incorporating Setiawan et. al's insights into the discussion enhances the comprehensiveness of the research findings by emphasizing the need for integrated approaches

to address environmental challenges and capitalize on local strengths for sustainable development.

Furthermore, fluctuations in Malang City's Environmental Quality Index (EQI) during the study period are evident. Despite a noteworthy surge in 2020, subsequent years witnessed a precipitous decline. This underscores the imperative for concerted attention and more efficacious environmental amelioration endeavors in Malang City.

Lastly, poverty data reveals a pronounced upward trajectory over the study's duration in Malang City. Though exhibiting minor fluctuations, the poverty percentage remains alarmingly high. This indicates that extant poverty alleviation efforts have yet to efficiently mitigate the issue. The tabulated data below provides a comprehensive overview of the quantitative findings:

**Table 1.** Environmental Quality Index (EQI) for Malang City

Year	EQI
2019	65.27
2020	75.54
2021	60.46
2022	56.31

Source: Central Statistics Agency (processed)

Table 1 presents the Environmental Quality Index (EQI) data for Malang City over a four-year period from 2019 to 2022. The EQI serves as a critical indicator for evaluating the overall environmental conditions, encompassing factors such as air quality, water quality, and overall environmental health within the city. In 2019, Malang City's EQI stood at 65.27, indicating a relatively moderate level of environmental quality. This suggests that environmental policies and measures in place during that year might have been moderately effective in maintaining a satisfactory environmental standard. The subsequent year, 2020, saw a notable increase in the EQI to 75.54, signifying a significant improvement in environmental quality within Malang City. This could be attributed to various factors such as heightened environmental awareness, stricter enforcement of environmental regulations, or changes in human behavior due to external factors like the COVID-19 pandemic, which might have reduced pollution levels. However, the environmental quality experienced a sharp decline in 2021, with the EQI dropping to 60.46. This substantial decrease raises concerns about the deterioration of environmental conditions within Malang City during that period. Several factors might have contributed to this decline, including increased industrial activities, inadequate waste management practices, or insufficient enforcement of environmental regulations. The downward trend continued in 2022, with Malang City's EQI plummeting further to 56.31. This reinforces the urgent need for targeted interventions to address the deteriorating environmental conditions and mitigate potential adverse effects on public health and well-being. Overall, the comprehensive EQI data presented in the table provides valuable insights into the fluctuating environmental quality within Malang City over the specified period. It underscores the importance of continuous monitoring and proactive measures to preserve and enhance environmental sustainability in urban areas.

**Table 2.** Malang City Human Development Index (HDI)

Year	HDI
2019	81.32
2020	81.45
2021	82.04
2022	82.71

Source: Central Statistics Agency (processed)

Table 2 presents the Human Development Index (HDI) data for Malang City across four consecutive years from 2019 to 2022. The HDI is a composite indicator used to measure the overall development level of a region, encompassing factors such as health, education, and living standards. In 2019, Malang City's HDI stood at 81.32, indicating a relatively high level of human development within the city. This suggests that Malang City has already achieved significant progress in terms of providing access to healthcare services, education, and improving living conditions for its residents. The subsequent years, 2020 to 2022, witnessed a consistent upward trend in Malang City's HDI. In 2020, the HDI increased slightly to 81.45, followed by a more substantial rise to 82.04 in 2021, and reached the highest value of 82.71 in 2022. These consecutive increases signify continued advancements in human development within the city over the specified period. Several factors could have contributed to this positive trend, including government investments in healthcare and education infrastructure, implementation of social welfare programs, and efforts to improve living standards for the population. Additionally, economic growth and stability may have played a role in enhancing overall human development indicators. Overall, the comprehensive HDI data presented in the table indicates a positive trajectory of human development in Malang City, reflecting sustained efforts to improve the well-being and quality of life for its residents. However, continued attention and targeted interventions may be necessary to address any remaining disparities and ensure equitable development across all segments of the population.

**Table 3. Poverty Data for Malang City**

Year	Poverty Line (Rp)	Poor Population	Percentage
2019	543,969	35,390	4.07%
2020	554,791	38,770	4.04%
2021	570,238	40,620	4.62%
2022	609,612	38,560	4.37%

Source: Central Statistics Agency (processed)

Table 3 presents poverty data for Malang City over a four-year period from 2019 to 2022. It includes the poverty line in Indonesian Rupiah (Rp), the number of individuals classified as poor, and the percentage of the population living below the poverty line. In 2019, the poverty line in Malang City was 543,969 Indonesian Rupiah, with 35,390 individuals classified as poor, accounting for 4.07% of the population. Over the subsequent years, there were slight increases in both the poverty line and the number of poor individuals. In 2020, the poverty line rose to 554,791 Rp, with 38,770 individuals living below it, constituting 4.04% of the population. In 2021, the poverty line further increased to 570,238 Rp, with 40,620 individuals classified as poor, representing 4.62% of the population. However, in 2022, while the poverty line continued to rise to 609,612 Rp, the number of poor individuals decreased slightly to 38,560, resulting in a poverty rate of 4.37%. These data indicate a persistent but relatively stable level of poverty in Malang City over the specified period. Despite fluctuations in the poverty rate, it remained within a narrow range, hovering around 4%. The gradual increase in the poverty line suggests rising living costs or inflationary pressures, which could contribute to challenges in poverty alleviation efforts. While the decrease in the number of poor individuals in 2022 is a positive development, it underscores the ongoing need for targeted interventions to address poverty and improve the livelihoods of vulnerable populations in Malang City. In summation, the research underscores the imperative for multifaceted strategies aimed at bolstering human, economic, and environmental development in Malang City and beyond. These entail targeted interventions to alleviate poverty, enhance environmental stewardship, and fortify the foundations of sustainable human development.

## Discussion

One of the important findings from this research is the negative impact of economic growth and poverty levels on the human development index on the island of Java. Even though Java is the center of economic, political and cultural activities in Indonesia, there are disparities in human development between the provinces that span this island. DKI Jakarta and DI Yogyakarta, the two provinces with the highest human development index nationally, are also regions with significant economic growth. However, despite economic growth, social progress and social welfare do not always follow the same direction. The high level of poverty in several areas of Java Island, including Malang City, shows that human development is not evenly distributed throughout the region.

Uneven economic growth can cause social and economic disparities between urban and rural areas, as well as between various community groups. Factors such as lack of decent work opportunities, low access to education and health, and lack of basic infrastructure can be the main causes of unequal human development. Apart from that, high levels of poverty can also hinder efforts to increase human development, because people living in poverty have limited access to health services, education and decent living facilities.

The discussion of data in Table 2 highlights the increasing trend in Malang City's Human Development Index (HDI) from 2019 to 2022. HDI is an important indicator that reflects the level of development of an area by taking into account aspects of health, education, and community living standards. From the data presented, it can be seen that Malang City's HDI experienced a significant increase from 81.32 in 2019 to 82.71 in 2022. This phenomenon reflects an overall improvement in the condition of human development in Malang City during that period. The increase in HDI can be interpreted as the result of various contributing factors, such as increasing access to health services, improving the quality of education through the role of women because the female population is almost the same as the male population, and increasing the community's living standards (Risadiana, 2020). The efforts of the government and the people of Malang City to improve human welfare and development appear to have produced positive results. This increase also shows the success of development policies implemented during that period. Human Development (HDI) has a direct negative impact on poverty levels. In other words, the higher the HDI of a region, the lower the poverty level (Prasetyoningrum & Sukmawati, 2018). Further analysis of development policies that have been implemented and their potential impact on community welfare is important. This data can be a basis for evaluating existing policies and developing further strategies to strengthen human development in Malang City. In addition, an in-depth understanding of the factors that contribute to increasing HDI is also important for expanding and improving existing development efforts.

To overcome the negative impacts of uneven economic growth and high levels of poverty, more targeted and sustainable policies are needed. The government needs to strengthen basic infrastructure in disadvantaged areas, increase access to education and health, and provide support to the community in improving their skills and economic capacity. Apart from that, efforts need to be made to reduce social and economic disparities between regions, so that human development can run evenly throughout Java. Ashari & Athoillah, (2023) revealed that simultaneously HDI, Economic Growth and Population interact and influence each other, providing a comprehensive picture of the dynamics of development and welfare of a region.

Several aspects need to be considered, including the negative impact of economic growth and poverty levels on the human development index on the island of Java, fluctuations in the Malang City environmental quality index (IKLH) is also one of thing that need to be considered, as well as a trending phenomenon related to increasing poverty which is significant in Malang City. According to Pertiwi, (2021) states that economic growth has a significant influence on increasing the Environmental Quality Index (IKLH), according to a one-way causal relationship. This is shown by the increase in IKLH in areas experiencing rapid economic growth, as observed in research conducted by the National Environmental Institute.

Fluctuations in the Malang City Environmental Quality Index (IKLH) are an important concern in efforts to improve environmental quality in the region. Malang City, as part of East Java province, has a strategic role in the dynamics of economic and social development on the island of Java. However, like other regions in Indonesia, Malang City is also faced with challenges in

maintaining and improving the quality of its environment. From the table provided, it can be seen that the IKLH of Malang City experienced quite significant fluctuations during the research period. In 2019, IKLH was at level 65.27, indicating relatively good environmental conditions. However, there was quite a drastic increase in 2020, where IKLH reached 75.54. A significant decline occurred later in 2021 and 2022, where IKLH fell to 60.46 and 56.31 respectively. This fluctuation is an indication that environmental protection efforts in Malang City still have challenges that need to be overcome. To better understand the dynamics of IKLH fluctuations in Malang City, it is necessary to pay attention to the influence of natural resources and the environment on the local economy. Suryani, (2018) stated that it is necessary to evaluate the relationship between environmental conditions, environmental protection efforts, and exploitation of natural resources with economic growth and community welfare. One of the variables that is the focus of this research is IKLH, which is seen as an important parameter in evaluating the quality of the environment and in 2020 there was a significant increase, and a drastic decline occurred in the following years. This shows that environmental conditions in Malang City require serious attention and more effective improvement efforts.

A decline in IKLH can be caused by various factors, including increased air pollution due to industrial or development activities, as well as a lack of effective waste management. Apart from that, changes in people's lifestyles and a lack of awareness of the importance of protecting the environment can also be the cause of this decline. Therefore, concrete steps are needed to maintain and improve the quality of the environment in Malang City. Poor environmental conditions can hurt the economy and community welfare. Increased air pollution, water pollution, and environmental degradation can hamper sustainable economic growth. In addition, a lack of environmental protection efforts, such as minimal spending on environmental protection functions, can also cause long-term economic losses due to environmental degradation (Prakoso, n.d. 2022). On the other hand, unsustainable exploitation of natural resources can also hurt the environment. Uncontrolled exploitation of natural resources can cause deforestation, land degradation, and ecosystem damage, which will ultimately threaten environmental sustainability and community welfare.

One step that can be taken is to increase supervision of industrial and development activities that have the potential to pollute the environment. Stricter environmental regulations need to be implemented to reduce the negative impact of economic activities on the environment. Apart from that, efforts are also needed to increase public awareness of the importance of protecting the environment, through environmental outreach and education campaigns. The government and non-governmental organizations can also work together to manage natural resources sustainably and preserve the environment for future generations.

Therefore, environmental protection and sustainable management of natural resources are very important in efforts to increase human and economic development in Malang City. Policies that integrate environmental aspects in every development policy are key to achieving sustainable development goals. Greater investment in environmental protection is needed, including increased spending on environmental protection functions, as well as strict regulations to control the exploitation of natural resources. Apart from that, public awareness about the importance of protecting the environment also needs to be increased through environmental education and outreach. Thus, research on the influence of natural resources and the environment on the economy, taking into account IKLH variables and spending on environmental protection functions, is an important basis for developing sustainable policies to improve environmental quality and community welfare in Malang City. Integration of environmental aspects in every development policy is key in achieving sustainable development goals at the local and national levels.

Then not only that, there is an alarming trend regarding the level of poverty in Malang City during the research period. Although there are small fluctuations in the number of poor people, the percentage of poverty remains high, with figures ranging from 4% to 4.6%. This phenomenon illustrates that the poverty alleviation efforts that have been carried out have not been fully able to overcome this problem effectively.

Poverty has a very detrimental impact on human development in Malang City. With high levels of poverty, affected communities will face obstacles in accessing health services, education

and adequate living facilities. This limitation then causes them to be trapped in a cycle of poverty that is difficult to escape. Furthermore, poverty can also trigger various disturbing social problems, such as increased crime rates, potential social conflict, and a decrease in the overall quality of life for the affected communities. To overcome this poverty challenge, concrete steps are needed that focus on empowering the community's economy. This includes increasing access to education and skills training so that people can compete in an increasingly competitive world of work. Apart from that, strengthening social protection networks is also important, especially for those who are marginalized or vulnerable to poverty. Targeted social assistance programs must be developed to provide direct support to groups in need, so that they can rise and improve their quality of life significantly.

Apart from fluctuations in the Environmental Quality Index (IKLH), the increase in poverty levels in Malang City is also a focus of serious attention. The data presented in Table 3 shows that the poverty line and the number of poor people continue to increase from year to year. Although small fluctuations occur in the number of poor people, the relatively high poverty rate, with a percentage reaching 4% to 4.6%, indicates that existing poverty reduction measures are not fully adequate. Therefore, a holistic and integrated approach is needed in dealing with the problem of poverty in Malang City. Policy steps must be directed at strengthening the economic capacity of society, increasing access to basic services, and providing adequate social protection. Apart from that, community empowerment and the active involvement of various local stakeholders are also very important in designing and implementing effective programs in dealing with poverty problems sustainably.

In the context of research that links natural resources, the environment and the economy, the role of the environment becomes crucial. The research aims to understand the influence of natural resources and environmental conditions on the economy, with IKLH as one of the proxy variables. In addition, environmental protection efforts, which are reflected in the Environmental Protection Function Expenditure, and the extraction or exploitation of natural resources are also the focus of this analysis. Thus, this kind of research can provide a better understanding of the complexity of the relationship between natural resources, the environment and the economy, as well as provide a basis for formulating more sustainable and environmentally sound policies in development efforts in Malang City.

A high level of poverty can be an obstacle in efforts to increase human development in Malang City. People living in poverty have limited access to health services, education and adequate means of living, causing them to be trapped in a cycle of poverty. Apart from that, poverty can also cause various social problems, such as an increase in crime rates, a tendency to social conflict, and a decrease in the overall quality of life. Based on statistical analysis using average years of schooling as an indicator, research concludes that education, as reflected through this variable, does not have a significant impact (Mindayanti, 20). Looking at the poverty level in Malang City, this is confirmed by data from the Central Statistics Agency which shows a continuous increase in the Human Development Index (HDI) of Malang City from 2019 to 2022.

In overcoming the problem of poverty, policies are needed that focus on the economic empowerment of the people of Malang City, increasing access to education and skills training, and strengthening social protection networks. Targeted social assistance programs need to be developed to help those in poverty to rise and improve their quality of life. Directed and sustainable policy implementation is needed to overcome inequality in development in Malang City. Focusing on improving basic infrastructure, access to education and health services, as well as support for developing community economic skills is key. Environmental protection and sustainable management of natural resources are also important. Strict regulations and well-targeted social assistance programs support poverty alleviation. With a holistic and integrated approach, Malang City can move towards inclusive and sustainable development.

#### **4. Conclusion**

1. Uneven economic growth and high levels of poverty in Malang City have a negative impact on human development. Despite significant economic growth, social progress and community welfare do not always go hand in hand, indicating disparities in human

development between urban and rural areas, as well as between various community groups.

2. Fluctuations in the Malang City Environmental Quality Index (IKLH) indicate challenges in maintaining and improving the quality of the environment in the region. Even though there was an increase in 2020, there was a drastic decline in the following years. This indicates that environmental conditions in Malang City require serious attention and more effective improvement efforts.
3. The significant upward trend in poverty levels in Malang City is a serious concern, even though there are small fluctuations in the number of poor people. A high level of poverty can be an obstacle in efforts to increase human development, because people living in poverty have limited access to health services, education and decent living facilities.

The government needs to implement more targeted and sustainable policies to overcome inequality in human development, by strengthening basic infrastructure, increasing access to education and health services, and providing support to the community in improving their skills and economic capacity. Environmental protection and sustainable management of natural resources are very important in efforts to increase human and economic development in Malang City. Greater investment in environmental protection is needed, including increased spending on environmental protection functions, as well as strict regulations to control the exploitation of natural resources. In overcoming the problem of poverty, policies are needed that focus on community economic empowerment, increasing access to education and skills training, and strengthening social protection networks. Targeted social assistance programs also need to be developed to help those in poverty to rise and improve their quality of life.

## 5. References

- Arni, A., Razak, F. S. H., & Efendi, A. (2019). Implementasi CSR (Corporate Sosial Responsibility) PT. Lonsum Dalam Mencegah Kerusakan Lingkungan Di Desa Tammatto Kabupaten Bulukumba. *Jurnal Komunikasi Dan Organisasi (J-KO)*, 1(1), 9–17.
- Ashari, R. T., & Athoillah, M. (2023). Analisis Pengaruh Tingkat Pengangguran Terbuka, Tingkat Partisipasi Angkatan Kerja, Upah Minimum, Indeks Pembangunan Manusia, Pertumbuhan Ekonomi dan Jumlah Penduduk Terhadap Kemiskinan di Kawasan Tapal Kuda. *Journal of Development Economic and Social Studies*, 2(2).
- Badan Pusat Statistik (BPS). (2019). *IPL Gender Development Index (GDI) dan Human Development Indeks (HDI)*. <https://www.bps.go.id/subject/26/indeks-pembangunan-manusia.html>
- Haris, A. L. M., & Purnomo, E. P. (2016). Implementasi CSR (Corporate Social Responsibility) PT. Agung Perdana Dalam Mengurangi Dampak Kerusakan Lingkungan. *Journal of Governance and Public Policy*, 3(2), 203–225.
- Ongan, S., Isik, C., & Ozdemir, D. (2021). Economic growth and environmental degradation: evidence from the US case environmental Kuznets curve hypothesis with application of decomposition. *Journal of Environmental Economics and Policy*, 10(1), 14–21.
- Pertiwi, A. B. (2021). *Faktor–Faktor yang Mempengaruhi Indeks Kualitas Lingkungan Hidup (IKLH) Provinsi di Indonesia Tahun 2014–2019*.
- Prakoso, B. (n.d.). *ANALISIS PENGARUH INDEKS KUALITAS LINGKUNGAN HIDUP (IKLH), BELANJA FUNGSI PERLINDUNGAN LINGKUNGAN HIDUP DAN DANA BAGI HASIL SUMBER DAYA ALAM (DBH SDA) TERHADAP PRODUK DOMESTIK REGIONAL BRUTO (PDRB) DI INDONESIA (STUDI KASUS PADA 15 PROVINSI TAHUN 2011–2019)*. FAKULTAS EKONOMI DAN BISNIS UIN JAKARTA.
- Prasetyoningrum, A. K., & Sukmawati, U. S. (2018). Analisis pengaruh Indeks Pembangunan Manusia (IPM), pertumbuhan ekonomi dan pengangguran terhadap kemiskinan di

- Indonesia. *Equilibrium: Jurnal Ekonomi Syariah*, 6(2), 217–240.
- Risdiana, F. Y. (2020). Analisis Pengaruh Jumlah Penduduk Perempuan Terhadap Indeks Pembangunan Manusia. *ENTITA: Jurnal Pendidikan Ilmu Pengetahuan Sosial Dan Ilmu-Ilmu Sosial*, 2(2), 257–270.
- Saputro, M. H. (2022). Analisis Pengaruh Tingkat Kemiskinan Terhadap Indeks Pembangunan Manusia (IPM) Dengan Model Regresi Linier (Studi Kasus Di Kabupaten Bengkulu Utara Pada Tahun 2010-2021). *EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis*, 10(2), 809–816.
- Setiawan, M. R., & Primandhana, W. P. (2022). Analisis pengaruh beberapa sektor PDRB terhadap indeks kualitas lingkungan hidup di Indonesia. *KINERJA: Jurnal Ekonomi Dan Manajemen*, 19(1), 53–62.
- Sugiyono, D. (2013). *Metode penelitian pendidikan pendekatan kuantitatif, kualitatif dan R&D*.
- Suryani, A. S. (2018). Pengaruh Kualitas Lingkungan Terhadap Pemenuhan Kebutuhan Dasar di Provinsi Banten. *Jurnal Aspirasi*, 9(1), 35–63.
- Ummi, I., Rusdarti, R., & Yanto, H. (2019). Relationship of the GRDP Sectors with Environmental Quality Index in Indonesia 2012-2017. *Journal of Economic Education*, 8(2), 152–158.