

Environmental Sustainability And Economic Growth: Policy Implications For Developing Countries

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ABSTRACT

Environmental sustainability and economic growth are often considered to be two conflicting goals, especially in developing countries that face significant challenges in managing natural resources while pursuing economic growth. This research explores the complex relationship between environmental sustainability and economic growth in developing countries, with the aim of identifying policies that support sustainable economic growth. The methods used include literature reviews and thematic analysis to identify key patterns and relationships in existing studies. The research results show that although economic growth is often accompanied by increases in resource consumption and pollutant emissions, developing countries can achieve sustainable growth through strengthening environmental regulations, investing in green technologies, and increasing public awareness. Economic diversification, such as the development of sustainable tourism and organic agribusiness, can also reduce pressure on natural resources and create new economic opportunities. The proposed policy implications include increased environmental regulations, support for green technologies, and public education efforts to support environmentally friendly practices, with an integrated approach that ensures a balance between economic growth and environmental protection.

Keywords: Economic Growth, Environmental Sustainability, Policy Implications, Developing Countries

INTRODUCTION

Environmental sustainability has become a topic that increasingly dominates the global agenda. The impacts of climate change, loss of biodiversity, and degradation of natural resources pose significant challenges for countries around the world (Mondal, 2022). For developing countries, these challenges are often compounded by the urgent need to increase economic growth to reduce poverty and improve quality of life. Therefore, integration between environmental conservation efforts and economic development strategies is crucial. Developing countries often face a complex dilemma between pursuing economic growth and preserving the environment (Mpofu, 2022). On the one hand, economic growth is needed to create jobs, increase incomes, and provide basic services such as health and education. On the other hand, overexploitation of natural resources and lack of environmental regulation can result in ecological damage that undermines the ability of ecosystems to provide essential services in the future (Sarwar, 2021).

Increasing national income and living standards is a top priority for many governments, as high poverty and limited access to basic services such as education and health remain serious problems (Antoniades, 2020). Infrastructure development, industrialization and urbanization are often promoted as ways to increase economic prosperity and create more jobs (Hussain, 2022). In addition, fiscal and monetary policies



that support investment and international trade are increasingly strengthened to achieve ambitious development targets. However, the ambition to achieve rapid economic growth often ignores the negative impacts it has on the environment which in turn can threaten long-term sustainability (Imtiyan, 2024). Rapid development and lack of strict environmental regulations often lead to severe environmental degradation. Deforestation for agricultural expansion and urban development, for example, results in the loss of natural habitat and a decline in biodiversity. Additionally, uncontrolled increases in industrial activity contribute to air and water pollution, which in turn harms human health and ecosystems. This environmental degradation can hamper long-term economic growth by destroying the ecosystem that supports life and the economy (Andin, 2024). Forest destruction, for example, can reduce nature's capacity to absorb carbon dioxide, contributing to global climate change. In addition, water and air pollution can cause disease and reduce people's productivity. In the long term, depleting natural resources and damaged ecosystems can hinder economic activity, reduce international competitiveness, and add to the very high costs of environmental restoration. All this shows that environmental degradation is not only an ecological problem, but also a serious economic problem.

The conflict between the need for economic development and environmental protection creates major challenges in formulating effective and sustainable policies. Policies that only focus on economic growth without considering environmental impacts can result in long-term damage that is difficult to repair (Diana, 2024). On the other hand, policies that are too strict in protecting the environment may hinder economic development and reduce opportunities for improving social welfare. Therefore, it is important to develop holistic and integrative policies, which consider these two aspects simultaneously and look for solutions that can provide multiple benefits (Ardiansyah, 2024). The development of these policies requires the participation of multiple stakeholders, including government, the private sector, civil society, and local communities, to ensure that all perspectives and interests are represented. In addition, this approach must also be flexible and adaptive, allowing adjustments based on dynamic local conditions and needs. To overcome these challenges, developing countries need to adopt a sustainable development approach, which integrates economic, social and environmental considerations in every policy step. This includes investment in environmentally friendly technologies, increasing resource efficiency, and developing renewable energy. Education and raising public awareness about the importance of sustainability is also a key element. By involving various stakeholders, including the private sector, civil society, and local communities, developing countries can design and implement more comprehensive and effective policies. In addition, international cooperation plays an important role in supporting environmental sustainability efforts in developing countries (Rahman, 2024). Technical and financial assistance from developed countries and international organizations can help these countries overcome limited resources and capacity in implementing sustainable policies. Knowledge and technology exchange, as well as participation in global environmental agreements, can strengthen developing countries' ability to balance economic growth with environmental protection. Thus, a cooperative and coordinated approach at the global level is needed to achieve broader sustainable development goals.

There is a significant gap in the literature regarding the integration of environmental sustainability policies and economic growth, especially in developing countries (Maulidyna, 2022). Many studies tend to discuss these two aspects separately, without paying sufficient attention to how public policy can combine them effectively. Additionally, existing research often focuses on developed countries or specific regions,

leaving gaps in the understanding of the unique contexts and challenges faced by developing countries. This research offers a new approach by assessing how environmental sustainability and economic growth can be achieved simultaneously through comprehensive public policies, especially in developing countries. This study attempts to fill the gap in the literature by providing an integrative analysis of how to harmonize these two objectives. A focus on developing countries provides more relevant insight into the specific challenges and opportunities faced in different socio-economic and environmental contexts than developed countries

METHOD

The qualitative method used is a literature review to explore the relationship between environmental sustainability and economic growth in developing countries. A literature review is carried out by collecting and analyzing various academic sources such as journals, books, research reports, and policy documents that are relevant to the topic. The researcher used a systematic approach to select the literature, starting with a search for related keywords such as “environmental sustainability,” “economic growth,” “developing countries,” and “environmental policy.” The selection process involves reviewing the abstracts and summaries of the articles found, to ensure suitability to the research focus. Selected articles were then read in depth and analyzed using thematic analysis techniques to identify patterns, trends and gaps in previous research. Researchers also identified various theoretical perspectives used in these studies, including environmental economics, sustainable development theory, and public policy

RESULTS AND DISCUSSION

1. Relationship between Environmental Sustainability and Economic Growth:

The relationship between environmental sustainability and economic growth in developing countries is a complex and multidimensional phenomenon. A literature review shows that increased economic activity is often accompanied by intensive exploitation of natural resources, such as mining, deforestation, and increased energy consumption (Kinda, 2021). This pattern can generate economic benefits in the short term, but has detrimental long-term impacts on the ecosystem (Nasssani, 2021). For example, deforestation for agricultural expansion and urbanization not only reduces forest cover but also reduces the earth's capacity to absorb carbon dioxide, exacerbating climate change. In addition, pollution resulting from industry and transportation can reduce air and water quality, which has a negative impact on public health (Shi, 2020). Studies show that developing countries often adopt an export-oriented economic growth model that relies on extractive industries and energy-intensive manufacturing (Guevara, 2022). These industries, such as mining and textile production, typically have a significant ecological footprint. The use of less efficient technology and lower environmental standards compared to developed countries exacerbates environmental impacts. Additionally, reliance on fossil fuels for energy increases greenhouse gas emissions. As a result, despite economic growth, environmental quality and public health often decline, creating a dilemma for policymakers who must balance economic development and environmental protection.

Environmental damage resulting from economic activities is not only local but can also have a global impact (Kumar, 2020). For example, loss of biodiversity due to deforestation can disrupt ecosystems that are important for global climate stability. Additionally, land degradation and water pollution can reduce agricultural productivity, threatening food security in countries that rely heavily on this sector. Air pollution, which

often comes from the burning of fossil fuels and industrial processes, has been linked to increased cases of respiratory and cardiovascular diseases, increasing the burden on public health systems and reducing labor productivity (Pandey, 2021). However, the literature also shows that developing countries can direct their economic growth towards a more sustainable path through the use of green technologies and appropriate policies (Su, 2023). Renewable energy technologies, such as solar and wind power, can reduce dependence on fossil fuels and reduce carbon emissions. In addition, sustainable agricultural practices, such as agroforestry and organic farming, can increase land productivity while preserving biodiversity and maintaining soil quality. Policies that support innovation in these technologies, as well as providing incentives for companies to adopt environmentally friendly practices, are important elements in a sustainability strategy (Ullah, 2022). To encourage the adoption of green technologies and sustainable practices, governments can use a variety of policy tools, including fiscal incentives, regulations, and education programs. For example, subsidies for renewable energy and tax incentives for energy efficiency can make these technologies more affordable and attractive to the private sector. On the other hand, stricter regulations on pollutant emissions and waste management could force companies to operate in a more environmentally responsible manner. Additionally, education and public awareness campaigns can increase public understanding of the importance of sustainability, which in turn can increase consumer demand for environmentally friendly products and services.

2. Factors that Influence Environmental Sustainability

This research identifies several key factors that influence environmental sustainability in developing countries. One of the main factors is the existence of strong environmental policies. Countries that implement strict environmental regulations and set high standards for natural resource management tend to perform better in terms of sustainability (Shaheen, 2022). This policy covers various aspects, from limiting pollutant emissions to protecting natural habitats. Comprehensive and consistently implemented policies help reduce the negative impacts of industrial activities and ensure that resource use is carried out sustainably (Mukaromah, 2024). Strict regulations also encourage companies to adopt cleaner and environmentally friendly technologies, which in turn reduces their ecological footprint. The second significant factor is investment in clean technology. Clean technologies, such as renewable energy and energy efficiency, have great potential to reduce the environmental impact of economic activities (Wen, 2022). Countries that invest in the development and implementation of green technologies are often able to reduce dependence on fossil fuels and reduce greenhouse gas emissions (Ahmed, 2022). This investment can also create new economic opportunities and increase the country's competitiveness in the global market. Additionally, clean technologies are often more efficient in their use of resources, thereby reducing waste and pollution. Developing countries that prioritize investment in clean technologies can address environmental challenges while promoting sustainable economic growth.

Public awareness of environmental issues also plays an important role in supporting more sustainable practices (Saputra, 2023). Good environmental education can increase people's understanding of the impact of human activities on the environment and encourage more environmentally friendly behavior (Fatlulloh, 2019). An informed public is more likely to support pro-environmental public policies and is more willing to adopt sustainable practices in everyday life. This awareness can also motivate consumers to choose environmentally friendly products and services, which in turn encourages companies to adopt more ecologically responsible practices. Research

shows that collaboration between the public, private and civil society sectors is the key to achieving environmental sustainability. Effective environmental policy often requires support from various parties, including government, industry and non-governmental organizations (Margaretha, 2024). This collaboration can include a variety of initiatives, such as joint resource management programs, habitat conservation projects, and public awareness campaigns. By involving all stakeholders, countries can develop a more integrated and effective approach to dealing with environmental issues.

Another factor that influences environmental sustainability is institutional capacity. Countries with strong and efficient institutions in environmental management tend to have better results in terms of sustainability (Farhan, 2024). Good institutions can ensure that environmental policies are implemented effectively, provide necessary oversight, and provide support to sectors in need. Strong institutional capacity is also essential to address complex environmental challenges, such as climate change and biodiversity decline. The importance of international support cannot be ignored either. Developing countries often need technical and financial assistance to overcome environmental challenges. International support can include technology transfer, financial assistance for environmental projects, and training for government and non-governmental organization staff. With international support, developing countries can accelerate the transition to a more sustainable economy and overcome obstacles they may face (Anwar, 2022). Finally, economic factors also play an important role in environmental sustainability. Countries with strong and stable economies tend to have more resources to invest in clean technology and environmental management. A healthy economy can also support more ambitious environmental policies and ensure that they are implemented well. Therefore, there is a close relationship between economic health and environmental sustainability, which requires attention and balance in policy formulation.

3. Policy Implications

Several profound policy implications can be proposed to support sustainable economic growth in developing countries. Strengthening environmental regulations is a crucial first step. The government needs to strengthen environmental regulations by setting stricter emission standards and implementing effective monitoring (Muhammad, 2023). Strict law enforcement against environmental violations will ensure that industry complies with regulations and reduces pollution and environmental degradation (Iqbal, 2024). In addition, developing mechanisms for more transparent monitoring and reporting of environmental impacts will increase the accountability and effectiveness of this policy. Investment in green technology is another significant policy implication. Developing countries must encourage investment in green technology and renewable energy to reduce dependence on fossil fuels and lower their carbon footprint (Matheus, 2023). Government support in the form of fiscal incentives, subsidies for research and development, and financing for renewable energy projects will accelerate the adoption of clean technologies. By encouraging innovation in this sector, developing countries can reduce greenhouse gas emissions, increase energy efficiency and create new jobs in green industries. Increasing public awareness is another important component in a sustainability strategy. Educational campaigns and environmental awareness programs can play an important role in increasing public understanding of the importance of sustainability and the impact of human activities on the environment (Moridu, 2023). Governments and non-governmental organizations must work together to deliver educational programs that target various levels of society, including schools, local communities and the business sector. By increasing awareness and knowledge, people

will be more motivated to adopt environmentally friendly behavior and support policies that support sustainability (Erdiwansyah, 2024).

Economic diversification is an important strategic step to reduce pressure on natural resources and create new economic opportunities. Developing countries need to promote alternative sectors such as sustainable tourism and organic agribusiness. The development of an environmentally friendly tourism sector can provide economic benefits while protecting and preserving natural ecosystems (Kurniawan, 2024). Likewise, organic agribusinesses that utilize sustainable farming practices can increase productivity without destroying soil and biodiversity. This diversification not only reduces dependence on sectors that pose a high risk to the environment, but also opens up opportunities for innovation and more stable economic growth. It is also important to pay attention to collaboration between the public and private sectors in the implementation of environmental policies. The private sector, including companies and industry, must be involved in designing and implementing environmental policies (Jamal, 2024). Adequate infrastructure must also be a focus in environmental policy. Investments in sustainable infrastructure, such as efficient waste management systems, environmentally friendly transportation networks, and renewable energy facilities, can reduce the negative impact of human activities on the environment (Aulia, 2024). Good infrastructure not only supports environmental sustainability but also improves people's quality of life and supports sustainable economic growth. It is important to consider the integration of economic and environmental policies. Developing countries must formulate policies that ensure that economic growth does not occur at the expense of environmental sustainability. By designing holistic and integrated policies, countries can achieve a balance between economic development and environmental protection (Arslan, 2022). This integrated approach will help ensure that efforts to achieve sustainable economic growth are not only economically profitable but also environmentally sustainable for future generations

CONCLUSION

Achieving a balance between economic growth and environmental sustainability is a major challenge for developing countries. Abundant natural resources are often the main driver of the economy, but overexploitation can result in significant environmental damage. Developing countries need to implement policies that focus on economic diversification, investment in environmentally friendly technologies, strict enforcement of regulations, and increasing public awareness about the importance of sustainability. International collaboration is also needed to support technology transfer and financial assistance. With this approach, developing countries can achieve sustainable economic growth and maintain ecosystem balance, ultimately supporting long-term prosperity and stability.

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