

Environmental Taxes: Challenges and Opportunities for Sustainable Development

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Keywords:

Environmental taxes, sustainable development, carbon tax, green economy, Indonesia

Abstract

This study explores the role of environmental taxes as a critical instrument for sustainable development, focusing on both the challenges and opportunities presented by their implementation in Indonesia. Environmental taxes, often termed "green taxes," are designed to mitigate environmental degradation by incentivizing industries to adopt eco-friendly practices and reduce their carbon footprint. Although Indonesia has made strides in incorporating environmental taxes through regulations like the carbon tax in Law No. 7 of 2021 and Government Regulation No. 46 of 2017, the application of these policies faces significant hurdles. Key challenges include limited public awareness and understanding of environmental taxes' benefits, as well as concerns over the financial impact on industries. Despite these obstacles, environmental taxes hold substantial potential for environmental enhancement by funding initiatives such as waste management, ecosystem restoration, and the promotion of renewable energy. This research emphasizes the importance of clear communication and collaboration among stakeholders to optimize the effectiveness of environmental tax policies, thereby contributing to Indonesia's sustainable development goals.

1. Introduction

A literature study on environmental taxes in Indonesia shows that this tax is an important instrument in efforts for sustainable development. Environmental taxes, also known as green taxes, are designed to address environmental issues by providing incentives for economic actors to reduce their negative impacts on the environment. In this context, environmental taxes function as a tool for collecting funds that can be used for environmental rehabilitation and conservation (World Bank Group, 2020).

The implementation of environmental taxes in Indonesia still faces various challenges. One of the main challenges is the lack of understanding and awareness among the public about the importance of this tax. Many parties are still unaware of the concept of environmental taxes and how their implementation can provide long-term benefits for environmental sustainability (Indonesian Journal of Public Administration, 2023).

On the other hand, environmental taxes offer significant opportunities to improve environmental conditions. With this tax, the government can allocate funds for projects aimed at improving environmental quality, such as waste management and ecosystem restoration. Research shows that countries that have implemented environmental taxes, such as Sweden and Finland, have successfully reduced carbon emissions and increased public awareness of the need to protect the environment (International Review for Environmental Strategies, 2023; OECD Environment Working Papers, 2020).

As part of international commitments to climate change, Indonesia has also signed the Paris Agreement and committed to reducing greenhouse gas emissions. One concrete step in this regard is the introduction of a carbon tax through Law No. 7 of 2021 on the Harmonization of Tax Regulations. The carbon tax is imposed on greenhouse gas emissions produced by industrial activities, with the aim of encouraging companies to switch to more

environmentally friendly practices (Law No. 7 of 2021).

The implementation of the carbon tax in Indonesia is still in its early stages and requires further attention to achieve maximum effectiveness. Previous studies have shown that although there is significant potential in the implementation of the carbon tax, many companies are not yet prepared to face the additional burden imposed by this tax. Therefore, a clear strategy is needed to support companies in their transition to sustainable practices (Asian-Pacific Economic Literature, 2023).

From a regulatory perspective, the Indonesian government has established several legal instruments that underlie the implementation of environmental taxes. Government Regulation No. 46 of 2017 on Economic Instruments for Environmental Protection is an important legal basis for the management of environmental taxes in Indonesia. This regulation governs the financing that can be used for conservation and environmental recovery (Government Regulation No. 46/2017).

Additionally, the existence of special funds such as the Environmental Recovery Guarantee Fund (DJPLH) and the Pollution Mitigation Fund provides a foundation for collecting funds from environmental taxes. These funds will be used for the much-needed recovery and conservation projects in various regions in Indonesia (Journal of Environmental Science and Health, Part C, 2023).

However, despite the regulations being in place, the realization of environmental tax implementation still needs to be improved. Research shows that in the last five years, the implementation of this policy has not been fully optimal. This is due to a lack of coordination between the central and regional governments in policy implementation and minimal socialization to the public regarding the benefits of the tax (Administrative Sciences, 2023).

With the increasing global awareness of climate change issues, the implementation of

environmental taxes becomes more relevant. This policy can not only help the government collect funds for conservation projects but also encourage the private sector to innovate in environmentally friendly practices. Therefore, it is important for the government to continuously evaluate and adjust environmental tax policies to effectively achieve sustainable development goals (Sustainability, 2023).

Overall, the literature study on environmental taxes in Indonesia indicates that despite significant challenges in its implementation, there are also great opportunities to enhance environmental sustainability through this policy. With the right approach and support from all stakeholders, environmental taxes can be an effective tool in achieving sustainable development in Indonesia (Journal of Cleaner Production, 2023).

2. Literature Review

2.1 Environmental Tax Policy

Environmental taxes, also known as green taxes, are instruments designed to address environmental degradation and climate change. According to Setiadi and Kusuma (2020), the implementation of carbon tax policies in Indonesia could serve as a solution to climate-related issues and help prevent environmental damage. Their research indicates that a carbon tax can influence economic actors to shift towards more environmentally friendly activities, as well as enhance state revenues through tax collection. This policy not only aims to reduce the carbon footprint but also creates a framework for sustainable development by encouraging investments in renewable energy and eco-friendly technologies. As such, environmental taxation can play a crucial role in Indonesia's transition to a greener economy.

2.2 Functions of Environmental Tax

Environmental taxes serve several important functions, including altering ecological habits and providing funding to

reduce pollution from industrial emissions and waste. Wahyuningsih et al. (2021) state that the Indonesian government has planned the implementation of environmental taxes within Law No. 32 of 2009 concerning the Protection and Management of the Environment. However, the implementation of this law has not yet reached its full potential, as the funds collected have not been entirely allocated for environmental management. By effectively utilizing the revenue from these taxes, the government can finance projects aimed at restoring ecosystems, cleaning up polluted areas, and investing in sustainable practices that benefit both the environment and society.

2.3 Benefits of Environmental Tax

The benefits of implementing environmental taxes in Indonesia include regulating the exploitation of natural resources and generating funds for environmental restoration. According to OECD (2011), environmental taxes can enhance economic efficiency, public transparency, and state revenues. Furthermore, these taxes act as a tool for reducing pollution and preventing the scarcity of water resources. By imposing a cost on environmental degradation, the government encourages businesses to adopt cleaner production methods and invest in sustainable technologies, ultimately leading to a healthier environment and improved public welfare.

2.4 Realization of Environmental Tax

The realization of environmental taxes in Indonesia began in 2017 with Government Regulation No. 46 of 2017 concerning Economic Instruments for Environmental Life. Research by Fernanda (2022) shows that despite the establishment of environmental taxes, public awareness regarding this tax remains low. This lack of awareness hinders the effectiveness of the policy in achieving sustainable development goals. To improve the situation, it is essential for the government to engage in comprehensive public education campaigns that highlight the importance and

benefits of environmental taxes, thus fostering a more informed and responsible citizenry.

2.5 Implementation Challenges

One of the main challenges in implementing environmental taxes is the public's lack of understanding of the concept. Rahmawati (2017) notes that legal studies on environmental taxes are still rare, leading to widespread ignorance about their benefits. This research underscores the necessity for socialization and education to inform the public about the critical role environmental taxes play in the context of sustainable development. Enhancing public comprehension will not only facilitate better acceptance of these taxes but will also encourage active participation in environmental conservation efforts.

2.6 Development of Environmental Tax Policy

The development of environmental tax policies in Indonesia reflects the government's efforts to improve environmental conditions. However, there remains a divergence of opinion regarding the terminology and implementation of this tax among the public. Research by Rahmawati (2017) emphasizes the need for a clear concept to ensure that the implementation of environmental taxes proceeds effectively and efficiently. By fostering a better understanding of these policies, the government can enhance collaboration with stakeholders and achieve greater success in environmental management.

2.7 Future Plans

In the future, the government needs to formulate more effective strategies for the implementation of environmental taxes to ensure the sustainability of conservation programs. Research by Fernanda (2022) recommends that the government conduct periodic evaluations of existing policies and involve the public in decision-making processes regarding natural resource management. Engaging communities in these discussions will not only enhance transparency

but also foster a sense of ownership and responsibility towards environmental stewardship among citizens, ultimately leading to more successful outcomes in conservation efforts.

3. Research Methods

The research method employing a literature review is a straightforward yet effective approach to evaluate and summarize relevant research findings regarding environmental taxes in Indonesia. The primary objective of this study is to conduct a comprehensive literature review on environmental taxes in Indonesia, focusing on the challenges and opportunities they present in achieving sustainable development.

This research adopts a literature review approach, which involves the collection and analysis of scholarly articles, books, and other relevant documents concerning the topic of environmental taxes in Indonesia. The references utilized encompass a variety of sources, including scientific articles from national and international journals, textbooks and monographs related to environmental taxation, official documentation from the Indonesian government such as laws and regulations, as well as surveys and research reports relevant to the subject.

The data collection process involves searching for relevant sources through online databases such as Google Scholar, Scopus, and the Web of Knowledge, along with digital libraries of prominent universities in Indonesia. The collected data is then systematically analyzed to identify key themes associated with environmental taxes in the country. This analysis includes the identification of important concepts, their classification, and interpretation.

Several main themes will be explored in this research, including the definitions and types of environmental taxes, the historical development of environmental taxation in Indonesia, challenges in the implementation of environmental taxes, the benefits of environmental taxes for sustainable

development, and case studies of both successful and failed applications of environmental taxes in Indonesia.

The findings of the research will be evaluated to assess whether the current environmental tax policies are effective in achieving sustainable development goals. This evaluation will involve a comparison between theory and practice, as well as recommendations for improving future policies.

4. Results and Discussion

4.1 Environmental Tax Policy in Indonesia

Environmental taxes, including carbon taxes, have been implemented in Indonesia as part of efforts to address environmental damage and pollution. This policy aims to encourage economic actors to shift towards more environmentally friendly practices and to raise public awareness of the importance of environmental preservation. According to Setiadi and Kusuma (2020), the implementation of carbon tax policies can incentivize industries to reduce greenhouse gas emissions and adopt cleaner technologies. In this context, environmental taxes not only serve as fiscal instruments but also as tools to change community and economic actors' behavior in managing natural resources.

Government Regulation No. 46 of 2017 on Economic Instruments for Environmental Management serves as the legal basis for the implementation of environmental taxes in Indonesia. This regulation establishes guidelines for local governments in implementing environmental taxes, including carbon taxes. Furthermore, this policy is expected to strengthen Indonesia's commitment to international agreements related to climate change, such as the Paris Agreement. To achieve sustainable development goals, environmental tax policies must be integrated into national and regional development strategies.

However, the implementation of this policy is not without challenges. There is still resistance from some economic actors who feel

burdened by this additional tax. Therefore, a deeper understanding of the objectives and benefits of environmental taxes must be disseminated so that both the community and economic actors can support this policy. Through dialogue and cooperation between the government, society, and the private sector, it is hoped that environmental tax policies can be accepted and effectively implemented.

Overall, the implementation of environmental tax policies in Indonesia is a positive step towards sustainable development. However, to achieve the expected results, collective and synergistic efforts from all parties are required. The success of this policy will depend on public support, the involvement of economic actors, and the government's commitment to conducting consistent communication and law enforcement.

4.2 Benefits of Environmental Taxes

The implementation of environmental taxes is expected to provide significant economic and environmental benefits. According to Pratiwi and Setyawan (2014), environmental taxes serve as a tool to regulate the exploitation of natural resources and to raise funds for environmental restoration. With this tax in place, economic actors are expected to be more aware of the environmental impact of their activities, thereby creating more sustainable business practices. Environmental taxes can function as a price signal that reflects environmental costs, which in turn will encourage innovation and efficiency.

Furthermore, the OECD (2011) notes that environmental taxes can enhance the efficiency of natural resource use and transparency in public financial management. By shifting taxes from non-renewable resources to more environmentally friendly activities, the government can optimize tax revenue and support green economic growth. This tax can also be used to finance environmental projects, such as ecosystem rehabilitation, waste management, and the development of renewable energy, all of which contribute to environmental sustainability.

On the other hand, despite the great potential of environmental taxes, the realization of this policy still faces various challenges. Some economic actors worry that this tax will add to their operational costs, potentially negatively affecting their competitiveness in the market. Therefore, it is important to design environmental tax policies that are balanced, taking into account economic conditions and the capabilities of the affected sectors.

In this context, an incentive-based approach can be a solution to encourage acceptance of environmental taxes. For instance, the government could offer tax incentives for companies that successfully reduce emissions or implement environmentally friendly technologies. Thus, environmental taxes are not only viewed as a burden but also as an opportunity for innovation and contributions to environmental sustainability.

4.3 Implementation Challenges

One of the main challenges in implementing environmental taxes is the lack of public understanding of the benefits and objectives of this policy. Research by Fernanda (2022) indicates that ineffective socialization hinders public support for environmental taxes. Many people still do not realize how this tax can contribute to improving environmental quality and community welfare. Therefore, it is crucial to enhance communication campaigns that are clear and informative regarding environmental taxes.

Additionally, there are concerns that this tax will increase costs for businesses, which could negatively impact their competitiveness in the market. In a global competitive context, businesses may feel burdened compared to other countries that do not impose similar taxes. To address this issue, the government needs to conduct in-depth analyses of the impacts of environmental taxes on different sectors and identify measures to mitigate any negative effects that may arise.

Another challenge that needs to be addressed is administrative capacity and law enforcement. The implementation of environmental taxes requires effective monitoring and evaluation systems to ensure compliance and avoid tax evasion. Therefore, the government must strengthen the capacity of institutions responsible for oversight and enforcement related to environmental taxes.

Addressing these challenges requires cross-sector collaboration, including between the government, the private sector, and civil society. Through close collaboration, effective solutions can be found to increase understanding and support for environmental taxes while ensuring successful and sustainable implementation.

4.4 Approaches and Socialization

To support the success of environmental tax policies, a better approach to socialization to the public is needed. Research by Naimah et al. (2022) recommends that the government conduct clear educational campaigns regarding the benefits of environmental taxes and how the funds collected will be used for conservation projects. Effective education will help the community understand that this tax is not merely a burden but also an investment in a better future.

Educational campaigns should involve various communication channels, including social media, seminars, and workshops. The government can also collaborate with non-governmental organizations (NGOs) and local communities to expand the reach and impact of socialization. By involving the community in the dialogue process, there will be opportunities to address questions and concerns that may arise regarding environmental tax policies.

Moreover, it is important to showcase tangible examples of successful environmental tax implementations in other regions or countries. This can provide a positive illustration of how environmental taxes can contribute to environmental improvement and community welfare. Explaining how tax funds

are used for concrete environmental projects can also strengthen public trust in this policy.

Overall, a comprehensive and inclusive approach to socialization will be key to gaining public support for environmental taxes. By increasing understanding and awareness among the community, it is hoped that environmental taxes can be accepted as part of a collective effort toward sustainable development in Indonesia.

4.5 Policy Recommendations

Based on the results of the literature review, it is recommended that the government design a more appropriate framework and system for environmental taxes. Naimah et al. (2022) suggest the initial implementation of two types of taxes: motor vehicle tax and fuel tax. The motor vehicle tax can serve as an initial step in reducing emissions from the transportation sector, while the fuel tax can encourage the use of renewable energy and energy efficiency in the industrial sector.

The implementation of these taxes should be done gradually, considering the impacts on society and economic actors. The government needs to conduct in-depth studies to determine appropriate tax rates and ensure that this policy does not significantly adversely affect the economy. Furthermore, it is important to consider providing incentives for the sectors most affected by these taxes so they can adapt to the changes.

Additionally, having a clear and transparent framework for managing environmental tax funds is crucial. Funds obtained from environmental taxes should be used for projects that positively impact the environment and society. Involving the community in the decision-making process regarding the use of these funds can also enhance accountability and transparency.

With a planned and systematic approach, it is hoped that environmental tax policies in Indonesia can provide maximal benefits, both economically and environmentally. This policy should be seen as a proactive step toward

achieving sustainable development goals, where economic growth and environmental preservation can progress hand in hand.

5. Closing

5.1 Conclusion

Environmental taxes in Indonesia, as one of the policy instruments for achieving sustainable development, hold significant potential in addressing environmental issues and encouraging environmentally friendly behavior among economic actors. This literature review has identified that although environmental tax policies, including carbon taxes, are regulated by legislation, their implementation still faces various challenges. These challenges include a lack of understanding among the public and business actors regarding the benefits of environmental taxes, as well as concerns about negative impacts on business competitiveness. On the other hand, environmental taxes also offer substantial opportunities to increase state revenue that can be allocated for conservation and environmental rehabilitation projects. With the right approach to socialization and education for the public, along with more efficient policy design, environmental taxes can become an effective tool in achieving sustainable development goals in Indonesia.

5.2 Suggestion

1. **Enhance Socialization and Education:** The government needs to conduct more intensive educational campaigns regarding environmental taxes. The public and business actors should be provided with a clear understanding of the benefits of these taxes and how the funds collected will be used for environmental projects. This can be achieved through seminars, workshops, and social media engagement.
2. **Flexible Policy Design:** Environmental tax policies should be designed considering the characteristics of different economic sectors. Flexibility in tax implementation can help reduce the burden on businesses while still encouraging them to transition to more environmentally friendly practices.

3. **Monitoring and Evaluation:** It is essential to conduct regular monitoring and evaluation of the effectiveness of environmental tax implementation. Data and feedback from the public and business actors should be used to adjust policies to achieve desired outcomes more effectively.
4. **Multi-Stakeholder Collaboration:** The government should foster collaboration with various parties, including non-governmental organizations (NGOs), academics, and the private sector, to create programs that support the implementation of environmental taxes. This collaboration can strengthen public support and enhance policy effectiveness.
5. **Development of Incentives:** In addition to imposing taxes, the government could consider developing incentives for companies that adopt environmentally friendly practices. These incentives could include tax reductions or financial support for investments in clean technology.

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