

Navigating Challenges and Charting Solutions: Implementing Environmental Taxation in Developing Countries for Sustainable Future

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Abstract

The increasing environmental challenges that the world is facing today, including climate change, biodiversity loss, pollution, and resource depletion, have prompted a paradigm shift in policy discussions toward sustainability. Implementing taxes on activities that negatively impact the environment is seen as a strategic approach to internalize the true costs of resource use and pollution. This paper aims to identify the challenges and proposes strategies for effectively implementing environmental taxation in developing countries. This paper identifies the key obstacles to implementing environmental taxation as a lack of trust in government, limited public awareness, and support and resistance from industries. The paper suggests that transparency, stakeholder engagement, public awareness campaigns, and earmarking of tax revenues for environmental initiatives are essential for overcoming these challenges. Besides, the paper also underscored the importance of a collaborative approach involving all stakeholders to ensure the successful implementation of environmental taxation in developing countries.

Keywords: Environmental, Taxation, Stakeholder, Developing Countries, Sustainable.

Introduction

The increasing environmental challenges that the world is facing today, including climate change, biodiversity loss, pollution, and resource depletion, have prompted a paradigm shift in policy discussions toward sustainability. Sustainable development is defined by the United Nations as Development that satisfies the current needs of society while ensuring that future generations retain the capacity to fulfill their own needs (United Nations, 2024). Based on

the Organization for Economic Cooperation and Development (OECD), green development is a specific strategy to pursue sustainable development to advance economic growth while halting or reversing biodiversity loss, environmental deterioration, and resource waste that threatens the overall environment and human well-being. The center of this discourse is the role of environmental taxation as a powerful instrument for steering economies toward ecologically responsible practices. Implementing taxes on activities that negatively impact the environment is seen as a strategic approach to internalize the true costs of resource use and pollution (Xu, Wen, & Tao, 2023). Besides, the study by Qayum et al (2016), examined the effect of environmental taxation on optimal energy utilization in India. It showed that environmental taxation can lead to a more sustainable environment and energy security.

The urgency to tackle ecological challenges and advance sustainable development underscores the critical significance of understanding the function and efficiency of environmental taxes. As our planet faces growing environmental hazards, it is important that we embrace strategic policies, especially through taxation mechanisms, that can address the root causes and the consequences of the environmental problems. However, the implementation of a new policy is not an easy task. The government may face challenges in every aspect, especially in public rejection. As witnessed in previous cases, environmental taxation proposals have been rejected in many developed countries such as Switzerland, France, and Canada (Muhammad, Hasnu, & Ekins, 2021). Thus, this literature review aims to scrutinize the primary challenges for introducing environmental taxation and propose viable solutions to navigate these challenges effectively.

Environmental Taxation

Environmental pollution has emerged as a major international concern in recent decades, largely driven by significant economic growth fueled by industrialization and urbanization (Dogan, Hodžić, & Šikić, 2023). Emissions of pollutants adversely impact the natural environment and human health (Hussain and Lee, 2022). Since 1978, China's economy has seen rapid development, with its gross domestic product (GDP) rising from USD 149.514 billion to USD 18 trillion in 2022. However, the traditional extensive mode of growth, which relies on substantial inputs and the expansion of production factors to achieve growth, has led to the depletion of natural resources and severe pollution. Additionally, residents' swift increase in economic activities and material consumption has hindered sustainable development (Xu et al., 2023). Some researchers have suggested that environmental taxes and regulations are vital instruments for preserving the environment (Dogan et al., 2023).

Of that, the optimal design and implementation of environmental taxes have been the subject of extensive research and analysis. Previous literature has emphasized the importance of environmental taxation in combating issues such as overuse, abuse, and pollution of the natural environment (Dogan et al., 2023). It is widely acknowledged that taxation is a powerful mechanism for combating environmental problems such as pollution and carbon emissions, and there is an almost universal consensus among economists that environmental taxation has an important role in addressing environmental issues.

Environmental taxes operate on the principle of internalizing externalities, recognizing that certain economic activities generate external costs not reflected in market prices (Xu et al.,

2023). The government aims to align market incentives with environmental sustainability goals by taxing harmful activities. This principle entails the polluter pays principle, which asserts that those responsible for environmental degradation should bear the associated costs (Kallbekken & Saelen, 2011). The implementation of environmental taxes sent a signal to businesses and consumers to consider the environmental impact of their actions, which will directly encourage a shift towards more sustainable practices.

Environmental taxation also aligns with the fundamental principle of economic efficiency (Zhao, Li, & Li, 2022). It encourages the efficient use of resources by integrating the environmental costs into the price mechanism. This incentivizes industries to adopt cleaner technologies and production processes and promotes innovation for cost-effective and environmental solutions (Lee & Lee, 2022). On top of that, the revenue generated from environmental taxes can be used to fund environmental conservation efforts, research and development of green technologies, and other initiatives that contribute to sustainable development (Hammerle, Best, & Crosby, 2021).

Furthermore, the goals of environmental taxation extend beyond revenue generation to the promotion of behavioral change (Dreus & Van den Bergh, 2016). The government imposes taxes on high-impact environmental activities to encourage the adoption of greener alternatives. This can reduce harmful emissions, improve resource efficiency, and foster an environmentally-conscious society (Shen & Zhang, 2022). The multifaceted nature of environmental taxation aligns with broader sustainability objectives, contributing to ecological protection, economic resilience, and social justice. Overall, the principles and goals of environmental taxation intertwine economic, environmental, and social dimensions toward a more harmonious prospect for the future.

Challenges for the Implementation of Environmental Taxation in Developing Countries

Implementing environmental taxation in developing countries confronts many challenges impeding its efficiency in achieving environmental objectives. The challenges include a lack of trust in government, limited public awareness and support, and industry resistance. The discussion below will elaborate further on these three challenges:

Lack of Trust in Government

The lack of trust in the government creates a significant obstacle to the successful implementation of environmental taxation in developing countries (Muhammad et al., 2021). Trust is the key factor that underpins the acceptance and compliance of citizens and businesses with government policies, including taxation initiatives. In many developing countries, historical factors such as corruption, mismanagement of public funds, and frequent changes in government have collectively eroded public faith in the efficacy and integrity of government institutions (Muhammad et al., 2022). The absence of trust may result in skepticism about the intentions behind environmental taxation as many previous literatures highlighted that citizens believe that the implementation of environmental policy is just a means for the government to raise revenue rather than for the benefit of the environment and the people (Dreus, & Van den Bergh, 2016 and Hammerle et al., 2021).

Another key feature contributing to the lack of trust in government is the perceived misuse or misallocation of tax revenues. Citizens may doubt how the government allocates appropriately the funds collected through taxation for environmental conservation and sustainable development programs (Kallbekken & Saalen, 2011). Another concern for trust involves the fear of unequal distribution of the tax burden. Suppose citizens see that the costs of environmental taxation are disproportionately borne by certain groups, especially when citizens perceive that certain groups, particularly vulnerable populations, bear disproportionately higher costs of environmental taxation. In that case, it definitely will diminish the trust in the fairness of the tax system (Brannlund & Persson, 2012).

Limited Public Awareness and Support

Limited public awareness and support pose another significant challenge to the successful and effective implementation of environmental taxation in developing countries. First and foremost, most citizens in developing countries have little understanding of environmental issues and the importance of taxes' role in tackling environmental issues (Bachus, Ootegem, & Verhofstadt, 2019). For instance, they are not well-informed about their countries' environmental problems, such as air pollution, deforestation, water scarcity, and climate change. They also do not understand how environmental taxes can help address these problems by creating incentives for cleaner production and consumption and generating revenues for environmental protection and social welfare.

Another contributing factor to this problem is the communication gap between the government and its citizens. In certain countries, the government fails to communicate the environmental policy's purpose, benefits, and specific objectives (Brouwer, Brander, & Van Beukering, 2008). This issue leaves citizens in the dark about the intended positive impacts on the environment and society. In the absence of clear and accessible information, the public will have misconceptions and distrust issues in the implementation of environmental policy, resulting in opposition and disagreement.

Resistance from the Industries

Resistance from industries stands as an important obstacle to the effective implementation of environmental taxation. The first issue arises from the fact that firms situated within these countries and operating in an environmentally sensitive such as the oil and gas and chemical industry perceive this policy as a threat to their competitiveness and profitability (Freire-González, and Ho, 2018). Some of this resistance stems from the worries over additional operational expenses, potential job losses, and the fear of losing market share to competitors operating in regions with less stringent environmental regulations. For instance, the business must incur additional costs for acquiring eco-friendly technology that helps lessen their operation's negative environmental impact or pay fines for exceeding emissions limits.

Furthermore, the industries might oppose the environmental tax due to perceived ambiguity in the regulatory framework (Kumarasiri & Lodhia, 2020). Uncertain or inconsistent regulation created an uncertain atmosphere where it will be difficult for businesses to plan and adapt to the new fiscal landscape. Industries in developing countries where the regulation may be less

mature and subject to frequent changes will be more resistant to implementing environmental policy.

Strategies for the Effective Implementation of Environmental Taxation

The successful implementation of environmental taxation is pivotal in combatting environmental issues and promoting sustainable development. However, its effective implementations face multifaceted challenges, including public skepticism, limited awareness, and industry resistance. This section will discuss some strategies for the effective implementation of the policy.

Transparency and Stakeholder Engagement

Transparency and stakeholder engagement are primary pillars for the successful implementation of environmental taxation (Muhammad et al., 2022). The government must establish transparent communication channels to eliminate the communication gap between the government and the public. The government shall also communicate clearly the purpose, objectives, and anticipated benefits of environmental taxation, as it will enhance citizens' understanding of the new policy. It gives detailed information on how the revenue will be utilized towards particular environmental preservation and any sustainability program. Research by Vohringer et al (2017), shows that public acceptance of carbon tax increases if transparency regarding the proceeds and policy outcomes exists. By articulating a clear vision and being committed to environmental well-being, government can build trust and credibility among citizens.

Furthermore, active engagement with various stakeholders, including non-governmental organizations (NGOs) and industry players, is crucial in shaping inclusive environmental policies. As such, involving this stakeholder ensures a more comprehensive understanding of the challenges and opportunities related to environmental policy. A collaborative approach will not only make environmental taxation initiatives legitimate but also encourage ownership of stakeholders, fostering a cooperative environment for this policy's successful and long-lasting sustainability (Muhammad et al., 2021). Moreover, enhancing the accountability mechanisms, such as regular reporting on the utilization of tax revenues, reinforces transparency and portrays a commitment to meeting environmental objectives.

Comprehensive Public Awareness Campaign and Earmarking

Public awareness campaigns on environmental issues and the efforts to mitigate the problem are often inadequate or non-existent, especially in developing countries, which results in a population uninformed about the environmental issues the country faces. Consequently, the absence of awareness can lead to greater resistance and skepticism among citizens who perceive environmental taxes as an additional financial burden (Drews and Van den Bergh, 2016). Research has shown that education and environmental awareness are key determinants for gaining support for environmental tax (Savin et al., 2020; Haring & Jagers, 2013). A wide-ranging public information campaign is essential in designing effective environmental taxation and plays a significant role in educating the community about the aims and consequences of environmental policy. This implies designing educational programs that address various environmental problems and the role of taxation in mitigating the issue. Awareness of education programs can be achieved through various platforms such as social media, community workshops, and others to reach a wide range of audiences.

Earmarking on the benefits and effectiveness of environmental taxation also plays a major role in informing the citizens regarding this policy (Carattini, Carvalho & Fankhauser, 2018). To have a smooth and long-lasting policy, the government must clearly inform the citizens how the collected funds will be utilized for targeted initiatives such as reforestation, renewable energy development, or pollution reduction programs. The earmarking strategy aligns with transparency goals and provides citizens with a direct link between their financial contribution and the positive environmental outcomes they expect.

Significance of the Study

This study brings attention to the critical need for environmental policies tailored to the contexts of developing countries, promoting broader understanding and awareness of these issues. Besides, the study emphasizes the importance of actionable, realistic strategies rather than merely identifying problems, encouraging practical and effective responses. The study also aligns with global sustainable development goals, advocating for policies that balance economic growth with environmental stewardship, crucial for the long-term well-being of developing nations. The findings will provide valuable insights for policymakers and tax authorities to improve the policies on tax, ultimately contributing to a more efficient and effective tax system in Malaysia. The study encapsulates the complexity, necessity, and proactive approach required to implement environmental taxation in developing countries, aiming for a balanced and sustainable future.

Conclusion

In conclusion, the challenges encountered while implementing environmental taxation in developing countries underline the need to consider the individual complexity of the problem involved. The primary challenge of lack of trust in government demands proactive measures such as fostering transparency through clear communication channels and actively collaborating with various stakeholders. In this manner, the government can build trust and credibility, mitigate skepticism, and pave the way toward the success of environmental taxation initiatives.

Besides, the limited public awareness and support and resistance from the industries could hinder a successful implementation of environmental taxation. An effective awareness program comprising various communication platforms is vital. It not only bridges the information gap but also enlightens citizens with a comprehensive understanding of environmental issues and the role of taxation in addressing them. In addition, the earmarking effect could also enhance transparency and the positive impact of taxation. Ultimately, implementing environmental taxation in developing nations requires a harmonized effort from all parties, including the government, the public, and industries. By integrating these solutions, developing countries can mitigate the hurdles to environmental taxation and ensure an effective and long-lasting policy.

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