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Green Fiscal Policy and Inclusive Economic Development in Emerging Economies: A Systematic Review with Insights from Southeast Asia

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Abstract

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This study reviews how green fiscal policies influence inclusive economic development in Southeast Asia. It explores whether instruments such as carbon taxes, subsidy reforms, and green bonds can achieve both environmental goals and social equity. Using a systematic review of peer-reviewed studies and reports published up to early 2021, the evidence particularly from Indonesia shows that carbon pricing and subsidy reforms reduce emissions but can be regressive when no compensatory measures are in place, as poorer households face higher relative costs. Simulations also indicate that revenue recycling through social transfers, green investments, or targeted subsidies can offset these effects and make policies more equitable. While fiscal tools such as green bonds and renewable energy incentives are emerging in the region, empirical evaluations of their social outcomes remain limited. The findings emphasize that careful policy design and revenue use are essential for green fiscal policy to advance both sustainability and inclusivity in Southeast Asia.

1. Introduction

The transition toward sustainable development has become an urgent global priority, particularly in the context of climate change, environmental degradation, and persistent socio-economic inequalities. Emerging economies face a dual challenge: fostering economic growth to reduce poverty and inequality, while simultaneously aligning their development trajectories with environmental sustainability goals (World Bank, 2021). Green fiscal policy defined as the strategic use of taxation, subsidies, public spending, and fiscal incentives to support environmental objectives has increasingly been promoted as a key instrument for achieving these twin objectives (OECD, 2020).

The growing literature highlights that fiscal interventions such as carbon pricing, removal of environmentally harmful subsidies, and green investment incentives can create conditions for low-carbon growth while enhancing social welfare (Sabir & Qamar, 2019; Pigato, 2019). These measures, when designed with equity considerations, have the potential to generate employment opportunities, improve public health, and ensure that vulnerable communities share in the benefits of green growth (Hepburn et al., 2020). This alignment underscores the concept of inclusive economic development, which emphasizes not only the pace of growth but also its distributional impacts.

In emerging economies, particularly those in Southeast Asia, the application of green fiscal policy has gained attention in recent years. Countries such as Indonesia, Vietnam, and the Philippines have introduced initiatives ranging from carbon taxes to renewable energy subsidies, often framed within their commitments to the Paris Agreement and the Sustainable Development Goals (Asian Development Bank [ADB], 2021). Nevertheless, the extent to which these policies have effectively contributed to inclusive economic outcomes such as poverty reduction, job creation, and reduced inequality remains an open question. While there is evidence of environmental improvements and sectoral transformations, empirical assessments of social inclusivity outcomes are less developed and often fragmented (Bowen et al., 2018).

Given the complexity of the relationship between green fiscal policy and inclusive development, a systematic synthesis of the existing evidence is both timely and necessary. Previous studies have primarily focused on environmental effectiveness, fiscal efficiency, or growth effects in isolation (Dorband et al., 2019; Ionescu, 2021). However, a comprehensive understanding of how these fiscal instruments interact with social and economic inclusion is still lacking, especially in the context of emerging economies. This gap is particularly relevant for Southeast Asia, where economic expansion, demographic transitions, and climate vulnerability intersect in unique ways.

The aim of this study is to conduct a systematic literature review (SLR) of green fiscal policy in emerging economies, with a particular focus on the extent to which these policies support inclusive economic development. Specifically, this review aims to identify the dominant themes and trends in research on green fiscal policy and inclusive development, to examine the available evidence on policy effectiveness and inclusivity outcomes, and to derive insights and implications that are particularly relevant for Southeast Asian economies. By synthesizing findings from peer-reviewed studies published up to 2021, this article contributes to bridging the knowledge gap and supports the formulation of policy strategies that integrate environmental sustainability with the pursuit of inclusive growth.

2. Literature Review

Green fiscal policy refers to the strategic use of taxes, subsidies, and public expenditure to support environmental sustainability while maintaining macroeconomic stability (OECD, 2020). Instruments such as carbon taxes, emissions trading systems, fossil fuel subsidy reforms, and targeted incentives for clean technologies are widely discussed for their ability to encourage low-carbon investments, internalize environmental costs, and influence production and consumption patterns (Pigato, 2019; Klenert, Funke, Mattauch, & Edenhofer, 2018). Moving beyond the concept of green growth, which primarily focuses on decoupling economic growth from environmental degradation, the notion of inclusive development adds a social dimension by emphasizing equity and the fair distribution of benefits (Bowen et al., 2018). Fiscal policies can act as a bridge between these goals when revenues from environmental instruments are recycled into social protection programs, labor market interventions, and green infrastructure, thereby mitigating potential regressive effects and expanding access to the benefits of a green transition (Dorband et al., 2019).

In emerging economies, the use of fiscal instruments to promote low-carbon development has expanded, particularly in the aftermath of the COVID-19 crisis, with positive outcomes in terms of renewable energy investment and efficiency gains; however, evidence regarding their effects on poverty reduction, employment creation, and inequality remains limited (Asian Development Bank [ADB], 2021; Hepburn et al., 2020). The distributional consequences of such policies vary by context, and regressive outcomes are likely when compensatory mechanisms are absent (Ionescu, 2021). Within Southeast Asia, rapid economic growth, high dependence on natural resources, and vulnerability to climate risks make green fiscal policy especially relevant. Recent initiatives, including Indonesia's introduction of a carbon tax, Vietnam's renewable energy incentives, and the Philippines' development of a green bond market, reflect growing interest in fiscal approaches to sustainability (United Nations Economic and Social Commission for Asia and the Pacific [UNESCAP], 2021). Nevertheless, most of the literature remains fragmented, focusing primarily on environmental effects rather than evaluating how such policies can simultaneously support sustainability and equitable development outcomes in the region.

3. Methods

This study employs a systematic literature review (SLR) to synthesize evidence on how green fiscal policy contributes to inclusive economic development in Southeast Asian emerging economies. The review approach follows the widely used guidelines of Tranfield, Denyer, and Smart (2003), which emphasize transparency in the planning, selection, and synthesis stages. The search focused on peer reviewed journal articles, books, and institutional reports published up to early 2021. Three academic databases such as Scopus, Web of Science, and Google Scholar were searched using combinations of keywords including "green fiscal policy," "carbon tax," "fossil fuel subsidy reform," "green bonds," "renewable energy incentives," "inclusive growth," "poverty reduction," "inequality," "Indonesia," "Vietnam," "Philippines," "Malaysia," and "Thailand." Boolean operators (AND, OR) were applied to ensure that the search captured studies linking fiscal instruments to inclusive development outcomes.

To ensure relevance, inclusion criteria were applied. First, the studies had to focus on fiscal or budgetary policies with explicit environmental objectives, such as carbon pricing, subsidy reform, or green public investment. Second, they needed to assess outcomes related to inclusivity such as employment generation, income distribution, poverty reduction, or social welfare. Third, the geographic scope was limited to Southeast Asian countries. Studies that examined fiscal policies solely from an environmental perspective, without addressing distributional or inclusive outcomes, were excluded. After removing duplicates, the remaining publications were screened by title and abstract, followed by full-text review.

Data extraction from the final set of studies focused on publication details, research methods, policy instruments examined, type of inclusivity outcome analyzed, and main findings. Given that most empirical research in Southeast Asia is concentrated in Indonesia and Vietnam, evidence from these countries is highlighted separately. The results of the selected studies were synthesized using a qualitative narrative approach, identifying patterns and gaps in the literature rather than conducting a statistical meta-analysis. This approach is appropriate due to the relatively limited number of empirical studies available in the region prior to early 2021.

4. Results and Discussion

The reviewed literature reveals that research on green fiscal policy in Southeast Asia up to early 2021 is concentrated mainly in Indonesia. Most of these studies employ simulation-based approaches such as Social Accounting Matrix (SAM) and Computable General Equilibrium (CGE) models to examine the economic and social implications of instruments like carbon taxes and fossil fuel subsidy reforms. Very few studies provide ex post empirical assessments because most policies in the region are either newly introduced or still in the planning stage.

In Indonesia, evidence consistently shows that the introduction of a carbon tax without compensatory mechanisms is regressive. Using a Social Accounting Matrix (SAM) and a computable general equilibrium model, Steckel et al. (2021) demonstrated that low-income households would experience proportionally greater welfare losses due to their higher relative spending on energy and basic commodities. The study showed that the poorest households bear the largest burden as energy price increases cascade through the economy, affecting the costs of food, transportation, and other essentials. In contrast, wealthier households, while also affected, have more capacity to absorb these increases. Importantly, the same analysis highlighted that when revenues from the carbon tax are recycled through targeted cash transfers, subsidies for basic needs, or increased public spending on social services, these negative effects can be significantly mitigated or even reversed.

In such scenarios, carbon pricing can become a tool that not only reduces emissions but also supports inclusive growth by channeling revenues to those most affected.

At the regional level, the Asian Development Bank (2021) and UNESCAP (2021) report that Southeast Asian countries, including Indonesia, Vietnam, Malaysia, the Philippines, and Thailand, have started experimenting with green fiscal tools such as green bonds, renewable energy incentives, and subsidy reforms. Indonesia's issuance of green sukuk and sovereign green bonds since 2018 represents a significant innovation in financing sustainable infrastructure. However, published analyses up to early 2021 focus primarily on macroeconomic and environmental effects, while the inclusivity impacts such as employment generation, income redistribution, and poverty reduction remain largely unquantified. There are no comprehensive panel studies or longitudinal evaluations that explicitly measure these social outcomes in the region.

The findings show a consistent pattern: while green fiscal instruments have the potential to support inclusive economic development, their design and implementation determine whether these benefits are realized. Without accompanying social policies, fiscal measures such as carbon pricing and subsidy reform can impose disproportionate burdens on low-income households. Conversely, when revenues are strategically recycled into social protection or employment-creating investments, the same instruments can yield positive outcomes for both the environment and inclusive growth. These results also underscore the research gap in Southeast Asia: empirical, country-level evaluations of actual policy implementation are scarce, and most evidence comes from forward-looking simulations.

5. Conclusion

This review finds that research on green fiscal policy and inclusive economic development in Southeast Asia remains limited and concentrated in a few countries, particularly Indonesia. Most studies up to early 2021 use simulation models rather than post-implementation evaluations, reflecting the relatively recent adoption of fiscal instruments such as carbon taxes, fossil fuel subsidy reforms, green bonds, and renewable energy incentives in the region. The evidence consistently shows that while these policies can reduce greenhouse gas emissions and support fiscal stability, they also risk regressive outcomes when introduced without compensatory measures. Low-income households, which spend a larger share of their income on energy, are disproportionately affected by higher energy costs. However, the same studies demonstrate that revenue recycling through targeted social transfers, clean energy subsidies, or public investment in employment-generating programs can offset these negative effects and make green fiscal policies more inclusive.

To date, there is very little empirical research evaluating the social impacts of green bonds, carbon taxes, or green investment programs in Southeast Asia. This lack of ex post analysis represents a significant gap in the literature. Overall, the evidence indicates that green fiscal policy has the potential to align environmental sustainability with inclusive economic development in the region, but the achievement of these dual objectives depends critically on policy design and the integration of compensatory measures. Future research should prioritize empirical evaluations of implemented policies, with particular attention to outcomes such as poverty reduction, inequality, and job creation, in order to provide a stronger basis for policy learning and regional cooperation.

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