# Taxation and the Sustainable Development Goals: A Bibliometric Analysis of Global Research

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**Abstract.** This study attempts to explain the development of global studies linking taxation issues with sustainable development within the framework of the Sustainable Development Goals (SDGs). Through bibliometric analysis, seven main clusters were obtained, namely: climate change and environmental economics, sustainable development related to investment, renewable energy and energy policies, global taxation systems and economic inequality, green economy and environmental sustainability, economic growth linked to environmental taxes, and technological innovation related to carbon taxes. Over time, research focus has shifted. In 2022, the most frequently studied topics remained technical, such as carbon emissions, climate change, and carbon tax instruments. In 2023, the research direction began to evolve, linking sustainable development, environmental taxes, economic growth, and environmental protection issues. In 2024, research focused more on institutional aspects, encompassing fiscal reform, tax policy, corporate governance, transparency, and even corruption. This research demonstrates a shift in focus from technical issues to institutional and governance studies. Its novelty lies in its emphasis that achieving the SDGs depends not only on technical instruments but also on the quality of the tax system, the effectiveness of fiscal reforms, and the application of transparency and accountability principles. This is crucial, especially for developing countries, which still face significant challenges in strengthening tax systems and governance

**Keywords**: Taxation, Sustainable Development Goals, Fiscal Policy

## 1. Introduction

In today's economic life, taxes have a very important position (Asmandani et al., 2020). Taxes are known as the main source of state income to fund development (Ason, 2024). However, the government also uses it as a tool to direct development. Since 2015, when the UN introduced the Sustainable Development Goals (SDGs), the role of taxes has become increasingly apparent. The SDGs encompass broad objectives, such as reducing poverty, achieving equitable prosperity,

providing environmentally friendly energy, and improving governance. All of these are directly linked to tax policy and fiscal management.
According to (Diah & Arum, 2025) appropriate tax policies play a crucial role in achieving the SDGs globally.

As financing needs grow, taxes cannot be viewed solely as a way to increase state coffers. They are also used to change the behavior of society and businesses. A frequently cited example is the carbon tax (Sulistiyanti, 2023). This policy not only increases revenue, but also makes companies think about being more environmentally friendly (Karimu & Bali, 2023). The same applies to consumption taxes, which are used to reduce inequality. Thus, taxes serve two functions simultaneously: supporting development budgets and encouraging change toward sustainability (Dradra, 2025). As expressed by (Rutendo, 2025), policy makers often use various economic instruments to achieve equitable distribution of income, with tax revenues being an important tool to achieve this goal.

Research interest in the topic of taxes and the SDGs has been growing over time. Some studies have explored the role of taxes in reducing carbon emissions (Achakulwisut et al., 2021) and address climate change (Malerba et al., 2021). There are also those that focus on social aspects, such as fiscal justice (Rossikhina et al., 2025) and welfare (Sing et al., 2025). The direction of research also changes each period. Initially, many studies discussed technical issues, for example environmental tax instruments (Kumar & Stauvermann, 2024). However, in recent years, research has more frequently touched on the issue of fiscal governance (Rutendo, 2025) and integration of taxation with sustainable development strategies at the global level (Mustafa et al., 2025).

Sustainability and economic development have been discussed for decades (Dubinskii, 2024). Although the literature on taxes and the SDGs is growing, there are still gaps that remain largely unexplored. First, most writings emphasize technical aspects, while issues such as governance, transparency, and fiscal accountability remain under-explored. Yet, the success of the SDGs also depends heavily on the quality of tax management. Second, existing research tends to focus on developed countries. Developing countries face different challenges, such as weak institutions or low levels of tax compliance.

To address this issue, this study employed bibliometric analysis. This method helps researchers systematically examine the development of the literature, identify research trends, categorize major themes, and track changes in the direction of studies over time. This research is expected to enrich the literature on taxes and the SDGs. Its significant contribution is demonstrating that sustainable development can be achieved not only through technical instruments but also through strengthening transparent and accountable fiscal governance. The results of this study are expected to be useful both for academics as a basis for further research and for policymakers in developing countries in designing tax strategies that are more aligned with the SDGs agenda.

## 2. Methods

This research employed a bibliometric method. This method was chosen because it provides an overview of research directions addressing taxation and the Sustainable Development Goals (SDGs). This approach allows for the identification of broad patterns emerging from the literature, enabling insights into trends and theme developments over time.

The research data was drawn from the Scopus database. Scopus was used because it is widely recognized by academics internationally and boasts a comprehensive collection of high-quality

international journals. Article searches were conducted using the keywords: tax, taxation, sustainable development goals, and SDGs. The researchers then limited the search to English language options, finalized article types, and focused on the five largest subject areas, allowing for a more focused discussion of taxation and the SDGs. The analysis phase was conducted using VOSviewer software.

Another reason for using the bibliometric method is that it allows for an objective and comprehensive literature map. The results not only reveal dominant trends but also open up opportunities to discover new, under-explored research areas. Therefore, this research is expected to enhance academic understanding and provide a strong foundation for future research on the role of taxation in supporting the achievement of the SDGs.

## 3. Results and Discussion

This research produces a bibliometric analysis that provides an overview of how the study of tax and the Sustainable Development Goals (SDGs) has evolved. Data from Scopus shows that the number of publications discussing this topic tends to increase annually. The most significant increase occurred after 2015, when the UN officially launched the SDGs agenda. This indicates that tax is increasingly considered relevant in supporting sustainable development goals, both in developed and developing countries.

Judging from the distribution of publications, the majority of articles are found in journals focusing on social sciences, environmental sciences, energy, economics, and the business, management, and accounting cluster. The largest contributions come from researchers in Asia, Europe, the Americas, and Africa. This indicates that interest in the topic of taxation in relation to global development is expanding, as it is studied evenly by researchers from various continents around the world. In this study, the researcher will focus on three figures obtained from the bibliometric analysis: network visualization, overlay visualization, and density visualization.

### 3.1. Network Visualization

Network visualization is used to show the relationship between keywords which are then divided into a number of clusters, as in Figure 1 below.

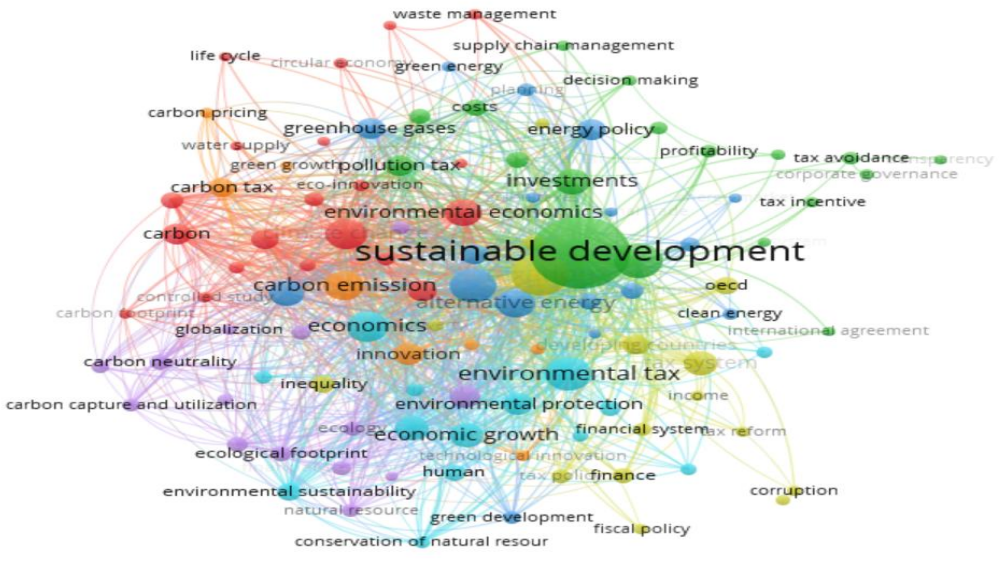


**Figure 1.** Network Visualization

Based on the keyword mapping results in Figure 1, this study identified seven major clusters. The first cluster addresses climate change issues linked to environmental economics. It frequently discusses carbon emissions, environmental policies, and their impact on the economy. This cluster emphasizes how economic policies can be used to reduce emissions while also aiding adaptation to climate change. (Gafsi & Bakari, 2025) states that there is a dynamic relationship between environmental quality factors, economic growth, utilization of renewable energy, digitalization, and the effectiveness of environmental taxation.

The second cluster focuses on sustainable development, which is closely related to investment. Dominant keywords include sustainability, pollution taxes, and environmental costs. The main focus of this cluster is how to maintain economic growth without sacrificing environmental sustainability. (Musibau et al., 2025) argues that increased investment in renewable energy is crucial for reducing emissions. This step is crucial for aligning global climate goals and achieving carbon neutrality.

The third cluster highlights renewable energy and energy-related policies. Some frequently mentioned terms include alternative energy, energy utilization, greenhouse gases, and energy policy. This demonstrates that clean energy is crucial for reducing emissions, while energy policy is key to driving the transition to environmentally friendly energy. (Karimu & Bali, 2023) argues that policymakers can achieve environmental goals with higher electricity taxes, particularly on household electricity. In the industrial sector, tax reform is needed to encourage innovation and the adoption of more environmentally friendly production processes.

The fourth cluster discusses global taxation and issues of economic justice. Emerging themes include the international tax system, the role of developing countries, and issues of inequality. This cluster demonstrates how the global tax system can function to support development while reducing disparities between countries. According to (Kumar & Stauvermann, 2024), environmental taxes are a political tool for achieving environmental sustainability while simultaneously supporting sustainable development. However, to ensure sustainability in social and economic aspects, the taxes imposed must be perceived as fair by the majority of civil society.

The fifth cluster focuses on the green economy and environmental conservation. Frequently used keywords include carbon neutrality, ecological footprint, and environmental quality. The primary focus is on maintaining economic growth while maintaining environmental sustainability. According to (Guan & Hassan, 2025), establishing and enforcing environmental regulations is essential to achieving ecological integrity and meeting SDG points 7, 12, and 13.

The sixth cluster emphasizes the relationship between economic growth and environmental taxes. Some frequently mentioned terms include environmental taxes, sustainable development, and nature protection. This cluster demonstrates that environmental taxes can be used as an instrument to balance economic needs with environmental sustainability. (Osabohien et al., 2024) revealed that environmental taxes contribute to sustainable development by encouraging efficiency and reducing carbon emissions, by addressing operational risks, ensuring financial sector stability, and promoting sustainable development.

The seventh cluster highlights the role of technological innovation in relation to carbon tax policy. Keywords frequently appearing include carbon emissions, innovation, and technology. This cluster emphasizes that technological developments can strengthen carbon tax policy while facilitating the transition to sustainable development. As expressed by (Rossikhina et al., 2025) that the digital transformation of tax policy has a real impact on the efficiency of the financial system and sustainable development, particularly through the development of electronic reporting.

### 3.2. Overlay Visualization

Overlay visualization is used to illustrate changes in research focus over time. This map shows the shift in themes, from early issues to current developments, as shown in Figure 2 below.

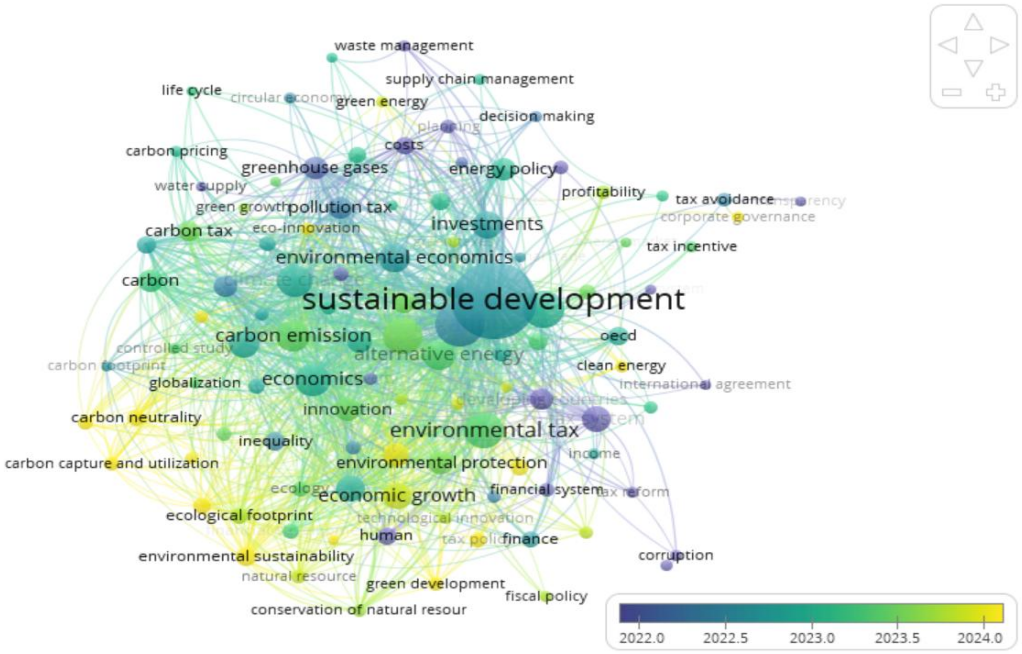


**Figure 2.** Overlay Visualization

According to Figure 2, in 2022, most research still focused on basic environmental issues. Frequently appearing keywords included carbon, carbon tax, carbon neutrality, and climate change. Studies during this period were more focused on understanding the impacts of climate change (Malerba et al., 2021) and how to control carbon emissions (Achakulwisut et al., 2021). Carbon tax is starting to be recognized as an important instrument for reducing emissions (Achakulwisut et al., 2021) and climate change mitigation (Malerba et al., 2021). However, in this period, the importance of interaction between socio-economic and environmental development has also been realized (Xiao et al., 2022).

2023 marks a shift in direction. While previously research focused primarily on environmental issues, this year the topic has begun to be linked to economic aspects. Some prominent terms include sustainable development, economic growth, environmental tax, and environmental protection. Environmental taxes are no longer considered merely a fiscal instrument (Hakam et al., 2024), but rather it is seen as part of a sustainable development strategy (Hlastec et al., 2023). Economic growth is expected to continue, but it must not come at the expense of environmental protection efforts (Kwakwa, 2023; Yuan & Li, 2023).

Entering 2024, research has expanded further, increasingly addressing policy and governance. Keywords such as tax reform, fiscal policy, corporate governance, transparency, and corruption are becoming increasingly discussed. This shift demonstrates that sustainable development issues are viewed not only from a technical perspective, such as carbon taxes, but also from a fiscal system perspective (Olivo-escudero et al., 2025) and institutions are run. Transparency, such as the involvement of all parties (Benito et al., 2025) and efforts to prevent corruption (Rossikhina et al., 2025) seen as an important factor for tax policy to run effectively.

A notable novelty in this development is the shift in focus from technical research to studies emphasizing institutional aspects. Research is no longer limited to calculating emissions or the

effectiveness of tax instruments, but rather to how fiscal policy and governance can support the achievement of sustainable development. There remains significant opportunity for further research, particularly examining the relationship between environmental taxes and governance, including transparency, accountability, and fiscal integrity, as these aspects play a crucial role in the success of sustainable development policies.

### 3.3. Density Visualization

Density visualization serves to show the intensity of keyword occurrences in the literature. Light colors highlight frequently used keywords, while darker colors indicate less frequently used terms. A complete overview is shown in Figure 3 below.

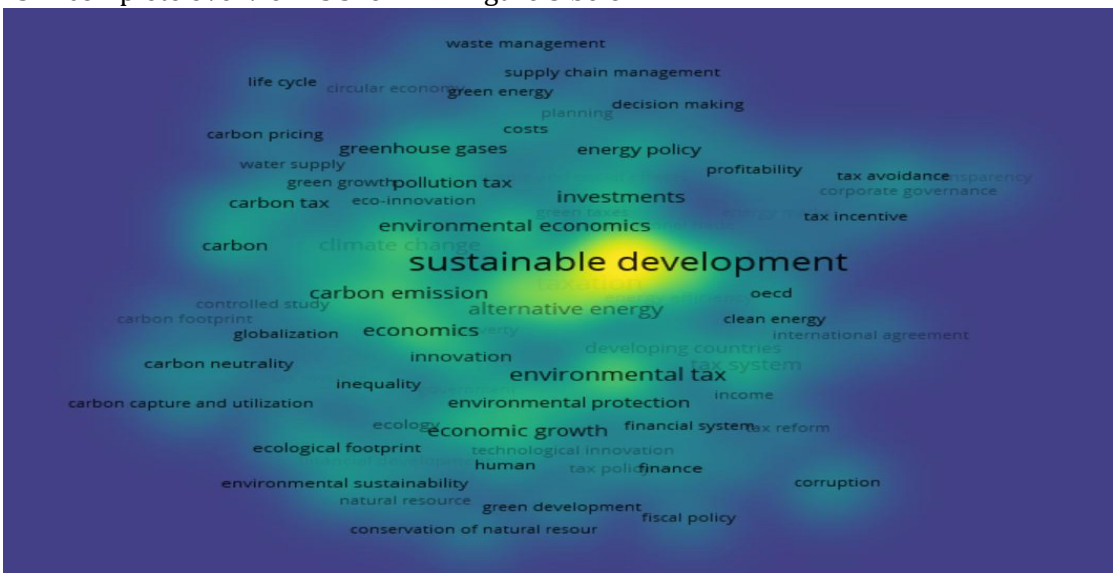


**Figure 3.** Density Visualization

As shown in Figure 3, the colors on the map reflect how frequently a keyword appears in research. Bright yellow indicates the most frequently used terms and attracts attention. Green represents terms with a moderate level of occurrence, while blue represents keywords that are rarely used, although still related to the main theme.

The most dominant keyword is sustainable development, which is located in the center of the map in yellow. This confirms that sustainable development is a primary focus in various studies. Surrounding it are several other important terms, such as carbon emissions, economics, environmental tax, economic growth, environmental protection, investments, and renewable/alternative energy. Keywords such as carbon neutrality, fiscal policy, corporate governance, and transparency appear in blue, indicating that these topics are less frequently discussed, although still relevant.

Overall, the observed pattern indicates that studies on sustainable development still focus largely on core issues, particularly carbon emissions, environmental taxes, and economic growth. However, new themes related to governance, transparency, and fiscal policy have begun to emerge. The position of keywords on the edge of the map suggests that studies in this area are still limited and could represent opportunities for further research.

What is novel about this finding is the effort to link sustainable development with aspects of governance and fiscal policy. While previous research has often emphasized technical issues such as emissions control or renewable energy use, this new direction could be developed by

highlighting accountability, transparency, and fiscal reform. This approach could provide a unique contribution, particularly for developing countries that still face challenges in tax reform and improving the quality of governance.

## 4. Conclutions

This research demonstrates that studies on taxation and sustainable development within the framework of the Sustainable Development Goals (SDGs) continue to evolve and change direction. Bibliometric results reveal seven main clusters encompassing key topics, ranging from climate change, carbon emissions, renewable energy, to fiscal and governance issues. Annual developments indicate that initially, research focused primarily on technical aspects such as carbon taxes and emissions control. Subsequently, the focus broadened to link environmental and economic issues, with the most recent focus being on the importance of fiscal policy, transparency, and accountability in supporting the sustainable development agenda.

This research's contribution lies in its emphasis on the importance of technical instruments alone for achieving the SDGs. Institutional factors, the effectiveness of tax reform, and the application of transparency and accountability principles are also crucial. With this perspective, environmental taxes should no longer be understood merely as a technical tool for reducing emissions, but as part of a more inclusive and equitable long-term development strategy.

For future research, it is recommended that greater emphasis be placed on the relationship between fiscal governance, transparency, and tax reform and sustainable development, particularly in developing countries. This topic is still rarely discussed, even though it has great potential to provide benefits, both in terms of scientific development and policy practice, especially in strengthening fiscal institutions and supporting the implementation of effective environmental policies.

## References

[1] Achakulwisut, P., Erickson, P., & Koplow, D. (2021). *Effect of subsidies and regulatory exemptions on 2020 – 2030 oil and gas production and profits in the United States OPEN ACCESS Effect of subsidies and regulatory exemptions on 2020 – 2030 oil and gas production and profits in the United States*.

[2] Asmandani, V., Pamungkas, S. T., Hidayat, R., Wicaksono, G., Puspita, Y., Kusumaningrum, D. N., & Susilo, D. (2020). Effect Of Using E-Filling On Quality Of Tax Reporting Services In East Java. *Jurnal Mantik*, *3*(4), 619–624.

[3] Ason, Y. J. (2024). *The Conceptual Review on the Effect of Corporate Governance Monitoring Mechanisms on Tax Avoidance*. *41*(2).

[4] Benito, B., Dolores, M., Ana, G., & Ríos, M. (2025). What factors make a municipality more involved in meeting the Sustainable Development Goals ? Empirical evidence. *Environment, Development and Sustainability*, *27*(5), 10737–10760. https://doi.org/10.1007/s10668-023-04330-6

[5] Diah, E., & Arum, P. (2025). *Tax aggressiveness in the energy industry : insights of emerging countries*. *June*. https://doi.org/10.14419/2eq43940

[6] Dradra, Z. (2025). *Do energy transition and environmental taxation contribute to sustainable development ? Evidence from OECD countries*. *September*. https://doi.org/10.1108/AGJSR-05-2023-0195

[7] Dubinskii, & Oleg. (2024). 2. The-contribution-of-renewable-energy-sector-value-added-to-the-national-economic-development-in-Denmark-an-empirical-analysis.pdf. *Review of Economic Perspectives – Národohospodářský Obzor*, *24*(1), 37–56. https://doi.org/10.2478/revecp-2024-0003

[8] Gafsi, N., & Bakari, S. (2025). *Unveiling the Influence of Green Taxes , Renewable Energy Adoption , and Digitalization on Environmental Sustainability in G7 Countries*. *15*(3).

[9] Guan, X., & Hassan, A. (2025). *Investigating the Role of Environmental Taxes , Green Finance , Natural Resources , Human Capital , and Economic Growth on Environmental Pollution Using Panel Quantile Regression*. 1–20.

[10] Hakam, S. L., Rahayu, A., Wibowo, L. A., Hakam, L. I., Nugroho, M. A., & Fuadi, S. S. (2024). *Compliance Behavior in Environmental Tax Policy*.

[11] Hlastec, A., Mumel, D., & Hauptman, L. (2023). Is There a Relationship between Self-Enhancement, Conservation and Personal Tax Culture? *Sustainability (Switzerland)*, *15*(7). https://doi.org/10.3390/su15075797

[12] Karimu, A., & Bali, R. (2023). Implication of electricity taxes and levies on sustainable development goals in the

European Union. *Energy Policy*, *177*(March), 113553. https://doi.org/10.1016/j.enpol.2023.113553

[13] Kumar, R. R., & Stauvermann, P. J. (2024). *Environmental Injustice : The Effects of Environmental Taxes on Income Distribution in an Oligopolistic General Equilibrium Model*.

[14] Kwakwa, P. A. (2023). Research in Globalization Sectoral growth and carbon dioxide emission in Africa : can renewable energy mitigate the effect ? *Research in Globalization*, *6*(May), 100130. https://doi.org/10.1016/j.resglo.2023.100130

[15] Malerba, D., Gaentzsch, A., & Ward, H. (2021). Mitigating poverty : The patterns of multiple carbon tax and recycling regimes for Peru. *Energy Policy*, *149*(April 2020), 111961. https://doi.org/10.1016/j.enpol.2020.111961

[16] Musibau, H., Lola, K., Abdulrasheed, Z., & Adebayo, H. (2025). Poland ' s net-zero pathways : Moderating role of carbon tax and renewable energy on electricity generation through a novel multivariate quantile-on-quantile regression approach. *Journal of Environmental Management*, *380*(December 2024), 124848. https://doi.org/10.1016/j.jenvman.2025.124848

[17] Mustafa, F., Mordi, C., & Elamer, A. A. (2025). The role of foreign direct investment and environmental taxation in promoting renewable energy sustainability. *Journal of Cleaner Production*, *505*(April), 145515. https://doi.org/10.1016/j.jclepro.2025.145515

[18] Olivo-escudero, J. C., Hern, M., Vallejo-rivera, Y. L., Hip, P., & Rodríguez-g, M. A. (2025). *Towards fiscal sustainable practices in Mexico : The quality of municipal tax regulation and tiered tariffs improve income from solid waste management services*. *3*(February), 243–254. https://doi.org/10.1016/j.wmb.2025.01.009

[19] Osabohien, G., Adeleke, O. K., & Osabohien, R. (2024). Discover Sustainability Operational risk management , financial sector stability and sustainable development in West Africa. *Discover Sustainability*. https://doi.org/10.1007/s43621-024-00434-9

[20] Rossikhina, H., Kharkiv, V. N. K., Kobylnik, D., Mudryi, Y., Law, N., Rossikhin, V., National, K., Biriuk, D., & Rusnak, A. (2025). *MODELLING THE FINANCIAL SYSTEM EFFICIENCY UNDER DIGITAL TRANSFORMATION OF TAX POLICY : ECONOMIC PERSPECTIVE*. *1*(60). https://doi.org/10.55643/fcaptp.1.60.2025.4588

[21] Rutendo, M. (2025). *Inequality in low- and middle-income countries : Does fiscal policy matter ? Keyword s*. *12*(1), 1–15. https://doi.org/10.18488/29.v12i1.4027

[22] Sing, H. K., Sritharan, N., Lee, L., Ngui, H., Синг, Х. К., Сритхаран, Н., Ли, Л., & Нгуи, Х. (2025). *Impacts of Environmental Taxes on Sustainable Development Goals : Balancing Environment and Equity Влияние экологических налогов на цели в области устойчивого развития : баланс между охраной окружающей среды и справедливостью*. *11*(1), 175–199.

[23] Sulistiyanti, U. (2023). *Jurnal Akuntansi dan Auditing Indonesia Carbon tax : A bibliometric analysis for future research in Indonesia*. *27*(2), 0–9.

[24] Xiao, Y., Wang, R., Wang, F., Huang, H., & Wang, J. (2022). Investigation on spatial and temporal variation of coupling coordination between socioeconomic and ecological environment : A case study of the Loess Plateau , China. *Ecological Indicators*, *136*, 108667. https://doi.org/10.1016/j.ecolind.2022.108667

[25] Yuan, Y., & Li, D. (2023). *Urban Economic Efficiency , Environmental Factors , and Digital Finance : Impacts on Sustainable Development in Chinese Cities*.