JURNAL RISET ILMU EKONOMI
www.jrie.feb.unpas.ac.id
ISSN 2776-4567

The Impact of Fintech, Sustainability Banking, and Natural Resources on Environmental Sustainability

Yasir Maulana[1]*, Nugraha[1], Disman[1], Maya Sari[1], Nurul Siti Jahidah[2]

Afiliation Universitas Pendidikan Indonesia[1]
Universitas Kuningan[2]
Email yasir@upi.edu*
DOI https://doi.org/10.23969/jrie.v5i1.261
Citation Maulana, Y., Nugraha, N., Disman, D., Sari, M., & Jahidah, N. S. (2025). The Impact of Fintech, Sustainability Banking, and Natural Resources on Environmental Sustainability. Jurnal Riset Ilmu Ekonomi, 5(1), 51–62. https://doi.org/10.23969/jrie.v5i1.261

ABSTRACT

This study aims to analyze the role of FinTech, sustainable banking, and natural resource revenues collectively influencing environmental outcomes in the ASEAN Plus Three region is still scarce. This study uses panel data regression analysis covering nine ASEAN Plus Three countries over the period 2017 to 2021. The findings provide evidence of the significant influence of FinTech, Sustainable Banking, and natural resource revenues derived from sustainable environmental development activities in Plus Three economies. FinTech has a very negative effect on environmental outcomes. In contrast, sustainable banking does not show a statistically significant effect. Natural resource revenues are positively related to environmental degradation. These results highlight the importance of implementing low-carbon technologies to meet carbon neutrality targets in ASEAN Plus Three countries. The findings offer empirical insights for policymakers to prioritize green technologies, reassess fintech's environmental footprint, and strengthen the sustainable banking framework.

Keywords: Financial Technology, Sustainable Banking, Natural Resources, Environmental Sustainability, ASEAN+3

JEL Classification: E44, G21, G53, O13, O44

INTRODUCTION

In recent decades, awareness of the significance of environmental sustainability has increased significantly worldwide. Issues of environmental degradation, climate change, and unsustainable natural resource utilization have become major concerns for many countries, companies, and the global community. The issues associated with environmental challenges lead to emerging financial and technological trends. In this regard, fintech has emerged as an alternative that aims to harmonize economic development and environmental sustainability, including ESG (Environmental, Social, Governance) (Zhang et al., 2024; Zhu et al., 2024; Arraniri et al., 2024).

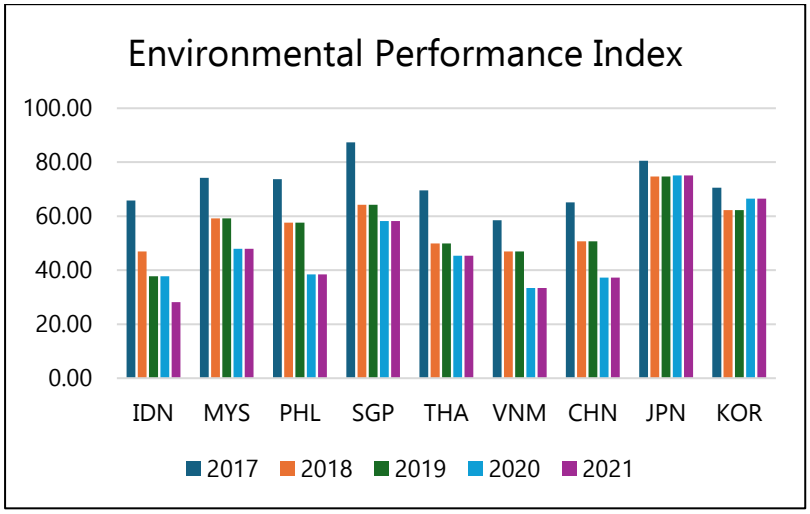

Figure 1. Environmental Performance Index ASEAN Plus Three
Source: Yale University EPI Report

The Environmental Performance Index (EPI) graph above reveals a concerning trend: a decline in EPI scores for several countries between 2017 and 2021. While some nations have shown improvement or stability, the overall downward trend indicates a setback in environmental sustainability efforts in many regions. A decreasing EPI score can signal deteriorating environmental quality, ineffective environmental policy implementation, or growing environmental pressures. Several countries experiencing significant EPI score declines need to thoroughly evaluate their environmental policies and practices to identify the root causes of these declines and develop more effective strategies to address environmental challenges. Overall, the declining EPI scores serve as a warning that should not be ignored. Environmental conservation must be a top priority for all nations, given the increasing threats posed by climate change and environmental degradation to human life.

At the same time, the emergence of financial technology (fintech) and sustainability banking practices has opened up new opportunities to support the environmental sustainability agenda. With its innovations, Fintech has the potential to transform traditional ways of interacting with the financial sector, including supporting green initiatives and socially responsible investment (Pu et al., 2024).

On the other hand, sustainability banking has emerged as a response from financial institutions to the demand to integrate aspects of sustainability in their operations. Through responsible investment, better risk management, and support for projects that support environmental sustainability, sustainable banking aims to positively contribute to the environment while ensuring financial stability (Habib et al., 2024).

In addition, natural resources remain a key pillar in economic development, especially in developing countries. However, uncontrolled exploitation can cause severe environmental damage, which threatens the sustainability of ecosystems and people's quality of life. Therefore, wise and sustainable natural resource management is imperative in preserving economic growth and environmental preservation in equilibrium.

Theoretical support is needed to explain the mechanisms by which fintech development may impact environmental degradation, such as through energy consumption or digital infrastructure expansion.

The research reveals a substantial adverse influence of financial technology in addressing climate change and promoting environmental sustainability, which is accompanied by a negligible effect of the financial sector on these issues (Pu et al., 2024; Fan et al., 2024; Zhe et al., 2024) also in sustainability banking (Carnevale & Drago, 2024). In the other hand FinTech significantly impacts environment sustainable development, thus contributing to alleviating resource constraints (Yu & Li, 2024; Mertzanis, 2023; Puschmann et al., 2020). Considering the potential ambiguous (both adverse and beneficial) environmental impacts of the fintech and banking industry and natural resources are motivated to investigate the following study issues.

1) How does fintech development affect environmental sustainability?
2) How does sustainable banking contribute to environmental conservation?
3) How does natural resource management affect environmental sustainability?

This research aims to explore how fintech, sustainable banking, and natural resource management can contribute to environmental sustainability. Through comprehending the interplay of these three components, it is anticipated that valuable approaches may be identified to promote practices that support environmental sustainability in various sectors. This research will also examine the challenges and opportunities faced in integrating fintech and sustainable banking with environmental conservation goals, as well as how natural resources can be managed more wisely to support sustainability in the future.

Financial technology (fintech) is the application of technology to improve and simplify financial services. Advancements in financial technology, including blockchain, big data, and artificial intelligence (AI), and mobile applications, have the potential to impact environmental sustainability in several ways. For instance, fintech can facilitate green financing by supporting crowdfunding and peer-to-peer lending platforms that enable direct investment in eco-friendly projects. Additionally, technologies like

blockchain can improve transparency in sustainability reporting and supply chain tracking, thereby aiding in the identification and mitigation of environmental impacts. Furthermore, AI and big data can be leveraged to maximize the use of energy, reduce carbon footprints, and encourage the adoption of sources of renewable energy (Zhu et al., 2024).

Sustainable banking emphasizes the incorporation of sustainability principles into a bank's operations and investment strategies. Central to this approach are several key principles. Firstly, responsible investment is a cornerstone, with sustainable banks focusing on projects that generate positive environmental and social impacts (Habib et al., 2024). Additionally, risk management practices are crucial; these banks integrate environmental risks into their credit and investment evaluations to minimize exposure to the adverse effects of climate change and environmental degradation. Finally, sustainable banks are supportive of green projects, often providing financial backing for initiatives designed to reduce greenhouse gas emissions and enhance resource efficiency (Carnevale & Drago, 2024; Ielasi et al., 2023).

The implementation of methods and activities with the goal of effectively and sustainability exploiting and preserving natural resources. Key aspects of this approach include sustainable practices, which emphasize maintaining the quality and quantity of resources for future generations and preventing overexploitation (Tiwari et al., 2024). Environmental restoration is another crucial component, involving projects designed to rehabilitate damaged ecosystems and enhance overall environmental health. Additionally, effective regulation and policy are essential to ensure that resource management practices align with environmental sustainability goals and adhere to international environmental standards (Yu & Li, 2024).

Environmental sustainability is the vigilant involvement in order to prevent the loss or deterioration of natural resources in the environment and guarantee the conservation of environmental quality in the long run (Tiwari & Si Mohammed, 2024). This concept emphasizes the need for balance between fulfilling present needs and ensuring that natural resources are available for future generations. The significance of environmental sustainability has grown in response to increasing concerns about climate change, resource depletion, and the adverse impacts of industrialization on the environment.

Environmental sustainability involves several critical dimensions, including effective resource management, which focuses on conserving water, soil, and biodiversity while ensuring efficient use of energy and materials. Ecosystem preservation is essential, aiming to conserve wildlife habitats, engage in reforestation, and restore degraded ecosystems. Pollution control is crucial for safeguarding environmental and human health, necessitating reductions in emissions, effective waste management, and the promotion of clean energy. Addressing climate change is also fundamental, mandates measures to mitigate greenhouse gas emissions, shift towards renewable energy sources, and implement adaptation strategies/ policy makers decision (Tiwari & Si Mohammed, 2024; Tiwari et al., 2024). Despite these efforts, several challenges impede

progress. Economic growth often conflicts with environmental protection, leading to over-exploitation of resources and pollution. Population growth exacerbates environmental pressures through increased consumption and waste, underscoring the need for sustainable management practices. Additionally, while technology can enhance efficiency and reduce environmental impact, it can also contribute to degradation if not properly managed. Thus, the challenge is to promote sustainable technologies while mitigating their adverse effects.

One key aspect of this intersection is the role of green finance, which channels financial resources towards ecologically sustainable projects and activities (Nenavath & Mishra, 2023). Green finance has the ability to reshape financial systems by leveraging Fintech innovations, reducing technical complexities and barriers to sustainable lending and investment. Particularly important is this within the context of emerging nations, where the Green Climate Fund plays a crucial role in supporting sustainable finance initiatives (Rahman et al., 2022). Fintech innovations can enhance the efficiency and transparency of green finance. Digital finance platforms can accurately identify and direct capital towards environmentally conscious industries, enabling high quality, sustainable economic growth. Leveraging technologies like big data analytics, Fintech can provide financial institutions and regulators with enhanced monitoring and reporting capabilities regarding the environmental impact of their investments and lending activities (Rahman et al., 2022). Furthermore, the synergy between Fintech and conventional financial tools can give rise to innovative financial products and services that cater to the needs of environmentally conscious consumers and businesses, driving the widespread adoption of sustainable practices across the economy and catalyzing the transition towards a greener future (Bhattacharyya, 2022; Mejia-Escobar et al., 2020; Park & Kim, 2020)

An analysis of the influence of Fintech on sustainable development extends beyond just green finance. Digital financial services can also enhance access to capital for small and medium enterprises engaged in natural resource management, empowering them to adopt more sustainable practices and technologies (Nenavath & Mishra, 2023). This study uniquely integrates three dimensions—fintech, sustainability banking, and resource rent—within a regional ASEAN Plus Three context.

METHOD

The present work utilizes a quantitative methodology with panel data regression method. Panel data was chosen because it allows a more in-depth analysis by considering variations between individuals (cross-section) and time variations (time series). This study aims to assess the direction and magnitude of the influence of FinTech, sustainable banking, and natural resource rents on environmental sustainability.

Dependent Variable:

Environmental Performance Index (EPI): A proxy for environmental sustainability, measured through an index that combines various environmental indicators such as air quality, biodiversity, and natural resource use.

Independent Variable:

1) Fintech Index (FI): The FinTech Index is constructed using indicators from Xia (2024), Measures the level of adoption and development of financial technology in a country or company.
2) Sustainability Banking (SB): The sustainability banking is constructed using indicators from Habib (2024). Measures the level of sustainability in banking practices, including green policies and sustainable investments.
3) Natural Resources (NR): The Natural Resources is constructed using indicators from Yu (2024). Measures the availability and sustainable management of natural resources.

The research population is countries included in the ASEAN Plus Three or ASEAN countries along with China, Japan and Korea. The sample used is a country with the availability of EPI, FI, SB and NR data during the observation period, so the countries included in the sample are Indonesia, Malaysia, Philippines, Singapore, Thailand, Vietnam, China, Japan and Korea. This research uses secondary data that was gathered from many reliable sources, including company annual reports, financial institution publications, and international databases related to environmental sustainability indicators. EPI data as a proxy for Environmental Sustainability comes from the Yale University EPI Report, Fintech Index data comes from the World Bank, Sustainability Banking data comes from the Sustainability Banking World Wild Foundation (SUSBA WWF) and Natural Resources Rent data comes from the World Bank. The data used covers the time period 2017-2021 with a total of 45 panel observations comprising 9 cross-sections.

Panel data regression is the analytical approach employed in this work, which includes the examination of the FEM and the REM. Then, the Hausman Test is used to determine if the FEM is preferable to the REM, and the Chow Test is used to choose the best panel data regression model from the Pooled OLS model. Data diagnostic comprises of two main steps: firstly, a Multicollinearity Test is performed to verify the absence of significant linear correlations among independent variables; secondly, a Heteroscedasticity Test examines for uneven variance in the residuals of the model. To assess each independent's impact on the dependent variable, parameter estimation is conducted subsequent to model selection. Finally, the outcomes of the regression analysis are interpreted to understand the significance and direction of the relationships between Fintech, Sustainability Banking, and Natural Resources on Environmental Sustainability.

$$EPI_{it} = \beta_0 + \beta_1 FI_{it} + \beta_2 SB_{it} + \beta_3 NR_{it} + \varepsilon_{it} \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (1)$$

Where:

EPI : Environmental Sustainability (Environmental Performance Index)
FI : Fintech Index
SB : Sustainability Banking
NR : Natural Resources Rent
β0 is the intercept
β1, β2, and β3 are the coefficients for fintech, sustainability banking, and natural resources, respectively
ε is the error term
The hypotheses tested in this study are:
H1: Fintech has a considerable effect on environmental sustainability.
H2: Sustainability Banking has a considerable effect on environmental sustainability.
H3: Natural Resource Management has a considerable effect on environmental sustainability.

RESULT

To examine which model that fit to analyze. Chow Test and Hausman test are employed as shown below.

Table 1. Chow Test Result

Effects Test	Statistic	d.f.	Prob.
Cross-section F	19.128152	(8,33)	0.0000
Cross-section Chi-square	77.821860	8	0.0000

Considering quantitative analysis of probability cross-section Chi-square value is 0.0000, which is < 0.05, the Fixed Effect Model (FEM) model is selected.

Table 2. Hausman Test Result

Test Summary	Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
Cross-section random	29.658683	3	0.0000

Result of the Hausman test indicates the probability value. Cross-section randomization of 0.0000 <0.05 results in the selection of the FEM model. In light of the Chow and Hausman Test, the FEM is the appropriate model to be employed in the investigation. Since the FEM model is chosen, it is sufficient to test the Heteroscedasticity and Multicollinearity Tests.

Table 3. Multicollinearity Test Result

	FI	NR	SB
FI	1	-0.347847	0.446787
NR	-0.347847	1	-0.407816
SB	0.446787	-0.407816	1

Based on the correlation coefficient values of -0.347847 for FI and NR, 0.446787 for FI and SB, and -0.407816 for NR and SB, it can be inferred that there is no presence of multicollinearity.

Table 4. Heteroscedasticity Test Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.001043	0.017825	-0.058495	0.9537
FI	0.038944	0.027774	1.402170	0.1702
SB	-0.002385	0.017461	-0.136594	0.8922
NR	-0.045655	0.024770	-1.843178	0.0743

All variables, namely FI, SB and NF, have a prob.-value > 0.05, Hence, it may be inferred that there are no indications of Heteroscedasticity.

Table 5. Data Panel Regression Result

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	1.949954	0.037770	51.62657	0.0000
FI	-0.565942	0.058852	-9.616366	0.0000
SB	-0.031862	0.037000	-0.861123	0.3954
NR	0.089992	0.052487	1.714554	0.0958

The variable coefficient value for the Fintech Index (FI) is -0.565942, Given a t-statistic of -9.616366 and a p-value of 0.0000, the statistical significance is established. The calculated t-statistic value of -9.616366 indicates a statistically significant relationship between the FI variable and the dependent variable. Since the p-value is significantly below 0.05 (and even above 0.01), we may deduce that the influence of FI on the dependent variable is statistically significant at a significance level of 1%. A coefficient of -0.565942 indicates that the factor FI has a negative influence on the dependent variable. This implies that any increase in FI would result in a proportional drop in the value of the dependent variable.

A t-statistic of -0.861123 and a probability (p-value) of around 0.3954 indicate that the variable coefficient for Sustainability Banking (SB) is -0.031862. The statistical importance of the SB variable is demonstrated by the t-statistic value of -0.861123 and p-value of 0.3954, both of which above the significance level of 0.05. Furthermore, it should be noted that SB does not exert any substantial influence on the dependent variable in our model. Given the negative coefficient of -0.031862, it can be inferred that even if SB has an impact, the impact will be negative. However, that effect is not statistically significant in this particular scenario.

The variable coefficient for Natural Resources (NR) is 0.089992, the t-statistic is 1.714554, and the statistical significance (p-value) is 0.0958. The calculated t-statistic magnitude of 1.714554 and the NR variable has a modest impact on the dependent variable, according to the corresponding p-value of 0.0958. Based on statistical analysis, the reported impact is significant at a 10% significance level, but lacks statistical significance at just the 5% level. Given a coefficient of 0.089992, the positive

correlation between NR and the dependent variable indicates that any upward movement in NR will lead to a corresponding increase in the value of the dependent variable. Nevertheless, it is necessary to more thoroughly examine this influence as its significance is minimal.

Statistically substantial negative influence of the Fintech Index (FI) on the dependent variable can be deduced from the regression analyses. These findings suggest that an increase in FI is linked to a decline in the dependent variable's value. Consequently, there is no statistically significant relationship between the variable SB (Sustainability Banking) and the dependent variable. not at the 5% level but statistically significant at the 10% level, there is a modest positive effect of Natural Resources (NR) on the dependent variable.

DISCUSSION

The regression coefficient for the Fintech Index (FI) the coefficient for the variable is -0.565942, meaning that a one unit increase in the Fintech Index will result in a decrease of 0.565942 units in the value of the variable that is dependant. A p-value of 0.0000 and a t-statistic value of -9.616366 demonstrate the statistical significance of the result. These findings suggest that the impact of FI on the dependent variable is both negative and statistically significant at the 1% level of significance.

This finding can be interpreted that an increase in the Fintech Index, which may reflect progress or change in the digital finance industry, suppresses the dependent variable. For example, if the dependent variable is the level of use of traditional financial services, an increase in the Fintech Index might decrease the use of such services. Conversely, if the context is environmental sustainability, this result could suggest that an increase in fintech activity may have a negative impact on the environment, perhaps due to increased consumption of energy or other resources associated with digital activity. FinTech may have adverse effects on sustainability due to energy-intensive digital infrastructures, particularly in fast-growing economies.

The Sustainability Banking (SB) variable shows a coefficient of -0.031862, but this result is not statistically significant (t-statistic -0.861123, p-value 0.3954). This indicates that SB does not significantly influence the dependent variable in this model.

The insignificance of the SB variable may indicate that sustainability efforts or practices in banking may not be solid or widespread enough to significantly influence the dependent variable. This could be due to various factors, such as insufficient adoption of sustainability practices in the banking industry, or perhaps because the measurement of banking sustainability used in this study is not representative enough of its impact on the dependent variable.

The Natural Resources (NR) variable has a positive coefficient of 0.089992, with a t-statistic of 1.714554 and a p-value of 0.0958. These results indicate that NR positively

influences the dependent variable, although the significance is weak, only at the 10% significance level.

This positive effect can be interpreted that improvements in natural resource management or availability tend to increase the value of the dependent variable. In an environmental context, for example, this may suggest that better natural resource management can contribute positively to environmental sustainability. However, as the significance is weak, this result should be interpreted cautiously, and further research may be needed to confirm this finding.

CONCLUSION

Conclusions of this investigation demonstrate that the Fintech Index exerts a substantial adverse impact on the dependent variable, suggesting that higher FI values are associated with a subsequent decline in the dependent variable. Conversely, Sustainability Banking does not exert a large effect on the dependent variable, indicating that its present efforts may not have a meaningful influence on results. A little positive impact of Natural Resources on the dependent variable is observed, significant statistically at the 10% level but not at the 5% level. This study contributes empirical insights on the environmental effects of FinTech and sustainability banking in ASEAN Plus Three countriesThese findings imply that regulators and stakeholders in the fintech industry should be aware of the potential negative consequences of fintech developments. Additionally, banks with a focus on sustainability may need to enhance their efforts to achieve a more significant impact. The positive effect of natural resources management highlights its importance, although further research is needed to strengthen this observation. Overall, these results offer valuable insights regarding the variables influencing the dependent variable and can guide the formulation of more effective policies and strategies in the future such as Policymakers should encourage green digital finance, increase regulatory oversight on sustainability banking, and adopt better governance in resource management.

REFFERENCE

Arraniri, I., Maulana, Y., Komarudin, M. N., & Gunawan, W. H. (2024). THE INFLUENCE OF FINANCIAL PERFORMANCE ON STOCK RETURNS WITH ESG AS AN INTERVENING VARIABLE. *International Journal of Economics, Business and Accounting Research (IJEBAR)*, *8*(2), 582–594.

Bhattacharyya, R. (2022). Green finance for energy transition, climate action and sustainable development: overview of concepts, applications, implementation and challenges. *Green Finance*, *4*(1), 1–35. https://doi.org/10.3934/GF.2022001

Carnevale, C., & Drago, D. (2024). Do banks price ESG risks? A critical review of empirical research. *Research in International Business and Finance*, *69*(April 2023), 102227. https://doi.org/10.1016/j.ribaf.2024.102227

Fan, M., Zhou, Y., Lu, Z., & Gao, S. (2024). Fintech's impact on green productivity in China: Role of fossil fuel energy structure, environmental regulations, government expenditure, and R&D investment. *Resources Policy*, *91*(October 2023), 104857. https://doi.org/10.1016/j.resourpol.2024.104857

Habib, A., Khan, M. A., Haddad, H., & Al-Ramahi, N. M. (2024). Does sustainable banking facilitate reducing the SDG-10 in weak rule of law setting? *Heliyon*, *10*(2), e24128. https://doi.org/10.1016/j.heliyon.2024.e24128

Ielasi, F., Bellucci, M., Biggeri, M., & Ferrone, L. (2023). Measuring banks' sustainability performances: The BESGI score. *Environmental Impact Assessment Review*, *102*(January), 107216. https://doi.org/10.1016/j.eiar.2023.107216

Mejia-Escobar, J. C., González-Ruiz, J. D., & Duque-Grisales, E. (2020). Sustainable financial products in the Latin America banking industry: Current status and insights. *Sustainability (Switzerland)*, *12*(14). https://doi.org/10.3390/su12145648

Mertzanis, C. (2023). FinTech finance and social-environmental performance around the world. *Finance Research Letters*, *56*(May), 104107. https://doi.org/10.1016/j.frl.2023.104107

Nenavath, S., & Mishra, S. (2023). Impact of green finance and fintech on sustainable economic growth: Empirical evidence from India. *Heliyon*, *9*(5). https://doi.org/10.1016/j.heliyon.2023.e16301

Park, H., & Kim, J. D. (2020). Transition towards green banking: role of financial regulators and financial institutions. *Asian Journal of Sustainability and Social Responsibility*, *5*(1). https://doi.org/10.1186/s41180-020-00034-3

Pu, G., Wong, W. K., Du, Q., Al Shraah, A., Alromaihi, A., & Muda, I. (2024). Asymmetric impact of natural resources, fintech, and digital banking on climate change and environmental sustainability in BRICS countries. *Resources Policy*, *91*(October 2023), 104872. https://doi.org/10.1016/j.resourpol.2024.104872

Puschmann, T., Hoffmann, C. H., & Khmarskyi, V. (2020). How green fintech can alleviate the impact of climate change—The case of Switzerland. *Sustainability (Switzerland)*, *12*(24), 1–28. https://doi.org/10.3390/su122410691

Rahman, S., Moral, I. H., Hassan, M., Hossain, G. S., & Perveen, R. (2022). A systematic review of green finance in the banking industry: perspectives from a developing country. *Green Finance*, *4*(3), 347–363. https://doi.org/10.3934/GF.2022017

Tiwari, S., Mentel, G., Si Mohammed, K., Rehman, M. Z., & Lewandowska, A. (2024). Unveiling the role of natural resources, energy transition and environmental policy stringency for sustainable environmental development: Evidence from BRIC +1. *Resources Policy*, *96*(May), 105204. https://doi.org/10.1016/j.resourpol.2024.105204

Tiwari, S., & Si Mohammed, K. (2024). Unraveling the impacts of linear economy, circular economy, green energy and green patents on environmental sustainability: Empirical evidence from OECD countries. *Gondwana Research*, *135*, 75–88. https://doi.org/10.1016/j.gr.2024.07.018

Xia, A., & Liu, Q. (2024). Modelling the asymmetric impact of fintech, natural resources, and environmental regulations on ecological footprint in G7 countries. *Resources Policy*, *89*(July 2023), 104552. https://doi.org/10.1016/j.resourpol.2023.104552

Yu, R., & Li, J. (2024). Does fintech influence sustainable development under natural resource constraints: insights from 270 Chinese cities. *Resources Policy*, *91*(September 2023), 104924. https://doi.org/10.1016/j.resourpol.2024.104924

Zhang, Y., Zheng, K., Xia, F., & Cheng, Z. (2024). Fintech, natural resource rents, renewable energy consumption and environmental quality: A perspective of green economic recovery from BRICS economies. *Resources Policy*, *89*(October 2023), 104604. https://doi.org/10.1016/j.resourpol.2023.104604

Zhe, D., Su, N., Zhu, X., Mahmoud, H. A., & Akhtar, T. (2024). Non-linear relationship between FinTech, natural resources, green innovation and environmental sustainability: Evidence from panel smooth transition regression model. *Resources Policy*, *91*(November 2023), 104902. https://doi.org/10.1016/j.resourpol.2024.104902

Zhu, Y., Lin, Y., Tan, Y., Liu, B., & Wang, H. (2024). The potential nexus between fintech and energy consumption: A new perspective on natural resource consumption. *Resources Policy*, *89*(August 2023), 104589. https://doi.org/10.1016/j.resourpol.2023.104589