Nomico Journal
E-ISSN : 3046-6318
https://nawalaeducation.com/index.php/NJ/index
Vol.2.No 12 January 2026

The Potential of the Green Token Economy in Promoting Sustainable Investment in Indonesia

Kamaluddin
Universitas Kapuas

Email: kamaludinn78@gmail.com

Entered : 21 January 2026
Accepted: 28 January 2026
Revised : 27 January 2026
Published : 29 January 2026

ABSTRACT

The transition toward sustainable development has intensified the demand for innovative green financing instruments capable of mobilizing investment while ensuring transparency and accountability. In this context, the green token economy has emerged as a digital finance innovation enabled by blockchain technology, offering new opportunities for sustainable investment. This study examines the potential of the green token economy in promoting sustainable investment in Indonesia through a qualitative descriptive–analytical approach with a normative–policy perspective. The analysis is based on regulatory documents, policy frameworks, and academic literature on sustainable finance, blockchain, and digital assets. The findings indicate that green tokens possess significant potential to enhance inclusivity, traceability, and efficiency in financing renewable energy and environmentally sustainable projects. By tokenizing green assets, this model enables broader investor participation and improves transparency in the allocation and monitoring of funds. However, the study also reveals substantial normative and policy challenges, including regulatory fragmentation, legal uncertainty, risks of greenwashing, and insufficient investor protection mechanisms. These constraints limit the institutional legitimacy and scalability of green tokens within Indonesia's financial system. The study concludes that the green token economy can contribute meaningfully to sustainable investment only if supported by an integrated and adaptive regulatory framework. Aligning digital asset regulation with sustainable finance principles and environmental governance is essential to ensure that green tokens function as credible instruments for long-term sustainable development rather than speculative digital assets.

Keywords: *blockchain finance, green token economy, sustainable investment, sustainable finance.*

INTRODUCTION

The global transition toward a sustainable economy has intensified the demand for innovative financing mechanisms capable of supporting environmentally responsible development. As countries seek to balance economic growth with environmental protection, sustainable finance has emerged as a central policy instrument for mobilizing capital toward renewable energy, climate mitigation, and sustainable infrastructure. However, despite the growing prominence of green finance, many developing economies continue to face structural constraints in attracting and allocating sustainable investment in an efficient, inclusive, and transparent manner (Fu et al., 2023; Vergara & Agudo, 2021).

Indonesia represents a salient case within this global context. As an emerging economy with abundant natural resources and ambitious climate commitments, Indonesia requires substantial long-term investment to support its energy transition and green development agenda. Nevertheless, the mobilization of green investment remains

limited by structural challenges, including restricted access to sustainable financial instruments, concentration of investment among institutional actors, and persistent concerns regarding governance and transparency. Conventional green finance instruments, such as green bonds and ESG-oriented funds, have contributed to sustainable investment flows but remain largely inaccessible to retail investors and local communities, thereby constraining broader public participation in the green economy (Ronaldo & Suryanto, 2022; Lestari & Pambekti, 2025).

In parallel with these challenges, the rapid development of digital technologies has reshaped financial systems worldwide. Blockchain technology, in particular, has introduced new possibilities for decentralization, transparency, and trust in financial transactions. Within this technological landscape, the concept of a green token economy has emerged as a novel digital financing mechanism that combines tokenization with sustainability objectives. Green tokens are commonly conceptualized as blockchain-based digital assets that represent economic value linked to environmentally sustainable projects or outcomes, offering a potential alternative to conventional green finance instruments (Li et al., 2023; Boumaiza, 2025).

The emergence of green tokens has sparked growing interest in their capacity to enhance transparency, traceability, and accountability in sustainable investment. By leveraging distributed ledger technology, green token systems can enable real-time tracking of fund allocation and environmental performance, thereby addressing persistent concerns over greenwashing and information asymmetry in green finance markets. From a normative perspective, these features position green tokens as potentially transformative instruments that could align financial incentives with measurable sustainability outcomes (Udeh et al., 2024; Pramudya et al., 2024).

Despite this potential, the development of green token economies raises significant normative and policy challenges, particularly in jurisdictions where regulatory frameworks for digital assets and sustainable finance remain fragmented. In Indonesia, green tokens currently lack a clear legal status within the financial and investment system. Existing regulations on digital assets, financial technology, and sustainable finance operate in parallel rather than as an integrated framework, creating uncertainty regarding investor protection, project legitimacy, and regulatory oversight. This regulatory ambiguity poses risks of speculation, market volatility, and greenwashing, which may undermine the credibility of green tokens as instruments of sustainable investment (Magda et al., 2025; Kayani & Hasan, 2024).

From an academic standpoint, existing literature on green finance and blockchain-based finance has largely developed along separate trajectories. Studies on sustainable finance tend to focus on institutional instruments, policy frameworks, and environmental outcomes, while blockchain research emphasizes technological efficiency, decentralization, and innovation in financial markets. Only a limited number of studies have attempted to integrate these perspectives to assess the normative and policy implications of blockchain-based green finance instruments, particularly in developing country contexts (Fu et al., 2023; Namoniuk & Matei, 2025).

This separation reveals a clear research gap. There remains a lack of normative–policy analysis that systematically evaluates the potential of the green token economy as an instrument for promoting sustainable investment in Indonesia. Existing studies have

yet to adequately examine how green tokens might interact with national sustainable finance policies, regulatory frameworks, and development priorities, as well as the risks and limitations associated with their implementation in a complex regulatory environment.

Accordingly, this study seeks to address these gaps by analyzing the green token economy through a qualitative descriptive–analytical approach with a normative–policy perspective. The study aims to examine the conceptual foundations of the green token economy, assess its potential contribution to sustainable investment in Indonesia, and evaluate the readiness of Indonesia's regulatory and policy framework to accommodate such innovation. By integrating insights from digital finance, sustainable investment, and policy analysis, this research contributes to both academic discourse and policy development by offering a critical and contextualized assessment of green tokens as an emerging instrument of sustainable finance.

METHODS

This study employs a qualitative descriptive–analytical approach with a normative–policy perspective to examine the potential of the green token economy in promoting sustainable investment in Indonesia. A qualitative approach is appropriate because the research does not seek to measure financial performance quantitatively, but to analyze concepts, regulatory structures, and policy orientations related to green tokens as emerging instruments of sustainable finance. Qualitative descriptive analysis is widely used to explore complex social and policy phenomena that require interpretative understanding rather than numerical measurement (Sugiyono, 2019; Creswell & Poth, 2018).

The study relies exclusively on secondary data, including national regulations concerning finance, investment, digital assets, and sustainable finance; government policy documents on green economy development and energy transition; and academic literature and international reports addressing green finance, blockchain technology, and asset tokenization. Doctrinal perspectives and expert analyses in the fields of financial law, digital economics, and sustainable investment are also incorporated to strengthen the normative foundation of the analysis. Data were collected through a systematic literature and document review based on relevance to the research objectives and the Indonesian policy context (Sugiyono, 2019).

Data analysis was conducted through three interconnected stages. First, descriptive analysis was used to map the conceptual characteristics and operational mechanisms of the green token economy within the sustainable investment framework. Second, normative analysis was applied to evaluate the consistency of green token practices with key principles of sustainable finance, including transparency, accountability, and investor protection. Third, policy analysis was employed to identify regulatory opportunities and constraints in Indonesia by examining legal coherence, institutional readiness, and policy alignment. The validity of the analysis was ensured through logical consistency of arguments, traceability of normative and policy sources, and coherence between research objectives, methodology, and analytical conclusions.

RESULTS AND DISCUSSION

Conceptualizing the Green Token Economy within the Framework of Sustainable Investment

The green token economy represents a conceptual convergence between digital finance innovation and the normative agenda of sustainable investment. At its core, green tokens can be understood as blockchain-based digital representations of economic value that are explicitly linked to environmentally sustainable activities, such as renewable energy generation, carbon reduction initiatives, or green infrastructure projects. Unlike conventional financial assets, green tokens embed sustainability claims directly into their digital architecture, thereby positioning environmental performance as an integral component of financial value creation rather than a secondary or symbolic attribute (Li et al., 2023; Boumaiza, 2025).

From a conceptual standpoint, the green token economy extends the logic of green finance beyond traditional instruments such as green bonds and ESG-linked funds. While these instruments rely heavily on centralized intermediaries, ex post reporting, and institutional verification, green tokens leverage blockchain technology to enable decentralized verification, real-time traceability, and programmable compliance through smart contracts. This shift is significant because it alters the epistemic basis of trust in sustainable investment, moving from institutional reputation toward technological verification and transparent data flows (Udeh et al., 2024; Pramudya et al., 2024).

In the framework of sustainable investment, trust and transparency are critical normative requirements. One of the persistent critiques of green finance is the prevalence of greenwashing, where financial products are labeled as "green" without delivering substantive environmental benefits. Green tokens conceptually address this challenge by enabling traceability of funds and linking token value to measurable sustainability indicators. Blockchain-based systems allow investors and regulators to monitor whether funds are allocated to designated green projects and whether those projects meet predefined environmental criteria, thereby strengthening accountability mechanisms within sustainable finance ecosystems (Li et al., 2023; Li, Lau, & Yahya, 2025).

However, the conceptual promise of the green token economy must be carefully situated within the broader normative principles of sustainable finance. Sustainable investment is not solely concerned with technological efficiency or financial innovation, but with long-term value creation, environmental integrity, and social responsibility. From this perspective, green tokens should not be conceptualized merely as digital commodities or speculative crypto-assets, but as financial instruments whose legitimacy derives from their alignment with sustainability objectives and governance standards (Fu et al., 2023; Vergara & Agudo, 2021).

The tokenization of green assets introduces both opportunities and risks within sustainable investment frameworks. On the one hand, tokenization enables fractional ownership and lowers entry barriers, potentially democratizing access to green investment opportunities. On the other hand, without robust normative anchoring, tokenization risks accelerating the financialization of environmental assets, whereby ecological value is reduced to tradable digital units detached from real environmental outcomes. This tension highlights the importance of embedding green tokens within clearly defined sustainability taxonomies and verification standards to prevent the dilution of environmental objectives (Namoniuk & Matei, 2025).

Conceptually, the green token economy also reshapes the relationship between investors, project developers, and regulators. Blockchain-based transparency reduces information asymmetry, but it does not eliminate the need for normative oversight.

Sustainability claims embedded in tokens still require authoritative standards to define what qualifies as "green," how environmental impacts are measured, and who bears responsibility for verification failures. Without such standards, technological transparency alone cannot guarantee substantive sustainability (Nagesh & Murugan, 2025; Simanungkalit et al., 2025).

In the Indonesian context, this conceptual issue becomes particularly salient. Indonesia's sustainable finance agenda is guided by national taxonomies, climate commitments, and development priorities that emphasize environmental protection alongside economic growth. For green tokens to function as legitimate instruments of sustainable investment, they must be conceptually aligned with these national frameworks rather than operating as parallel or speculative digital instruments. This alignment requires that green tokens be embedded within existing sustainable finance principles, such as environmental additionality, long-term impact orientation, and regulatory accountability (Ronaldo & Suryanto, 2022; Novianto et al., 2025).

Therefore, the green token economy should be conceptualized not simply as a technological innovation, but as a hybrid financial governance model that integrates digital infrastructure with normative commitments to sustainability. Its conceptual validity as an instrument of sustainable investment depends on whether it can reconcile technological efficiency with environmental integrity and public accountability. Without such reconciliation, green tokens risk reproducing the shortcomings of conventional green finance in digital form rather than advancing genuinely sustainable investment practices**.**

The Potential of the Green Token Economy in Promoting Sustainable Investment in Indonesia

The potential of the green token economy to promote sustainable investment in Indonesia must be assessed within the country's structural, institutional, and policy-specific context. Indonesia faces a persistent financing gap in its transition toward a green economy, particularly in renewable energy, environmental protection, and sustainable infrastructure. Although the government has introduced various sustainable finance initiatives, including green bonds and sustainable finance taxonomies, access to these instruments remains largely concentrated among institutional investors and large corporations. This concentration limits broader participation and constrains the mobilization of domestic capital for sustainability-oriented projects (Ronaldo & Suryanto, 2022; Lestari & Pambekti, 2025).

Within this context, the green token economy offers a potentially transformative mechanism by lowering entry barriers and expanding participation in sustainable investment. Through tokenization, green projects can be divided into fractional units, enabling retail investors, local communities, and small-scale participants to engage in green investment activities. This inclusivity aligns with Indonesia's broader development objectives, which emphasize financial inclusion and community participation as integral components of sustainable development. By enabling broader access to green investment, green tokens may contribute to diversifying the investor base and reducing dependence on limited institutional funding sources (Idris & Yunanto, 2025; Bandari et al., 2025).

Blockchain technology further enhances this potential by improving transparency and traceability in investment flows. One of the major challenges in Indonesia's green finance ecosystem is investor skepticism regarding the actual environmental impact of funded projects. Blockchain-based green tokens can address this concern by providing immutable records of fund allocation and project performance, thereby reducing information asymmetry and enhancing investor confidence. Transparent tracking mechanisms may also strengthen accountability among project developers, encouraging compliance with sustainability commitments and reducing the risk of greenwashing (Udeh et al., 2024; Li, Lau, & Yahya, 2025).

Green tokens also hold potential as complementary instruments within Indonesia's existing sustainable finance architecture. Rather than replacing green bonds or ESG-based financing, green tokens could function as hybrid or auxiliary instruments that enhance flexibility and scalability. For example, tokenized renewable energy certificates or blockchain-based representations of green bond assets could be integrated into national sustainable finance taxonomies, thereby reinforcing regulatory coherence and policy legitimacy. Such integration would allow green tokens to operate within established policy frameworks while leveraging digital innovation to improve efficiency and transparency (Novianto et al., 2025; Pramudya et al., 2024).

However, the potential of the green token economy should not be overstated without careful consideration of its limitations. The effectiveness of green tokens in promoting sustainable investment depends on their ability to generate real environmental impact rather than speculative financial activity. Without clear sustainability standards and verification mechanisms, green tokens risk being absorbed into broader crypto-asset markets, where short-term price volatility and speculative behavior may undermine long-term sustainability objectives. This risk is particularly salient in emerging markets, where regulatory capacity and investor literacy may vary significantly (Kayani & Hasan, 2024; Nagesh & Murugan, 2025). The table below summarizes the key dimensions of potential contributions offered by the green token economy to sustainable investment in Indonesia, alongside associated policy considerations.

Table 1. Potential Contributions of the Green Token Economy to Sustainable Investment in Indonesia

Dimension	Potential Contribution	Policy Implication
Investment Accessibility	Lower entry barriers through fractional ownership	Expansion of retail and community participation
Transparency	Blockchain-based traceability of fund allocation	Strengthened investor trust and accountability
Financing Efficiency	Reduced intermediaries and transaction costs	Improved capital mobilization for green projects

Environmental Accountability	Linkage between tokens and sustainability indicators	Mitigation of greenwashing risks
System Integration	Compatibility with existing sustainable finance instruments	Need for regulatory harmonization

The analytical value of this table lies in highlighting that the potential of green tokens is conditional rather than automatic. Each potential contribution is closely tied to policy choices and regulatory design. Accessibility without adequate investor protection may increase exposure to financial risk, while transparency without standardized sustainability metrics may fail to ensure genuine environmental outcomes. Therefore, the green token economy's capacity to promote sustainable investment in Indonesia is fundamentally dependent on the alignment between technological innovation and normative policy frameworks (Fu et al., 2023; Vergara & Agudo, 2021).

In sum, the green token economy offers meaningful opportunities to enhance inclusivity, transparency, and efficiency in Indonesia's sustainable investment landscape. Yet, these opportunities can only be realized if green tokens are embedded within coherent policy frameworks that prioritize environmental integrity, investor protection, and long-term development objectives. Without such embedding, green tokens risk reproducing existing weaknesses of sustainable finance in digital form rather than contributing to a more robust and equitable green investment ecosystem.

Normative and Policy Challenges in Developing the Green Token Economy in Indonesia

Despite its conceptual promise and potential contribution to sustainable investment, the development of a green token economy in Indonesia faces substantial normative and policy challenges. One of the most fundamental challenges lies in the absence of a clear and coherent regulatory framework that explicitly recognizes green tokens as legitimate instruments within the national financial and investment system. Current regulations governing digital assets, financial technology, and sustainable finance operate in parallel rather than in an integrated manner, creating legal uncertainty for investors, project developers, and regulators alike (Magda et al., 2025; Kayani & Hasan, 2024).

This regulatory fragmentation raises critical concerns regarding legal certainty and investor protection. From a normative perspective, sustainable investment requires not only environmental alignment but also predictable and enforceable governance structures. Without explicit legal recognition, green tokens risk being treated either as speculative crypto-assets or as unregulated financial products, both of which undermine their legitimacy as instruments of sustainable finance. This ambiguity may discourage long-term investors and expose retail participants to heightened risks, contradicting the foundational principles of sustainable finance that emphasize stability, transparency, and accountability (Fu et al., 2023; Nagesh & Murugan, 2025).

Another major challenge concerns the risk of greenwashing in tokenized investment environments. While blockchain technology offers enhanced transparency and traceability, technological solutions alone cannot guarantee substantive

environmental integrity. Green tokens derive their legitimacy from the credibility of sustainability claims attached to them, which in turn depend on standardized definitions, verification mechanisms, and independent oversight. In the absence of a nationally integrated sustainability taxonomy and verification authority, green tokens may reproduce the same greenwashing risks observed in conventional green finance, albeit in a more technologically sophisticated form (Li et al., 2023; Udeh et al., 2024).

Policy coordination also represents a significant obstacle. The green token economy sits at the intersection of multiple policy domains, including financial regulation, environmental governance, and digital innovation. In Indonesia, these domains are governed by distinct institutions with differing mandates and regulatory logics. The lack of cross-sectoral coordination hampers the development of coherent policy responses and increases the likelihood of regulatory overlap or gaps. From a governance perspective, this fragmentation undermines the effectiveness of policy interventions and complicates the implementation of integrated sustainable finance strategies (Simanungkalit et al., 2025; Novianto et al., 2025).

Furthermore, the introduction of green tokens raises broader normative questions regarding the financialization of environmental assets. Tokenization inherently transforms environmental value into tradable digital units, which may accelerate market-oriented approaches to sustainability. While such financialization can mobilize capital, it also risks detaching environmental protection from its ecological and social context, prioritizing financial returns over long-term environmental outcomes. This tension highlights the need for normative safeguards that ensure green tokens serve public value objectives rather than purely market-driven interests (Vergara & Agudo, 2021; Nouvan, 2025).

From a policy innovation perspective, regulatory sandboxes may offer a pragmatic pathway to address these challenges. Experimental regulatory frameworks allow policymakers to test green token initiatives under controlled conditions, balancing innovation with risk mitigation. Regulatory sandboxes can facilitate institutional learning, enable stakeholder engagement, and provide empirical evidence to inform future regulatory design. However, the effectiveness of such approaches depends on their integration with broader sustainable finance policies and environmental governance frameworks, rather than their isolation as fintech experiments (Namoniuk & Matei, 2025; Pramudya et al., 2024).

Ultimately, the central policy challenge is normative rather than technological. Policymakers must determine whether green tokens will be positioned as speculative digital commodities or as instruments of sustainable development aligned with national environmental and economic priorities. This decision will shape the trajectory of the green token economy in Indonesia and determine whether it contributes meaningfully to sustainable investment or merely adds another layer of complexity to an already fragmented financial landscape. Addressing this challenge requires adaptive, integrated, and value-driven governance that places sustainability objectives at the core of digital financial innovation.

CONCLUSIONS

This study concludes that the green token economy holds significant potential as an innovative instrument for promoting sustainable investment in Indonesia by integrating digital technology with the principles of green finance. Through blockchain-

based tokenization, green tokens offer enhanced transparency, traceability, and inclusivity, enabling broader participation in financing renewable energy and environmentally sustainable projects. Conceptually, green tokens represent a shift from conventional, institution-centered green finance toward more decentralized and participatory investment mechanisms aligned with sustainability objectives.

However, the realization of this potential is strongly constrained by normative and policy limitations. The absence of a coherent regulatory framework, fragmented governance across financial, environmental, and digital sectors, and unresolved issues of investor protection and greenwashing undermine the credibility and scalability of green tokens as sustainable investment instruments. The findings demonstrate that technological capability alone is insufficient; without legal certainty, standardized sustainability criteria, and institutional coordination, the green token economy risks being absorbed into speculative digital finance rather than contributing meaningfully to long-term sustainable development.

Therefore, the development of a green token economy in Indonesia requires an adaptive and integrated policy approach that situates digital financial innovation within the broader sustainable finance ecosystem. Regulatory experimentation, such as policy sandboxes, must be accompanied by strong normative commitments to transparency, accountability, and environmental integrity. By aligning financial regulation, sustainability policy, and digital governance, green tokens can evolve from experimental instruments into credible tools for advancing sustainable investment and supporting Indonesia's green economic transition.

REFERENCE

Bandari, P., Begum, S., Nikhitha, T., Jareena, S., & Anusha, P. (2025). Blockchain Technology Promoting the Development of Green Finance: Evidence from India. International Research Journal of Innovations in Engineering and Technology. https://doi.org/10.47001/irjiet/2025.inspire18.

Boumaiza, A. (2025). Advancing Sustainable Investment Efficiency and Transparency Through Blockchain-Driven Optimization. Sustainability. https://doi.org/10.3390/su17052000.

Fu, C., Lu, L., & Pirabi, M. (2023). Advancing green finance: a review of sustainable development. Digital Economy and Sustainable Development, 1. https://doi.org/10.1007/s44265-023-00020-3.

Haryani, I., Aditya, I., Nuraini, A., Widiyanesti, S., Alamsyah, A., Nurhazizah, E., Hakim, M., Ruwani, T., Arli, M., & Girawan, N. (2025). Blockchain-based renewable energy certificate system in Indonesia. Heliyon, 11. https://doi.org/10.1016/j.heliyon.2025.e42364.

Idris, F., & Yunanto, A. (2025). Access to Green Financing for Rural SMEs: The Strategic Role of Banking in Promoting a Sustainable Circular Economy in Indonesia. The International Conference on Sustainable Economics Management and Accounting Proceeding. https://doi.org/10.32424/icsema.1.1.400.

Indriani, R., & Nur, A. (2025). TAGUVESTASI: Revolutionizing Halal Agriculture Through Blockchain-Integrated Sharia P2P Lending Platform for Sustainable Green Economy Development. Li Falah: Jurnal Studi Ekonomi dan Bisnis Islam. https://doi.org/10.31332/lifalah.v1i1.10247.

Judijanto, L., Ermaini, E., Kaswoto, J., Arumingtyas, F., & Sudarmanto, E. (2025). Optimization of Sharia Fintech in the Development of Green Bonds and Sustainable

Investments. West Science Islamic Studies. https://doi.org/10.58812/wsiss.v3i02.1835.
Kayani, U., & Hasan, F. (2024). Unveiling Cryptocurrency Impact on Financial Markets and Traditional Banking Systems: Lessons for Sustainable Blockchain and Interdisciplinary Collaborations. Journal of Risk and Financial Management. https://doi.org/10.3390/jrfm17020058.
Lestari, I., & Pambekti, G. (2025). Green Pension Investment: A Dynamic Relationship and Efficiency for the Green Economy in Indonesia. Journal of Indonesian Economy and Business. https://doi.org/10.22146/jieb.v40i3.9324.
Li, S., Chen, R., Li, Z., & Chen, X. (2023). Can blockchain help curb “greenwashing” in green finance? - Based on tripartite evolutionary game theory. Journal of Cleaner Production. https://doi.org/10.1016/j.jclepro.2023.140447.
Li, T., Lau, W., & Yahya, M. (2025). Blockchain Applications in Green Finance for Transparency and Accountability in Sustainable Investments. Sustainability. https://doi.org/10.3390/su17062520.
Lieansyah, A., Putra, A., Haris, A., & Basri, H. (2024). The Role of Green Economy in Promoting Sustainable Economic Growth in Indonesia. Nomico. https://doi.org/10.62872/3c2qj180.
Liu, J., Jiang, Y., Gan, S., He, L., & Zhang, Q. (2022). Can digital finance promote corporate green innovation?. Environmental Science and Pollution Research, 29, 35828 - 35840. https://doi.org/10.1007/s11356-022-18667-4.
Magda, M., Sinulingga, T., & Suwarto, S. (2025). Legal Certainty for Investors in the Green Economy Ecosystem: An Analysis of Sustainable Investment Regulations in Indonesia. Ipso Jure. https://doi.org/10.62872/d20w3h18.
Nagesh, K., & Murugan, K. (2025). FINTECH AND SUSTAINABLE FINANCE: IMPACT OF DIGITAL FINANCE IN PROMOTING GREEN INVESTMENTS. mLAC Journal for Arts, Commerce and Sciences (m-JACS) ISSN: 2584-1920. https://doi.org/10.59415/mjacs.v3i1.246.
Namoniuk, V., & Matei, V. (2025). Digital Innovation in Green Finance: Assessing the Impact of Hong Kong’s Pioneering Initiatives in Tokenized Green Bonds. Hong Kong Review of Belt and Road Studies. https://doi.org/10.63596/oborjournal.3.1.2025.6-22.
Nouvan, R. (2025). Transforming financial systems for sustainability: The role of green financing in social-environmental progress and economic resilience. EcoProfit: Sustainable and Environment Business. https://doi.org/10.61511/ecoprofit.v3i1.2025.1647.
Novianto, M., Abubakar, L., & Handayani, T. (2025). Implementation of Sustainable Finance Taxonomy Policy through Sustainable Credit: Regulations, Opportunities, and Challenges for Banks in Indonesia. Journal of Law, Politic and Humanities. https://doi.org/10.38035/jlph.v5i5.1833.
Parihar, Y., & Joshi, S. (2025). Blockchain Integration In Green Finance: Enhancing Transparency And Efficiency For Sustainable Investments. SSRN Electronic Journal. https://doi.org/10.2139/ssrn.5072259.
Pramudya, H., Alamsyah, A., & Tricahyono, D. (2024). Blockchain-Based Tokenization for Green Bonds: A Model for Transparency and Compliance in Sustainable Finance. 2024 IEEE Asia-Pacific Conference on Geoscience, Electronics and Remote Sensing Technology (AGERS), 64-69. https://doi.org/10.1109/agers65212.2024.10932908.

Ronaldo, R., & Suryanto, T. (2022). Green finance and sustainability development goals in Indonesian Fund Village. Resources Policy. https://doi.org/10.1016/j.resourpol.2022.102839.

Saputri, P., Mutamimah, M., Shabihah, K., Wahab, W., & Hamdan, H. (2025). Green Fintech Adoption and Renewable Energy Investments on Green Investment Commitments in Indonesia. IOP Conference Series: Earth and Environmental Science, 1524. https://doi.org/10.1088/1755-1315/1524/1/012013.

Sharofiddin, Y., & Normurodova, N. (2025). The Role of the "Green Economy" In Ensuring Sustainable Development. European International Journal of Multidisciplinary Research and Management Studies. https://doi.org/10.55640/eijmrms-05-01-13.

Simanungkalit, R., Jumono, S., Adhikara, M., Munandar, A., Miranda, I., & Suharna, J. (2025). INTEGRATION OF DIGITAL TECHNOLOGY IN GREEN FINANCE: A SYSTEMATIC ANALYSIS OF GREEN DIGITAL FINANCE. Signal, Image Processing and Multimedia Trends 2025. https://doi.org/10.5121/csit.2025.151303.

Sudha, N. (2025). Green Economy and Its Influence on Foreign Direct Investment in Indonesia. Nomico. https://doi.org/10.62872/pzbx5c96.

Sugiyono. 2019. Metode Penelitian & Pengembangan. Alfabeta

Udeh, E., Amajuoyi, P., Adeusi, K., & Scott, A. (2024). The role of Blockchain technology in enhancing transparency and trust in green finance markets. Finance & Accounting Research Journal. https://doi.org/10.51594/farj.v6i6.1181.

Vergara, C., & Agudo, L. (2021). Fintech and Sustainability: Do They Affect Each Other?. Sustainability. https://doi.org/10.3390/su13137012 .