Green Finance in Indonesia: A Literature Review

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Keywords:	ABSTRACT
Green Finance; Financing; Environmentally Friendly	The banking world is also adopting the concept of green finance, which basically encourages that any economic effort minimize its negative impact on the environment. In the banking industry, this greening movement is referred to as green banking. This green movement is not only limited to financing, but also Islamic banking programs that provide financing for businesses or activities that can damage or pollute the environment. This study is a type of qualitative research that uses a library research approach, which involves collecting information through observation. Researchers use literature research as supporting literature to obtain data and information about books or other sources related to Green Finance. Key findings from the analysis include the importance of green finance guidelines and frameworks in encouraging sustainable financial practices, the role of central banks in supporting the transition to a low-carbon economy through initiatives such as green banking and green bond issuance, and the importance of soft power measures to steer investment preferences toward green finance.

INTRODUCTION

In recent years, the global financial sector has witnessed an increase in interest in sustainable finance and green finance practices. This comes as the world faces unprecedented challenges caused by environmental damage and climate change. Financial institutions are increasingly realizing how important it is to align their operations and investment decisions with environmental, social, and governance (ESG)principles (Rangkuti, 2024). Companies must ensure that the 2030 Agenda for Sustainable Development is implemented in the current environment, in addition to achieving the main objectives of generating profits and lowering capital costs (Hutajulu et al., 2024). Sustainability disclosure and green finance have emerged as important mechanisms to encourage transparency, accountability, and responsible investment strategies. Sustainability reporting begins as voluntary disclosure. As this trend increases, some countries are establishing regulations requiring mandatory disclosure. Companies with comprehensive sustainability disclosures should be more likely to attract long-term investors and achieve better risk management (Febrianti, 2024).

Green finance is one form of integration of Sustainable Development Goals (SDGs) in the business sector or companies that are increasingly receiving attention (Ningsi et al., 2024). Green finance as a process of allocating capital resources or financial investment activities that pay attention to environmental protection, climate change, environmentally friendly energy and responsible management in all sectors (Sari, 2024). Green finance as a series of investment or lending activities that consider the environmental impact and contribute to environmental conservation (Istiowati, 2018).

Green Finance is a financial idea that considers environmentally friendly investments (Yunus & Khadafi, 2024). It includes a variety of financial instruments such as green bonds, green loans, and equity investments aimed at supporting green projects. Examples of such projects include renewable energy, energy efficiency, waste management, and natural resource protection. This theory of green finance is rooted in the principle that the integration of environmental considerations in financial decisions can encourage innovation, reduce environmental risks, and ultimately result in sustainable economic growth (Mukhry, 2024).

One of the objectives of Green finance is to increase the flow of funds from financial institutions to economic agents involved in environmentally friendly activities and projects to achieve the Sustainable Development Goals. (Hasanah & Hariyono, 2022), The need to reduce the adverse environmental impacts caused by fossil fuel emissions has led to calls to divest from fossil fuel activities, and shift to investing in low-carbon projects and activities that protect the environment in a sustainable manner (Rangkuti, 2024).

Green finance is green investment funding for both the public and private sectors. Green finance projects generate economic benefits that promote sustainable environment (Insanush Shofa & Khilfatul Khamidah, 2023). Green finance includes all investments in environmental goods and services and investments in activities that reduce environmental and climate damage (Hutasoit, 2024). In addition, in public policy, green finance involves the financing of public policies that encourage the implementation of environmental protection projects or initiatives or environmental damage mitigation projects.

The application of green finance has become a research focus for academics, with much of the research focused on various aspects such as the issuance of green bonds, corporate investment in green projects and the management of green funds. Study by (Cicchiello et al., 2022) found that the Covid-19 pandemic had a significant effect on the performance of green bonds. The economic crisis caused by the pandemic has made investors tend to ignore issues related to the climate crisis and focus more on mitigating economic risks. This has caused investors ' interest in green bonds to decline, as they are reluctant to take additional risks against existing uncertainties. Research by (Azhgaliyeva & Liddle, 2020) highlights the important role of regulation and government in corporate decisions to integrate green finance through the issuance of green bonds. Supportive regulations and incentives from the government can encourage companies to choose more environmentally friendly financial options. By understanding these external factors, companies can take strategic steps in integrating green finance and increasing their contribution to sustainable development.

In this article, the authors review existing research on green finance. They find key research themes in the Green Finance literature and suggest important areas for Green finance Policy Research. Broadly defined, green finance is the acquisition and utilization of funds for activities that protect the environment and provide a fair profit to investors or lenders.

METHOD

This study uses qualitative research methods that are described descriptively. This method is based on the philosophy of postpositivism, which places more emphasis on aspects of deep understanding of phenomena (Agustinova, 2015). This method aims to understand in depth to a problem that is not for generalization, so this method is suitable for this study. The data in the study came from documents and data analysis. The analysis is done inductively which is presented in the form of exposure related to system creation, content curation, replication, and future development.

This study is a normative research with empirical data. This study is also a type of exploratory research, which means this study is intended to explore a new phenomenon that may not or rarely be used as the object of previous research, which in this study uses the analysis of aspects of Green Finance in Indonesia. This study uses this framework to analyze the regulatory tools and mechanisms used by Bank Indonesia and the Financial Services Authority to influence lending, lending policies, and investment choices in green finance. The methodology used in this study aims to provide a comprehensive understanding of the legal framework surrounding green finance in Indonesia and assess the role of regulatory tools in encouraging sustainable finance practices and supporting environmental goals.

RESULT AND DISCUSSION

Regulation and legal framework of Green Finance in Indonesia

In Indonesia, Green Finance encompasses a legal field that includes regulatory frameworks and legal instruments that govern sustainable financial practices that support environmental protection, climate change mitigation, and the transition to a low-carbon emission economy. Some important points related to the legal aspects of green finance in Indonesia include:

- 1. Regulations and policies: there are provisions and policies implemented by Bank Indonesia and the Financial Services Authority (OJK) to regulate green finance practices, including guidelines on green bond issuance, environmental management risks, and green lending criteria.
- 2. Legal framework: analysis of the legal framework of green finance in Indonesia includes tracing related laws, regulations, and policies, as well as evaluating the implementation of these legal instruments in sustainable finance practices.
- 3. Financial risks: the legal aspects of green finance also include the handling of financial risks related to climate change, environmental damage, and the energy transition. Financial risks such as transition risk, physical risk, and environmental liability risk should be considered within the framework of green finance law.

4. Green financial instruments: the research also highlights various green financial instruments that have been created under Indonesian laws and regulations, such as green finance guidelines and frameworks, as well as affirmative measures to support green finance. By understanding the legal aspects of green finance in Indonesia, stakeholders can develop sustainable financial practices, support environmental protection, and accelerate the transition to a greener economy (Yunus & Khadafi, 2024).

Green lending, lending, and investment policies are influenced by regulations used by banks and financial authorities in Indonesia. The purpose of this regulatory system is to encourage sustainable financial practices and support the transition to a low carbon economy. Some of the main regulatory tools used by Bank Indonesia and the Financial Services Authority include:

- 1. Regulation Number 23/2/PBI/2021 concerning the Third Amendment to Bank Indonesia Regulation Number 20/8/PBI / 2018: this regulation focuses on Loan to Value Ratio for property loans, Finance to Value Ratio for Property Financing, and advances for Property Financing. Credit or financing of Motor Vehicles.
- 2. Regulation No. 20/3/PBI / 2018: this provision relates to mandatory minimum demand deposits in Rupiah and foreign currencies for conventional commercial banks, Sharia commercial banks, and Sharia business units.
- 3. Regulation No. 18 / POJK.03/2016: this regulation of the Financial Services Authority regulates the implementation of Risk Management for commercial banks.
- 4. Regulation No.37 / POJK.03/2019: this regulation focuses on transparency and publication of Bank statements by the Financial Services Authority.
- 5. Regulation No.11 / POJK.03/2016: this regulation regulates the Minimum capital provision obligations of commercial banks.
- 6. The Old no. 9 / SEOJK.03/2020: this circular provides additional guidance on financial regulation.
- Indonesia Green taxonomy Edition 1.0-2022: this taxonomy outlines green investment criteria and aims to guide investors towards environmentally friendly projects (Yunus & Khadafi, 2024).

Bank Indonesia and the Financial Services Authority have the ability to implement these rules to encourage investors, borrowers, and financial institutions to act in an environmentally friendly manner. These regulations help create an environment conducive to sustainable investment, encourage green lending, and encourage environmentally responsible financial decision-making in Indonesia.

Implementation of Green Finance in Indonesia

In Indonesia, green finance practices involve implementing sustainable finance practices that support environmental protection, climate change mitigation, and the transition to a low-carbon economy. (Putri & Putra, 2024). Some of the key practices of green finance in Indonesia include:

1. Green banking initiatives: encourage banks to implement green practices in their operations, lending policies, and investment decisions. This could include promoting

green loans, financing renewable energy projects, and incorporating environmental risk management into banking operations.

- 2. Green bond issuance: facilitates the issuance of green bonds to fund green projects such as renewable energy infrastructure, energy efficiency initiatives, and climate adaptation measures. Green bonds help channel investments towards green projects and support the development of the green bond market [T2].
- 3. Green Finance guidelines and frameworks: develop guidelines and frameworks for financial institutions to encourage green finance mechanisms. Central banks can play a role in creating non-mandatory guidelines for green bond issuance, environmental risk management practices, and green lending criteria to steer financial institutions toward sustainable practices.
- 4. Green taxonomy: establishes a green taxonomy that classifies economic activities based on their environmental impact and contribution to sustainability. Green taxonomy helps investors identify green investment opportunities and supports the development of green financial products (Yunus & Khadafi, 2024).

Islamic banking becomes the main actor of Green Finance in realizing Suistainable Finance in Indonesia

In Indonesia, Green finance is defined as the general support provided by the financial industry for sustainable growth by organizing economic, social, and environmental benefits (Oka & Hermawan, 2025). *Green Finance* in Indonesia includes the following aspects:

- 1. Achieve industrial, social and economic excellence to reduce the threat of global warming and prevent other environmental and social problems.
- 2. The goal is to shift the goal to a competitive low-carbon economy.
- Strategically promote environmental investments in various business / economic fields. d. Support the principles of Indonesian development proposed by the Royal Indonesian Jockeys Association, namely 4P (good for growth, good for work, good for the poor, and good for the environment (Nugraha et al., 2024).

As a development actor, Islamic Banking serves to implement the principles of economic democracy and facilitate the economic mechanism of the pawn sector through Sharia principles, such as investment and purchase (Irham, 2019). Sustainable development as previously described, means that the development process is expected to meet the needs of today's society without endangering the ability of future generations to meet their needs in the future, utilizing the potential of natural resources for life (Abib Noviyanto et al., 2024). This is in line with Islamic banks which provide productive financing for their customers. Islamic banks as suppliers of funds are also required to indicate that the customer not to utilize natural resources used production activities.

Thus, Indonesia's development in the economic field can be carried out continuously until the next generation (Fitriandari & Winata, 2021). In addition, Islamic banking emphasizes ecological principles. Thus, the concept of green economy can be applied. This concept directs economic development, and knowledge of Ecological Economics centers on economic interdependence and addresses ecosystem change as well as the negative effects of economic activity such as global warming and climate change (Anwar, 2024). To support green banking, Islamic banks need to implement the concept of banking with financing contracts. Where to prioritize sustainable aspects, both economic, environmental, social and cultural, and at the same time technological. So, to implement it can be done by applying existing components so that synergy and optimization are built between Islamic banks, debtors, the environment, and government goals. These components are:

- 1. The customer segment of Islamic banks are companies that have attention to the environment, companies whose business activities do not damage the environment, as well as companies that have environmentally friendly certificates.
- 2. Value Proposition. By channeling financing funds to friendly, environmentally friendly companies, it is that Islamic banks prove to the public and declare that Islamic banks participate in implementing economic democracy mandated by the 1945 Constitution.
- 3. Network. The network used by Islamic banks towards greenbanking is B2C (business to customer), this means that the implementation of green banking starts from the internal side. Islamic banks can implement efficiency programs, by implementing reduction and recycling. This can be done by optimizing the innovation and creativity of Islamic bank practitioners and using technology. While externally, Islamic banks educate interested customers to offer Islamic banking products that are environmentally friendly (eco-Products).
- 4. Relationship to the Nativity. The relationship between Islamic banks and customers is done through a personal approach (personal touch) and kinship. So the relationship and communication both become good and trusting. However, Islamic banks always do a system and supervision to customers so that the financing provided is actually used for environmentally friendly business.
- 5. Revenue or profit. Islamic banks that finance environmentally friendly businesses have the right to receive shares in accordance with the agreed ratio. This can be used as a socialization to the wider community about the vision of Islamic banks as the main actors in green banking.
- 6. Human Resources. Islamic banks require human resources who have knowledge not only in the field of Islamic banking, but also about the knowledge of Environmental Conservation. Thus, it is necessary to carry out environmental certification as a requirement for Islamic bank practitioners. In indonesia, there is no requirement for employees who need to have environmental certificates, so this can be considered in the future.
- 7. Activity. Islamic banks to implement green banking activities in Indonesia in accordance with the principles of Sharia and economic democracy (ecological principles of development). For example by providing environmental financing for environmentally friendly projects, such as creative industries that use industrial waste and business models that have environmental benefits. And another thing we can do is change the customer's financial statements from paper to electronic.
- 8. Partner. Mitra bank syariah is an environmental community that has a high awareness of the environment, such as Walhi (Wahana lingkungan hidup) and Tunas Hijau. Bank syariah cooperates with the community, actively socializing environmentally friendly business as environmental empowerment and Community Empowerment. In addition

to Islamic banks also need to collaborate with the government to support banking operations. So, cooperation between several parties can be realized green banking easily.

9. Cost Structure. The cost required by Islamic banking to realize green banking is the cost to human resources as implementers of green banking. Other costs are also required for the product screening process to comply with Sharia principles. From the explanation above, it can be concluded that the participation of Islamic banking is realized in the form of financing, both for individuals and companies. Thus, as an effort to improve the quality of its Sharia banking participation, it can be realized with the participation to be responsible in maintaining the quality of the environment as a consequence of the Directorate General of national development (Galuh & Utami, 2022).

CONCLUSION AND RECOMMENDATION

The study reviewed the green finance research literature and found several areas that could be leveraged for future research. The results show that Green finance, being one of the environmentally friendly types of Finance, has the potential to make a significant difference to the environment and society. However, there are many challenges faced, such as lack of awareness, inconsistent definitions, lack of policy coordination, inconsistent policies, and lack of incentives for investors and financial institutions. The study highlights the various regulatory tools available to Bank Indonesia and the Financial Services Authority to influence lending, lending policies, and investment choices in green finance.

Key findings from the analysis include the importance of green finance guidelines and frameworks in encouraging sustainable financial practices, the role of central banks in supporting the transition to a low-carbon economy through initiatives such as green banking and green bond issuance, and the importance of soft power measures to steer investment preferences toward green finance. By applying a framework of legal instruments, the study offers a structured approach to evaluate the effectiveness of Indonesian legislation in promoting sustainable finance and addressing environmental challenges. This research shows that there are many ways that can be done to encourage more environmentally friendly financial practices in Indonesia. These results can help the government towards a more sustainable and environmentally friendly financial sector. Overall, the results of this study are of great benefit to policy makers, regulators, and practitioners in Indonesia who seek to improve the legal and regulatory landscape of environmentally sound finance and encourage sustainable financial practices, including the use of Green finance instruments. The future of green finance in Indonesia looks promising, with opportunities to further develop regulatory instruments and incentives to support the transition to a greener economy.

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