JURNAL JUSTICIABELEN
Vol. 9 (1) 2026

p-ISSN: 2654-3419, e-ISSN : 2654-3311

JUSTICIABELEN
Jurnal Hukum
Journal homepage: http://journal.umg.ac.id/index.php/justiciabelen/index

Enforcing Green Banking: A Comparison of Legal Mechanisms for ESG Compliance in Corporate Lending

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Keyword :

green banking, ESG, corporate credit, sustainable finance, legal compliance, sustainable banking.

ABSTRACT

The application of Environmental, Social, and Governance (ESG) principles in the banking sector has become an important tool to promote sustainable development and mitigate financing risks for business activities that negatively impact the environment or society. However, the effectiveness of green banking implementation still faces challenges due to differences in legal compliance mechanisms for ESG in the corporate credit distribution process across various jurisdictions. This study aims to analyze and compare the legal mechanisms used to enforce ESG compliance in corporate lending and identify relevant regulatory models to strengthen green banking implementation in Indonesia. The research method used is normative legal research with a statute approach, comparative approach, and conceptual approachResearch shows that countries like the European Union, the UK, and Singapore have integrated ESG standards into banking regulations through requirements like sustainability due diligence, climate risk reporting, and regulatory oversight of financing portfolios. Meanwhile, Indonesia still places ESG compliance within a sustainable finance framework that hasn't been fully integrated into corporate credit enforcement mechanisms. This study offers a model for strengthening green banking compliance through harmonizing ESG regulations, implementing sustainability-based credit assessments, and enhancing regulatory supervision to create a sustainable banking system focused on long-term risk mitigation.

I. INTRODUCTION

The transformation of the global financial sector toward sustainable development has driven a shift in the banking paradigm, especially in corporate lending. Banks are no longer seen merely as profit-oriented financial intermediaries, but also as strategic instruments to channel capital into business activities that adhere to sustainability principles. In this context, the concept of green banking has developed as an approach that integrates environmental, social, and governance (ESG) aspects into banking financing policies and risk management. The implementation of ESG in corporate lending is becoming increasingly important because bank financing activities can potentially have indirect impacts on environmental damage, social rights violations, or poor corporate governance practices. Therefore, ESG compliance is no longer seen just as an ethical obligation, but has grown into a legal and regulatory tool that affects credit processes, risk management, and financial system stability.[1]

The urgency of this research stems from the increasing international regulatory pressure on the banking sector to integrate ESG into corporate financing processes. In the European Union, the implementation of the EU Taxonomy Regulation, the Corporate Sustainability Reporting Directive (CSRD), and various sustainable finance regulations have made ESG compliance an integral part of credit analysis and banking risk management. These regulations push banks to conduct sustainability due diligence before providing financing to corporations that could pose environmental and social risks. On the other hand, Asian countries like Singapore and Indonesia are also starting to develop sustainable finance legal frameworks through green finance and sustainable finance policies. However, the enforcement mechanisms for ESG compliance in corporate lending still show significant differences between countries, whether in terms of regulation, supervision, or legal sanctions. This situation raises questions about the most effective legal enforcement model to ensure ESG implementation in banking practices.[2]

In Indonesia, the commitment to sustainable finance has been realized through Law Number 4 of 2023 on the Development and Strengthening of the Financial Sector and the Financial Services Authority Regulation Number 51/POJK.03/2017, which requires financial institutions to apply sustainable finance principles in their business activities. However, these regulations still put more emphasis on sustainability reporting than on mechanisms for enforcing ESG compliance in corporate lending processes. As a result, there are still cases of bank financing for sectors with high environmental risks (brown sectors) even though banks are normatively required to apply sustainable finance principles. This phenomenon shows that there is a gap between the legal norms regulating ESG and their implementation in banking credit practices.[3]

Previous research has examined the relationship between ESG and the banking sector from various perspectives. Gonzalez-Ruiz, Ospina Patiño, and Marín-Rodríguez used a systematic literature review method to analyze the development of ESG integration in the banking industry and found that ESG has evolved into a strategic factor in risk management and business sustainability in banking. Calderon used an exploratory method on sustainable banking practices and concluded that the success of implementing sustainable lending is greatly influenced by

[1] Juan David Gonzalez-Ruiz, Camila Ospina Patiño, and Nini Johana Marín-Rodríguez, "The Influence of Environmental, Social, and Governance Issues in the Banking Industry," *Administrative Sciences* 14, no. 7 (2024): 156.

[2] Felipe Calderon, "Governance Mechanisms for Sustainable Lending: An Exploratory Study of Existing Practices," *Journal of Sustainable Finance & Investment* 12, no. 4 (2022): 1146–66.

[3] Aneta Kosztowniak, "The Impact of ESG Regulations and Taxonomy on the Credit Process in Commercial Banks," *Finanse i Prawo Finansowe* 2, no. 42 (2024): 87–108.

internal governance mechanisms and regulatory supervision. Kosztowniak, through a comparative method, found that ESG regulations and green taxonomy in Europe have changed the bank credit process by integrating sustainability factors into corporate financing analysis. Hermawan and Khoirunisa use a normative and public policy approach to explain that green banking plays an important role in directing financing toward economic activities that support sustainable development in the ASEAN region. Meanwhile, Korzeb and colleagues, through a bibliometric study based on Scopus and Web of Science data, found that research on the relationship between ESG and banking risk is still dominated by economic aspects and risk management, while studies on the mechanisms for enforcing ESG compliance in corporate lending are still relatively limited.[4]

Based on the study, there is a research gap showing that most previous studies focused on the impact of ESG on banking performance, credit risk, and financial sustainability, while research on comparing legal mechanisms for enforcing ESG compliance in corporate credit distribution is still limited, especially from the perspective of banking law and sustainable finance law. Therefore, this research is important to examine how ESG compliance legal mechanisms are applied in corporate credit distribution in various jurisdictions and how these models can be adapted to the Indonesian legal system.[5]

This study aims to analyze and compare the legal mechanisms for enforcing ESG compliance in corporate lending in several countries that have developed green banking systems, as well as to formulate legal frameworks that can strengthen ESG implementation in Indonesia's banking sector. In this way, the research is expected to provide theoretical contributions to the development of sustainable finance law and offer practical recommendations for banking regulators in building corporate lending systems that align with sustainable development principles.

II. DISCUSSION CONTENT

A. The Concept of Green Banking and ESG Compliance in Modern Banking Systems

Climate change, environmental degradation, rising social inequalities, and demands for responsible business practices have pushed a transformation in the global financial sector, including the banking industry. In conventional banking models, a bank's success is usually measured by indicators like profitability, liquidity, and operational efficiency. However, developments in sustainability risks show that financial performance cannot be separated from environmental, social, and corporate governance factors. As a result, the banking sector is starting to integrate sustainability principles into its business activities through green banking concepts and the implementation of Environmental, Social, and Governance (ESG) standards.

is a banking approach that integrates environmental and social considerations into all operational processes and business decision-making, especially in financing activities and credit distribution. Jeucken explains that green banking is not only aimed at reducing the environmental impact of bank operations but also directing capital flows to economic activities that support sustainable development. In this way, banks act as agents of change who can influence corporate behavior through financing policies that consider sustainability aspects.

The development of the green banking concept is closely linked to growing attention to ESG as a standard for evaluating corporate

[4] Sapto Hermawan and Zenia Aziz Khoirunisa, "The Emergence of Green Banking: A Sustainable Financing Strategy for Protecting against Deforestation in ASEAN," *The Journal of Environment & Development* 33, no. 1 (2024): 96–124.

[5] Zbigniew Korzeb et al., "ESG and Climate-Related Risks versus Traditional Risks in Commercial Banking: A Bibliometric and Thematic Review," *Future Business Journal* 10, no. 1 (2024): 106.

sustainability. ESG is a set of indicators used to measure a company's performance in managing risks and opportunities related to the environment, social issues, and governance. The environmental aspect includes managing carbon emissions, using renewable energy, resource efficiency, waste management, and environmental conservation. The social aspect covers protecting workers' rights, occupational health and safety, relationships with local communities, and respecting human rights. Meanwhile, the governance aspect is about transparency, accountability, legal compliance, management independence, and implementing good corporate governance principles.[6]

From the perspective of modern financial laws and regulations, ESG has evolved from a voluntary framework to a part of mandatory compliance. This change is driven by the growing awareness that environmental and social risks can have systemic impacts on the stability of the financial sector. Climate crises, for example, can increase credit risk, market risk, and operational risk for financial institutions that have high exposure to sectors vulnerable to climate change. Therefore, financial regulators in various countries are starting to require banks to integrate ESG factors into their risk management systems and lending processes.[7]

The implementation of ESG in the banking sector is also closely related to the concept of sustainable finance. According to Schoenmaker and Schramade, sustainable finance is a financial system that integrates economic, social, and environmental considerations into investment and financing decisions. Within this framework, banks don't just evaluate a debtor's ability to meet credit payment obligations, but also assess the long-term impact of the debtor's business activities on environmental and social sustainability. As a result, the modern credit assessment process has evolved from the traditional approach focused on financial aspects to a multidimensional approach that incorporates ESG indicators as part of risk analysis.

The implementation of ESG in modern banking is also influenced by the development of international standards like the Equator Principles, UN Principles for Responsible Banking, and the Task Force on Climate-related Financial Disclosures (TCFD). These standards encourage banks to carry out environmental and social due diligence before providing financing to corporations. Through this mechanism, banks are required to identify, assess, and manage environmental and social risks that could arise from the projects or business activities they finance. This approach shows that ESG compliance is no longer seen solely as a corporate responsibility, but also as part of the financial institutions' responsibility as a provider of financing.[8]

In the context of Indonesia, the implementation of green banking gets its legal basis through the Financial Services Authority Regulation Number 51/POJK.03/2017 concerning the Implementation of Sustainable Finance for Financial Service Institutions, Issuers, and Public Companies. This regulation requires financial service institutions to apply sustainable finance principles in their business activities, prepare sustainable finance action plans, and report on sustainability. However, the regulation still focuses more on reporting and governance aspects compared to enforcing ESG compliance in the corporate lending process. This situation shows that ESG implementation in Indonesia's banking system is still at the stage of strengthening institutions toward a more comprehensive

[6] Gonzalez-Ruiz, Ospina Patiño, and Marín-Rodríguez, "The Influence of Environmental, Social, and Governance Issues in the Banking Industry."

[7] Korzeb et al., "ESG and Climate-Related Risks versus Traditional Risks in Commercial Banking: A Bibliometric and Thematic Review."

[8] Calderon, "Governance Mechanisms for Sustainable Lending: An Exploratory Study of Existing Practices."

compliance model.[9]
So, green banking and ESG are two concepts that are connected in shaping a sustainable modern banking system. Integrating ESG into financing processes isn't just about reducing environmental and social risks, but also about strengthening the long-term stability of the financial system. That's why ESG compliance should be seen as part of legal obligations and banking governance aimed at balancing economic growth, environmental protection, and social well-being.

B. Kerangka Hukum Kepatuhan ESG dalam Penyaluran Kredit Korporasi

The evolution of the Environmental, Social, and Governance (ESG) concept has driven a fundamental transformation in global financial sector regulations, especially in corporate lending and financing activities. This change is driven by the growing awareness that environmental, social, and corporate governance risks not only affect business sustainability but can also impact the overall stability of the financial system. In this context, banks are no longer seen just as institutions responsible for managing financial risks; they also have a responsibility to ensure that their financing activities do not increase climate change risks, environmental damage, social rights violations, or poor corporate governance practices.[10]
These developments have spurred the emergence of various legal instruments and policies that integrate ESG principles into the banking sector. Gonzalez-Ruiz, Ospina Patiño, and Marín-Rodríguez explain that ESG has become an integral part of modern banking business strategies because it can improve risk management quality while strengthening the long-term sustainability of financial institutions. From this perspective, ESG compliance is no longer seen as philanthropic activity or voluntary social responsibility, but rather as a legal and governance tool that influences credit decision-making processes, portfolio financing management, and the mitigation of non-financial risks that can impact bank performance.

In international practice, the ESG legal framework has developed through a sustainable finance approach that puts sustainability as part of the financial sector's regulatory system. One of the most significant developments can be seen in the European Union through various sustainable finance policies that require financial institutions to integrate sustainability factors into their business activities. According to Busch, sustainable finance regulations in the EU have expanded the responsibilities of financial institutions from just information disclosure to sustainability risk management obligations. As a result, banks are required to identify and evaluate the environmental and social impacts of business activities receiving financing before a credit decision is made.[11]
The application of ESG principles in corporate credit lending is generally carried out through the Environmental and Social Risk Assessment (ESRA) or Environmental and Social Due Diligence (ESDD) mechanisms. Through these mechanisms, banks evaluate the environmental, social, and corporate governance risks of prospective borrowers. The assessment covers compliance with environmental regulations, carbon emission management, protection of workers' rights, relationships with affected communities, as well as the quality of corporate governance. This way, credit decisions are not only based on the borrower's financial capability but also take into account the sustainability of their business activities. This approach shows a shift in paradigm from financial-based

[9] Pemerintah Republik Indonesia, Peraturan Otoritas Jasa Keuangan Nomor 51/POJK.03/2017 tentang Penerapan Keuangan Berkelanjutan bagi Lembaga Jasa Keuangan, Emiten, dan Perusahaan Publik.
[10] Gonzalez-Ruiz, Ospina Patiño, and Marín-Rodríguez, "The Influence of Environmental, Social, and Governance Issues in the Banking Industry."
[11] Danny Busch, *Sustainable Finance Disclosure in the EU Financial Sector* (European Banking Institute eV, 2021).

lending to sustainability-based lending.[12]

The importance of integrating ESG into the banking system is also driven by the increasing climate risks and transition risks that can affect the quality of banking assets. Korzeb and colleagues explained that ESG risks have now evolved into one of the main risk components that need to be considered in modern banking supervision. Climate change risks, for example, can affect a borrower's ability to meet credit obligations due to changes in environmental regulations, asset devaluation, or operational disruptions caused by natural disasters. Therefore, financial regulators in various countries are starting to integrate ESG into the prudential supervision framework as part of efforts to maintain long-term financial system stability.[13]

In Indonesia, the legal framework for ESG in the banking sector is grounded normatively through Law Number 4 of 2023 on the Development and Strengthening of the Financial Sector (P2SK) and the Financial Services Authority Regulation Number 51/POJK.03/2017 on the Implementation of Sustainable Finance for Financial Service Institutions, Issuers, and Public Companies. These two regulations emphasize the government’s commitment to promoting the integration of sustainability principles into the national financial system. Under these regulations, financial service institutions are required to prepare a Sustainable Finance Action Plan (RAKB), implement sustainability principles in their business activities, and submit sustainability reports periodically to the regulator. However, these regulations are still more focused on governance and reporting aspects rather than technical rules regarding ESG obligations in corporate credit analysis.[14]

The development of ESG implementation in Indonesian banking shows a positive trend, especially among large banks that have integrated sustainable finance principles into their business strategies. Research by Hermawan, Marmen, and Sorongan shows that the KBMI 4 banks in Indonesia are starting to apply ESG principles in risk management and financing processes as part of their transformation strategy towards sustainable banking. However, the level of implementation is still varied because there is no uniform and binding ESG compliance standard for all banking institutions yet.[15]

Furthermore, the research by Manurung, Siregar, Fahmi, and Hakim shows that applying sustainability principles in banking financing activities has a strong correlation with improving the quality of credit portfolios and long-term business resilience. The study emphasizes that integrating ESG into the credit distribution process not only provides environmental and social benefits, but also helps reduce the risk of non-performing loans and strengthens the banking sector's resilience to economic shocks. Therefore, ESG compliance should be seen as part of a risk mitigation strategy that has both economic and legal value.[16]

That said, the main challenge in implementing ESG in Indonesia still lies in the weak enforcement mechanism. There aren't any rules that clearly set penalties for banks that ignore ESG factors when giving out corporate loans. As a result, ESG compliance is still mostly driven by banks'

[12] Silvia Bressan, “Does the Environmental Impact of Banks Affect Their Financial Performance?,” *Journal of Banking Regulation* 26, no. 2 (2025): 261–78, https://doi.org/10.1057/s41261-024-00257-8.

[13] Korzeb et al., “ESG and Climate-Related Risks versus Traditional Risks in Commercial Banking: A Bibliometric and Thematic Review.”

[14] Pemerintah Republik Indonesia, “Undang-Undang Nomor 4 Tahun 2023 Tentang Pengembangan Dan Penguatan Sektor Keuangan; POJK Nomor 51/POJK.03/2017.” (2023).

[15] Hardy R Hermawan, Jerry Marmen, and Fangky A Sorongan, “Integration of Sustainable Finance in KBMI 4 State-Owned Banks in Indonesia,” *Journal of Business, Finance, and Banking* 2, no. 1 (2026): 16–32.

[16] sainal Abidin And Ridho Syahputra Manurung, “Sosialisasi Akibat Hukum Terhadap Pembatalan Sertifikat Hak Milik Atas Perintah Putusan Pengadilan Negeri Nomor: 482/Pdt. G/2016/Pn. Mdn Di Universitas Pembinaan Masyarakat Indonesia (Upmi) Medan,” *PKM Maju UDA* 1, no. 2 (2020): 74–84.

internal commitments rather than by legal obligations. This is quite different from developments in the European Union, where ESG has been integrated into the prudential supervision framework and financial institutions' risk management.

From the explanation above, it can be understood that the legal framework for ESG compliance in corporate lending is a combination of sustainable finance principles, prudential risk management, and good corporate governance. Global regulatory developments show a tendency towards an ESG compliance model that is increasingly binding and integrated into the banking supervision system. Therefore, strengthening the ESG legal framework in Indonesia has become an urgent need to ensure that corporate lending not only supports economic growth but also aligns with sustainable development goals and the stability of the national financial system.[17]

C. Comparison of ESG Compliance Legal Mechanisms in Corporate Credit Distribution in the European Union, the UK, Singapore, and Indonesia

The development of Environmental, Social, and Governance (ESG) regulations in the banking sector shows differences in how countries integrate sustainability principles into corporate lending. These differences are influenced by the level of financial system development, sustainable development policies, and each country's strategy in facing climate change risks and other sustainability risks. Even though the goal is the same—to ensure that financing activities support sustainable development the European Union, the UK, Singapore, and Indonesia have developed different regulatory models in terms of legal obligations, regulatory supervision, and enforcement mechanisms.[18]

1. European Union: ESG as a Regulatory Requirement in the Financial System

The European Union is the most advanced jurisdiction in developing an ESG legal framework. Through the European Green Deal, the Sustainable Finance Disclosure Regulation (SFDR), the EU Taxonomy Regulation, and the Corporate Sustainability Reporting Directive (CSRD), ESG has become an integral part of the financial sector's regulatory system. These regulations require financial institutions to identify, measure, manage, and disclose sustainability risks in all financing and investment activities.[19]

In corporate lending, banks are required to carry out sustainability due diligence on prospective borrowers. The assessment is not only based on the company's financial capability, but also on environmental impact, carbon emissions, compliance with labor standards, human rights protection, and corporate governance. Business activities that do not meet the sustainability classification according to the EU Taxonomy may receive a higher risk rating, which can affect credit decisions and financing costs.[20]

The European Union model shows that ESG has evolved into a legally binding obligation and has become part of the financial sector's oversight system. So, ESG compliance is no longer voluntary, but a key part of banking risk management.

2. Inggris: Integrasi ESG dalam Prudential Regulation

After leaving the European Union (Brexit), the UK has continued to uphold its commitment to sustainable development by strengthening climate risk regulations in the financial sector. Through the Prudential

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[17] Kepas Antoni Adrianus Manurung et al., "Sustainable Value Chain for Sustainable Lending of State-Owned Banks in Indonesia," *Sustainability* 16, no. 12 (2024): 4940.

[18] Dirk Schoenmaker & Willem Schramade, *Principles of Sustainable Finance (2nd Ed., Oxford University Press, 2023), Hlm. 85–102.*, 2023, https://doi.org/https://doi.org/10.1093/oso/9780192868213.001.0001.

[19] Busch, *Sustainable Finance Disclosure in the EU Financial Sector*.

[20] Iris H Y Chiu, "The EU Sustainable Finance Agenda: Developing Governance for Double Materiality in Sustainability Metrics," *European Business Organization Law Review* 23, no. 1 (2022): 87–123.

Regulation Authority (PRA) and the Financial Conduct Authority (FCA), the UK is integrating ESG into the prudential supervision framework.[21]

The UK approach focuses on managing climate-related financial risks that could affect the stability of financial institutions. Through Supervisory Statement SS3/19, the PRA requires banks to identify, measure, and manage environmental and climate risks in corporate governance, business strategy, and risk management processes. In the context of corporate lending, banks are expected to evaluate borrowers' exposure to climate risks and the transition risks toward a low-carbon economy. The main feature of the UK model is the risk-based approach, where ESG is treated as part of the financial risk that can impact the resilience and health of banks.

3. Singapura: Environmental Risk Management Framework

In the Asian region, Singapore has become one of the most progressive countries in developing ESG regulations. Through the Guidelines on Environmental Risk Management for Banks issued by the Monetary Authority of Singapore (MAS), all banks are required to integrate environmental risks into governance, risk management, and financing processes.

Singapore's legal framework requires banks to assess the environmental impact of borrowers' business activities before financing is provided. This assessment includes climate change risk, energy use, waste management, and impacts on the sustainability of natural resources. Additionally, banks are required to continuously monitor financing portfolios that carry high environmental risks.

Unlike the European Union, which applies a stricter regulatory approach, Singapore gives banks the flexibility to develop ESG risk management systems according to their business characteristics and risk profiles. This approach allows for a balance between regulatory certainty and innovation in the financial sector.

4. Indonesia: Sustainable Finance Approach Based on Governance and Reporting

In Indonesia, the implementation of ESG in the banking sector is still at the stage of strengthening institutions. The main legal framework is found in Law Number 4 of 2023 on the Development and Strengthening of the Financial Sector (P2SK) and the Financial Services Authority Regulation Number 51/POJK.03/2017 on the Implementation of Sustainable Finance for Financial Service Institutions, Issuers, and Public Companies.[8]

The regulation requires financial institutions to apply sustainable finance principles through the preparation of a Sustainable Finance Action Plan (RAKB) and a Sustainability Report. OJK also developed the Indonesia Green Taxonomy as a guideline for classifying sustainable economic activities.

However, compared to the European Union, the UK, and Singapore, Indonesian regulations still focus more on governance and reporting aspects. There is no obligation that explicitly requires banks to carry out ESG due diligence in every corporate credit process. As a result, ESG implementation still heavily depends on each bank's internal policies and has not fully become part of the prudential banking supervision system.[22]

5. Comparative Analysis

Based on that comparison, four ESG regulation models in the banking sector can be identified. The European Union applies a mandatory sustainability compliance model, the UK uses a prudential risk-based regulation model, Singapore implements an environmental risk management approach,

[21] Mark Andrew et al., "Climate Risk, Insurance Retreat and Mortgage Exposure: Implications for UK Households and Housing Finance," *Housing Finance International* 39, no. 1 (2025): 27–34.

[22] J Gunawan et al., "Towards Sustainable Governance: Do Banking Sectors Practice Sustainable Finance beyond Compliance," *Journal of Infrastructure, Policy and Development* 8, no. 9 (2024): 7388.

while Indonesia still uses a sustainable finance governance approach that focuses on governance and reporting. This comparison shows that the effectiveness of ESG implementation is greatly influenced by the level of ESG integration into in the risk management and prudential supervision system. The stronger the connection between ESG and the credit granting process and regulatory oversight, the more likely sustainability principles are effectively applied in banking practice. Therefore, Indonesia needs to strengthen the ESG legal framework by integrating ESG due diligence into corporate credit analysis and making ESG risks a part of the banking prudential supervision system.

D. Challenges in Enforcing ESG Compliance in Corporate Lending

The implementation of Environmental, Social, and Governance (ESG) principles in corporate credit distribution is one of the key tools for creating a sustainable financial system. However, the effectiveness of ESG implementation is not only determined by the presence of regulations but also by the ability of the legal system to ensure that all stakeholders comply with the established sustainability standards. In practice, many countries still face complex challenges in enforcing ESG compliance laws, whether related to regulation, institutions, supervision, or the compliance culture within the corporate and banking sectors. These challenges are even more relevant in the banking sector because bank financing decisions have indirect impacts on economic activities that can potentially create environmental, social, and governance risks.[23]

1. The Lack of a Uniform ESG Standard

The main challenge in enforcing ESG laws is that there isn't a uniform ESG standard internationally. Although various international organizations have developed ESG guidelines and frameworks, like the International Sustainability Standards Board (ISSB), Global Reporting Initiative (GRI), Task Force on Climate-related Financial Disclosures (TCFD), and European Sustainability Reporting Standards (ESRS), each standard has different indicators, methodologies, and scopes. These differences make it difficult for banks to assess ESG compliance levels. Prospective borrowers. A company might be considered to have good ESG performance according to one standard, but receive a different rating based on another standard. As a result, there isn't a fully consistent measure to determine whether a corporation qualifies for ESG-based financing or not. This situation could potentially create legal uncertainty in applying sustainability principles in the banking sector.

2. The Risk of Greenwashing in Corporate Financing

The next challenge is the rise of greenwashing, which is when companies or financial institutions give the impression that they are following sustainability principles, even though their business activities still have negative impacts on the environment or society. Greenwashing has become one of the biggest threats to implementing ESG because it can undermine the credibility of the sustainable finance system and mislead investors and financing institutions. In the context of corporate lending, greenwashing can happen when a company submits sustainability reports that don't reflect the real situation or manipulates ESG data to get easier access to financing. If banks don't have proper verification and due diligence mechanisms, the risk of financing companies that aren't truly sustainable will increase. Therefore, Strengthening ESG audit mechanisms and independent verification has become a really important need in the banking oversight system.

3. Limitations of ESG Data and Information

[23] Korzeb et al., "ESG and Climate-Related Risks versus Traditional Risks in Commercial Banking: A Bibliometric and Thematic Review."

The effectiveness of ESG law enforcement also really depends on having accurate, transparent, and verifiable data. In practice, many companies, especially in developing countries, don't yet have adequate ESG reporting systems, so the information available is often incomplete or hard to compare between companies.[24]

The lack of data directly affects the credit analysis process carried out by banks. Without adequate ESG data, banks will struggle to identify the level of environmental and social risks inherent in a potential borrower's business activities. This situation can reduce the effectiveness of implementing Environmental and Social Risk Assessment (ESRA) and increase the likelihood of mistakes in making financing decisions.

Moreover, differences in ESG data quality between countries also create challenges for cross-border financing. Banks operating internationally have to deal with various reporting standards and disclosure systems, making the risk assessment process more complicated.

4. The Weakness of Oversight Mechanisms and Sanctions

Another pretty significant challenge is that the monitoring and law enforcement mechanisms for ESG compliance aren't fully effective yet. In many countries, including Indonesia, ESG regulations are still more focused on reporting and governance aspects rather than on implementing effective penalties for violations of sustainability principles.[25]

This situation makes ESG compliance often seen just as an administrative obligation. Banks that haven't fully integrated ESG into their credit processes generally don't face significant legal consequences. As a result, the incentive to implement ESG meaningfully is relatively low.

On the other hand, regulators also face limitations in resources and supervisory capacity when evaluating ESG implementation in the banking sector. ESG supervision requires multidisciplinary expertise covering finance, environmental issues, climate change, and corporate governance. Without adequate institutional capacity support, the effectiveness of ESG supervision will be hard to achieve.

5. The Conflict Between Profitability and Sustainability

The implementation of ESG in corporate lending also faces challenges in the form of conflicts between profitability goals and sustainability goals. As a business institution, banks have an obligation to maintain profitability and provide returns to shareholders. However, in some cases, projects or business sectors that offer high economic returns actually carry significant ESG risks. For example, the mining, fossil energy, and extractive industries often provide substantial profit opportunities for financial institutions. However, these sectors also have high environmental risks and can potentially conflict with ESG principles. This situation creates a dilemma for banks in setting financing policies that balance business interests with sustainability responsibilities. If not managed properly, this conflict can lead to ESG being treated merely as a reputational tools without being a substantial part of the credit decision-making process.

6. Special Challenges in Indonesia

In the context of Indonesia, the challenges of enforcing ESG law are still made tougher by the characteristics of a relatively newly developed regulatory system. Although Law No. 4 of 2023 on the Development and Strengthening of the Financial Sector and POJK No. 51/POJK.03/2017 have provided a legal basis for implementing sustainable finance, the regulations regarding ESG due diligence obligations in corporate lending are still not detailed.

Moreover, there is not yet a specific sanction mechanism aimed at banks that

[24] M Shygun and K Bezverkhyi, "Sustainability Reporting as a Tool for Corporate Social Responsibility," *European Journal of Sustainable Development Research* 10, no. 1 (2026): em0337.

[25] Gunawan et al., "Towards Sustainable Governance: Do Banking Sectors Practice Sustainable Finance beyond Compliance."

ignore ESG risks in granting credit. As a result, ESG implementation still depends on the commitment of each banking institution. Differences in readiness levels between banks also mean that ESG application in Indonesia is not yet happening uniformly.

Given these conditions, Indonesia's main challenge is no longer about creating basic regulations, but rather about strengthening law enforcement mechanisms, harmonizing ESG standards, increasing regulator oversight capacity, and integrating ESG into banks' prudential risk management systems. Without these steps, making ESG a key tool for achieving a sustainable financial system will be hard to accomplish optimally.

E. Rekonstruksi Model Penegakan Green Banking Berbasis ESG dalam Penyaluran Kredit Korporasi

The development of ESG regulations in various countries shows that the effectiveness of implementing green banking is not only determined by the existence of sustainable finance regulations, but also by law enforcement mechanisms that can integrate ESG principles into the entire corporate lending cycle. A comparative analysis of the European Union, the UK, Singapore, and Indonesia shows that countries with more effective ESG implementation tend to have characteristics such as integrating ESG into prudential risk management, strong regulatory supervision, sustainability due diligence obligations, and clear sanction mechanisms for violations of sustainability principles. On the other hand, approaches that only emphasize reporting (disclosure-based approach) tend to result in formalistic compliance without driving substantive changes in banking financing practices.[26]

Based on these findings, this study offers a new legal framework called the "ESG-Based Sustainable Credit Compliance Framework" as a model for reconstructing green banking enforcement in corporate lending in Indonesia. This model positions ESG not just as a sustainability reporting tool, but as an integral part of the credit decision-making system, risk management, and prudential oversight in the banking sector. Through this model, sustainability principles are integrated into all stages of financing, from the credit analysis process, the provision of financing facilities, post-financing supervision, to the resolution of problem loans related to ESG principle violations.

1. Integrating ESG Due Diligence into Corporate Credit Analysis

The first reconstruction that needs to be done is to make ESG Due Diligence a legal requirement in the corporate credit analysis process. So far, credit analysis in Indonesia has still been dominated by a financial approach that focuses on the debtor's ability to meet credit payment obligations. In fact, various studies show that environmental, social, and governance risks significantly affect a company's ability to maintain business performance and meet its financial obligations in the long run.[27]

Therefore, every corporate loan application needs to be accompanied by an evaluation of ESG indicators, which include environmental compliance, carbon emissions management, labor protection, respect for the rights of affected communities, and the quality of corporate governance. The results of the ESG assessment should be part of the credit scoring system and influence decisions on granting loans, the amount of financing, and the interest rates given to borrowers.

2. Strengthening ESG as Part of Banking Prudential Risk

The second reconstruction relates to a shift in the regulatory paradigm from voluntary ESG compliance to prudential ESG compliance. In this model, ESG risks are positioned as part of prudential risks that banks are required to manage, just like credit

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[26] Schramade, *Principles of Sustainable Finance (2nd Ed., Oxford University Press, 2023), Hlm. 85–102.*

[27] William Forbes, "Unconscious Thoughts as a Spur and Halt on Good Financial Decisioning Making," *International Review of Financial Analysis* 91 (2024): 103012.

risk, market risk, liquidity risk, and operational risk.[28]

This approach aligns with international regulations that increasingly view climate change and sustainability risks as threats to financial system stability. Therefore, the Financial Services Authority needs to integrate ESG indicators into the bank health rating system (risk-based bank rating) and prudential supervision mechanisms. As a result, a bank's failure to manage ESG risks can affect the regulator's assessment of the institution's risk management quality and governance.

3. Strengthening ESG Supervision and Audit by Regulators

The success of ESG implementation really depends on how effective regulator oversight is. So, the third reconstruction is about creating a more comprehensive ESG monitoring mechanism through regular ESG audits of the bank's financing portfolio. These audits aim to make sure that ESG principles are actually applied in the lending process and not just used as an administrative reporting tool.[29]

In this model, the OJK not only evaluates banks' compliance with sustainability reporting requirements, but also assesses the quality of ESG implementation in their financing policies, risk management systems, and credit decision-making. ESG-based supervision can also be supported through the development of digital reporting systems that allow regulators to monitor banks' financing exposure to sectors with high environmental and social risks.

4. Penerapan Sistem Insentif dan Sanksi Berbasis ESG

The next reconstruction is strengthening law enforcement mechanisms through the implementation of an incentive and sanction system based on ESG compliance levels. So far, sustainable finance regulations in Indonesia still don't impose significant legal consequences on banks that ignore ESG principles in corporate lending. As a result, compliance levels still largely depend on the internal commitment of each banking institution.[30]

In the proposed model, banks that consistently apply ESG principles and have a sustainable financing portfolio can get incentives like easier regulations, reduced reporting burdens, or access to government green financing programs. On the other hand, banks that are found to ignore ESG risks or finance business activities that go against sustainability principles could face administrative sanctions, higher risk reserve requirements, or restrictions on certain business activities.

5. Harmonization of Regulations and the Formation of the Green Banking Act

The latest reconstruction is related to creating a more integrated legal framework through the harmonization of various regulations governing sustainable finance. Currently, ESG regulations in Indonesia are still scattered across different legal instruments such as Law Number 4 of 2023 on P2SK, POJK Number 51/POJK.03/2017, the Indonesian Green Taxonomy, and various other sectoral policies. This situation could lead to regulatory fragmentation and uncertainty in ESG implementation.[31]

Therefore, it is necessary to develop a more comprehensive legal framework by strengthening specific regulations on green banking that clearly govern ESG standards, due diligence mechanisms, supervision, auditing, sanctions, and the responsibilities of banking institutions in supporting sustainable development. The presence of more

[28] Korzeb et al., "ESG and Climate-Related Risks versus Traditional Risks in Commercial Banking: A Bibliometric and Thematic Review."

[29] Gunawan et al., "Towards Sustainable Governance: Do Banking Sectors Practice Sustainable Finance beyond Compliance."

[30] Busch, *Sustainable Finance Disclosure in the EU Financial Sector*.

[31] VIVI SOFIANI et al., "Harmonization of Environmental Legal Policies With Banking Regulation in Indonesia," *Russian Law Journal* 11, no. 3 (2023): 1438–50, https://doi.org/10.52783/rlj.v11i3.1641.

integrated regulations will provide legal certainty while also reinforcing ESG's position as a main instrument in the national financing system.

Novelty Model: ESG-Based Sustainable Credit Compliance Framework

Based on the above explanation, this study offers the "ESG-Based Sustainable Credit Compliance Framework" as the novelty of the research. This model is built on five main pillars, namely:

1. Mandatory ESG Due Diligence in every corporate credit disbursement;
2. Integration of ESG into Banking Prudential Risk;
3. ESG Oversight and Audit by Regulators;
4. Implementation of ESG-Based Incentives and Sanctions;
5. Regulation Harmonization through the National Green Banking Framework.

This model positions ESG as a legally binding tool in the financing process, not just a reporting obligation. In this way, the banking system can act as an instrument for sustainable development that balances economic interests, environmental protection, and social responsibility. Besides providing legal certainty for the banking sector, this model also supports achieving sustainable development goals and the transition to a green economy in Indonesia.

III. CONCLUSION

This study shows that the development of the green banking concept is a response to the growing global demands for sustainable development, climate change, and strengthening the governance of the financial sector. In the context of modern banking, Environmental, Social, and Governance (ESG) principles are no longer seen as voluntary tools, but have evolved into part of risk management and governance mechanisms that influence corporate lending processes. Integrating ESG into financing activities reflects a shift in the paradigm from financial-based lending to sustainability-based lending, where credit decisions consider not only the debtor's financial capacity but also the environmental, social, and governance impacts of the company on long-term business sustainability.

Research results show that the legal framework for ESG compliance in the banking sector is developing through the integration of sustainable finance principles, prudential risk management, and good corporate governance. At the international level, various instruments such as the Sustainable Finance Disclosure Regulation (SFDR), EU Taxonomy Regulation, Corporate Sustainability Reporting Directive (CSRD), Principles for Responsible Banking (PRB), and various environmental risk management guidelines have pushed the financial sector's regulatory transformation toward a more sustainability-oriented system. Meanwhile, in Indonesia, the implementation of ESG has gained a legal basis through Law Number 4 of 2023 on the Development and Strengthening of the Financial Sector and POJK Number 51/POJK.03/2017. However, existing regulations still emphasize governance and reporting aspects more than integrating ESG as a mandatory tool in corporate credit analysis processes.

A comparative analysis of the European Union, the UK, Singapore, and Indonesia shows differences in ESG regulation models in the banking sector. The EU uses a mandatory sustainability compliance model that integrates ESG into legal obligations and financial sector supervision. The UK has developed a prudential risk-based regulation model, treating ESG as part of the financial risks that banks need to manage. Singapore applies an environmental risk management model that incorporates environmental risks into banks' risk management systems with a flexible approach. Meanwhile, Indonesia still uses a sustainable finance governance approach focusing on governance and sustainability reporting. This comparison shows that the effectiveness of ESG implementation is highly influenced by how well ESG is integrated into prudential oversight systems and credit decision-making processes.

This study also found that the implementation of ESG in corporate lending still faces several challenges, including the lack of globally standardized ESG criteria, the rise of greenwashing practices, limitations in ESG data and information, weak supervision and sanction mechanisms, and conflicts between profitability goals and sustainability objectives. In the context of Indonesia, these challenges are further compounded by the absence of mandatory ESG due diligence in corporate credit analysis and the lack of legal enforcement mechanisms specifically addressing the consequences for banks that ignore ESG risks in their financing processes. As a result, ESG implementation still heavily relies on the internal commitment of each banking institution and has not yet become an integral part of the national prudential supervision system. As a novelty, this study offers a model called the "ESG-Based Sustainable Credit Compliance Framework", as a reconstruction of the green banking enforcement system in Indonesia. This model is built on five main pillars, which are: (1) the implementation of Mandatory ESG Due Diligence in every corporate credit distribution process; (2) integration of ESG into the banking prudential risk system; (3) strengthening ESG supervision and audits by regulators; (4) implementation of ESG-based incentives and sanctions; and (5) harmonization of regulations through the establishment of a more comprehensive national green banking legal framework.

The model positions ESG as a legal instrument that is binding and integrated throughout the entire financing cycle, from credit analysis to post-financing supervision.

Thus, this study emphasizes that strengthening the enforcement of ESG compliance in corporate lending is an important prerequisite for achieving a sustainable banking system. Integrating ESG into regulations and prudential supervision not only serves as a tool for environmental and social protection but also as a risk mitigation mechanism that can enhance the stability of the national financial system. Therefore, regulatory reform and institutional strengthening are strategic steps that need to be taken to ensure that Indonesia's banking sector can act as a driving force for sustainable development while supporting the transformation toward a competitive and fair green economy.

Research Implications

Theoretical Implications:

This study enriches the study of banking law and sustainable finance law by developing the concept of ESG compliance as part of the banking prudential regime, not just a sustainability reporting obligation.

Practical Implications:

The government, OJK, and the banking sector need to integrate ESG into credit analysis systems, risk supervision, and banking governance through the creation of more comprehensive regulations and effective law enforcement mechanisms.

Research Novelty (Novelty):

An ESG-Based Sustainable Credit Compliance Framework as a legal model that integrates mandatory ESG due diligence, prudential risk, regulatory supervision, ESG incentives and sanctions, as well as harmonization of green banking regulations within the corporate credit distribution system in Indonesia.

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