

Green Economy and Sustainable Finance: Mapping the Readiness of Indonesian Financial Institutions

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Abstract

This research undertakes a comprehensive exploration of the readiness of Indonesian financial institutions to implement the core principles of a green economy and sustainable finance. In an era where global capital is increasingly directed toward environmentally and socially responsible ventures, the capacity of the national financial sector to respond to this shift is a critical determinant of Indonesia's long-term economic resilience. Through a multi-method study that combines a systematic document analysis of 30 institutional reports and disclosures with in-depth, semi-structured interviews with 18 finance professionals, the paper provides a nuanced evaluation of current practices. The analysis focuses on five key readiness criteria: the existence of dedicated ESG policies, the integration of environmental risk into credit and investment frameworks, the innovation of sustainable products (e.g., green bonds), internal technical capacity, and the extent of stakeholder engagement. The findings reveal a moderate but uneven state of readiness across the sector, with top-tier commercial banks demonstrating greater preparedness than regional and smaller institutions. The primary barriers identified include persistent regulatory uncertainty, a significant lack of trained technical capacity, the low availability of standardized ESG data, and a perceived conflict between sustainability initiatives and short-term profitability. This paper concludes by arguing that while regulatory momentum exists, progress is hampered by institutional inertia and capacity gaps. It proposes a strategic roadmap for greater coordination among regulators, financial institutions, and academic bodies to embed sustainable finance as a core component of the Indonesian financial ecosystem, thereby aligning the sector's growth with the nation's ambitious green economy goals.

Keywords: green economy, sustainable finance, ESG, financial institutions, Indonesia, climate risk, sustainable development goals, green bonds.

1. Introduction

The global imperative to address climate change and environmental degradation has fundamentally altered the landscape of finance. Sustainable finance, which strategically integrates Environmental, Social, and Governance (**ESG**) criteria into investment and lending decisions, has moved from a niche concern to a mainstream requirement for business resilience and long-term value creation. Financial institutions, as the primary allocators of capital, are positioned at the heart of this transition. Their ability to redirect capital flows from high-carbon, environmentally damaging activities toward green, sustainable projects is a pivotal factor in achieving a global green economy.

For Indonesia, a country with a vast natural resource base and a high vulnerability to the impacts of climate change, this transition is not just an option but a national imperative. The government has committed to ambitious climate targets, and a series of policies, including the Financial Services Authority's (**OJK**) Sustainable Finance Roadmap, signal a clear intent to align the financial sector with these goals. However, the official policy landscape and the actual practices within financial institutions can often diverge. While some large corporations and banks have made significant strides, the readiness of the entire sector, including regional banks, insurers, and smaller investment firms, remains a critical but under-explored question.

This paper addresses this gap by assessing the current state of readiness among Indonesian financial institutions in adopting sustainable finance practices. It moves beyond a general overview to a detailed analysis of the institutional, technical, and strategic factors that either enable or hinder this transition. We seek to understand the following key questions: What is the current level of sustainable finance adoption in Indonesia? What are the primary enablers and barriers to a deeper integration of ESG principles? And what actionable steps can be taken by regulators and industry players to accelerate this transformation? By providing a detailed map of the sector's readiness, this research offers a valuable contribution to policymakers, industry leaders, and academic scholars working to build a more sustainable and resilient Indonesian economy.

2. Literature Review

The concept of sustainable finance has evolved from its origins in socially responsible investing (SRI) to a more integrated, holistic framework. Seminal work by the **United Nations Environment Programme Finance Initiative (UNEP FI)** and the **Principles for Responsible Investment (PRI)** has established the theoretical and practical foundations for embedding ESG into core financial practices. The literature posits that ESG integration is not merely an ethical consideration but a crucial element of risk management, as environmental and social factors (e.g., climate change, social inequality) can have direct and material impacts on a firm's financial performance.

The role of financial institutions in a **green economy** is multifaceted. Scholars have identified several key functions:

1. **Capital Mobilization:** Financial institutions can direct capital to green projects through instruments like green bonds, green loans, and impact investing funds.
2. **Risk Management:** They can integrate environmental and climate-related risks (both physical and transitional) into their credit risk and investment frameworks. This includes assessing the climate resilience of a borrower's assets or the regulatory risks associated with carbon-intensive industries.
3. **Market Creation:** By developing and promoting innovative sustainable financial products, they can create new markets and incentives for green economic activities.
4. **Transparency and Disclosure:** Through robust reporting, they can increase transparency, allowing investors to make more informed decisions and holding companies accountable for their environmental performance.

In the context of emerging markets like Indonesia, the literature points to unique challenges. Research by the **Asian Development Bank (2022)** and the **World Bank** has highlighted that while these countries have a strong potential for green growth, their financial sectors often face specific hurdles. These include a high dependence on carbon-intensive industries, a less developed regulatory and disclosure infrastructure, and a lack of technical expertise in assessing non-financial risks. A study by the **IFC (2021)** also noted

that the drivers for sustainable finance in emerging markets are often external, stemming from the demands of international investors and lenders, rather than a purely internal, strategic commitment. This can lead to a "compliance-oriented" approach to ESG, where institutions meet minimum requirements without fully integrating sustainability into their core business model.

This paper builds upon this existing body of knowledge by providing a focused, empirical assessment of the Indonesian financial sector. By analyzing the gap between national policy ambitions and on-the-ground institutional practices, we aim to contribute a detailed, evidence-based understanding of the challenges and opportunities for sustainable finance in a critical emerging economy.

3. Methodology

This research employs a **mixed-methods approach** to provide a comprehensive and nuanced analysis of the readiness of Indonesian financial institutions. The methodology was designed to combine the breadth of data from a content review with the depth of insight from qualitative interviews.

3.1. Data Collection The research data was gathered through three primary methods:

- **Content Analysis:** We conducted a systematic content analysis of 30 publicly available ESG-related reports and disclosures from a diverse sample of financial institutions, including commercial banks, state-owned enterprises, insurance companies, and investment firms. The reports, spanning the period from 2021 to 2023, included annual reports, sustainability reports, and integrated reports. The analysis focused on identifying the presence and quality of disclosures related to ESG policies, environmental risk management, and sustainable product offerings.
- **Semi-Structured Interviews:** We conducted 18 semi-structured interviews with a diverse group of finance professionals. The interviewees were strategically selected to represent a cross-section of the industry:
 - **Bank Executives (8):** Managers from credit risk, corporate finance, and sustainability divisions of both top-tier and regional banks.

- **Insurance Professionals (4):** Actuaries and risk managers from major insurance companies.
- **Investment Managers (3):** Analysts and portfolio managers from capital markets and asset management firms.
- **Regulatory Body Officials (3):** Representatives from the OJK and the Ministry of Environment & Forestry. The interviews were designed to capture the practitioners' perspectives on the challenges, opportunities, and practicalities of implementing sustainable finance strategies.
- **Policy Review:** We performed a detailed review of key policy documents from the OJK (e.g., Sustainable Finance Roadmap Phase II), Bank Indonesia, and the Ministry of Environment & Forestry to map the regulatory landscape and identify the key drivers and incentives for sustainable finance adoption.

3.2. Readiness Index Development A central component of our methodology was the development of a **Readiness Index**, a quantitative tool to evaluate institutional preparedness. The index was built on five key criteria, each with a scoring rubric:

1. **ESG Policy:** Does the institution have a dedicated, publicly disclosed ESG or sustainability policy? (Score: 0-10)
2. **Environmental Risk Integration:** Is environmental risk (e.g., climate, biodiversity) integrated into credit evaluation, lending, and investment decisions? (Score: 0-25)
3. **Product Innovation:** Does the institution offer sustainable financial products (e.g., green bonds, sustainable loans, ESG funds)? (Score: 0-25)
4. **Internal Capacity:** Does the institution have a dedicated sustainability team, trained ESG analysts, and a robust data collection system? (Score: 0-20)
5. **Stakeholder Engagement:** Does the institution actively engage with stakeholders (investors, NGOs, regulators) on sustainability issues? (Score: 0-20)

The scores from the content analysis and interviews were combined to create an overall readiness score for each institution. This index allowed for a quantitative benchmarking of readiness across the sample, providing a structured basis for our discussion of the findings.

4. Results and Discussion

The findings of this research reveal a complex and nuanced picture of the Indonesian financial sector's readiness for sustainable finance. The analysis confirms that while there is growing awareness and some pioneering efforts, the overall pace of adoption remains moderate and highly uneven.

4.1. Readiness Index Findings: A Sectoral Disparity The Readiness Index provided a clear quantitative snapshot of the sector's preparedness. The average readiness score for the entire sample was **58 out of 100**, indicating a moderate level of readiness. However, this average masks significant sectoral disparities.

- **Top-Tier Commercial Banks** (e.g., banks with large international capital exposure) had the highest average readiness scores, often exceeding 75. These institutions demonstrated strong performance across all five criteria, with dedicated ESG policies, a growing portfolio of green products, and robust stakeholder engagement.
- **Regional Banks and Insurance Companies** lagged significantly, with average scores below 45. Their lower scores were primarily due to a lack of dedicated ESG policies and minimal integration of environmental risk into their core business functions.
- **Capital Market Firms** showed a mixed performance. While some large asset managers had integrated ESG into their investment strategies, many smaller firms lacked the technical capacity and regulatory drivers to do so.

4.2. Institutional Frameworks: Policy and Risk Integration The content analysis revealed that only **40% of the surveyed institutions had a dedicated, publicly disclosed ESG policy**. For those that did, the policies often focused on a broad commitment to sustainability without providing specific, quantifiable targets or implementation timelines. Similarly, the integration of environmental risk into core business functions was limited, with only **35% of institutions** including environmental risk assessments in their credit evaluations. Interviews revealed that this was often a voluntary, ad-hoc process rather than

a formalized, system-wide requirement. The primary reason cited for this was a lack of a clear, standardized framework for assessing environmental risk and a perceived conflict between these new assessments and the traditional, speed-focused credit approval processes.

4.3. Product Innovation and Market Development Green product offerings were a key differentiator of readiness. Our research found that top-tier commercial banks were leading the way in this area, with some having successfully issued **green bonds** and developed a portfolio of **sustainable loans** for renewable energy projects and sustainable agriculture. However, this innovation was concentrated at the top. The majority of institutions, particularly regional banks and insurers, offered no dedicated green products. This highlights a significant gap in market development, suggesting that while there is a demand for green capital, the supply of innovative financial products to meet that demand is limited to a few major players.

4.4. Key Barriers to Readiness Our interviews and analysis identified several key barriers that consistently hindered sustainable finance adoption:

- **Regulatory Uncertainty:** While the OJK has issued guidelines, many finance professionals expressed a need for more granular, mandatory, and sector-specific regulations. They argued that the current guidelines, while well-intentioned, are often too broad and do not provide sufficient incentives or penalties for non-compliance.
- **Limited Technical Capacity:** The most significant barrier was the lack of trained ESG analysts and professionals. Institutions reported a shortage of talent with the skills to perform materiality assessments, measure carbon footprints, or integrate climate models into financial risk analysis.
- **ESG Data Gaps:** The low availability of standardized, reliable, and auditable ESG data from Indonesian companies was a major challenge. This "data black hole" makes it difficult for financial institutions to accurately assess the ESG performance of their clients and portfolio companies.

- **Perceived Conflict with Profitability:** A persistent belief among some managers, particularly in regional institutions, was that sustainable finance initiatives were an added cost and a threat to short-term profitability. This mindset represents a fundamental philosophical barrier to the full-scale adoption of ESG principles.

5. Strategic Recommendations

Based on our findings, this paper proposes a strategic roadmap for accelerating the readiness of Indonesian financial institutions for sustainable finance. This roadmap requires a coordinated effort across regulators, the financial sector, and the education system.

5.1. For Regulators (OJK, Bank Indonesia):

- **Mandate Granular Disclosure:** The OJK should transition from a voluntary to a mandatory ESG disclosure framework, providing sector-specific taxonomies and clear reporting standards. This would improve data availability and comparability across the market.
- **Incentivize Green Products:** Policymakers should introduce financial incentives for banks and other institutions that offer green products, such as lower reserve requirements for green loans or tax breaks for green bond issuers.
- **Create a Regulatory Sandbox:** A dedicated regulatory sandbox for sustainable finance would allow for the development and testing of new green products and technologies in a controlled environment, reducing risk and fostering innovation.

5.2. For Financial Institutions:

- **Invest in Capacity-Building:** Institutions must prioritize investments in training and developing a dedicated team of ESG professionals. This can be done through partnerships with universities and professional bodies to create certified ESG analyst programs.
- **Integrate ESG into Core Systems:** Sustainable finance should not be a standalone function but must be integrated into core business processes. This includes

- embedding ESG criteria into credit risk models, investment mandates, and procurement policies.
- **Collaborate on Data Platforms:** Institutions should collaborate on building a centralized, standardized platform for ESG data from Indonesian companies. This would address the data black hole and make ESG analysis more efficient and cost-effective for all players.

5.3. For the Education and Research Sector:

- **Develop ESG-Focused Curriculum:** Universities should develop and integrate sustainable finance and ESG modules into business, finance, and accounting curricula. This will help to build a pipeline of future professionals with the necessary skills.
- **Promote Applied Research:** Academic institutions should partner with financial institutions to conduct applied research on a range of topics, such as developing a localized ESG materiality map for Indonesia's key sectors or modeling climate-related financial risks.

6. Conclusion

The transition to a green economy is a strategic imperative for Indonesia, and its success is inextricably linked to the readiness of its financial sector. This study has provided an empirical assessment of this readiness, revealing a moderate but uneven state of preparedness. While pockets of excellence exist, particularly within top-tier commercial banks, the broader institutional landscape is hindered by a lack of coordinated regulatory action, a significant capacity gap, and persistent cultural and perceptual barriers.

The findings underscore that sustainable finance in Indonesia is still in its nascent stages, with many institutions still viewing it as a compliance exercise rather than a strategic opportunity. To accelerate this transition, a systemic and coordinated effort is required. By strengthening regulatory mandates, investing in technical capacity, and fostering a collaborative ecosystem, Indonesia's financial institutions can move from being passive observers to active drivers of the nation's green economic transformation. Future research

should focus on a deeper quantitative analysis of the correlation between sustainable finance practices and the long-term financial performance of Indonesian firms.

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