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Indonesian Banking at the Crossroads of the Renewable Energy Transition

An Analysis of Experts' and Opinion-Makers' Perceptions in Indonesia

October 2025

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Yayasan Indonesia Cerah, also known as CERAH, is an Indonesian non-profit organization working to advance the energy transition policy agenda in Indonesia. CERAH combines deep knowledge of the energy sector, cutting-edge communications capacity, and the aspiration to drive change.

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Foreword

Indonesia's energy transition is facing complex challenges that demand serious commitment from all parties, including the financial sector. The government has pledged to achieve Net Zero Emissions by 2060 or earlier; however, the financing landscape still shows fossil fuels dominating the economy. The *Bersihkan Bankmu* (Clean Up Your Bank) report by the Koalisi Bersihkan Indonesia (Clean Indonesia Coalition) revealed that Indonesian financial institutions disbursed up to US$7.2 billion in loans to coal companies between 2021 and 2024. This situation raises crucial questions about the domestic financial sector's readiness to shift funding toward more sustainable, renewable energy sources.

The report *"Indonesian Banking at the Crossroads of the Renewable Energy Transition: An Analysis of Experts' and Opinion-Makers' Perceptions in Indonesia"* aims to provide a comprehensive overview of the insights, critical perceptions, and concerns emerging from stakeholders in the financial sector. The key findings indicate that despite awareness of the urgency of the energy transition, significant barriers persist, ranging from regulatory issues and financial risks to limited incentives, making the banking sector cautious about shifting its financing toward renewable energy.

The primary objective of this report is not only to present data but also to enrich public and policy-making discourse on the direction of energy financing in Indonesia. By amplifying the perspectives of Key Opinion Leaders and Bank/Finance Experts, this report aims to serve as a reference for developing more targeted policies, strategies, and collaborative initiatives to accelerate the energy transition in Indonesia.

We hope this study serves as a foundation for building a greener, more inclusive, more equitable and ultimately more sustainable financial system. Through open dialogue, shared commitment, and cross-sector collaboration, Indonesia can strengthen its path toward a clean energy future while ensuring socio-economic justice for all segments of society.

Agung Budiono
Executive Director of CERAH

CERAH

Foreword

Today, the energy transition is no longer a matter of choice but an urgent necessity. Indonesia faces a dual challenge: on one hand, we must reduce emissions to achieve the 2060 Net Zero Emissions target; on the other hand, the current financing landscape continues to show a dominance of investment in fossil fuels, particularly coal. This situation raises a critical question: to what extent is our financial sector prepared to shift financing toward renewable energy?

This study seeks to answer that question by listening directly to the voices of Key Opinion Leaders and Bank Experts at the heart of the financial ecosystem. Their perceptions, critical views, and concerns offer a clear understanding of how the direction of energy financing in Indonesia is viewed, interpreted, and contested. We believe this report not only presents data but also opens up space for dialogue: How can we collectively ensure that bank financing flows favor renewable energy? What needs to change in policies, strategies, and the mindset of industry players? We deliberately present these questions as food for thought and call for collective action. Ultimately, we hope the results of this study can help spark broader dialogue and serve as a stepping stone toward a greener, more equitable, and more sustainable financial system for Indonesia.

Disclaimer

This study is based on data collected through surveys and in-depth interviews (IDIs) with selected respondents representing diverse perspectives within Indonesia's financial and energy ecosystems. The information gathered reflects the respondents' perceptions, experiences, and views on the dynamics of renewable energy financing in Indonesia.

The analysis of this study relies on data and insights provided directly by stakeholders. Consequently, the findings represent the views of specific individuals or groups and are subject to the limitations of the information availability and reliability.

The results of this study are not intended to produce broad generalizations. Rather, it aims to offer insights, identify key issues, and enrich the discussion on the direction of Indonesia's energy transition.

The findings in this report should be understood as a snapshot of perceptions during a specific period. They are serving as initial input for further research, as well as for the development of communication strategies and policy advocacy.

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Executive Summary

Indonesia has set commitments and targets for reducing carbon emissions, including those outlined in the Nationally Determined Contribution (NDC) by 2030 and the Net Zero Emissions target by 2060. The energy sector is one of the main pillars of this effort, particularly through reducing dependence on fossil fuels and accelerating investment in renewable energy. As of 2024, the realization of the new and renewable energy mix was only 14.65% (Ministry of Energy and Mineral Resources, 2025), falling short of the initial 23% target set for 2025 in the National Energy General Plan (RUEN)[1].

Funding support from both the public and private sectors is essential to accelerate the renewable energy deployment. The energy sector is estimated to require approximately USD 20-40 billion in funding annually to achieve Net Zero Emissions by 2060 (IESR, 2024). In 2024, credit/financing flows from the banking sector for renewable energy and energy efficiency amounted to only IDR 55 trillion, representing just 2.7% of total funds allocated to Environmentally Conscious Business Activities (OJK, 2025). In contrast, commercial bank financing to support the mining and quarrying sector reached IDR 373 trillion as of December 2024 (OJK, 2025).

Most banks acknowledge the urgency of the climate crisis. However, a gap remains between awareness and action, with sustainable financing decisions largely driven by regulations and compliance (compliance-led). Most bank executives and analysts agree that decisions on sustainable financing or ESG are primarily motivated by regulatory requirements rather than internal initiatives. Banks of Himbara (The Association of State-owned banks) tend to wait for directives from the government or OJK before taking action, while private banks are more inclined to act voluntarily but remain influenced by the regulatory framework. This reflects a compliance-led approach, where actions focus mainly on fulfilling obligations, minimizing risks, and ensuring regulatory adherence.

Furthermore, banks continue to adopt a pragmatic approach, as the coal industry remains a primary energy source and is relatively financially stable. The profit gap between the fossil fuel and renewable energy sectors remains significant. For example, the Domestic Market Obligation (DMO) policy sets the domestic coal selling price at only US$70 per ton. This price distortion keeps coal cheaper than market rates, making renewable energy appear less competitive. Additionally, renewable energy is often positioned merely as a supplementary source rather than being fully recognized as a primary energy source, resulting in limited development.

[1] This target has been revised through Government Regulation No. 40 of 2025 on the National Energy Policy, which sets the new and renewable energy mix target at between 19% and 23% by 2030

Despite this, a shift toward renewable energy has begun to emerge, particularly among foreign banks. However, the transition of financing from fossil fuels to renewable energy in Indonesia remains gradual and selective. Several concrete initiatives have been introduced, although their scale is still limited and they require further support in the form of regulations, incentives, and market certainty. Notable commitments made by banks include the establishment of dedicated ESG divisions, the issuance of green bonds and green sukuk, as well as financing through sustainability-linked loans and green loans.

Banks tend to take a cautious approach, prioritizing loss avoidance over pursuing potential benefits (benefit-oriented). For example, they place strong emphasis on minimizing the risk of strategic missteps and perceive reputational risks as outweighing potential gains. As a result, loss avoidance becomes a key consideration for banking institutions, as financial risks, reputational risks, potential stranded assets, and regulatory dynamics play a significant role in internal decision-making.

In implementing the energy transition, the distribution of renewable energy project financing risks remains a significant challenge, requiring a more balanced risk distribution among stakeholders, including banks, borrowers, and the government. The role of banks as a driving force is often overestimated, leading to increased pressure on them to ensure borrowers' compliance. In addition, banks must mitigate the risk of default on renewable energy loans, as such defaults can directly lead to non-performing loans. Policy dynamics and social resistance add further challenges, being difficult to predict and potentially increasing non-performing loan risks.

The renewable energy transition can only be achieved through collaboration among the government, banks, and other stakeholders. For banks, the key challenge is to transform ESG practices from mere compliance into a core strategy. Meanwhile, the government needs to foster cross-stakeholder collaboration and strengthen both monetary and non-monetary regulations and incentives. Through such synergy, green financing can be more effectively directed toward achieving energy transition targets and mitigating the climate crisis more sustainably.

Chapter 1

Why Is Financing for the Energy Transition Becoming Increasingly Urgent?

A. The Impact of the Climate Crisis, Net Zero Targets, and the Role of the Financial Sector in Driving Systemic Change

Indonesia has committed to reducing emissions by 31.89% through its own efforts and by 43.20% with international support by 2030, in accordance with its Nationally Determined Contribution (NDC). In line with this, Indonesia also aims to achieve Net Zero Emissions by 2060 or earlier. The Indonesia Third Biennial Update Report (2021) estimates that the funding needed to meet the 2030 climate targets is at least USD 285 billion. However, a significant financing gap remains, amounting to 51% of the total funding requirement (CPI, 2023).

The energy sector is one of the main pillars of this commitment, particularly through reducing dependence on fossil fuels and accelerating investment in renewable energy. According to the National Energy General Plan (RUEN), the share of new and renewable energy mix was initially targeted to reach 23% by 2025. However, as of 2024, the realization stood at only 14.65% (KESDM, 2025). The target was subsequently revised through Government Regulation No. 40 of 2025 on the National Energy Policy, which sets the new and renewable energy mix target between 19% and 23% by 2030.

The energy sector, in particular, is estimated to require approximately USD 20-40 billion in annual funding to achieve its net zero emissions target by 2060 (IESR, 2024). Indonesia's Just Energy Transition Partnership (JETP) scenario also estimates cumulative funding needs for the electricity sector from 2023 to 2030 at a minimum of USD 97.1 billion (CIPP JETP, 2023). Even with the support from the USD 20 billion JETP Indonesia funding scheme, the funding gap for the electricity sector is projected to remain at 79%.

The financial sector plays a strategic role as a provider of financing, a risk manager, and a driver of capital flows that shape the direction of low-carbon development. The Financial Services Authority (OJK)'s sustainable finance policy can serve as momentum to increase financing flows to the energy sector. In 2024, bank credit and financing for renewable energy and energy efficiency amounted to only IDR 55 trillion, or 2.7% of total funds allocated to Environmentally Conscious Business Activities (OJK, 2025). In contrast, funding flows from commercial banks to support the mining and quarrying sector reached IDR 373 trillion as of December 2024 (OJK, 2025).

The distribution of funds from financial institutions to environmentally conscious business activities should ideally be aligned with and linked to national and international commitments, ensuring that their contributions are clearer and more measurable. Moreover, efforts are needed to address various challenges and provide support to financial institutions to optimize the distribution of financing that supports the energy transition. Achieving these goals requires a transformation not only within the energy sector but also across the financial sector.

> ***"The transition to a low-carbon energy system requires not only policy reforms but also strong support from the financial sector."***

B. How This Report Was Developed: From Reality to Action

This study focuses on understanding the perceptions of financial sector experts regarding fossil fuel and renewable energy financing, as well as their role in supporting the energy transition. It outlines the pathway from reality to action in advancing the energy transition in Indonesia, beginning with mapping perception and awareness gaps related to the climate crisis. The analysis then assesses the institutional shift toward renewable energy financing and industry commitments through ESG indicators. It further identifies critical barriers to the adoption of green financing compared to fossil fuel-based financing. The study ultimately formulates strategies and policy recommendations to strengthen sustainable renewable energy financing.

	Gaps, Perception and Awareness	The Journey to Renewable Energy Financing	Industry Attractiveness and Commitment to Renewable Energy Financing	Addressing Critical Barriers to Renewable Energy Financing	Strategies and Recommendation to Promote Renewable Energy Financing
Objective	Understand respondents' perceptions of the climate crisis and energy transition, including their impacts on daily life and the factors driving engagement in climate action.	Understand the extent to which institutions have transitioned to green financing and the factors influencing switching behaviour.	Understand the role of ESG as an indicator and its influence on institutional investment decisions across different time horizons.	Identify push, pull, and mooring factors in the transition from coal financing to green financing.	Understand respondents' backgrounds, bank types, and portfolios with existing green strategies.
Framework	Understand the social, cultural, and institutional factors that influence public acceptance of policies, technologies, or innovations.	• Political Economic Social Technology Legal and Environment framework. • Green financing vs coal financing mechanisms using the PMBOK framework (initiating, planning, executing, monitoring).	Measure perceptions of green financing prospects in the short term (2025), medium term (2027), and long term (2030).	Push-Pull-Mooring (PPM) and Institutional Theory.	Explore policy solutions, including regulatory support and standardization of taxonomies.

Figure 1.1: Report Development Framework

Chapter 2

The Gap Between Awareness and Action: Mapping Banks' Perspectives on Energy Transition Financing

A. From Reality to Action: Climate Crisis Mitigation by Banks

The climate crisis is becoming increasingly evident and has emerged as a concern across all sectors, including the financial sector. While most banks acknowledge the urgency of the issue, concrete action remains limited, revealing a significant gap between awareness and implementation. This study applied four measurement indicators: awareness, interest, desire, and participation. The findings highlight varying levels of readiness among banks in responding to the climate crisis.

This section explores in greater depth the dynamics between awareness and action from the perspective of banks, as well as the role of professional experience in driving the shift from awareness to implementation. As tenure and authority increase, banks tend to move beyond mere awareness toward taking concrete action. In addition, the discussion highlights that climate crisis mitigation efforts are still largely reactive, with activities primarily driven by regulatory requirements and peer effect, while personal initiative remains relatively low.

1. Awareness of Climate Crisis Issues in the Banking Industry

a. High Awareness Not Yet Matched by Concrete Action

As many as 37% of respondents acknowledge that the climate crisis is a significant issue, but have not taken further steps to address it. This reflects a gap between conceptual understanding of the climate crisis and the implementation of concrete actions to mitigate it.

b. Interest in contributing is still developing

The sampling results show that only around 24% of respondents want to contribute to climate action and are actively seeking ways to do so, while 22% are just beginning to understand the relevance of this issue to their work and daily lives. This indicates that while awareness has increased, the motivation to act remains in its early stages.

c. Active participation is still very limited

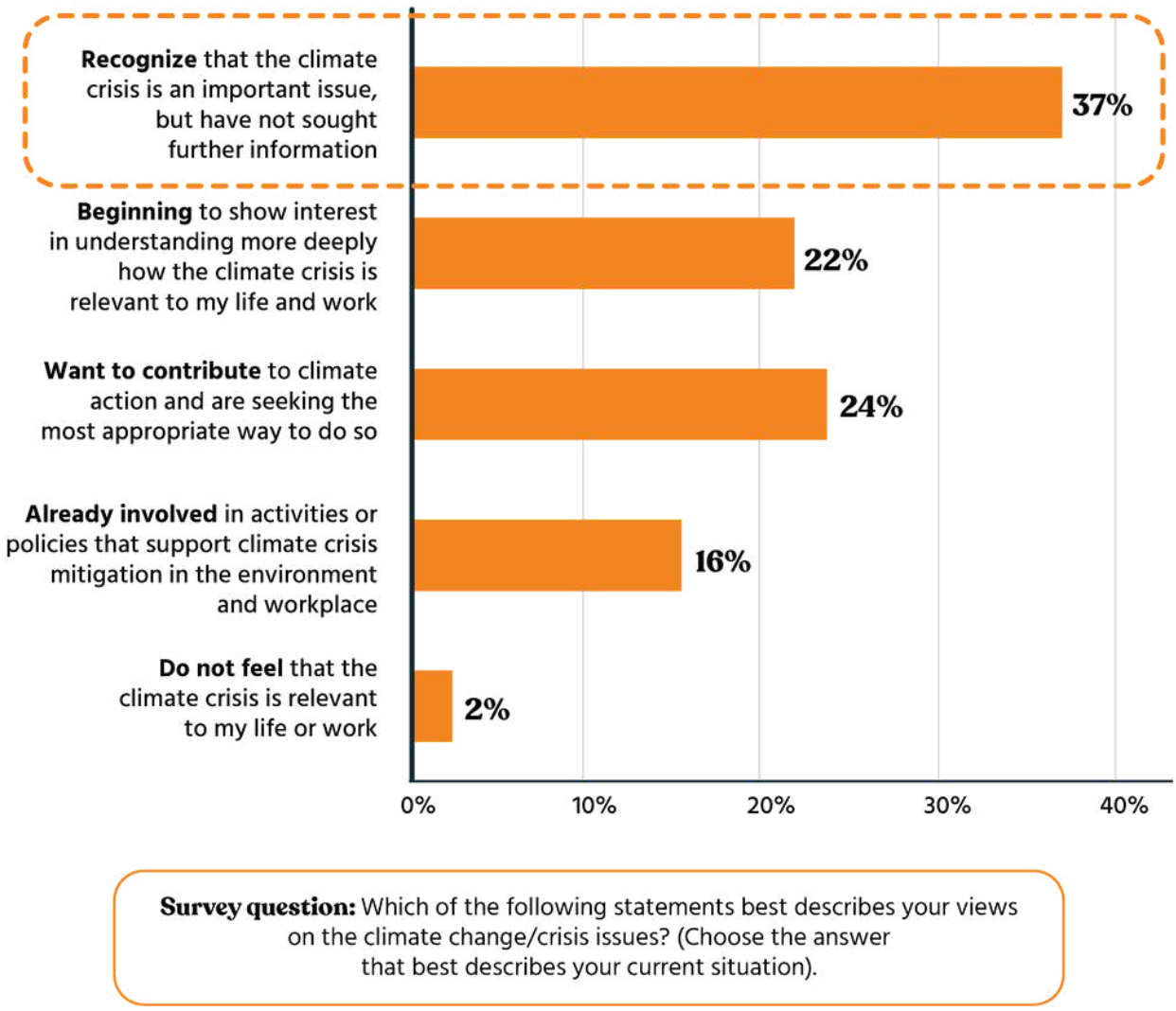
Around 16% of respondents are actively involved in climate crisis mitigation efforts or policies within their communities. This suggests that, although awareness has increased, concrete actions at both the individual and organizational levels have not yet become mainstream practice.

d. Very low level of indifference

The 2% of respondents who consider this issue irrelevant to their work or lives suggests that the vast majority recognize the urgency of the climate crisis, even though not all are prepared to take action.

2. Respondents' Views on Climate Change/Crisis Issues

Five indicators were used to assess the extent of respondents' understanding of the issue of climate change/crisis, starting from the level of awareness, interest, drive to act, to actual participation in actions related to the issue of climate change/crisis.



Graph 2.1: Graph of Respondents' Understanding of Climate Change/Crisis Issues

As age and tenure increase, banks' perspectives shift from awareness to action. This suggests that the likelihood of taking action grows with more work experience and role authority.

Awareness of the climate crisis also varies by generation and professional experience.

Gen Z is predominantly in the awareness stage

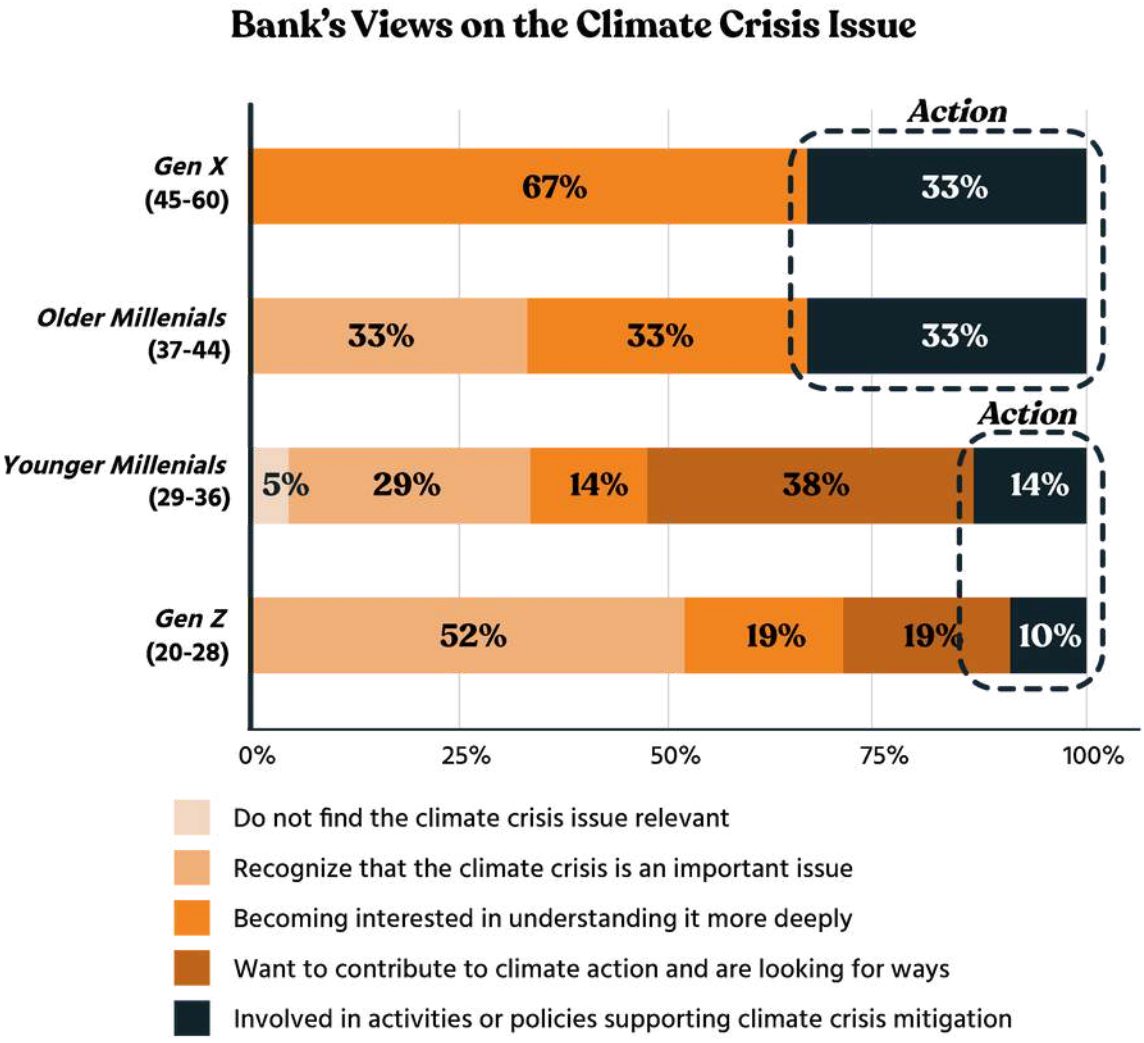
With the shortest tenure, the majority of Gen Z respondents (52%) remain in the awareness stage, indicating that limited professional experience influences their level of engagement.

Younger Millennials demonstrate a desire to contribute

Current data shows that 38% of younger Millennials are contributing, indicating that their longer work experience compared to Gen Z drives increased awareness and a stronger intention to contribute.

Older generations show a relatively higher level of action

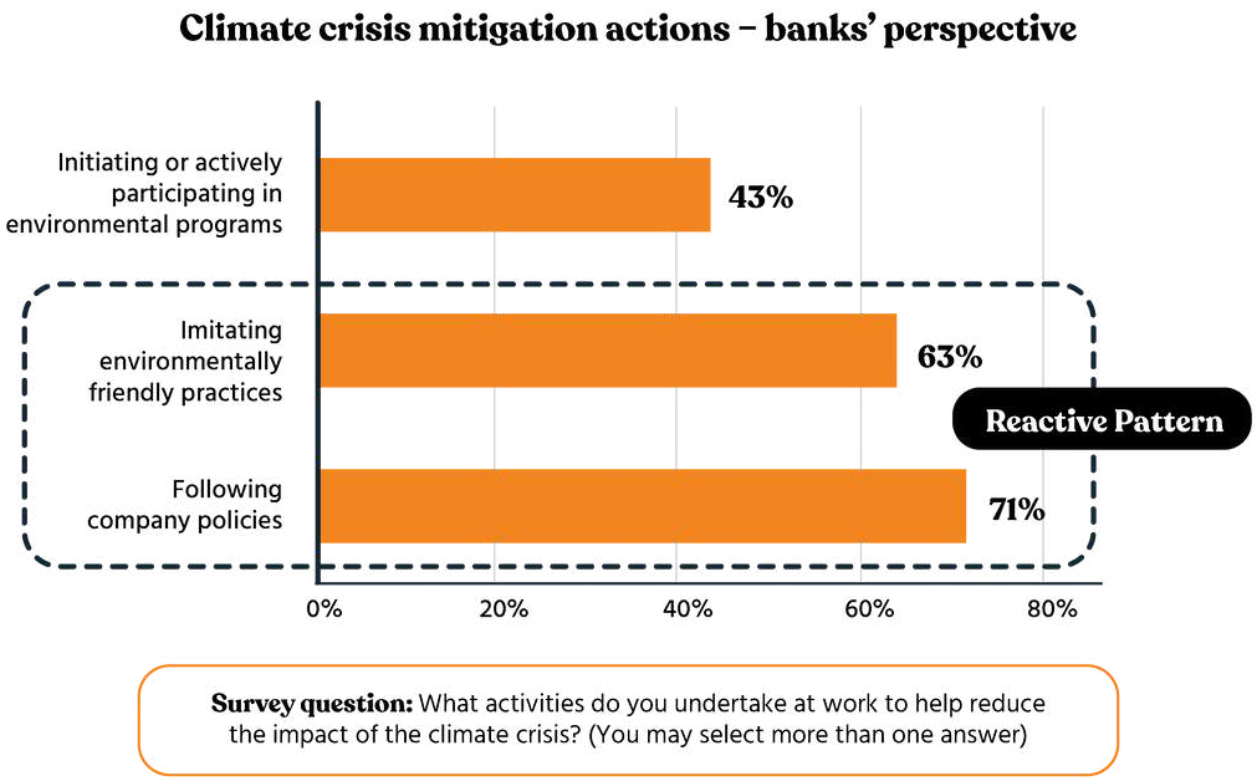
Having the longest tenure compared to the two younger generations, the older Millennials and Gen X exhibit a relatively higher level of engagement (33%). This underscores that professional experience strengthens actions supporting climate crisis mitigation.



Survey question: Which of the following statements best describes your views on the climate change/crisis issues? (Choose the answer that best describes your current situation).

Graph 2.2: Banks' Views on the Climate Crisis Issue Based on Age

Banks, both at the individual and corporate levels, remain reactive to the climate crisis and are influenced more by regulations and the actions of others than by internal initiatives.



Graph 2.3: Level of Reactivity of Banks to the Climate Crisis Issue

Following company policies (71%) is the most common action taken by banks to mitigate the impacts of the climate crisis.

a. Compliance with policies dominates banks' activities (71%). This suggests that environmentally friendly practices are more likely to increase when company regulations are clear and effectively translated into operational procedures.

b. Peer influence helps strengthen the desire to adopt environmentally friendly practices. As many as 63% of banks observe that colleagues or other institutions have already transitioned to such practices, encouraging them to follow suit.

c. Personal initiative remains limited. Currently, the personal drive to initiate or actively participate in environmentally friendly programs is not strong enough (43%).

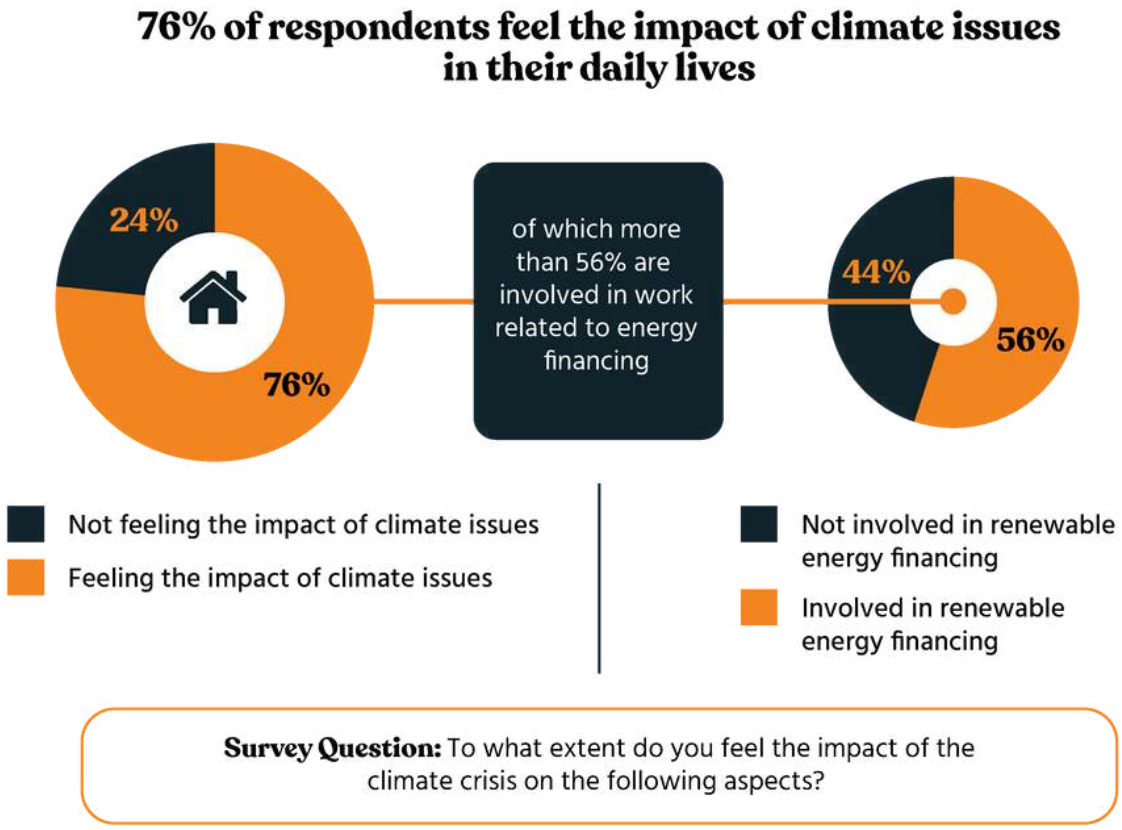
B. The Impact of Climate Issues: A Shift from Personal Awareness to Strategic Decision

The climate crisis has been shown to have both personal and institutional impacts on banks, confirming that climate challenges are no longer merely environmental issues but have become strategic factors shaping financial sector policies and business direction. Most banks directly experience the impacts of climate change in their daily lives, from extreme weather events to disruptions in productivity and health.

This section explores in greater depth how climate issues impact not only the personal level but also the institutional level, particularly in professional decision-making processes and the direction of investment policies, which are increasingly influenced by climate risk considerations.

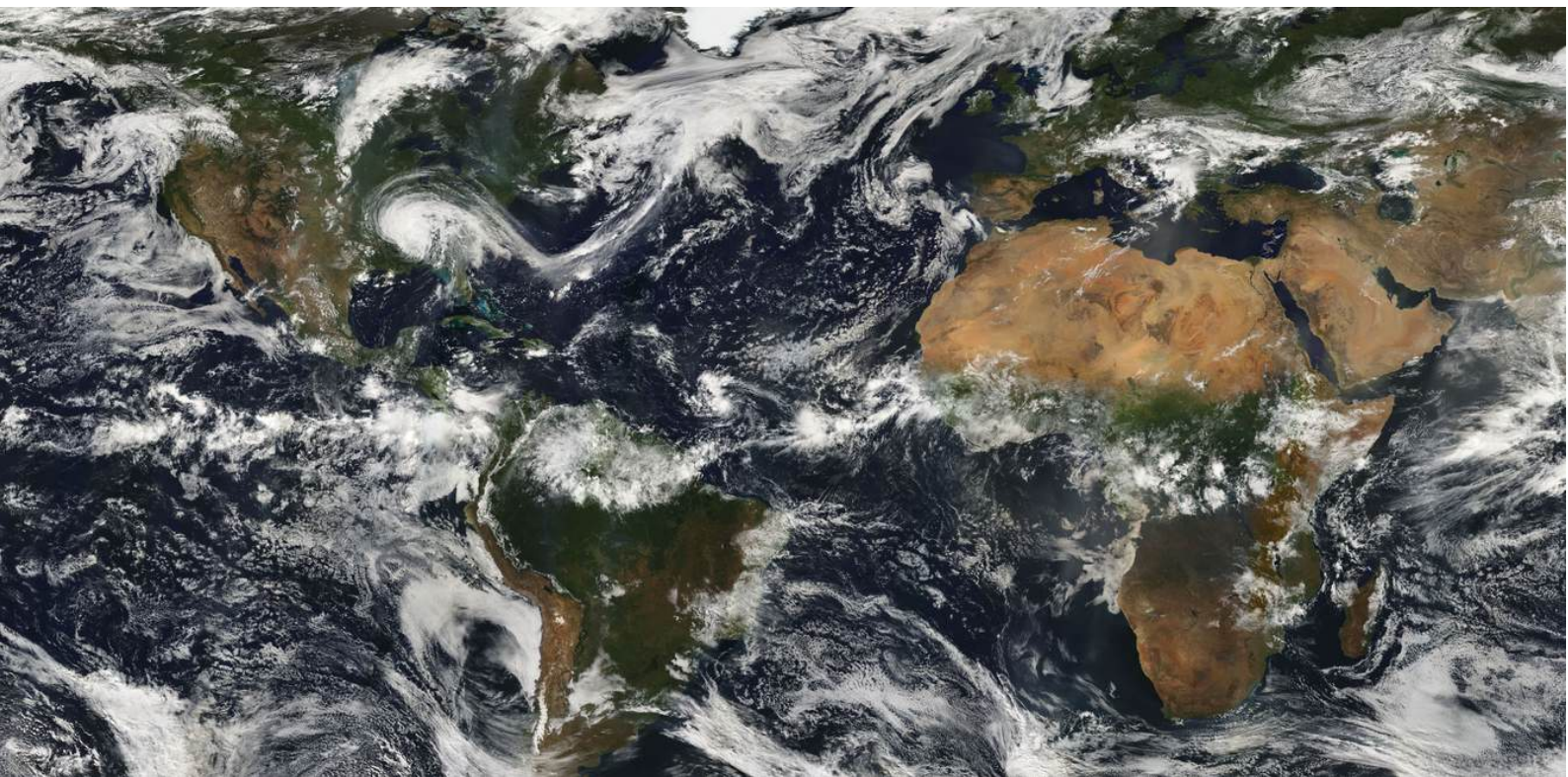
The impact of climate issues on the banking sector:

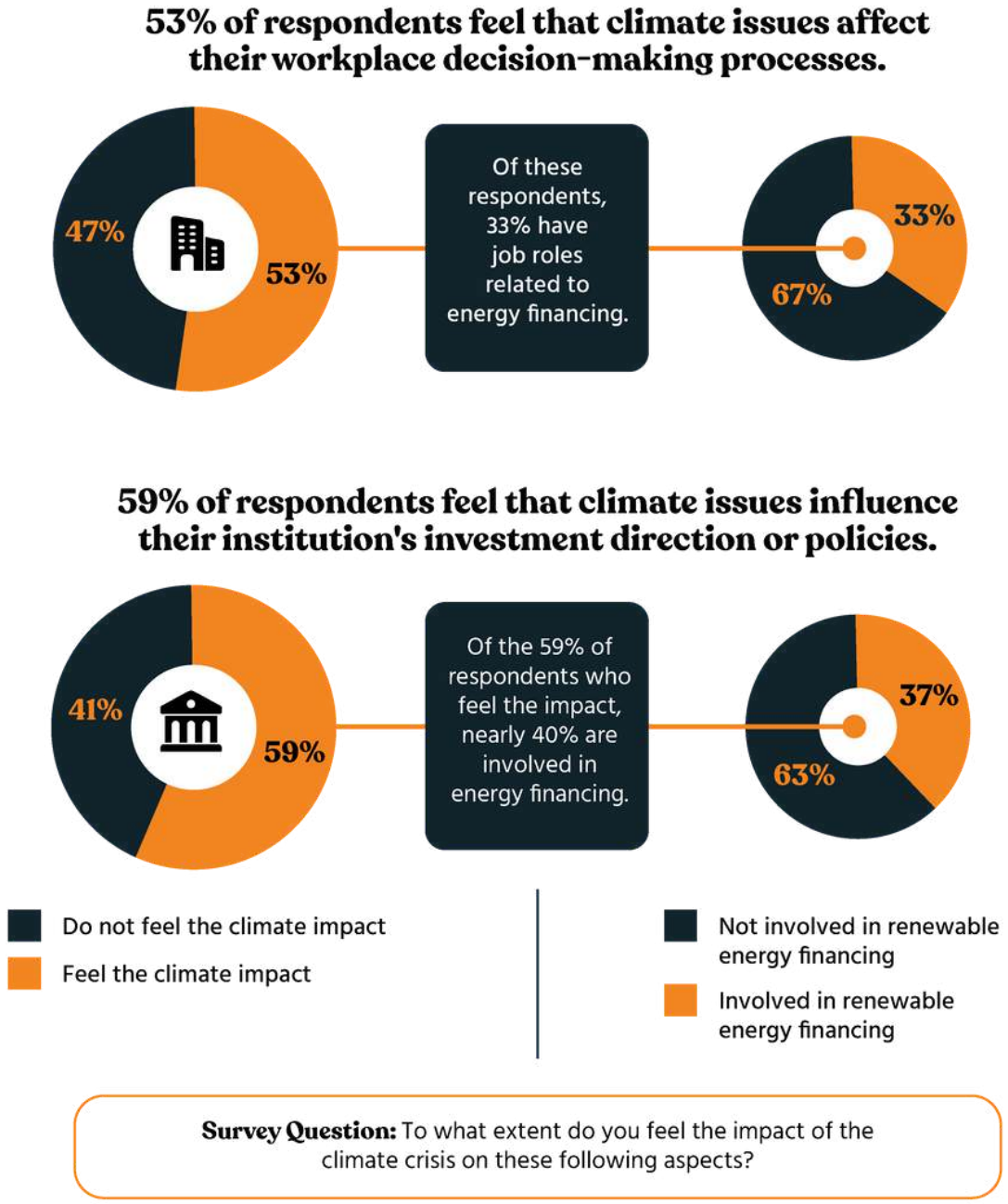
1. **Personal Impacts of Climate Issues**
   76% of respondents feel the impact of climate issues in their daily lives outside of work. This emphasizes that these issues are deeply embedded in individual awareness and can influence everyday behaviours and decisions.
2. **The urgency of individual action**
   High personal awareness motivates individuals to take concrete action, rather than relying solely on corporate policies or external regulations.
3. **Potential influence through professional roles**
   More than half of the respondents (56%) work in energy finance roles. This indicates that they can influence environmentally friendly and sustainable practices within corporations, for example, through investment decisions or sustainable resource management.
4. **Work-Life Integration**
   The impact of climate issues across personal and professional boundaries suggests that a successful sustainability approach must consider how individuals' daily actions can be aligned with the organization's work practices and goals.



Graph 2.4: Respondents' Perception of the Impact of the Climate Crisis

In a professional context, climate issues also influence policy and strategy considerations at both the individual task and institutional levels, although their impact is less significant than on personal practices and decisions.





Graph 2.5: Banks' Perceptions of the Climate Crisis Issue in a Professional Context

Climate Issues Influence Professional Decisions

A total of 53% of respondents indicated that climate issues influence decision-making processes within their workplaces. This finding suggests that sustainability has evolved into a professional consideration rather than remaining a purely personal concern.

Strategic Positioning to Promote Sustainable Practices

Within this group, 33% hold roles in energy finance, opening up a significant opportunity to shape investment strategies, risk management practices, and the development of environmentally friendly products or services.

- **Climate Issues Influence Investment Policy Direction**

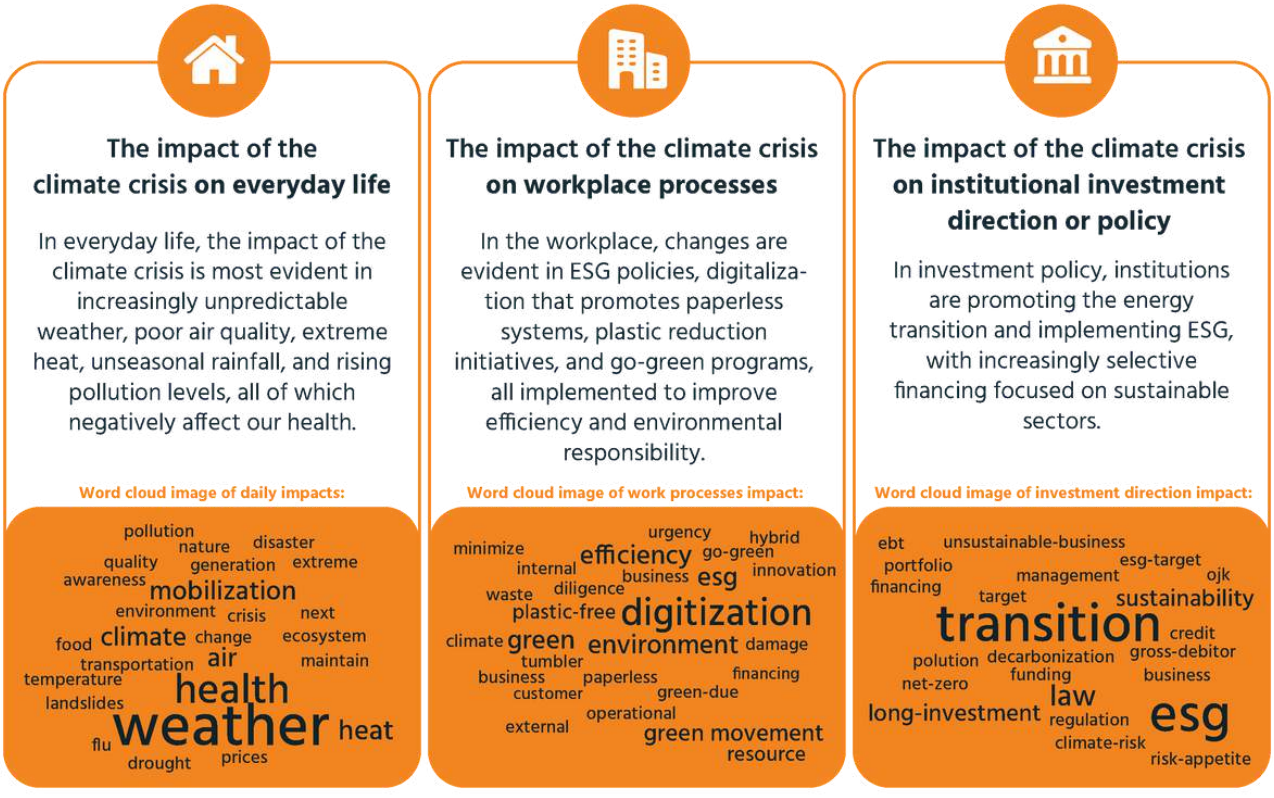
  59% of respondents reported that climate issues influenced strategic direction or investment policies of their institutions, indicating that sustainability issues are beginning to become a strategic consideration in investment decision-making.

- **Strategic Involvement in the Energy Sector**

  Nearly 40% of respondents are engaged in energy sector financing, positioning them strategically to promote sustainable practices through capital allocation, risk management, and the development of environmentally friendly projects.

In personal life, the impact of the climate crisis is evident in changing weather patterns and health outcomes; in workplace processes, it is reflected through the implementation of ESG principles; and in investment policy, it is manifested in shifts in investment priorities and strategies.

In personal life, the impact of the climate crisis is evident in changing weather patterns and health outcomes; in workplace processes, it is reflected through the implementation of ESG principles; and in investment policy, it is manifested in shifts in investment strategies.



*The word cloud image was created based on answers to the open-ended question: Briefly explain what impact you have felt.

Figure 2.1: Worldcloud Visualization of Climate Issue

C. Key Factors of Sustainable Practices: Driven by Compliance-led Patterns

Climate actions in the banking sector are driven by a range of interrelated factors, with management policies and regulations emerging as key drivers that encourage banks to adopt sustainable practices. This reflects a compliance-driven engagement pattern. In addition to policy-related factors, organizational culture plays a crucial internal role by embedding sustainability values at the operational level, thereby shaping work routines and behaviours that align with environmental and social principles. Pressures and expectations from external stakeholders further reinforce this dynamic.

By understanding the interconnectedness of these drivers, it becomes possible to identify how policies, organizational culture, and external pressures collectively influence the direction and intensity of sustainability initiatives in the banking industry. This section examines the key factors driving climate actions in the workplace, highlighting those with the strongest influence as well as those that serve as accelerators. The discussion also incorporates assessments from Key Opinion Leaders on banking sector decisions related to sustainable financing, along with the role of regulation in supporting the implementation of ESG principles within the financial sector.

Factors driving climate action from the perspective of banks

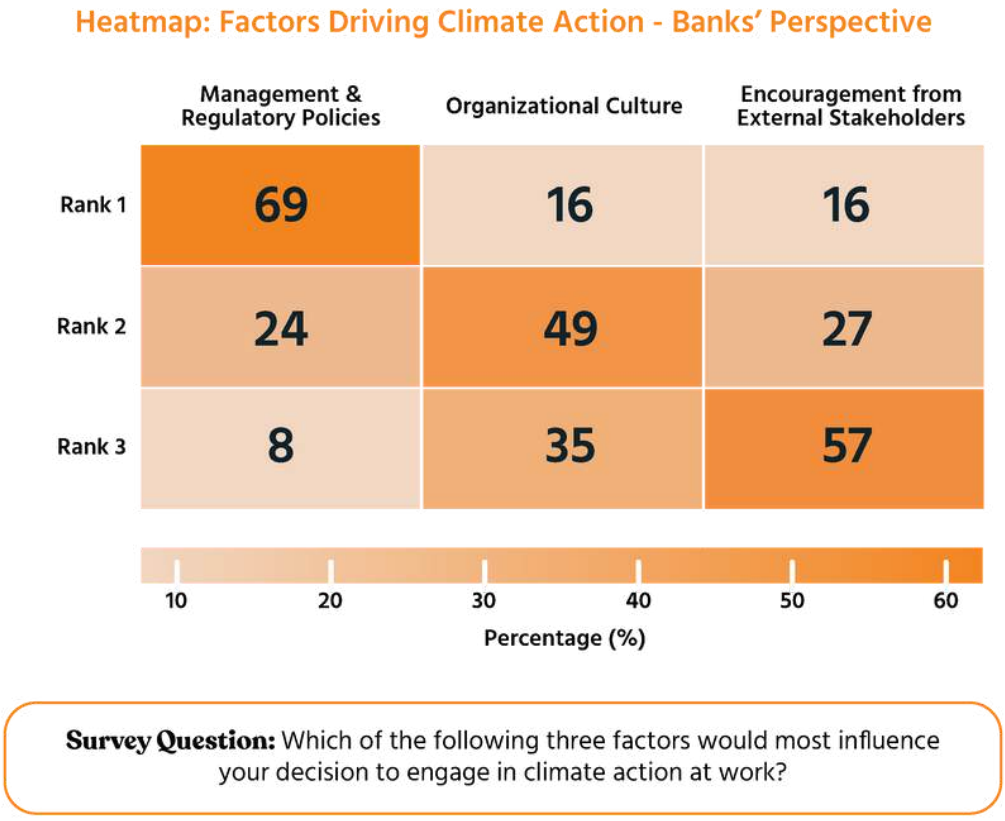


Figure 2.2: Factors Driving Climate Action Heatmap

Among the three factors, regulatory obligations remain the primary driver for banks in implementing sustainability practices. This reflects a compliance-led engagement pattern.

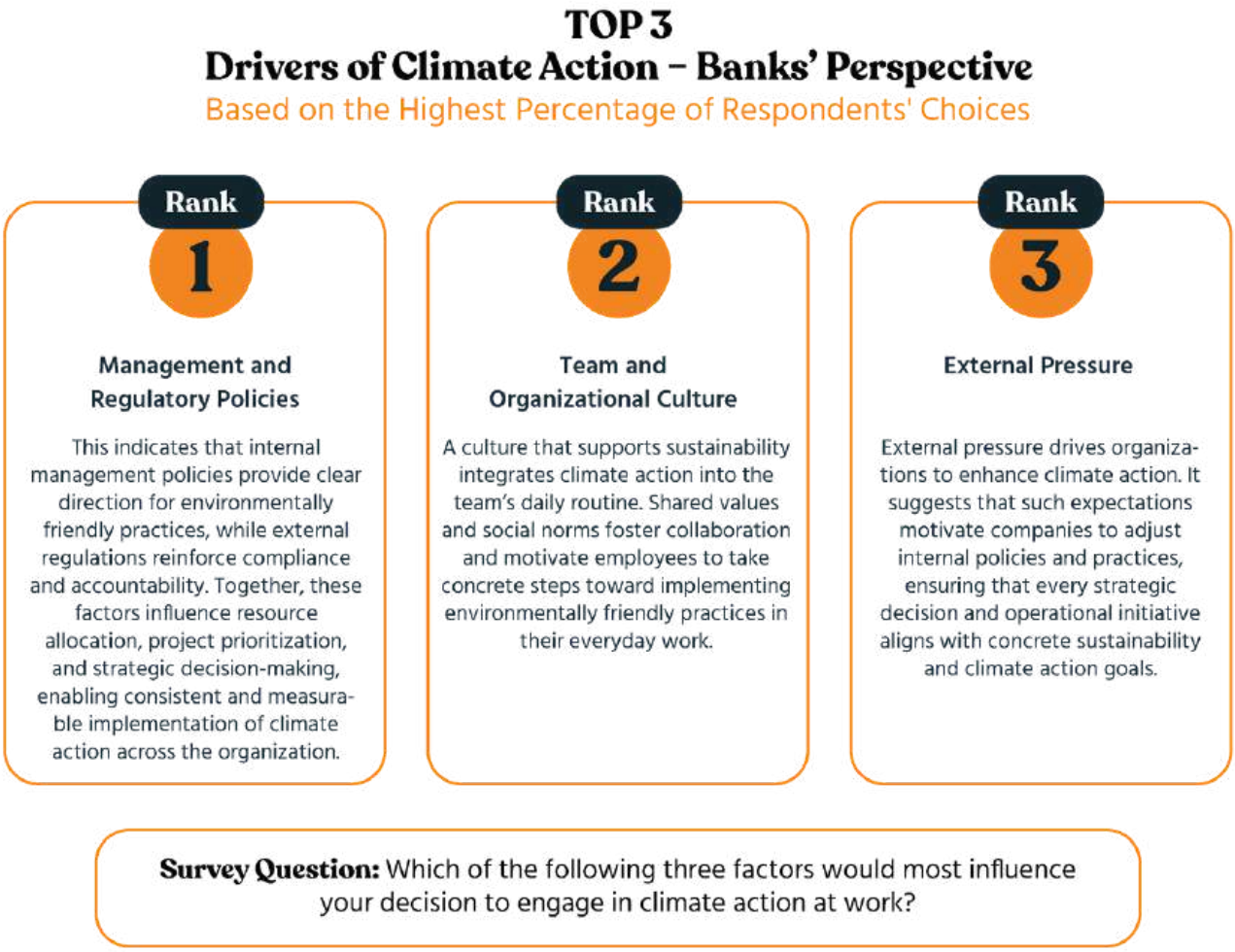


Figure 2.3: Three Key Drivers of Climate Action

This compliance-driven pattern is supported by data showing that a majority of banks (69%) identify management and regulators as the primary drivers of climate action. This suggests that organizations are largely motivated by mandates, targets, or sanctions in response to policies or decision-making processes.

However, the distribution of compliance-led initiatives across the top two (24%) and top three (8%) rankings indicates an uneven reliance on regulatory mandates. In contrast, team and organizational culture, along with external factors, are still perceived as insufficiently strong levers for driving climate action.

1. **Team and Organizational Culture as Implementation Drivers**

   Team culture was ranked second by 49% of respondents, while a smaller proportion of banks ranked it first (16%) or third (35%). This pattern suggests that team culture functions as a middle-out enabler rather than an initial trigger, playing a role in translating policy mandates into everyday behaviours.

2. **External Drivers as Accelerators**

   External drivers accumulated at rank 3 (57%), serving more as external pressure or final validation than as an initial trigger.

Similarly, Key Opinion Leaders assessed that **banking decisions regarding sustainable financing remain heavily influenced by regulations and compliance requirements (compliance-led).** In practice, the implementation of concrete steps often depends on regulatory certainty, risk mitigation considerations, and the capacity of borrowers.

- **Regulation and Compliance as Key Drivers of Bank Decisions (Compliance-led)[2]**

  Nearly all bank executives and analysts agree that decisions related to sustainable financing and ESG are predominantly driven by regulatory requirements rather than internal initiatives. The Indonesian Banking Association (Himbara) typically waits for direction from the government or the Financial Services Authority (OJK) before taking action, while private banks are more inclined to pursue voluntary measures, though they remain influenced by the regulatory framework. This pattern reflects a compliance-led approach, where actions are primarily taken to fulfill obligations, mitigate risks, and ensure regulatory adherence.

- **Regulatory Certainty and Risk as Conditions for Renewable Energy Financing[3]**

  Banks finance renewable energy projects only when there is certainty regarding contracts, cash flow, or government support. This highlights that regulations function not just as formal guidelines but also as tools for mitigating risk. Regulatory uncertainty or frequent changes hinder the adoption of green investments, particularly by private and foreign banks.

- **ESG Implementation Still Requires Strengthening and Support for Borrowers' Capacity[4]**

  Many banks implement ESG and green financing primarily to comply with regulations (compliance-led). Substantial changes in business practices also continue to face several challenges. One key challenge is the limited capacity of borrowers to meet ESG environmental, audit, and reporting standards requirements. As a result, ESG implementation is often more visible at the documentation level, while meaningful portfolio transformation toward renewable energy still requires stronger support.

[2] Findings from Interviews with Himbara Banks, Islamic Banks, and Investment Experts.
[3] Findings from Interviews with Himbara Banks and Foreign Private Banks.
[4] Findings from Interviews with Economic and Capital Market Analysts, Local Private Banks, and Energy and ESG Analysts

“Banks in Indonesia generally exhibit a high level of compliance with regulatory directives. State-owned (BUMN) banks tend to show commitment through a top-down approach, although implementation still faces challenges with consistency. Meanwhile, several private banks are beginning to take more independent initiatives in implementing sustainability commitments, even going beyond regulatory requirements.”

(Energy and ESG Analyst)

Chapter 3

The Journey to Renewable Energy Financing

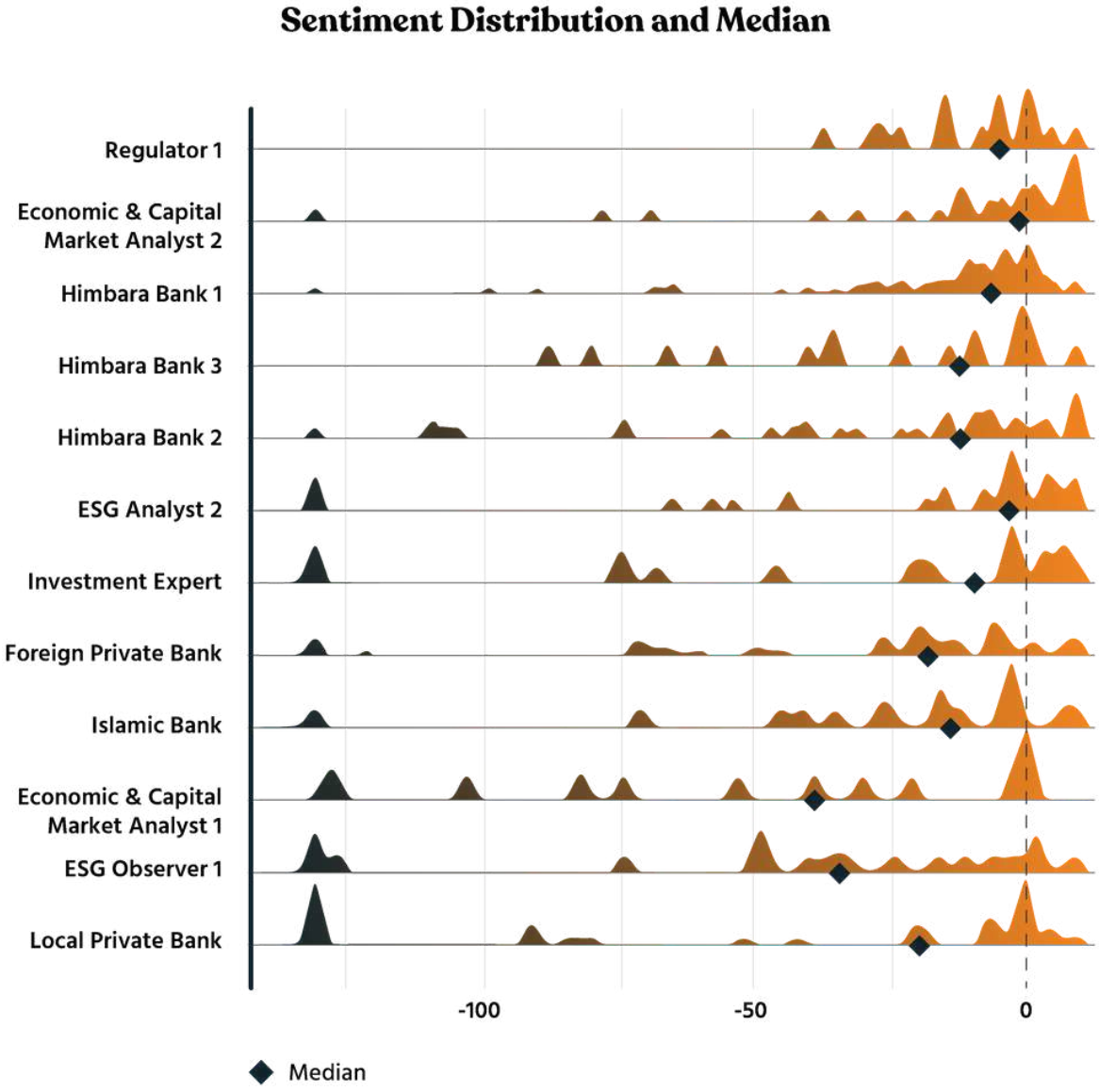
A. Trends and Sentiments in Energy Sector Financing

Key Opinion Leaders expressed generally critical sentiments toward energy sector financing, emphasizing that energy transition financing continues to face numerous challenges, particularly implementation risks that require serious attention. They also observed that energy sector financing in Indonesia remains largely pragmatic with coal still regarded as a relatively stable financial option. In contrast, national media coverage of the energy transition tends to adopt a more optimistic tone, focusing on investment opportunities and the potential for accelerating Indonesia's energy transformation.

This critical perspective provides a foundation for further understanding how the financial sector is responding to the evolving dynamics of energy transition financing in Indonesia. This section explores Key Opinion Leaders' sentiments toward energy transition financing and examines how the banking sector maintains a pragmatic approach in financing distribution, including the direction of funding policies and the implementation of exit strategies. In addition, national media coverage of the energy transition and green financing from 2023 to 2025 will be analyzed to highlight the contrast between the critical perspectives of stakeholders and the optimism projected through media narratives.

Trends and Sentiments in Energy Sector Financing

Overall, Key Opinion Leaders tended to be critical, assessing that energy transition financing remains challenged by various obstacles and significant implementation risks. Sentiment data were collected from national media coverage between 2023 and 2025 and analyzed using word and context mapping to identify the distribution of opinion tones and the median public perception.



Graph 3.1: Energy Sector Financing Sentiment Trends

Practitioners from local private banks expressed the most negative views compared to other banking groups, although other groups also maintained a generally critical stance. These findings reinforce that energy transition financing continues to face significant challenges and highlight the need for concrete measures to strengthen stakeholder trust.

Consistent with this perspective, Key Opinion Leaders assessed that sentiment within Indonesia's energy sector financing remains largely pragmatic, with coal still regarded as a relatively stable financial option. Nevertheless, there is a cautious but noticeable shift toward energy transition strategies, particularly among foreign banks.

> ***"Banks follow the business, follow the money. As long as coal remains dominant and profitable, financing will continue to flow toward it."***
>
> ***(Himbara Bank Respondent)***

- **Fossil Fuels Remain Dominant, Banks Tend to be Pragmatic**[5]

  Indonesian banks continue to provide financing to the fossil fuel industry, particularly coal. This trend is driven by several factors, including financial viability (bankability), competitive pricing, well-defined payment schemes, and strong market demand and certainty.

  Overall, banks continue to adopt a business-as-usual approach, supported by the sector's stable and profitable financial performance. Moreover, there has been no strong policy intervention to discourage banks from financing the fossil fuel industry.

- **Coal Financing Focuses on Exploitation and Supporting Sectors**[6]

  Coal financing focus is no longer concentrated on exploration activities but has shifted toward exploitation and loan restructuring.

  Financing is also increasingly directed to supporting and derivative industries, including suppliers of heavy equipment, conveyor systems, transport trucks, and barges.

  This financing scheme is generally in the form of working capital with short-term tenors (1-3 years) and is evaluated periodically, as credit performance is closely tied to global coal price fluctuations. When coal prices rise, financing activity strengthens; conversely, when prices fall, financing weakens.

[5] Findings from Interviews with Himbara Banks, Islamic Banks, Local Private Banks, and Economic and Capital Market Analysts

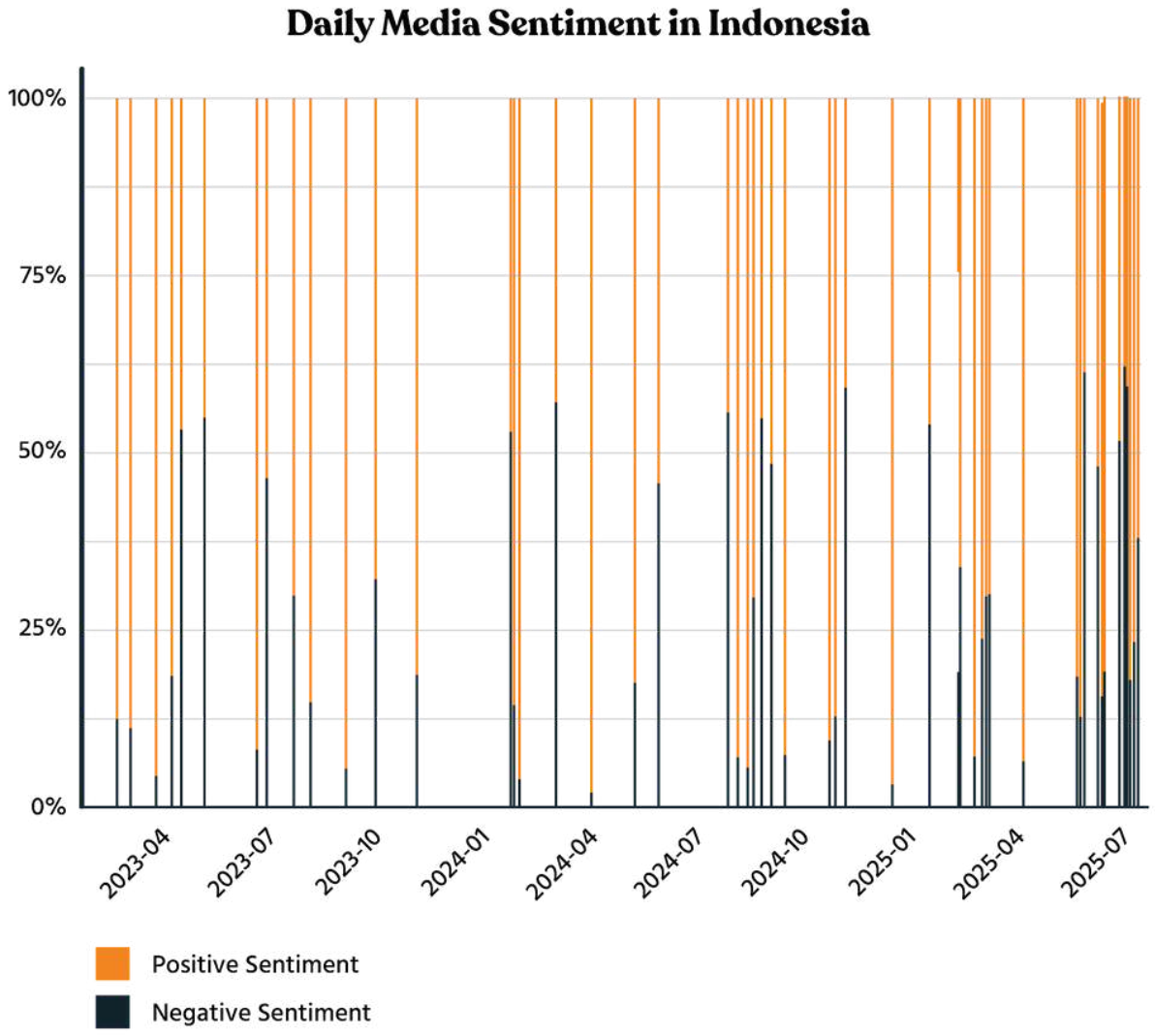
[6] Findings from Interviews with Himbara Banks and Economic and Capital Market Analysts

Bank Exit Strategy from Coal[7]

Several banks have adopted policies to cease financing coal and its derivative sectors. Some banks, particularly foreign private banks, have begun implementing exit strategies from the coal industry.

In recent years, banks have introduced internal policies to discontinue financing for the coal industry, including its derivative sectors, citing the sector's high-risk profile and its misalignment with the sustainability commitments of their parent companies.

On the other hand, national media coverage of the energy transition and green financing during 2023–2025 was largely positive, characterized by supportive, optimistic, and forward-looking perspectives.



Graph 3.2: National Media Sentiment Trends on Energy Transition and Green Financing Issues in Indonesia

[7] Findings from Interviews with Foreign Private Banks

Top 3 Positive Articles:

- Several Banks Aim for Aggressive Sustainable Lending Growth in 2024 - Kontan
- Leader in Green Financing, Bank Mandiri Supports the ASEAN-Indo-Pacific Forum (AIPF) - Kontan
- Consistently Supporting the Green Economy, Bank Mandiri Leads National Sustainable Financing - Kontan

Top 3 Negative Articles:

- Banks Increasingly Fund Fossil Fuels in 2024 - Kompas
- For the First Time, Renewable Energy Investment in 2023 Expected to Surpass Fossil Fuels - Kompas
- IRENA: Renewable Energy Becomes the Cheapest Option for Electricity Generation - Kompas

In contrast to the perspectives of Key Opinion Leaders, media coverage tended to be more optimistic. Between 2023 and 2025, most news reports on the energy transition and green financing in four national media outlets adopted a positive tone, reflecting strong support and confidence in the banking sector's potential for success and achievement. The media emphasized progressive developments, investment opportunities, and hopes for an accelerated energy transformation, creating a narrative that stood in contrast to the concerns expressed by key stakeholders.

B. Funding Transition: From Fossil to Renewable Energy

Financial institutions in Indonesia are exhibiting a growing inclination toward financing renewable energy projects, signaling a strategic shift toward a greener and more sustainable financial system. However, this transition remains gradual and selective, as banks tend to provide support only for projects with clear contractual arrangements, credible clients, and guaranteed cash flow.

This section will examine in greater depth the factors influencing renewable energy financing, ranging from the most to the least significant, and the internal dynamics within financial institutions that shape such decisions. It will also highlight the gradual and small-scale nature of Indonesia's renewable energy financing transition, as well as the persistent challenges in achieving consistent and robust implementation at the financial institution level.

Shifting Financial Institutional Support Toward Renewable Energy Financing

The growing shift in financial institutions' support for renewable energy financing has become increasingly evident. This trend is driven by stakeholder expectations, rising public awareness of environmental issues, and the government's policy direction. Based on the measurement results, the strongest driver of renewable energy financing is stakeholder expectations, including those from shareholders and non-governmental organizations (NGOs), with a score of 3.835. The second factor is institutional concern for environmental impact, scoring 3.776. Meanwhile, support from government policy ranks third, particularly through the Government Regulation No. 79 of 2014 on the national energy mix target, with a score of 3.553.

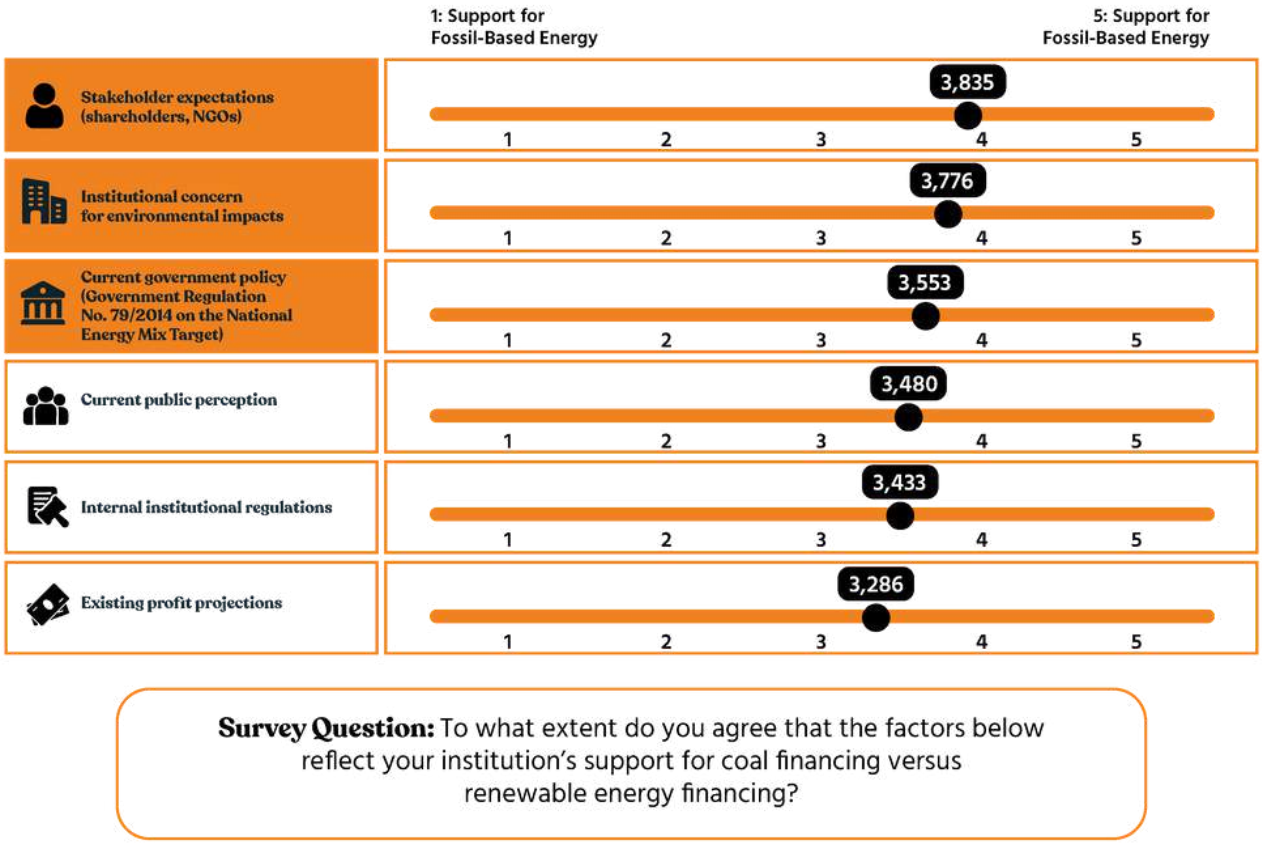


Figure 3.1: Direction of Stakeholder Support for Renewable Energy Financing

In addition to these external drivers, public perception, profit outlook, and company policy orientation have also begun to favour renewable energy financing. However, the level of institutional support remains limited.

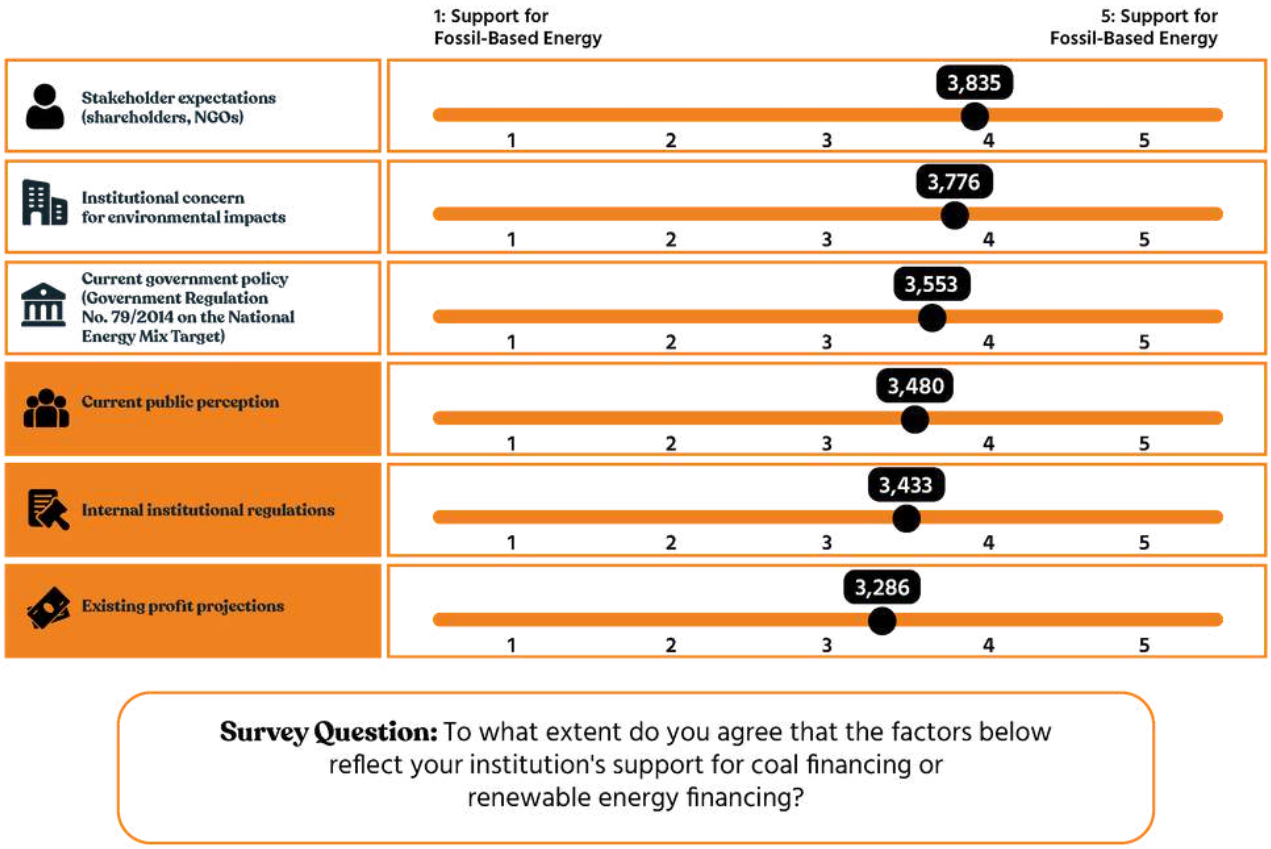


Figure 3.2: Direction of Renewable Energy Financing Support

While support for renewable energy continues to increase, **the process of financing transition in Indonesia remains gradual.** Several tangible initiatives have emerged, but **their scale is still limited and requires further reinforcement** through clear regulations, incentives, and market certainty.

Transition Remains Gradual and Selective[8]

The transition of financing from fossil fuels to renewable energy in Indonesia remains gradual and with a selective approach.

For many banks, renewable energy financing typically emerges as an extension of green initiatives from existing borrowers, while standalone renewable projects continue to face significant challenges. Banks tend to prioritize projects backed by clear contracts, credible clients, and assured cash flows. Small-scale financing schemes are currently viewed as an entry point for institutions seeking to participate in this sector.

Looking ahead, stronger regulatory measures, fiscal incentives, and more competitive pricing mechanisms are expected to accelerate greater banks' involvement in renewable energy financing.

[8] Findings from Interviews with Himbara Banks.

Real Initiatives Are Beginning to Emerge, Though Still Limited in Scale[9]

Several banks have begun to demonstrate a concrete commitment, although on a limited scale. Some banks have established dedicated ESG divisions, issuing green bonds, green investments, and even green sukuk as concrete support for renewable energy.

Some banks have launched interest-only products for electric vehicles, installed solar power plants (PLTS) in their branches, and targeted growth in environmentally friendly financing. Meanwhile, foreign banks have directed financing towards sustainability-linked loans and green loans, while implementing strategies to transition away from coal and toward renewable energy and electric transportation.

> ***"Branches are prepared to engage in renewable energy if the contracts are clear, the clients are reputable, and the cash flow is secure."***
>
> ***(Himbara Bank Respondent)***

Furthermore, the financing transition process continues to face several challenges, including **dependence on coal, policy dynamics, and the need for stronger regulatory enforcement.** As a result, **renewable energy is often positioned as a complementary source** rather than being fully recognized as a primary energy option.

Structural Barriers and the Crucial Role of Regulation[10]

Although several initiatives have emerged, the financing transition still faces various structural challenges and policy dynamics.

The profit gap between the fossil fuel and renewable energy sectors remains significant. Coal continues to appear more attractive due to the Domestic Market Obligation (DMO) policy, which caps the domestic selling price at US$70 per ton.

This distortion keeps coal prices artificially low, making renewable energy appear uncompetitive. Current sustainable finance regulations are largely voluntary. Without a clear roadmap to phase out fossil fuel financing, substantial subsidies for fuel and coal-fired electricity are likely to persist for the time being.

While several regulatory frameworks have been introduced, such as the Sustainable Finance Roadmap POJK No. 51/2017, the Indonesian Taxonomy for Sustainable Finance (TKBI), and Climate Risk Management and Scenario Analysis, their implementation has yet to bring about significant shifts in banking portfolios.

[9] Findings from Interviews with Islamic Banks, Local and foreign Private Banks.
[10] Findings from Interviews with Economic and Capital Market Analysts, Energy and ESG Analysts, and Investment Experts

Additional challenges stem from technical aspects, including land acquisition difficulties, social costs, and the high cost of due diligence.

Moreover, renewable energy in Indonesia is still largely perceived as an alternative, rather than a primary energy source. The State-owned Electricity Company (PLN) continued to focus on coal-fired power plants (PLTU), further constraining the pace of energy transition. Strengthening transmission infrastructure and energy storage systems will be essential to enable the broader integration of intermittent renewable sources.

> ***"The use of captive coal power plants continues to increase, primarily because coal remains a cheaper and more stable energy source compared to other alternatives. Developing renewable energy, particularly for industries located in remote areas, poses significant challenges due to high infrastructure costs. PLN also lacks sufficient funding to expand transmission networks to these regions, which raises concerns over potential electricity supply disruptions. Coal remains the fastest and most cost-effective option."***
>
> ***(Energy and ESG Analyst)***

C. Effectiveness of Renewable Energy Financing Mechanisms: Supporting or Hindering

Renewable energy and coal financing differ in their underlying institutional mechanisms. These differences are primarily reflected in financing sources, internal roadmaps, operational decision directions, and business strategies adopted by financial institutions. However, renewable energy financing mechanisms in Indonesia continue to face challenges in terms of effectiveness, including structural barriers and limitations in implementation.

To provide a deeper understanding, this section discusses the various aspects that distinguish fossil-based and renewable energy financing mechanisms, emphasizing both the most significant and the least significant differences. Furthermore, it highlights the mechanisms and regulatory frameworks that require further strengthening, as well as those with the potential to enhance the overall effectiveness of renewable energy financing.

In terms of institutional mechanisms, clear differences can be observed between renewable energy and coal financing, particularly in business strategic direction and operational.

Differences in the financing process mechanisms for renewable energy and coal-based energy:

1. The Banking Sector Focuses on Business Strategy and Operations

Differences in financing mechanisms between renewable energy and coal are primarily reflected in the strategic and operational decisions of financial institutions. Among all respondents, 49% indicated variations in the types and sources of financing. 49% of respondents also confirmed that internal roadmaps differ when managing renewable energy financing compared to coal-based energy. Furthermore, 47% of respondents reported the existence of a dedicated team within their institutions specifically responsible for renewable energy financing.

2. Risk Evaluation as a Key Differentiator

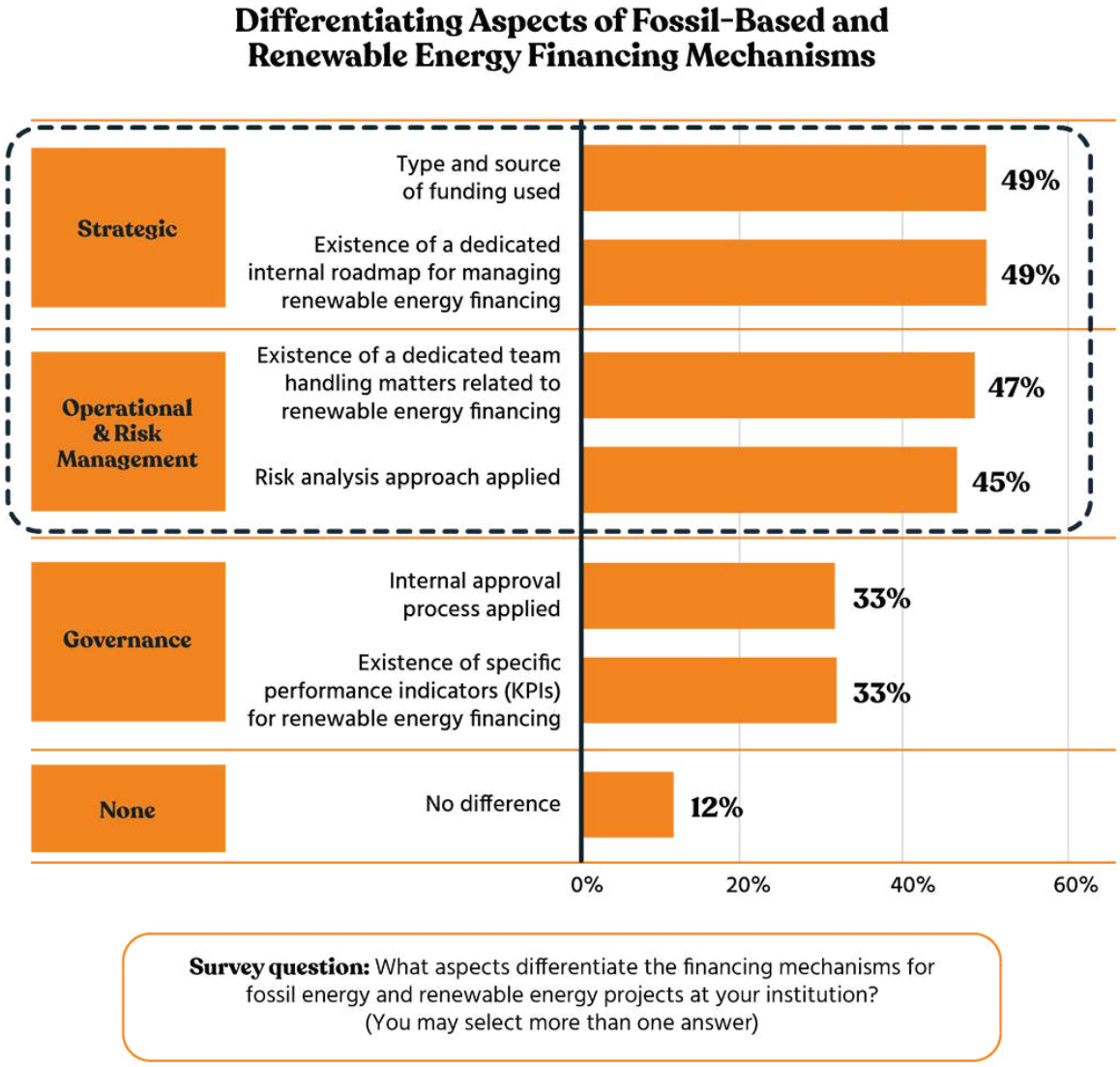
The approach to applied risk analysis also serves as a major differentiating factor between renewable energy and coal-based financing mechanisms. 45% of respondents indicated that there are differences in how institutions assess and analyze risks in the two types of projects.

3. Governance as a Supporting Factor

Governance factors, such as internal approval processes and the presence of Key Performance Index (KPI), serve as supporting roles rather than the primary differentiators. 33% of respondents stated that there are differences in the internal approval processes applied between renewable energy and coal-based energy financing. 33% of respondents also reported that there are specific performance indicators (KPIs) for renewable energy financing. However, the differences in these aspects are relatively smaller compared to strategic, operational, and risk management aspects.

4. A Small Proportion of Banks See No Difference (12%)

This indicates that some institutions still apply generic credit procedures without dedicated roadmaps, teams, or risk parameters for renewable energy.



Graph 3.3: Comparison of Fossil Energy and Renewable Energy Financing Mechanisms

Renewable energy financing mechanisms still face structural and implementation challenges, resulting in **suboptimal effectiveness.** However, **incentives and internal banking initiatives can provide opportunities for strengthening.**

> ***"Bank financing alone is not enough. Therefore, alternative funding schemes are needed, such as Public-Private Partnerships (PPP), Government-to-Business Partnerships (KPBU), and blended finance."***
>
> ***(Economic and Capital Market Analyst)***

- **Mechanisms and Regulations That Still Need Strengthening: Structural Barriers and High Risks[11]**

  Current renewable energy financing mechanisms still face several challenges. Long payback periods, limited direct incentives, and high social and land acquisition costs have led some banks to consider renewable energy projects as high-risk.

  Furthermore, regulatory changes, licensing complexity, and the readiness of supporting infrastructure, such as transmission networks and technology, also require careful consideration. More competitive fossil fuel prices resulting from subsidies and the Domestic Market Obligation (DMO) policy have further widened the gap. As a result, renewable energy financing remains sporadic and fragmented, with varying targets across banks. This creates uncertainty for investors and slower project implementation.

- **Financing Mechanisms with Incentives and Risk Sharing: Potential to Support Effectiveness[12]**

  Financing mechanisms can be supportive if accompanied by fiscal incentives, risk sharing, and alternative schemes.

  Banks are willing to participate if eligible projects have clear contracts and available risk guarantees, such as government insurance and interest subsidies. Furthermore, instruments such as tax holidays, carbon taxes, blended finance, PPP, and risk guarantees can improve ROI and attract private sector participation.

  Practices in other countries show that legal certainty and consistent policies significantly accelerate the adoption of renewable energy.

[11] Findings from Interviews with Himbara Banks, Islamic Banks, Local and Foreign Private Banks, Economic and Capital Market Analysts, Energy and ESG Analysts, and Investment Experts

[12] Findings from Interviews with Himbara Banks, Foreign Private Banks, Economic and Capital Market Analysts, and Energy and ESG Analysts.

Internal Mechanisms and Bank Initiatives: Supportive, but Need to Be Expanded[13]

Several national, Islamic, and private banks have begun financing renewable energy projects, issuing green bonds, green sukuk, and green credit products, and establishing ESG and environmental audit divisions. However, these mechanisms remain limited, as implementation, oversight, and policy alignment with national energy transition targets need to be strengthened.

Consistency in government policy direction is key to further developing this sector, optimizing the banking sector's contribution to renewable energy financing.

[13] Findings from Interviews with Himbara Banks, Islamic Banks, Foreign Private Banks, and Energy and ESG Analysts

Chapter 4

Industry Attractiveness and Commitment to Renewable Energy Financing

A. The Significance of Renewable Energy Funding: Past, Present, and Future

In recent years, renewable energy financing has increasingly assumed a strategic position in both the global and national investment landscape. While it was previously considered a high-risk sector and less attractive than fossil fuels, the trend is shifting. Investors believe that renewable energy financing will become increasingly important in the next 2–3 years, in line with the demands of the energy transition, stricter regulations, and rising sustainability standards (ESG). This shift in orientation is also encouraging banks and financial institutions to develop green financing instruments, which are projected to play an increasingly crucial role in supporting Indonesia's renewable energy roadmap.

This discussion outlines the trajectory of renewable energy financing in Indonesia, from its early stages, when attention was minimal and the fossil fuel sector remained dominant, to recent developments that reflect a gradual shift through instruments such as green financing and green sukuk, and finally to future projections, where renewable energy financing is expected to become increasingly vital due to regulatory pressures, incentives, and growing interest from institutional investors.

The Significance of Renewable Energy Financing Over Time

Most investors believe that renewable energy financing now plays an increasingly crucial role, both at present and in the future, compared to previous periods. 67% of respondents assess that renewable energy financing is more important now than it was 2-3 years ago. Meanwhile, 69% of banks believe its significance will continue to increase in the next 2-3 years compared to the current level, and 73% of respondents predict that its role will grow further in the next 2-3 years compared to the past.

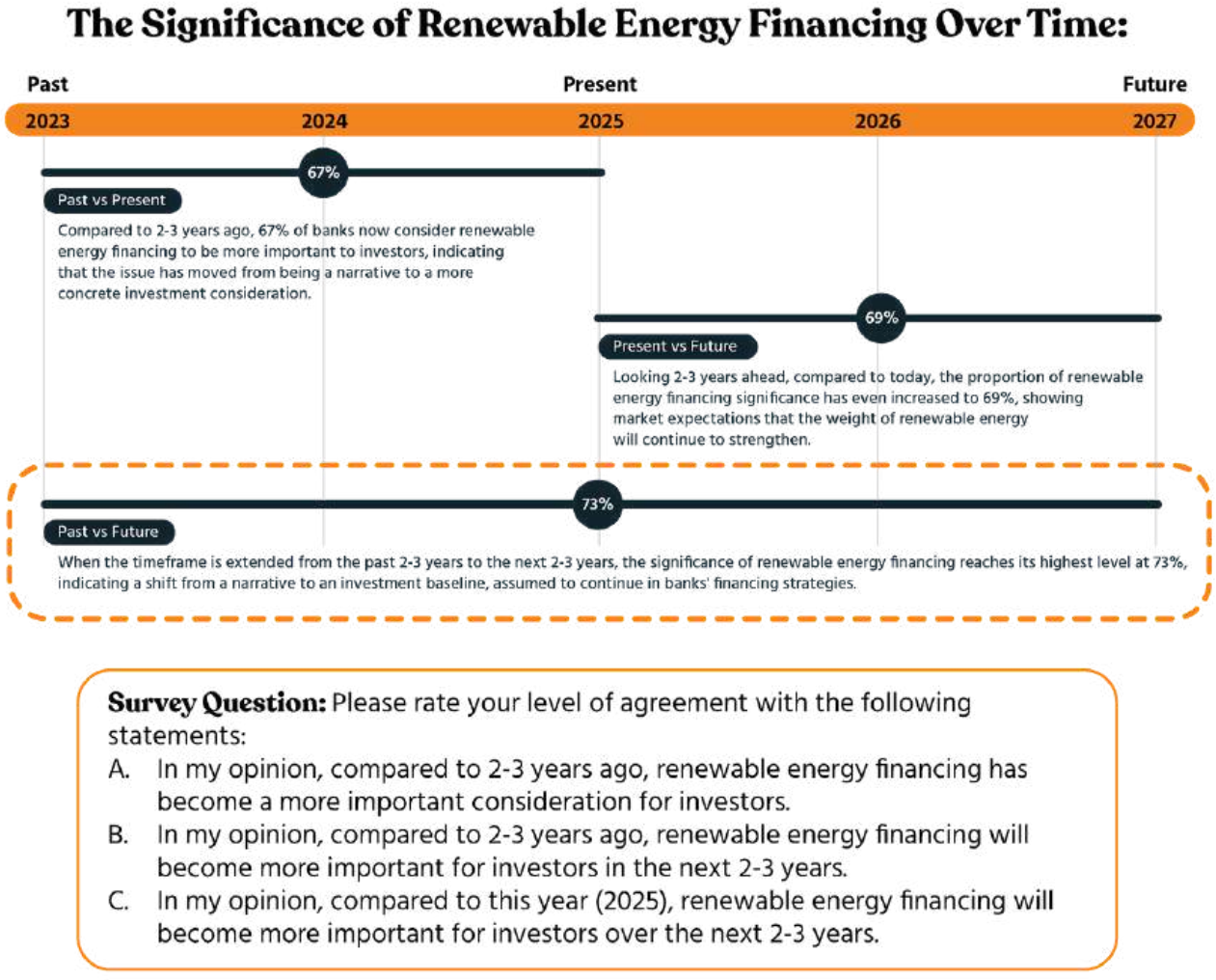


Figure 4.1: Timeline of the Significance of Renewable Energy Financing

In line with this, renewable energy financing is beginning to attract attention from banks and financial service institutions, although its current share remains relatively limited. In the future, this role is expected to grow as regulations are strengthened, incentives are provided, and demand from institutional investors increases.

> ***"Renewable energy financing will become increasingly strategic going forward; however, this requires the development of a roadmap for the gradual phase-out of fossil fuel financing to ensure that the financial and industrial sectors have certainty regarding policy direction."***
>
> ***(Economic and Capital Market Analyst)***

Past: Lack of Focus on Renewable Energy[14]

In the early stages, renewable energy financing was relatively small because most banks and investors preferred fossil fuels, which were considered safer, more predictable, and offered short-term returns.

Additionally, renewable energy risks were often perceived as high, while regulatory support and incentives were limited, making green projects less attractive to financial institutions in the past.

Nevertheless, several projects, such as biofuel, biomass, and CPO waste, began to be developed, although their share remained small. This indicates that the transition to renewable energy in Indonesia was only in its early stages.

Today: A Gradual Shift[15]

Currently, banks and financial institutions are starting to incorporate renewable energy into their financing strategies, although its share is still limited.

There is a strategic direction from head offices toward green financing, including carbon credits, and additional preference is given to borrowers with renewable energy projects such as solar power plants (PLTS). Renewable energy is now seen as part of the future of business, while the fossil fuel sector is no longer a priority.

Meanwhile, Islamic banks have issued IDR 3 trillion worth of green sukuk, demonstrating the growing availability of green financing instruments. Local private banks have also made various efforts, both internally and externally, to support green portfolios.

All these steps indicate that the transition to renewable energy is underway, with financial institutions beginning to prepare green instruments, regulations, and product options to respond to the increasingly ESG-conscious investor trend.

[14] Findings from Interviews with Himbara Banks, Economic and Capital Market Analysts, and Investment Experts
[15] Findings from Interviews with Himbara Banks, Islamic Banks, and Local Private Banks

Looking Ahead: Increasingly Crucial and Strategic[16]

Renewable energy financing is predicted to become increasingly strategic in the future. This development is driven by regulations, energy transition targets, fiscal incentives, and growing institutional investor awareness.

In this regard, economy and capital markets analysts emphasize that a combination of internal and external incentives will encourage the allocation of green credit, while highlighting the importance of a roadmap for phasing out fossil fuel use and risk guarantee mechanisms.

Meanwhile, foreign investors view the momentum of the energy transition and electric transportation as a strategic opportunity. Regulators emphasize that the non-state budget funding gap will become increasingly relevant for institutional investors to fill, so renewable energy financing is expected to be prioritized in the next 2–3 years.

All these indicators demonstrate that renewable energy is not only economically relevant but can also become a key component of national strategies and institutional investment in the future.

B. The Role of Institutional Support in Renewable Energy Financing

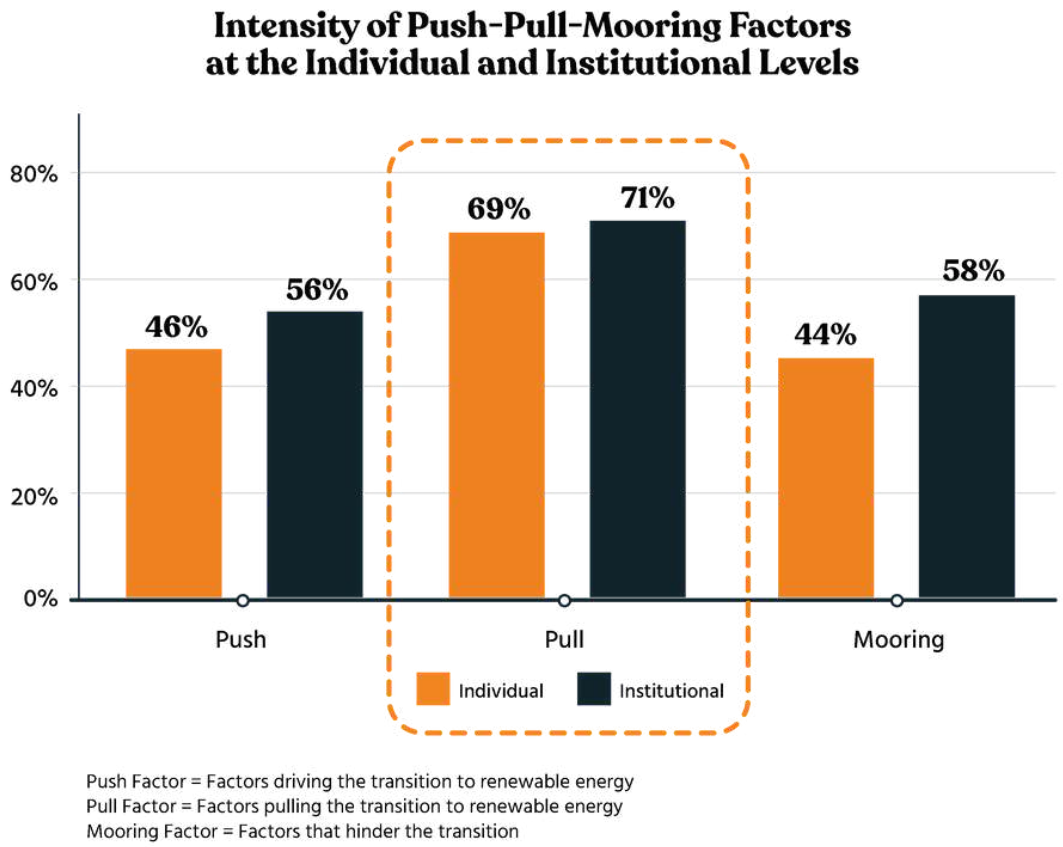
Institutional support plays a key role in accelerating the transition to renewable energy financing. Regulatory pressures, reputational pressures, and the availability of green financial instruments have encouraged banks and financial institutions to begin shifting their portfolios from fossil fuels to renewable energy. However, challenges remain, particularly those related to financial risks, limited incentives, and complex internal procedures, which make the transition gradual and not yet based on a long-term strategy.

This discussion outlines the dynamics of institutional support for renewable energy financing through a Push-Pull-Mooring framework. These factors include pull factors, such as environmental motivations, ESG policies, social and ethical commitments, and green financial instruments; push factors, such as regulatory tightening, reputational benefits, and reduced support for coal financing; and mooring factors, such as limited regulatory understanding, financial risks, and the perceived dominance of fossil fuel projects.

Intensity of Push-Pull-Mooring Factors at the Individual and Institutional Levels

The catalysts driving the transition toward renewable energy financing can be evaluated through the **Push-Pull-Mooring** framework, which shows that the shift to renewable energy at both the individual and institutional levels is largely influenced by Pull Factors.

[16] Findings from Interviews with Economic and Capital Market Analysts, Foreign Private Banks, and Regulators



Graph 4.1: The Intensity of Push-Pull-Mooring Factors on Renewable Energy Financing at the Individual and Institutional Levels

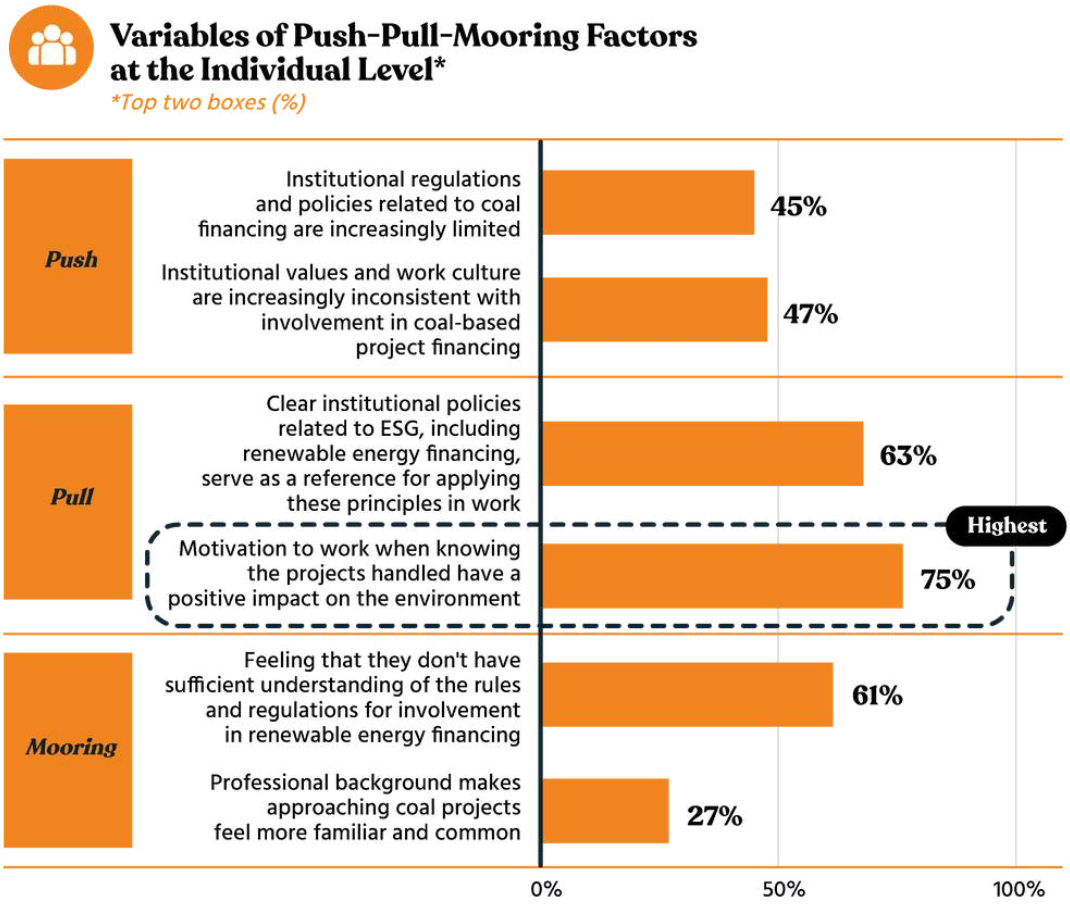
At the individual level, motivation to make a positive environmental impact and institutional policies related to ESG are the strongest pull factors driving the shift to renewable energy. This indicates that internal motivation and normative attitudes are the primary forces encouraging individuals to support renewable energy.

Push factors such as regulations that still leave loopholes for financing coal-based energy, along with the institutional values, remain insufficient to promote the transition. Furthermore, mooring factors also hinder the transition progress due to limited individual understanding of the rules and regulations supporting renewable energy.

- The strongest **pull factor** is the motivation derived from knowing that the project being managed has a positive impact on the environment (75%), followed by clear institutional policies regarding renewable energy financing (63%).

- The **push factors** encouraging individuals to transition to renewable energy financing are the growing incompatibility between institutional values and work culture with coal-based project financing (47%), followed by tightening regulations and policies related to coal financing (45%).

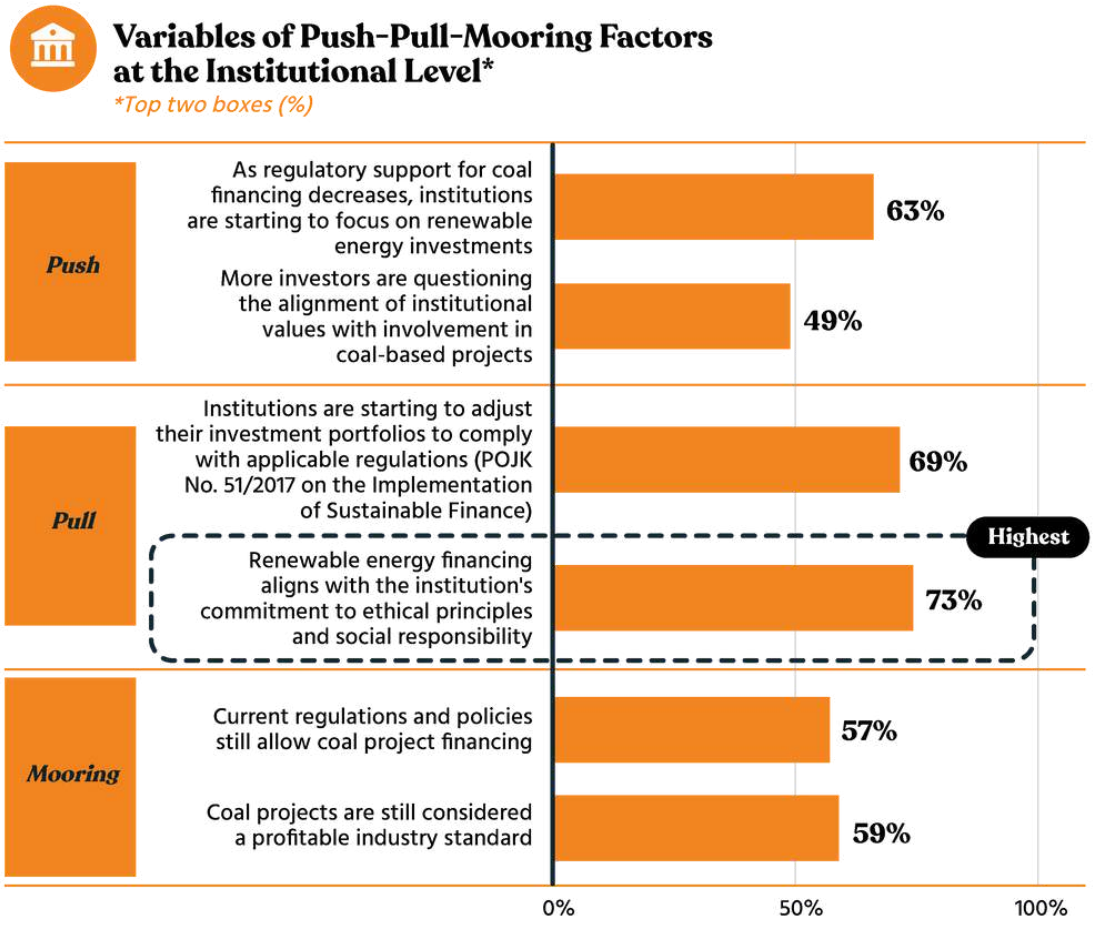
- A significant **mooring factor** holding back the transition is a lack of understanding of the rules and regulations to engage in renewable energy financing (61%). Meanwhile, a professional background, which makes the approach to coal projects feel more familiar and common, has no significant influence (27%).



Graph 4.2: Percentage of Push-Pull-Mooring Factor Variables at the Individual Level

At the institutional level, regulations and commitments to social ethics serve as key catalysts encouraging institutions to transition toward renewable energy financing.

- The main **pull factor** is the alignment of renewable energy financing with the institution's commitment to ethical principles and social responsibility (73%), followed by the adjustment of investment portfolios to comply with relevant regulations, specifically POJK No. 51/2017 on Sustainable Finance (69%).
- The strongest **push factor** is the decline in regulatory support for coal financing, which drives institutions to shift their focus toward sustainable investments (63%). This is followed by the growing number of investors questioning the consistency of institutional values with continued involvement in coal projects (49%).
- **Mooring factors** hindering the transition include the perception that coal projects remain the industry benchmark for profitability (59%), as well as the existence of regulations and policies that still permit coal project financing (57%).



Graph 4.3: Percentage of Push-Pull-Mooring Factor Variables at the Institutional Level

The momentum of the institutional transition toward renewable energy is already evident; however, it remains largely driven by regulations or compliance-led and has not yet become fully strategy-led.

To ensure a sustainable transition, pull factors must be integrated into corporate agendas, including key performance indicators (KPIs) and governance frameworks. In addition, mooring factors should be addressed by closing regulatory loopholes that still permit coal energy financing and by improving the risk-return profile of renewable energy.

a. Push Factor

Similarly, Key Opinion Leaders assessed that push factors such as regulatory pressure, reputational incentives, and institutional strategic policies are driving financial institutions to shift toward renewable energy financing.

The Role of Regulation and Compliance Standards[17]

Regulations issued by the OJK and government directives serve as the primary drivers prompting financial institutions to allocate financing toward renewable energy projects.

Banks and financial institutions in Indonesia generally exhibit a high level of compliance with regulatory requirements, positioning regulations as catalysts in driving portfolio adjustments toward sustainability principles.

This regulatory push is reinforced not only by national frameworks but also by international standards such as Basel and ISO that further institutionalize green financing practices at the operational level.

Reputational and Market Pressures[18]

In addition to regulatory factors, financial institutions are increasingly responding to reputational dynamics and market expectations. Banks are becoming more aware of the reputational risks associated with continued reliance on fossil fuel financing, while growing pressure from the public, investors, and international donors is accelerating the shift toward renewable energy.

This shift is reflected in the growing attention to coal-fired power plant (PLTU) financing, the pursuit of Nationally Determined Contributions (NDC) and Net Zero Emission (NZE) targets, and global investor expectations for state-owned enterprises (BUMN) to play a more proactive role in developing green projects.

Furthermore, international frameworks, such as the UN Principles for Responsible Investment (UNPRI), carbon trading mechanisms, and green investment standards, provide additional incentives for financial institutions to align their practices with global sustainability trends.

Strategic Policy Catalysts and Global Support[19]

Strategic government policies and global pressure serve as early catalysts that reinforce the direction of regulatory reform.

International donor support, through loans and grants, along with policies from foreign parent banks promoting a transition away from coal, and early retirement initiatives for coal-fired power plants (PLTUs), provide positive signals that renewable energy financing is becoming increasingly viable.

In addition, growing awareness of the need to reduce fossil fuel financing, coupled with a regulatory framework that is beginning to take shape, though still in its early stages, has further strengthened institutional commitment to transitioning toward renewable energy.

[17] Findings from Interviews with Himbara Banks and Energy and ESG Analysts
[18] Findings from Interviews with Himbara Banks, Local Private Banks, Economic and Capital Market Analysts, and Investment Experts
[19] Findings from Interviews with Regulators, Foreign Private Banks, and Economic and Capital Market Analysts

b. Pull Factor

Institutional support through internal incentives, moral motivation, and globally accessible green financial instruments serves as a key driver encouraging institutions to channel financing toward renewable energy projects.

- **Encouraging Participation Through Internal Incentives**[20]

  Several banks and financial institutions have begun introducing internal incentive mechanisms to encourage borrowers and small-scale projects to participate in renewable energy financing. One example is offering preferential terms to borrowers who utilize solar power plants (PLTS) for their operational needs.

  In addition, microfinance initiatives or small financing for small-scale renewable energy projects have been developed, reflecting institutional efforts to build a sustainable green financing ecosystem from within the organization.

- **Moral Motivation and Long-Term Orientation**[21]

  Renewable energy financing has become increasingly attractive to institutions due to the moral, ethical, and long-term orientation embedded in green projects.

  For instance, ESG principles aligned with the moral value of justice encourage Islamic banks to allocate equitable financing across generations and to avoid environmental harm. The concept of “cross-generational profit” also underscores financial sustainability for both investors and the broader community.

  These factors foster intrinsic motivation among institutions to invest in sustainable projects, as such investments are viewed as consistent with principles of social responsibility, ethics, and long-term strategic vision, without requiring external pressure or direct regulation.

[20] Findings from Interviews with Himbara Banks and Local Private Banks
[21] Findings from Interviews with Islamic Banks and Energy and ESG Analysts

Green Financial Instruments and Global Support[22]

Green financial instruments such as green bonds, green sukuk, and sustainability-linked loans provide a clear and structured funding pathway for renewable energy projects, reducing uncertainty and risk for both banks and investors.

Additionally, access to international donors and global investors enhances liquidity and capital availability, while creating opportunities for multi-stakeholder collaboration among governments, financial institutions, and project developers.

This combination of financial products not only facilitates fund disbursement but also enhances the overall attractiveness of investment in the renewable energy sector.

c. Mooring Factor

On the other hand, mooring factors such as limited institutional support, high financial risks, and market uncertainty have slowed the acceleration of renewable energy funding.

Institutional Challenges and Administrative Processes[23]

Limited institutional support, complex internal procedures, and misaligned regulations continue to pose challenges to renewable energy financing.

The lengthy project permit process, which depends heavily on political support and the state budget, has reduced banks' flexibility in decision-making.

In addition, the dominance of the electricity sector and the limited scope of regulatory mandates were reported to further constrain the acceleration of private sector participation.

Financial Risk and Still Limited Incentives[24]

Renewable energy projects are currently perceived as high-risk due to their long payback periods, limited track records, and relatively high due diligence costs.

Without government incentives or de-risking instruments, the risk burden is largely borne by banks; therefore, financial institutions tend to be more cautious and still view the fossil fuel sector as a more secure option in terms of returns.

Furthermore, the lack of collective green financing targets and the existence of fossil fuel subsidies that make prices more competitive also reduce the attractiveness of investment in the renewable energy sector.

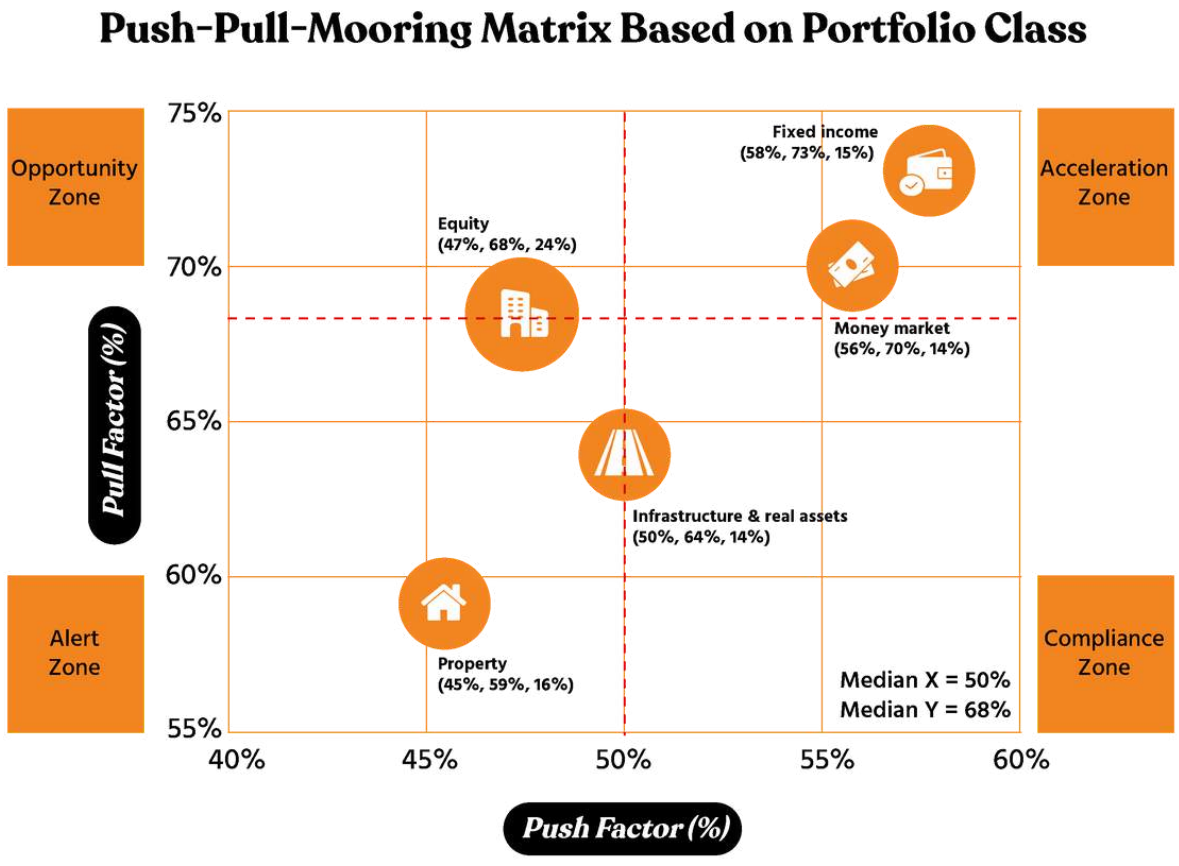
[22] Findings from Interviews with Foreign Private Banks, Regulators, Energy and ESG Analysts, and Investment Experts
[23] Findings from Interviews with Himbara Banks, Regulators, Energy & ESG Analysts, and Economic & Capital Market Analysts
[24] Findings from Interviews with Himbara Banks, Economic and Capital Market Analysts, Energy and ESG Analysts, and Investment Experts

Market Uncertainty and External Factors[25]

Energy price fluctuations, regulatory dynamics, and potential social and political risks compel banks to exercise caution when channeling renewable energy financing. For example, fluctuating coal prices, the industry's dependence on fossil fuels, and shifts in national energy policy direction create additional considerations for financial institutions.

In addition, unpredictable external factors, such as changes in political regimes or differences in development priorities (economic, social, and environmental), also affect the pace of investment decisions.

From a portfolio class perspective, fixed income and money market instruments exhibit the highest level of readiness to transition toward renewable energy financing, as reflected by strong push and pull factors and relatively weak mooring factors.



Note: Vertical and horizontal dividing lines are drawn based on the median value of each variable on the X-axis and Y-axis

(X, Y, Z)
X: Push Factor
Y: Pull Factor
Z: Mooring Factor

Diagram 4.1: Push-Pull-Mooring Matrix Based on Portfolio Class

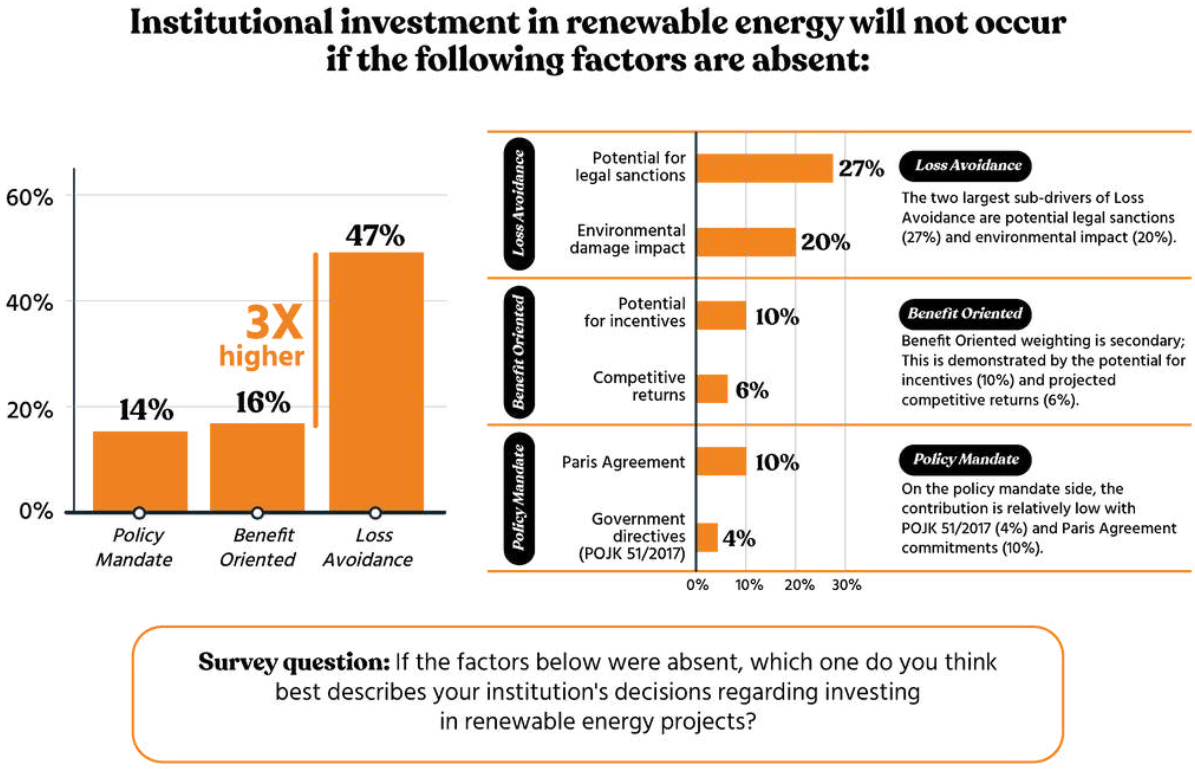
[25] Findings from Interviews with Foreign Private Banks, Islamic Banks, Energy and ESG Analysts, and Investment Experts

C. Renewable Energy Financing Value Proposition

The value proposition of renewable energy financing plays a pivotal role in shaping the decisions of financial institutions and investors. Contrary to the assumption that financial gain is the primary motivator, findings indicate that the main driver is loss avoidance. Financial risks, potential stranded assets, and reputational risks make financial institutions more cautious in their decision-making. As a result, renewable energy financing is often perceived as a defensive rather than an offensive strategy.

This section will outline how the value proposition of renewable energy financing is driven by three main factors: the dominance of loss avoidance, which represents the most crucial consideration; the role of policy mandates that act as triggers through government directives and regulatory frameworks; and benefit-oriented drivers, such as incentives and financial returns, which remain supplementary in nature. In addition, the differences in perceptions between institutions, from state-owned banks (BUMNs) and Islamic banks to foreign investors, regarding the monetary and non-monetary incentives that influence their decisions to support renewable energy financing, will be explained.

Loss avoidance stands as the leading value proposition, influencing institutional decisions to fund renewable energy projects at a percentage approximately three times greater than other factors.



Graph 4.4: Proportion of Factors Influencing Renewable Energy Financing

Loss avoidance remains the most significant factor influencing institutional investment decisions in renewable energy (47%), while benefit-oriented factors (16%) and policy mandates (14%) are still relatively limited. This pattern suggests that institutional investors' motivations tend to be defensive (focused on avoiding potential losses) rather than offensive (aimed at pursuing additional gains).

Loss avoidance serves as a key consideration for institutions, as factors such as financial risk, reputation, and the potential for stranded assets heavily influence their decision-making processes.

Meanwhile, **policy direction and benefit-oriented approaches serve more as supporting factors** that can facilitate and provide additional incentives for investment.

a. The Dominance of Loss Avoidance Factor in Renewable Energy Financing

Institutional decisions to finance renewable energy are heavily influenced by efforts to avoid risks, such as financial, reputational, stranded asset, and socio-economic risks.

Almost all banks and investors prefer ensuring project safety over pursuing high returns. For example, they emphasize caution to avoid strategic missteps (Himbara). Islamic banks even consider the risk of renewable energy financing failure to immediately fall into the category of non-performing loans, and local private banks highlight the reputational risk as greater than the profit. Foreign investors tend to be more cautious due to considerations of stranded asset risks and regulatory dynamics (Foreign Private Banks).

b. Policy Direction as a Trigger, Not a Primary Driver

Government directives and regulations play a crucial role in providing certainty for financial institutions. Without a clear mandate, state-owned banks and institutional investors tend to adopt a pragmatic stance, focusing on bankable contracts and fossil fuel sectors that are perceived as safer.

In practice, approaches vary. Himbara banks still prioritizes fossil fuel financing; others pursue available transactions because branch mandates have not yet fully supported the transition, while some are only willing to participate if domestic government support is present. Meanwhile, global commitments are not yet viewed as a primary driver (foreign private banks). Market analysts emphasize that regulatory harmonization and consistent government support are essential to strengthen the renewable energy transition.

Thus, policy direction currently acts as a trigger that provides certainty; however, additional measures are needed to mitigate risks and enable more optimal investment growth.

c. Benefits (Incentives and Returns) Remain Subordinate

The financial benefits of renewable energy (such as returns, green loans, or green sukuk) are currently less attractive compared to those of the fossil fuel sector due to narrow margins, long payback periods, and an underdeveloped market.

Some Himbara banks consider the benefits weak without direct incentives, while others only provide funding to projects with clear contracts and guaranteed cash flows. Islamic banks note that although green sukuk have been issued, institutional returns remain lower than those from fossil fuel financing.

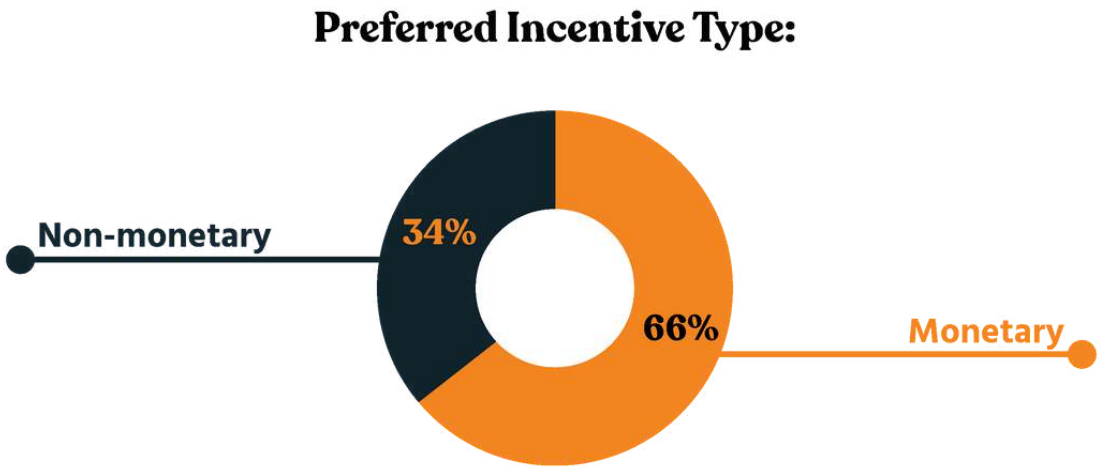
Local private banks express optimism about expanding green portfolios, although the market remains limited. Foreign investors acknowledge that tax incentives have been effective; however, they emphasize that risk mitigation remains a key prerequisite (foreign private banks).

In conclusion, benefits serve as an additional consideration, but institutions are unlikely to participate without first taking measures to reduce risk (loss avoidance).

> ***"We are still in a wait-and-see situation. Even though the conditions are favourable, we cannot go all-in and must proceed with great caution. One misstep could be perceived as a corruption in the decision-making process. Therefore, the financing mechanism has been made more stringent; for example, a maximum of 30% can come from banks, while the remaining 70% must be self-financed by the developer."***
>
> ***(Himbara Bank Respondent)***

Although loss avoidance remains the primary factor, institutions are not solely focused on minimizing risks. They are also beginning to pursue additional, benefit-oriented opportunities in renewable energy financing.

In this context, monetary incentives represent the most sought-after benefits, while non-monetary incentives continue to be viewed as desirable complements.



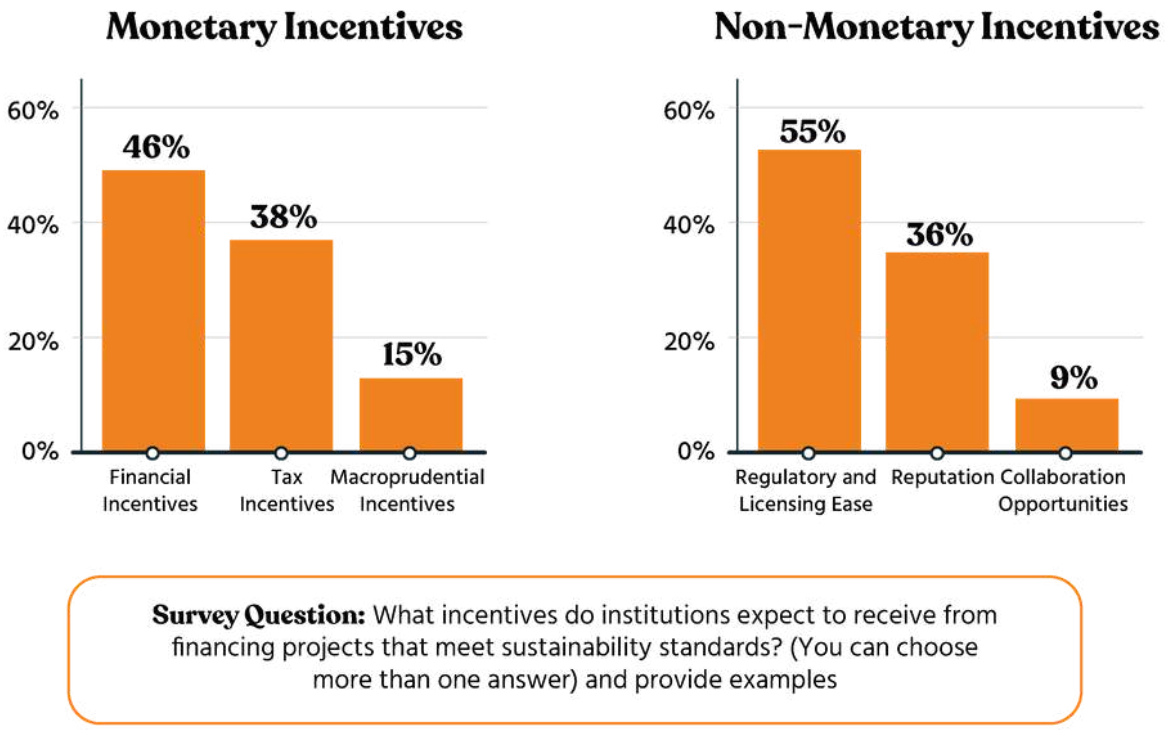
Graph 4.5: Incentive Preferences for Renewable Energy Financing

a. Monetary Incentives

Monetary incentives refer to rewards related to finance. The most frequently sought are financial incentives (46%), including interest rate reductions, asset collateralization to lower credit risk, and saving rate-based incentives. Tax incentives (38%) include tax allowances, tax holidays, and tax cuts. Meanwhile, macroprudential incentives (15%) include a declining average primary reserve requirement (GWM) and relaxed Macroprudential Intermediation Ratio (RIM) policies.

a. Non-Monetary Incentives

Non-monetary incentives refer to rewards that are not financial in nature. The most desired are regulatory and licensing simplifications (55%), including streamlined payment channels for renewable energy commercialization, easier access to financing, and relief from non-performing loans. Other incentives include reputation-enhancing measures (38%), such as awards and certifications, as well as facilitated collaboration opportunities (9%).



Graph 4.6: Institutional Preferences for Forms of Renewable Energy Funding Incentives

Chapter 5

Addressing Critical Barriers to Renewable Energy Financing

A. Mapping of Key Risks in Renewable Energy Financing

Mapping risks in renewable energy financing is essential to understanding the challenges faced by banks and investors in supporting the energy transition. While fossil fuel projects are primarily exposed to reputational risks, renewable energy projects face greater risks related to financial feasibility and long-term viability. In addition, policy dynamics, market uncertainty, and social challenges continue to make this sector perceived as high-risk. This situation compels financial institutions to act cautiously, as renewable energy projects often require substantial upfront investment, long payback periods, and a still-developing support ecosystem.

This discussion outlines the main risks in renewable energy financing, including performance outcome, policy, viability, environmental, and investor-related risks. It also highlights the unequal distribution of risks among the government, banks, and businesses, leaving financial institutions to bear the heaviest burden. Other contributing factors include long-term political and regulatory uncertainty, the potential for local social resistance, and Danantara's strategic direction, which remains at an early stage.

The Risks in Renewable Energy and Coal-Based Financings

The main risks in both coal-based and renewable energy financing fall under the performance outcome category.

For coal energy, performance outcome risk primarily involves reputational risk for institutions in the public eye (67%). In contrast, for renewable energy, it is mainly associated with financial risks related to costs (76%). Beyond performance outcomes, other risks extend across policy, viability, environmental, and investor.

1. Policy Risk

Renewable energy financing is sensitive to changes in government policy (67%). Similarly, coal financing is affected by increasingly stringent regulations governing the coal sector (59%).

2. Long-Term Viability Risk

In terms of viability, renewable energy financing faces significant long-term revenue uncertainty (59%). Meanwhile, coal energy is exposed to the risk of becoming a stranded asset, losing value before the end of its economic life, due to evolving regulations (45%).

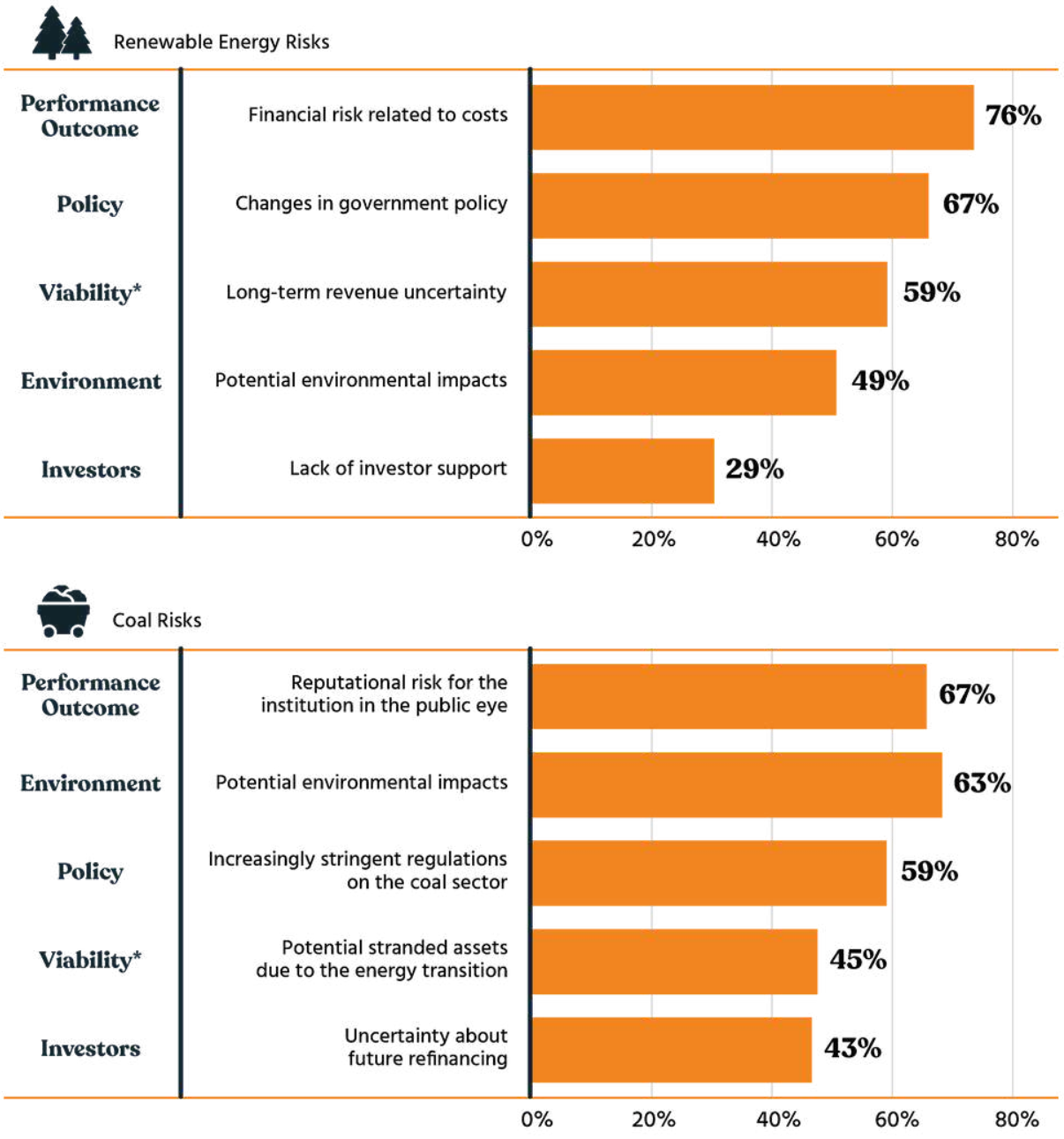
3. Environmental Risk

Environmental considerations emphasize divergence in risk. Coal-fired energy (63%) carries a heavier environmental burden compared to renewable energy (49%).

4. Investor Risk

In the investor category, fossil fuel financing carries a refinancing uncertainty risk (43%), indicating a narrowing access to refinancing due to sustainability mandates and global market preferences. In contrast, renewable energy faces a relatively lower risk of insufficient investor support (29%).

Financing Risks of Renewable Energy and Coal-Based Energy



*Viability risk: the company's long-term ability to operate and remain financially sound

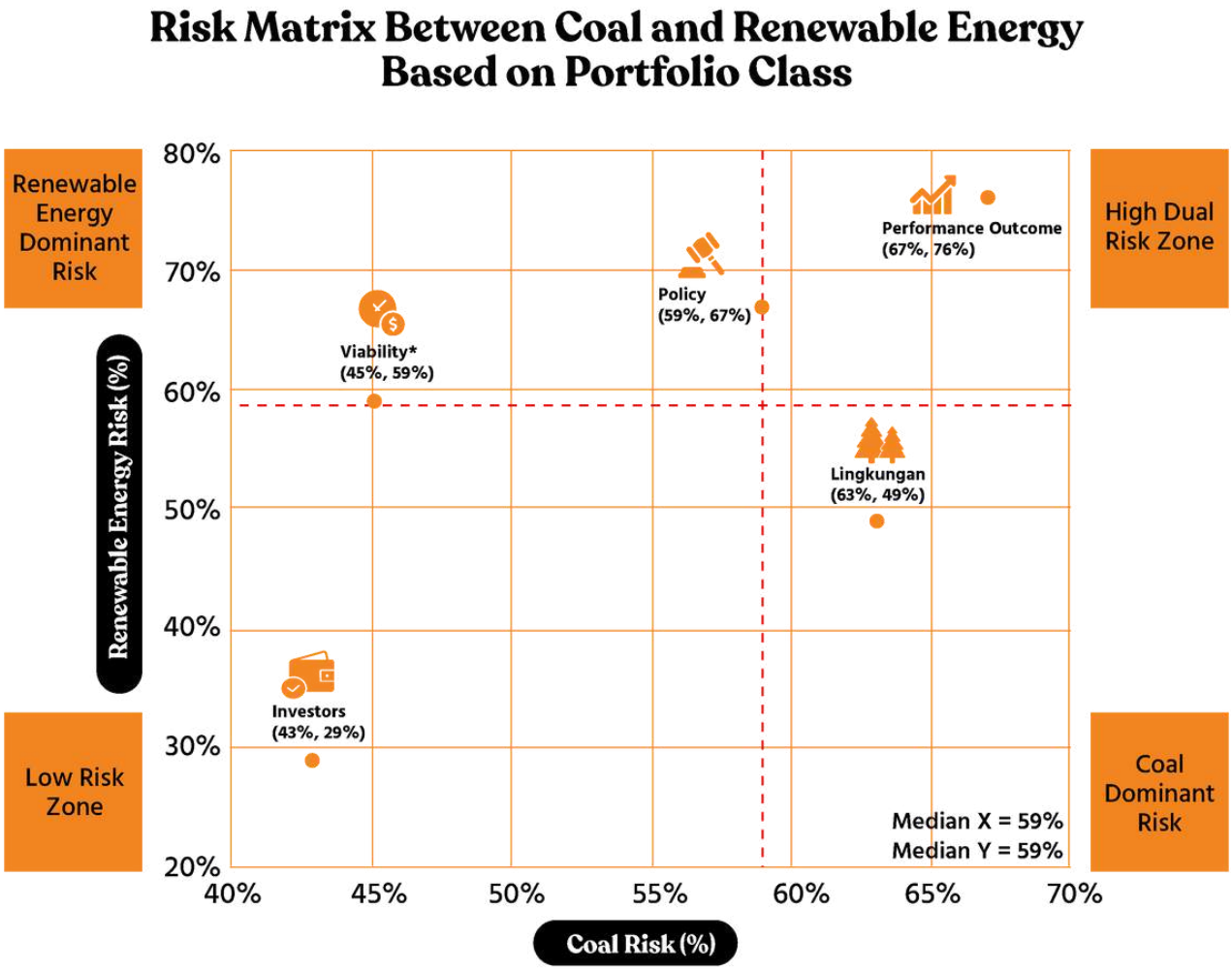
Survey Question:

A. In your opinion, which risk factors should your institution take into account when providing financing to renewable energy projects? (You may select more than one answer.)

B. In your opinion, which risk factors should your institution take into account when providing financing to coal projects? (You may select more than one answer.)

Graph 5.1: Financing Risks in Renewable and Coal-Fired Energy Based on Respondent Perceptions

Risk mapping also indicates that each factor exhibits a distinct risk profile. Performance outcomes fall within dual high-risk zones. The viability factor presents a greater risk for renewable energy,[26] whereas the environmental factor poses a higher risk for coal. In contrast, the investor factor remains in the low-risk zone relative to the others.



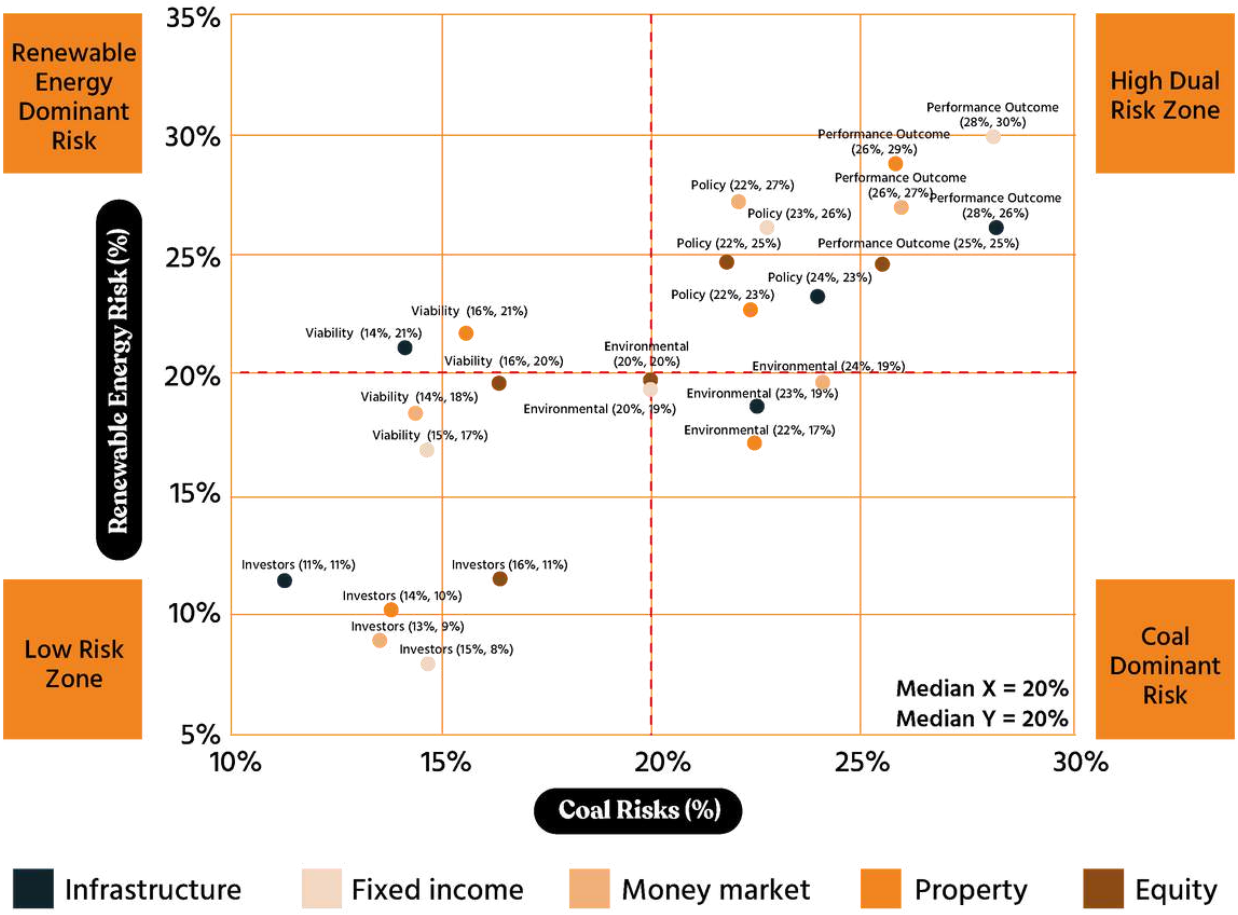
*Viability risk: the company's long-term ability to operate and remain financially sound.

Diagram 5.1: Coal and Renewable Energy Financing Risk Matrix

At the portfolio level, the dominant risk associated with renewable energy lies in viability,[27] particularly within the infrastructure and property segments. In contrast, the dominant risk for coal stems from environmental factors, especially in the infrastructure, property, and money market segments.

[26] Viability risk is the company's long-term ability to operate and remain financially healthy.
[27] Viability risk is the company's long-term ability to operate and remain financially healthy.

Coal and Renewable Energy Risk Matrix Based on Portfolio Class



*Viability risk: the company's long-term ability to operate and remain financially sound.

Note: Vertical and horizontal dividing lines are drawn based on the median value of each variable c the X- and Y-axes.

Diagram 5.2: Coal and Renewable Energy Risk Matrix Based on Portfolio Class

According to Key Opinion Leaders, **the distribution of risks in renewable energy financing remains unbalanced. Banks shoulder a significant share of the risk,** while renewable energy projects continue to face challenges such as high upfront costs, an underdeveloped ecosystem, and limited price competitiveness.

> ***"In reality, foreign banks participate in sustainable projects such as the establishment of smelters. However, for the power generators that are still coal-based, financing is actually abandoned by them and eventually becomes the responsibility of local banks."***
>
> ***(Respondent from a Local Private Bank)***

High Business Risk[28]

Renewable energy projects are still perceived as high-risk by financial institutions. Several contributing factors include:

1. Significant initial investment requirements and long payback periods.
2. Many projects are initiated by newly established companies lacking sufficient track records.
3. The quality and capacity of industry players remain inconsistent and lack standardization.
4. The absence of a fully developed supporting ecosystem, both upstream and downstream, in contrast to the well-established coal industry.
5. The selling price of renewable energy remains uncompetitive, failing to adequately compensate for the existing business risks.

Imbalanced Risk Distribution Among Stakeholders[29]

The government plays a central role in ensuring the success of Indonesia's energy transition. However, in practice, the distribution of risks in financing renewable energy projects still faces challenges in achieving a balanced allocation among stakeholders, including banks, borrowers, and the government.

Banks are often perceived as bearing an excessive share of the responsibility. They frequently face pressure to ensure compliance from borrowers Additionally, there is a role imbalance: foreign banks tend to finance sustainable projects such as smelter construction, while coal-fired power plants increasingly become the responsibility of local banks.

[28] Findings from Interviews with Himbara banks, Islamic Banks, and Foreign Private Banks
[29] Findings from Interviews with Himbara Banks, Local Private Banks, and Regulators

Additionally, **policy dynamics and social resistance are additional factors** that continue to make renewable energy financing perceived as risky. In this context, **banks need to account for the potential emergence of non-performing loans as well as social costs,** which are not yet fully predictable.

Political and Policy Dynamics[30]

Policy uncertainty that often arises during periods of changing governments presents a challenge, particularly due to the long-term nature of renewable energy project financing. This situation creates significant policy risk, which is felt by the banking sector.

Furthermore, policy support for the renewable energy sector is considered unbalanced compared to the coal industry, creating mixed signals for market actors. The level of trust in the consistency of government policies is a crucial factor in building a solid renewable energy industry that is attractive to financing.

Within the financing regulatory framework, the failure of financed renewable energy projects also has the potential to lead to non-performing loans. This creates a relatively high risk for banks, necessitating a more commensurate support scheme to ensure continued growth in financing demand.

Social Challenges[31]

One of the risks that significantly impacts the success of the energy transition is social risk. Renewable energy projects are generally located in remote areas, following the location of resources such as water and geothermal energy. Furthermore, these projects require larger areas of land than coal-fired power plants.

Consequently, the potential for resistance from local communities, protests from non-governmental organizations, and other social dynamics often result in high and unpredictable social costs. If affected communities do not directly benefit from the project, social resistance can significantly increase the financial burden and hinder a smooth transition process.

This situation increases project uncertainty and reduces its attractiveness to banks.

[30] Findings from Interviews with Himbara banks, Foreign Private Banks, Economic & Capital Market Analysts, and Energy and ESG Analysts
[31] Findings from Interviews with Himbara Banks, Foreign Private Banks, and Regulators

> *"The biggest challenge actually lies in political certainty. If regulations change, the directives and implementation mechanisms will automatically change as well. Therefore, we must not issue a regulation today and then suddenly change it tomorrow"*
>
> *(Respondent from Himbara Banks and Foreign Private Banks)*

Danantara has the potential to be a driving force in the energy transition. However, with its direction still being formulated and its implementation still needing strengthening, banks are likely to remain cautious in reducing their exposure to fossil fuels.

a. Danantara's Current Position

Several respondents indicate that Danantara has not yet provided concrete direction to Himbara banks or Islamic banks regarding renewable energy financing. Danantara's vision in this sector is also considered to still be in its developmental stage.

Banking executives note that Danantara's influence so far has been primarily administrative and structural, while business decisions continue to follow existing banking regulations and each institution's internal risk assessments.

However, economic and capital market analysts view Danantara as holding a strategic position, given its ownership of Himbara banks. Subholdings such as Danantara Investment Management (DIM) have also begun exploring opportunities for global collaboration in the renewable energy sector. Furthermore, energy and ESG analysts see potential for strengthening Danantara's role through its ESG oversight unit.

b. Emerging Risks

- **Direction and Implementation Risks**

  The main risk highlighted by several respondents was Danantara's direction, which is still in the formulation stage, and its implementation remains in need of further strengthening. This condition has prompted banks to take a pragmatic approach, resulting in the financing portfolio remaining relatively concentrated in the fossil fuel sector (Himbara).

- **Risk of a Stalled Series of Green Projects**

  Economic and capital market analysts assess that although Danantara functions as a major sovereign fund, its portfolio of green projects has yet to show significant progress, primarily because its renewable energy vision was not clearly articulated from the outset. Without stronger strategic measures, banks and state-owned enterprises may continue to maintain high exposure to fossil fuels, which are still perceived as safer and more profitable options.

- **Fiscal Risks and Long-Term Trade-Offs**

  Investment experts also highlight potential fiscal risks, as bank dividends are directed to Danantara. This situation may create a dilemma between meeting short-term fiscal needs and maintaining a commitment to long-term green investments.

> ***"To date, Danantara's presence has not had a significant impact on banking management. Bank operations and policies continue to follow banking laws, compliance principles, and business considerations."***
>
> ***(Himbara Bank Respondent)***

> ***"We already have Danantara, one of the largest in Asia. However, its vision for promoting renewable energy investment still needs to be clarified to provide stronger direction for the market."***
>
> ***(Economic and Capital Market Analyst)***

B. Risk Mitigation Strategy

Risk mitigation is a crucial element in ensuring that renewable energy financing remains stable and attractive to banks and investors. The nature of renewable energy projects, which require significant capital, long payback periods, and often involve relatively new and inexperienced developers, makes this sector inherently high-risk. Therefore, mitigation strategies go beyond financial technicalities and also encompass regulatory consistency, social support, and the strategic direction of key institutions that can orchestrate the energy transition.

This discussion outlines several risk mitigation strategies, including efforts to enhance project financing feasibility through government guarantees and collaborative financing schemes; strengthening financial structures with green instruments and the participation of state-owned enterprises to reduce business risks; and ensuring consistent regulations, fiscal incentives, and social protection to minimize community resistance. Furthermore, Danantara's role as an orchestrator with the potential to strengthen strategic direction and ESG oversight/monitoring, can make renewable energy financing more secure and attractive to banks.

1. Funding Risk and Project Bankability

Mitigating renewable energy financing risks requires an active government role through guarantee mechanisms and collaborative financing schemes, alongside efforts to strengthen financial instruments that enhance project bankability.

- **Risk Sharing Through Guarantees and Joint Financing Schemes**

  The current distribution of risk in renewable energy financing is perceived as unbalanced among the government, banks, and borrowers. Consequently, a disproportionately large share of the risk is borne by banks, as the main drivers of financing.

  To address this issue, various stakeholders are promoting collaborative financing schemes. Regulators highlight the importance of cross-institutional coordination for de-risking, supported by entities such as PT Sarana Multi Infrastruktur (PT SMI) and the Ministry of Finance.

  In addition, market analysts suggest that financing models such as Public–Private Partnerships (PPPs), Government-to-Business Partnerships (KPBU), and blended finance could serve as effective mechanisms to enhance risk sharing and close the existing financing gap (Economic & Capital Market Analyst).

This approach is further supported by the proposal to provide government-backed risk guarantees, enabling banks to lend more confidently to renewable energy projects (Economic & Capital Market Analyst).

- **Strengthening Financial Schemes and Support for Bankable Projects**

  Renewable energy projects are still perceived as high-risk due to their substantial initial investment requirements, long payback periods, and the large number of new developers without an established track record.

  To address this, banks within the Himbara group emphasize the need for government guarantees or interest subsidies to better manage project financial risks. Additionally, entry-level strategies are also being considered, such as small-scale financing in the range of IDR 1–5 billion through microcredit schemes, which are viewed as more feasible in the early stages (Himbara).

  From the perspective of foreign investors, business risks can be mitigated by introducing specialized green financial products, such as sustainability-linked loans with strict eligibility criteria, ensuring that financed projects genuinely meet sustainability standards (Foreign Private Banks).

  Another crucial effort involves promoting collaboration with State-Owned Enterprises (BUMN) or existing borrowers to enhance project bankability, ensuring that projects are not entirely dependent on new actors (Himbara).

> ***"Renewable energy projects struggle to secure financing because they are considered high-risk and less attractive to banks due to the absence of guaranteed investment returns. Implementing government-backed risk guarantees is essential to reduce the risks faced by banks."***
>
> ***(Himbara Bank Respondent, Economic and Capital Market Analyst)***

2. Risks of Regulatory and Social Dynamics

The success of the energy transition depends on **consistent government regulations and incentives, as well as robust social protection** through community engagement, to ensure that renewable energy projects are both sustainable and publicly accepted.

- **Consistent Regulations and Incentives as a Guarantee of Sustainability**

  Regulatory dynamics arising from the periodic change of government every five years present a unique challenge for long-term renewable energy financing. In response, banks tend to adopt a conservative approach, channeling funds only when there is official government support, either through the State Budget (APBN) or other supporting policies (Himbara).

  Capital market analysts also emphasize the need for consistent regulations and fiscal incentives that can enhance the competitiveness of renewable energy compared to coal (Economic & Capital Market Analyst). This perspective aligns with investment experts who highlight policy certainty as a crucial signal for investors when making long-term decisions.

  In addition, foreign private sector investors underline the importance of learning from international best practices, such as those in Vietnam, which has successfully accelerated renewable energy adoption through land security measures and a supportive regulatory framework (Foreign Private Bank).

- **Strengthening Social Protection and Community Engagement**

  Social risk remains a key factor often hindering renewable energy projects, particularly because project sites are generally located in remote areas and require extensive land use. These conditions often trigger community resistance and protests from civil society organizations. To mitigate such risks, regulators highlight the importance of social protection measures, including reskilling programs, the creation of green jobs, and the empowerment of affected communities.

  From the perspective of Islamic banks, mitigation strategies focus on multi-stakeholder collaboration involving regulators, NGOs, academics, and local communities to ensure that social risks are more equitably shared.

  Moreover, public education and community engagement are viewed as crucial to ensuring that communities feel included and can directly benefit from the energy transition (Energy and ESG Analyst Islamic Banks). On the other hand, investment experts recommend implementing pilot projects to build public and investor confidence in the tangible benefits of renewable energy.

> ***"There are no regulations specifically encouraging banks to reduce fossil fuel financing. ESG regulations still lack sufficient oversight and incentives. More consistent regulatory pressure and tangible incentives are needed to accelerate the energy transition."***
>
> ***(Energy & ESG Analyst Economics & Capital Market Analyst)***

3. Strategic Direction Risks and Danantara's Role

Danantara's success in advancing the energy transition will depend on its ability to serve as **an effective orchestrator with a clear strategic vision**, strengthened by robust and optimized ESG oversight.

- **Danantara as an Orchestrator of the Energy Transition**

  Economic and capital market analysts believe that Danantara holds significant potential to serve as an orchestrator of Indonesia's energy transition.

  This role could be optimized through stronger government support, enabling Danantara not only to respond to market preferences that still favour fossil fuels but also to actively steer banks and state-owned enterprises (BUMN) toward greater participation in green energy projects.

- **Affirmation of Strategic Direction**

  Economic and capital market analysts emphasize that establishing a clear strategic vision from the outset is essential for effective risk mitigation. Danantara needs to be strategically guided to focus on potential sectors such as renewable energy and ecotourism (green tourism).

  With a more defined direction, the portfolio of green projects could expand significantly and become more attractive to banks for funding, thus enabling a more concrete realization of the energy transition.

- **Optimizing ESG Oversight**

  Energy and ESG analysts note that Danantara already possesses an ESG oversight unit with the potential to serve as a key driver in advancing sustainability principles, including Environmental and Social Risk Management (ESRM), within state-owned enterprises (BUMN).

  However, the effectiveness of this unit will depend largely on consistent policy support and strong commitment from senior management across companies to ensure that ESG principles are implemented substantively, not just procedurally.

> ***"If Danantara now serves as the boss, any directive will certainly be carried out. Therefore, orchestration by the state, through Danantara and the relevant ministries, can effectively drive state-owned enterprises (BUMN) to immediately prioritize renewable energy."***
>
> ***(Economic & Capital Market Analyst)***

Chapter 6

Strategies and Recommendations to Promote Renewable Energy Financing

A. Current Conditions, Directions, and Goals of Energy Transition Financing

Indonesia stands at a critical crossroads in its journey toward renewable energy. The government has emphasized its direction by prohibiting the development of new coal-fired power plants (PLTU) and initiating plans for their early retirement. Despite these efforts, financing remains heavily concentrated in fossil fuels, while renewable energy continues to face regulatory, risk-related, and cost barriers. Now, various green financial instruments ranging from green bonds to sustainability-linked loans are emerging, presenting significant opportunities for transformation. The following section explores the current landscape, challenges, and strategies for advancing energy transition financing in Indonesia.

Direction and Objectives of Energy Transition Financing

- **Sustainable Finance Roadmap – Phase II (2021–2025)**
  a. Expand the implementation of sustainable finance across the entire financial services sector, moving beyond pilot projects. Strengthen green financial products and services, such as the issuance of green bonds, green sukuk, and sustainability-linked loans.
  b. Integrate ESG principles into risk management frameworks (climate-related risk management).
  c. Strengthen market infrastructure, including the development of the Indonesian Taxonomy for Sustainable Finance (TKBI).
  d. Enhance financing incentives and innovations through blended finance mechanisms, risk-sharing schemes, and fiscal instruments.
  e. Foster international collaboration by aligning with global standards (UNPRI, TCFD, and the EU Taxonomy).
  f. Strengthen borrower capacity to help businesses meet ESG standards, thereby expanding access to green financing.
  g. Tangible contribution to increasing the share of green financing within banking and capital market portfolios, while supporting the achievement of the Nationally Determined Contribution (NDC) and Net Zero Emissions (NZE) 2060 targets.

- **Government Regulation Planning on National Energy Policy (Revised General Planning for National Energy/RUEN 2025)**[32]

  Adjustment of the renewable energy mix target from 23% in 2025 to 23% in 2030. Reflecting a more realistic national energy policy direction that aligns with current market dynamics and financing conditions.

- **The Electricity Supply Business Plan (RUPTL) 2021–2030**
  a. The share of new power plant development consists of 51.6% renewable energy (20.9 GW) and 48.4% fossil fuels.
  b. The renewable energy mix target is set at 23% by 2025.
  c. PLN is mandated to prioritize the development of renewable energy.
  d. Restrictions on the construction of new coal-fired power plants (PLTU) have been introduced, limited only to pre-designated projects.

- **The Electricity Supply Business Plan (RUPTL) 2025–2034**
  a. Projected electricity demand growth of 5.3% per year.
  b. Total additional generation capacity of 69.5 GW, with 42.5 GW expected to come from renewable energy sources.
  c. Renewable energy mix target set at 34.3% by 2034.

[32] On 15 September 2025, the Government of Indonesia officially enacted the Draft Government Regulation on the National Energy Policy as Government Regulation No. 40 of 2025 on the National Energy Policy (PP KEN). Article 10 of PP KEN sets a target for the share of new and renewable energy (EBT) in the national energy mix to reach between 19% and 23% by 2030.

d. Implementation of the diesel power plant (PLTD) de-dieselization program, along with the development of variable renewable energy (VRE), including solar and wind, as well as smart grids, electric vehicles (EVs), and rooftop solar systems (PLTS).
e. Initiating the pathway toward Net Zero Emissions (NZE) through an energy transition supported by low-carbon technologies.

- **Presidential Regulation (Perpres) No. 112 of 2022**

a. Focuses on accelerating the development of renewable energy for electricity generation.
b. Prohibits the construction of new coal-fired power plants (PLTU), except for designated or certain strategic projects.
c. Mandates the Ministry of Energy and Mineral Resources (ESDM), the Ministry of Finance, and State-Owned Enterprises (BUMN) to develop a roadmap for the early retirement of coal-fired power plants.
d. Serves as a key regulatory foundation for the coal phase-out and the acceleration of renewable energy adoption.

- **Enhanced Indonesia's NDC (2022)**

a. Increases the emission reduction target to 31.89% unconditionally (without international assistance) and 43.20% conditionally (with international assistance) by 2030.
b. Integrates with the Long-Term Strategy for Low Carbon and Climate Resilience (LTS-LCCR) 2050.
c. Sets a vision to achieve Net Zero Emissions by 2060 or earlier.
d. Emphasizes the energy sector as a key pillar of emission reduction efforts.

Current State of Energy Transition Financing

- **Fossil Fuel Financing**

1. Domestic banks continue to allocate significant financing to the fossil fuel sector, which is perceived as safer, more stable, and more competitive.
2. Financing is primarily directed toward operational needs, credit restructuring, and coal-supporting industries.
3. Several foreign banks have started to reduce or phase out coal financing as part of their strategies.

- **Awareness and Perception**

1. Banks acknowledge the importance of climate issues, but implementation remains limited.
2. There is a strong reliance on regulatory frameworks to drive concrete action.

3. Surveys indicate that three out of four respondents have personally experienced climate impacts, although professional implementation of climate-related measures remains low.

- **Energy Transition**

1. The shift toward renewable energy financing remains slow and selective.
2. Banks tend to focus on existing clients with limited engagement in green initiatives.
3. Financing decisions are largely influenced by regulations, incentives, and market certainty.
4. Coal subsidies continue to hinder the price competitiveness of renewable energy projects.

- **Renewable Energy Financing**

1. Support is provided through green bonds, green sukuk, green loans, and the establishment of ESG units within certain banks.
2. The primary drivers are regulatory requirements, reputation, and pressure, rather than direct financial incentives.
3. The scale of financing remains limited, hindered by high upfront costs, expensive due diligence processes, and inconsistent regulations.

- **Structural Barriers**

1. ESG regulations remain voluntary, lacking mandatory enforcement.
2. Policy uncertainty and political dynamics continue to discourage investor interest.
3. Social barriers, including land acquisition, contribute to rising project costs.
4. Renewable energy projects are still perceived as high-risk, due to significant capital requirements, long payback periods, and less competitive prices.

B. Renewable Energy Roadmap Framework

Accelerating the renewable energy transition requires a targeted and measurable roadmap. The renewable energy financing framework is designed to address these challenges by strengthening regulations, enhancing transparency, developing innovative green financial instruments, building borrowers' capacity, transforming organizational culture, and fostering multi-stakeholder collaboration. This section outlines how these strategies collectively establish the foundation for sustainable renewable energy investment.

1. Strengthening Regulations and Incentives

- Accelerate the implementation of sustainable finance obligations (POJK No. 51 of 2017) with fiscal incentives (tax allowances and guarantees).
- Synchronize energy sector regulations (RPP KEN,[33] Presidential Regulation No. 112 of 2022) with the green financing roadmap.

2. Transparency and Reporting

- Align bank sustainability reports with international frameworks (TCFD and EU Taxonomy).
- Disclose financing data for both fossil fuel and renewable energy projects to enhance accountability.

3. Expansion of Financing Products and Schemes

- Develop green bonds, green sukuk, blended finance, and risk-sharing facilities.
- Introduce green microcredit schemes to support small-scale renewable energy projects and UMKM/MSMEs engaged in the clean energy sector.

4. Borrowers' Risk and Capacity Management

- Integrate climate risk analysis into bank credit assessment processes.
- Provide technical assistance for borrowers to enhance the bankability of renewable energy projects.

5. Cultural Change and Market Incentives

- Integrate ESG principles into key performance indicators (KPIs) and the organizational culture of banks.
- Strengthen public and investor awareness to increase demand for green portfolios

[33] Officially enacted as Government Regulation No. 40 of 2025 on the National Energy Policy (PP KEN) on 15 September 2025.

6. Collaboration and Orchestration

- Activate the roles of Danantara, PT SMI, and financial state-owned enterprises (BUMN) as catalysts.
- Establish a multi-stakeholder platform (government, banks, investors, CSOs) to develop a roadmap for coal-fired power plant (PLTU) retirement.

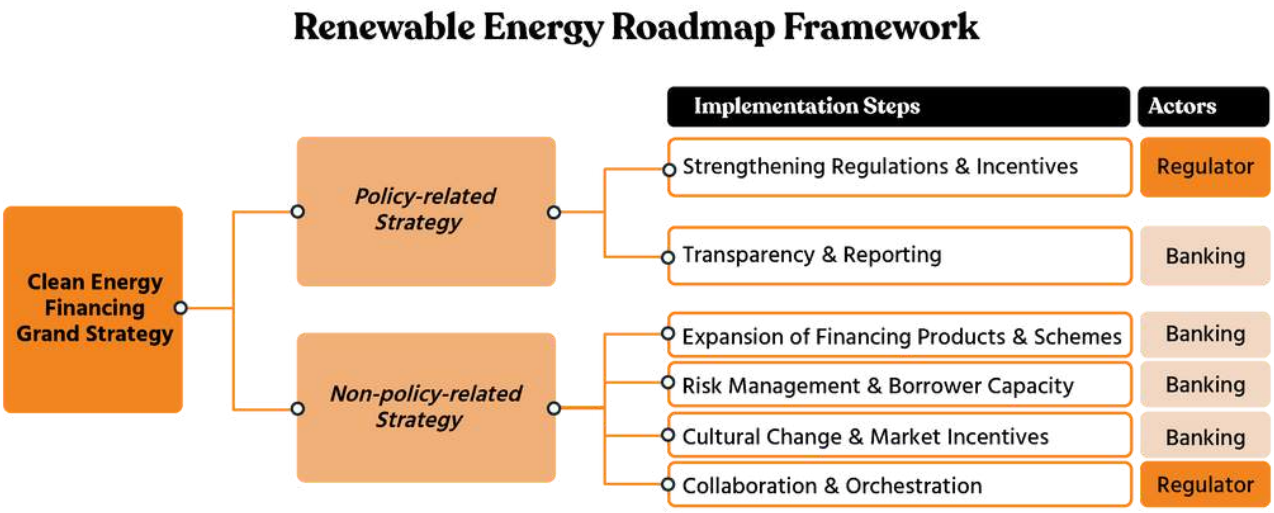


Figure 6.1: Renewable Energy Roadmap Framework

C. Strategy and Perspective

The renewable energy transition can only be achieved if banks and stakeholders work together. For banks, the main challenge lies in transforming ESG practices from mere compliance into a core business strategy. This transformation involves enhancing transparency in reporting, expanding green financial products such as green bonds and blended finance mechanisms, and strengthening risk management frameworks to improve the creditworthiness of renewable energy projects. Meanwhile, the government, state-owned enterprises (BUMN), investors, and civil society organizations (CSOs) must work together to foster cross-stakeholder collaboration and strengthen regulations and incentives. Through this synergy, the pathway toward green financing will become clearer, bolder, and more sustainable.

1. **Strategy from the Perspective of Banking Industry Actors**

- **Cultural Change and Market Drive**

  ESG practices within the banking sector remain largely compliance-led and have not yet evolved into a core strategic focus. To foster meaningful change, ESG principles should be integrated into leadership KPIs and embedded within the bank's organizational culture. In addition, public and investor awareness must be strengthened through targeted campaigns that increase demand for green portfolios. By combining internal with external pressure, the financing transition can be driven not only by regulatory mandates but also by market pressures.

- **Expansion of Products and Financing Schemes**

  The limited availability of green financial instruments has kept renewable energy financing relatively small in scale. Banks can broaden their options by developing green bonds, green sukuk, blended financing mechanisms, and risk-sharing facilities. Furthermore, providing green microcredit to renewable energy UMKM/MSMEs can expand access and accelerate adoption. This diversification of products is essential to make green financing more inclusive and to reach a wider range of market segments.

- **Transparency and Reporting**

  A lack of data transparency makes it difficult for the public to assess banks' commitment to the energy transition. To address this, banks should prepare sustainability reports aligned with global standards, such as the TCFD and EU Taxonomy. In addition, banks should regularly publish data on the proportion of financing directed toward fossil fuels and renewable energy. This transparency enhances accountability, builds investor confidence, and creates positive pressure to shift financial portfolios toward green investments.

- **Risk Management and Borrowers' Capacity**

  Renewable energy projects are still perceived as high-risk investments due to their substantial upfront costs and long payback periods, while many borrowers struggle to meet ESG standards. To mitigate these challenges, banks should integrate climate risk analysis into their credit assessment processes. Additionally, providing technical assistance and capacity-building programs for borrowers can help make renewable energy projects more bankable, thereby increasing their likelihood of securing funding.

2. Strategy from the Perspective of Other Stakeholders

- **Collaboration and Orchestration**

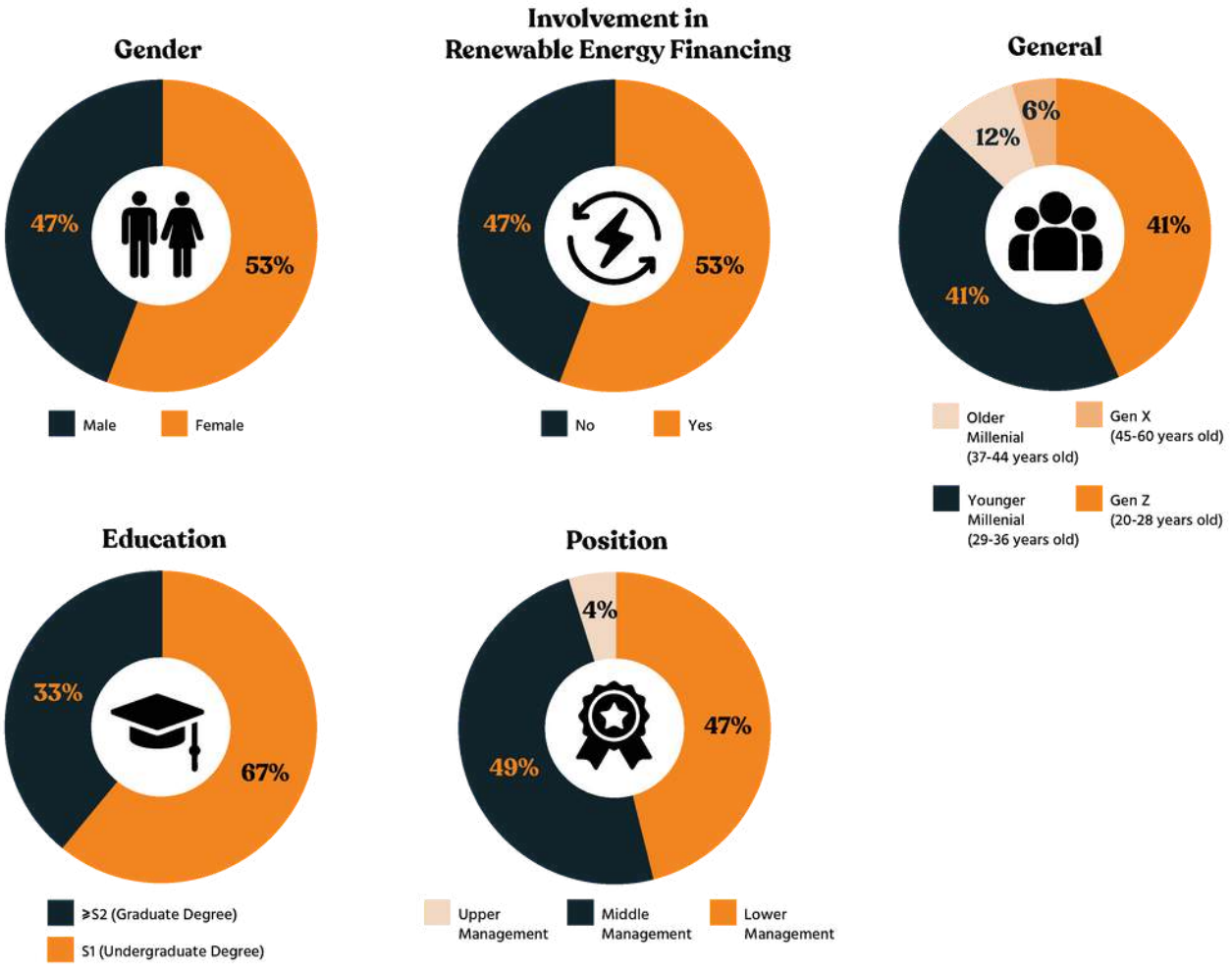
  The energy transition requires cross-stakeholder coordination due to the magnitude and complexity of the challenge. The government, banks, investors, state-owned enterprises (BUMN), and civil society organizations (CSOs) must establish a multi-stakeholder platform to develop a roadmap for the early retirement of coal-fired power plants (PLTU). Through this platform, the division of roles and the design of joint funding mechanisms such as public-private partnerships (PPPs) or blended financing schemes can be clearly defined. This approach ensures that the transition process becomes more structured, equitable, and collaboratively supported by various actors.

- **Strengthening Regulations and Incentives**

  Renewable energy financing continues to face obstacles due to voluntary regulations and insufficient incentives. To shift market direction, the government needs to accelerate the implementation of mandatory sustainable finance policies and provide support through tax allowances, risk guarantees, and other fiscal schemes. These measures would create greater certainty and encourage banks to more confidently allocate their portfolios to renewable energy projects.

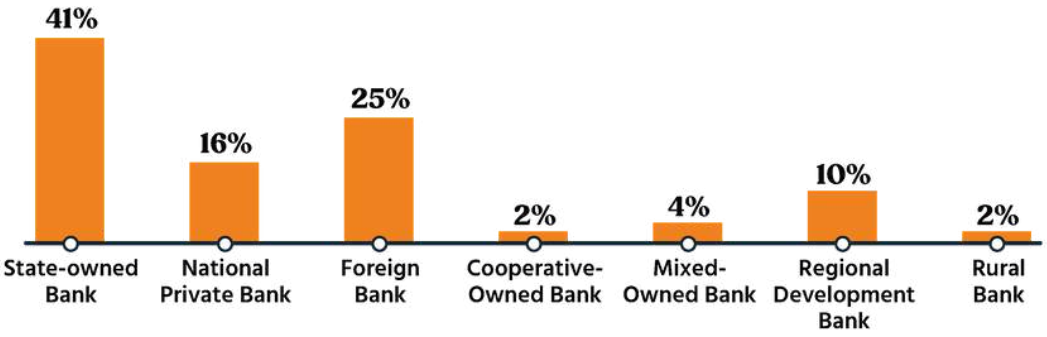
Chapter 7
Appendix

Profile of Quantitative Respondents



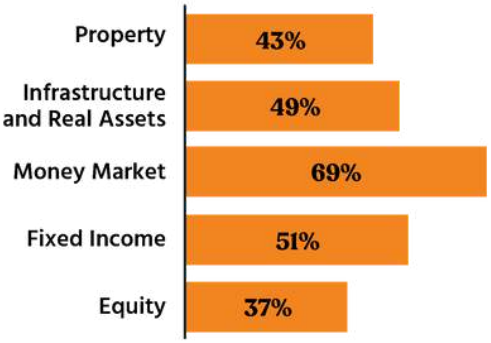
n = 51 Respondents

Bank Classification



n = 12 Respondents

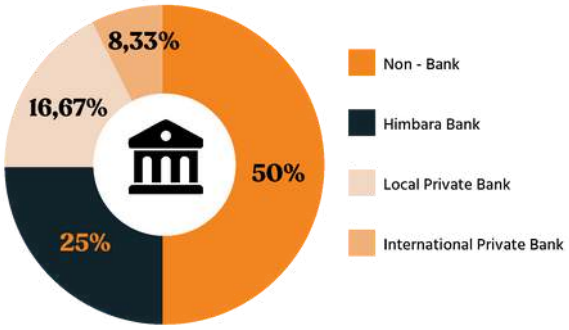
Portfolio Managed



n = 51 Respondents

Profile of Quantitative Resource Persons

Institution



Shareholder Category