



2022

Assessing Progress of Indonesia's Financial Institutions Towards the Clean Energy Transition

Pilot Survey Result

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Introduction

Indonesia has set ambitious goals to achieve a clean energy transition. In particular, the country aims to increase the share of renewables in its energy mix (23% by 2025) and reduce energy consumption across end-users (17% by 2025). Clean energy is also a key pillar of Indonesia's National Determined Contributions (NDCs), aiming to reduce the country's emissions by an unconditional 29% and conditional 41% compared to a business-as-usual scenario by 2030, accounting for more than a third of targeted emission reduction by 2030.

While the country has made some progress, there is much to do to achieve these goals. Indeed, renewables represented around 11% of the energy mix in 2020 while progress in energy efficiency has deviated off the 17%-target track as of late. Meanwhile, fossil fuels continue to dominate ([OECD, 2021a](#)).

Meeting climate ambitions will require a massive increase in private investment. Achieving NDCs in the energy and transport sector for instance, will require an estimated annual USD 23.6 billion to 2030 – more than 10 times the current clean energy investment level (MoF, 2022). Given these needs, mobilising Indonesia's financial sector and international capital flows will be crucial.



Accelerating sustainable finance can help achieve climate and clean energy goals

Aware of this challenge, Indonesia is already taking steps to develop and align its financial system with the Paris Agreement and Sustainable Development Goals. In 2015, Indonesia's financial services authority (OJK) launched the Sustainable Finance Roadmap (Phase 2 of which started in 2021) in a bid to encourage the integration of environmental, social and governance considerations into investment/financing decisions and spur financial innovation for low-carbon opportunities. Following through, it also implemented key regulations (e.g. [POJK 60 on green bonds](#)) and a range of capacity building activities and recently released "[Indonesia Green Taxonomy edition 1.0](#)".

Aside from financial system intervention, Indonesia has implemented a number of key measures to achieve its climate objectives. Most notably, the country recently implemented a cap-and-tax system in the power sector as well as a coal phase-out policy to start in 2022 and end in 2056. Equally, PLN (State-owned power utility) increased the share of renewables (albeit from a low base) in its planned capacity for the next 10 years (see [OECD, 2021b](#) for more details). While the challenges remain, these measures are steps in the right direction and help reassert the country's resolve to decarbonize its power sector and more generally achieve a low-carbon transition.

Developing metrics and assessment tools can help track progress and increase the evidence base

Still, a number of policy barriers remain, affecting the attractiveness and bankability of clean energy projects, while project developers often report that Indonesia's financial institutions could do more to fund projects at affordable cost as highlighted in [OECD, 2021a](#).

To shed light on these issues, OJK and OECD – under the [Clean Energy Finance and Investment Mobilisation Programme](#) – undertook a comprehensive survey with a range of financial institutions, including banks, domestic institutional investors, financing companies, infrastructure finance institutions and other key financial players. The survey provides insights into the progress of Indonesia's financial system in mainstreaming sustainable finance and financing the clean energy transition.

Indonesia's Sustainable Finance Ambitions

Indonesia has put in place a comprehensive framework for sustainable finance

In light of financing needs to achieve a low-carbon transition, OJK has made considerable efforts to mainstream sustainable finance in the country. In 2015, OJK launched the country's first Sustainable Finance Roadmap, which aims for Indonesia's financial institutions – FIs (including, banks, capital market and non-bank financial institutions) to mainstream sustainable finance by 2024 – e.g. through promoting the integration of sustainability considerations in financing decisions, implementing capacity building activities, developing financial products/services and investment channels for sustainable investment. The Roadmap is implemented in two phases. [The first phase \(2015-19\)](#) aimed to lay the groundwork for mainstreaming sustainable finance through creating a regulatory framework, raising awareness and capacity-building activities for FIs (e.g. guidelines and training), promotion campaigns (e.g. Sustainable Finance Award 2016), and strengthening co-ordination across relevant government institutions.



[The second phase of the Roadmap \(2020-24\)](#) officially started in 2021. It focuses on building the sustainable finance ecosystem needed to help the country achieve its Sustainable Development Goals and the Paris Agreement.

To operationalise the Roadmap, OJK issued [Regulation no. 51/2017](#) (also known as POJK 51) on the implementation of Sustainable Finance. The regulation defines comprehensive reporting mechanisms for financial services institutions, issuers and publicly listed companies, under OJK supervision. Under the regulation, these institutions are required* to release annual and five-year sustainable finance action plans (RAKB), which define a time line and a strategy for the integration of Environmental, Social and Governance criteria aspects and the development of products and/services into their business plans (a detailed guideline has been submitted [for banks \(2018\)](#) and [securities companies \(2021\)](#)). Progress must be reported in annual and publicly available Sustainability Reports. Under the regulation, foreign and large-capital domestic commercial banks were to issue their RAKB by 2019 and Sustainability Report by 2020 while most other institutions did so by 2020 and 2021 respectively. Administrative sanctions can apply in case of non-compliance.

*Implementation of the sustainable finance regulation is staggered over 2019-25. **Commercial banks** were the first financial institutions required to prepare and submit their RAKBs in 2019 as well as their Sustainability Reports in 2020. They were followed by: Regional Development Banks (BPRs) in 2022; **Capital market firms**, starting with issuers holding large-size assets and public companies in 2020; **securities company and issuers** holding medium-size assets in 2022 and those with smaller asset holding in 2024; **NBFIs** (e.g., finance companies, venture capital firms, infrastructure finance companies, insurance and reinsurance companies, Indonesia Exim Bank, secondary mortgage facilities, Insurance and social security or BPJS) in 2020; pawnshops, guarantee companies in 2024; as well as pension funds in 2025.

Efforts are underway to develop sustainable finance definitions

OJK has also made some progress in developing sustainable finance definitions. With the fast growth of the green bond market in Indonesia (especially the sovereign market) and globally, OJK issued Regulation no. 60/2017, identifying and defining a number of eligible activities for green bonds. Most notably, the regulation defines standards for green bond issuance as well as lists 11 activities defined as sustainable, in line with the Green Bond Principles and [ASEAN Green Bond Standards](#).

In 2021, Indonesia went a step further and adopted "Indonesia Green Taxonomy edition 1.0", through the development of a green taxonomy-based reporting system, under which priority sectors will be developed for the creation of financial products and/or services, which should help bring greater definitional clarity and harmonisation in market practices.

Methodology

Objectives of the Pilot Survey

In light of Indonesia's sustainable finance ambitions, this first-of-its-kind pilot survey, conducted alongside OJK, supports its efforts to measure and track progress towards sustainable finance and clean energy objectives. To that end, this first pilot phase intended to design and test a range of key qualitative and quantitative indicators; help build financial institutions' familiarity with disclosing and reporting on sustainable financing flows and practices; as well as provide a basis to build upon for future, similar and larger-scale surveys (including with a larger sample, sectorial coverage and indicators).

The survey was built around two subsets of quantitative and qualitative indicators, administered in the form of questionnaires. The qualitative questionnaire (see Section III) evaluates financial institutions' progress in complying with OJK's relevant regulations and guidelines as well as the Sustainable Finance Roadmap's objectives. The quantitative questionnaire (see Section IV) focuses on a selection of energy, mining and transport sectors and provides a snapshot of annual financing flows over 2018-Q121 towards those. Both questionnaires were submitted to respondents through an on-line platform designed and managed by OJK.

Sampling and Definitions

The survey was conducted over five months in Q3 and Q4 of 2021, and targeted a total population of 2,158 financial institutions. The survey was administered to a target sample of 389 respondents from commercial banks, non-bank financial institutions (NBFIs) as well as capital market firms (OJK's classification for Indonesia's financial sector). The final sample size included a total respondent population of 65 or a response rate of around 16.7%. The low response rate was, in part, attributable to an overall lack of respondents' understanding of part of the survey – for instance, participants had different technology/product definitions or/and breakdown if they had any – which required several iterations of streamlining, information sharing and simplification as well as further assistance during the implementation phase to facilitate completion. Surveyed participants represented around 58.53% of total financial sector assets (commercial banks 69.73%; capital market 5.47% and NBFIs 24.47%).



Qualitative questionnaire: respondents' demography

Table 1. Overview of the Qualitative Questionnaire Respondents

Commercial Banks		Capital Market Firms		NBFIs	
Category	Frequency	Respondent	Frequency	Respondent	Frequency
KBMI 1	17	Asset Mgmt.	6	Infrastructure Financing Companies	2
KBMI 2	3				
KBMI 3	6	Issuer	4	Financing Companies	19
KBMI 4	4			Insurance	4
Total	30	Total	10	Total	25

As part of the qualitative survey, a total of 30 banks (representing 69% of banking assets) responded to the qualitative and/or quantitative questionnaire. To facilitate analysis and preserve individual banks' confidentiality, participating banks were categorised based on their core capital using four broad categories (KBMI) (following Indonesia's financial institution classification system based on OJK Regulation No. 12/2021):

- **KBMI 1:** representing banks with a core capital of up to IDR 6 Trillion
- **KBMI 2:** representing banks with a core capital of up to IDR 6 Trillion up to IDR 14 Trillion
- **KBMI 3:** representing banks with a core capital of up to IDR 14 Trillion up to IDR 70 Trillion
- **KBMI 4:** representing banks with a core capital more than IDR 70 Trillion

A total of 25 NBFIs participated in the qualitative survey (representing 24.47% of NBFIs' assets). These subdivide into two sub-groups as per OJK's official financial sector classification:

- **NBFIs 1** groups together financing companies (essentially referring to companies conducting leasing, factoring, consumer financing, and/or a credit card-related business) as well as infrastructure financing companies (such as PT SMI, the Indonesia Infrastructure Guarantee Fund, the Indonesian Infrastructure fund). It is important to note that these institutions have very different financing mandates with financing companies focusing on smaller scale consumer or working capital financing and infrastructure financing companies focusing more on larger, long-term infrastructure projects often with a mobilisation or market development objective. A total of 22 NBFIs 1s provided responses – of which 1 was an infrastructure financing company and 10 were financing companies.
- **NBFIs 2** corresponds to insurance companies. A total of 4 NBFIs 2s participated in the survey.

A total of 10 capital market firms (representing 5.3% of capital market firms' assets) responded to the qualitative questionnaire. Capital market firms include asset managers and security issuers.

Quantitative questionnaire: respondents' demography

Table 2. Overview of the Quantitative Questionnaire Respondents

Commercial Banks		Capital Market Firms		NBFIs	
Category	Frequency	Respondent	Frequency	Respondent	Frequency
KBMI 1	8	Asset Mgmt.	2	Infrastructure Financing Companies	1
KBMI 2	1			Financing Companies	10
KBMI 3	5			Insurance	1
KBMI 4	4				
Total	18	Total	2	Total	12

Only half of the respondents that completed the qualitative part of the survey also provided quantitative information as perceived as more complex to report on. Indeed, a total of 30 bank respondents responded to the qualitative part of the survey, while only 18 of them did that for the quantitative part. In the quantitative results, it should be noted that KBMI 4 banks accounted for the large majority (close to 95%) of bank loan disbursement captured as part of this survey, which is explained by their larger capital size.

A total of 11 NBFIs 1 (1 infrastructure financing company and 10 financing companies) also responded to the quantitative questionnaire, providing information relative to their annual loan disbursement to selected energy, mining and transport sectors over 2018-Q1 2021. In terms of total loan disbursement over that period, financing companies accounted for close to 80% of total NBFIs 1 loan allocation to the aforementioned sectors. Importantly, given the market development mandate of the surveyed infrastructure financing company, results should be interpreted accordingly.

Also, only 2 capital market firms and 1 NBFIs 2 firm responded to the quantitative questionnaire; however, the data they provided are not featured in this analysis for methodological reasons.

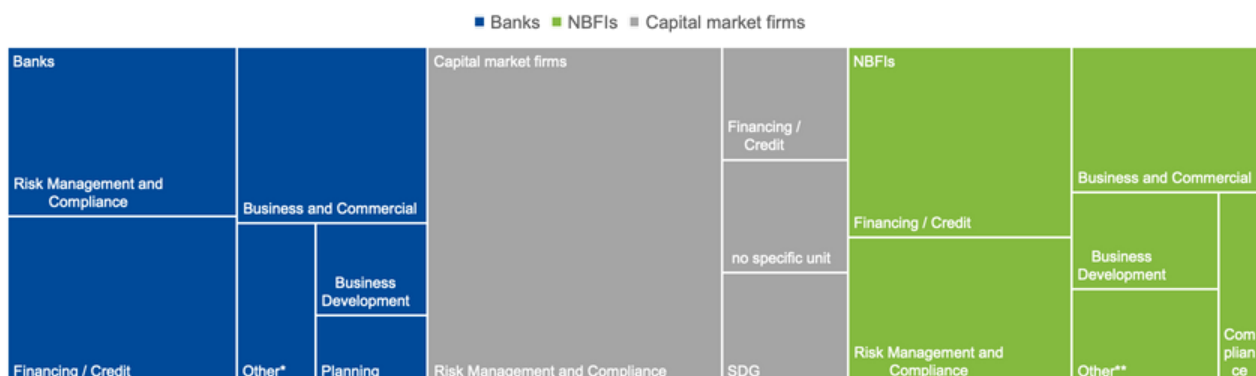
Progress in Sustainable Finance Implementation

This section presents results of the qualitative questionnaire, which evaluates financial institutions' progress in implementing sustainable finance. The first part of the analysis looks at measures and other actions that financial institutions have put in place to achieve OJK's sustainable finance objectives; the second part focuses on financial institutions' risk perception of renewable and energy efficiency projects.

A. Implementation of Sustainable Finance

1. What are responsible units for sustainable finance?

Figure 1. Responsible Units for Sustainable Finance

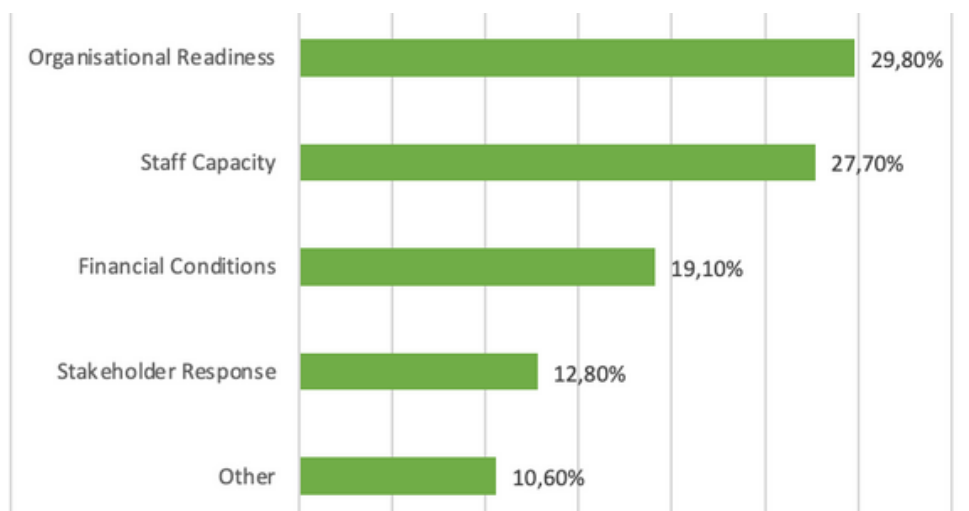


Notes: Other* includes credit appraisal; cooperation with related divisions; Good Corporate Governance & Sustainability unit; and Compliance. Other** includes credit appraisal unit; planning unit; and Investment Committee.

In most of the surveyed financial institutions, responsibility relating to sustainable finance primarily sits under credit, risk management and business units, which are typically in charge of originating, evaluating risks, and executing deals. However, the sustainable finance function should ideally be placed in the risk management and/or compliance directorate/division which has a co-ordinating function between other directorates/divisions related to financing/investment.

2. What has been the main driver for your institution to define priorities for sustainable finance?

Figure 2. Main Driver to Define Priorities for Sustainable Finance

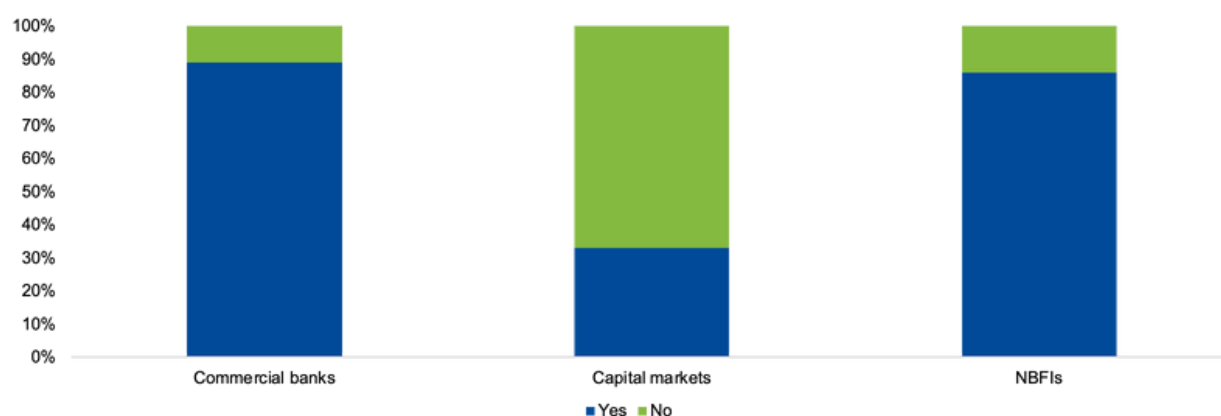


Notes: “Other” essentially relates to political vision for sustainable finance. “Stakeholder response” refers to situations where the main motivation to adopt sustainable finance stems from encouragement from third party stakeholders.

The main drivers for surveyed financial institutions to mainstream sustainable finance are organisational readiness (29%), staff capacity (27%) and financial conditions (19%).

3. Have you implemented measures to mainstream sustainable finance?

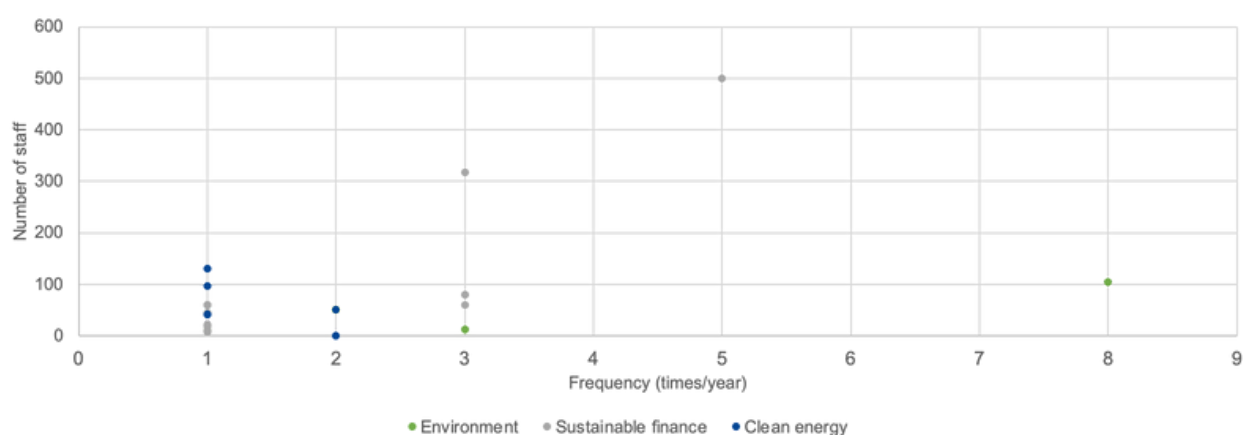
Figure 3. Measures Implementation to Mainstream Sustainable Finance



The bulk of surveyed commercial banks and NBFIs have measures in place to implement sustainable finance, contrasting with capital market firms, two thirds of which responded negatively. According to the survey, most of these efforts took the form of capacity building and information sharing sessions with senior management around sustainable finance as well as a number of awareness-raising activities (e.g. sustainable finance awards).

4. Zoom in on capacity building activities for sustainable finance

Figure 4. Capacity Building Activities for Sustainable Finance

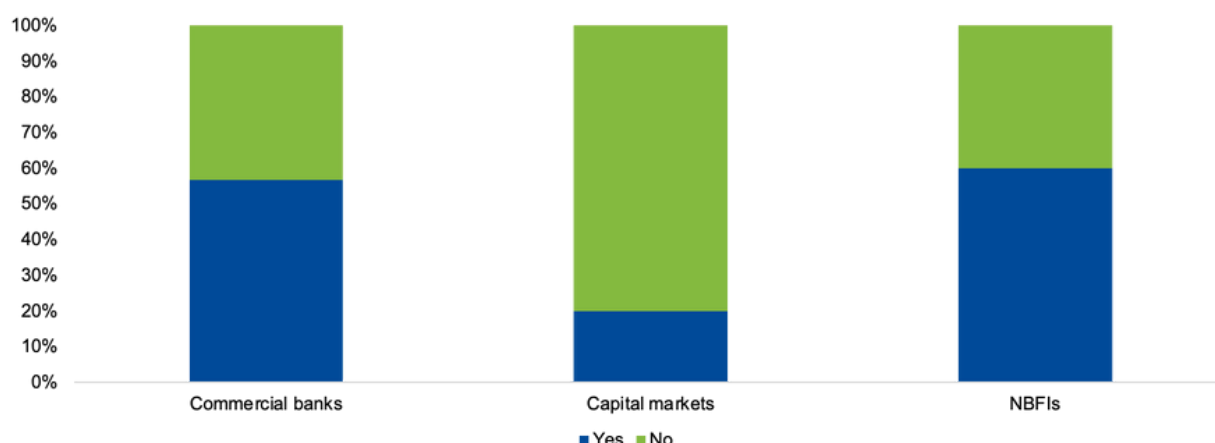


Notes: Capacity building covers activities such as training or Focus Group Discussions and does not include awareness awards and e-learning which are accounted for in separate categories.

On average, capacity building activities took place between one and three times a year and gathered around 100 staff. The bulk of this training related to sustainable finance although a significant share focused on renewable energy. Equally, financial institutions held on average two sharing sessions with senior management a year; among the surveyed institutions, NBFIs are those having made greatest use of sharing sessions (only one bank and capital market firm respectively indicated having held such sessions).

5. Have you implemented Standard Operating Procedures (SOPs)?

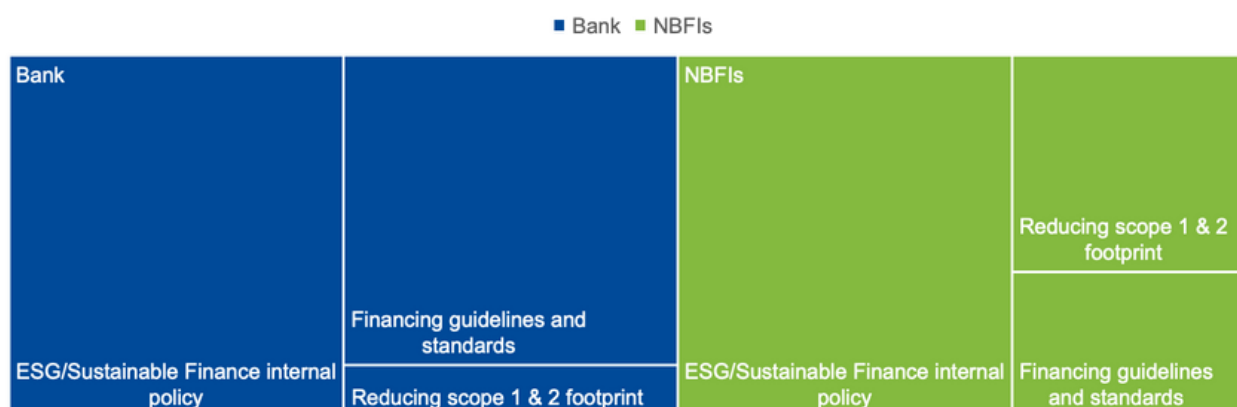
Figure 5. SOPs Implementation



Between 50-60% of surveyed commercial banks and NBFIs have put in place SOPs to embed sustainable finance into their operations and practices (mostly through guidelines or/and internal policy), while a mere 20% of surveyed capital market firms have done so.

6. Examples of SOPs Implementation by Banks and NBFIs

Figure 6. Examples of SOPs Implementation by Banks and NBFIs

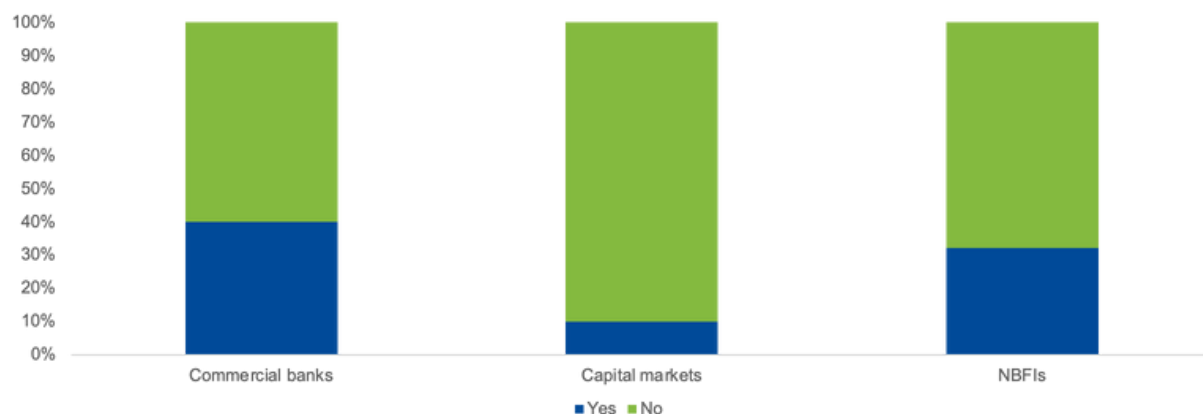


Notes: ESG/Sustainable Finance internal policy” covers SOPs defining internal, general policy or principles on sustainable finance, which can be embedded in governance code, business plans/RAKB or other organization documents. “Financing guidelines and standards” refers to SOPs providing guidance for financing/investing in sustainable projects or standardising products for sustainable projects.

Most SOPs implemented by banks and NBFIs took the form of ESG/sustainable finance internal policy as well as standards and guidelines for financing sustainable projects (e.g. sustainable oil palm, green buildings).

7. Have you set Key Performance Indicators (KPIs) Related to Sustainable Finance?

Figure 7. KPIs Implementation Related to Sustainable Finance



Overall, the bulk of surveyed financial institutions do not have KPIs to help them measure and track progress in mainstreaming sustainable finance. In the case of commercial banks, larger banks (KBMI 3 and 4) represent the majority of banks having KPIs in place. Of the financial institutions having KPIs, 60% measure them on a quarterly basis and 40% on an annual basis.

B. Business Process

1. Have you adopted an exclusion list? If so, for which sectors?

Figure 8. Adoption of Exclusion Lists



Half of the surveyed commercial banks have sector exclusion lists, which compares with 12% for NBFIs. When in place, most sectors covered under those lists pertain to the environment, essentially prescribing the financing of illegal activities (e.g. illegal logging, fishing, endangered wildlife trade, etc.). Aside from illegal activities, only one commercial bank declared having put in place a coal exclusion policy.

2. Sustainable finance product development

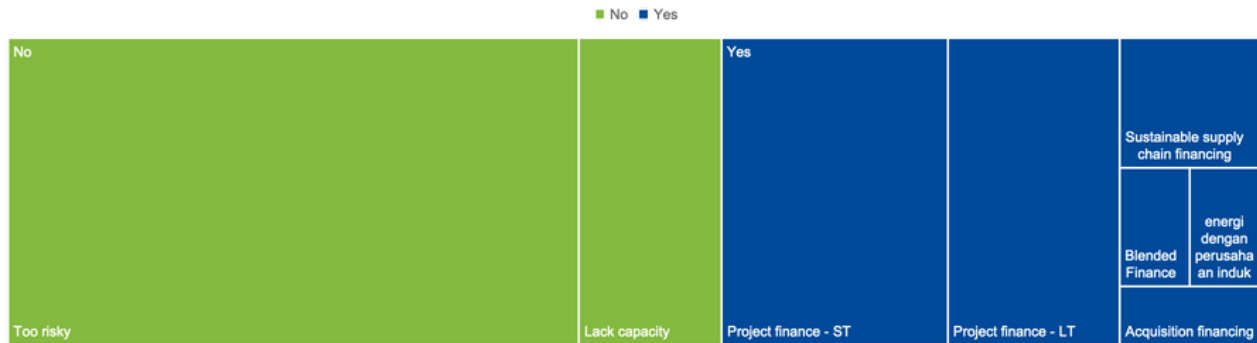
Figure 9. Sustainable Finance Product Development



Development of sustainable finance products across surveyed institutions is uneven. Around two thirds of commercial banks have developed at least one sustainable finance product against none for capital market firms. However, most of those products were uncertified loans for green sectors.

3. Banks: Have you used “alternative” financing schemes for sustainable projects?

Figure 10. Alternative Financing Schemes for Banks’ Sustainable Projects



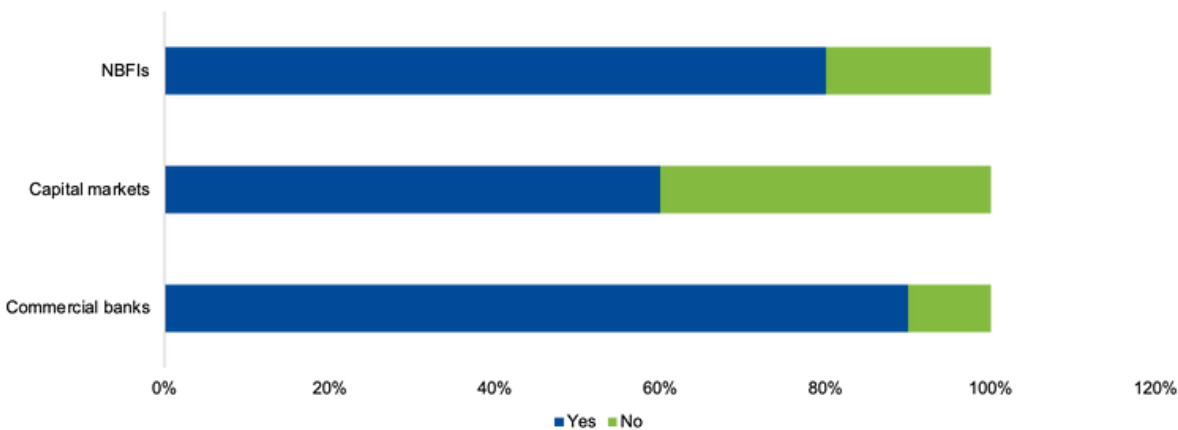
Notes: ST/LT: Short-term/Long-term.

Overall, the use of alternative financing schemes by surveyed commercial banks such as (long-term) project finance or blended finance remain limited. This is in line with results for renewable projects. When asked about the reasons for not using project finance or blended finance schemes for sustainable projects, most bank respondents highlighted the high-risk of using project finance (80%) and the lack of capacity to evaluate sustainable project risks.

C. Others

1. Incentives

Figure 11. Need for Incentives

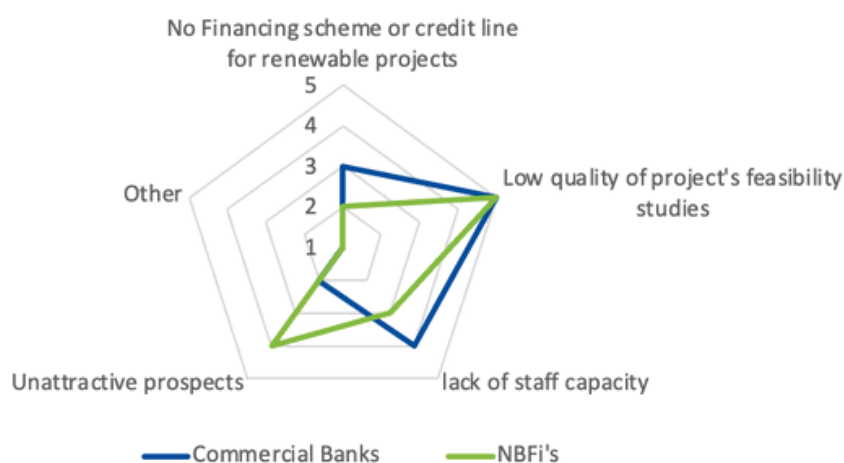


Survey respondents unanimously highlighted the need for further incentives. In particular, half of respondents (having answered yes) said they would require “direct incentives” (e.g. interest subsidies, fee reductions), 29% answered “non-direct incentives” (e.g. incentives given to the project proponent through a financing institution), and 18% chose other forms (mainly in the form of risk weight reduction in the calculation of the capital adequacy ratio).

D. Risk Perception of Renewable Energy and Energy Efficiency Projects

1. Barriers for renewables

Figure 12. Barriers for Renewables (Commercial Banks and NBFIs)

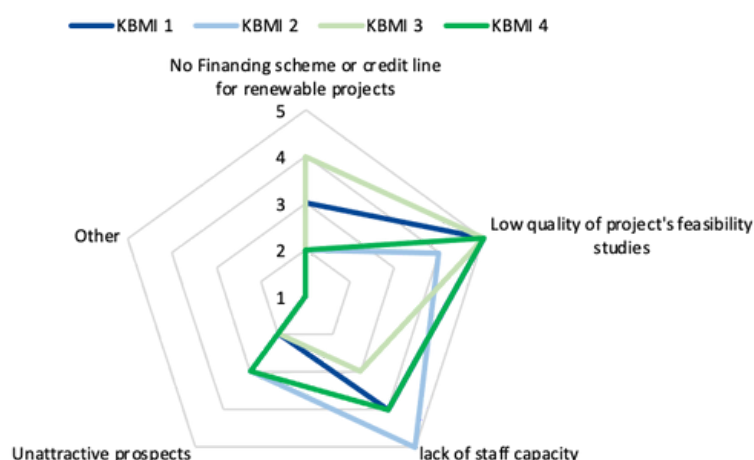


Notes: The 1-to-5 scale is based on a prioritisation score, which factors in the frequency and ranking of each item by each financial institution category. The item with the highest prioritisation score is attributed a 5 and the lowest is attributed a 1, etc.

Commercial banks and NBFIs ranked “low quality of feasibility studies” as their number one barrier. “Lack of staff capacity” came second for banks – which was confirmed in subsequent consultations. “Unattractive prospects” came second for NBFIs.

2. Barriers for renewable energy projects – perception by bank category

Figure 13. Barriers for Lending to Renewable Projects per Bank Category

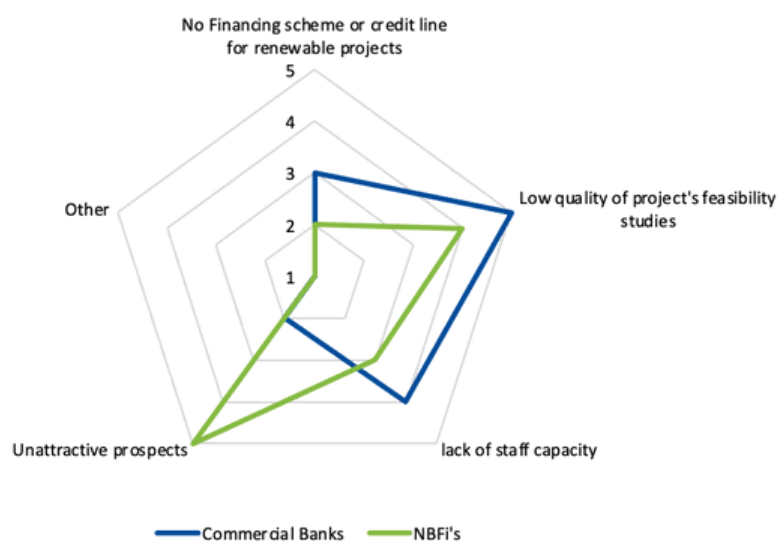


Notes: The 1-to-5 scale is based on a prioritisation score, which factors in the frequency and ranking of each item by each financial institution category. The item with the highest prioritisation score is attributed a 5 and the lowest is attributed a 1. etc.

For most bank categories (KBMI 1, KBMI 3, KBMI 4), “low quality feasibility studies” (for renewable projects) was ranked as the main bottleneck for financing renewables. KBMI 1 and KBMI 4 ranked “lack of staff capacity” second, and this even came first for KBMI 2.

3. Barriers for energy efficiency

Figure 14. Barriers for Energy Efficiency



Notes: The 1-to-5 scale is based on a prioritisation score, which factors in the frequency and ranking of each item by each financial institution category. The item with the highest prioritisation score is attributed a 5 and the lowest is attributed a 1. etc.

Regarding energy efficiency, commercial banks ranked “low quality of feasibility studies” as their number one barrier, which is likely due to the low trustworthiness of project’ energy audit documents often deemed not investment-grade in Indonesia. “Unattractive prospects” was ranked number one for NBFIs.

Key Take-Aways

Given the limited sample size, these take-aways should be interpreted with caution and are meant to provide preliminary insights:

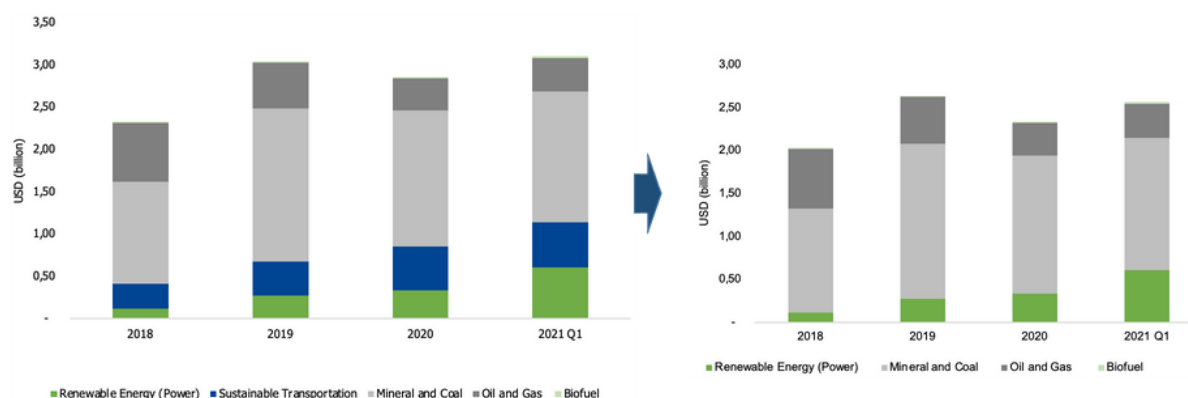
- Overall, the survey results indicate that respondents are taking actions to foster sustainable finance, although these remain **tilted towards capacity building and awareness-raising activities**. Still, numerous surveyed financial institutions indicated a continued lack of capacity to assess clean energy projects and thus ease in funding them. Moving forward, it will be important to shift efforts to implementation in order to deliver on the objectives of Phase 2 of the Sustainable Finance Roadmap by 2024.
- Some of the surveyed banks and NBFIs appear to have made efforts to scale up sustainable finance e.g. through implementing SOPs or/and developing sustainable finance products. Given the recent announcement of Indonesia’s coal phase-out policy, reviewing the financial sector’s stance towards coal could also be important to mitigate transition risks.
- Nevertheless, the use of alternative financing schemes for sustainable projects remains overall limited, while some of the surveyed banks and NBFIs appeared bearish on the prospects for clean energy in Indonesia, mostly due to uncondusive policy environment and lack of investment support. Hence, continuing improving enabling conditions and the policy framework for clean energy will be important to bolster investor confidence and mobilise finance.
- In order to accelerate the adoption of sustainable finance practices, further cooperation between financial institutions and the regulator is paramount, especially in improving policy design and implementation.

Financing the Clean Energy Transition: State of Play

This section analyses results of the quantitative part of the pilot survey. In particular, it provides a snapshot of the state of play and key trends in energy and transport finance in Indonesia of a range of financial institutions over 2018-Q1 21.

A. Quantitative Questionnaire Results: Banks

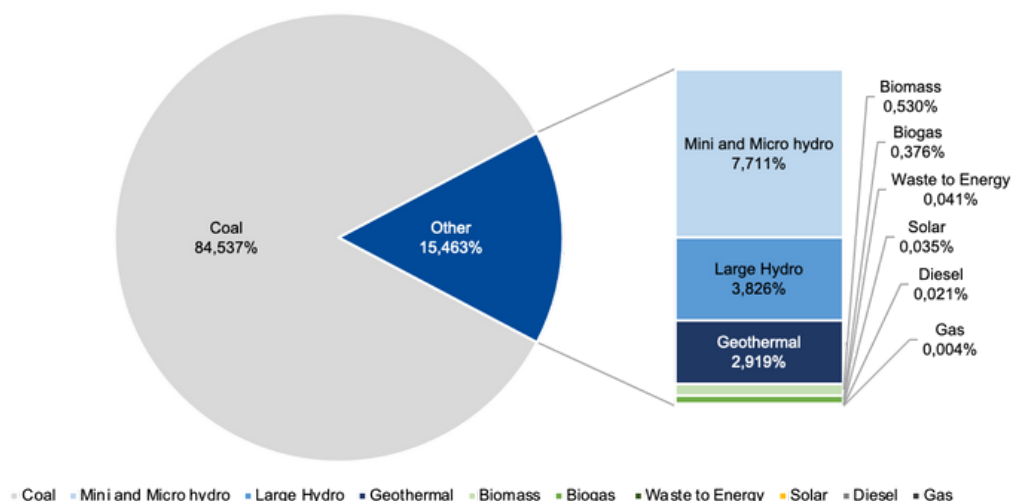
Figure 15. Financing Distribution for Clean Energy Transition



Notes: This excludes energy efficiency (building and transportation).

Over 2018-Q1 21, allocation to renewables has been on the rise both in absolute and relative terms. However, taken together, financing allocated to the oil, gas and coal sectors were more than three times that allocated to renewable power projects and biofuels.

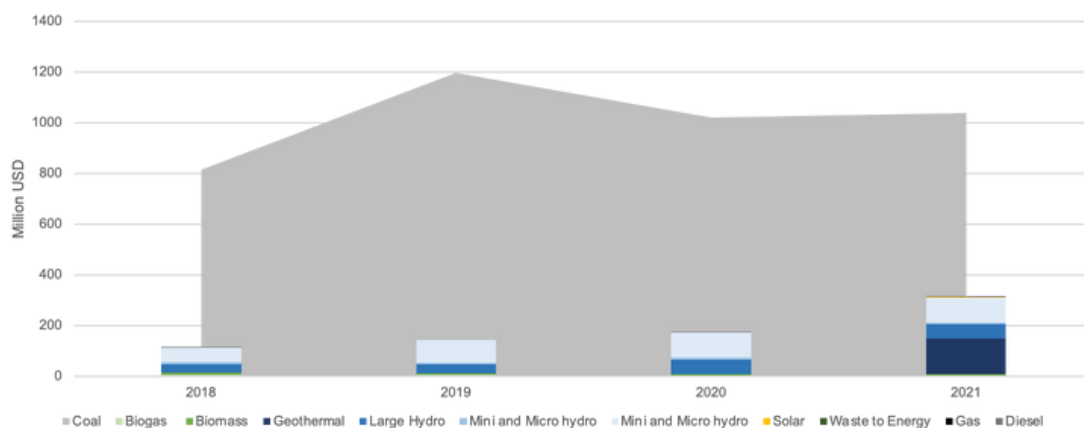
Figure 16. Cumulated Annual Bank Loan Disbursement to Power Generation Subsectors, 2018-Q1 21



Notes: Large hydro refers to projects with a capacity above 10 MW.

In the power generation sector, coal power projects received twice as much debt funding as all renewable technologies taken together. Over that period, the lion's share of renewable loan allocation went to large hydro, mini and micro hydro as well as geothermal projects.

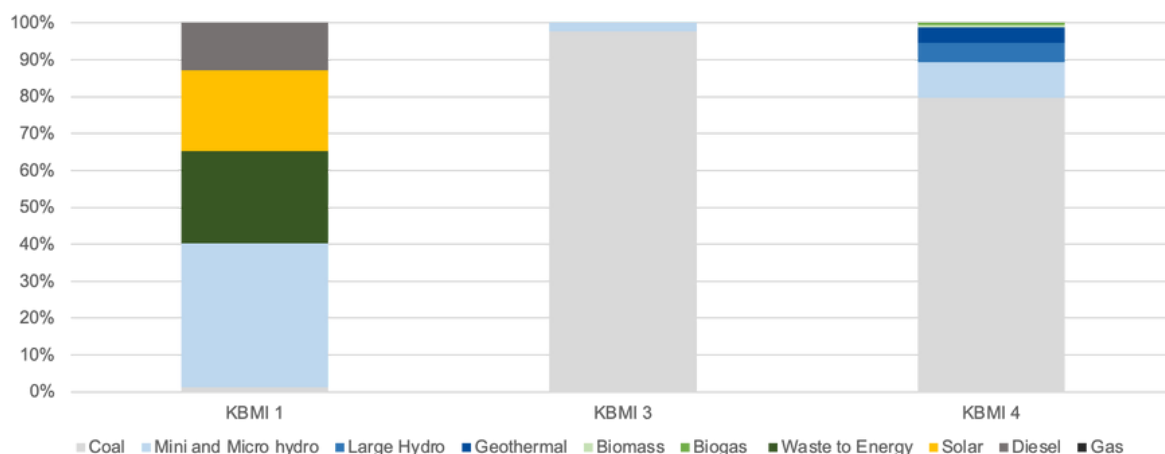
Figure 17. Bank Loan Disbursement to Power Generation Subsectors, 2018-Q1 21



Notes: Large hydro are projects with a capacity above 10 MW. MW=Mega Watt. USD= US dollars.

Despite the COVID pandemic, bank loan allocation to renewable power projects has been on a steady increase. Most of that increase was driven by large hydro and, as of late, geothermal. Given its level in Q1 2021, bank loan allocations to renewable projects is poised to reach a four-year high in 2021, although it is still very likely to remain at a lower level than for coal.

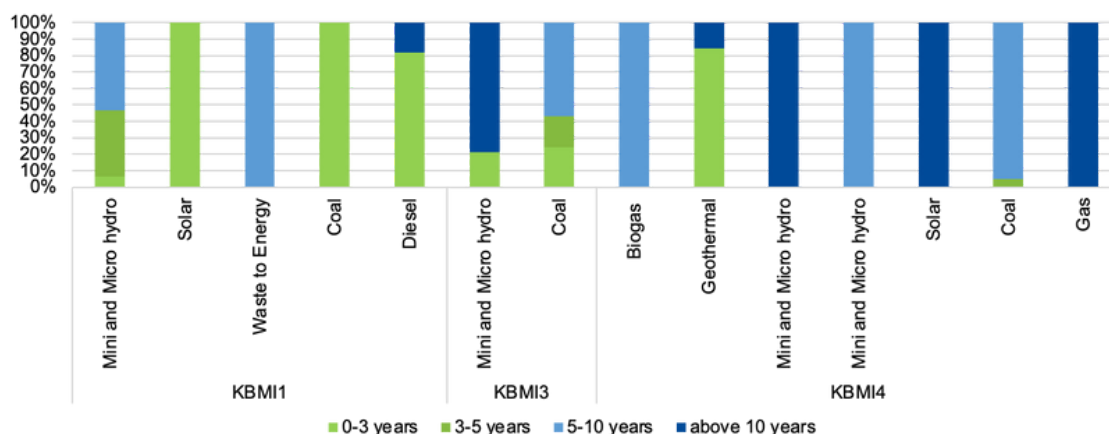
Figure 18. Cumulated Annual Bank Loan Disbursement to Power Generation Subsectors by Bank Category, 2018-Q1 21



Notes: Excluding unspecified renewable energy. Large hydro are projects with a capacity above 10 MW. MW=Mega Watt.

KBMI 1 directed most of their power generation loans to renewable projects, particularly waste-to-energy, mini and micro hydro, and solar projects. This contrasts with KBMI 3 and 4, which allocated most of their loan disbursement to coal.

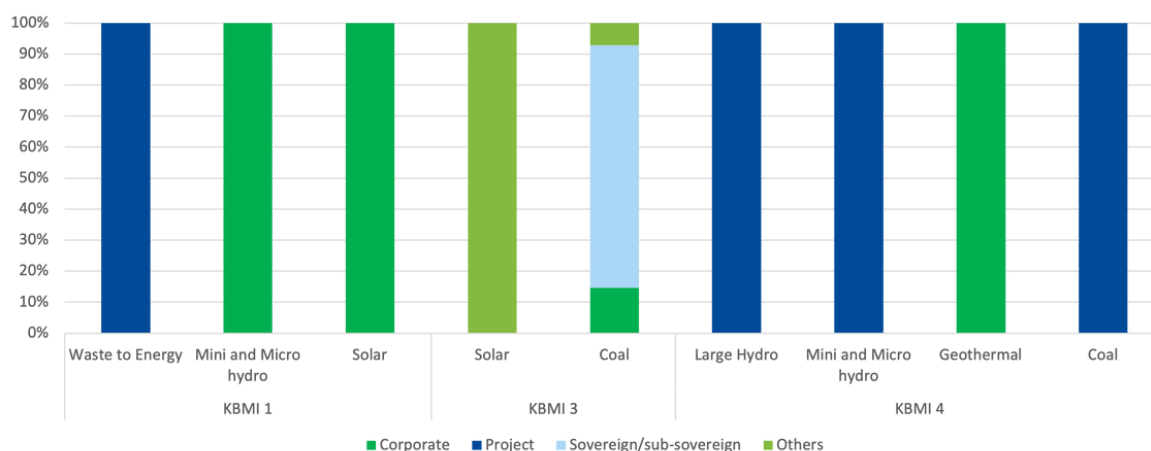
Figure 19. Cumulated Annual Bank Loan Disbursement to Power Generation Subsectors by Tenor and Bank Category, 2018-Q1 21



Notes: Data for micro-mini and large hydro projects in this figure only represents 20-30% of total loan disbursement for these projects. Excluding unspecified renewable energy. Large hydro are projects with a capacity above 10 MW. MW=Mega Watt.

As expected, larger banks provided loans with longer maturities than did smaller ones. Among renewable technologies, hydro and bioenergy (e.g. waste-to-energy) projects accessed bank loan with longer maturity (five years and beyond) than solar or geothermal, possibly hinting at the relative familiarity of banks with these technologies. In the case of geothermal loans, their shorter-term maturity could also be partly explained by the fact that part of those loans helped fund projects' exploration phase.

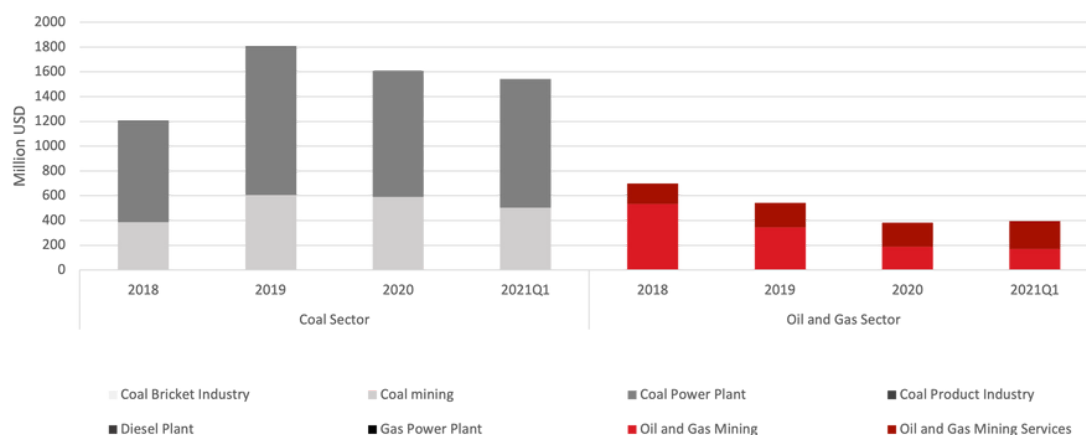
Figure 20. Cumulated Annual Bank Loan Disbursement to Selected Power Generation Subsectors by Financing Type and Bank Category, 2018-Q1 21



Notes: Data for diesel, gas, biogas and biomass were not reported. Data were also incomplete for micro-mini hydro, large hydro, and coal. Excluding unspecified renewable energy. Large hydro are projects with a capacity above 10 MW. MW=Mega Watt.

While project finance has been in use for certain projects, corporate finance remained overall more common for most projects except waste-to-energy and mini and micro-hydro.

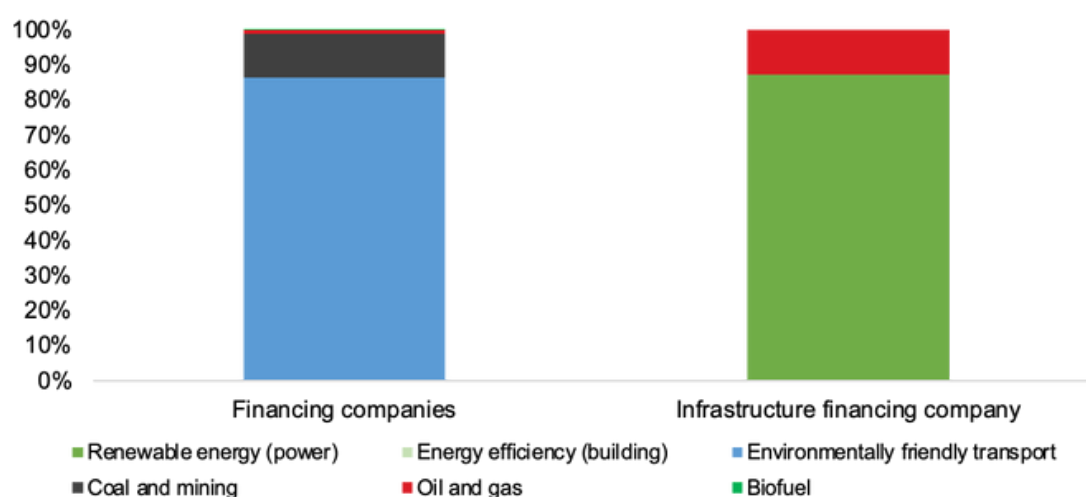
Figure 21. Annual Bank Loan Disbursement to Coal, Oil and Gas sectors, 2018-Q1 2021



Of all fossil fuel sectors, coal plants received the largest share of loan allocation, followed by oil and gas, and coal mining.

B. Quantitative Questionnaire Results: NBFIs 1

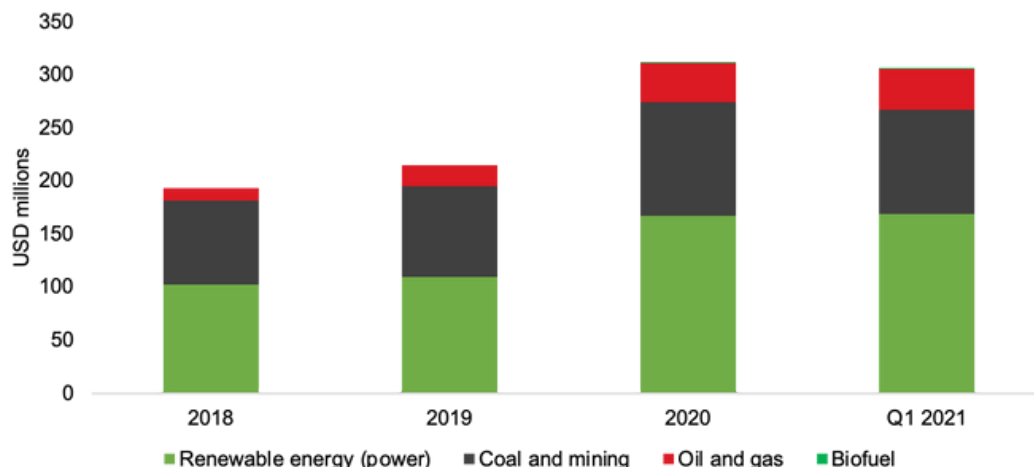
Figure 22. Cumulated Total Annual NBFIs 1 Loan Disbursement to Selected Energy and Transport Sectors, 2018-Q1 2021



Notes: Data for energy efficiency include new buildings, which likely overestimates actual investment. Incremental investment (defined as the difference between an energy-efficient investment and non-energy-efficient once) would be a more reliable indicator but could not be measured as part of this pilot survey.

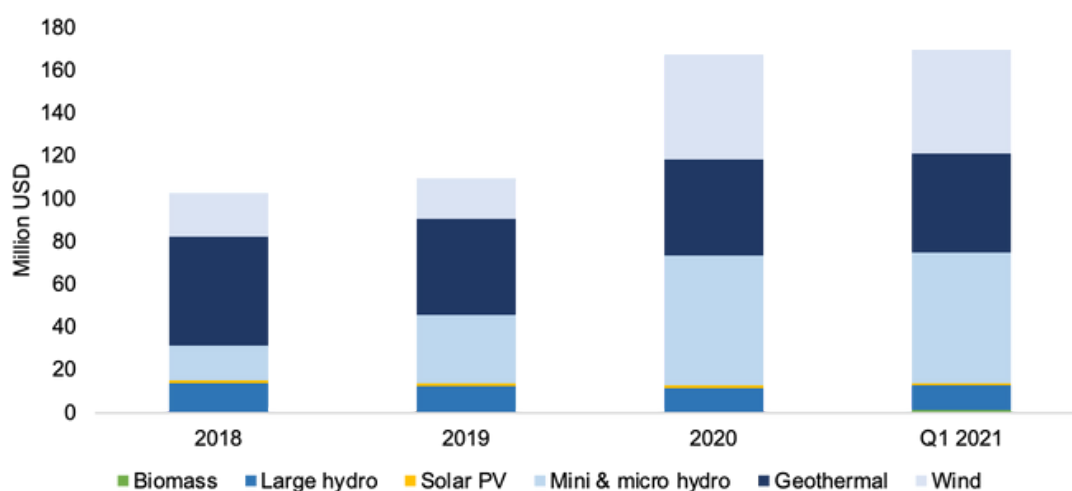
NBFI 1 sub-categories have different financing mandates, which is reflected in their loan allocation. Indeed, financing companies focus largely on consumer loan for transport (with small allocations to renewables/power) while the infrastructure company uses domestic and international development funding to support private finance for infrastructure and particularly power/renewables.

Figure 23. Annual NBFIs 1 Loan Disbursement to Selected Energy Sectors, 2018-Q1 2021



In 2018-Q1 2021, loan allocation to renewable power projects has been on an upward trend and accounted for roughly half of total loan disbursements to the energy sector, roughly on a par with allocations to the fossil fuel sector.

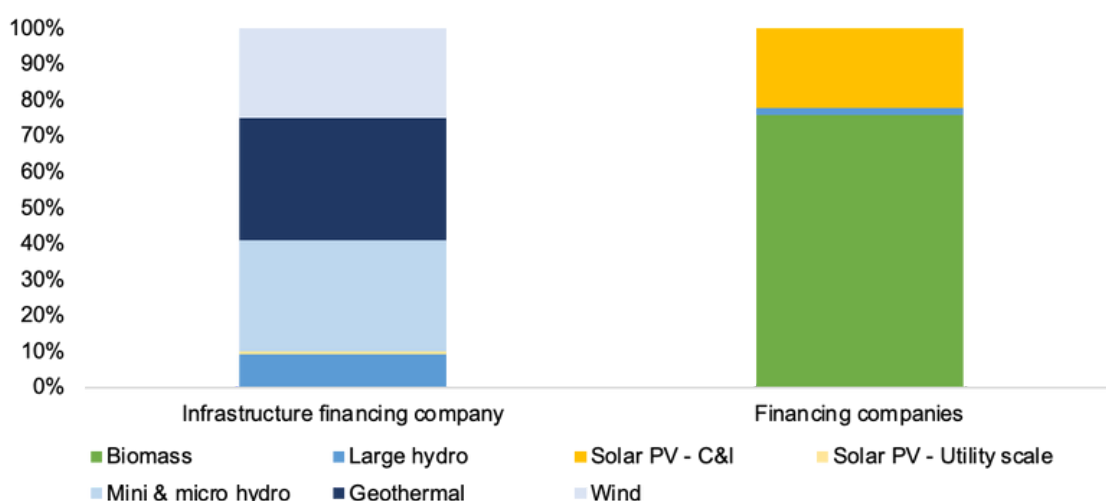
Figure 24. NBFIs 1 Loan Disbursement to Power Generation Subsectors, 2018-Q1 21



Notes: Large hydro are projects with a capacity above 10 MW. MW=Mega Watt.

Overall, renewable loan allocation has increased, led by mini-micro hydro and wind as well as, to a lesser extent, geothermal. Compared to commercial banks, loans to wind power accounted for a larger share of NBFIs 1 renewable power loan disbursement, which is mostly attributable to the infrastructure company's efforts to catalyse on-shore wind development in the country.

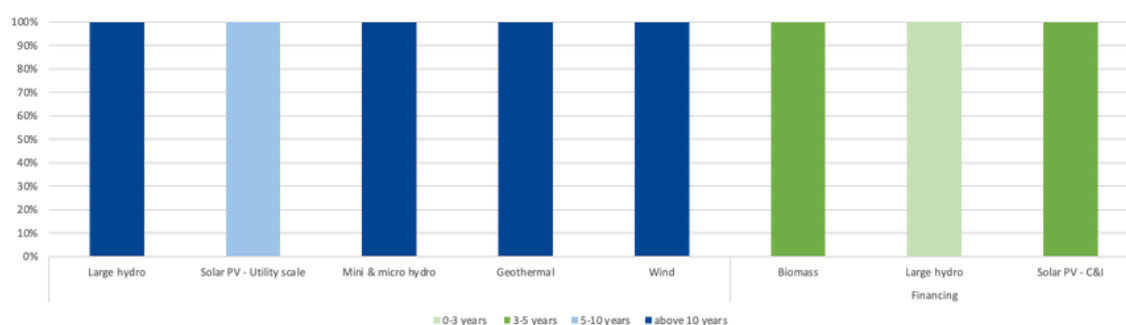
Figure 25. Cumulated Annual NBFIs 1 Loan Disbursement to Power Generation Subsectors by NBFIs 1 Category, 2018-Q1 21



Notes: Large hydro are projects with a capacity above 10 MW.

While infrastructure financing companies accounted for the vast majority of NBFIs 1 renewable power finance, financing companies also provided debt to a number of renewables projects, particularly biomass (three quarters of cumulated loan disbursement) and solar PV for consumer and industry (roughly 23%).

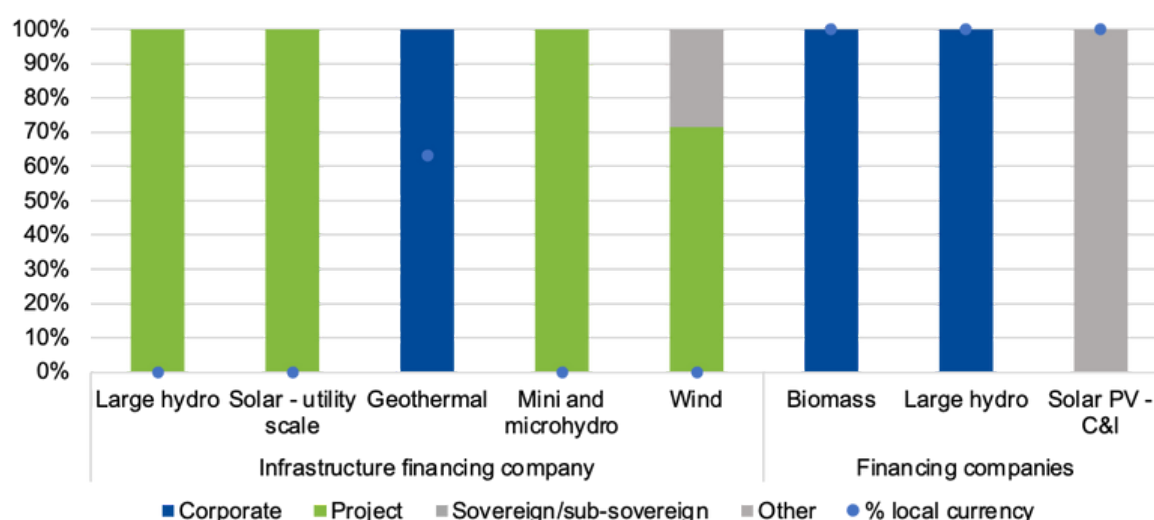
Figure 26. Cumulated Annual NBFIs 1 Loan Disbursement to Power Generation Projects by Tenor and NBFIs 1 Category, 2018-Q1 21



Notes: Large hydro are projects with a capacity above 10 MW. MW=Mega Watt.

Compared to commercial banks, and due to their development mandate, infrastructure financing companies provided longer term loans to renewable projects, better matching the long-term return profile of these projects. By contrast, financing companies provided shorter-term loans.

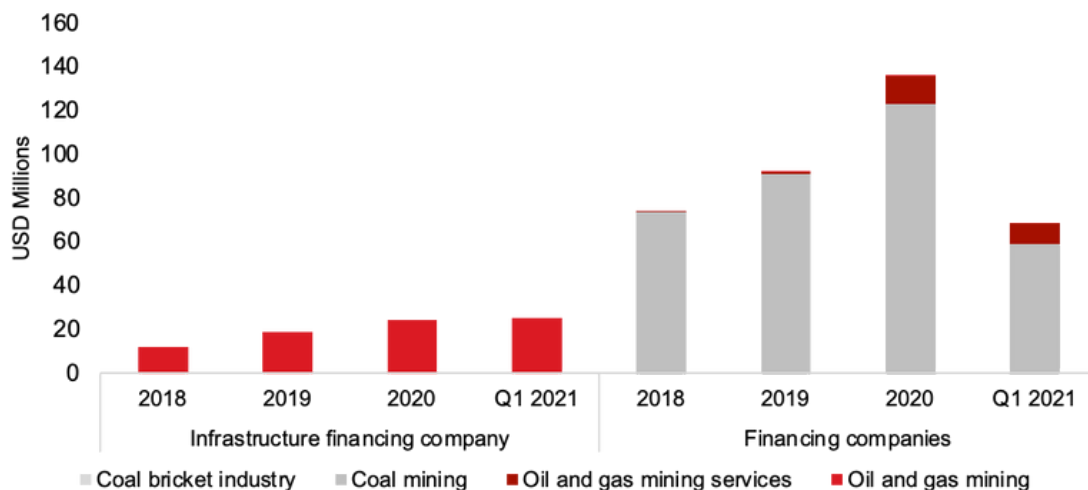
Figure 27. Cumulated Annual NBFIs 1 Loan Disbursement to Selected Power Generation Projects by Financing and NBFIs 1 Types, 2018-Q1 21



Notes: Large hydro refers to projects with a capacity above 10 MW. MW=Mega Watt.

The bulk of financing of infrastructure finance companies to renewable projects was on a dollar-denominated, project finance basis, in stark contrast with financing companies as well as commercial banks.

Figure 28. Annual Bank Loan Disbursement to Coal, Oil and Gas Sectors, 2018-Q1 21



Allocation to coal, oil and gas mining has been on an upward trend, including during the start of the pandemic. Financing companies accounted for the bulk of loans allocated to fossil fuel sectors (essentially coal mining).

Key Take-Aways

Given the limited sample size, these take-aways should be interpreted with caution and are meant to provide preliminary insights:

- Overall, as shown in the survey results, funds allocated (essentially by commercial banks and infrastructure companies) to renewable power projects have been on the rise over 2018-Q1 2021, although coal remained the single largest recipient of bank's power generation finance over the period.
- Bank finance for solar and wind technologies remained dismal, particularly on a long-term, non-recourse basis. On the other hand, survey results seem to show such financing schemes were relatively available for other renewable technologies such as hydro (particularly, mini and micro) and bioenergy.
- Quite surprisingly, surveyed KBMI 4 and 3 banks allocated a far lower share of their annual power generation loan disbursement to renewable projects than KBMI 1 banks.
- The relatively high share of loans allocated to on-shore wind projects by the infrastructure financing company over 2018-Q1 2021, however, may suggest that efforts to catalyse investment for wind is under way.

Conclusions

This first-of-its-kind pilot survey provided a number of key lessons that can be useful to inform and support OJK's efforts to develop metrics and performance indicators for sustainable finance. In particular:

- While increasing sample size is critical to improve statistical robustness and allow for greater extrapolation of the results, it will also be important to prepare detailed guidelines and standardised protocols to help financial institutions provide more reliable, robust and consistent data and information (a key challenge of the pilot survey).
- These guidelines and protocols should adopt clear and detailed definitions of all metrics, indicators and sectors (beyond energy). The recently-released Green Taxonomy will be very helpful in these regards, especially in observing the green, yellow and red thresholds.
- Measuring energy efficiency finance flows proved particularly challenging to measure, as these are often not always consistently tracked and/or reported and require specific data collection methodology (see IEA 2020).
- Quantitative measurement metrics can be developed, for example, and could include loan portfolio information, which would provide the exposure of the financial system's exposure to green and non-green assets and thereby help gauge exposure to transition/climate risk.

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