Banking Asia's Future

How to Align with National Climate Plans

March 2022

ARE
ASIA RESEARCH
& ENGAGEMENT

"There is still a stark mismatch between what is required to meet the Paris objectives and where we currently are. Like peers in other regions, Asian banks must do more. Without urgent action, capital will continue to be misallocated, building up exposure to both financial and weather-related risks."

Mirza Baig, Global Head of ESG Investments, **Aviva Investors**

"The work of and with the Asia Transition Platform has helped tremendously in informing our thinking and engagement practice in Asia. The report shows that Asia's banks are misaligned with national policies to address climate change. Banks' approach to climate risks in lending and underwriting are still far behind expectations. The sector plays a critical role in financing the transition and the leaders need to substantially accelerate and deepen their climate practices."

Nina Roth, Director Responsible Investment, **BMO Global Asset management (EMEA), part of Columbia Threadneedle Investments**

"We welcome this report, which will support the region's carbon transition goals, and recognise the importance of banks in supporting this transition. As a responsible investor and an active asset manager, Fidelity International has committed to halving emissions from our investment portfolios by 2030 and reaching net zero by 2050. We focus on active engagement as the primary mechanism for helping companies reduce carbon emissions."

Jenn-Hui Tan, Global Head of Stewardship and Sustainable Investing, **Fidelity International**

"Asian banks have a crucial role to play in financing the transition to zero carbon. This report demonstrates the need for them to significantly improve their track records. This research will provide more performance data for investors to take into engagements, and will help spur improvements in the rapidly changing legal, regulatory, and economic environment."

Cllr Doug McMurdo, Chair, **LAPFF**

"We value collaborative engagement with our peers in this important region, especially the opportunity to work with local experts and benefit from specialised research. While progress on climate risk management and policies at many Asian banks has been limited, we feel there is the potential for real momentum building behind more ambitious actions. However, practices at these banks need to urgently catch up with the rhetoric in line with the scale of the challenge."

Karoline Herms, Senior Global ESG Manager, **Legal & General Investment Management**

"This report on Asian banks' climate actions comprehensively highlights the key climate risks and opportunities that Asian banks are facing and underscores the need for immediate action in the region. The report provides useful guidance to help financial institutions find practical levers to help curb emissions."

Piet Klop, Head of Responsible Investment, **PGGM**

"We see clear inconsistencies in many Asian banks' financing of carbon intensive assets despite increasing commitments to net-zero from regional governments. Asia's banks should address these by disclosing clear and robust plans to manage risks and seize growth associated with the low-carbon transition."

K Bruce Jackson, Responsible Investment Senior Analyst, Stewardship, **USS Investment Management**

Asia Transition Platform

The Asia Transition Platform was launched by Asia Research & Engagement (ARE) in September 2021. It has public support from seven global investors representing US$ 4.7 trillion in assets. The Platform aims to accelerate the energy transition in Asia to achieve the objectives of the Paris Agreement. The Platform's initial emphasis is on banks and power utility companies.

Asia Research & Engagement (ARE)

ARE's purpose is to bring the voice of investors in support of solutions to Asia's sustainable development challenges. We provide structured collaborative engagement programmes that emphasise dialogue between listed companies and institutional investors. Our current themes are energy transition and its financing, sustainable and responsible protein, and sustainable real estate. ARE is headquartered in Singapore and was founded in 2013.

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Cover photo by Getty Images ® / Matteo Colombo

Acknowledgement

We would like to thank various individuals collaborating with the Asia Transition Platform whose comments have helped shape this report. These include Aina Fukuda, Andres van der Linden, Ayako Kageyama, Bruce Jackson, Gillian Gailliaert, Jenn-Hui Tan, Karoline Herms, Louise Whilborn, Min Wei Chai, Nina Roth, Tessa Younger, and Yasmine Svan.

Foreword

It has become increasingly clear it will take transformational change in the way businesses and economies operate if we are to meaningfully address the climate crisis. Capital providers, including banks and investors, are increasingly reflecting these considerations in the way they allocate capital. Despite this, as the report shows, change must be accelerated.

The Intergovernmental Panel on Climate Change (IPCC) just served another reminder of the risks to society if there is a failure to take necessary action. The IPCC's February 2022 report warns that 3.3 to 3.6 billion people - around 40 per cent of the global population - live in settings that are considered "highly vulnerable" to climate change.

The risks to society are mirrored in risks to the economy. According to the Swiss Re Institute, failure to meet the objectives of the Paris Agreement on climate change could wipe ten per cent off total global economic value by 2050 and 26.5 per cent of GDP in Asia.

Recognising the urgency of action required, governments are setting clearer direction. In November 2021, the Glasgow Climate Pact brought increased commitments to net zero, which now cover around 90 per cent of world GDP and greenhouse gas emissions. Many governments also took the opportunity to introduce or strengthen 2030 emissions reduction targets.

Asia's banks have a critical role to play in the transformation of commercial activity. Many of them rank at the top of global bank balance sheets. At the same time, Asia has some of the largest financing needs, both to mitigate emissions and to address vulnerabilities while adapting to meteorological and climatic changes.

This report makes a contribution that is both welcome and timely. It provides a baseline, showing exactly where Asia's banks stand as they address their practices and seek to align with global climate objectives. It sets out, issue by issue, investor expectations of banks with detailed recommendations and lists many good practices this group is already applying. Whilst we welcome the growing momentum of corporations committing to net-zero goal posts by mid-century, confidence in delivery rests on them evidencing robust near-term transition plans and tangible proof points about the future direction of businesses.

Senior decision makers at banks, their investors, and those at capital market and banking regulators can use this report as a guide as we jointly seek ways forward. Collectively, we must match the scale, and urgency, of action demanded to meet national and global climate objectives.

Steve Waygood
Chief Responsible Investment Officer, Aviva Investors

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Executive Summary

Asian governments have introduced net zero targets and new plans

Climate change has become a mainstream political and economic concern across Asia. Governments have declared long-term net-zero targets and are establishing regulations to spur action in the short to medium term across the region's economies. These aim to align with the Paris Agreement on climate change which aspires to hold global temperature rise to 1.5°C.

But our review finds regional banks have not kept pace

Asia's banks are critical to supporting this transition toward low carbon economies. However, our research shows that to date the region's banks have not kept pace with changing expectations. They are storing up risks as clients face tighter carbon regulation; disruption from cleaner technologies; and the impacts of the changing climate.

Not one bank has taken sufficient steps, and most are misaligned to national targets

We assess 32 leading banks listed in nine major Asian markets. The grades, which consider governance, risk management, policies, and opportunities, speak for themselves. None of the banks are taking sufficient action to meet Paris Agreement objectives. Most banks are misaligned with their own national policies for decarbonisation.

Banks need to act now to avoid mispricing assets

Asia's banks are mispricing exposure to carbon-intensive assets that are increasingly difficult to re-finance or transfer. Without urgent course correction, widespread misallocation of capital will continue, leaving the region vulnerable to correction. A proactive approach can avoid risks and position for multi-trillion-dollar opportunities in mitigating and adapting to climate change.

This report has practical steps to position banks well

This report reviews bank approaches to climate risk management and sets out investor expectations. There are examples of good practices in the region and globally that indicate practical steps banks can take to position themselves for climate leadership within a year.

Fig. 1 Asia bank ranking on climate readiness

Market	Bank	Grade	Market	Bank	Grade
Singapore	DBS Group	CC	Indonesia	Bank Mandiri	D
Malaysia	CIMB Group	C	China (H)	Bank of China	D
Korea	KB Financial Group	C	Philippines	Bank of the Philippine Islands	D
Japan	Mitsubishi UFJ Financial Group	C	Indonesia	Bank Rakyat Indonesia	D
Japan	Mizuho Financial Group	C	Philippines	BDO Unibank	D
Korea	Shinhan Financial Group	C	China (H)	China Construction Bank	D
Japan	Sumitomo Mitsui Financial Group	C	China (H)	China Merchants Bank	D
Korea	Hana Financial Group	DD	Malaysia	Hong Leong Bank	D
Thailand	Kasikornbank Public	DD	China (H)	Industrial and Commercial Bank of China	D
Malaysia	Malayan Banking Bhd	DD	China (A)	Industrial Bank	D
Singapore	Oversea-Chinese Banking Corporation	DD	Thailand	Siam Commercial Bank	D
Singapore	United Overseas Bank	DD	Thailand	Bank of Ayudhya	NS
China (H)	Agricultural Bank of China	D	China (A)	Bank of Ningbo	NS
Thailand	Bangkok Bank	D	Philippines	Metropolitan Bank & Trust	NS
Indonesia	Bank Central Asia	D	China (A)	Ping An Bank	NS
Indonesia	Bank Danamon Indonesia	D	China (A)	Shanghai Pudong Development Bank	NS

Note: China (H) is used for China-headquartered banks listed on the Hong Kong Stock Exchange. China (A) refers to banks listed in either Shanghai or Shenzhen, but not in Hong Kong.
Source: Asia Research & Engagement

The grading reflects the extent to which banks are aligning practices and financing to national and global climate objectives, and thereby futureproofing their business. We recognise that this is a challenging bar to set. Nevertheless, it is what is required to ensure banks are allocating capital in line with social and economic needs in this crucial decade. To meet the commitments and policies set out by Asia's governments, Asia's banks will need to move from a current situation where there are a few green deals to one in which all financing factors in established climate goals.

Fig. 2 Grade on climate readiness

Grade	Definition
A	The bank has a clear Paris aligned net-zero strategy and is implementing short- and medium-term plans with credible roadmaps for multiple high carbon sectors, including difficult to abate ones.
B	The bank has a long-term net-zero target and short- and medium-term plans, but there are gaps in the plans.
CC	The bank has a long-term net-zero target but without short- and medium-term plans. The bank has clear board governance, risk assessment processes, and strategies for high-carbon-risk sectors, but policies have gaps or are not Paris-aligned.
C	The bank has a long-term net-zero target but without short- and medium-term plans. The bank has formulated some climate strategies that are at an early stage.
DD	The bank notes climate risks and has formulated some climate strategies. But there are critical gaps in governance or policies.
D	The bank acknowledges climate risks, but risk management processes and financing policies are weak.
NS	The bank has barely started its journey and may not fully acknowledge climate-related risks.

Source: Asia Research & Engagement

Key findings

Governance: Climate under-emphasised

- Seven of the 32 banks (22%) have dedicated sustainability committees on the board.
- Not a single bank clearly includes climate-specific considerations in the board nomination process.
- Eight of the 32 banks (25%) state that climate change is a factor in executive pay.

Risk Management: Disjointed thinking

- 21 of the 32 banks (66%) identify climate-related risks to financing in sustainability reporting. But only ten banks include this in risk registers. This reflects disjointed thinking at many banks, which is likely to result in credit mispricing.
- Few banks provide scenario analyses, and some infer incorrectly from analyses with limited scopes that the climate impacts are not material.

Policy: Misalignment to national policies on climate change

- We found no Asian headquartered banks with clear commitments and adequate implementation plans for meeting the Paris Agreement.
- Only nine of the 32 banks (28%) have long-term net-zero commitments for financed emissions. This means most banks in the region are misaligned with their own government's policies on climate change.
- Only KB Financial Group and Shinhan Financial Group provide interim targets for financed emissions.

Policy: Gaps in fossil fuel power standards

- Not a single bank has coal power policies that fully align with the Paris Agreement.
- Only 13 of the 32 banks (41%) have some form of no new coal policy covering key operating markets.
- Only six of the 32 banks (19%) have some form of coal phase-out policy, despite this being a clear requirement for national net-zero plans.
- No banks have any restrictions for gas-fired power, even though scenarios show a limited lifespan for unabated gas.

Opportunity: Address greenwashing concerns

- 28 of the 32 banks (88%) provide details of sustainable finance provision, clearly viewing climate and sustainability as a key business driver.
- Banks have taken more steps to launch green or sustainable products than to clean up existing products or address climate change through governance, risk management, or policies. This raises concerns of greenwashing: that banks are seeking a marketing benefit for sustainable finance deals while providing higher levels of finance to dirty industries.
- Most banks have not provided a framework defining green or sustainable activities.

Recommendations

Climate change will hit Asia hardest, so banks should act with urgency

Stress tests undertaken by the Swiss Re Institute found that GDP in 2050 would be 18% lower than a world without climate change if no action is taken. Asia would be the hardest hit region, at risk of losing nearly 26.5% of its GDP in a severe scenario. Each new high carbon intensity long duration asset builds risks for banks' clients and for the broader economy. Banks should therefore take the following steps as a matter of urgency.

Governance

- Board leadership: Strengthen sustainability-related capabilities on the board; set out clear sustainability oversight responsibilities; and report on climate-related discussions by the board or related committees.
- Corporate leadership: Assure sustainability data including financed emissions are measured, monitored, and acted upon. Link climate strategy to executive pay to align incentives and interests.

Risk Management

- Assess risks in financing: Develop and implement a clear sustainability risk management framework to identify climate risks and understand related exposure. Reflect climate risks in the risk register.
- Use transition risk and physical risk scenarios to inform both strategy and risk management priorities, including alllocation of resources to managing related risks according to risk levels.

Policy

- Align to national and Paris Agreement goals: Set out a long-term commitment to align financing and capital market activities to the Paris Agreement, with a net-zero target for financed emissions at least in line with (or ideally ahead of) government targets.
- Implement policies for high carbon intensity sectors including: policies for coal-fired power to add no new coal capacity and phase out existing capacity by 2030 in OECD markets and 2040 for other markets; deep scrutiny of late-life use of gas-fired power; minimum standards for forest risk commodities; and develop timelines for hard to abate sectors such as steel, cement, shipping, and aviation.
- Develop and disclose short- and medium-term targets for financed emissions and relevant sector pathways, supported by measurement and reporting.

Opportunity

- Disclose frameworks, standards, and definitions for sustainable finance, green finance and related products to plan for growth and avoid greenwashing.
- Disclose baselines and targets broken down by bank business segment, finance type (own balance sheet vs third party) and target sectors.
- Develop and grow green finance capabilities. In time, the full balance sheet needs to transition.

Observations by market		
China H- Share		**Observations**
Overall	**27%**	▪ **Board leadership:** Banks have dedicated sustainability committees on the board, except China Merchants Bank, but there is no evidence of requiring climate expertise in board nominations. ▪ **Risk management:** Climate discussion focuses on green finance rather than exposures from traditional products. No banks reflect climate risks in the risk register. Only ICBC mentions physical risk assessment. ▪ **Net-zero commitment:** No banks commit to align financing with China's twin targets. ▪ **Sector policies:** Only BOC has policies to cease overseas coal financing. Discussion on credit controls is limited to overcapacity with no reference to climate considerations. ▪ **Opportunity:** All banks give green finance figures, but none set targets. Banks conduct green finance training. Only China Merchants Bank identifies staff capacity dedicated to sustainable finance.
Governance	33%	
Risk Management	31%	
Policy	5%	
Opportunity	60%	
China A-Share		**Observations**
Overall	**17%**	▪ **Board leadership:** Only Industrial Bank identifies a board committee with climate oversight. ▪ **Risk management:** None of the banks identify climate risks in their financing businesses. ▪ **Net-zero commitment:** No banks commit to align financing with China's twin targets. ▪ **Sector policies:** No banks disclose relevant policies. Discussion on credit controls is limited to overcapacity with no reference to climate considerations. ▪ **Opportunity:** All banks disclose green finance figures, but none set sustainable finance targets. Banks conduct green finance training. All except Shanghai Pudong Development Bank identify staff capacity dedicated to sustainable finance.
Governance	21%	
Risk Management	17%	
Policy	0%	
Opportunity	58%	
Indonesia		**Observations**
Overall	**28%**	▪ **Board leadership:** All banks identify the Board of Commissioners, a non-executive body, for climate oversight. However, none reflect related duties in official responsibilities. ▪ **Risk management:** No banks provide climate risks in the risk register or high-carbon sector exposure. ▪ **Net-zero commitment:** No banks commit to align with Indonesia's net-zero target. ▪ **Sector policies:** No banks have clear restrictions on carbon-intensive sectors other than for palm oil. Palm oil policies are not sufficient to meet national and Paris goals. Danamon has no relevant policies. ▪ **Opportunity:** All banks disclose the full extent of green finance provisions, but without a clear breakdown of product types. No banks have forward-looking sustainable finance targets.
Governance	38%	
Risk Management	25%	
Policy	9%	
Opportunity	67%	
Japan		**Observations**
Overall	**72%**	▪ **Board leadership:** SMFG has a board committee with climate oversight and reflects this in official duties. Mizuho has directors with relevant expertise. None mention climate expertise in nomination processes. ▪ **Risk management:** All banks reflect climate risks in the risk register. There is limited disclosure of high-carbon sector exposure. None disclose absolute financed emissions. All conduct scenario analyses. ▪ **Net-zero commitment:** All banks have clear net-zero targets, but no interim goals. ▪ **Sector policies:** The banks will not lend to new coal power projects, but do not prohibit corporate clients from adding new coal. No clear restrictions on oil & gas, steel, cement, agriculture, etc. ▪ **Opportunity:** All banks disclose the full extent of green finance provisions and have sustainable finance targets, but without a breakdown of product types.
Governance	50%	
Risk Management	74%	
Policy	75%	
Opportunity	100%	

Korea		Observations
Overall	**64%**	▪ **Board leadership:** All banks have dedicated sustainability committees on the board, but no evidence of requiring climate expertise in board nominations. ▪ **Risk management:** Only KB reflects climate risks in the risk register. Disclosure is insufficient to compare the banks' sector exposures and approaches to financed emissions and scenario analyses. ▪ **Net-zero commitment:** KB and Shinhan have clear net-zero portfolio commitments with interim targets. Hana should align with its peers. ▪ **Sector policies:** Policies are the weakest amongst the leading markets. ▪ **Opportunity:** All banks disclose green finance figures with clear breakdown by product types. All provide sustainable finance targets and identify staff capacity dedicated to sustainable finance.
Governance	61%	
Risk Management	78%	
Policy	38%	
Opportunity	100%	

Malaysia		Observations
Overall	**54%**	▪ **Board leadership:** All banks have board committees overseeing climate change, but no evidence of requiring climate expertise in board nominations. ▪ **Risk management:** Maybank and CIMB reflect climate risks in the risk register. High-carbon sector exposure disclosure is limited. None disclose financed emissions or conduct climate scenario analyses. ▪ **Net-zero commitment:** Only CIMB and Maybank have net-zero targets. None provide interim targets. ▪ **Sector policies:** All banks have stopped new lending to coal power projects, but policies allow corporate clients to add new coal. Only CIMB has a coal phaseout timeline. ▪ **Opportunity:** All provide sustainable finance targets. There are no clear breakdowns of sustainable finance by product type. Hong Leong Bank does not disclose capacity dedicated to sustainable finance.
Governance	33%	
Risk Management	56%	
Policy	58%	
Opportunity	78%	

Philippines		Observations
Overall	**23%**	▪ **Board leadership:** No banks have board committees with climate oversight where such duties are reflected in official responsibilities. ▪ **Risk management:** None reflect climate risks in the risk register. There is limited disclosure of high-carbon sector exposure. No information on financed emissions. None conduct climate scenario analyses. ▪ **Net-zero commitment:** No banks commit to align their financing with the Paris goals. ▪ **Sector policies:** No banks have clear restrictions on coal or carbon-intensive sectors. Only BDO Unibank has one policy, which is on forestry. ▪ **Opportunity:** All banks disclose the full extent of green finance provisions, only BDO Unibank provides a breakdown by product type. None set sustainable finance targets.
Governance	28%	
Risk Management	26%	
Policy	4%	
Opportunity	56%	

Singapore		Observations
Overall	**64%**	▪ **Board leadership:** DBS and UOB identify board committees with climate oversight. DBS and OCBC appointed directors with relevant expertise. None mention climate expertise in nomination processes. ▪ **Risk management:** Only UOB reflects climate risks in the risk register. There is limited disclosure of high-carbon sector exposure. Financed emissions are only available as intensity measures. All conduct climate scenario analyses. ▪ **Net-zero commitment:** Only DBS commits to net-zero financing. None have published interim targets. ▪ **Sector policies:** The banks will not lend to new coal power projects, but do not prohibit corporate clients from adding new coal. DBS has a coal phase out timeline. There are no clear restrictions in other sectors. ▪ **Opportunity:** All banks disclose the full extent of green finance provisions with targets.
Governance	50%	
Risk Management	70%	
Policy	54%	
Opportunity	100%	

Thailand		Observations
Overall	**38%**	▪ **Board leadership:** Bangkok Bank and KBank identify board committees with climate oversight and reflect this in official duties. ▪ **Risk management:** All except Bank of Ayudhya reflect climate risks in the risk register. There is very limited disclosure of high-carbon sector exposure. Only KBank has a transition scenario analysis. ▪ **Net-zero commitment:** Only KBank commits to align with Thailand's net-zero target. ▪ **Sector policies:** Only Bank of Ayudhya prohibits coal power financing. No restrictions are in place over oil & gas. Siam Commercial Bank has no relevant policies. ▪ **Opportunity:** KBank discloses the full extent of green finance provisions with clear breakdown by product types. KBank and Siam Commercial Bank set sustainable finance targets.
Governance	42%	
Risk Management	47%	
Policy	19%	
Opportunity	50%	

Introduction

There are new national net-zero targets across Asia

Asian governments are accelerating policy and regulations to guide regional economies to better address climate change. Since 2020, most of the major developed and developing economies have introduced net-zero commitments. Many governments, including China, Japan, and South Korea, have set out clear interim targets and are putting new industry plans in place. This signals major changes for regional economies and, consequently, for the credit landscape.

These create new risks and opportunities for banks

As capital providers, banks face significant challenges and responsibilities in relation to climate change. What banks finance today will determine the success or failure of these national and global efforts to address climate change. At the same time banks have long-term incentives to address climate change to find new opportunities and avoid growing risks.

Fig. 3 National carbon targets

Market	Interim targets (2030)				Long-term targets		
	Status	Decline target (%)	Target type	Baseline	Status	Target type	Timeline
China	NDC	Peak by 2030			LTS	Net-zero	2060
India	NDC	33-35	Intensity	2005	Decree	Net-zero	2070
Indonesia	NDC	41	Absolute	BAU	LTS	Net-zero	2060
Japan	NDC	46	Absolute	2013	LTS	Net-zero	2050
Malaysia	NDC	45	Intensity	2005	Decree	Net-zero	2050
Philippines	NDC	75	Absolute	BAU	-	-	-
Singapore	NDC	Peak around 2030			Decree	Net-zero	2050
South Korea	NDC	40	Absolute	2018	LTS	Net-zero	2050
Thailand	NDC	25	Absolute	BAU	LTS	Net-zero	2065
Vietnam	NDC	27	Absolute	BAU	-	-	-

Note: Commitments are expressed as a nationally determined contribution (NDC) or long-term strategies (LTS) presented to the United Nations Framework Convention on Climate Change (UNFCCC). Decree means the national leader has stated the target, but it is not yet communicated in official public documentation to UNFCCC. Business As Usual (BAU) baselines are derived from projections.
Source: Asia Research & Engagement, various news reports, UNFCCC, January 2022

Proactive banks can better understand client needs

Banks without clear plans and policies to align their financing with national goals will find that the clients underlying their business and lending portfolios face regulatory headwinds and physical risks. Proactive banks have a competitive opportunity to de-risk, and to position for growth by supporting their clients to transition to more competitive, cleaner technologies increasingly demanded in local and international markets.

Reactive banks will be left holding uncompetitive assets

Aligning with government policies is only a first step for providers of finance. Achieving net-zero in the next two to three decades is a daunting task and it is not possible to make perfect plans today, with imperfect information. But waiting is not an option. Banks that ignore the signals and delay action, solely relying on government rules will find they have continued with exposure to, and the mispricing of, carbon-intensive assets that are becoming increasingly difficult to re-finance or transfer.

Banks need to support governments to address policy gaps

There needs to be analysis across multiple carbon-intensive sectors. Fortunately, global think tanks, universities, and government agencies are working to define scenarios or pathways to achieve the Paris goals. Where there are policy gaps, banks need to be aware and actively encourage governments to address them in support of economy-wide transition.

Power: The critical test case

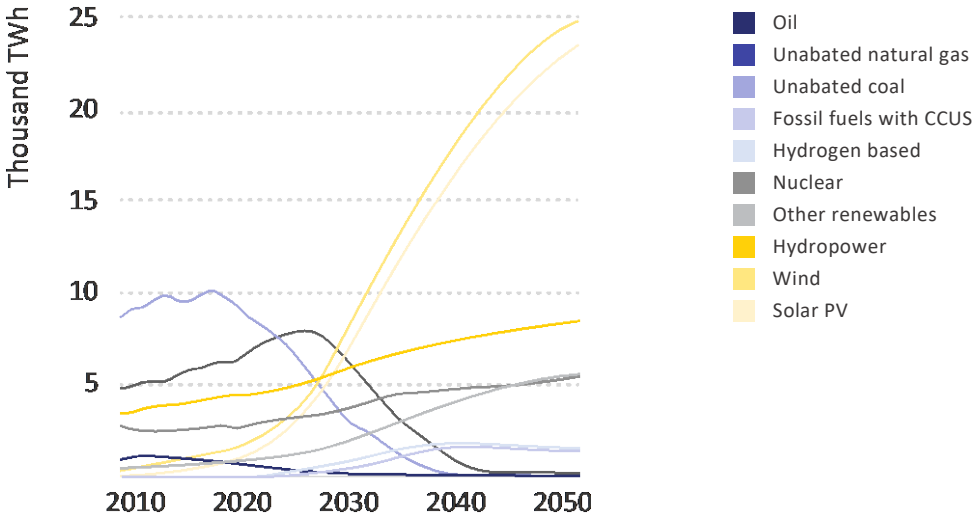
The power sector is central to efforts to transition economies and is fortunately relatively easier to decarbonise. The roadmap for power illustrates how long term targets affect choices for long duration assets today. There will be critical choices to transition across multiple other sectors, particularly for harder to abate ones.

The IEA sees net-zero for global power in 2040

In its report, *Net Zero by 2050*, the International Energy Agency (IEA) stated that the emissions from power generation should fall to zero by 2035 in advanced economies and around 2040 for others. This pathway creates limited space for the continuation of fossil fuel intensive business, particularly for coal. Indeed, most scenarios show coal-fired power phase out timelines of 2030 for advanced economies and 2040 for the rest.

Fig. 4 Global electricity generation by source in the IEA's Net Zero Emissions scenario

There is limited life left for fossil fuels, while renewables take off



Source: IEA

Fossil fuels want technological fixes

The fossil fuel industries are seeking technological approaches to defend their license to operate. One proposed suite of solutions sits under the label of Carbon Capture, and Storage (CCS), which sometimes has the word utilisation added to form CCUS. However, there are major concerns over the technical feasibility of storing carbon over long periods. There are also doubts about whether the approaches will be commercial at scale, particularly as many test projects have been cancelled before becoming operational.

But CCS is risky and costly for coal

A 2022 study by the Asia Investor Group on Climate Change (AIGCC) with Wood Mackenzie concludes that there is a weak economic case for CCS given that it layers on costs, while renewable prices are fast declining. It concludes that in the power sector, rather than acting as a climate solution, CCS will likely prolong the transition from fossil fuels.

While ammonia is high cost and high carbon

Ammonia has also been proposed as a feedstock and faces similar obstacles. In a February 2022 report, TransitionZero reviews the potential for ammonia to reduce GHG emissions from coal-fired power plants in Japan. The report concludes that ammonia will be far more costly than renewables in future decades and lead to far higher GHG emissions.

There is too little time for much new gas

Gas power was once considered a "bridge fuel" but the IEA pathway shows that the window for new unabated gas power plants is far shorter than the typical design life. Assets may not be useable for long enough to make an economic return.

Solutions must focus on renewables

These challenges highlight that solutions must have a strong focus on renewable investments, particularly with battery storage that can help to match production with demand. There will need to be investment in smart grids; improved short-term forecasting for generation; and flexible contracts, particularly for industrial users.

Few Asian banks are ready for the power transition

International banks are taking note and many, including some from this study, have now introduced policies to limit exposure to fossil fuels, while scaling up exposure to low carbon power. But most of Asia's banks have unsophisticated policies to limit coal-fired power and only very few seek to reduce exposure to zero by 2040. The regional banks need clear headed analysis and must form views over a broader range of technological choices.

Investors want to know whether banks are proactively navigating these changes or taking a reactive, lagging approach. In this report, we assess:

- Do banks have governance and risk management processes in place?
- Are banks providing appropriate policies for high-carbon sectors?
- Are banks positioning themselves to capture share in new cleaner markets?

Methodology

Company selection

The report reviews 32 Asian banks

We reviewed 32 major banks across nine markets in Asia: China/ Hong Kong, Indonesia, Japan, Korea, Malaysia, the Philippines, Singapore, and Thailand. They represent combined total assets of USD33.5 trillion and combined total gross loans of USD18.6 trillion.

For each market, we selected three of the largest banks by market capitalisation. For China, Indonesia, and Thailand, we added more banks to reflect the size of the market or include banks that face high investor pressure. The five large Chinese banks are listed in Hong Kong (H-share) while four are listed only on the Shanghai and Shenzhen exchanges (A-share). We also included Danamon, which though relatively smaller faces the same level of scrutiny and expectations as peers and should benefit from the carbon neutrality commitment of its parent, MUFG.

Assessment structure

Using 26 TCFD aligned questions

We used 26 questions to assess banks' responses to climate risks and opportunities. We used the recommendations by the Task Force on Climate-related Financial Disclosures (TCFD) as a starting point. The questions are grouped under the four categories: Governance, Risk Management, Policy, and Opportunity.

Scoring

For each question, we classified bank practices into different types based on international and regional standards and practices. We then assessed the practices as 'Yes (Y)' or 'No (-)'.

Simple, low-bar questions help identify bank baselines

We used simple, low-bar questions to recognise recent progress in the region. Banks need to have positive answers for all of the questions to demonstrate a good state of readiness to address the risks and opportunities of climate change. We graded the responses into different levels of climate readiness as set out in the Executive Summary. The appendices include the full list of questions and associated assessments for each bank.

Feedback

The banks were helpful in providing feedback

We shared our initial assessment results with each bank. 24 of the banks (75%) responded and 21 of the banks (66%) requested clarifications. All the banks from Japan, Korea, Malaysia, and Singapore responded. The lowest response rates were from China H-share banks and the Philippines.

Governance

A long-term vision can help orient banks for the complex transition

As banks finance all sectors of economies, they face a complex task of identifying risks, assessing viable transition paths for clients, and formulating strategies to de-risk their asset portfolios in the longer term. There are also fast-growing opportunities available. With more governments and investors committing to carbon neutrality globally, and in Asia, and technological disruption a common feature across many industries, a long-term vision helps banks to navigate this complex terrain.

Bank boards need to understand and oversee the change in strategy

As governors of key infrastructure supporting national economies, bank boards must ensure their strategy is appropriate and monitor its execution. They must establish robust risk management and reporting mechanisms to ensure that their institutions are resilient to the planetary emergency on the horizon.

Enhancing board capabilities is crucial

To address the new threats and opportunities that climate change presents across multiple functions, boards need to be empowered and educated to articulate and discharge new responsibilities arising from climate change and systemic sustainability considerations. They need to ensure that senior management has appropriate incentives to prioritise climate change in executing broader bank strategies.

This section reviews how prepared and transparent bank boards are (or are not) in these key areas:

- Setting out clear sustainability responsibilities on the board
- Reporting on climate discussion
- Strengthening climate-related capabilities on the board
- Linking pay to strategy

Setting out clear sustainability responsibilities on the board

Why is this important?

Boards are responsible for ensuring there is a climate ready strategy

Climate change poses wide-ranging risks, but from these risks come opportunities. The whole board is responsible for ensuring that the executive management team implements a strategy that both mitigates emergent risks and seizes the opportunities that may arise. Boards can best achieve this through tasking a specific non-executive director or committee with oversight of sustainability.

Banks should clearly state duties for relevant board committees

The oversight body should set out its relevant duties, usually in a published terms of reference. The aim is to ensure regular review of climate change management rather than ad hoc responses to events. The reactive approach is more likely where existing committees take on new sustainability duties as a subset of other responsibilities without appropriate advisory inputs or training.

What do we see in the region?

Only 7 banks have a dedicated committee – they performed better overall

Only seven of the 32 banks (22%) have established dedicated committees to drive the sustainability agenda. These are SMFG, KB, Hana, Shinhan, CIMB, Maybank, and DBS, which established a board-level sustainability committee in March 2022. We note that banks with a dedicated sustainability committee tend to be better performers across a range of climate change disclosure areas.

18 banks add climate/ environment oversight to an existing committee

A further 18 of the 32 banks (56%) add climate or environmental oversight to an existing board-level committee with non-executive representation. Committees used included Risk, Executive/ Strategy, and Corporate Governance. Only eight of these banks reflect relevant duties in the official list of responsibilities. The other ten banks note responsibilities separately in sustainability reporting without including them in a terms of reference, raising concerns of weak oversight and a lack of clear accountability.

Oversight is not clear for MUFG, Ayudhya

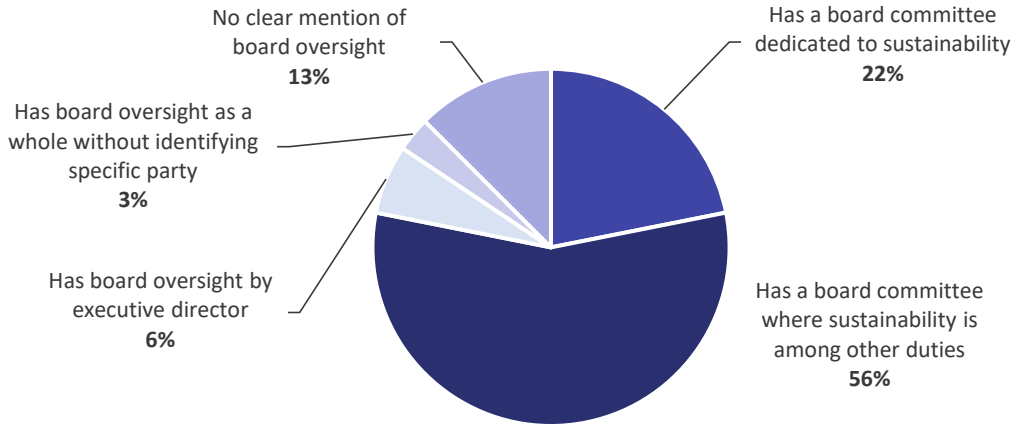
MUFG and its Thai subsidiary Ayudhya communicate the role of executive board members in implementing sustainability strategies, but do not clearly identify a non-executive board-level party with oversight over climate change.

Industrial Bank is a leader among China A-shares

For China A-share banks, only Industrial Bank identifies relevant board-level committees. There was no clear mention of board oversight of sustainability by the others: Ping An Bank, Shanghai Pudong Development Bank, and Bank of Ningbo.

Fig. 5 Different forms of sustainability oversight in Asian bank boards

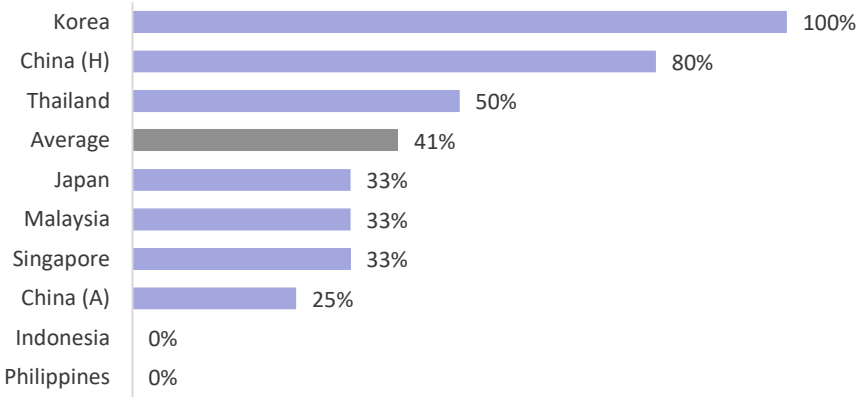
4 banks do not mention board oversight of sustainability



Source: Asia Research & Engagement

Fig. 6 Are the relevant duties for the board-level non-executive party with oversight of sustainability risks set out clearly in an official list of responsibilities?

Korea, China (H), and Thailand are the best for setting out relevant duties



Source: Asia Research & Engagement

Investor expectations

Bank boards must have clear climate oversight

Asian banks should ensure that boards are providing effective oversight of strategy, including integrating climate change considerations. An effective way to do this is to create a board-level committee focused on sustainability, with a clear set of responsibilities and transparent reporting. Newly appointed and nominated board members should have appropriate skills to satisfy these responsibilities.

Recommendations:

- Establish a non-executive board-level committee to oversee sustainability and climate change.
- Document responsibilities for committee members as part of the terms of reference.

Good practice example

CIMB clearly communicates governance of sustainability

CIMB shows how it integrates sustainability across its governance structure. The board established the Group Sustainability and Governance Committee, chaired by a senior independent director, to provide a "more focused, detailed and frequent steer on strategic sustainability matters, including [its] climate change strategy".

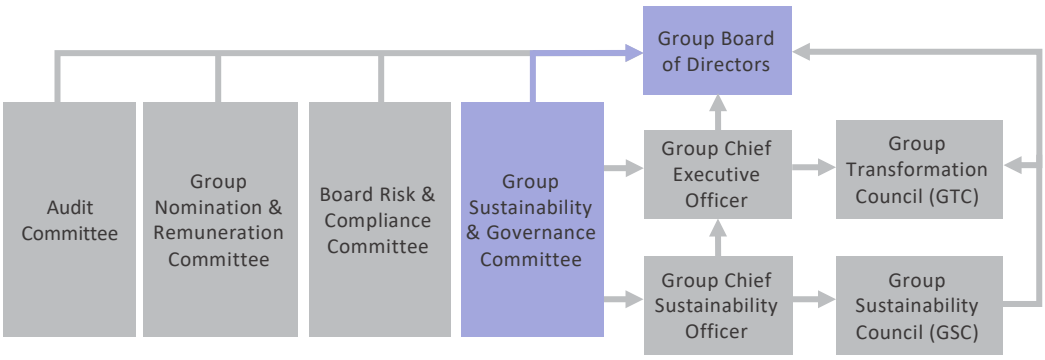
Showing duties for different committees

The Board Risk and Compliance Committee reviews sustainability risks. The Audit Committee oversees the reliability and transparency of sustainability-related reporting and the internal control system. The Group Nomination and Remuneration Committee considers sustainability experience in director nomination to build sustainability capabilities on the board.

And operational reporting lines

At a management level, the Chief Sustainability Officer (CSO) reports directly to the Group CEO who reports to the board.

Fig. 7 CIMB's sustainability governance structure



Source: CIMB

Reporting on climate discussion

Why is this important?

Transparency on board climate discussions builds trust

Regulations, technology, and expectations are developing fast. Boards can build trust on their response to climate change with investors and other stakeholders by setting out the specific issues the boards prioritised and discussed during the year. This also serves to embed a culture of transparency and sustainable decision-making.

What do we see in the region?

19 banks provide some information

Banks have varied transparency regarding board discussions of climate change. 19 out of 32 banks (59%) provide some information on what their boards discussed (or received reports on) concerning climate-related financing strategies during the year. The topics vary from decarbonisation strategies to responsible financing policies, climate risk management systems, and green finance plans.

But only 13 have reporting specific to the year

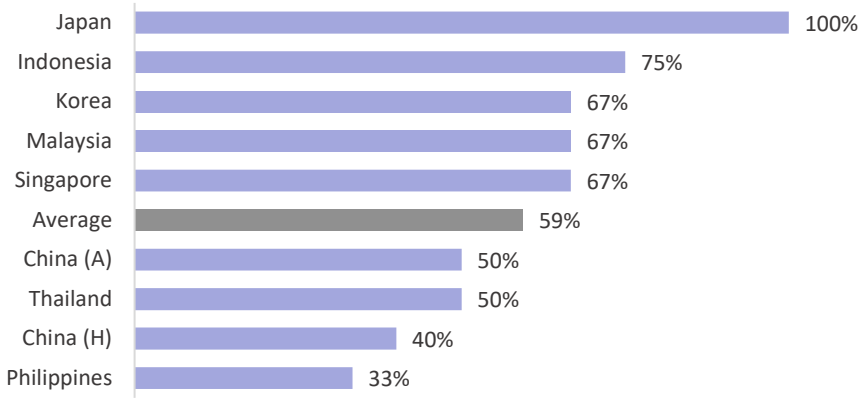
In general, banks only provide topics of discussion without key considerations or outcomes. Among the 19 banks with information, 13 mention discussion items specific to the company and the reporting year. Four banks provide broad discussion topics only noting generic issues without providing any insights specific to the year. Two banks share instances where relevant topics were reported to the board without stating whether the boards actually discussed them.

Several Chinese banks focus on green finance, leaving out climate risks

There are indicators of a potential disconnect at the Chinese banks. ICBC, China Construction Bank, and Ping An Bank share their approach to green finance but do not discuss the risk management implications of climate change. Industrial Bank of China is a positive example, with plans to show leadership in ESG through holistic development across governance, new products, investment decisions, risk management, green operations, and disclosure concerns.

Fig. 8 Does the bank state what climate-related matters were discussed by the board during the year?

Japanese banks are the most transparent for board proceedings



Source: Asia Research & Engagement

Investor expectations

Investors seek transparency on decision making from banks

Banks should communicate key climate-related matters discussed by the board during the reporting year. The discussions should be specific to the company and operating circumstances during the year, as well as considering the mid- to long- term impacts of these issues on strategic plans. These communications should include outcomes and the reasoning employed, to evidence the due consideration paid to these important matters by the board. Banks should avoid issuing generic statements regurgitated each year, or a list of standing items, unrelated to the context in which the bank is operating, which risk giving the appearance of greenwashing.

Recommendations

- Communicate key climate considerations discussed by the board during the year, along with outcomes and reasoning.
- Avoid generic statements lacking operational context or sufficient detail to reflect the application of expertise to climate matters.

Good practice example

Shinhan provides specific details including approving net-zero plans

Shinhan provides specific details including suggestions from the board. For each meeting, the bank's ESG Strategy Committee (formerly known as the Corporate Social Responsibility Committee) discloses a meeting agenda, attendance and voting details of individual directors, a summary of the discussion, and more importantly, the board's input. During the sixth meeting in 2020, for example, the committee asked for "strengthened capacity of the loan/investment screening system for carbon neutrality" in approving the proposal for the Zero Carbon Drive, a strategy for bringing the Group's financed emissions to net-zero by 2050.

Strengthening climate-related capabilities on the board

Why is this important?

Boards need the right expertise to oversee climate integration into strategy

It is vital that boards have the expertise necessary to challenge management to develop strategies that integrate the risks and opportunities arising from climate change. There are different ways to empower the board, but best practice is to include appropriate skillsets as a requirement for board composition and include these in the nomination process.

What do we see in the region?

But there is a mismatch between expectations and qualifications

Board expertise on climate-related matters is one of the weakest areas from this study. Although some banks have directors with relevant experience, none have a board nomination process that requires climate-related expertise. This raises concerns that boards are not able to provide appropriate supervision even though 75% of banks identify specific board-level committees with climate oversight.

Only 4 banks seek ESG expertise, even though many more have sustainability committees

Four of the 32 banks (13%) mention general "sustainability" or "ESG" expertise as part of board nomination. These are KB, CIMB, Bank of Philippine Islands, and Siam Commercial Bank. ESG is a wide-ranging term, so it will be helpful for the banks to set out which aspects of ESG issues they prioritise and how the expertise links to strategy.

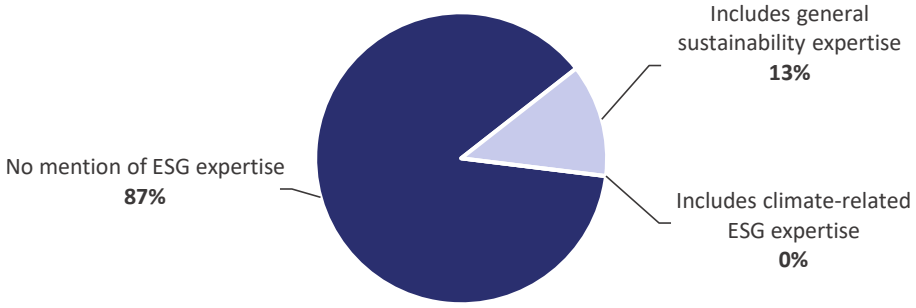
Governance

Only 6 banks refer to board training on climate topics

Six of the 32 banks (19%) state that there is board training on climate-related topics. It is not possible to establish whether this is sufficient for the directors to fully discharge their duties, nor if there was any change to board practices following this training, such as requests for climate-related measures or data.

Fig. 9 Integration of climate-related expertise in the board nomination process

No banks specifically refer to climate expertise



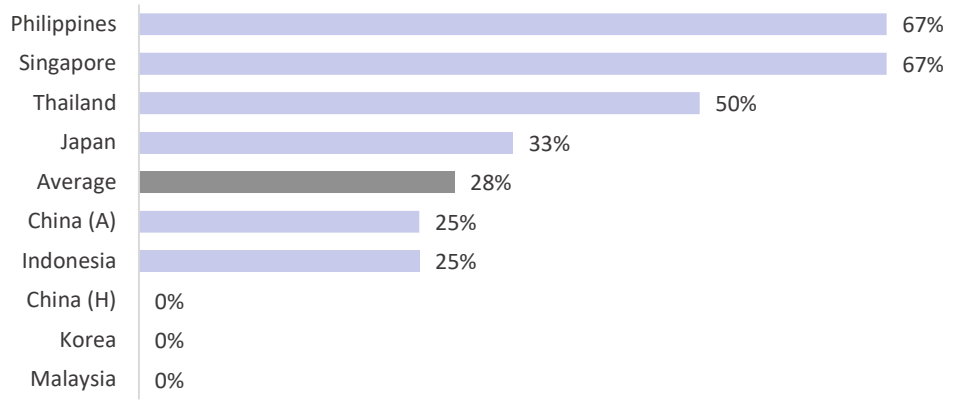
Source: Asia Research & Engagement

But 9 banks have directors with relevant climate experience

While formal processes are lacking, some bank directors have climate-related expertise, whether by chance or by design. Our review of director biographies finds nine of the 32 banks (28%) that communicate relevant experience of at least one director. There are other directors with potentially relevant expertise, but banks do not emphasise the climate expertise in public biographies. Banks should remove doubt by specifying whether climate change expertise was a consideration in the appointment.

Fig. 10 Is there a board member with relevant skills/experience in climate-related ESG issues to give input into strategy?

Singapore and Philippine banks are the most likely to have directors with climate-related experience



Source: Asia Research & Engagement

Fig. 11 Efforts to enhance climate-related capabilities on the board

Bank	Consider climate-related expertise in board nomination?	Provide board training on climate-related topics?	Have a director with climate-related expertise?
Agricultural Bank of China	-	Y	-
Industrial Bank	-	-	Y
Bank Rakyat Indonesia	-	-	Y
Mizuho	-	-	Y
Shinhan	-	Y	-
CIMB	-	Y	-
Maybank	-	Y	-
Bank of Philippine Islands	-	-	Y
BDO Unibank	-	-	Y
Metropolitan Bank & Trust	-	Y	-
DBS	-	-	Y
Bangkok Bank	-	-	Y
KBank	-	Y	Y

Note: A dash indicates that the information is not publicly available. The above table shows the list of 13 banks demonstrating at least one relevant practice.
Source: Asia Research & Engagement, company reports

Investor expectations

Investors expect bank boards to have required climate expertise

Banks should appoint directors with relevant experience to ensure that boards can guide their strategies in a time when better management of climate and other sustainability priorities may offer advantage. There is no set definition of climate expertise and there is no one expertise that is appropriate for all banks. Such expertise could come from academia, through operational experience in green growth sectors, or from management experience in driving climate-related initiatives.

Banks should ensure there is climate-related training for all directors

What matters is that banks can show they have board members who can understand the dynamics of climate change in business operations and draw a clear link to the bank's business strategies. Banks should also provide regular training to keep the board on top of global trends and updates, emerging frameworks and initiatives, and technology.

Recommendations

- Include climate-related expertise as a factor in board composition and nomination processes.
- Identify directors with relevant expertise and explain how such appointments link to strategy.
- Conduct regular training to ensure the overall board is updated on key topics.

Good practice example

BNP Paribas refers to CSR as a factor in board composition and identifies directors with climate expertise

BNP Paribas considers Corporate Social Responsibility (CSR) in the skills mix for its board. In 2020, the bank communicates that four of the bank's 14 directors have CSR as a key area of expertise and that two have recognised climate-related expertise. BNP Paribas sets out the

specific climate-related experience for each director, and even provides a key message from a book one of the directors had authored. BNP Paribas also explains how its Chief Executive Officer is "personally involved" in climate initiatives referring to his public statements.

Linking salary to strategy

Why is this important?

Climate incentives can help focus management attention

Reflecting climate change in executive remuneration allows banks to signal the importance and urgency of strategic climate action, while creating a specific incentive to keep management attention on this area.

What do we see in the region?

18 banks include ESG issues in executive pay

Regional banks have made a start, with 18 of the 32 banks (56%) factoring environmental or social issues into executive pay. Eight banks state that climate change is a factor in executive remuneration. However, there is very little information on how these issues are considered, meaning that investors cannot determine whether banks use appropriate targets linked to their strategy, let alone the Paris goals.

DBS is a good example for reporting against targets

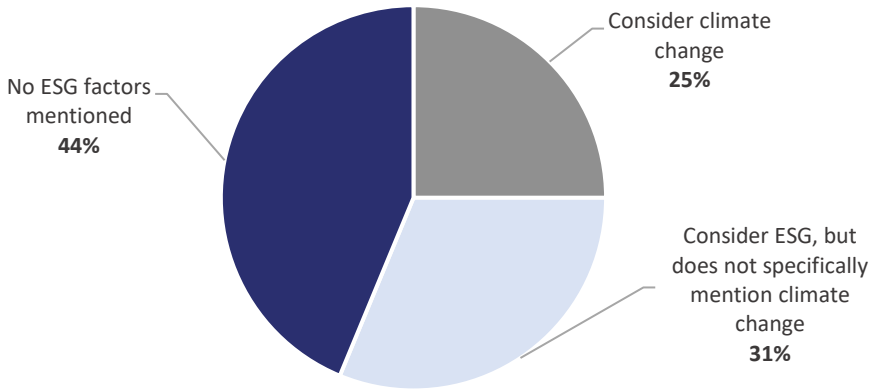
Among those that provide climate-related incentives, there is little information on the relevant measures or targets used. Only DBS reported on progress for disclosed targets, using qualitative measures.

Banks should cover financed emissions to ensure climate targets are meaningful

Hana, KB, Shinhan and KBank include GHG emissions reduction in executive KPIs. However, Hana and KBank do not cover financed emissions, while the position is unclear for KB and Shinhan. The banking sector's GHG footprint mainly lies in the businesses they finance, so linking KPIs only to the reduction of Scope 1-2 GHG emissions does not create a meaningful link between pay and a transition to net-zero.

Fig. 12 Consideration of climate-related factors in executive pay

Only a quarter of banks refer to climate change in executive remuneration



Source: Asia Research & Engagement

Governance

MUFG uses an ESG measure, but for a very low proportion overall

MUFG announced that it will reflect ESG elements in executive pay to accelerate the bank's commitment to carbon neutrality. Unfortunately, the only KPI mentioned is external ratings by ESG assessment agencies (i.e., MSCI, FTSE Russell, Sustainalytics, S&P Dow Jones, and CDP). While these measures are independent, they are in essence external perception measures, rather than indicators determined through an internal strategy process. They also have a much broader focus than decarbonisation. The ESG aspect only accounts for 5% of the stock compensation that makes up one-third of the CEO's potential pay, too low to be meaningful.

Fig. 13 Disclosure of climate-related KPIs in bank executive pay

Bank	Scope	Nature	Disclose target?	Report on progress?	Disclose weights?	Disclose time horizon?
Bank Mandiri	Bank officials	-	-	-	-	-
MUFG	Executives	Quantitative / external (ESG ratings)	-	-	Y	Long
Mizuho	Corporate officers	-	-	-	-	-
KB	Executives	Quantitative / internal (CO_2, ESG finance)	-	-	-	-
Shinhan	Executives	Quantitative / internal (GHG, sustainable finance)	-	-	-	Short
Hana	C-suites	Quantitative / internal (GHG)	-	-	Y	-
DBS	All employees	Qualitative / internal (Sustainable franchise)	Y (qualitative)	Y (qualitative)	-	Short & Long
KBank	Executives	Quantitative / internal (Environmental financing, GHG)	-	-	-	-

Note: A dash indicates that the information is not publicly available.
Source: Asia Research & Engagement, company reports

Investor expectations

Executive compensation should cover strategic issues, such as response to climate change

Boards should reflect key components of climate strategy in executive compensation using measures that meaningfully incentivise commitment to meeting the Paris goals. Measures should at a minimum include the reduction of financed emissions at a pace aligned with national emissions reduction targets.

Measures should include progress on financed emissions

Remuneration Committees should communicate the targets, weights, and payment terms, setting out clear explanations of how achieving these supports bank objectives and commitments, including to the Paris goals. There should be annual reports on progress against targets. A 29 June 2021 PwC article, *Linking executive pay to ESG goals*, provides useful guidance centred on the four dimensions of target-setting, measurement, time horizons, and driving key results.

Fig. 14 Considerations for linking executive pay to ESG goals

PwC sets out a range of considerations for linking pay to ESG

Dimension	Details
Targets	▪ Targets may be internal and external, and may be based on input (e.g., investments in green technology) or output (e.g., emissions produced). ▪ Targets need to be aligned to strategic priorities and measured. ▪ Investors increasingly request external, verifiable targets due to the lack of objectivity associated with internal targets.
Measurement	▪ As with any strategic business plan, measurement of progress against targets is important for keeping track and aligning interests. ▪ When setting targets for multidimensional ESG issues, there is a balance to strike to ensure the scorecards are sufficiently comprehensive without adding excessive cost and complexity.
Time Horizons	▪ Long-term oriented goals (e.g., environment-related) sit comfortably within the Long-term Incentive Plan (LTIP) structures while others (e.g., health & safety) can be calibrated over a single year. ▪ It is more effective to set ambitious, well-calibrated one-year targets than vague long-term targets.
Objectives and Key Results	▪ Identifying how to determine success is critical. ▪ Some targets (e.g., emissions reduction) require incentives or penalties. ▪ Some targets (e.g., health & safety) require minimum thresholds with a binary outcome (i.e., met/ did not meet), while others may benefit from being established as a sliding scale with a floor.

Source: PwC, summarised and rephrased by Asia Research & Engagement

Recommendations

- Set relevant KPIs that meaningfully contribute to the Paris goals, including reduction of financed emissions.
- Disclose targets, weights, and payment periods with clear explanations on how these align to the bank's sustainability strategy and to the Paris goals.
- Report on progress annually.

Good practice example

ING discloses clear pay measures for its top executives

At ING Group, pay awards for the Chief Executive Officer (CEO), Chief Financial Officer and Chief Risk Officer assess performance using two financial and seven non-financial factors. The bank sets specific annual targets for each factor along with the weight applied to each factor. Disclosure includes assessments against target and narrative reports on the performance of each member.

The CEO pay structure reflects strategic steps on portfolio decarbonisation

In 2020, the CEO's sustainability targets included adding four additional sectors to the ING climate report, covering how ING will align its lending to climate mitigation targets. The remuneration reporting noted that the CEO had achieved this, adding roadmaps for fossil fuels, aviation, steel, and shipping, and that "most sectors are on track for climate alignment, with progress still needed in some". The CEO received a score of 90% for this. With the sustainability aspect carrying a 12.5% weightage, this contributed to 11.3% of the CEO's overall performance outcome.

Fig. 15 ING Group's Executive Board performance against target

Outcome performance assessment									
	CEO			CFO			CRO		
	Weighting (%)	Assessment (%)	Outcome (%)	Weighting (%)	Assessment (%)	Outcome (%)	Weighting (%)	Assessment (%)	Outcome (%)
Profit before tax	25%	0%	0%	25%	0%	0%	12.5%	0%	0%
Return on equity	25%	0%	0%	25%	0%	0%	12.5%	0%	0%
Customer	12.5%	0%	0%	12.5%	0%	0%	-	-	-
Regulatory	-	-	-	-	-	-	25%	100%	25%
Sustainability	12.5%	90%	11.3%	12.5%	90%	11.3%	10%	90%	9%
People	12.5%	100%	12.5%	12.5%	100%	12.5%	10%	100%	10%
Strategic priorities	12.5%	90%	11.3%	12.5%	90%	11.3%	30%	100%	30%
Total	**100%**		**35%**	**100%**		**35%**	**100%**		**74%**

Source: ING

Risk Management

Banks (and the world in general) face disruption from climate risks in three broad categories:

- Regulatory and social change triggered by national and international low-carbon commitments
- Technological developments rendering old and dirty technology uneconomic
- Changes in the physical climate, such as weather-related physical threats

Banks face growing credit and reputational risks

Banks should actively steer clients to take steps toward transition and adaptation, as delaying action will raise costs over time. Banks slow to exit from carbon-intensive activities will find themselves under increasing reputational pressure. It will also become more expensive to exit or refinance positions in long-term carbon-intensive assets or companies.

Yet our research shows disconnected thinking

Our findings show disjointed approaches to managing climate risk across the region. Asian banks mostly do identify climate risk somewhere in reporting, but all too often these risks do not make it into the main risk management processes. Banks that flagged climate risk at the enterprise level outperformed in this benchmark, suggesting a clear link between risk recognition in the risk register and climate readiness.

This section reviews how banks identify, assess, and disclose climate risks through the following indicators:

- Identifying climate risks
- Understanding risk exposure
- Allocating risk resources
- Pricing the risk: Transition risk scenario analysis
- Pricing the risk: Physical risk scenario analysis

Identifying climate risks

Why is this important?

Clear risks identification supports risk mitigation

Banks' internal resources cannot be mobilised without top-level recognition of climate risks. This needs to be in the risk register, which is the main repository of risks at most banks, and for which identified risks must have a risk mitigation plan. Clear risk recognition allows for a consistent response across the organisation.

What do we see in the region?

But risks raised in sustainability reporting do not reach the risk register

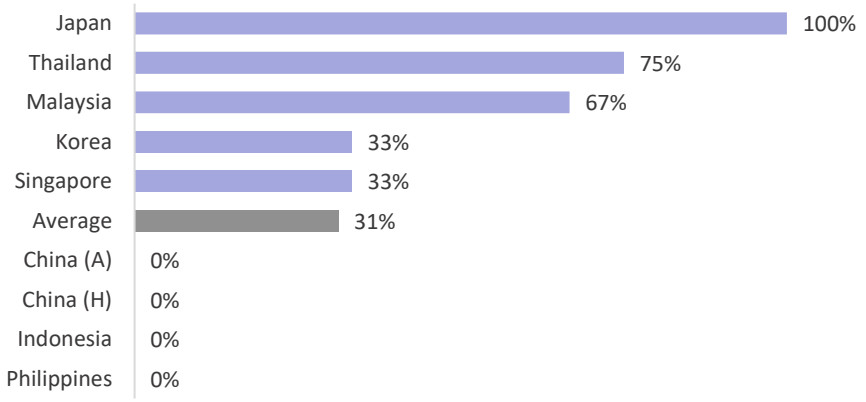
Many banks do not address climate risks as part of enterprise risk management. Instead, we observe that sustainability teams identify material risks, but these are not reflected in central risk planning functions.

Only 10 banks include climate risks in the risk register

Only ten of the 32 banks (31%) reflect climate risks in their risk register. Eight of these ten banks are the highest performers overall in this study. This suggests a clear link between including climate risks in the risk register and taking appropriate steps. Japan is the only market where all the banks refer to climate change in the risk register. Most banks in Malaysia and Thailand show this level of recognition.

Fig. 16 Does the bank recognise climate risks from financing activities in its risk register?

Japanese, Thai, and Malaysian banks are best for recognizing climate risks from financing



Source: Asia Research & Engagement

But many more banks identify material ESG issues outside of the risk register

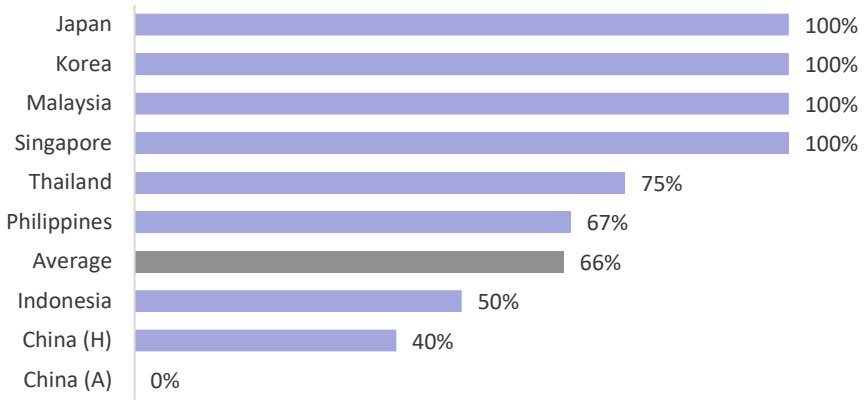
Bank reporting reveals clear internal disconnects on ESG issues. 29 of the 32 banks (91%) set out material ESG issues in their sustainability reporting, but most do not include the identified risks in their risk registers.

11 banks fail to recognise climate risks in financing

All 32 banks recognise climate change as an issue. But only 21 of the 32 banks (66%) recognise there are climate risks in the financing business, leaving 11 that fail to do so. These banks tend to perform poorly in the overall benchmark accordingly. Among the 11 banks are two subsidiaries of MUFG, Bank of Ayudhya and Danamon, making it unclear how MUFG's carbon neutrality commitments apply to these subsidiaries.

Fig. 17 Does the bank identify climate risk for its financing business?

Chinese and Indonesian banks have the lowest levels of identification of climate risks in financing



Source: Asia Research & Engagement

Investor expectations

Banks should include climate risk in the risk register, not just in sustainability reporting

Banks should recognise climate risk in the risk register, with the same level of oversight as other key company-wide risks, not as an isolated discussion in sustainability reporting. This would demonstrate that banks are taking climate risks seriously and help address the growing sense of greenwashing.

Banks should provide a clear description of risks and measures taken. Banks should avoid bringing sustainability under one generic heading (e.g., ESG risk). Lumping climate in with other sustainability risks such as money-laundering is a barrier to useful analysis.

Recommendations

- Recognise climate risk in the risk register with a clear description of risks and measures taken.
- Conduct a regular review as part of the enterprise-risk management.

Good practice example

MUFG has climate risk in its list of Top Risks

MUFG includes climate change-related risks in its list of Top Risks, recognising a potential impact on corporate value and credit portfolios. Top Risks receive close attention within the bank's enterprise risk management. These risks are reviewed by the Credit & Investment Management Committee, the Credit Committee, and the Risk Management Committee under the direct supervision of the Executive Committee. The board receives reports on the discussions from the above committees.

Understanding climate risk exposures

Why is this important?

Banks need to provide detailed sub-sector exposure

Having identified climate risks, banks need to understand their exposures to them. Traditional sector-based analysis is not granular enough to understand exposure to transition risks. For example, the Metals & Mining sector includes both carbon-intensive segments (e.g., thermal coal, primary steel production) that need to transition and activities that support green growth (e.g., lithium and cobalt for power storage solutions). Banks and investors need more precise assessments.

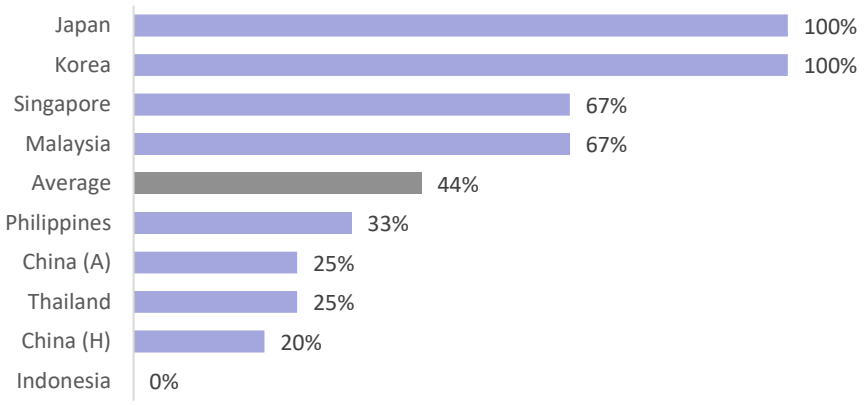
What do we see in the region?

Only 12 provide such exposure

Current disclosure practices fall far short. Only 12 of the 32 banks (38%) disclose exposures to one or more carbon-intensive segment, such as fossil fuels, steel, or cement. Bank of the Philippine Islands and KBank disclose the fossil fuel mix of their power utilities financing, although the extent of asset exposure is unclear. In general, when there is disclosure, it is limited and poorly defined.

Fig. 18 Does the bank disclose exposure to high-carbon industries?

No Indonesian banks disclose exposures to carbon-intensive sectors



Source: Asia Research & Engagement

Only 6 banks provide thermal coal power exposure details …

Only six banks provide figures specific to thermal coal power exposure, the sub-sector with the most obvious transition risk. Maybank, Mizuho, and MUFG report exposure to both project finance and corporate loans. The other three only include project finance exposure leaving out corporate loans where banks tend to have larger exposures. Shinhan and CIMB provide exposures in aggregate of thermal power and thermal coal (power and mining) respectively. Only MUFG provides details, defining corporate finance exposure as a client having coal capacity of over 50% of its business. Banks are duty-bound to know their exposure in detail, investment by investment and should share aggregate figures with investors.

… even though coal phase out is critical for the Paris Agreement

It is not possible for investors to assess bank exposure to transition risks or support for transition financing with such limited disclosure and with such conflicting definitions. For coal power, banks could provide much more detailed information to ensure that banking clients are on track for critical timelines, which are coal phase out by 2030 in OECD countries and 2040 in others to meet the Paris goals. Equally, there needs to be far more disclosure for other high carbon intensity sectors. Banks will continue to face accusations of greenwashing while they provide such scant information about their exposure to high carbon intensity activities.

Fig. 19 Disclosure of asset exposures to high-carbon industries

Bank	Coal power	Oil/gas power	Coal mining	Oil & gas	Steel	Cement	Forestry & logging	Palm oil
China Construction Bank	-	-	-	Y	-	-	-	-
Industrial Bank	-	-	-	-	Y	Y	-	-
Mizuho	Y	Y	Y	Y	-	-	-	-
MUFG	Y	Y			-	-	-	-
SMFG	Y*	Y			-	-	-	-
Hana	Y*	-	-	-	-	-	-	-
KB	-	-	-	Y	Y	Y	-	-
Shinhan	Y		Y	Y	-	-	-	-
CIMB	Y	-	Y	-	-	-	-	-
Maybank	Y	-	Y	Y	-	-	Y	Y
DBS	Y*	-	-	-	-	-	-	Y*
UOB	-	-	-	-	-	Y	Y	-

Note: The table shows the list of banks disclosing asset exposures to one or more high-carbon industries. A dash indicates that the information is not publicly available. Asterisk (*) denotes that disclosure only includes project finance. UOB's disclosure is for sample non-bank loans exposure.
Source: Asia Research & Engagement, company reports

Usually, the disclosures are not comparable as they cover different value chains and sub-segments. For example, oil & gas related exposures for China Construction Bank only cover upstream activities, while Maybank's cover all related value chains.

Fig. 20 Oil & gas related disclosure

Bank	Oil & gas related disclosure
China Construction Bank	▪ Petroleum and natural gas extraction
Mizuho	▪ Energy, oil & gas ▪ Power utilities, gas, and others (excluding renewables and coal)
MUFG, SMFG	▪ Energy (excluding renewables) ▪ Utilities (excluding renewables)
KB	▪ Oil refinery ▪ Petrochemical
Shinhan	▪ Mining and its services ▪ Refining and processing ▪ Lubricant and grease manufacturing ▪ Other petroleum refinery product reprocessing ▪ Gas production & pipeline supply ▪ Thermal power generation
Maybank	▪ Upstream ▪ Midstream ▪ Downstream

Source: Asia Research & Engagement, company reports

Investor expectations

Banks should inform investors on exposure to higher risk activities

Banks need to disclose exposures to specific carbon-intensive segments across their portfolio. While there is not yet a standardised definition, banks should start with sectors with high credit or reputation risks.

Guidance from the Task Force on Climate-Related Financial Disclosures (TCFD) sets out sub-sectors with high carbon intensity activities. Other subsectors particularly relevant for Asia's primary production heavy markets include steel, cement, and palm oil.

Fig. 21 Four non-financial groups with high exposures to climate risks

Energy	Transportation	Materials & Buildings	Agriculture, Food, & Forest Products
▪ Oil and Gas ▪ Coal ▪ Electric Utilities	▪ Air Freight ▪ Passenger Air Transportation ▪ Maritime Transportation ▪ Rail Transportation ▪ Trucking Services ▪ Automobiles and Components	▪ Metals and mining ▪ Chemicals ▪ Construction Materials ▪ Capital Goods ▪ Real Estate Management and Development	▪ Beverages ▪ Agriculture ▪ Packaged Foods and Meats ▪ Paper and Forest Products

Source: TCFD

Disclosure should use absolute and proportionate terms

Disclosure should include absolute amounts and proportions. Banks should provide clear explanations on the parameters used to define the carbon-intensive segments and how related thresholds align with the long-term strategy.

For example, banks may use a 50% coal capacity threshold for measuring corporate exposure to coal power. Defining a client as not exposed to coal when up to 49% of their business could be in coal power or mining seems unwise today, and increasingly dangerous as clients face growing regulatory pressures to meet the Paris goals.

Recommendations

- Disclose comprehensive asset exposures to carbon-intensive segments and sub-segments covering project and corporate loans.
- Disclose the exposure both in absolute and proportional terms.
- Communicate specific parameters used to define the exposure and how these align with the bank's long-term strategy.

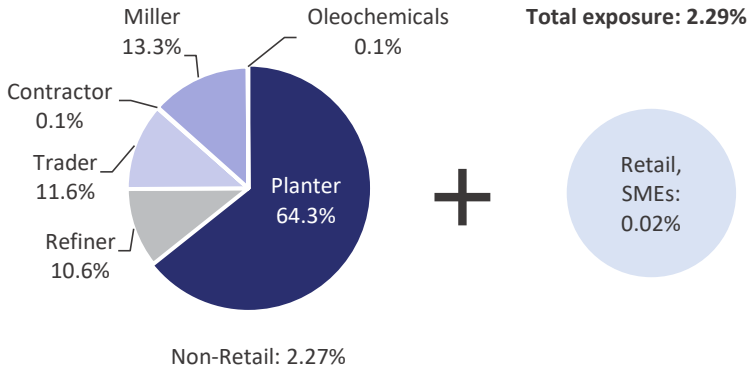
Good practice example

2.29% of Maybank's gross loans are to palm oil

Maybank provides a breakdown for relevant business segments. The areas identified are palm oil (2.29% of the Group's gross loans), oil & gas (2.04%), forestry & logging (0.66%), coal (0.20%), and mineral mining (0.18%). The bank could go further to provide details of how it assesses corporate finance exposure where the client has multiple business activities, only some of which are in the high-risk categories.

Fig. 22 Maybank's gross loan exposure to Palm oil

Maybank's main palm oil exposure is to planters



Note: Data as of 31 Mar 2021.
Source: Maybank

Measuring and reporting GHG footprint

Why is this important?

Bank GHG emissions from financing are 700 times the direct footprints

The main GHG footprint for the banking sector lies in emissions from activities it finances, not those from direct operations. The *CDP Financial Services Disclosure Report 2020* found that for the 84 financial institutions covered, financed emissions were over 700 times larger than operational emissions. Investors are increasingly demanding banks disclose GHG emissions from financing. Banks need to use both absolute and intensity-based metrics to add context to their financed emissions reporting.

Banks should gather and assure financed emissions data

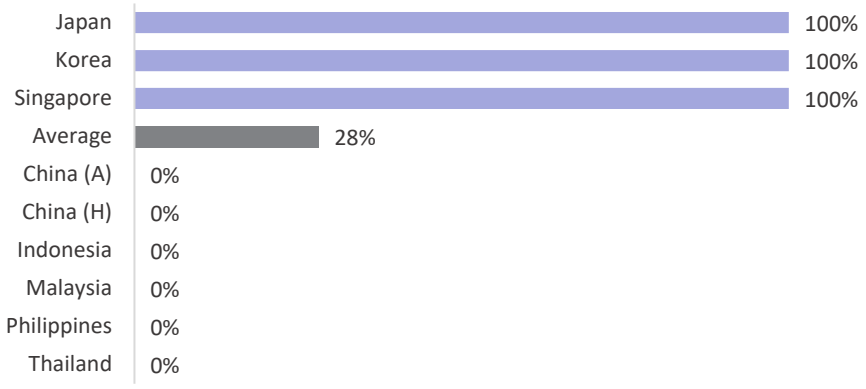
Data is only as good as it is reliable. So, banks should seek independent external assurance on key financial and non-financial information, including financed emissions. This will provide banks with a solid foundation for their strategies and help build trust with investors.

What do we see in the region?

Only the developed market banks provide financed emissions data

Only nine of the 32 banks (28%) provide some information on financed GHG emissions, all of which have headquarters in developed markets. The disclosures are not comparable as different banks use different metrics and there are significant limitations in data coverage.

Fig. 23 Does the bank disclose GHG emissions-related metrics from financing?

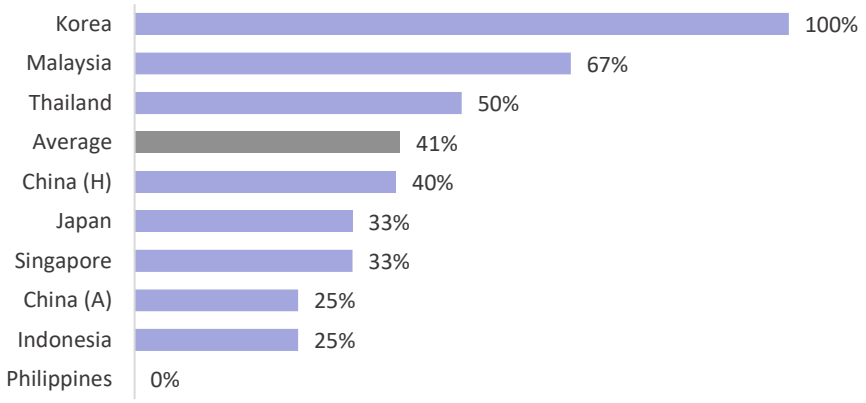


Source: Asia Research & Engagement

13 of the 32 banks (41%) seek external assurance for sustainability data covering GHG emissions, but only KB covers financed emissions.

Fig. 24 Is sustainability reporting, including GHG emissions, assured by an external party?

Less than half of banks assure sustainability reporting



Source: Asia Research & Engagement

Korean banks have the best financed emissions disclosure

The best performers are the three Korean banks, which attempt to estimate financed emissions across their entire asset portfolios. Hana reports it has full disclosure for 16% of the total for financed emissions, while information constraints mean only partial disclosure for 9% of financed emissions, with modelling required to estimate financed emissions for more than 70% of its figure. KB provides a financed emissions figure based on lending only where the bank can attain carbon emissions data. The finance provided was KRW59.1 trillion as of December 2019, or 11% of total assets. Shinhan does not communicate any limitations in coverage.

Fig. 25 Financed emissions disclosure for overall loan portfolio

Bank	Absolute ($ktCO_2e$)	Intensity (tCO_2e/KRW mn)	Assured?
Hana	14,616	0.38-0.42	-
KB	26,761	-	Y
Shinhan	-	0.21	-

Note: A dash indicates that the information is not publicly available.
Source: Asia Research & Engagement, company reports

7 banks have sector-level details

Seven banks provide some GHG-related metrics at the sector level. Hana, DBS, OCBC, and UOB provide intensity based on economic output (e.g., GHG intensity per unit of revenue). The three Japanese banks and DBS use physical emissions intensity of power generation assets financed (e.g., GHG intensity per unit of power produced).

Disclosure is often too limited to compare between banks

Revenue intensity measures have the potential to allow comparisons of the performance of bank financed emissions across time, but in practice disclosure is not sufficient to allow useful analysis. For example, at DBS the sample weighted average carbon intensity for its Energy portfolio decreased from 1,533 tCO_2e per SGD million of revenue in 2018 to 923 tCO_2e/SGD million in 2020. It is not clear whether client behaviour, client mix, or product mix has driven this change. Over the same period the combined exposure to thermal coal mining and coal power plants increased from SGD 2.57 billion to SGD 2.86 billion.

Fig. 26 GHG-related metrics for power sector financing

Bank	Scope	Absolute ($ktCO_2e$)	Intensity (tCO_2e/revenue)		Intensity (gCO_2/kWh)	Assured?
For Power Sectors						
Mizuho	PF	11,177*	-	-	365	-
MUFG	PF	-	-	-	385	-
SMFG	Unclear	-	-	-	382	-
Hana	PF & CF	1,169*	tCO_2e/ KRW mn	2.19	-	-
DBS (Aug 2021)	PF & CF	-	-	-	291	
For Oil & Gas and Power Sector						
DBS (Dec 2020)	PF & CF	-	tCO_2e/ SGD mn	923	-	-
OCBC	PF & CF	-	tCO_2e/ SGD mn	1,646	-	-
UOB	PF & CF	-	tCO_2e/ SGD mn	1,813	-	-

Note: A dash indicates that the information is not publicly available. Hana's figures use total emissions and % of power sector weightage provided. For Mizuho, the figure represents emissions from large-scale power generation projects that the bank concluded financing during FY2016-19.
Source: Asia Research & Engagement, company reports

Investor expectations

Banks should disclose financed emissions using an accepted standard

Banks should provide both absolute and intensity figures for financed emissions calculated using widely adopted methodologies to provide comparability with other banks. TCFD recommends the standards from the Partnership for Carbon Accounting Financials (PCAF) and provides metrics that banks can use. When using different methodologies, there must be clear explanations for calculations. Banks should expand the reporting scope of financed emissions to cover the entire asset portfolio and seek external assurance on the data.

Recommendations

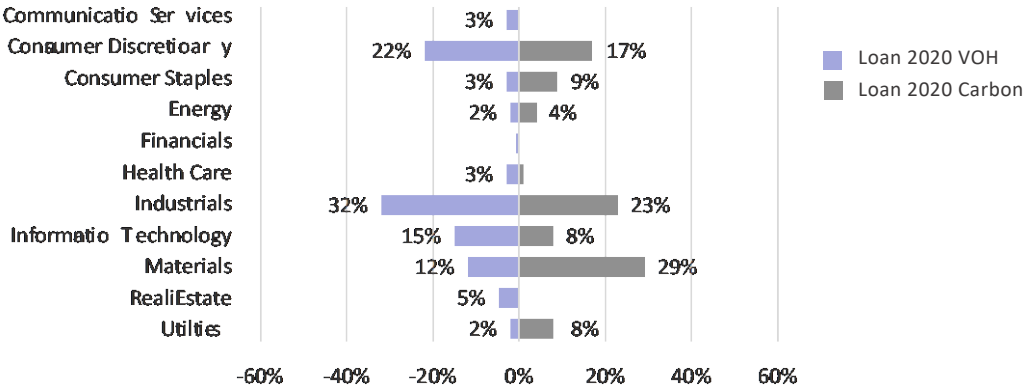
- Disclose financed GHG emissions in both absolute and intensity terms. Expand the scope to cover the entire asset portfolio.
- Use widely adopted methodologies such as PCAF.
- Seek external assurance on the data.

Good practice example

Hana gives absolute emissions and intensity metrics

Hana provides both absolute emissions and several intensity metrics covering its entire loan portfolio over the past three years. This also includes a breakdown by sector showing the proportion each sector makes up of total assets and GHG footprint. This allows a clear comparison of credit exposure and carbon emissions.

Fig. 27 Hana Financials' sector value-of-holdings (VOH) vs carbon share



Source: Hana Financial

Allocating risk resources

Why is this important?

Banks should prioritise risk assessment resources

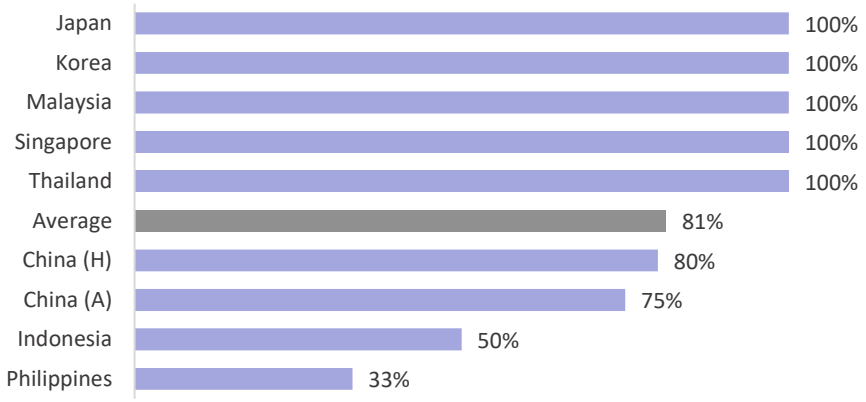
With exposure to large numbers of clients operating in many different sectors, banks must assess and compare projects with different levels of environmental and social risk. They should apply the closest scrutiny to the highest risk clients and projects.

What do we see in the region?

26 banks refer to differentiated environmental and social risk assessments

26 of the 32 banks (81%) communicate some form of differentiated risk assessment dependent on the level of environmental or social risks. The six banks that do not provide such disclosure are Bank of China, Shanghai Pudong Development Bank, Bank Central Asia, Bank Rakyat Indonesia, Bank of Philippine Islands and Metropolitan Bank and Trust.

Fig. 28 Does the bank conduct different levels of environmental and social risk assessment based on different levels of risks associated with the type of financing?



Source: Asia Research & Engagement

Risk Management

Regulators have introduced new requirements on environmental risk management

The high adoption of environmental and social risk management processes is in line with stronger banking regulations in recent years. In 2019, the China Banking Regulatory Commission released an instruction for banks to establish environmental and social risk management systems and integrate ESG across the credit approval process. In Singapore, banks must have environmental risk management measures, and all listed companies will have to report on climate change from 2022. The Hong Kong's monetary authority launched a framework to assess the finance sector's preparedness in addressing climate and environmental risks.

Regulators should ensure banks approach to environmental risk includes climate risk management

These new environmental risk regulations and practice notes are welcome. They should make clear that environmental risk also includes climate risks. In some markets, such as China, disclosure has focused on issues like air and water pollution without considering GHG emissions.

Investor expectations

Banks should integrate a differentiated environmental and social risk assessment into client onboarding, credit application, and review processes to manage risks for both new and existing relationships. Banks should disclose types of risks assessed (including climate risks), risk management approach, standards used, and the risk owner in each process. Banks should also report on transactions that have reached financial close.

Recommendations

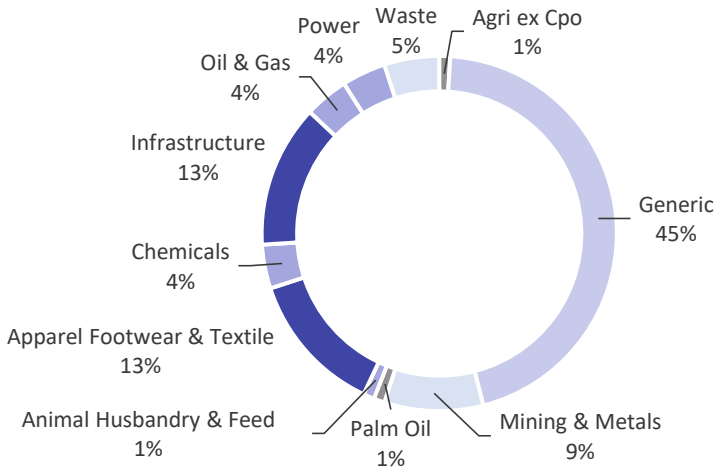
- Conduct a differentiated environmental and social risk assessment covering climate risks across all credit application and review processes.
- Communicate types of issues reviewed, standards used, and the risk owner in each process.
- Report on transactions that have reached financial close.

Good practice example

DBS provides clear disclosure of risk assessment results with sector analysis

DBS reports on the outcome of its ESG assessments with breakdown by risk levels and sectors. DBS also discloses the details of transactions concerning large scale development projects that have reached financial close.

Fig. 29 DBS ESG risk assessment results: Breakdown by overall risk level (top); Breakdown of escalated cases by sector



Source: DBS

Fig. 30 DBS project finance transactions details with risk categorisation

No.	Project Name	Category	Sector	Project Location
1	CIP Changfang Xidao	A	Power	Taiwan
2	JAWA 9 & 10 Coal-fired Steam Power Plant	A	Power	Indonesia
3	Changhua Floating Solar PV	B	Power	Taiwan
4	Syuejia Solar	B	Power	Taiwan
5	Sembcorp Solar	B	Power	Singapore
6	Wandoan Battery (Vena Energy)	B	Power	Australia
7	Vena Energy Shivalik Wind Power Limited	B	Power	India
8	Columboola Solar Farm	C	Power	Australia

Source: DBS

Pricing the risk: transition risk scenario analysis

Why is this important?

Risk scenarios support better planning

Transition risk scenario analysis allows banks to understand the financial implications of the low-carbon transition for clients' businesses and bank credit portfolios. Banks can set out a Paris-aligned scenario to help determine the scale of risks and opportunities.

But banks need to use insights gained wisely

Financial impact assessments are an important analytical tool but need to be used carefully. Economic analysis based on only a few sectors or types of risk will often understate all risks when measured against a bank's total balance sheet. Therefore, banks should ensure that they build on the insights gathered from impact assessments, rather than dismissing them, and that the analysis informs decision making.

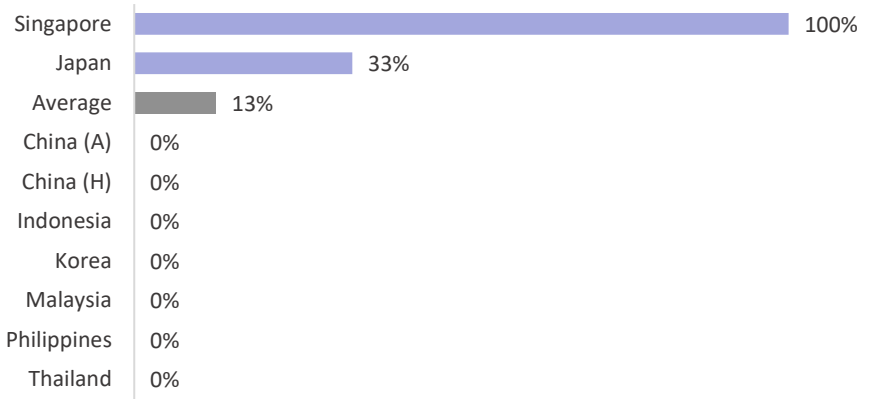
What do we see in the region?

13 banks provide a transition scenario analysis

13 of the 32 banks (40%) carry out scenario analysis for transition risk. Mizuho, DBS, OCBC, and UOB communicate how they use insights from the analysis to inform their activities. All three Singaporean banks share how the credit ratings of customers in carbon-intensive segments would change in a 2°C scenario. Mizuho uses scenario analysis results to inform constructive dialogue with their clients and discloses a progress report on its engagement.

Fig. 31 Does the bank provide a transition risk scenario analysis that stress-tests in line with the Paris Agreement, with clear consideration of the impact on lending decisions?

Singapore banks provide scenarios and include implications for lending



Source: Asia Research & Engagement

Some banks conduct analysis, but it is not clear how they use it

MUFG, SMFG, Shinhan, and KBank all conduct analysis using a Paris-aligned scenario. The disclosures typically do not show if and how analysis is embedded into lending processes. For example, Shinhan provides detailed insights on the financial implications for clients, projecting 55% of the Utility sector, 25% of Materials sector, and 4% of Energy sector will see EBITDA margin shifts to negative due to additional carbon costs under the IEA's 2°C scenario. It is not clear how the analysis informs lending decisions or client engagement.

ICBC and China Construction Bank use scenarios that are not Paris-aligned, while Bank of China, Hana, and KB do not state the scenarios used.

Only MUFG and SMFG use 1.5°C scenarios

Banks should tighten and expand the scope of the analysis. Of the eight banks that conduct analysis using a Paris-aligned scenario, the majority use 2°C scenarios, and only MUFG and SMFG use 1.5°C scenarios. Given the vital importance of limiting temperature rise to 1.5°C, the other banks will need to tighten their analysis. The sectoral coverage will also need to expand beyond the power and energy sectors.

Discussion around methodologies is also lacking. Many banks fail to provide critical information such as the size of selected portfolios and key assumptions such as carbon costs.

Fig. 32 Scope of transition risk scenario analysis by Asian banks

Different banks use different scopes for their scenarios

Bank	Scenario target	Sectors	Geography	Timeline
Mizuho	2°C	▪ Power ▪ Oil, gas & coal ▪ Automobiles	Global	2050
MUFG	1.5°C	▪ Energy ▪ Utility ▪ Automotive	Global	2050
SMFG	1.5°C	▪ Power ▪ Energy	Global	2050
Shinhan	2°C	▪ Unclear	Unclear	2030
DBS	2°C	▪ Agriculture ▪ Chemicals ▪ Energy ▪ Mining & Metals ▪ Real estate and transportation	Unclear	2030
	2°C	▪ Power ▪ Automotive	Unclear	Unclear
OCBC	2°C	▪ Agriculture and Forestry ▪ Chemicals ▪ Energy ▪ Mining & Metals ▪ Transportation	Unclear	2030
UOB	2°C	▪ Mining & Metals ▪ Energy ▪ Transportation ▪ Chemicals ▪ Cement manufacturing ▪ Agriculture ▪ Forestry ▪ Infrastructure	Unclear	Unclear
KBank	2°C	▪ Power	Thailand	2040

Source: Asia Research & Engagement, company reports

Investor expectations

Banks should use 1.5°C for planning

Banks should assess the financial implications of transition risks to credit portfolios using a scenario in which temperature rise is limited to 1.5°C with low expectation of overshoot such as the IEA's Net Zero by 2050 scenario. There needs to be clear explanations on how banks factor the results into credit decisions, such as credit downgrades or setting caps on sector exposures. The results should inform engagement with clients. Banks should disclose potential impacts on their strategy.

Communicating clear methodology is also important. This means clearly outlining the scope of the analysis in terms of sectors and geographies, key assumptions, modelling tools or database used. The scope should go beyond power and energy sectors and expand to other sectors facing growing transition risks, such as steel, cement, and automotive.

Recommendations

- Conduct a transition risk analysis using a 1.5°C scenario. Expand the scope to include all sectors facing transition risks and key operating geographies.
- Communicate how relationship managers use the results with clients.
- Communicate how the credit teams factor the results into credit decisions, such as credit downgrades or caps on sector exposures.
- Communicate the impact on the strategy.
- Provide the full methodology.

Good practice example

ING provides detailed scenario analysis

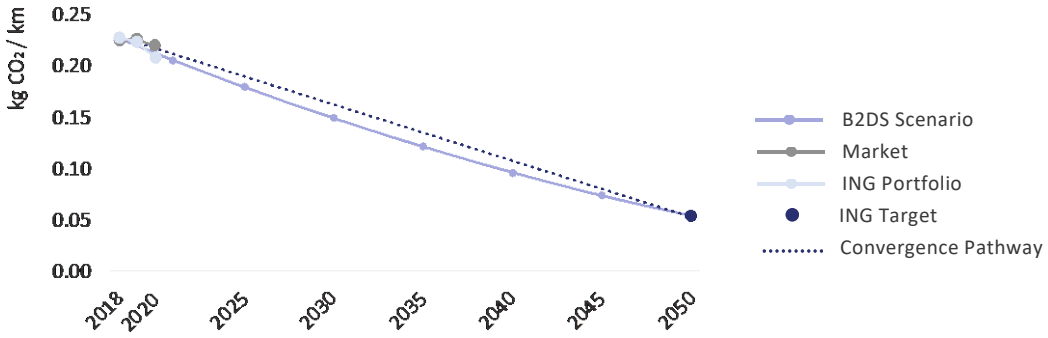
ING monitors transition risks across its loan book under the IEA's B2DS and SDS scenarios. The analysis focuses on sectors including power, oil & gas, automotive, shipping, aviation, steel, cement, residential mortgages, and commercial real estate. For each sector, ING provides discussion on loan exposure size and how the carbon intensity of its portfolio compares against the Paris-aligned scenario, and what actions they are taking.

And detailed pathways for multiple sectors

For example, ING reported that its automotive portfolio, representing EUR 2.6 billion, saw a shift from internal combustion engines to battery-electric vehicles with the share of the former declining from 93% in 2019 to 86% in 2020. There was a 3.8% outperformance in portfolio carbon intensity against the scenario benchmark. In the same year, ING enhanced selection criteria for the automotive sector to emphasise client commitment to sustainability to "reach lower carbon emission in products, production, and supply chain and/or an aim to align with the Paris Agreement".

Fig. 33 ING's automotive pathway to zero tailpipe emissions

ING is outperforming its carbon intensity target for auto



Source: ING

Pricing the risk: physical risk scenario analysis

Why is this important?

McKinsey finds a billion people in Asia will have lethal heatwave exposure under RCP8.5

Changes in the physical climate will affect many economic and business activities. This will in turn affect the risks for bank clients. A McKinsey report, *Climate risk and response in Asia*, shows that a billion people in Asia will live in areas with regular exposure to lethal heatwaves by 2050 under the RCP8.5 scenario. Aside from health impacts and loss of life, the loss of outdoor working hours would cut Asian GDP by US$4.7 trillion. In addition, by 2050 floods will affect assets with a capital stock of US$1.2 trillion each year.

Banks need to identify where they have exposure to mitigate related risks, whether through supporting clients to address risks or by reducing exposure.

What do we see in the region?

12 banks now have physical risk analysis

From a standing start two years ago, banks have begun to make progress on physical risk analysis. 12 of the 32 banks (38%) carry out scenario analysis for physical risks. Seven banks use RCP8.5, the IPCC scenario that reflects more limited action to mitigate climate change. These seven banks are from developed markets.

Only KB and Shinhan show how they reflect physical risk analysis in lending

The banks still have a long way to go. KB and Shinhan are the only ones that state they reflect physical risks in lending processes. It would help investors if all banks can provide more detail on how they are using physical risk scenario analysis in credit assessment.

7 banks assess physical risks with a high-risk scenario

There is more work remaining to expand the scope of analysis. The seven banks using RCP8.5 cover floods, but only a few address other risks including heatwaves, changes in infectious diseases, and sea level rise. Many banks only cover domestic assets or do not specify the geographic scope of their analyses. The timelines are not always clear.

Fig. 34 Scope of physical risk scenario analysis by Asian banks

Bank	Worst-case scenario	Risk types	Geography	Portfolio scope	Timeline
Mizuho	RCP8.5	Typhoons and other storms (and consequent business stagnation)	Domestic	Mortgaged real estate	2050
	RCP8.5	Change in infectious disease and heatstroke	Unclear	Overall credit	2100
MUFG	RCP8.5	Floods	Global	Overall credit	2050
SMFG	RCP8.5	Water disasters	Global	Corporate customers	2050
KB	RCP8.5	Floods, precipitation, landslides etc	Domestic	Loans, property mortgage	Unclear
Shinhan	RCP8.5	Rainfall, torrential rains, landslides, forest fires	Domestic	Real estate assets for retail mortgage and corporate loans/investment	Unclear
DBS	RCP8.5	Water stress, flood, heatwave, cold wave, hurricane, wildfire, sea level rise	Unclear	Sample customers in Energy, Mining & Metals	2030
	RCP8.5	Cyclones, sea level rise, etc.	Hong Kong	Property-secured lending	2060
OCBC	RCP8.5	Water stress, floods, heatwaves, cold waves, hurricanes, wildfires, and coastal floods	Unclear	Agriculture & forestry, real estate, utilities	2050

Source: Asia Research & Engagement, company reports

Banks should use analysis for insight, not to dismiss the issue

Analysis can be misinterpreted, for example by spreading the impact of an extremely severe risk over long periods. SMFG projects credit costs from water-related disasters under the RCP8.5 scenario at JPY55-65 billion during 2019-2050. The bank then puts this into a per-year average value of JPY2 billion, drawing a conclusion that the impact is “limited”.

But what could be an existential cost in one financial year seems relatively survivable when averaged over three decades.

Such conclusions, based on a limited scope of issues and geographies, can become a barrier to taking appropriate action. It is preferable to use the analysis in stress tests to understand whether organisations can withstand major shocks at a point in time.

Physical risk analysis can drive detailed Business Continuity Planning

Risk mitigation measures should identify high potential risk clients and assets and take steps to ensure clients have mitigation measures or to reduce bank exposure. For example, Kansai International Airport had major floods in 2018 following runway sinking, sea level rise, and Typhoon Jebi. According to news reports, this cost billions of yen to the airport and insurers and led to tens of billions of yen in lost revenues for the surrounding economy. The airport's Business Continuity Plan covered earthquakes and tsunamis, but not typhoons.

Investor expectations

Banks should use a high-risk scenario for risk planning, such as RCP8.5

Banks should assess the financial implications of physical risks on credit portfolios under adverse scenarios, such as RCP8.5 (4°C) or those using higher temperature rise. Banks should communicate how they factor these outputs into credit decision-making and client engagement processes.

Models should include chronic stresses, not just acute ones

Modelling should go beyond acute physical risks like storms and floods to consider chronic stresses such as productivity loss from heatstroke. Banks should consider the concerted effects of different physical risks. Analysis should cover all key territories where banks have exposure. Communicating clear methodology is again vital, as it has been throughout this report. This means clearly outlining the scope of the analysis in terms of risk types and geographies, key assumptions, modelling tools, and the databases used.

Recommendations

- Conduct a physical risk analysis using a high temperature rise scenario, such as RCP8.5. Expand the scope to cover both acute and chronic shocks. Consider the concerted effects of potential risks.
- Communicate how banks factor the results into credit decisions.
- Provide the full methodology.

Good practice example

Citibank analysis shows US power utility production decline of 13.2% by 2040

Citibank conducts a pilot analysis on its utility portfolio in the US. The analysis looks at the implications of three extreme weather events (i.e., cyclone, excessive heat, and storm surge) and incremental climate change. Under the RCP8.5 or 4°C scenario, the analysis projects an average decline in generation production of 13.2% by 2040. Citibank observes that without adaptation measures half of the sample portfolio would suffer a credit downgrade of at least one notch. The bank also provides detailed explanations on methodologies including the assessment logic and data source.

Policy

The major Asian economies are now subject to national net-zero commitments. Industry regulators are creating policies to incentivise or force markets to abide by these commitments over the next decades.

Banks need strong policies to proactively address climate risks

Against this backdrop, Asia's banks face a stark choice. They can set policies that anticipate regulatory or market developments and position themselves to capture opportunities and avoid risks. Alternatively, they can take a reactive approach only shifting practices and relationships when clients are forced by regulation, in response to credit downgrades, or when reputational risks become too high.

But banks only averaged 26% on policy indicators

The first option is clearly better. However, our review shows that the current policies at the major Asian banks fall far short of what is necessary to ward off climate-related risks in bank portfolios, let alone address the challenges from climate change. Policy has the weakest performance of all our assessment categories. On average, the banks meet the threshold for only 26% of the Policy indicators despite basic, low bar standards.

They need to align to Paris and commit to net zero financed emissions

The first step is for banks to follow their own national governments and align with the Paris Agreement by making timebound commitments for net-zero financed emissions. These commitments are necessary: they set the policy framework to stop financing high-carbon assets that have durations spanning decades. But they are not sufficient.

Banks must take concrete steps in the short and medium term. Without clear policies across carbon-intensive business sectors, banks could finance long-term projects which will face write-downs and / or emit carbon in breach of temperature targets.

With clear lines in the short- and medium- term on what they will no longer finance

In the short term, policies should support constructive dialogue with clients on how to transition. But they also need to prohibit finance for activities incompatible with climate targets. Banks should set minimum standards to highlight what they will not finance covering both projects and corporate clients. A failure to put these standards in place will expose banks and their clients to growing regulatory and reputational risk where weak policies contrast with efforts to publicise growth in sustainable financing.

This section reviews policies in the following areas:

- Commitment to net-zero financed emissions
- Coal power
- Gas power
- Forest risk commodities
- Other high-carbon industries

Commitment to net-zero financed emissions

Why is this important?

Banks risk falling behind their own national policies

The best way for banks to stay ahead of tightening policy is to make a long-term commitment to only provide finance in line with the Paris Agreement. At a minimum, banks should align with national policy, which for most of the region requires a net-zero target.

Policy

A long-term commitment helps leadership, credit, and clients to organise

These commitments are necessary to provide guidance and long-term objectives for bank leadership, credit teams, and relationship managers to work towards and to discuss with clients. But they are not sufficient to future-proof lending portfolios. Banks need to create sector-level plans over shorter timeframes to guide action. Plans should be set in line with scientific requirements and based on accepted carbon accounting methodologies or risk failing to achieve the desired results. These steps reduce the risk of policy shocks and will enable banks to manage their portfolios in a systematic manner while avoiding sectors subject to increased carbon regulation.

What do we see in the region?

9 banks now align to national net-zero targets – the majority still do not

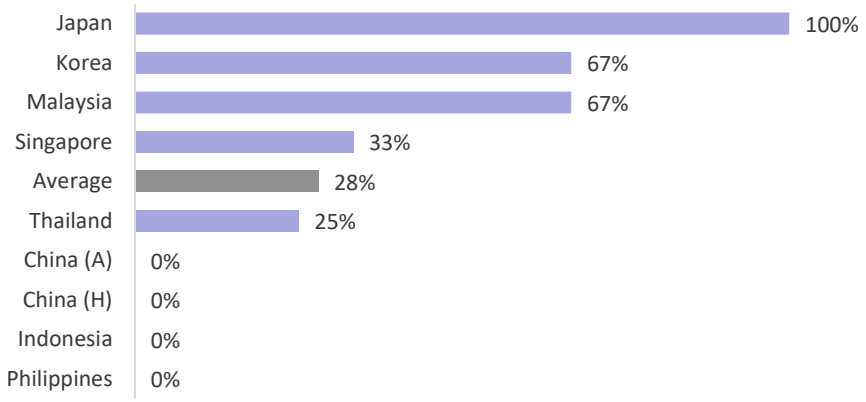
In 2020, only one bank, Shinhan, had a commitment to net-zero financed emissions. In 2021 this figure increased to nine out of 32 banks (28%). While the progress is encouraging, this still means most banks have not made long-term commitments and are now behind national economic policies in their domestic markets. This creates clear risks for banks. Many highly carbon intensive long-duration assets receiving finance now will become uncompetitive as governments introduce or strengthen carbon regulations and markets evolve towards low carbon solutions.

Maybank, CIMB, and KBank are developing market banks with net-zero policies

Most of the net-zero commitments are from the developed market banks in Japan, Korea, and Singapore. Malaysia's Maybank and CIMB also stepped up their game by announcing net-zero financed emissions by 2050. KBank announced a commitment to align with Thailand's net-zero goals of 2065, although without stating alignment with the Paris Agreement. Some banks, such as Hana, have net-zero targets that miss the mark as they only cover the banks' direct operations without addressing emissions from their loan portfolio.

Fig. 35 Does the bank commit to net-zero financed emissions?

Japan leads Korea and Malaysia, with Singapore behind



Source: Asia Research & Engagement

KB and Shinhan are the only banks with interim targets

So far, Shinhan and KB are the only institutions with short- and medium-term targets. Seven banks have joined the Net Zero Banking Alliance (NZBA), which stipulates disclosure of interim targets for the carbon-intensive sectors within 18 months of joining.

Many banks will need to accelerate to meet these timelines. SMFG only commits to producing interim targets for power and energy sectors by March 2024. The target scope may be too narrow and timeline too slow to effectively manage the risks across their portfolio. For the power sector alone, the IEA states that the 2050 overall net-zero timeline requires the electricity sector emissions to reach net-zero by 2035 in advanced economies.

Policy

KB and Shinhan state that they use a science-based framework to set targets, referring specifically to the Science-based Target initiative (SBTi). Most banks with net-zero targets have joined the Partnership for Carbon Accounting Financials (PCAF), committing to disclose financed emissions using the PCAF standards within three years of signing. We could not find this specific reference for DBS, Maybank, or KBank.

Fig. 36 Net-zero financing commitments

Bank	Net-zero timeline	Joined NZBA?	Interim targets?	Disclosure standard?	Commit to SBTi?
Mizuho	2050	Oct 2021	-	PCAF	-
MUFG	2050	Jun 2021	-	PCAF	-
SMFG	2050	Oct 2021	-	PCAF	-
KB	2050	Apr 2021	Y	PCAF	Y
Shinhan	2050	Apr 2021	Y	PCAF	Y
CIMB	2050	Sep 2021	-	PCAF	-
Maybank	2050	-	-	-	-
DBS	2050	Oct 2021	-	-	-
KBank	2065	-	-	-	-

Note: A dash indicates that the information is not publicly available.
Source: Asia Research & Engagement

Investor expectations

Banks should have long-term net-zero targets

Banks should make a clear and firm commitment to bring their portfolio emissions in line with the temperature goals of the Paris Agreement. For developed economies, this dictates net-zero financed emissions by 2050.

And clear short- and medium-term implementation plans

In addition to long-term commitments, there should be short- and medium-term plans for each sector with strong reductions in the earlier years. The plans should include the types of action and timelines needed for the sector to meet its transition targets. Sectors such as power, where transition is easier, should have shorter pathways to net-zero: the IEA states net-zero by 2035 for advanced economies and 2040 for the rest.

Banks should state support for the Paris Agreement and national policy

Banks in developing economies should at minimum follow national net-zero targets, supplemented with a clear statement to align with the Paris Agreement. Timelines should be brought forward as new technologies, policies, and business models allow adoption of low carbon solutions.

Plans should be science-based

Targets should be science-based, using scenarios without over-reliance on negative emissions technologies as these may prolong the life of carbon-intensive assets. Banks should also adopt widely accepted carbon accounting methodologies for a meaningful analysis of their baseline and to enable comparisons with peers.

Recommendations

- Set a long-term commitment for financed emissions to reach net-zero. This should align with the Paris Agreement or better.
- Set out clear timebound short- and medium-term targets and sectoral plans.
- Use science-based targets and widely accepted carbon accounting methodologies.

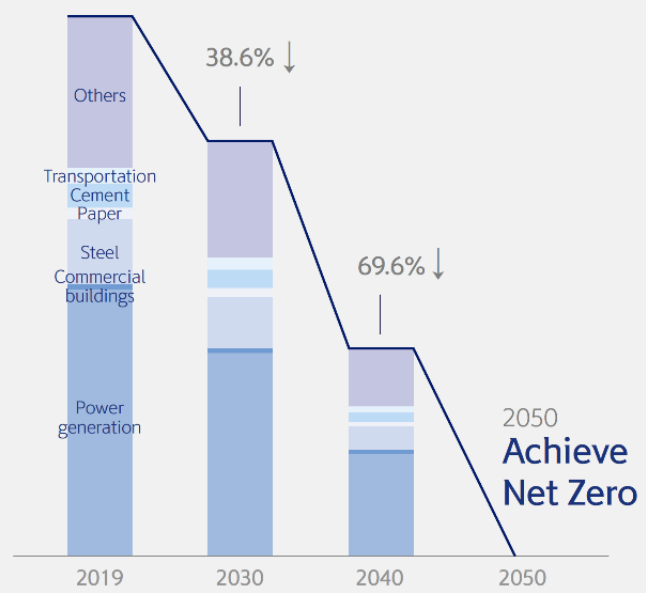
Good practice example

Shinhan sets out interim targets for its financed emissions.

Shinhan Financial provides a decarbonisation pathway for its financed emissions. This uses 2019 as a baseline and sets reduction targets of 39% by 2030, 70% by 2040, and net-zero by 2050. The target is based on the SBTI's 2°C scenario – before the SBTI raised the minimum ambition to 1.5°C. Shinhan committed to using PCAF as the accounting standard for assessing its financed emissions. Investors should request for tightening to the 1.5°C scenario and more detail on sector pathways.

Fig. 37 Shinhan Financial's decarbonisation pathway (SBTi 2°C)

The next step for Shinhan is clear plans beyond the targets



Source: Shinhan Financial

Coal power

Why is this important?

Asia is still building coal-fired power capacity

Coal power is highly carbon intensive. The electricity sector is the single largest source of energy-related carbon emissions, and the combustion of coal accounted for 72% of the sector's carbon emissions in 2020 according to the IEA. Scenarios show that there is no way to meet climate targets while adding new coal power capacity and without phasing out coal power entirely. This is particularly critical in Asia, which in 2020 was host to 81% of the global total for approved or under construction coal capacity.

But must phase it out of the power mix by 2040 to meet climate targets

The scenarios typically show coal phase out timelines of 2030 for developed markets and 2040 for developing markets. These timelines are inconsistent with new plant construction as a typical minimum life of 30 years would have a plant operational beyond 2050.

Developing markets are also taking relevant steps

Government policy and corporate behaviour are aligning with such shorter timelines even in developing markets. For instance, Chinese authorities will no longer finance overseas coal projects, while the IEA's decarbonisation roadmap undertaken with Chinese authorities indicates a coal power phase out date of 2045 for the market under announced policies. Elsewhere, Malaysia's state listed power company, Tenaga Nasional Berhad, has already announced that it will phase out coal when its power purchase agreements lapse, which is by 2045.

What do we see in the region?

Banks face risks where they finance new coal power

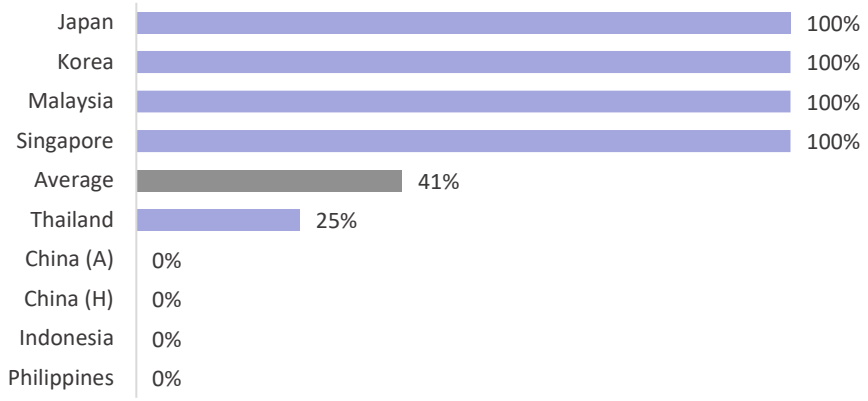
The levels of commitment made so far are nowhere near sufficient to support the Paris goals, let alone national objectives across the region. The survey uses simple low bar questions and still finds most banks do not have carbon-related restrictions on coal power. Even those with some level of restriction typically have loopholes for certain coal power projects or allow provision of corporate finance to power utilities that are still expanding coal power fleets. This is not only bad for the planet, it is bad for business.

14 banks have clear coal power restrictions

14 of the 32 banks (44%) have clear restrictions on coal power financing. 13 of these involve commitments to no new coal power financing covering key operating markets. But in many cases, policies have loopholes, such as for negative emissions technologies, or excluding parts of group subsidiaries and geographies. In some cases, banks state that they will support coal where developing markets require it for stable energy supply. But continuing with coal will not help emerging or frontier markets. It will lock them into structurally higher power costs with dirty grids. This will make it harder for manufacturers to sell into international markets. It is better to leapfrog to cleaner technologies while also gaining energy independence from fossil imports.

Fig. 38 Does the bank have a timeline for stopping financing for new coal power projects?

Malaysia joins developed markets on restricting coal power financing



Source: Asia Research & Engagement

Unfortunately, no banks in the coal-heavy markets of China, Indonesia, or the Philippines make clear commitments to stop financing new coal power plants. Bank of China's commitment to stop financing overseas coal plants is a good start but leaves out its domestic financing.

Only 4 banks have coal-power related restrictions for corporate lending

Most no new coal policies only apply to specific projects, rather than finance provided to power companies that manage or build coal power plants. CIMB, DBS, OCBC, and UOB have introduced some restrictions for lending to companies with coal power heavy portfolios.

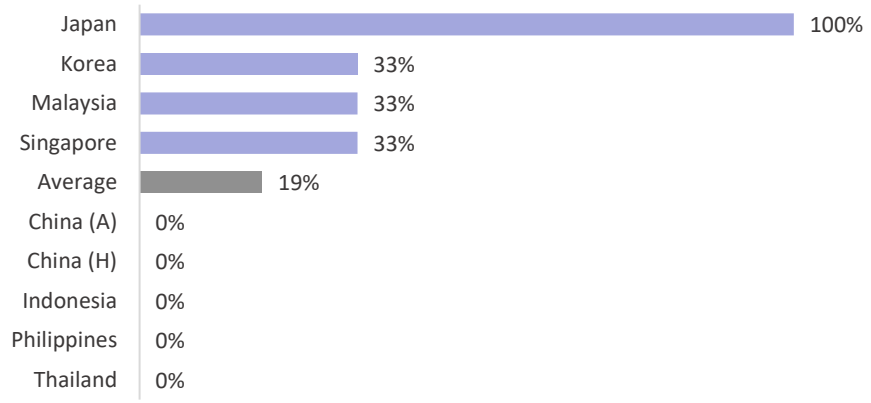
Policy

Investors should look for further tightening in future to prohibit any clients that add new coal capacity.

Only 6 banks have coal phase out timelines – only 2 cover corporate lending

There are six banks committed to phasing out coal power finance for coal power projects. CIMB and DBS go further, with commitments to phase out coal power balances covering both project and corporate loans by 2039 and 2040, respectively.

Fig. 39 Does the bank have a timeline for phasing out existing coal power project balances?



Source: Asia Research & Engagement

Gaps remain for Japanese and Korean bank coal policies

The Japanese and Korean banks have weaker than expected policies. In both countries there are national net-zero commitments that will require fast decarbonisation of the power sector and implicitly require a coal power phase out. The banks typically provide significant funding to domestic power utilities that must act to meet national commitments – but have yet to do so.

The three Japanese banks provide phaseout timelines for coal power project financing that are set for 2041, more than a decade after the IEA's recommended timeline for developed economies. Hana, the only Korean bank with a coal power phaseout timeline, sets it to 2050.

Fig. 40 Financing restrictions for coal power sector

Bank	No new coal?			Phaseout coal by?			Exclusion?
	PF	CF	UW	PF	CF	UW	
Bank of China	-*	-	-	-	-	-	Applies to overseas projects only
Mizuho	Y	-	-	2041*	-	-	Excludes plants essential to stable energy supply; replacement contributing to GHG reduction; etc
MUFG	Y	-	-	2041*	-	-	Excludes plants with CCUS, mixed combustions, etc
SMFG	Y	-	-	2041*	-	-	Excludes plants with CCUS, etc
Hana	Y	-	Y	2050	-	-	-
KB	Y	-	Y	-	-	-	-
Shinhan	Y	-	Y	-	-	-	Applies to Shinhan Bank only
CIMB	Y	-*	Y	2040	2040	2040	Excludes existing commitments; Philippines & Vietnam
Hong Leong Bank	Y	-	-	-	-	-	Excludes brownfield projects until June 2026
Maybank	Y	-	-	-	-	-	-
DBS	Y	-*	Y	2039	2039	-	Excludes existing commitments (Jawa 9 & 10)
OCBC	Y	-*	-	-	-	-	
UOB	Y	-*	-	-	-	-	-
Bank of Ayudhya	Y	-	-	-	-	-	-

Note: "PF" denotes project financing, "CF" corporate financing, and "UW" underwriting. "Y" denotes a clear, publicly available restriction covering minimum carbon intensities/ technologies/ geographies, or commitment to stop financing. "-" denotes weaker or undisclosed policies. Asterisk (*) denotes insufficient policies. Bank of China's no new coal policy excludes domestic projects. CIMB, DBS, OCBC, and UOB policies for corporate clients do not prohibit clients from adding new coal capacity.
Source: Asia Research & Engagement, company disclosure

Investor expectations

Investors expect clear policies for phasing out coal power financing

Banks should provide clear and comprehensive policies to stop new coal power financing and to phase out existing coal power financing in line with the Paris Agreement. The restrictions should cover all financing and capital market activities.

Developed market clients should transition first

The policies should be structured to transition power clients in developed markets earlier than developing markets. For developing markets, banks should require clients to align with credible national pathways at a minimum. Where there have not been sufficient technical and economic feasibility studies to set out how the country will meet net-zero targets, banks should actively seek such plans from governments – or work with governments to create and shape new policy.

Banks should communicate clear measures to prohibit their clients from selling off coal assets for others to operate. Although this can result in portfolio decarbonisation, it does not result in actual decarbonisation.

Policy

Fig. 41 Recommended policy steps for coal power financing

Issue area	Required standard
Product scope	Cover all financing and capital market activities, e.g., project finance, corporate loans, underwriting
Coal exposure scope	Coal power related projects or any corporate clients with operating coal power plants
New coal power financing	Immediately stop financing of: ▪ New coal projects ▪ Clients adding new coal capacity to power mix
Existing coal power financing	Clients in advanced economies: ▪ Phase out all unabated coal plants by 2030 in advanced economies. For other economies, phase out unabated coal by 2040 or at the latest in line with the credible national pathways (e.g., 2045 for China). Tighten the timeline where possible. Where national pathways are not available, engage governments to produce them. ▪ Not finance CCS retrofits unless there is a technically feasible and commercially viable plan, with demonstrable emissions reduction benefits (we are not aware of any examples). ▪ Prohibit selling off the coal assets for others to operate. ▪ Formulate Paris-aligned decarbonisation strategies using specific coal exposure thresholds or carbon intensity of the power mix in the medium to long term.

Note: The policy recommendations reflect available studies on Paris-aligned pathways for the electricity sector. The referred resources include IEA's Net Zero by 2050 (2021), An Energy Sector Roadmap to Carbon Neutrality in China (2021), Global Hydrogen Review (2021), and the Role of Gas in Today's Energy Transitions (2019); IRENA's Reaching Zero with Renewables (2020); Science Based Targets initiatives' Setting 1.5°C-aligned science-based targets: Quick start guide for Electric Utilities (2020); Climate Analytics' Global and regional coal phase-out requirements of the Paris Agreement: Insights from the IPCC Special Report on 1.5°C (2019).
Source: Asia Research & Engagement

Fixed thresholds need to be country specific

Investors will carefully review bank policies to ensure they align to the Paris Agreement. Applying fixed capacity or intensity thresholds can often miss the mark. If thresholds are too high, they provide limited exclusions. If too low, they can prevent the supply of transition finance for the coal-heavy grids seen across the region.

Banks should not rely on CCS plans to bail out fossil fuel plants

Banks should be wary of clients that present plans reliant on large-scale rollout of negative emissions technologies. Carbon capture, and storage (CCS) technologies have shown limited commercial viability outside enhanced oil recovery. While necessary to some extent, such as for peaking capacity or blue hydrogen production, CCS generation only accounts for 10% of peak fossil fuel capacity in 2025-30 according to the IEA's NZE scenario. Similarly, there are concerns that co-firing with ammonia increases costs and extends the life of coal plants rather than reducing emissions.

Recommendations

- Set clear policies to stop financing of new coal-fired power plants across all financial products.
- Commit to phase out coal power balances by 2030 in developed markets and 2040 for the rest. At minimum, the timeline should be in line with credible national pathways.
- Set clear policies to not finance CCUS retrofits unless there is a technically feasible and commercially viable plan, with demonstrable emissions reduction benefits.
- Engage power clients to formulate Paris-aligned strategies. Disclose summaries of engagement with the sector.
- Prohibit selloff of coal assets for others to operate.

Good practice example

BNP Paribas has clear restrictions, particularly for new power utility clients

BNP Paribas sets out clear requirements to bring its coal-fired power financing in line with the Paris Agreement. The policy statement covers all financing, advisory, and investment services and provides specific standards in the short, medium, and long-term. For corporate financing, these include not adding new operational coal power capacity and strategies to phase out coal completely by 2030 (for EU and OECD countries) and 2040 for other markets. The bank extends the policy to any corporate clients with one or more coal-fired power plants.

Gas power

Why is this important?

Gas power will be less competitive as carbon prices increase

Banks will need robust policies for gas power. From a climate mitigation perspective, the IEA's net-zero emissions scenario has unabated gas power generation peaking by 2030. By 2040 unabated gas has fallen by 90% from its 2020 level, with its share in global electricity generation falling to near zero or 0.4% by 2050. This requires the repurposing or closure of new gas plants long before they reach a typical 30-year lifespan. Such plants will likely face significant costs for carbon emissions or other regulations.

And renewables prices decline

Competition from renewables will also affect profitability. In a 2021 report, the Carbon Tracker Initiative found that by 2030, renewables with battery storage will become cheaper than half of the operating gas-fired power plants in Europe and in the US.

Banks should carefully consider lending for gas power without robust late life plans

Banks should be increasingly conservative about supporting clients that are seeking to add new gas capacity, or related infrastructure, and ensure that there are robust plans in place to handle competitive pressure and regulation after the first decade. Banks should not extend or arrange finance for new projects where such plans do not exist or are not credible.

What do we see in the region?

Some banks mention climate risk for gas power

Overall, the banks provide very little information on managing the climate risks of natural gas. China Construction Bank, Ping An Bank, Mizuho, Shinhan, and Siam Commercial Bank mention the relevance of climate risk for the gas-fired power segment but do not provide specific restrictions.

Fig. 42 Does the bank provide a public policy that restricts financing for gas power?

But no banks provide clear policies for gas power

Average	0%
China (A)	0%
China (H)	0%
Indonesia	0%
Japan	0%
Korea	0%
Malaysia	0%
Philippines	0%
Singapore	0%
Thailand	0%

Source: Asia Research & Engagement

Policy

Banks refer to client discussions without presenting standards

Mizuho refers to gas-fired power in the context of client engagement, stating it will "carefully consider" transactions with clients, but without providing relevant details. China Construction Bank states it will consider carbon emissions standards for the power sector financing to limit thermal power exposure but does not specify the emissions standards they hold. Shinhan says it monitors GHG emissions of power utilities, with no further details provided.

Some banks provide policies for upstream oil & gas, which we assess in the section on policies for other high-carbon sectors. Typically, these cover controversial activities such as arctic exploration and oil sands, without providing clear prohibitions.

Investor expectations

Banks should set out clear steps for gas-heavy power utility clients

The pathways for net-zero will require work to reflect changing economic, political, and technical circumstances. Despite the uncertainties, banks can and should take steps based on current knowledge, including:

- **Setting a timeline to stop financing gas power.** The IEA projects the gas supply to peak by 2030 and fall to near zero by 2050. The end date is already sooner than the usual design life for a gas-fired power plant. Consequently, any new build will have to have both excellent economics in the short term and a robust transition plan for its later life. With each passing year, there is less prospect of new gas fired power plants making an economic return while operating in line with the Paris-aligned scenarios.

- **Committing to reducing unabated gas power in line with the Paris Agreement.** According to the IEA scenario, carbon emissions from unabated gas for power and heating should reduce by 91% from the 2020 level by 2040, then by 96% by 2050. Developed economies should bring down these emissions sooner.

- **Assessing and disclosing reliance on negative emissions technologies.** It is doubtful CCS retrofits are viable for any gas assets. Banks need to confirm both the technical and economic viability of such proposals when financing gas capacity. This will require detailed discussions on modelling with clients, such as on whether gas power assets can have demonstrable ROI after CCS retrofits.

Recommendations

- Set clear policies to finance only the gas-fired power plants with strong economics and a robust transition plan under Paris-aligned scenarios.
- Set a timeline to stop financing of new gas-fired power plants across all financial products.
- Commit to reducing gas power balance in line with the Paris Agreement. Review the technical and economic viability of negative emissions technologies when financing any retrofits.

Good practice example

South Africa's Nedbank makes clear commitments to phase out fossil fuels

In April 2021, South Africa's Nedbank drew a line on fossil fuel financing by announcing a commitment to zero fossil fuel exposures by 2045. The bank sets out clear decarbonisation timelines for upstream fossil fuel extraction activities and power generation to allow for an orderly exit. Nedbank's Energy Policy states they will not provide financing for gas power generation from 2030 unless the financing is for backup supply for renewable projects, replacement of existing coal/oil plants, or mid-merit or peaking capacity needed to manage peaks and troughs in supply and demand – only to the extent necessary for a zero-carbon energy system.

Policy

This commitment has added significance as it covers all fossil fuels, instead of just coal, and comes from a bank in South Africa, an economy with lower incomes, a fossil fuel heavy power mix, and significant mining sector. These are all factors that have been cited as reasons for delaying steps to address climate change in Asian nations.

Forest-risk commodities

Why is this important?

Deforestation creates carbon and reputational risks

Banks need to introduce policy to restrict financing linked to deforestation. Failure to do so increasingly carries reputational and financial consequences. In 2019, for example, the EU decided to remove palm oil from the list of approved biofuels over deforestation concerns in Malaysia and Indonesia, the two largest palm oil-producing countries.

That are likely to increase following the Glasgow Leader's Declaration

Scrutiny is set to increase. The Glasgow Leaders' Declaration on Forests and Land Use saw governments representing more than 90% of global forest areas commit to "halt and reverse forest loss and land degradation" by 2030. In November 2021, the UK passed a new Act and the EU proposed regulations that will strengthen due diligence requirements on deforestation for companies importing and using forest-risk commodities.

What do we see in the region?

The 32 banks provide USD50 billion to forest-risk sectors

According to the data by Forests and Finance, since 2016, the 32 banks covered in this benchmark extended USD49.6 billion, or 21% of total global loans and financing provided for forest-risk commodities (defined as beef, palm oil, pulp & paper, rubber, soy, and timber).

But have few policies for protecting forests, most of which are weak

However, there are few policies, most of which are weak. 13 of the 32 banks (41%) communicate some restrictions concerning carbon management for forest product-related companies. Restrictions vary from requiring carbon-related certifications or commitments, to prohibiting egregious practices, or restricting financing to activities linked to forests with high embodied carbon, particularly primary forests and peatland. Compliance with national regulations or baseline practices (e.g., no illegal logging, uncontrolled fire) are not sufficient to address deforestation risks.

Not one Chinese or Korean bank has relevant policies. While China Construction Bank's 2021 interim report notes they do consider carbon emissions standards in forestry sector financing, the specific standards used remain unclear.

POSCO shows how even small exposure carries high reputational risk

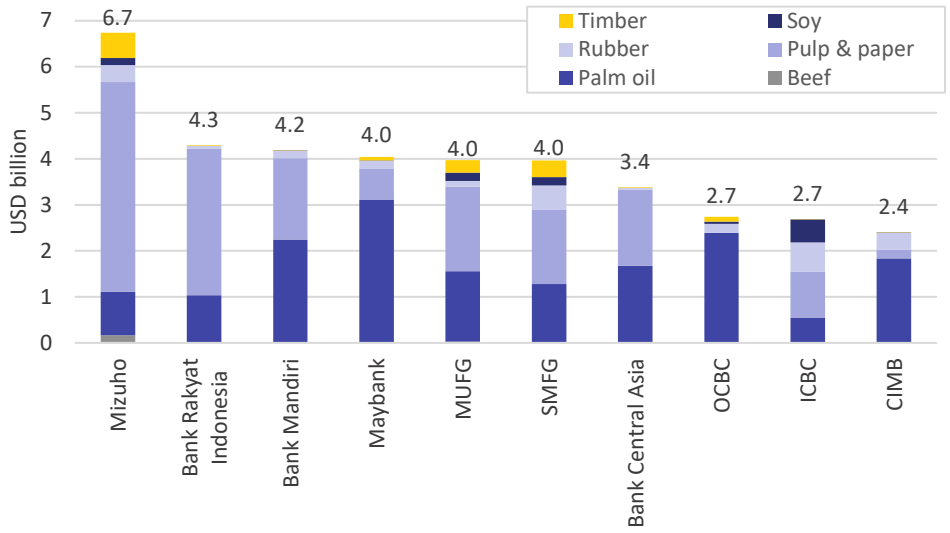
The lack of policy adoption by Korean banks may be due to their relatively limited exposure to the sector. They may wish to reconsider this, given growing reputational risk. The experience of POSCO, the South Korean steelmaking conglomerate, illustrates how any link to forest exploitation can attract unfavourable scrutiny. The company faced divestments due to the palm oil subsidiary's association with deforestation. Korea Export-Import Bank, which financed the subsidiary, was also subject to criticism.

OCBC does not have clear deforestation restrictions, despite its developed market status

Comparison with the highest exposed banks shows gaps. OCBC and ICBC are in the top ten banks (among the 32 banks reviewed in this report) providing financing for forest-risk commodities, yet neither communicate clear restrictions relating to deforestation. OCBC's policy only encourages, rather than requires, clients to adopt industry certifications and take measures to protect High Conservation Value (HCV)/ High Carbon Stock (HCS) areas.

Fig. 43 Financing of forest-risk commodities since 2016

Deforestation risk is mainly in Pulp & paper and palm oil



Note: The selection of banks is based on the ten banks (among the 32 banks) with the largest financing to the forest -risk sector since 2016. The financing data is based on corporate loans, revolving credit facilities, and underwriting.
Source: Forests and Finance (data accessed on 15 November 2021), Asia Research & Engagement

Stronger policies are often limited to the palm oil sector only

Stronger policies, such as requiring industry certifications or commitment to No Deforestation, No Peat, and No Exploitation (NDPE), are often limited to the palm oil sector. Among the ten banks that have extended the most loans and underwriting to the palm oil sector since 2016, nine banks have restrictions concerning carbon management practices. But there are gaps. Only five banks require RSPO certifications or a commitment to a NDPE policy.

Japanese banks require action plans from clients, but without consequences for failure

The three Japanese banks require customers to have RSPO certifications or to formulate a timebound action plan. But none of the banks provide a clear cut-off timeline and consequences for non-compliance, raising questions on how meaningful the policies are.

National certification schemes meet legal definitions, but have GHG management gaps

In many cases, banks set too low a bar. All Indonesian and Malaysian banks request clients to have certifications on sustainable palm oil production. While these banks mention the Roundtable on Sustainable Palm Oil (RSPO), the requirements are only for mandatory local certifications, the Indonesian Sustainable Palm Oil (ISPO) and the Malaysian Sustainable Palm Oil (MSPO). Both certifications have weak standards for carbon management.

Policy

Fig. 44 The status of palm oil sector policy for major palm oil financiers

Bank	Palm oil financing since 2016 (USD mn)	Have a public policy?	Require RSPO?	Require NDPE?	Conduct ongoing due diligence?	Report on ongoing due diligence?
Bank Central Asia	1,677	Y	-	-	Y	-
Bank Rakyat Indonesia	1,032	Y	-	-	-	-
Bank Mandiri	2,245	Y	-	-	-	-
Mizuho	946	Y	Y	-	-	-
MUFG	1,532	Y	Y	Y	-	-
SMFG	1,274	Y	Y	-	-	-
CIMB	1,830	Y	-	(mid-2022)	Y	Y
Maybank	3,117	Y	-	Y	Y	-
DBS	1,347	Y	Y	Y	Y	-
OCBC	2,385	-	-	-	-	-

Note: In assessing public policy, "Y" notes where there is a clear, publicly available restriction concerning carbon management. "-" symbolises that there is no clear public statement.
The selection of banks is based on the ten banks (among the 32 banks) with the largest financing to the palm oil sector since 2016. The financing data is based on corporate loans, revolving credit facilities, and underwriting from Forests and Finance.
Source: Asia Research & Engagement, Forests and Finance (data accessed on 15 November 2021)

7 banks refer to ongoing due diligence, but only CIMB reports progress

A further concerning aspect is that very few banks communicate a process to ensure forestry sector clients adhere to the relevant policies after receiving funds. Only seven banks mentioned ongoing due diligence on the relevant sector policies, and only one, CIMB, reported on the progress.

Investor expectations

Banks should have clear and comprehensive policies

Banks need to set clear and comprehensive policies to prohibit financing of projects and clients associated with egregious forest and peat exploitations. The policies should extend beyond palm oil to cover all forest-risk commodities including pulp & paper, timber, rubber, and animal proteins and feed. Banks should require clients to adopt industry certifications that provide sufficient assurance on carbon stock management (e.g., RSPO for palm oil). The restriction should cover all financing products and services.

Banks should conduct ongoing due diligence with clear criteria, processes and consequences of non-compliance, sources of information, along with reporting on client commitments.

They can also use online tools, like SPOTT, to check the status of clients

Banks can utilise available monitoring tools and frameworks. These include SPOTT, a transparency assessment tool developed by the Zoological Society of London (ZSL) that rates large listed and private palm oil, timber, and natural rubber companies on their ESG disclosures. CDP Forest and Forest 500 also have data on companies involved in forest related supply chains. There is not yet a widely accepted assessment tool for companies with exposures animal proteins. The Taskforce on Nature-related Financial Disclosures (TNFD) is set to present a framework companies and financiers can use to assess and report on nature-related risks by 2023.

Recommendations

- Set clear policies to prohibit any financing associated with deforestation or peat clearance across all forest-risk commodities.
- Require industry certifications with sufficient assurance on carbon stock management.
- Conduct and report on ongoing due diligence.

Good practice examples

DBS provides a clear NDPE policy

DBS' policy on palm oil requires customers to align with No Deforestation, No Peat, No Exploitation (NDPE) policies across their supply chain and to achieve RSPO certification. The policy further extends to traders, encouraging them to become RSPO members and ensure traceability. RSPO membership is an important step towards sustainability in palm oil supply chains, as demonstrated by member companies scoring around three times higher than non-members on SPOTT's latest transparency assessments.

While CIMB reports on risk reviews

CIMB provides case studies on client engagement in forestry sectors during the reporting year with information on monitoring criteria, areas of focus, assessment results and action plans. For example, the bank reported that the palm oil sector assessment in 2020 reviewed the practices of 37 facilities. CIMB did not detect violations on critical areas, but shared that there were clients with elevated risk levels and explained their progress against the action plan.

Fig. 45 CIMB's palm oil sector assessment in 2020

Highlights of Environmental and Social Risks Identified and Mitigated in the Palm oil Sector based on the 37 ESDDs conducted in 2020	
Conversion of HCS/HCV areas	No violations detected
Use of fire for land clearing	No violations detected
Respect for indigenous and customary land use rights including ensuring FPIC	No violations detected
Protection of health and safety of workers and communities	No violations detected
Use of forced, compulsory or child labour	No violations detected
Proof of legality of plantation operations	No violations detected

Source: CIMB

Other high-carbon industries

Why is this important?

Steel, cement, and transport are among hard to abate sectors

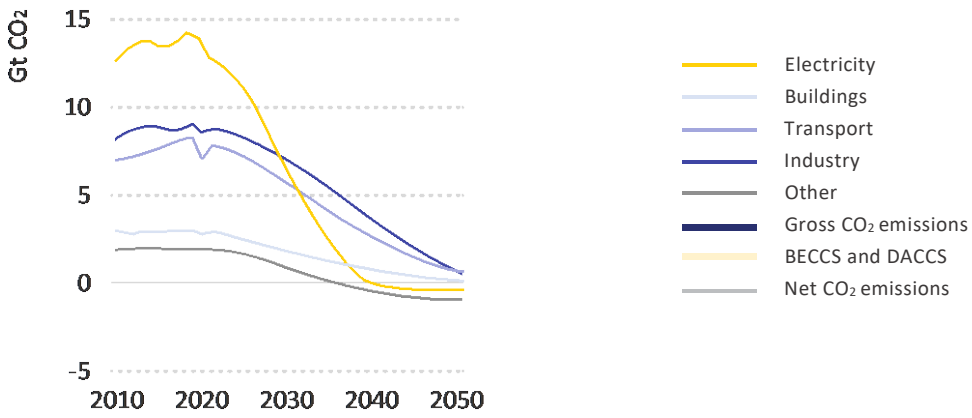
High carbon intensity sectors include upstream energy, steel, cement, transport, the built environment, agriculture, and related infrastructure. The IEA states that energy-related and industrial process CO_2 emissions totalled 33.9GtCO_2 in 2020, of which 18.9GtCO_2 (55%) came from end-use sectors excluding electricity. The Intergovernmental Panel on Climate Change (IPCC)'s 5th Assessment Report estimated that annual GHG emissions from agriculture, forestry, and other land use (AFOLU) were in the region of 10-12GtCO_2, nearly a quarter of anthropogenic GHG emissions.

Mis-timed investment could result in huge write-offs

Banks that finance these industries must consider their role, particularly for clients in heavy industrial sectors. Assets such as blast furnaces for primary steel production or cement kilns require a huge amount of capital and last decades. The IEA projects that 30% of existing heavy industrial assets will face major refurbishment decisions within the next decade should negative emissions technologies become commercial. A mis-timed, or mis-judged, investment can become too costly to operate or to refurbish. Banks need to review the timeline of technological innovations closely and challenge the assumptions that clients use to ensure that investment plans are robust considering the growing risks.

Fig. 46 IEA's Net Zero pathways for energy-related sectors

The power sector leads other energy related sectors



Source: IEA

What do we see in the region?

10 banks have clear policies for coal mining – leaving major policy gaps

While banks are expanding their approach to cover high carbon intensity areas, there are no clear policies aside from coal mining, for which ten of the 32 banks (28%) set out restrictions. Disclosure for other sectors refers to due diligence without setting clear carbon-related exclusions, including for coal using sectors, notably steel and cement.

Fig. 47 Restrictions on other high-carbon segments

Bank	Auto	Agri (ex-palm oil	Cement	Coal Mining	Oil & Gas	Real Estate	Steel
Bank of China	-	-	-	Y	-	-	-
Mizuho	-	-	-	Y	-	-	-
MUFG	-	-	-	Y	-	-	-
SMFG	-	-	-	Y	-	-	-
CIMB	-	-	-	Y	-	-	-
Maybank	-	-	-	Y	-	-	-
DBS	-	-	-	Y	-	-	-
OCBC	-	-	-	Y	-	-	-
UOB	-	-	-	Y	-	-	-
KBank	-	-	-	Y	-	-	-

Note: "Y" notes where there is a clear, publicly available restriction concerning carbon management. "-" shows where disclosure is not publicly available or there are no clear restrictions.
Source: Asia Research & Engagement, company reports

Even coal mining policies have limited scope

Even the thermal coal mining policies have large gaps, often leaving out corporate finance exposure to cover project finance only. MUFG, SMBC, and KBank limit scope to mountain top removal. None of the banks have clear discussion on how to reduce risk exposure to existing mines or mining concerns that face sharp decreases in demand. This creates clear concerns over capital allocation considering the deteriorating prospects for the industry. For instance, the IEA scenario shows coal use declining from 5,250 million tonnes of coal equivalent (Mtce) in 2020 to 2,500 Mtce in 2030 and to less than 600 Mtce in 2050.

Fig. 48 Restrictions on thermal coal mining

Bank	Restriction?			No new coal mines?			Exclusion?
	PF	CF	UW	PF	CF	UW	
Bank of China	Y	-	-	-	-	-	Applies to overseas projects only
Mizuho	Y	-	-	Y	-	-	Excludes projects essential to a country's stable energy supply
MUFG	Y	-	-	-	-	-	Applies to mountain top removal only
SMFG	Y	-	-	-	-	-	Applies to mountain top removal only
CIMB	Y	Y	Y	Y	Y	Y	Excludes existing commitments
Maybank	Y	Y	-	Y	Y	-	-
DBS	Y	Y	-	Y	-	-	
OCBC	Y	-	-	Y	-	-	-
UOB	Y	Y	-	Y	-	-	Excludes coal mines with sub-bituminous or higher-grade coal within selected anchor clients with well-established diversification strategies
KBank	Y	-	-	-	-	-	

Note: "PF" refers to project financing; "CF" corporate financing; and "UW" underwriting. "Y" denotes where there is a clear, publicly available restriction concerning carbon management. "-" shows where policies are not publicly available or there are no clear restrictions.
Source: Asia Research & Engagement, company reports

Investor expectations

Planning should cover multiple high-carbon sectors

Banks should extend policies across all high-carbon industries. At a minimum, banks should engage to ensure all clients are developing Paris-aligned pathways. Banks should provide aggregate reporting on dialogue with clients. Banks should set out clear minimum standards that new and existing clients must reach, which will tighten through time. These actions will ensure both banks and clients develop future-proof strategies.

The standards will vary across each sector. For thermal coal mines and related infrastructure, policies should restrict financing that:

- Supports any expansion of capacity
- Where there is no Paris-aligned decarbonisation / phase out strategy
- Does not ensure fair treatment for workers (including support with training / finding alternate employment)
- Does not ensure environmental remediation at the end of mine life
- Enables assets to be sold off for others to operate.

Sectors like real estate also need net-zero plans

Banks should monitor the progress of these sectors through use of currently available tools. ARE represents GRESB, which provides real estate and infrastructure benchmarking and monitoring tools that support the sector in assessing their progress on ESG integration. Banks can use the tools to assess client standards and to structure financing products incentivising the progress in ESG (e.g., Sustainability Linked Loans).

Recommendations

- Set clear minimum standards for financing carbon-intensive sectors to prohibit activities that are not Paris-aligned. Tighten standards through time.
- Require clients to develop Paris-aligned business strategies.

Fig. 49 Key milestones for energy end-use sectors: Net Zero Emissions scenario by IEA

Sector	CO_2 emissions ($GtCO_2$)		Key milestones
	2020	2050	
Iron & Steel	2.4	0.2	Global demand for steel grows by 12% from 1.8Mt in 2020 to 2Mt in 2050 ▪ Share of primary steel production using electric arc furnace rises from 0% in 2020 to 43% in 2050 ▪ Share of fossil fuels in energy use drops from 85% in 2020 to almost 30% in 2050. ▪ Key measures: energy efficiency, major increase in scrap-based production and technologies under development (e.g., hydrogen-based direct reduced iron facilities, iron ore electrolysis)
Cement	2.3	0.1	Global demand for cement remains broadly flat at 4Mt throughout 2020-50 ▪ Global clinker-to-cement ratio declines from 0.71 in 2020 to 0.57 in 2050 ▪ Key measures: energy efficiency, increased blending of clinker alternative, technologies under development (e.g., CCUS)
Chemicals	1.3	0.7	Global demand for primary chemicals grows by 30% in 2050 from the 2020 level ▪ Share of fossil fuels in energy use drops from 83% in 2020 to 61% in 2050 ▪ Key measures: efficient use of nitrogen fertilisers, energy efficiency, recycling of plastics, technologies under development (e.g., electrolytic hydrogen from renewables),
Road transport	5.5	0.3	Global passenger car fleet increases from 1.2 billion vehicles in 2020 to 2 billion in 2050 ▪ By early 2030, almost all light-duty vehicle sales are electrified in advanced economies, by mid-2030 in developing economies ▪ Electrified heavy trucks account for 30% of sales in 2030, 99% in 2050
Buildings	3	0.1	Building floor area to increase by 75% during 2020-50, of which 80% is from developing economies ▪ By 2030, all new buildings are zero carbon ready in all regions ▪ By 2050, >85% of existing buildings undergo retrofits to meet zero-carbon-ready level ▪ Key measures: energy efficiency and electrification (e.g., improved envelopes, heat pumps, energy-efficient appliances, bioclimatic and material-efficient building design), digitalisation, behaviour change

Source: Summarised from IEA's Net Zero by 2050: A Roadmap for the Global Energy Sector (2021)

Opportunity

There is a huge opportunity for Asia's banks to support transition

Climate change mitigation and adaptation solutions are hungry for finance, presenting huge opportunities for Asia's banks, whose local client base will seek to respond to increasing customer demands and regulatory requirements. Technological innovations are also changing the cost competitiveness of green products and services. Renewable energy and electric vehicles are obvious examples of industries with rapidly growing financing needs, but all sectors must respond and will see growth in cleaner areas.

With USD 5 trillion per year needed for energy according to the IEA

There are many studies on the funding gap for transition to a low carbon economy, which represents a significant opportunity for banks. The IEA has stated that the current annual investment in energy will need to increase more than twofold to USD 5 trillion by 2030 to meet net-zero by 2050. DBS analysis from 2017 in collaboration with the United Nations Environment Programme identified a cumulative funding need for ASEAN of USD 3 trillion from 2016 to 2030. Banks have already started to address this funding gap. According to BloombergNEF, the annual issuance of sustainable debt in Asia increased five-hold from its 2016 level, to US$229 billion in October 2021.

Banks need strategy, staff, and relationships to capitalise

To capitalise, banks need to identify and understand key transition needs in each sector. This will allow them to set targets and mobilise resources, including relationships and staff, not just capital. They should also distinguish between funding for green assets, which meet a credible standard, and sustainable improvement or transition financing, where the objective is to incentivise brown assets and companies to improve.

And green frameworks with governance to prevent standards from slipping

Unfortunately, bank disclosure on sustainable financing often lacks detail and is inconsistent. Many banks talk of sustainable finance initiatives without providing clear and credible frameworks that define sustainable finance. It is often unclear whether the rapid growth in green or sustainable finance is actually improving outcomes in the real world. This makes it hard for investors to understand how well banks are doing. There are very real concerns that the sustainable finance market is more focussed on the appearance of action, than delivering solutions: in short, greenwashing, with its reputational implications for banks, clients, and investors.

This section reviews the following indicators:

- Sustainable finance exposure
- Sizing the opportunity
- Building bank capacity

Sustainable finance exposure

Why is this important?

Investors want to understand whether banks are being proactive and positioning in growth areas, and whether bank behaviours are consistent with their mandates and expectations. This requires granular disclosure and appropriate frameworks to define key terms such as sustainable or green lending.

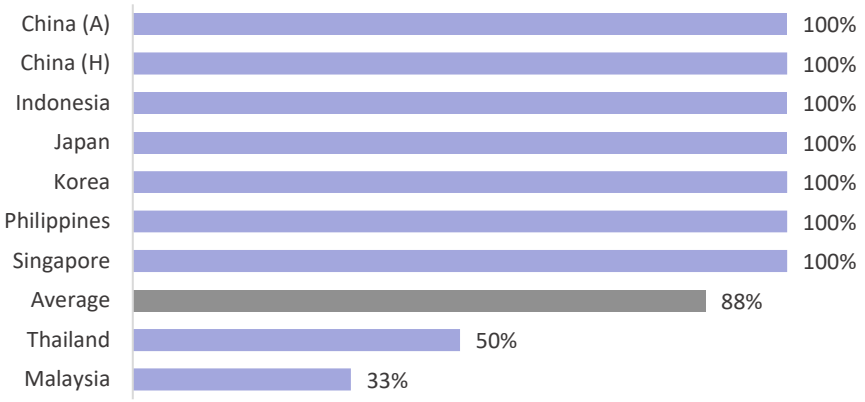
What do we see in the region?

28 banks disclose sustainable finance provision

28 of the 32 banks (88%) disclose the extent of sustainable finance provision, of which 19 give a breakdown by product types. Korean banks provided the region's best examples. They disclose the exposures in both absolute amounts and proportions of balance sheets, with breakdowns by product type, business segment, and issue area.

Fig. 50 Does the bank disclose the extent of sustainable/green finance?

Thai and Malaysian banks may be missing out



Source: Asia Research & Engagement

In many cases, even where there is a breakdown, there are only aggregate figures, covering different financial services ranging from loans, to underwriting, and to investments. This makes it impossible for investors to analyse progress across different business lines.

Frameworks are needed to set out the meaning of green/ sustainable

Banks typically do not provide a framework for describing deals as sustainable. There are often complex issues at play, particularly for deals that seek to improve brown assets, such as sustainability improvement loans. Banks need to state how they determine what is good enough with reference to progress on the attainment of accepted targets. Otherwise, the figures produced are not meaningful or comparable.

Bank Rakyat Indonesia has the highest sustainable balance due to its emphasis on micro-credit

For instance, Bank Rakyat Indonesia reported the provision of IDR562 trillion (or 63.9% of the total credit as of December 2020) to "environmentally sound businesses". Of this, 86% was for micro, small, and medium enterprises. This emphasis on micro-credit is a strong positive for sustainable investment funds. However, it is unclear whether the provisions come with minimum standards on environmental and social practices, particularly in controversial areas such as palm oil production. Consequently, this proportion is not useful in the context of understanding climate transition. For comparison, the three Korean banks provide ESG balances as a proportion of corporate credits in the range of 2% to 9%.

Investor expectations

Banks should set targets on sustainable finance

Banks should communicate sustainable finance exposure with disclosure by business segment, by product, and by environmental/ social issue area, providing both absolute amounts and proportions of the relevant total exposure. Further information by issue areas is also helpful, such as the transition targets under their stewardship.

Banks need clear definitions for sustainable finance to avoid appearance of greenwashing

Banks should clearly communicate how they define sustainable finance. Ideally, this should support meeting the goals of the Paris Agreement. Using unclear or less ambitious standards can raise reputational risks for the bank and its clients.

Opportunity

Banking regulators can provide support by issuing taxonomies, green bond standards, and disclosure regulations to ensure that banks across the region use consistent definitions for the green / sustainable sectors. Some markets, such as Malaysia, China, and Korea, have already taken steps towards this.

Recommendations

- Disclose sustainable finance exposure in both absolute amounts and proportions of the total exposure.
- Provide breakdown by business segment, by product (own balance sheet vs third party), and by environmental/social issue area, including progress made.
- Define sustainable finance in line with the Paris Agreement.

Good practice example

KB Financial provides ESG finance exposure by business segment and within each segment, by product type. The disclosure comes in both absolute amounts and proportions.

Fig. 51 KB Financial's ESG finance in corporate/investment banking segment

KB has a clear breakdown of its ESG finance exposure

ESG business	Category		2020
Green credit, ESG loans	Prevention of environmental pollution	₩100m	27,223
	Support for SMEs and microfinance	₩100m	28,009
	Energy efficiency	₩100m	11,064
	Multiple themes	₩100m	17,316
	Subtotal	₩100m	83,612
Total amount of corporate loan products		₩100m	1,356,859
Ratio of ESG loans		%	6.2
ESG bond	Sustainability theme	₩100m	45,571
	Green transportation	₩100m	-
	Multiple themes	₩100m	-
	Subtotal	₩100m	45,571
Total amount of bond issued		₩100m	185,000
Ratio of ESG bonds		%	24.6
Green and sustainable infrastructure financing	New and renewable energy	₩100m	12,671
	Sustainable water and sewage management	₩100m	2,737
	Housing support for the vulnerable and the working class	₩100m	362
	Multiple themes	₩100m	3,596
	Subtotal	₩100m	19,366
Total amount of bond issued		₩100m	152,588
Ratio of ESG bonds		%	12.7

Source: KB Financial

Sizing the opportunity

Why is this important?

Sizing the prize creates clear incentives and supports appropriate resourcing

For banks to position themselves in growth areas ahead of time, there needs to be detailed analysis to see beyond current opportunities and catch the next wave. For example, innovation and cost reduction are making renewables a cost competitive choice as well as the clean one in the power sector. However, the renewables companies and deals related to them are often smaller, so banks will need to think differently about how to provide finance to the power sector.

Plans can factor in national policy direction along with scenario analysis

Banks need to think strategically. A thorough plan would include a review of sector based and national financing needs, analysis and scenarios of new business models and players, and appropriate targets.

What do we see in the region?

Banks report green transactions

Banks have issued a wave of announcements on sustainable finance in the last two years. Very often they focus on new and innovative deals claiming firsts for different types of transaction. Unfortunately, these announcements look more like a series of one-offs than a considered attempt to transform banking portfolios.

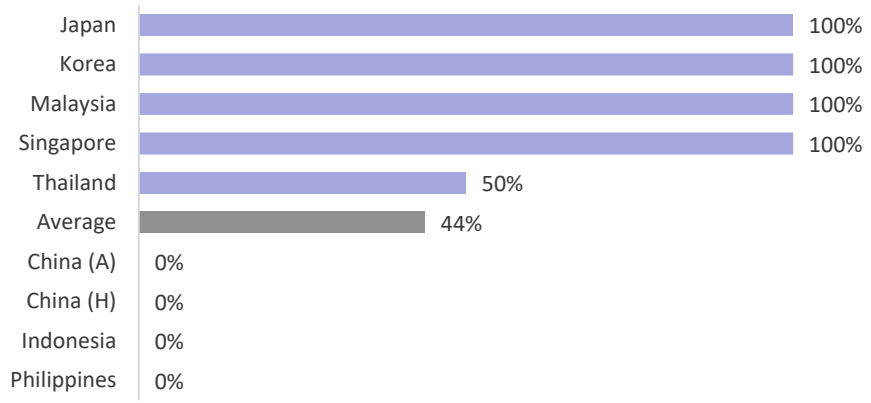
But less than half show a clear strategy

Less than half of the banks we reviewed have sustainable finance targets that evidence a plan to capture green growth or provide Asia the transition finance necessary to meet the region's needs.

Developed market banks and Malaysia show much more focused efforts

There is a clear divide between markets. All the banks in Japan, Korea, Malaysia, and Singapore set quantitative, timebound, forward-looking targets and identify specific industries or segments to pursue, as do two banks in Thailand. On the other hand, no banks from China, Indonesia, and the Philippines have such targets. Metropolitan Bank & Trust is the only bank that fails to identify specific industries or segments despite its commitment to sustainable banking.

Fig. 52 Does the bank evaluate opportunities in sustainable banking?



Source: Asia Research & Engagement

The targets have a range of scopes and are not comparable

Targets require careful consideration and are not comparable at this stage. For example, KB has pledged KRW50 trillion and Hana KRW60 trillion for sustainable finance. Hana has the highest total commitment; however, its target includes bonds not just loans. KB's target is based on its future outstanding balance while Hana uses a cumulative finance target.

Fig. 53 Sustainable finance targets defy analysis

Bank	Gross loans (USD bn)	Target (USD bn)	Metric	Timeline	Product types included
MUFG	977	303	Cumulative	2019-30	Loans, project financing, bonds, etc
SMFG	846	260	Cumulative	2020-29	Loans, bonds, green project financing
Mizuho	772	216	Cumulative	2019-30	Loans, bonds, investment, asset management
KB	354	42	Balance	By 2030	Product, investment, loans
Shinhan	340	25	Cumulative	2020-30	Loans, investment
Hana	291	50	Cumulative	2021-30	Loans, bonds, investment
DBS	324	37	Cumulative	2019-24	Green/ transition/ sustainability-linked loans; renewable financing, etc
OCBC	240	18	Balance	By 2025	Green / social/ sustainability-linked loans and bonds, project finance, capital instruments
UOB	243	11	Balance	By 2023	Green/ sustainability-linked loans; products, trade facilities, deposits; project financing
Maybank	133	12	Cumulative	2021-25	Sukuk, bonds, investments, project financing
CIMB	99	7	Cumulative	2021-24	Loans, bonds, green financing, investment, product
KBank	79	100% growth from 2018 Green Credit balance		2019-23	Loans
Siam Commercial	77	1.6	Cumulative	2021-23	Loans, bonds
Hong Leong Bank	36	0.1	Cumulative	2018-22	Renewable financing

Note: Gross loans are as of December 2020 for all banks except for Hong Leong Bank (June 2020) and three Japanese banks (March 2021). Sustainable finance target amounts expressed in USD using exchange rates as of 8 January 2022.
Source: Asia Research & Engagement, company reports, FactSet

Investor expectations

Investors look for clear strategies to benefit from new green opportunities

Banks should review emerging sustainability-related trends, identify key needs in their operating markets, evaluate the growth opportunities, and use these projections to determine how to position themselves for growth.

After identifying focus sectors, banks should set quantitative, timebound, forward-looking targets. Banks should use different targets for different financial services.

Balance based targets are more relevant for banks direct lending exposure

There are merits to both cumulative and balance-based targets. Balance-based targets are more relevant where this refers to a bank's own exposure, whereas cumulative targets are more relevant where the bank has arranged funding from third parties, such as in underwriting. Banks should provide separate reporting for own lending and arranged finance.

Recommendations

- Identify focus industries for sustainable finance based on emerging trends and key needs in operating markets.
- Set quantitative, timebound, forward-looking targets for on/off-balance sheet finance separately.
- Balance-based targets are more relevant for on-balance sheet finance.

Opportunity

Good practice example

DBS has shown strong progress in assessing the market and delivering on its targets

In November 2017, DBS published the report *Green Finance Opportunities in ASEAN* in collaboration with the UN Environment Programme. This sets out sustainable finance needs across the region by sector and market.

DBS first announced sustainable finance targets in 2019. After strong initial progress, the bank increased its targets in 2021 to reach a total of SGD50 billion by 2024. The target covers green loans, transition loans, sustainability-linked loans, and renewable financing. In 2020, DBS concluded 50 sustainability loans worth SGD9.6 billion.

DBS has also made its first attempt at defining the scope and standards for sustainable finance through the publication of its Sustainable and Transition Finance Framework and Taxonomy.

Building bank capacity

Why is this important?

Banks need to develop capabilities in fast growing green finance areas

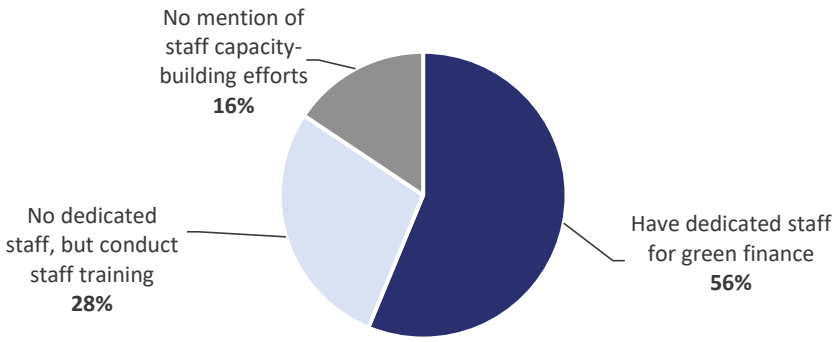
Banks cannot originate and structure competitive products in the fast-growing sustainable finance sector without building the capacity to effectively assess opportunities. One way to achieve this is with a designated team responsible for driving sustainable finance provision. An alternative is to embed sustainable finance experts within industry teams. Relationship management teams need regular training to keep up to date on key sustainability issues and opportunities, to best support their clients through transition.

What do we see in the region?

18 banks identify a full-time team/ department for green finance

27 of the 32 banks (84%) demonstrate strategic efforts to enhance green finance capacity. Of these, 18 identify a full-time team or department with green finance responsibilities. The remaining seven banks do not identify a dedicated unit but conduct staff training. In some cases, banks identify a party without full time responsibilities. We believe part-time staff will not be able to provide sufficient capacity to support banks in pursuing new opportunities.

Fig. 54 Types of staff capacity-building to promote green finance



Source: Asia Research & Engagement

Investor expectations

Banks can use a dedicated unit and embed experts in industry teams

Banks should set up a unit with dedicated responsibilities to drive sustainable finance and embed sustainable finance experts in their industry teams. Banks should also conduct regular training to relevant financing teams. Bank reporting should cover the structure of capacity and communicate the nature of the training so investors can understand how banks are improving staff expertise in this area.

Recommendations

- Set up a unit with dedicated responsibilities to drive sustainable finance and embed sustainable finance experts in industry teams.
- Conduct regular training to relevant financing teams.
- Report on capacity-building efforts.

Good practice example

Mizuho discusses the training provided to staff in different areas

Mizuho Financial Group has set up sustainable finance promotion units and named responsible personnel at each of the group's in-house companies. The bank also conducts regular strategy meetings on sustainable business promotion. All group employees receive sustainability training. For relationship managers this aims to enhance their expertise in identifying relevant issues and proposing appropriate solutions to clients.

Conclusion

Asia's banks are early in the journey

This report presents a baseline for Asia's banks in addressing climate change. Although Asia's banks are still early in their journey, we believe this is an exciting and pivotal time. The level of support for action is significantly higher following the Conference of Parties in Glasgow in November 2021. This has led to a new sense of urgency and commitment across nations and the financial sector, particularly in the Asian region.

They have their own stories to tell

In setting out this research, we considered that domestic banks will ask for comparisons with banks headquartered in other international markets, such as the European Union or North America. While we have included useful international case studies, we believe it is more important to focus on Asia's story, rather than comparisons with other regions.

With many leading green Asian industries, Asia's banks can also lead, to provide banking for Asia's future

There are many green growth markets where Asian firms are leading the way. Similarly, we believe Asia's banks, many of which lead the world in terms of balance sheet size, can and should take leadership positions on climate change. They should focus on playing their role in aligning to and supporting national policies and objectives in their home markets to achieve net-zero. This would truly represent a banking industry providing for Asia's future.

There is a long way to go to de-risk banks

The report shows that there is a long way to go. Yet there are also grounds for optimism. Across Asia, both the banking and asset management industries are building capacity to address exactly the issues highlighted in our research. While there are still relatively few banks that have climate targets or scenario analysis, the number is increasing. But the pace of change needs to accelerate to meet the scale of the climate challenge.

We hope senior decision makers can use this report to move much faster

Our intended purpose is to support banks and senior executives to put in place processes that enable better decision-making and allow them to address the pressures of climate change. We hope that each of the suggestions, practices, and recommendations in the report supports this purpose.

We welcome engagement that can help direct this work in the future and dialogue that helps refine ideas and approaches.

Appendix

Fig. 55 List of banks covered in the report

Market	Ticker	Name	Name used in the report	Market cap (USD bn)	Total asset (USD bn)	Gross loans (USD bn)
China H-share	1398-HKG	Industrial and Commercial Bank of China Ltd.	ICBC	258	5,099	3,012
	3968-HKG	China Merchants Bank Co., Ltd.	China Merchants Bank	210	1,279	819
	939-HKG	China Construction Bank Corporation	China Construction Bank	195	4,302	2,686
	1288-HKG	Agricultural Bank of China Limited	Agricultural Bank of China	166	4,160	2,464
	3988-HKG	Bank of China Limited	Bank of China	140	3,731	2,387
China A-share	000001-SHE	Ping An Bank Co. Ltd.	Ping An Bank	51	684	435
	601166-SHG	Industrial Bank Co. Ltd.	Industrial Bank	75	1,207	666
	600000-SHG	Shanghai Pudong Development Bank Co. Ltd.	Shanghai Pudong Development Bank	40	1,216	752
	002142-SHE	Bank of Ningbo Co., Ltd.	Bank of Ningbo	42	250	109
Indonesia	BBCA-JKT	PT Bank Central Asia Tbk	Bank Central Asia	35	77	43
	BBRI-JKT	PT Bank Rakyat Indonesia (Persero) Tbk	Bank Rakyat Indonesia	22	108	69
	BMRI-JKT	PT Bank Mandiri (Persero) Tbk	Bank Mandiri	18	102	66
	BDMN-JKT	PT Bank Danamon Indonesia Tbk	Danamon	13	14	10
Japan	8306-TKS	Mitsubishi UFJ Financial Group, Inc.	MUFG	68	3,253	977
	8316-TKS	Sumitomo Mitsui Financial Group, Inc.	SMFG	47	2,195	846
	8411-TKS	Mizuho Financial Group, Inc.	Mizuho	26	2,042	772
Korea	105560-KRX	KB Financial Group Inc.	KB	2	564	354
	055550-KRX	Shinhan Financial Group Co., Ltd.	Shinhan	84	557	340
	086790-KRX	Hana Financial Group Inc.	Hana	51	424	291
Malaysia	1155-KLS	Malayan Banking Bhd.	Maybank	25	213	133
	1023-KLS	CIMB Group Holdings Bhd	CIMB	14	150	99
	5819-KLS	Hong Leong Bank Bhd.	Hong Leong Bank	10	52	36
Philippines	BDO-PHS	BDO Unibank, Inc.	BDO Unibank	11	70	50
	BPI-PHS	Bank of the Philippine Islands	Bank of the Philippine Islands	9	47	31
	MBT-PHS	Metropolitan Bank & Trust Co.	Metropolitan Bank & Trust	5	51	29
Singapore	D05-SES	DBS Group Holdings Ltd	DBS	70	492	324
	O39-SES	Oversea-Chinese Banking Corporation Limited	OCBC	45	395	240
	U11-SES	United Overseas Bank Ltd. (Singapore)	UOB	41	327	243
Thailand	SCB-BKK	Siam Commercial Bank Public Company Limited	Siam Commercial Bank	14	109	77
	KBANK-BKK	Kasikornbank Public Co. Ltd.	KBank	13	122	79
	BAY-BKK	Bank of Ayudhya Public Co., Ltd.	Bank of Ayudhya	8	87	65
	BBL-BKK	Bangkok Bank Public Company Limited	Bangkok Bank	9	128	88

Note: Market capitalization is as of 22 February 2022. Total assets and gross loans are as of 31 December 2020 for all banks except for Hong Leong Bank (30 June 2020) and three Japanese banks (31 March 2021).
Source: FactSet

Fig. 56 Bank benchmark summary – East Asia

		Market	China H-share					China A-share				Japan			Korea		
		Bank	ICBC	CMB	CCB	ABC	BOC	PAB	CIB	SPDB	NBCB	MUFG	SMFG	MIZUHO	KBFG	SFG	HFG
		Market cap (USD bn)	258	210	195	166	140	51	75	40	42	84	51	35	22	18	13
		Question															
Governance	1	Is there a specific board-level non-executive director or committee with oversight of sustainability covering climate/environmental issues?	y	-	y	y	y	-	y	-	-	-	y	y	y	y	y
	2	Are the relevant duties for the board-level non-executive party with oversight of sustainability risks set out clearly in an official list of responsibilities?	y	-	y	y	y	-	y	-	-	-	y	-	y	y	y
	3	Does the bank state what climate-related matters were discussed by the board during the year?	y	-	y	-	-	y	y	-	-	y	y	y	y	y	-
	4	Does the bank consider climate-related ESG expertise during the board nomination process?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	Is there a board member with relevant skills/experience in climate-related ESG issues to give input into strategy?	-	-	-	-	-	-	y	-	-	-	-	y	-	-	-
	6	Does executive remuneration take into account ESG factors, explicitly including climate change?	-	-	-	-	-	-	-	-	-	y	-	y	y	y	y
Risk management	1	Does the bank recognise climate risks from financing activities in its risk register?	-	-	-	-	-	-	-	-	-	y	y	y	y	-	-
	2	Does the bank provide a materiality matrix or list of material ESG issues?	y	y	y	y	y	-	y	-	-	y	y	y	y	y	y
	3	Does the bank identify climate risks for its financing business?	-	y	y	-	-	-	-	-	-	y	y	y	y	y	y
	4	Does the bank disclose exposure to high-carbon industries?	-	-	y	-	-	-	y	-	-	y	y	y	y	y	y
	5	Does the bank disclose GHG emissions-related metrics from financing?	-	-	-	-	-	-	-	-	-	y	y	y	y	y	y
	6	Is sustainability reporting, including GHG emissions, assured by an external party?	-	y	y	-	-	-	y	-	-	-	y	-	y	y	y
	7	Does the bank conduct different levels of environmental and social risk assessment based on different levels of risks associated with the type of financing?	y	y	y	y	-	y	y	-	y	y	y	y	y	y	Y
	8	Does the bank provide a transition risk scenario analysis that stress-tests in line with the Paris Agreement, with clear consideration of the impact on lending decisions?	-	-	-	-	-	-	-	-	-	-	-	y	-	-	-
	9	Does the bank provide a physical risk scenario analysis, using scenarios at the upper end of current expectations (at least RCP8.5), with clear consideration of the impact on lending decisions?	-	-	-	-	-	-	-	-	-	-	-	-	y	y	-

		Market	China H-share					China A-share				Japan			Korea		
		Bank	ICBC	CMB	CCB	ABC	BOC	PAB	CIB	SPDB	NBCB	MUFG	SMFG	Mizuho	KBFG	SFG	HFG
		Market cap (USD bn)	258	210	195	166	140	51	75	40	42	84	51	35	22	18	13
		Question															
Policy	1	Does the bank commit to net-zero financed emissions?	-	-	-	-	-	-	-	-	-	y	y	y	y	y	-
	2	Does the bank provide a public policy with any restrictions on financing coal power?	-	-	-	-	y	-	-	-	-	y	y	y	y	y	y
	3	Does the bank have a timeline for stopping financing for new coal power projects?	-	-	-	-	-	-	-	-	-	y	y	y	y	y	y
	4	Does the bank have a timeline for phasing out existing coal power project balances?	-	-	-	-	-	-	-	-	-	y	y	y	-	-	y
	5	Does the bank provide a public policy that restricts financing for gas power?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	Does the bank provide a public policy with any restrictions on financing companies with egregious practices regarding forests/ peat exploitation?	-	-	-	-	-	-	-	-	-	y	y	y	-	-	-
	7	Does the bank provide clear information on the ongoing due diligence concerning its forestry policy and report on the progress of clients' commitments?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	8	Does the bank provide a public policy with any restrictions on financing other high carbon industries?	-	-	-	-	y	-	-	-	-	y	y	y	-	-	-
Opportunity	1	Does the bank disclose the extent of sustainable/green finance?	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y
	2	Does the bank evaluate opportunities in sustainable banking?	-	-	-	-	-	-	-	-	-	y	y	y	y	y	y
	3	Does the bank have a full-time, dedicated team to drive green finance or to provide green finance training for the current staff?	-	y	y	y	y	y	y	-	y	y	y	y	y	y	y

Source: Asia Research & Engagement, company reports

Fig. 57 Bank benchmark summary – Southeast Asia

		Market	Indonesia				Malaysia			Philippines			Singapore			Thailand			
		Bank	BCA	BRI	BMRI	Danamon	Maybank	CIMB	HLB	BDO	BPI	MBT	DBS	OCBC	UOB	SCB	KBank	Ayudhya	BKB
		Market cap (USD bn)	68	47	26	2	25	14	10	11	9	5	70	45	41	14	13	8	9
		Question																	
Governance	1	Is there a specific board-level non-executive director or committee with oversight of sustainability covering climate/environmental issues?	y	y	y	y	y	y	y	y	y	-	y	y	y	y	y	-	y
	2	Are the relevant duties for the board-level non-executive party with oversight of sustainability risks set out clearly in an official list of responsibilities?	-	-	-	-	-	y	-	-	-	-	-	-	y	-	y	-	y
	3	Does the bank state what climate-related matters were discussed by the board during the year?	-	y	y	y	y	y	-	-	y	-	y	-	y	-	y	-	y
	4	Does the bank consider climate-related ESG expertise during the board nomination process?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	5	Is there a board member with relevant skills/experience in climate-related ESG issues to give input into strategy?	-	y	-	-	-	-	-	y	y	-	y	-	y	-	y	-	y
	6	Does executive remuneration take into account ESG factors, explicitly including climate change?	-	-	y	-	-	-	-	-	-	-	y	-	-	-	y	-	-
Risk management	1	Does the bank recognise climate risks from financing activities in its risk register?	-	-	-	-	y	y	-	-	-	-	-	-	y	y	y	-	y
	2	Does the bank provide a materiality matrix or list of material ESG issues?	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y	y
	3	Does the bank identify climate risks for its financing business?	y	y	-	-	y	y	y	y	y	-	y	y	y	y	y	-	y
	4	Does the bank disclose exposure to high-carbon industries?	-	-	-	-	y	y	-	-	y	-	y	-	y	-	y	-	-
	5	Does the bank disclose GHG emissions-related metrics from financing?	-	-	-	-	-	-	-	-	-	-	y	y	y	-	-	-	-
	6	Is sustainability reporting, including GHG emissions, assured by an external party?	-	y	-	-	y	y	-	-	-	-	y	-	-	y	y	-	-
	7	Does the bank conduct different levels of environmental and social risk assessment based on different levels of risks associated with the type of financing?	-	-	y	y	y	y	y	y	-	-	y	y	y	y	y	y	y
	8	Does the bank provide a transition risk scenario analysis that stress-tests in line with the Paris Agreement, with clear consideration of the impact on lending decisions?	-	-	-	-	-	-	-	-	-	-	y	y	y	-	-	-	-
	9	Does the bank provide a physical risk scenario analysis, using scenarios at the upper end of current expectations (at least RCP8.5), with clear consideration of the impact on lending decisions?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

		Market	Indonesia				Malaysia			Philippines			Singapore			Thailand				
		Bank	BCA	BRI	BMRI	Danamon	Maybank	CIMB	HLB	BDO	BPI	MBT	DBS	OCBC	UOB	SCB	KBank	Ayudhya	BKB
		Market cap (USD bn)	68	47	26	2	25	14	10	11	9	5	70	45	41	14	13	8	9
		Question																	
Policy	1	Does the bank commit to net-zero financed emissions?	-	-	-	-	y	y	-	-	-	-	y	-	-	-	y	-	-
	2	Does the bank provide a public policy with any restrictions on financing coal power?	-	-	-	-	y	y	y	-	-	-	y	y	y	-	-	y	-
	3	Does the bank have a timeline for stopping financing for new coal power projects?	-	-	-	-	y	y	y	-	-	-	y	y	y	-	-	y	-
	4	Does the bank have a timeline for phasing out existing coal power project balances?	-	-	-	-	-	y	-	-	-	-	y	-	-	-	-	-	-
	5	Does the bank provide a public policy that restricts financing for gas power?	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	6	Does the bank provide a public policy with any restrictions on financing companies with egregious practices regarding forests/ peat exploitation?	y	y	y	-	y	y	-	y	-	-	y	-	y	-	y	-	y
	7	Does the bank provide clear information on the ongoing due diligence concerning its forestry policy and report on the progress of clients' commitments?	-	-	-	-	-	y	-	-	-	-	-	-	-	-	-	-	-
	8	Does the bank provide a public policy with any restrictions on financing other high carbon industries?	-	-	-	-	y	y	-	-	-	-	y	y	y	-	y	-	-
Opportunity	1	Does the bank disclose the extent of sustainable/green finance?	y	y	y	y	-	y	-	y	y	y	y	y	y	y	y	-	-
	2	Does the bank evaluate opportunities in sustainable banking?	-	-	-	-	y	y	y	-	-	-	y	y	y	y	y	-	-
	3	Does the bank have a full-time, dedicated team to drive green finance or to provide green finance training for the current staff?	y	y	y	y	y	y	y	y	y	-	y	y	y	-	y	y	-

Source: Asia Research & Engagement, company reports

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