

Measuring Bank-Intermediated Climate Finance: Evidence from Thailand

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Abstract

Thailand faces high climate risk exposure and has articulated ambitious mitigation goals under its updated Nationally Determined Contribution, while relying on a bank-based financial system to support the transition. Yet progress in climate and sustainable finance remains difficult to evaluate, as available indicators are fragmented, non-standardised, and often conflate flow-based measures with stock-based targets. Adopting a synthesis-style approach analogous to UNFCCC progress assessments, the paper conducts a systematic, AI-assisted reading of Thai banks' sustainability disclosures to assesses the state of climate finance in Thailand. The analysis advances the literature by providing ground-up evidence on how climate finance is defined and implemented in practice. Disclosed climate and sustainable finance volumes increased materially after 2021, and institutionalisation has deepened among large banks. However, the implied trajectory of outstanding climate finance remains well below Thailand's estimated financing needs to align with net zero by 2050. The paper also identifies the main structural constraint: Data fragmentation. Without harmonised definitions and clear stock–flow separation, climate finance risks becoming a portfolio narrative rather than a transparent transition instrument.

Key words: Climate finance, Banking sector, Sustainability disclosure, Emerging markets, Thailand

JEL classification: G21, G28, Q54, Q56

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1. Introduction

Mobilising private finance is central to the credibility and success of national decarbonisation strategies. In emerging market economies, where bank credit remains the dominant source of external financing, the banking system is expected to intermediate the transition from high-carbon to low-carbon production structures. Thailand provides a salient case. The country has articulated increasingly ambitious mitigation goals under its updated Nationally Determined Contribution (NDC 3.0), advancing its net-zero target year from 2065 to 2050. Meanwhile, financial authorities have issued guidance to internalise climate considerations into banking practices. Yet a basic empirical question remains unresolved: Can the scale and adequacy of climate finance in a bank-based system be meaningfully measured?

Unlike capital market instruments—such as green, social, and sustainability (GSS) bonds—which rely on relatively standardised frameworks and observable issuance data, climate-related bank lending lacks a centralised reporting architecture. There is no official sustainable banking database in Thailand. Researchers and policymakers must therefore rely on banks' own sustainability disclosures. These disclosures are heterogeneous, partially verified, and structurally inconsistent. Definitions of “climate” or “sustainable” finance vary across institutions; stock measures (year-end outstanding balances) are frequently conflated with flow measures (annual new financing); and multi-year commitments are often reported without reconciliation to portfolio totals.

This measurement fragmentation creates a structural blind spot. Without consistent definitions and clear stock–flow separation, aggregate climate finance cannot be reliably benchmarked against national investment needs. The result is an accountability gap: Climate finance expands narratively, yet its system-level adequacy remains difficult to evaluate.

This paper addresses that gap. Drawing on a synthesis-style approach analogous to UNFCCC progress assessments, it conducts a systematic, longitudinal reading of Thai commercial banks' sustainability reports from 2020 to 2024. The objective is not to verify impact *ex post*, but to assess the observable architecture of climate finance as disclosed: How it is defined, quantified, framed, and institutionalised over time.

The paper makes three main contributions. First, it provides the first structured aggregation of disclosed climate and sustainable finance volumes across Thailand's banking system, distinguishing between stock and flow measures wherever possible. This generates a directional estimate of system-level expansion since 2020.

Second, it develops an analytical schema that distinguishes compliance-oriented disclosure from implementation signals, drawing on the sustainable banking and disclosure credibility literature. Rather than scoring alignment against predetermined benchmarks, the study evaluates narrative positioning, linkage to external commitments, and internal consistency between stated ambition and portfolio architecture.

Third, it compares the implied trajectory of bank-level climate finance—based on disclosed multi-year pledges—with Thailand's estimated financing needs by 2030 to align with net zero by 2050. Even under conservative assumptions, the order-of-magnitude contrast highlights the scale challenge facing bank-intermediated climate mobilisation.

The findings suggest that climate finance in Thailand has expanded materially after 2021 and that institutionalisation has deepened among large banks. However, heterogeneity in definitions and reporting formats remains a binding constraint on system-level alignment. The core policy challenge is therefore not solely ambition, but measurement coherence. Without harmonised disclosure architecture, climate finance risks functioning as a portfolio narrative rather than a transparent, aggregable transition instrument.

Although the analysis focuses on Thailand, the underlying problem is general to bank-based emerging economies where sustainable finance activation has preceded data harmonisation. The study thus contributes to a broader debate on how climate finance should be measured, aggregated, and governed in financial systems where lending remains dominant.

The remainder of the paper proceeds as follows. Section 2 reviews the relevant literature. Section 3 sets out the research questions. Section 4 describes the two-layer methodology. Section 5 presents stylised findings. Section 6 discusses policy implications. Section 7 concludes.

2. Literature Review

This section reviews the literature in two parts. Section 2.1 situates climate finance in Thailand within the broader regional policy and financing context, with a focus on financing needs, adequacy, and data constraints. Section 2.2 then turns to the sustainable banking and disclosure literature, examining how banks' climate-related commitments and disclosures relate to actual lending practices, and why disclosure-based evidence must be interpreted with care when assessing implementation.

2.1 Climate Finance in Southeast Asia and Thailand

The climate finance literature identifies a significant and persistent financing gap in Southeast Asia relative to the scale required for a net-zero transition. A report by Asian Development Bank and MUFG (2025) estimates that climate-related investment in developing Asia must nearly triple annually by 2030, rising from approximately USD 333 billion to over USD 1.1 trillion. Despite growing capital market activity, banks remain central to climate finance mobilisation in emerging Asian economies, as loans continue to be the primary source of external financing for small and medium-sized enterprises (SMEs), which generally lack access to bond markets. An earlier report by the World Bank and the Institute of Finance and Sustainability (2022) documents similar constraints, finding that sustainable finance markets across the major members of the Association of Southeast Asian Nations (ASEAN) remain limited in scale, leaving a sizeable financing gap for SMEs that rely predominantly on traditional bank lending to support green and transition investments.

Ariyapruchya and Volz (2023) document uneven progress in sustainable finance development across ASEAN, with several countries making notable advances while others lag due to differences in institutional capacity. A key regional constraint is asymmetric data availability: While capital market instruments such as green and sustainability bonds benefit from established standards, data on sustainable and climate-related bank lending remain sparse or inconsistent. This gap, combined with funding constraints and technical capacity limitations, continues to hinder the scaling of climate finance in practice.

Recent regional studies emphasise the importance of transition finance in scaling up climate investment, particularly for hard-to-abate sectors. Shirai and Dang (2024) survey Asian financial authorities and find that many are actively implementing measures to promote transition finance, emphasising the need

for credible transition plans and taxonomies to mitigate greenwashing risks. Most authorities encourage entities to adopt net-zero emissions targets with associated short- and medium-term goals, alongside detailed business strategies and action plans for climate transition. At the bank level, a study of five leading ASEAN banks by CEFiM and WWF-Singapore (2022) finds that institutions integrate climate risks into credit processes and develop specialised instruments—such as transformation loans or guarantees for SMEs—rather than relying solely on capital market mechanisms.

In Thailand, climate finance policy is guided by *Sustainable Finance Initiatives for Thailand* (Working Group on Sustainable Finance, 2021), which sets out five implementation pillars covering taxonomy, data and disclosure, incentives, capacity building, and financial products. Although market-based financing has grown to roughly twice the size of credit-based financing (OECD, 2025), banks remain systemically central to climate finance in Thailand. Beyond direct lending, they act as underwriters, arrangers, and distributors in capital markets, and serve as key intermediaries for sustainability-linked instruments and SME financing. Their role therefore extends beyond balance-sheet credit provision to broader financial intermediation across the climate finance ecosystem.

While recognising this central intermediation function, the Bank of Thailand adopts a predominantly risk-based regulatory approach, treating climate change as a source of systemic financial risk (2022, 2023). In parallel, the Thai Bankers' Association (TBA) launched its ESG Declaration (2022), committing member banks to integrate ESG into governance, strategy, risk management, financial products, and disclosure under a collective “comply or explain” framework.

This risk-based framing is rooted in the Task Force on Climate-related Financial Disclosures and aligned with the Basel Committee on Banking Supervision (2025), which promotes climate-related financial risk disclosures to support financial stability. Consistent with this approach, Luangaram et al. (2026) show that both transition and physical climate risks significantly increase bank-level systemic risk in Thailand, as measured by conditional value-at-risk (CoVaR). The study concludes that integrating climate risk indicators into regulatory monitoring frameworks and banks' internal climate stress tests is essential for strengthening financial stability, reinforcing the BOT's emphasis on climate risk management within the banking system.

In the absence of an official sustainable banking database, the key challenge facing climate finance assessment in Thailand lies not in policy direction but in implementation, particularly the lack of reliable and standardised data for monitoring purposes. The closest substitute is the Thailand Climate Finance Tracker (CFNT, 2025), which compiles data on new primary climate finance flows during 2018–2025 for mitigation (and 2020–2024 for adaptation) based on publicly available project- and organisation-level disclosures. Using this approach, the tracker estimates that climate mitigation finance in Thailand totalled approximately THB 1.7 trillion between 2018 and May 2025, with non-financial corporations identified as the main contributors.

However, the CFNT’s work is subject to important limitations. It captures announced commitments rather than actual disbursements, relies on incomplete and uneven disclosures across institutions, and applies standardisation assumptions to address inconsistent reporting. As a result, the current dataset presents cumulative flows only, offering limited visibility into year-on-year progress, portfolio composition, or the role of financial intermediaries. These constraints limit its usefulness for assessing the scale, adequacy, and evolution of bank-intermediated climate finance, reinforcing the need for alternative empirical approaches based on banks’ public disclosures.

Consistent with these data constraints, a related empirical review by Fair Finance Thailand (2025) finds that major Thai banks are shifting towards risk-based implementation as guided by TCFD recommendations. The study finds broad disclosure of climate risks, mitigation actions, and GHG targets. Nevertheless, disclosure quality varies widely. For instance, banks rely heavily on emissions proxies for SMEs due to data gaps. On the contrary, climate finance targets and progress metrics are fragmented and difficult to interpret.

Overall, three gaps emerge in the literature on climate finance in Thailand. First, existing studies and policy frameworks emphasise risk and disclosure compliance, with limited evidence on the scale and adequacy of climate-related bank lending. Second, empirical evidence on implementation remains sparse, particularly on how climate finance is operationalised in banks’ lending practices. Third, the literature provides little insight into the evolution of climate finance over time, as disclosures are rarely analysed dynamically.

2.2 Sustainable Banking and Disclosures in Practice

The sustainable banking literature provides a framework for understanding how banks facilitate the transition to a low-carbon economy. By reviewing the existing academic literature, De Haas (2023) concludes that bank credit can support climate mitigation by enabling firms to adopt existing cleaner technologies and reduce pollution, provided that effective regulatory frameworks are in place. The literature also shows that banks are increasingly responding to climate-related risks. On the transition side, banks have begun to price in transition risks for large, carbon-intensive firms through higher loan pricing or reduced credit supply. On the physical side, exposure to extreme weather risks—such as sea-level rise—has been associated with property price discounts and adjustments in bank lending in disaster-prone areas.

However, evidence on risk responsiveness does not imply that climate finance outcomes scale automatically in practice. Aguila et al. (2025), based on interviews with practitioners, identify three practical constraints that contribute to a “green banking gap”: Limited bankability of green projects (risk/return concerns and long horizons), business model inertia and legacy exposures that slow portfolio shifts, and regulatory frictions that can raise the relative cost of green lending and encourage compliance-focused labelling. The authors conclude that the problem is not a lack of private finance, but rather a lack of bankable green projects and a policy framework that does not sufficiently incentivise the necessary shift in banking practices. These constraints suggest that weak climate finance outcomes may reflect structural impediments rather than a lack of stated intent.

Against this backdrop, evidence from the existing literature indicates that voluntary commitments can be associated with operational change. Bernad et al. (2025) find that emerging market banks that sign international climate initiatives ('talk') demonstrate significantly stronger internal green management and lending practices ('walk') compared to non-signatories. In addition, firms that borrow from climate-committed banks are more likely to undertake green investments. The authors conclude that voluntary climate initiatives can serve as credible signals and translate into meaningful operational differences, although causality is not definitively established.

Other contributions suggest that the credibility of disclosure as a proxy for lending behaviour is not uniform. Using European banking data, Giannetti et al. (2023) document a disconnect between environmental disclosure and lending

activities, including cases where more extensive “green talk” coincides with higher lending to high-emission (“brown”) sectors. In such cases, banks are strategically disclosing favorable environmental information to cover up continued financing of polluting sectors. Gambacorta et al. (2023) provide a more nuanced view, finding that in general, banks use transparency as a genuine signal of commitment to mitigating climate change. However, disclosure can also serve as an impression management tool depending on the tone and framing of reported environmental risks. The authors find a negative tone to be associated with genuine concern and less lending to brown firms; conversely, a more optimistic tone indicates lower awareness of environmental risks, and thus more lending to polluting firms.

Taken together, this literature reinforces the need for an empirical approach that goes beyond counting disclosures or relying on stated commitments. It motivates an analytical schema that distinguishes risk/compliance narratives from implementation signals, and that can also capture the evolution of climate finance over time using evidence from banks’ public disclosures.

2.3 Comparison with the TPI *State of the Banking Transition*

The Transition Pathway Initiative (TPI) of the Global Climate Transition Centre’s *State of the Banking Transition* (Brochard et al., 2025) provides a benchmark-based assessment of banks’ progress in the low-carbon transition. Assessing 36 large global banks, the report finds that banks remain at an early stage of transition, with weak performance against the Net Zero Banking Assessment Framework (averaging 18% of sub-indicators met), limited sectoral coverage of decarbonisation targets, and low alignment with low-carbon benchmarks. It also documents evidence of weakened commitments since 2024, including less precise language around net-zero and fossil-fuel policies.

While addressing a similar subject matter, the present study differs from the TPI approach in both methodology and scope. The TPI assessment is indicator- and benchmark-driven, relying on predefined criteria and binary scoring to enable cross-bank and cross-jurisdictional comparability. In contrast, this study adopts a narrative and longitudinal reading of bank disclosures, examining how climate finance is framed, emphasised, and evolves over time. In addition, the TPI report focuses on large international banks and broad regional groupings. This study focuses on a single national banking system, allowing a more granular examination of disclosure dynamics that complement benchmark-based assessments.

3. Research Questions

This paper is guided by three research questions that examine climate finance in Thailand through a synthesis of bank-level disclosures, with the objective of identifying structural constraints and informing policy design.

RQ1: What is the state of climate finance in Thailand’s banking system?

This question examines how climate finance is reported by Thai banks, with particular attention to the relationship between stock- and flow-based measures, the consistency of definitions, and the internal coherence of reported metrics and targets. While the absence of official aggregate climate finance data is taken as given, the analysis assesses whether disclosed information allows for a meaningful interpretation of progress over time.

RQ2: How do Thai banks frame their approach to climate finance?

This question evaluates banks’ narratives around climate finance, focusing on how commitments are articulated across disclosures. Rather than assessing formal compliance with the TCFD framework, the analysis examines climate finance messages holistically—drawing on strategy statements, governance disclosures, messages from boards and senior management, and reported targets—to assess the credibility and depth of institutional commitment.

RQ3: How can the climate finance system be strengthened?

Building on the findings from RQ1 and RQ2, this question identifies gaps in the climate finance system related to measurement and target framing, particularly the disconnect between bank-level aggregation and the objectives articulated in Thailand’s NDC 3.0. It then develops policy recommendations to improve the effectiveness of climate finance in supporting economic transition.

4. Methodology

This section presents the methodology used to examine how Thai commercial banks articulate and operationalise climate finance in their public disclosures. The study does not seek to verify the accuracy or completeness of disclosed information, nor does it attempt to evaluate the real-world impact of transition finance.

4.1 Analytical Approach

This study adopts a two-layer, disclosure-based analytical approach. The first analytical layer involves the systematic collection of factual information disclosed in sustainability reports, including stated commitments, targets,

timelines, and reported volumes related to climate and sustainable finance. This descriptive layer establishes the current state of climate finance in formal and quantitative terms.

The second analytical layer examines the narrative and structural articulation of climate finance within the same disclosures. This interpretive layer assesses how banks frame climate finance and how it is integrated into decision-making processes, governance, and broader strategic narratives. The purpose of this layer is to evaluate whether disclosed approaches suggest a credible pathway through which climate finance could scale over time.

Together, these two layers enable a directional assessment of adequacy. While the first layer addresses the question of *where climate finance currently stands*, the second layer informs whether disclosed approaches appear sufficiently embedded and coherent to plausibly support a meaningful transition of the Thai economy.

4.2 Unit of Analysis and Data

The primary unit of analysis in this study is the bank-level sustainability report. To ensure consistency and comparability across institutions, the analysis relies exclusively on sustainability reports and does not incorporate standalone TCFD reports, annual reports, websites, or other disclosure channels. The secondary unit of analysis consists of climate-relevant content within sustainability reports, including disclosures related to climate finance frameworks, stated targets, and reported progress.

The empirical corpus comprises sustainability reports from Thai commercial banks as classified by the Bank of Thailand. To examine the evolution of climate finance practices in relation to key policy milestones, the study covers five reporting years (2020–2024). This period spans the pre-policy baseline and the years following the issuance of the Bank of Thailand’s directional guidance on sustainable and climate finance. Due to differences in disclosure practices, not all banks published sustainability reports for all years. This design yields a total of 48 unique sustainability reports. English reports serve as the primary reference, with Thai versions consulted where necessary. Table 1 summarises the reports included in the analysis.

[Table 1 about here]

4.3 Analytical Schema

This stage of the analysis focuses on the interpretation of climate finance narratives in banks' sustainability reports. It complements the previous stage, in which factual information—such as climate or sustainable finance targets, timelines, and reported amounts—was systematically extracted. Drawing on the literature on sustainable banking and disclosure credibility reviewed in Section 2.2, the analytical schema examines three narrative signals that inform the implementation of climate finance practices.

First, *narrative tone* (Gambacorta et al., 2023) is interpreted as an indicator of organisational concern and prioritisation. While the prior work conceptualises tone primarily in terms of optimistic versus pessimistic linguistic sentiment, Thai banks' sustainability reports rarely articulate climate finance in overtly emotive terms. Instead, disclosures are typically formal and policy-aligned, making sentiment-based coding less meaningful. Accordingly, this study adapts Gambacorta et al.'s insight that tone conveys institutional signals, but operationalises tone as a positioning signal rather than a lexical sentiment measure. Specifically, tone is assessed based on how climate finance is framed in high-salience sections—such as messages from the board chair or chief executive officer—distinguishing whether it is presented as a strategic opportunity, a risk management issue, or a compliance obligation.

Second, *references to external commitments* (Bernad et al., 2025) are examined as potentially meaningful signals of institutional alignment. The analysis distinguishes between references that are connected to internal policies, governance arrangements, or lending practices, and those that appear largely symbolic or reputational in nature.

Third, *narrative substance and internal consistency* (Giannetti et al., 2023) are assessed in relation to climate finance practices. Particular attention is paid to whether climate finance narratives are internally consistent with leadership messaging and previously disclosed factual commitments, or whether divergences suggest impression management or “glossy” reporting.

Together, these signals provide the basis for a directional assessment of adequacy, distinguishing disclosures that primarily signal compliance or reputational positioning from those that indicate deeper strategic integration of climate finance into banking practices. The assessment remains explicitly grounded in publicly disclosed information and does not seek to infer realised outcomes or implementation effectiveness.

4.4 AI-Assisted Analysis and Human Oversight

The extraction of factual information, as well as the execution of the analytical schema outlined in Section 4.3, are implemented using AI-assisted reading to support systematic and consistent interpretation of narrative disclosures across a large corpus of sustainability reports. Rather than relying on automated classification or fixed prompts, the analysis follows an iterative, human-in-the-loop process in which a stable analytical framework is applied consistently across documents.

AI tools are used to assist with the identification, organisation, and comparison of climate-finance-relevant passages, particularly in narrative sections such as leadership messages and strategic discussions. This support is intended to enhance coverage and consistency across reports published in different years and languages. All interpretive judgments—including the assessment of narrative tone, the substantive relevance of external commitments, and the internal consistency of disclosures—remain anchored in the predefined analytical criteria and are made by the author.

The AI-assisted process is iterative in nature. Extracted passages are reviewed in context, interpretations are refined where necessary, and consistency across banks and reporting years is checked against the analytical schema. This approach mirrors established qualitative analytical practices, in which interpretation is progressively stabilised through repeated engagement with the text, rather than determined by frequency-based or sentiment-driven metrics (Saldaña, 2025).

Reproducibility is addressed through procedural transparency rather than exact replication of outputs. Analytical outcomes are reproducible in the sense that they derive from a fixed schema, explicit interpretive criteria, and consistent application to the same source documents. AI assistance is used to augment, rather than substitute for, human analytical judgment. This study involved the use of ChatGPT (version 5.2) as the primary writing and analytical aid; Google AI-powered search tools and Microsoft Copilot for fact-checking and cross-referencing; and Gemini Deep Research to surface alternative interpretations.

5. Results and Discussion

This section presents findings from the two-layer analytical framework. The first layer documents quantitative disclosures on sustainable and climate-related finance across Thai banks from 2020 to 2024. The second layer complements this by evaluating narrative positioning and internal consistency signals based on qualitative disclosures in the latest available reports. Rather than describing each bank sequentially, the results are organised as stylised facts that reveal structural patterns in Thailand’s climate finance architecture. Detailed extraction tables are provided in the Appendix.

5.1 Stylised Facts on the Evolution of Climate Finance in Thailand

This subsection examines the evolution of quantitative climate and sustainable finance disclosures across Thai banks from 2020 to 2024. The objective is to identify structural patterns in the development of Thailand’s climate finance system. The analysis further considers reporting architecture—particularly the distinction between stock and flow measures—to assess comparability and to highlight emerging gaps in measurement and disclosure practices.

Stylised Fact 1: Climate Finance Expanded Rapidly After 2021

Prior to 2021, disclosed sustainable finance volumes were limited and inconsistent across institutions. From 2022 onward, both the number of banks reporting quantitative figures and the scale of reported volumes increased markedly (see Figure 1).

While the analysis relies on disclosure as observable evidence, the pattern likely reflects a broader expansion of climate and sustainable finance activity within the banking system. The timing is consistent with strengthened policy direction and regulatory signalling—particularly Thailand’s Sustainable Finance Initiatives (2021)—which appear to have accelerated the development and reporting of climate-related financial activities.

[Figure 1 about here]

Stylised Fact 2: Large Banks Lead, but Convergence Is Emerging

Large domestic banks—BAY, BBL, KBANK, KTB, and SCB (SCBX Group)—have led the development of Thailand’s climate finance architecture. They were generally the first to articulate net-zero commitments, adopt portfolio-level sustainable finance targets, and disclose quantitative volumes. In this sense,

they acted as first movers in both strategic positioning and reporting architecture. Figure 2 illustrates that these large banks continue to account for the majority of aggregate outstanding climate finance volumes. Their scale presumably enables faster portfolio accumulation and earlier institutionalisation of measurement frameworks.

However, convergence is emerging. Smaller institutions, particularly those embedded in international banking groups, began expanding disclosures and portfolio volumes within a few years of the initial movers. While they are not yet operating on the same scale or institutional depth as the largest banks, the trajectory suggests progressive alignment rather than structural divergence.

[Figure 2 about here]

Stylised Fact 3: Net-Zero Banking Is a Recent Phenomenon in Thailand

Although the Paris Agreement was adopted in 2015, explicit net-zero commitments by Thai banks emerged only several years later. From 2022 onward, net-zero targets—typically 2050 or 2065 for financed emissions—began to appear across an increasing number of institutions. In this sense, net-zero banking in Thailand remains a relatively recent development.

Moreover, the depth of commitment varies. Some institutions link net-zero targets to sectoral decarbonisation pathways, portfolio steering frameworks, and financed emissions measurement. Others articulate long-term ambition without disclosing portfolio-level mechanics or transition planning architecture.

Taken together, this pattern suggests that the diffusion of net-zero commitments has been driven primarily by external normative pressures—international standards and peer alignment—rather than by internally originated portfolio transformation strategies.

Stylised Fact 4: Thailand Taxonomy Operationalisation Is Not Yet the Norm

Although the Thailand Taxonomy is positioned as a key tool for green classification and transition finance, explicit operational application remains limited. Following the release of Phase I in 2023, only 5 out of 11 banks in the sample indicate taxonomy-based implementation in credit assessment or portfolio classification by 2024.

While several institutions reference regulatory alignment in sustainability disclosures, fewer demonstrate integration into lending processes or measurable portfolio allocation. In this sense, adoption remains the exception

rather than the norm. This pattern suggests that regulatory signalling—public reference to taxonomy alignment—has advanced more rapidly than operational embedding within credit decision frameworks.

Stylised Fact 5: Data Architecture Is Highly Fragmented

Despite the expansion of climate finance and relevant disclosures, reporting architecture remains inconsistent, limiting system-level aggregation and comparative assessment. Banks adopt divergent reporting formats. Some disclose year-end outstanding portfolios (stock-based framing), others report new bookings during the year (flow-based framing), while some present cumulative progress toward multi-year targets without clearly distinguishing stock from flow. As a result, clean synthesis across institutions is constrained.

Thailand’s climate finance reporting therefore remains at an early harmonisation stage. Targets also differ along several structural dimensions. In terms of scope, some commitments cover lending only, while others incorporate bond underwriting activities. In terms of framing, some targets are expressed as cumulative commitments over a defined period, whereas others are articulated as portfolio allocation goals. In terms of environmental breadth, most commitments are predominantly environmental in substance, despite being labelled as “sustainable finance”.

As a whole, the empirical evidence suggests a transition from symbolic ESG positioning in 2020–2021 toward more measurable commitments in 2023–2024. However, in the absence of a standardised reporting framework, banks retain considerable discretion in how climate finance is defined, measured, and disclosed in Thailand.

5.2 Narrative Positioning and Directional Assessment

This layer considers three dimensions: Tone of strategic framing, linkage to external standards and initiatives, and internal consistency between stated ambition and disclosed portfolio-level mechanisms. These elements are then synthesised into an overall directional assessment, which serves as an indicative measure of climate finance positioning and implementation.

[Figure 3 about here]

Figure 3 presents the distribution of directional assessments across the sampled banks based on 2024 disclosures. The majority of institutions are classified as strong, three as adequate, and one as limited. This distribution

suggests that climate finance positioning in Thailand’s banking sector is not merely rhetorical. In most cases, narrative commitments are accompanied by measurable elements such as sustainable finance targets, financed emissions disclosure, sectoral decarbonisation pathways, or product-level allocation frameworks. Overall, the qualitative evidence indicates that climate finance has gained meaningful traction. When read together with the quantitative expansion documented in Section 5.1, the findings suggest that climate-related finance in Thailand has moved beyond isolated early adopters toward broader sectoral institutionalisation.

Nevertheless, the qualitative reading also suggests that climate commitments are likely strongly influenced by peer benchmarking. Strategic framing is broadly similar across institutions, with most banks positioning climate finance as a core element of long-term competitiveness or transition support. Likewise, references to external standards and initiatives also exhibit considerable convergence. While differences in depth and implementation remain—and some gaps in portfolio-level practices are observable—most institutions demonstrate internal consistency between narrative positioning and disclosed mechanisms. Importantly, there is no clear evidence of overt “greenwashing” within the sample.

5.3 Synthesis Assessment

When interpreted in combination, the two analytical layers indicate that Thailand’s climate finance system is both expanding and increasingly institutionalised. Quantitative volumes have grown markedly since 2021, and qualitative assessment suggests that most banks demonstrate substantive alignment between narrative commitments and portfolio-level mechanisms.

Figure 4 places this progress into perspective. Aggregating available disclosed multi-year commitments—covering both lending and capital market activities—the implied outstanding climate finance by 2030 reaches approximately THB 580 billion. While this represents meaningful growth relative to 2024 levels, it remains modest when compared with Thailand’s estimated financing need of approximately THB 3.8 trillion for 2025-2030 to align with net zero by 2050 (World Bank Group, 2025). Although the projection is conservative, as not all institutions disclose explicit pledges, the order-of-magnitude contrast highlights the scale challenge. Under current climate finance practices, the banking system’s ability to demonstrate alignment with national climate goals remains limited.

[Figure 4 about here]

6. Policy Implications

Thailand’s 2021 sustainable finance policy initiatives played a catalytic role in activating climate finance within the banking system. As shown in Section 5, reported climate finance volumes have grown across major banks, although they remain insufficient relative to Thailand’s broader climate-related investment needs. The emerging constraint is therefore no longer policy ambition, but measurement coherence—how climate finance is defined, reported, and aggregated in order to scale the effort credibly.

Climate and sustainable finance disclosures remain heterogeneous across institutions. Differences arise both in scope and in measurement. First, definitions of what qualifies as climate or sustainable finance vary across banks, including the treatment of transition activities and capital market facilitation. Second, reporting metrics differ: Some institutions disclose outstanding balances (stock), others report annual new financing (flow), while some present cumulative commitments relative to a baseline year. Within individual reports, distinctions between stock, annual deployment, and cumulative growth are not always clearly separated. Figure 5, an excerpt from Bank of Ayudhya’s (BAY) 2024 sustainability report, illustrates this structural heterogeneity in reporting practices.

[Figure 5 about here]

In terms of scope, BAY’s SSF portfolio aggregates multiple financing activities under a single framework, including green and social lending, renewable energy loans, sustainability-linked loans, bond underwriting (both client underwriting and self-issuance), and ESG investments. These activities represent distinct financial roles—direct credit exposure, liability issuance, and capital market intermediation—yet are consolidated within a single reported SSF portfolio total.

In terms of measurement, all categories are presented under a single “Outstanding Balance” heading, while performance is described as growth relative to a 2021 baseline. The table therefore combines year-end stock values with cumulative increases since baseline, without clearly distinguishing annual new financing from net changes in outstanding exposure. For example, underwriting figures remain flat in certain categories across years, potentially

reflecting instrument structure rather than new deployment, while increases in the overall portfolio capture net stock expansion rather than gross annual flows.

This type of dual scope–measurement aggregation limits comparability across institutions and complicates system-level assessment, including the ability to evaluate whether Thailand’s banking sector is collectively aligned with its net-zero 2050 objective. Without consistent metrics, regulators cannot effectively calibrate policy, and investors cannot reliably benchmark institutional performance. Climate finance therefore risks becoming a narrative construct rather than a measurable transition instrument.

The policy priority should now shift toward harmonisation. Regulators should establish a standardised disclosure template that clearly separates annual new financing (flow), outstanding exposures (stock), cumulative commitments, and capital market facilitation activities. Definitions should be aligned with the Thailand Taxonomy and forthcoming transition finance guidance. Disclosure should also require explicit reconciliation between sustainable finance figures and total loan portfolios to enhance comparability and enable system-wide aggregation.

Strengthening measurement coherence does not impose additional ambition; rather, it enables credible tracking of progress. Having successfully activated climate finance through policy signalling, the next phase of Thailand’s sustainable finance agenda should focus on building a consistent data architecture capable of supporting transition alignment at scale.

7. Conclusion

This paper examined how Thai banks disclose and operationalise climate finance in practice. Using a structured review of sustainability reports from 2020 to 2024, the study identified three main findings. First, reported sustainable finance volumes increased materially after 2021, suggesting that regulatory signalling successfully activated climate finance within the banking sector. Second, aggregate volumes remain modest relative to Thailand’s broader climate-related investment requirements. Third, and more fundamentally, disclosure practices remain heterogeneous in both scope and measurement, limiting comparability and system-level aggregation.

These findings reinforce the broader consensus in the literature that climate action remains insufficient relative to transition requirements. The novel

contribution of this study, however, lies in highlighting the role of data architecture in shaping climate finance outcomes. By analysing disclosures at the operational level—where definitions vary and stock–flow distinctions are blurred—the paper demonstrates how climate finance becomes difficult to track, aggregate, and benchmark. Improving the ecosystem therefore requires not only higher targets or stronger commitments, but harmonised definitions and standardised reporting structures that enable credible measurement.

As Thailand moves from policy activation toward transition alignment, the next phase should focus on building measurement coherence across institutions. Climate finance must evolve from an expanding portfolio narrative into a transparent, comparable, and aggregable transition instrument. Only with such structural clarity can the financial system credibly support national decarbonisation at scale.

References

Aguila, N., Haufe, P., Baioni, R., Fichtner, J., Urban, J., Schairer, S., & Wullweber, J. (2025). *The green banking gap: How bankability, business models, and regulations challenge banks' decarbonisation* ((tra:ce) Working Paper No. 2). Witten/Herdecke University, International Center for Sustainable and Just Transformation.

https://sfcp-network.de/wp-content/uploads/2025/05/SuFi_The-green-banking-gap-how-bankability-business-models-and-regulations-challenge-banks-decarbonisation.pdf

Ariyapruchya, S., & Volz, U. (2023, January). *Sustainable finance in Southeast Asia* (Discussion Paper No. 197). Puey Ungphakorn Institute for Economic Research. <https://www.pier.or.th/en/dp/197/>

Asian Development Bank (ADB) and Mitsubishi UFJ Trust and Banking Corporation (MUFG). (2025). *Transition finance trends, challenges, and finance sector implications*. Asian Development Bank.

<https://www.adb.org/sites/default/files/publication/1104826/transition-finance-trends-challenges.pdf>

Bank of Thailand (BOT). (2022, August). *Transitioning towards environmental sustainability under the new Thai financial landscape*. Bank of Thailand.

<https://www.bot.or.th/content/dam/bot/financial-innovation/sustainable-finance/green/GreenDirectionalPaper-EN.pdf>

Bank of Thailand. (2023, February 15). *Policy statement of the Bank of Thailand: Re: Internalizing environmental and climate change aspects into financial institution business* (Policy Statement). Bank of Thailand.
<https://www.bot.or.th/content/dam/bot/fipcs/documents/FPG/2566/EngPDF/25660028.pdf>

Basel Committee on Banking Supervision. (2025, June 13). *A framework for the voluntary disclosure of climate-related financial risks*. Bank for International Settlements. <https://www.bis.org/bcbs/publ/d597.htm>

Bernad, M., De Haas, R., & Rud, J. P. (2025). *Walking the talk? Bank climate commitments and green lending in emerging markets* (IZA Discussion Paper Series; No. 18131). IZA Institute of Labor Economics.
<https://docs.iza.org/dp18131.pdf>

Brochard, A., Diaz Puerto, N., Hajagos-Tóth, Á., Jahn, V., & Dietz, S. (2025, October). *State of the banking transition 2025*. TPI Global Climate Transition Centre, London School of Economics and Political Science.
<https://transitionpathwayinitiative.org/publications/uploads/2025-state-of-the-banking-transition-2025.pdf>

CEFIM and WWF-Singapore. (2022, April 14). *ASEAN financial institutions leading the clean energy transition: A study co-written by CEFIM and WWF Singapore*. OECD. <https://www.oecd.org/content/dam/oecd/en/about/programmes/cefim/country-comparison-and-cross-cutting-analysis/OECD-WWF-Asia-Sustainable-Finance-Initiative-Case-Study.pdf>

Climate Finance Network Thailand (CFNT). (2025). Thailand climate finance tracker. Retrieved February 8, 2026, from www.climatefinancethai.com.

De Haas, R. (2023). *Sustainable Banking* (Working Paper No. 282). European Bank for Reconstruction and Development.
https://www.ebrd.com/content/dam/ebd_dxp/assets/pdfs/office-of-the-chief-economist/working-papers/working-papers-2023/WP-282-De-Sustainable-banking-EBRD-v2.pdf

Fair Finance Thailand (FFT). (2025). *How Thai banks are adapting to climate change: A review of disclosures and practices*.
https://fairfinancethailand.org/media/al2nw5jc/how-thai-banks-are-adapting-to-climate-change_2024-tcf-case-study.pdf

Gambacorta, L., Polizzi, S., Reghezza, A., & Scannella, E. (2023). *Do banks practice what they preach? Brown lending and environmental disclosure in the*

euro area (BIS Working Papers; No. 1143). Bank for International Settlements, Monetary and Economic Department. <https://www.bis.org/publ/work1143.pdf>

Giannetti, M., Jasova, M., Loumioti, M., & Mendicino, C. (2023). “Glossy green” banks: The disconnect between environmental disclosures and lending activities (Finance Working Paper N° 919/2023). European Corporate Governance Institute (ECGI). https://www.ecgi.global/sites/default/files/working_papers/documents/glossy_green.pdf

Luangaram, P., Sethapramote, Y., Thampanishvong, K., & Uddin, G. S. (2026). Climate risk and financial stability: A systemic risk perspective from Thailand. *International Review of Economics & Finance*, 104, Article 104976. <https://doi.org/10.1016/j.iref.2026.104976>.

The Organisation for Economic Co-operation and Development (OECD). (2025), *Asia Capital Markets Report 2025*, OECD Capital Market Series, OECD Publishing, Paris, <https://doi.org/10.1787/02172cdc-en>.

Saldaña, J. (2025). *The coding manual for qualitative researchers* (5th ed.). SAGE Publications.

Shirai, S., & Dang, N. L. (2024, October). *Transition finance and results of the survey on 10 Asian financial authorities’ initiatives: Climate finance dialogue progress report* (Policy Brief No. 2024-24). Asian Development Bank Institute. <https://doi.org/10.56506/SBJK4237>

Thai Bankers' Association and Bank of Thailand. (2022, August 29). *TBA launches ESG Declaration, a strong collective commitment to expediting sustainable development toward better and greener economy* (Press release). <https://www.bot.or.th/en/news-and-media/news/news-20220829-2.html>

United Nations Framework Convention on Climate Change. (2025). *Nationally determined contributions under the Paris agreement: Synthesis report by the secretariat* (Document No. FCCC/PA/CMA/2025/8). United Nations. <https://unfccc.int/documents/640613>

Working Group on Sustainable Finance (WG-SF). (2021, August 18). *Sustainable finance initiatives for Thailand*. Fiscal Policy Office, Bank of Thailand, Securities and Exchange Commission, Office of Insurance Commission, and The Stock Exchange of Thailand.

[https://www.bot.or.th/content/dam/bot/financial-innovation/sustainable-finance/green/Sustainable Finance Initiatives for Thailand.pdf](https://www.bot.or.th/content/dam/bot/financial-innovation/sustainable-finance/green/Sustainable_Finance_Initiatives_for_Thailand.pdf)

World Bank Group. (2025). *Thailand country climate and development report*. World Bank. <https://doi.org/10.1596/43823>

World Bank & Institute of Finance and Sustainability. (2022). *Unleashing sustainable finance in Southeast Asia*. World Bank. <http://hdl.handle.net/10986/38341>

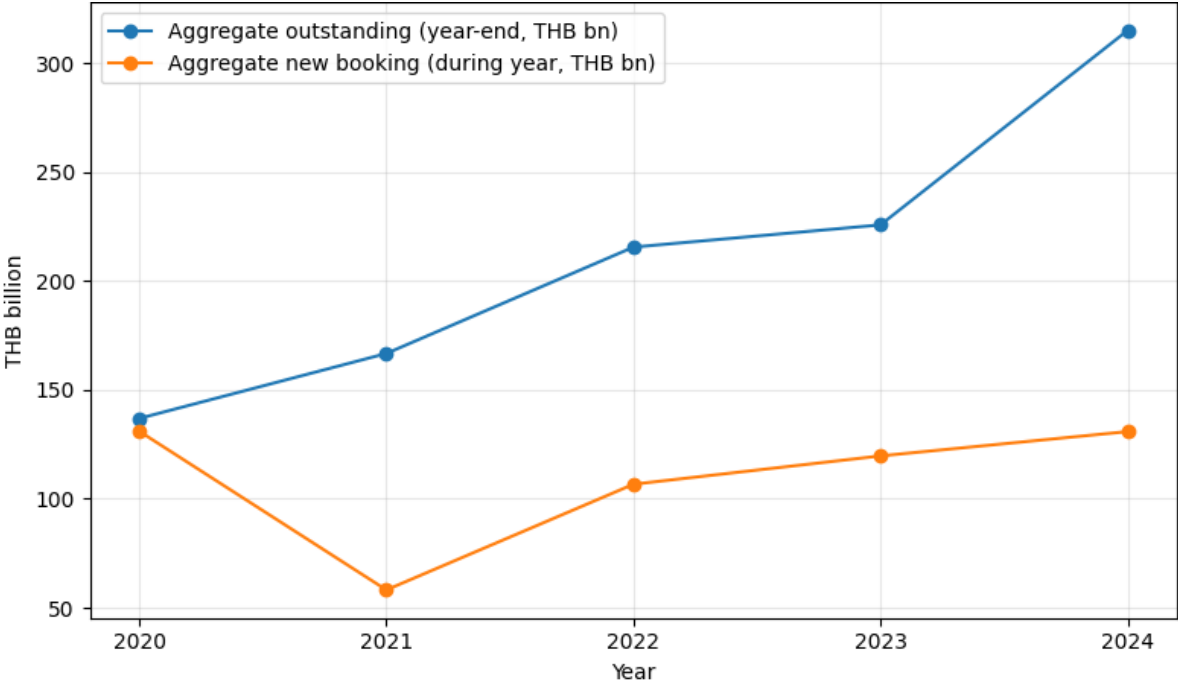
Table and Figures

Table 1. Thai Banks and Sustainability Reports

Bank	Full name	2020	2021	2022	2023	2024
BAY	Bank of Ayudhya	✓	✓	✓	✓	✓
BBL	Bangkok Bank	✓	✓	✓	✓	✓
CIMB	CIMB Thai Bank	–	–	✓	✓	✓
ICBC	Industrial and Commercial Bank of China (Thai)	–	–	–	–	–
KBANK	Kasikornbank	✓	✓	✓	✓	✓
KKP	Kiatnakin Phatra Bank	✓	✓	✓	✓	✓
KTB	Krung Thai Bank	✓	✓	✓	✓	✓
LHB	Land and Houses Bank	–	–	–	–	–
SCB	The Siam Commercial Bank	✓	✓	✓*	✓*	✓*
SCBT	Standard Chartered Bank (Thai)	–	–	–	–	–
TCB	Thai Credit Bank	–	–	–	–	✓
TISCO	Tisco Bank	✓	✓	✓	✓	✓
TTB	TMBThanachart Bank	✓	✓	✓	✓	✓
UOB	United Overseas Bank (Thai)	–	✓	✓	✓	✓

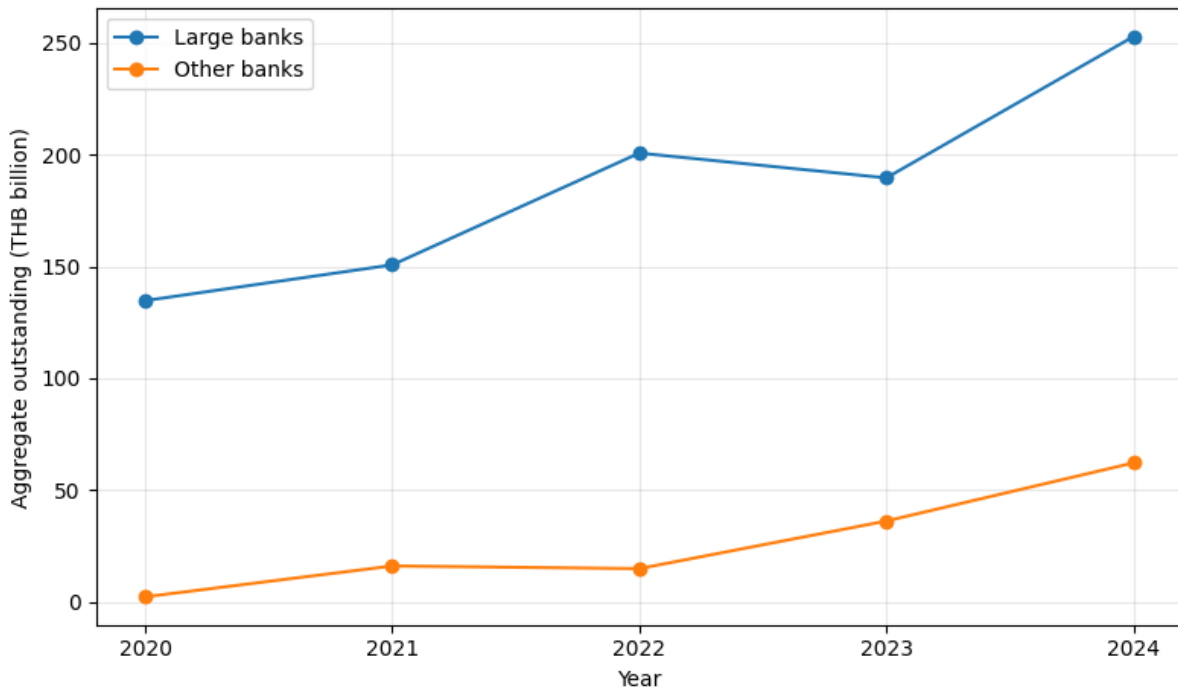
This table presents Thai commercial banks under the supervision of the Bank of Thailand and the availability of their sustainability reports for the period 2020–2024. Not all banks publish standalone sustainability reports for every year; accordingly, banks without available reports (notably ICBC and SCBT) are excluded from the empirical analysis. SCB’s sustainability disclosures for 2023 and 2024 are reported under SCBX following group restructuring. All documents were obtained from the respective banks’ official websites and retrieved on 4 February 2026.

Figure 1. Aggregate Climate Finance Amounts Disclosed by Thai Banks



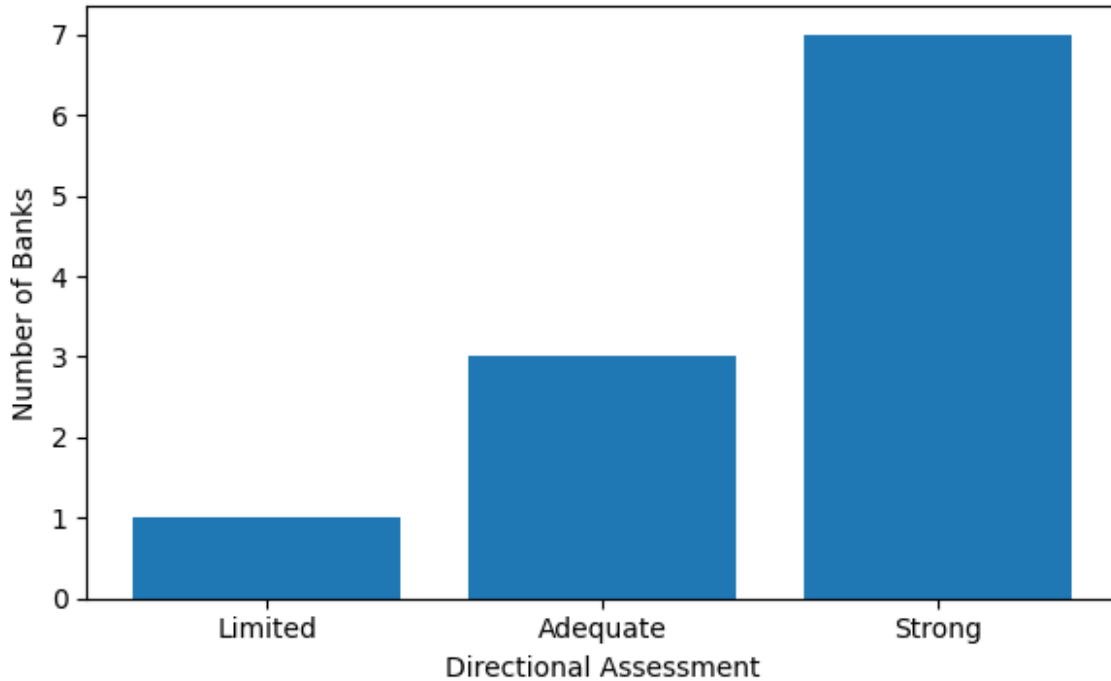
This figure presents the aggregate climate finance volumes disclosed by Thai banks between 2020 and 2024. Two measures are reported: year-end outstanding balances (stock) and new bookings during the year (flow). Both indicators exhibit a marked upward shift after 2021. Outstanding portfolios increased steadily, exceeding THB 300 billion by 2024, while new bookings rebounded following a decline in 2021 and continued to rise through 2024.

Figure 2. Outstanding Climate Finance of Large Banks vs Others



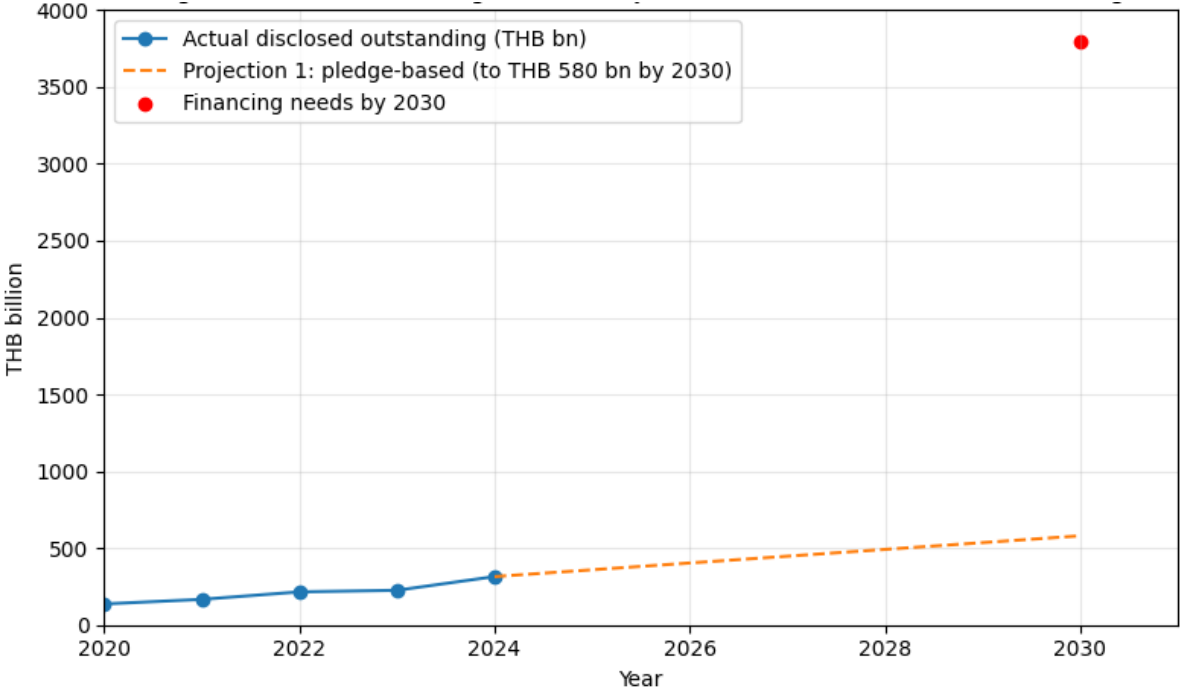
The figure compares aggregate year-end outstanding climate finance portfolios of large domestic banks (BAY, BBL, KBANK, KTB, SCBX) with those of other sampled institutions. Large banks account for the majority of outstanding volumes throughout the period, although other banks exhibit a visibly accelerating growth trajectory after 2022.

Figure 3. Distribution of Climate Finance Institutionalisation



This figure presents the distribution of overall directional assessments across the sampled banks based on 2024 disclosures. The directional assessment reflects a composite evaluation of narrative tone, external commitments, and internal consistency between stated ambition and disclosed portfolio architecture. Most banks are classified as strong, with three assessed as adequate and one as limited. The distribution indicates that, on balance, climate finance positioning and implementation are advancing across the sector, reinforcing the quantitative expansion documented in Section 5.1.

Figure 4. Pledge-based Projection of Climate Finance Outstanding



The figure presents disclosed outstanding climate finance volumes from 2020 to 2024 and extends them to 2030 under a pledge-based scenario. The projection aggregates available multi-year sustainable finance commitments explicitly stated by banks and, in some cases, covers both lending and capital market activities, including bond underwriting. As such, the projection should be interpreted as a conservative estimate of pledged climate-related finance. For reference, the World Bank Group (2025) estimates Thailand’s total climate-related investment need at approximately USD 124 billion (THB 3.8 trillion) for 2025–2030. While the metrics are not strictly comparable (bank-level outstanding versus national investment needs), the order-of-magnitude contrast highlights the scale challenge. Even under conservative assumptions, the implied trajectory suggests that additional mobilisation beyond currently disclosed pledges would likely be required to align with national climate financing needs.

Figure 5. Excerpt from Bank of Ayudhya (BAY) Sustainability Report 2024


Krungsri's Social and Sustainable Finance (SSF) Portfolio

Target:

Grow our SSF portfolio target from previously 100,000 million baht to 250,000 million baht by 2030 (from the baseline year 2021)

Performance:

As at the end of 2024, Krungsri's SSF portfolio increased from 2021 (baseline year) by 95,183 million baht.

Category ^{1/}		(Data as at 31 December 2024)			
		Outstanding Balance ^{2/} (Unit: million baht)			
		31 Dec 2021	31 Dec 2022	31 Dec 2023	31 Dec 2024
 Environment	Underwriting: Green Bond ^{3/}	7,450	14,044	19,891	21,391
	Underwriting: Green Bond (Self-Issuance) ^{3/}	-	-	14,236	14,236
	Green Loan	1,000	3,000	3,335	4,492
	Loan to Renewable Energy Business	9,210	9,150	11,880	11,566
	Other Loans	-	4	234	365
 Society	Underwriting: Social Bond	-	-	-	500
	Underwriting: Social Bond ^{1/} (Self-Issuance)	7,040	7,040	7,040	7,040
	Loan from WSME Bond	21,033	19,866	23,138	20,048
	Social Loan	20,246	23,763	21,230	16,691
	Loan to Regional Development Projects	21,608	18,797	14,821	15,276
 Sustainability	Underwriting: Sustainability Bond ^{1/}	20,567	44,427	47,659	57,031
	Underwriting: Sustainability-Linked Bond ^{1/}	11,000	11,000	11,000	18,938
	Sustainability Loan	-	3,151	2,496	6,042
	Sustainability-Linked Loan	6,953	6,946	9,232	22,580
	Investment	830	3,145	4,320	5,925
Total		126,937	164,333	190,512	222,120

The figure presents BAY's (or Krungsri) Social and Sustainable Finance (SSF) portfolio as disclosed in its 2024 report, showing outstanding balances from 2021–2024 across environmental, social, and sustainability categories. The portfolio aggregates multiple financial activities—including lending, underwriting, and investment—within a single SSF metric

Appendix

Table A1: Climate-related and Sustainable Finance Disclosures

Bank	Year	Net Zero Target Years		Outstanding (THB bn)		New Booking (THB bn)		Long-term goals (if stated)	Progress / Cumulative (THB bn)	Taxonomy
		Own operation	Financed emissions	Target	Actual (year-end)	Target	Actual (during year)			
BAY	2020	–	–	–	10.9	–	–	–	–	N/A
	2021	2030*	2050*	–	10.7 (17.2r)	–	–	Increase sustainable finance portfolio** to 50–100 bn by 2030	–	N/A
	2022	"	"	–	22.2	–	–	"	44.2	N/A
	2023	"	"	–	26.9	–	–	to 100 bn by 2030	70.9	✓
	2024	"	"	–	44.7	–	–	to 250 bn by 2030	95.2	✓
BBL	2020	–	–	–	108.3	–	–	–	–	N/A
	2021	–	–	–	122.6	–	–	–	–	N/A
	2022	–	–	–	106.2	–	–	–	–	N/A
	2023	–	–	–	47.9***	–	–	–	–	–
	2024	–	–	–	116.8	–	–	–	–	–
CIMBT	2022	2030	2050	–	–	–	2.2	Contribution to Group-wide sustainable finance** target of MYR 60 bn by 2024	+18.8	N/A
	2023	"	"	–	–	–	6.2	Target of MYR 100 bn by 2024	+44.6	✓
	2024	"	"	–	–	–	0.2	20 bn to support transition of high-carbon sectors over 2024-25	+19.8	✓

Bank	Year	Net Zero Target Years		Outstanding (THB bn)		New Booking (THB bn)		Long-term goals (if stated)	Progress / Cumulative (THB bn)	Taxonomy
		Own operation	Financed emissions	Target	Actual (year-end)	Target	Actual (during year)			
KBank	2020	–	–	–	15.5	–	–	Total Megawatts 15.0% of domestic share	14.8%	N/A
	2021	2030	2050	–	17.4	–	–	(i) Total Megawatts 15%; (ii) Allocate sustainable financing and investment ≥100–200 bn by 2030	(i) 16%; (ii) –	N/A
	2022	"	"	–	31.2	–	–	(ii) only	26.4	N/A
	2023	"	"	–	70.1	–	–	"	46.9	–
	2024	"	"	–	91.3	–	–	"	121.9	–
KKP	2020	–	–	–	2.2	–	–	–	–	N/A
	2021	–	–	–	2.2 [sic]	–	–	–	–	N/A
	2022	–	–	–	2.1	–	–	–	–	N/A
	2023	2035	2065	–	3.0	–	–	–	–	✓
	2024	"	"	–	3.8	–	–	Sustainable loan > 30 bn by 2030	7.5	✓
KTB	2020	–	–	–	–	–	1.8	–	–	N/A
	2021	–	–	–	–	–	> 1	–	–	N/A
	2022	–	–	–	–	–	–	–	–	N/A
	2023	–	–	–	21.1	–	–	–	–	–
	2024	2030	2065	–	–	–	–	–	–	✓
SCB	2020	–	–	–	–	–	116.8	–	–	N/A
	2021	–	–	–	–	–	40.2	Fund 53 bn in sustainable finance** by 2023	40.2	N/A

Bank	Year	Net Zero Target Years		Outstanding (THB bn)		New Booking (THB bn)		Long-term goals (if stated)	Progress / Cumulative (THB bn)	Taxonomy
		Own operation	Financed emissions	Target	Actual (year-end)	Target	Actual (during year)			
SCBX	2022	2030	2050	–	41.1e	–	64.2	Fund 200 bn in sustainable finance** by 2030	75.2	N/A
	2023	"	"	–	23.6	–	80.1	Fund 100 bn in sustainable finance** by 2025 and 200 bn by 2030	84.7 (r79.5)	–
	2024	"	"	–	–	–	55.4	Fund 150 bn in sustainable finance** by 2025	145.1	–
TCB	2024	2065	2065	–	–	–	–	–	–	✓
TISCO	2020	–	–	–	–	–	8.1 (corp)	–	–	N/A
	2021	–	–	–	–	–	9.1 (corp)	–	–	N/A
	2022	2050	–	–	–	–	9.3 (corp)	–	–	N/A
	2023	"	2065	–	–	–	10.8 (corp) +1.8 (SME)	Green projects account for 20% of large-scale lending projects by 2026, 40% by 2065; EV loans > 15% by 2024	18.2%; 5.4%	–
	2024	"	"	–	–	–	12.2 (corp) +4.8 (SME) + 4.6 (retail)	"	19.96%; 19.97%	–
TTB	2020	–	–	–	–	0.8 (green)	2.5 (green) + 1.8 (others)	–	–	N/A
	2021	–	–	–	> 9.8	1.2 (green)	2.3 (green) + 2.7 (EV) + 0.1 (others)	–	–	N/A

Bank	Year	Net Zero Target Years		Outstanding (THB bn)		New Booking (THB bn)		Long-term goals (if stated)	Progress / Cumulative (THB bn)	Taxonomy
		Own operation	Financed emissions	Target	Actual (year-end)	Target	Actual (during year)			
TTB	2022	–	–	–	–	4.5 (green)	13.1 (green) + 6.4 (EV) + 2 (SLL)	–	–	N/A
	2023	–	–	–	–	9.0 (green)	17.8 (green) + 3.0 (SLL)	–	–	–
	2024	–	–	–	–	20.0	19.7	–	–	–
UOB	2021	–	–	–	4.0	–	2.8	–	–	N/A
	2022	2050	2050	–	12.7	–	9.5	–	–	N/A
	2023	“	“	–	33.1	–	–	–	–	–
	2024	“	“	–	58.3	–	33.96	–	–	–

Notes: Figures are reported as disclosed in each bank’s sustainability report. English reports serve as the primary reference, with Thai versions consulted where necessary. “Outstanding” and “New booking” reflect the terminology used by each bank; the latter generally refers to approved credit limits rather than disbursed balances. Net zero target years are recorded only when explicitly declared. *BAY’s “Carbon Neutrality Vision” is treated as a net zero target. **Sustainable finance targets may include lending and, where disclosed, bond underwriting (including self-issued bonds). In practice, most disclosures under this category are environmentally focused. “–” indicates not disclosed; N/A denotes not applicable; ✓ indicates explicit operational application of the Thailand Taxonomy. e = estimate; r = revised; *** = category discontinued (mass transit loan).

Table A2: Narrative Signals of Thai Banks

Bank	Tone	External Commitments	Internal Consistency ("Glossy Test")	Directional Assessment
BAY	Strategic Framing "Be the leading sustainable and regional bank"; "Net Zero financed emissions for Krungsri's portfolio within 2050"	High Linkage Paris/NDC/SDG alignment; PCAF membership; TCFD; PRB; TBA ESG Declaration; BOT alignment	Substantive SSF targets; Coal phase-out target; IECC embedded across banking operations; Financed emissions disclosure	Strong Evidence of climate finance practices
BBL	Strategic yet Cautious Framing "Our business approach focuses on supporting customers ... so they can deliver sustainable performance, adapt to changes and face future uncertainties with confidence."	Moderate to High Linkage Paris/NDC/SDG alignment; PCAF membership; BOT alignment; Science-Based Target (operational emissions)	Partial Green/transition loans disclosed; Sustainable Finance commitments; Financed emissions not yet fully addressed (LRQA observation)	Adequate Evidence of climate finance practices
CIMBT	Strategic Framing "Sustainability stands as a fundamental strategic pillar and value driver"; "Our financial expertise, strategic partnerships, and unwavering commitment to Sustainability are helping build a resilient and equitable future."	High Linkage Paris/NDC/SDG alignment; PCAF membership; TCFD; PRB; BOT alignment	Substantive Sustainable finance portfolio targets and disclosure; transition finance products; Financed emissions disclosure	Strong Evidence of climate finance practices
KBANK	Strategic Framing "We are committed to be the leading sustainable bank in Thailand"; "We are committed to becoming Net Zero"	High Linkage Paris/NDC/SDG alignment; PCAF membership; TCFD; PRB; TBA ESG Declaration; BOT alignment	Substantive Sustainable Finance commitments and disclosures; Sector Decarbonisation strategies; Financed emissions disclosure; Client transition engagement	Strong Evidence of climate finance practices

Bank	Tone	External Commitments	Internal Consistency ("Glossy Test")	Directional Assessment
KKP	<p>Strategic Framing (Asset Management-led) "KKP Asset Management recognises that investors play a critical role in addressing the impacts of climate change"; "Driven the transition ... through expanding the loan portfolio to support clean energy.</p>	<p>Moderate Linkage NDC/SDG alignment; PCAF membership; TCFD; TBA ESG Declaration</p>	<p>Partial Measurement of investment portfolio carbon footprint; No disclosed portfolio-wide sustainable finance allocation target at bank level</p>	<p>Limited to Adequate Evidence of climate finance practices</p>
KTB	<p>Strategic Framing (State-led Transition) "The Board of Directors and Executives have worked together ... to support Thailand's transition and its path towards achieving net-zero greenhouse gas emissions."</p>	<p>High Linkage Paris/NDC/SDG alignment; PCAF membership; TCFD; PRB; BOT alignment</p>	<p>Substantive Green & transition finance portfolio disclosed; Financed emissions disclosure; Sectoral decarbonisation approach and transition lending framework</p>	<p>Strong Evidence of climate finance practices</p>
SCB	<p>Strategic Framing "SCBX Group remains steadfast in our dedication to transforming and enhancing corporate management practices to assist clients in their transition toward a net-zero economy."</p>	<p>High Linkage Paris/NDC/SDG alignment; PCAF membership; TCFD; PRB; TBA ESG Declaration; BOT alignment</p>	<p>Substantive Sustainable finance portfolio target and progress; Financed emissions disclosure; Sectoral decarbonization approach</p>	<p>Strong Evidence of climate finance practices</p>
TCB	<p>Strategic Framing (Broad ESG) "The Bank has been committed to driving change towards the Sustainable Development Goals by integrating ESG into business processes throughout the value chain..."</p>	<p>Low Linkage SDG alignment; General ESG integration language; Regulatory alignment references</p>	<p>Limited Sustainable/green products referenced; No sustainable target; No financed emissions disclosure</p>	<p>Limited Evidence of climate finance practices</p>

Bank	Tone	External Commitments	Internal Consistency ("Glossy Test")	Directional Assessment
TISCO	<p>Strategic Framing (Transition-Oriented) "TISCO Group employs ESG principles as the guiding compass for our operations." "Providing financial support to businesses that create or are affected by the transition is a core strategy prioritized by TISCO."</p>	<p>Moderate Linkage NDC/SDG alignment; PCAF membership; TCFD</p>	<p>Substantive Net-zero roadmap in 3 phases; Green & transition finance portfolio disclosed; Financed emissions disclosure</p>	<p>Adequate Evidence of climate finance practices</p>
TTB	<p>Strategic yet Practical Framing "The role of the bank is not to lead itself to Net-zero, but rather how to empower businesses in their transition toward Net-zero."</p>	<p>Moderate Linkage NDC/SDG alignment; IFC; Fair Finance TCFD report referenced</p>	<p>Substantive Coal phase-out; upstream oil & gas exposure cap; ESG loan and bond allocation; Climate KPIs embedded in corporate KPI system</p>	<p>Adequate to Strong Evidence of climate finance practices</p>
UOB	<p>Strategic Framing (Transition-Oriented) "UOB is committed to supporting the transition to a low-carbon economy and achieving Net Zero by 2050."</p>	<p>High Linkage Paris/NDC/SDG alignment; NZBA; PCAF membership; TCFD; BOT alignment</p>	<p>Substantive Sustainable financing target and allocation disclosed; Financed emissions disclosure; Sectoral decarbonisation targets</p>	<p>Strong Evidence of climate finance practices</p>

Notes: Examples listed under each category are illustrative rather than exhaustive, but are considered sufficiently representative to support the qualitative assessment. "Tone" is interpreted as a positioning signal reflecting the strategic framing of climate finance in high-salience disclosures, rather than as a linguistic sentiment measure. "Internal Consistency (Glossy Test)" assesses whether stated positioning is supported by disclosed portfolio-level architecture (e.g., sustainable finance targets, financed emissions disclosure, sectoral decarbonisation pathways). Directional assessment is based strictly on disclosed evidence in the latest available sustainability report (2024) and does not infer actual implementation effectiveness. Acronyms and initiative names are reproduced as used in each bank's sustainability report.