The East and Southeast Asia Green Central Banking Scorecard
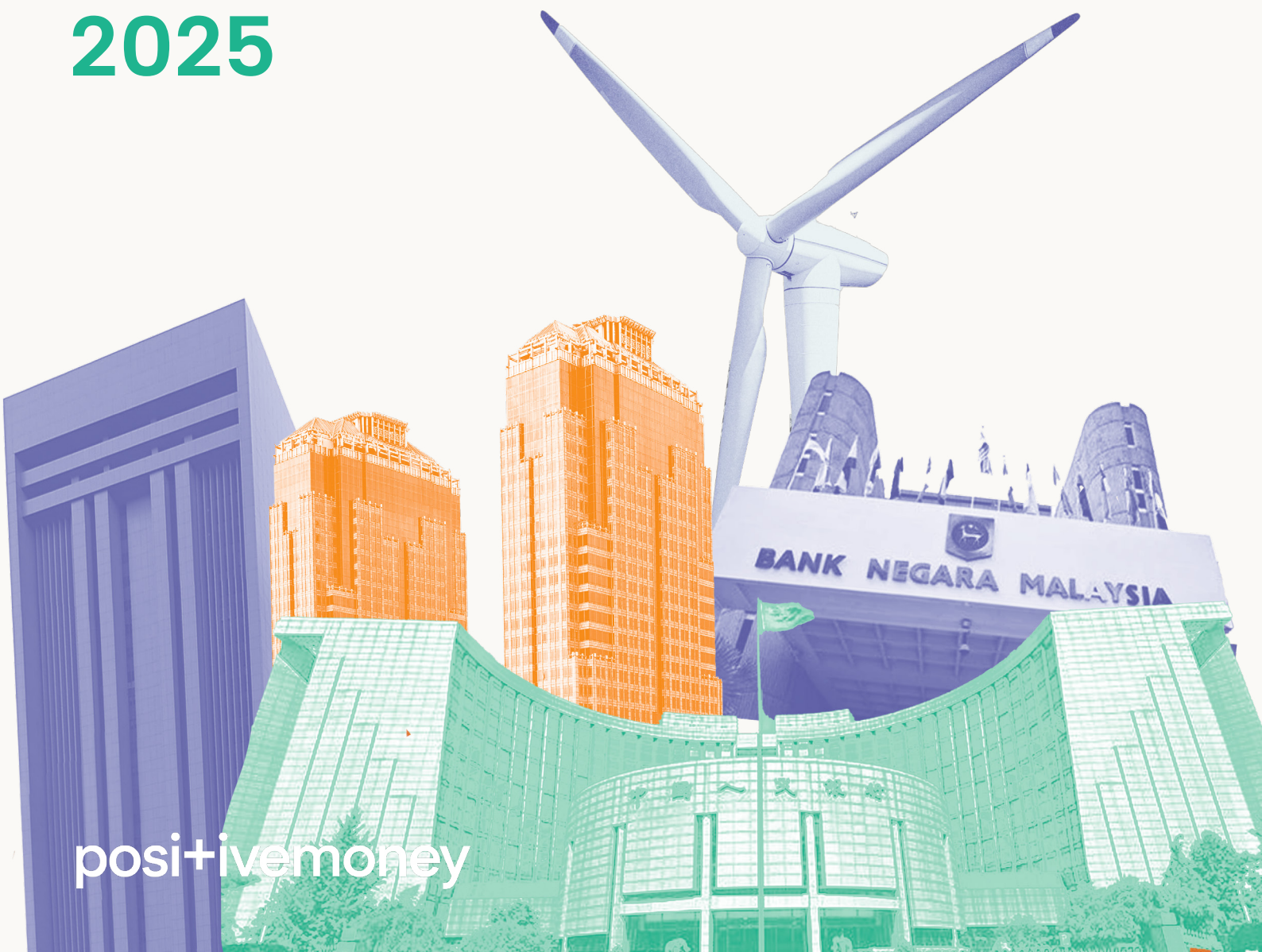
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AUTHORS

Joe Herbert, Marina Clavijo, and Scott Speer

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Executive Summary

The East and Southeast Asia Green Central Banking Scorecard analyses the progress of 13 countries' central banks and financial supervisors in integrating environmental considerations into their policies. The countries studied are the ten member states of the Association of Southeast Asian Nations (Brunei, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam) and the three major East Asian economies of China, Japan and Republic of Korea. Together, these 13 countries form the ASEAN Plus Three grouping.

Each country's green central banking actions and policies are examined across four categories: Research and Advocacy, Monetary Policy, Financial Policy, and Leading by Example. Policy data has been collected through literature reviews, expert consultations, and direct communications with the institutions studied. Each country is assigned a score based on the strength of their green central banking policies, using our scoring framework. These scores help to shape a wider analysis of countries' progress, which also considers the hugely varied economic and political context they each operate within. The report constitutes —to our knowledge—the first dedicated country–by–country analysis of green central banking in the ASEAN Plus Three grouping. As such, it acts as a benchmark against which future progress can be measured.

Green central banking across the ASEAN Plus Three as a whole is found to be at a relatively early stage of development, yet the progress of each of the 13 countries varies dramatically. We find one distinct cluster of five countries with relatively lower GDP per capita and/or nominal GDP, whose lower scores indicate they are at very early stages of exploring green central banking policies: Vietnam, Cambodia, Lao PDR, Brunei, and Myanmar. A second cluster of countries, with the most developed green central banking policies in the ASEAN Plus Three, includes China, Malaysia, Singapore, Indonesia, the Philippines and Japan. Thailand and the Republic of Korea sit in the middle of these two clusters. The strongest performers against the scoring framework exhibit different forms of close coordination between central bank and national government.

Japan and the Republic of Korea are current underperformers relative to their substantial economic capacity and outsized historical contributions to carbon emissions, which are second only to China. Yet, along with China —which gains the highest overall score against our framework —they are two of the strongest performers on green monetary policy, an area of weakness across the 13 countries as a whole. The majority of countries perform more strongly on financial policy, yet none of the 13 have adopted in any category what we classify as 'high impact' measures: policies that actively and systematically divert finance away from the most ecologically damaging economic sectors (e.g. fossil fuel production).

To build on initial progress in the region, the ASEAN Plus Three countries with greater economic power and larger historical contributions to environmental degradation should be expected to show the strongest leadership in advancing green central banking policies. The ASEAN Plus Three collaborative platform and bilateral partnerships should be used to ensure that no country is left behind. The more vulnerable countries of the ASEAN Plus Three should receive support to develop their green central banking policies from those with greater capacities, both within the region and beyond.

1. Introduction

Central banks are some of the most powerful financial institutions in our society. They are mandated with maintaining the stability of prices and the currency in their respective countries, and also for regulating the practices of the wider financial sector within their jurisdictions. Their decisions shape investment flows, credit conditions, and social wellbeing. As such, alongside national governments, they hold immense power to either accelerate or obstruct a just and orderly transition towards a sustainable economy in the face of ecological breakdown.

By 'green central banking', we refer to the alignment of central banks' and financial supervisors' operations and policies with addressing the climate and ecological crisis. This includes the use of monetary policy tools, such as adapting collateral frameworks and lending schemes, to restrict financial flows to sectors most responsible for ecological breakdown, and to incentivise sustainable activities. Financial regulation policies can also support this task, such as imposing higher capital requirements against investments in ecologically destructive sectors. Central banks can also use their research and advocacy capacities to develop understanding of the economic impacts of climate and ecological breakdown, domestically and through international fora. Crucially, central banks must coordinate their actions with their respective national governments, who must ultimately lead on driving forward a transition towards sustainable economies.

Transforming the global economy to meet climate goals and reverse environmental degradation requires an unprecedented scale of investment. McKinsey estimates US$9.2 trillion of investment in physical assets is required annually to 2050 (McKinsey Global Institute, 2022). Given the profound economic disruption caused by ecological breakdown, and the scale of investment needed to address it, Positive Money has long argued that central banks have a responsibility to step up and use their powers to direct finance towards this urgent and unprecedented economic transformation (Barmes and Livingstone, 2021).

Without immediate and systemic intervention, the accelerating ecological crises will unleash increasing loss of human life, forced displacement and economic hardship. The World Meteorological Organization recorded over 150 extreme weather events of 'unprecedented' scale in 2024, which was the hottest year on record (WMO, 2025a; 2025b). Meanwhile, global carbon emissions—the driver of climate breakdown—rose again to an all time high (IEA, 2025). Alongside this, a study published in the journal Nature in March 2025—synthesising over 2000 individual studies—reaffirmed an 'unprecedented' rate of destruction of the Earth's biodiversity caused by human activity (Keck et al., 2025). These are just two interconnected dimensions of a multi-faceted ecological crisis which is already causing vast human suffering, through both direct physical impacts and the major economic disruption it triggers (Barmes and Schröder Bosch, 2024).

1.1 The global importance of East and Southeast Asia

Since 2021, Positive Money has tracked the development of green central banking in the G20 countries through its Green Central Banking Scorecard series, the third edition of which was published in September 2024 (Livingstone et al., 2024). The scorecard's methodology has proven effective in driving ambition both within the G20, generating direct engagement from institutions such as the Banque de France, and also beyond, with

Magyar Nemzeti Bank using the methodology to conduct two self-assessments of their green central banking policies (Costa, 2024). Building on this success, the Scorecard methodology is now being applied to East and Southeast Asia, home to some of the fastest-growing economies globally (AMRO, 2025a).

According to a forecast by the World Economic Forum, the Association of Southeast Asian Nations (ASEAN)—a bloc of ten countries—will collectively become the world's fourth largest economy by the end of the decade, behind the US, China, and India (HSBC, 2020). ASEAN includes Brunei, Cambodia, Indonesia, Lao People's Democratic Republic, Malaysia, Myanmar, the Philippines, Singapore, Vietnam and Thailand. ASEAN's nominal GDP was US$3.8 trillion in 2023 (ASEAN, 2024), and is projected to reach US$4.5 trillion by 2030 (ASEANstats, 2024), up from US$2.5 trillion in 2015 (ASEAN, 2015).

Since 1997, ASEAN has also come together with the three major East Asian economies of China, Japan and the Republic of Korea through the ASEAN Plus Three collaboration (henceforth referred to as APT) (ASEAN+3, 2025). Collectively, the APT currently represents just over a quarter of global GDP (IMF, 2025), a proportion that will continue to rise.

Given the vast and growing size of the APT as an economic bloc, policy decisions in the region will have a huge influence in shaping global environmental outcomes over the coming years and decades. The path the region takes will play a pivotal role in determining the relative success or failure of international efforts to halt ecological breakdown. Of the US$9.2 trillion that McKinsey has estimated needs to be invested annually in physical assets in order to achieve net zero emissions globally by 2050, they argue US$3.1 trillion needs to be invested within Asia (Balasubramanian et al., 2022). In the APT countries specifically, there is still heavy reliance on fossil fuels for energy, with coal playing a particularly significant role. At the same time, the region also includes areas highly vulnerable to the negative physical impacts of climate breakdown (AMRO et al., 2025).

A strong framework of policies and regulation is needed from national governments, central banks, and financial supervisors in order to channel investment in East and Southeast Asia away from ecologically destructive industries and towards activities vital for a sustainable economic transition. The private sector and financial markets are not driven by long-term environmental sustainability, or social equity, but by short-term financial incentives. Left to operate without public direction, they will not deliver the scale or type of investment needed to mitigate the climate and ecological crises (Kedward et al., 2024).

This report evaluates the extent to which each of the 13 ASEAN Plus Three economies are using central bank and financial supervisory policy to support that transition. It identifies leaders, highlights key policy innovations, and offers a comparative lens to assess progress across the region, providing a foundation for accelerating ambition at a critical moment in the global response to intensifying ecological breakdown.

1.2 Methodology

The report utilises the analytic methodology developed within the G20 Green Central Banking Scorecard series, while making adaptations for the context of the APT.

As with the G20 Scorecard, we have examined the actions and policies of each country's central bank and—where a separate institution exists—its financial supervisor. An addition we have made to the institutional scope of this

report is to include Securities Commissions, which also play a role in regulating capital markets. The reason for this expansion is that, in several of the APT countries, securities commissions are playing an important role in the development of a green finance infrastructure, and so their inclusion helps to give a fuller picture of these developments. Actions led by national government ministries (e.g. finance, or environment) are sometimes mentioned where relevant, but are never scored within our framework, as they are separate from green central banking as a distinct set of institutions and practices.

As each country in the APT has a different institutional framework, involving varying roles and remits, our use of the term 'green central banking' in this report includes but does not exclusively refer to the actions of central banks, though they are the most prominent and powerful of the three types of institution in our scope. Rather, we use 'green central banking' frequently as shorthand for the whole scope of practices available to central banks, financial supervisors, and securities commissions in order to integrate environmental considerations into their operations. When referring to the actions of central banks exclusively, we use the term 'central bank(s)', or the name of the specific bank.

Policy data was collected through literature reviews (of central bank policy documents and annual reports), expert consultations (with researchers and campaigners whose work focuses on specific countries within the APT), and direct communications with the institutions studied (through emails and video meetings). One challenge of collecting policy data in such an international study was language. When studying policy documents, we relied on those published in English. Most central banks in the APT publish a significant amount of policy information in English, but some less so. On occasion, we utilised translation software, but such translations can lead to some details being obscured. Expert consultations and direct communications with the institutions helped to fill in gaps in our knowledge following the review of information available in English. However, language still remains a challenge, and it is possible that certain pieces of information fell outside our view because of this.

We studied the green finance actions and policies of the APT countries across four categories: Research and Advocacy; Monetary Policy, Financial Policy; and Leading by Example. A non-exhaustive indication of the scope of these categories is as follows:

- **Research and Advocacy**—participation in international green finance initiatives, integrating key green finance principles into the central bank's analysis, and publications focused on environmental issues, such as articles, speeches, and research reports.

- **Monetary Policy**—use of asset purchase programmes, monetary reserves, collateral frameworks, funding and refinancing schemes, reserve requirements and interest rates, lending requirements and limits, and coordination with fiscal authorities, in order to restrict financing to ecologically damaging sectors and incentivise green investment.

- **Financial Policy**—implementation of environmental disclosures, scenario analysis and stress-testing, capital and liquidity requirements, risk-weights, risk management standards, and other guidelines for private financial institutions on integrating environmental considerations into their policies and actions.

- **Leading by Example**—adopting a sustainable investment policy, greening non-policy portfolios, supporting and using sustainable investment taxonomies, engaging with civil society on green finance topics, and considering environmental issues beyond climate change.

Within these four categories, we further categorise policies by their 'impact' level (low, medium, or high) and implementation stage (under discussion, formal commitment, or fully implemented). Impact is defined by the extent to which an action is likely to help divert finance away from ecologically destructive industries and towards green activities (see Appendix 1 for a detailed description of how we categorise and score policies). The impact and implementation axes constitute our scoring matrix, with policies at higher levels of impact and implementation gaining more points. We use this scoring matrix to generate category scores and a total score for each country. The maximum points available in each category varies according to how impactful we judge actions in that category to be. Monetary Policy and Financial Policy each have 50 points available, Leading by Example has 20, and Research and Advocacy has 10.

In terms of time scope, we searched for policies conceived, implemented, or still active within the last five years. This timespan is long enough to cover the majority of green finance developments in the APT countries. Because of methodological adaptations including the institutional and time scope, scores generated for this report are not directly comparable to the G20 Scorecard series. The only exception to the five year scope is for low impact Research and Advocacy actions, which are subject to a two year limitation. This decision resulted from an expert-guided review of our methodology published in January 2024, which highlighted the limited longer-term impact of actions such as speeches and research reports (Speer and Yedav, 2024).

The scores generated through our framework provide a useful indication of the relative progress of APT countries in developing green central banking policies. However, there is a lot of wider context that they do not capture. The APT region encompasses a highly diverse set of countries—including high-income economies and others facing enduring legacies of colonialism, external debt, and structural inequalities in the international financial system. Our country-level analyses (see Section 4) seek to reflect these differences by considering the wider political and economic dynamics shaping each country's capacity to implement green central banking reforms, as well as their differentiated responsibilities in contributing to—and addressing—ecological breakdown. For example, ASEAN countries like Cambodia, Lao PDR, and Myanmar, cannot currently be held to the same expectations in regards to green central banking standards as the Plus Three countries of China, Japan, and Republic of Korea, given that the latter have much larger GDP and historic contributions to carbon emissions, while the former are more marginalised within the international economic and financial system.

For these reasons, we acknowledge that a scorecard approach has limits. The scoring of countries' green central banking policies through our methodology should be interpreted alongside a deeper understanding of regional dynamics, domestic political economy, and country-specific contexts. We encourage readers, especially policymakers and advocates, to use the Scorecard as a starting point for further dialogue and locally grounded analysis.

Section 2 continues the discussion of the ASEAN and APT in more detail. After that, sections 3 and 4 discuss the progress of APT countries in developing green central banking policies, and their performance against our framework. Finally, in section 5, we propose some important next steps for driving forward green central banking in the APT.

2. The ASEAN and ASEAN Plus Three

While the primary analysis of this report is at the country–level of green central banking implementation, it is important to consider the wider regional context surrounding this and how countries are collectively progressing green finance agendas. This section therefore studies the actions that the ASEAN and the APT have taken respectively at the collaborative level to develop green finance in the region. Both collaborations are taking actions in their own right, and so each is discussed in turn in the following subsections.

More work on the institutional and policy development for green finance in the region has so far been advanced through the ASEAN collaboration, compared to the APT (ASEAN+3, 2022). As it stands, interactions between ASEAN and Plus Three (PT) countries mainly occur in the form of bilateral economic relationships, rather than at the collaborative APT level, but only some of these include a green finance element.

When considering the ASEAN and APT collaborations, it is important to bear in mind that their member countries exhibit vast differences in terms of the total size of their economies, their relative wealth, political structures, population sizes, industrial composition, ecological impacts, and many other factors. Figures 1 and 2 display respectively the nominal GDP and GDP per capita of the APT countries, based on the International Monetary Fund's (IMF) 2025 forecasts (IMF, 2025). The scale of China's GDP obscures somewhat that of the other nations, particularly the ASEAN countries. To a slightly less dramatic extent, one country—Singapore—also has by far the highest GDP per capita in the APT.

Figure 1: Nominal GDP of ASEAN Plus Three countries (US$ trillions), 2025.
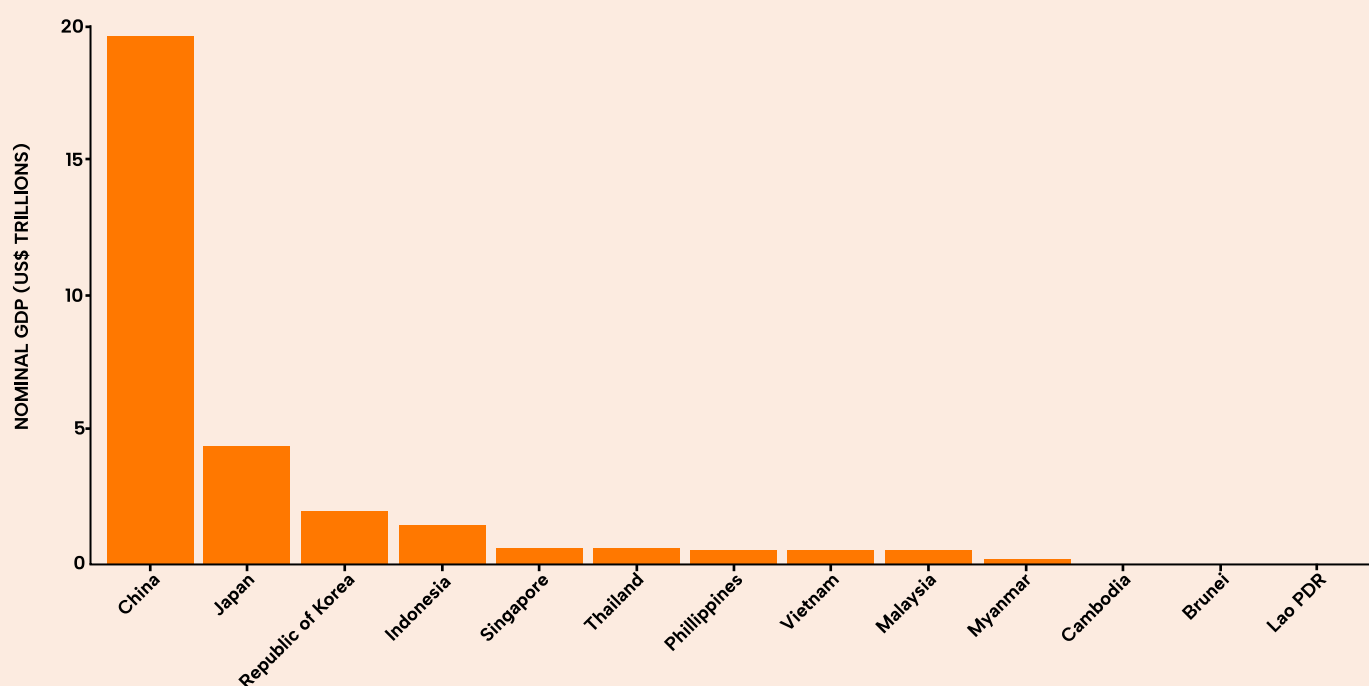
source: International Monetary Fund 2025 forecast

Figure 2: GDP per capita of ASEAN Plus Three countries (US$), 2025
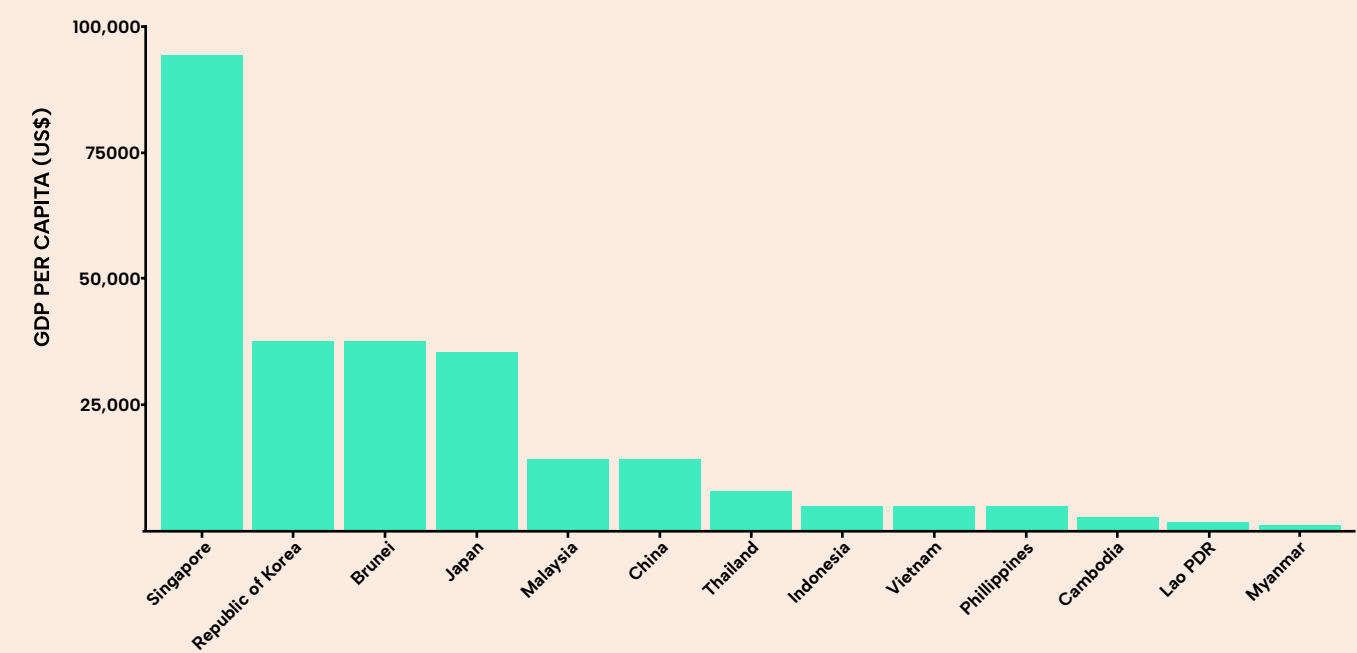
source: International Monetary Fund 2025 forecast

The ecological impacts of each APT country—both historically and currently—also vary dramatically. These are more multi-faceted and difficult to measure than something like GDP, but one indicative dimension that can be considered is CO_2 emissions. Figure 3 shows the cumulative emissions of the APT countries from fossil fuels and industry since the first year of recording (1750–2023), measured in tonnes (Global Carbon Budget, 2024). This metric tracks the nominal GDP of the countries very closely, with an almost perfect positive correlation coefficient.

Figure 3: Cumulative CO2 emissions (billion tonnes) of ASEAN Plus Three countries, 1750–2024
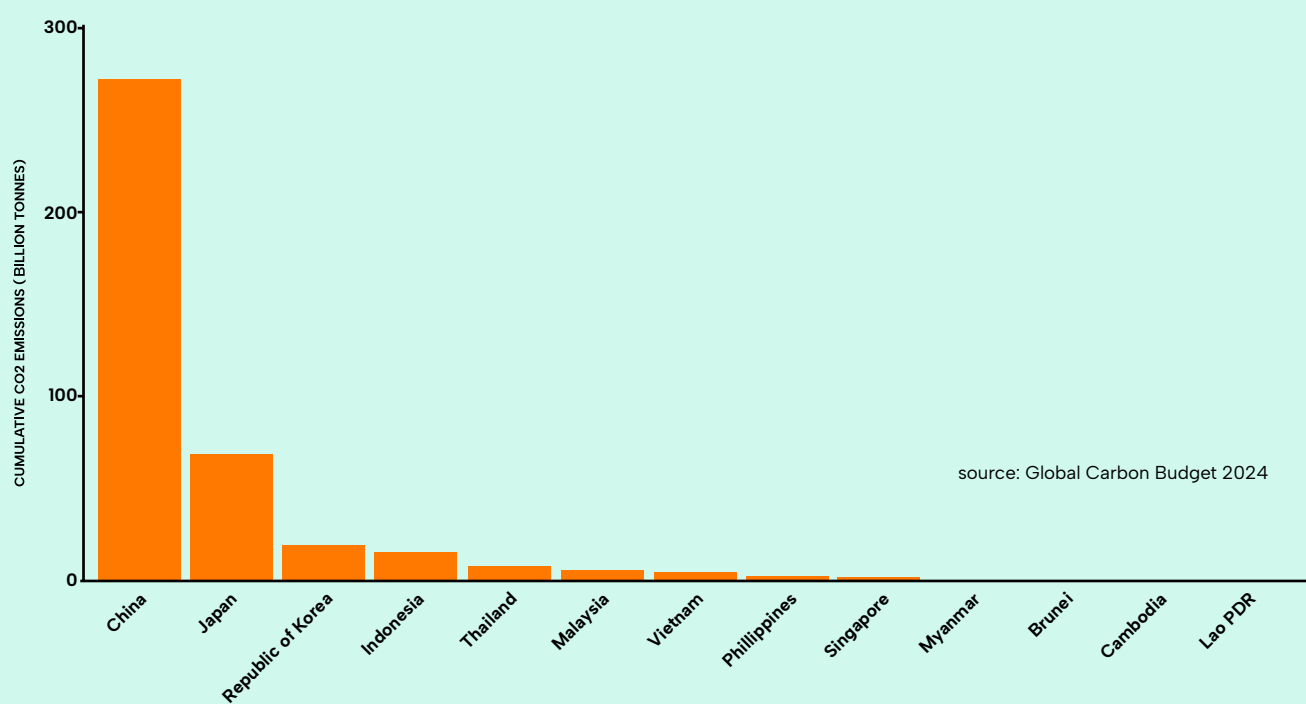
source: Global Carbon Budget 2024

To consider how countries' emissions compare to their 'fair share', however, it is important to also account for population size. Figure 4 shows a measure of APT countries' cumulative emissions per capita, across the period 1850–2024. The data calculation was conducted by CarbonBrief, and adds together the per capita emissions of a country for each year of the time range, rather than just considering their current population (Evans and Viisainen, 2024). It measures historical CO2 emissions from fossil fuel use, cement production, land use, land use change and forestry (LULUCF). The analysis shows Malaysia with the highest cumulative emissions per capita, and more gradual differences between countries thereafter (there is no data available for Brunei). Malaysia's large cumulative per capita emissions figure will have been shaped by factors including its significant fossil fuel production, and high levels of deforestation driven by mining, logging, palm oil production, and agriculture (CCPI, 2025).

Figure 4: Cumulative CO2 emissions (tonnes) per capita of ASEAN Plus Three countries, 1850–2024.

source: Carbon Brief analysis
Note: Data is not available for Brunei
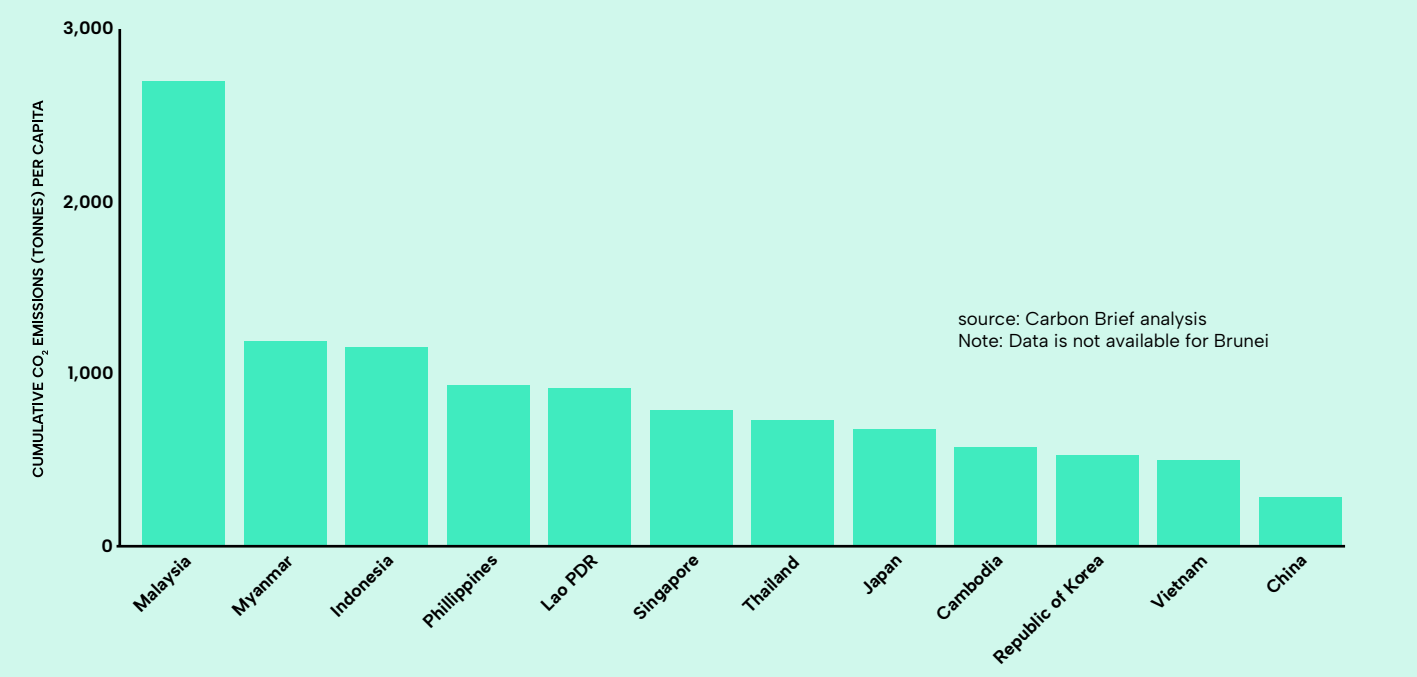
2.1 Green finance developments at the ASEAN Plus Three level

In the APT collaboration, work on green finance has so far focused on the development of technical tools and research, and sustainable capital markets. In relation to the former, the ASEAN Plus Three Macroeconomic Research Office (AMRO) has supported the APT by researching and developing policy and technical tools for the region's central banks and financial authorities (e.g. AMRO, 2025b). AMRO was established in 2011 by the finance ministries of the APT countries, to act as a trusted policy advisor to the APT (AMRO, 2025c). It operates as an independent organisation, though its executive committee is formed of two deputies representing each APT member state: one finance deputy from the government, and one central bank deputy (AMRO, 2025d).

In relation to sustainable capital markets, the APT has developed the Asian Bond Markets Initiative (ABMI) (ASEAN+3, 2022), which has helped the region's market share of the global green bond market grow significantly.[1] The purpose of the ABMI is "to develop local currency bond markets as an alternative source of funding to foreign–currency denominated bank loans", to reduce the region's reliance on foreign currencies, and therefore its vulnerability to financial crises (ARIC, 2025). However, most countries in the region are still issuing green bonds in foreign currencies (see Figure 5). The exceptions to this trend are China, Malaysia, and Thailand, where the vast majority of green bonds issued are denominated in the local currency (AMRO, 2025b). However, the market share of green bonds issued by Malaysia and Thailand is marginal within the APT, while China is the dominant issuer in the region (AMRO, 2025b).

Figure 5: *Left* – Selected ASEAN+3: Green Bond Issuance Amount (Billions of US dollars).
Right – Selected ASEAN+3: Share of Green Bonds by Currency Denominations (Percent). Source: AMRO (2025b).
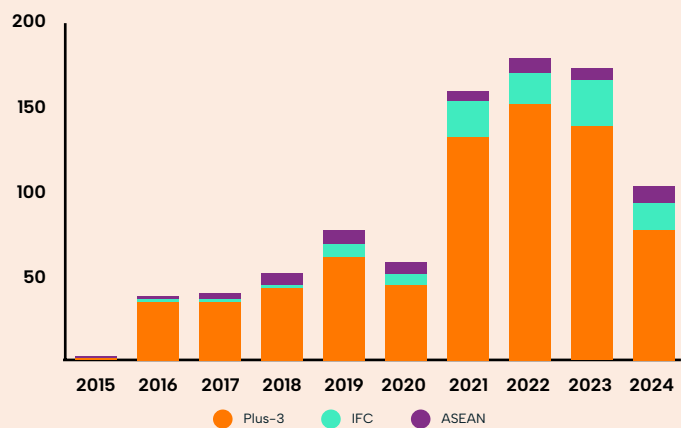
Source: Refinitiv; AMRO staff calculations
Note: Data are as of August 15, 2024. Data covers all economies issuing green bonds. Plus–3 includes China, Japan and Korea. ASEAN includes Indonesia, Lao PDR, Malaysia, Phillippines, Thailand and Vietnam. IFC includes Hong Kong and Singapore, Green bond share represents the percentage of share of ASEAN+3 green bonds in global green bond market

Source: Refinitiv; AMRO staff calculations
Note: CN= China; HK = Hong Long; ID = Indonesia; JP= Japan; KH = Cambodia; KR = Korea; LA = Lao PDR; MY = Malaysia; PH = the Philippines; SG = Singapore; TH = Thailand; VN = Vietnam

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[1] "As of August 2024, the region accounted for 19.1 percent of global green bond issuance" (AMRO, 2025b)

The exchange rate risk that countries face whilst servicing their green debt is an important concern to ABMI, and so it has been promoting the issuance of green bonds in local currency (AMRO, 2025b). This has also been supported by the creation of the Chiang Mai Initiative (CMI) and Chiang Mai Initiative Multilateralization (CMIM), whose objectives are to: support short–term liquidity needs in the region, reduce dependency of the APT on the US Dollar,[2] and increase local currencies reserves and swaps.[3]

Overall, green finance and green central banking have so far been less of an explicit focus for the APT, compared to ASEAN. Moreover, the leading role of the PT countries—China, Japan and Republic of Korea—in green bond markets, and the benefits they have gained from this, have not been extended to the ASEAN countries. Action at the APT collaborative level can help to address such regional imbalances through its green finance initiatives moving forward.

2.2 Green finance developments at the ASEAN level

The ASEAN collaboration expresses an explicit commitment to supporting its member countries in transitioning their economic structures to become more sustainable. It has stated that: "Central banks should be in a state of readiness to manage the risks stemming from climate change and environment–related events more proactively… [and] adopt an equity lens and develop strategies to support inclusive green finance" (Anwar et al., 2020). However, as this statement suggests, ASEAN does not yet appear to have developed a 'double materiality' approach that also considers financial institutions' own impacts on climate and environmental stability.

The ASEAN Capital Markets Forum (ACMF), which is composed of financial and monetary regulators of all ASEAN countries, has been central in ASEAN's promotion of green monetary policy. As part of its *Action Plan 2021–2025* (AP2025) (ACMF, 2025), the ACMF has committed to building the green finance capacities of ASEAN countries, and particularly Cambodia, Lao PDR and Myanmar (sometimes referred to collectively as 'CLM') (ACMF, 2021). The ACMF has advocated for monetary policies which support green lending, and the inclusion of green securities in open market operations (OMOs) and collateral frameworks, though also arguing that these are currently a challenge for ASEAN countries to implement (Anwar et al., 2020). Indeed, we found very slim development of green monetary policies amongst ASEAN countries in our research. The AP2025 also established a focus on promoting transition finance through capital markets, with the ACMF issuing two versions of its Transition Finance Guidance (ACMF, 2024).

Compared to the development of more sustainable capital markets, a more minor strand of ASEAN's green finance work has involved developing guidelines and standards for the banking and insurance sectors (ACMF, 2025). In relation to the insurance sector, in 2013 ASEAN established the ASEAN Disaster Risk Financing and Insurance (ADRFI) programme (MAS, 2019), which develops a framework for financing to address risk posed by environmental shocks. However, the programme has been criticised as giving uneven consideration to the various ASEAN member states and has faced challenges such as high loss ratios on disaster protection (MAS, 2019).

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[2] "The share of US dollars in APT banks' cross-border assets and liabilities remains above 50 percent". See: https://amro-asia.org/wp-content/uploads/2024/10/AMRO-AFSR-2024-full-report-Web_v3.pdf

[3] "The Chiang Mai Initiative (CMI) that develops the IMF De-Linked Portion (IDLP) led to the establishment of a surveillance unit the APT Macroeconomic Research Office (AMRO), in 2011, with the objective of supporting the evolution of the IDLP and the CMIM, and monitoring the liquidity needs and the framework of the region". See: https://amro-asia.org/how-the-cmim-has-evolved-as-asean3s-self-help-mechanism/https://amro-asia.org/how-the-cmim-has-evolved-as-asean3s-self-help-mechanism/

Work relating to the development of sustainable finance taxonomies has been a predominant focus at the ASEAN collaboration level. This work has been conducted through the establishment of the ASEAN Taxonomy Board (ATB), which is comprised of financial regulators from the banking, insurance, and capital market sectors, and the collaboration of the ASEAN Finance and Banking Working Committees (Ariyapruchya and Volz, 2023). The ATB has issued three versions of the ASEAN Taxonomy for Sustainable Finance. The ASEAN Taxonomy aims to balance various needs, including the provision of a flexible framework that each country can adapt to their particular characteristics, while also moving countries towards the regional sustainability goals of "climate change mitigation and adaptation, protection of healthy ecosystems and biodiversity, and promotion of resource resilience and transition to circular economy" (Ariyapruchya and Volz, 2023).

The Taxonomy also aims to enable interoperability with domestic and widely used international taxonomies (ASEAN Taxonomy Board, 2024). As each ASEAN country is at different stages in terms of green finance implementation, the ASEAN Taxonomy utilises two frameworks: the Foundation Framework (FF) and the Plus Standard (PS). The Foundation Framework is "intended for use by companies or governments setting off on the journey towards sustainability", while the Plus Standard is aimed at "those seeking to show their capacity to meet tougher environmental requirements" (Lee, 2024a).

Version 1 of the ASEAN Taxonomy set up an overall framework and established the priority sectors for the region: 1) Agriculture, Forestry and Fishing, 2) Manufacturing, and 3) Electricity, Gas, Steam, and Air conditioning supply. Version 2 developed the technical screening criteria for the energy sector, and Version 3, for the transportation and construction sectors. Notably, the screening criteria for the first two priority sectors have not yet been included in the Taxonomy, which has attracted some criticism (Lee, 2024a). Accurate, scientifically–backed categorisation of industrial activities is essential to ensure taxonomies play a constructive role in progressing green finance. Resisting corporate lobbying which seeks to utilise taxonomies in order to greenwash dirty activities is therefore crucial.

The examination of the ASEAN's and the APT's green finance initiatives at the collaborative level present a picture of differing support being offered to the region and its countries. The ASEAN collaboration has progressed most of the standards, guidelines and taxonomies that could support a wider green transition in the region, despite the significant economic power of the PT nations. While many bilateral relationships between PT and ASEAN countries exist, not all of them involve green finance, and support for green economic transformation.

Development of sustainable capital markets has been a focus of collaborative initiatives, however, significant disparities across the 13 countries' capital markets reflect the wider economic divergences between APT members. Moving forward, continued development of ASEAN programmes and an upscaling of initiatives at the APT level should be seen as playing an important role in building out a regional green finance framework that can compliment individual countries' domestic policy implementation, which forms the focus of the following sections.

# 3. Analysing countries' performance against the scoring framework

Having discussed green finance developments at the regional level of the ASEAN and APT collaborations, this section begins the exploration of the APT countries' progress at the national scale, by highlighting prominent overall patterns and findings from our analysis of each country's green central banking policies against our scoring framework. Section 4 then goes into further detail on the policies and performance of each country, including consideration of the wider political and economic context they are operating within.

Collectively, the scores of the APT countries against our framework reflect the fact that green central banking is at relatively early stages of development in much of the region, with even the highest scoring country receiving under half of the available points (see Appendix 2 for a full breakdown of the score data). Contributing to this outcome, we found no policies from any country that meet our criteria for 'high impact' actions. We classify high impact actions as those that actively shift finance away from the most ecologically destructive sectors—notably fossil fuels—and not just a limited selection of assets.

When analysing countries' progress in developing green central banking policies, one important factor to consider is their relative economic capacities. Countries with higher GDP and GDP per capita should generally be expected to be further along in the development of green central banking policies, as they are better resourced and often have greater institutional capacity to develop and implement such policies. Meanwhile, countries with lower GDP and GDP per capita are more likely to be facing a number of pressing social challenges and economic objectives, with relatively fewer resources. Therefore, we should not expect that they have as much capacity to develop green central banking policies. At the same time, countries with a larger GDP often have a larger financial sector, in which case green finance regulation in particular gains further importance.

Our scoring of APT countries' green central banking policies reflects to an extent this expected positive correlation with GDP. The Pearson Product–Moment Correlation Coefficient of APT countries' nominal GDP (IMF 2025 forecasts) and overall score in our framework is 0.5, exhibiting a moderate positive correlation. Figure 6 helps to visualise this relationship between APT countries' overall score and their GDP, with score represented by the y–axis, and the bubble size representing each country's GDP. To understand the scale of the bubbles, the IMF 2025 GDP forecast figures we used ranged from China as the largest at around US$19 trillion, to Lao PDR as the smallest at around US$15 billion. Figure 6 also illustrates the significant division between the cluster of five lowest scoring countries—with a lower average GDP (and GDP per capita)—and the rest of the APT. The scores of this cluster (Vietnam, Cambodia, Lao PDR, Brunei, and Myanmar – not displayed, as we found no relevant policies) reflect the fact that they are at the very beginning of—or yet to start—developing green central banking policies. A second subgroup with a higher average GDP and more developed green central banking policies cluster in the top right, while Thailand and Republic of Korea sit in the middle of the two groups.
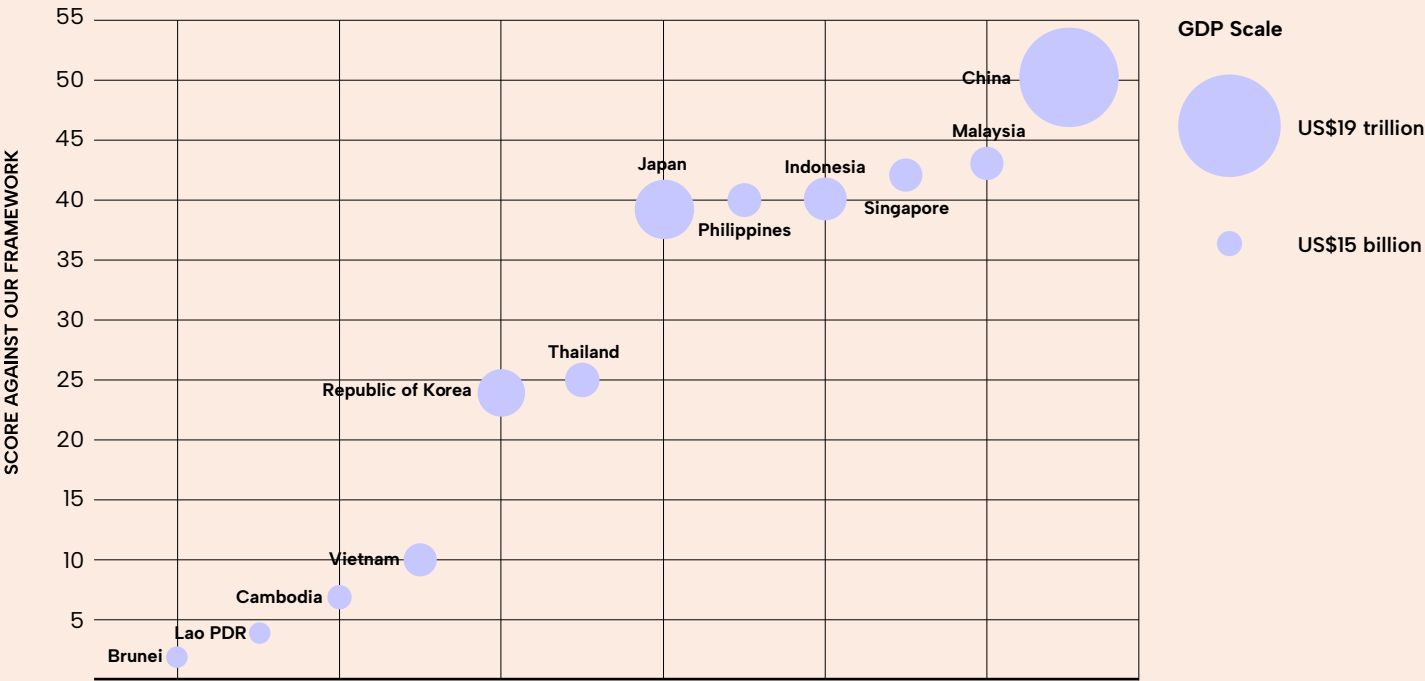
The Republic of Korea and Japan appear—to differing extents—as outliers from the correlation between overall score and GDP, whose large economies mean we would expect their green central banking policies to place higher amongst the APT. GDP per capita exhibits a weaker—although still positive—correlation with countries' overall score (0.3 correlation coefficient). This suggests that being well–resourced in terms of GDP per capita is not always necessary in order to develop impactful green central banking policies, and that some relatively better–resourced countries are underperforming. At the same time, the weaker correlation between countries' overall score and GDP per capita compared to that with absolute GDP might suggest that there is a minimum threshold of the size of a national economy—regardless of population—after which development of green central banking policies becomes more of a priority.

Another important factor to consider when analysing countries' development of green central banking is historical contribution to ecological destruction. Countries who have, for example, contributed a greater proportion of total historical carbon emissions, have a greater responsibility to be leading on the implementation of robust green central banking policies. Again, this positive correlation is reflected to an extent—though not strongly—by our scoring of APT countries. The correlation coefficient between the overall score and cumulative emissions (Global Carbon Budget, 2024) of countries exhibits a moderate positive correlation (0.49), only slightly weaker than that with GDP. This is unsurprising given that APT countries' GDP and cumulative emissions themselves correlate very strongly. However, the correlation coefficient between overall score and cumulative emissions per capita (Evans and Viisainen, 2024) reveals only a very weak positive correlation (0.17).

Figure 7 offers another perspective on the correlation between APT countries' overall scores against our framework, and their GDP and cumulative emissions. The bars on the chart indicate how each country's rank within the APT in terms of their GDP and their cumulative emissions compare with their overall score rank. A positive differential on the y–axis accordingly represents where a country's overall score rank is higher than its GDP or cumulative emissions rank within the APT, while a negative differential indicates where its overall score rank is lower. Where no bar appears, a country's overall score rank matches its GDP rank or cumulative emissions rank.

Figure 7: Countries' overall score rank compared to GDP rank and cumulative emissions rank.

Source: Positive Money analysis of IMF 2025 forecasts and Carbon Brief 2024 data
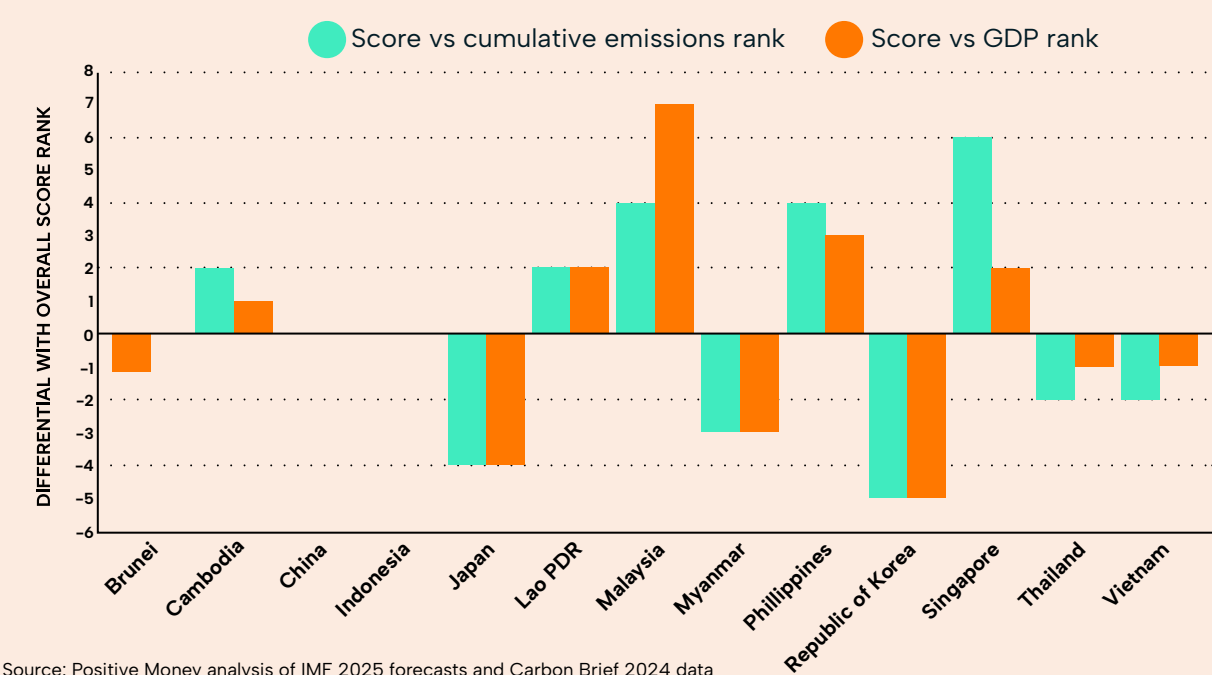
One notable feature of the chart is that Republic of Korea and then Japan have the largest negative differentials between their overall score rank, and their GDP and cumulative emissions ranks. In other words, these countries' green central banking policies could be expected to rank higher within the APT given their relative economic capacity and historical contribution to global emissions. Malaysia stands out as the biggest 'outperformer' of its GDP and emissions ranks within the APT, followed by Singapore and the Philippines. It should be noted that Singapore's relatively strong performance against our scoring framework appears further enhanced in Figure 7 due to its small size as a country, which means its GDP and cumulative emissions are also relatively low within the APT. Importantly, Singapore has the highest GDP per capita in the APT (IMF, 2025), and so it should be expected to have well–developed green central banking policies given this strong capacity.

A final piece of the overall picture that should be noted is how APT countries' overall scores were split across the four categories studied: Research and Advocacy, Monetary Policy, Financial Policy, and Leading by Example. The largest number of points are available in the Monetary Policy and Financial Policy categories (50 in each), as we judge these to be the most impactful (see Appendix 1 for a full breakdown of the scoring system). Seven countries gained more points in the Financial Policy category than Monetary Policy, which includes the top five scoring countries. Only two countries—Japan and Republic of Korea—gained more points in Monetary Policy than Financial

Policy. This pattern of green financial policies being more developed than green monetary policies is one we have also observed in our analysis of G20 countries' policies in the Green Central Banking Scorecard series. Aside from Myanmar—for which we found no relevant green central banking policies or actions—the three next lowest scoring countries all achieved the most points in Research and Advocacy, followed by Vietnam which scored equal points in Research and Advocacy and Leading by Example. It is common for countries at earlier stages of developing green central banking policies to register most of their points within these two categories, which include more exploratory actions.

Having examined some of the overall patterns in how APT countries' green central banking policies measured up against our scoring framework, the next section goes into further detail on the key policies and policy gaps exhibited by each country.

4. Country-by-country analysis

The country-by-country analyses in this section bring into consideration wider political and economic factors shaping the development of green central banking in each of the APT countries. Countries are discussed in alphabetical order. The section discusses a sample of significant or impactful policies implemented by each country, to provide an indication of key developments, strengths, and weaknesses. The total number of policies found (and scored) through our research extends far beyond those mentioned here.

4.1 Brunei

Brunei has so far not developed any specific green central banking policies. We did not find any actions taken by Brunei's central bank and financial regulators which fit into our categories of Monetary Policy, Financial Policy, or Leading by Example. Only two actions were found that score against our framework, in the Research and Advocacy category, at the low impact level. These were a workshop on the ASEAN Taxonomy for Sustainable Finance hosted by the Brunei Darussalam Central Bank (BDCB) (Brunei Darussalam Central Bank, 2024), as well as the BDCB's chairship of the ASEAN taxonomy board.

There are a couple of factors which provide important context for Brunei's lack of green central banking policies. Firstly, it is by far the smallest nation in the APT, with a population of under 500,000 (World Bank, 2025). Even the second smallest, Singapore, has a much larger population of 6 million. In this regard, it is explicable that Brunei does not have as well developed green central banking policies as the much larger countries in the region, with larger financial sectors and international influence.

A second important factor is that Brunei's economy is highly dependent on oil and gas, which constitute over half of its GDP (Teja, 2024). We have seen in our previous research on green central banking in the G20 that countries which derive a large proportion of their GDP from fossil fuel exports—such as Saudi Arabia, and to a smaller extent, the US—often exhibit a lack of green central banking policies (Livingstone et al., 2024). However, as Brunei seeks to diversify its economy away from fossil fuels (Medina, 2025), as required to align with international climate commitments, the development of green central banking policies will be highly important.

4.2 Cambodia

Cambodia's uptake of green central banking remains nascent, with public policy efforts still focused on building the basic frameworks for sustainable finance. While initial steps have been taken, there is little evidence yet of impactful policies or concrete shifts in financial practice.

The country's highly dollarised economy poses structural challenges for monetary policy, limiting the National Bank of Cambodia's (NBC) ability to use liquidity or price tools to influence green finance flows (National Bank of Cambodia, 2025). However, the NBC also serves as the main financial supervisor, giving it the capacity and responsibility to advance green supervisory policies and guide financial institutions in aligning with the country's climate goals.

Cambodia did not score any points in two key categories, with no qualifying Monetary Policy or Financial Policy actions implemented to date. Progress so far has centred on the development of sustainability frameworks. The NBC is leading the Cambodia Sustainable Finance Roadmap (National Bank of Cambodia, 2024), developed in partnership with the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). In parallel, a partnership between the NBC and the International Finance Corporation (IFC), launched in late 2023, aims to strengthen Cambodia's regulatory framework by introducing a national green investment taxonomy as well as standards for green lending and ESG risk disclosure, with the taxonomy expected by 2025 and full implementation of the agreement by the end of 2026 (National Bank of Cambodia, 2023).

Some groundwork has been laid by industry. The Association of Banks in Cambodia (ABC) introduced voluntary Cambodian Sustainable Finance Principles in 2016, followed by implementation guidance in 2019 (The Association of Banks in Cambodia, 2019). These guidelines encourage banks and microfinance institutions to integrate ESG risk management, including considerations of cultural heritage protection. However, they remain non-binding and their system-wide impact to date appears limited[4]. This action does not register against our scoring framework as it does not emerge from the central bank or financial supervisors.

Cambodia is also engaging with regional initiatives. The NBC is a member of the ASEAN Taxonomy Board (ATB), with the Securities and Exchange Regulator of Cambodia (SERC) serving as an alternate member and as co-chair of the ASEAN Working Committee on Capital Market Development (Sustainable Banking and Finance Network, 2024). Additionally, the NBC, alongside other domestic authorities, is studying how the ASEAN Taxonomy could be implemented within the Cambodian context (Securities and Exchange Regulator of Cambodia, 2023). Cambodia's green finance architecture is still in its infancy. The key test will be whether upcoming taxonomies and guidelines translate into concrete supervisory requirements and real shifts in financial flows, moving beyond voluntary principles towards policies that actively redirect finance in line with the country's environmental commitments.

Cambodia should now focus on strengthening the enforcement and ambition of its green central banking policies, and ensure that emerging frameworks lead to tangible change across its financial system.

4.3 China

China has the strongest green central banking policies in the APT as measured by our framework. This finding aligns with our previous analysis in the G20 Green Central Banking Scorecard, which also found China to be a strong performer internationally in green central banking.

Green central banking policies in China are being developed by the People's Bank of China (PBoC, the central bank), as well as the National Financial Regulatory Administration (NFRA), which regulates the financial sector and replaced in 2023 the China Banking and Insurance Regulatory Commission (CBIRC). The China Securities Regulatory Commission (CSRC) also plays a more minor role. China's strength amongst the APT comes from its spread of policies in both the Monetary Policy and Financial Policy categories, including multiple fully implemented policies at the medium impact level. Following the predominant pattern amongst the APT, Financial Policy is the stronger category of the two.

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[4] It has been recognised that sustainable finance in the region is mainly industry-led. See Ariyapruchya and Volz (2023)

Financial policies which meet our medium impact level include the PBoC's climate stress testing of the Chinese banking system (Caswell, 2022), and green finance guidelines issued by the CBIRC which place a number of requirements on banks and insurers to further integrate environmental considerations into their policies and practices (The People's Republic of China, 2022). While China's monetary policies perform less strongly than its financial policies, it still has medium impact policies in place, which gain the joint highest Monetary Policy category score alongside Japan. These include the PBoC's Carbon Emission Reduction Facility (CERF), which provides low interest funding for financial institutions to extend loans for carbon reduction projects, and the incorporation of green bonds in the PBoC's collateral framework (Macaire and Naef, 2023). These policies gained validity against our scoring framework after parallel incentives for lending to 'clean coal' production were ceased in 2023 (People's Bank of China, 2024a), and coal was eliminated from green bond classifications (Guo et al., 2020).

In the Research and Advocacy, and Leading by Example categories, China's performance is average within the APT. In Research and Advocacy, China registered only low impact actions. Amongst these, a common type of output are 'Guiding Opinions' documents published in collaboration between the PBoC and government ministries, which set out broad principles on various green finance topics, but lack specific policy commitments (People's Bank of China, 2024b). Similarly in Leading by Example, only low impact actions were recorded. Perhaps the most notable among these is China's collaboration with the EU Commission on the Common Ground Taxonomy, which maps out the overlaps between the green taxonomies of the two jurisdictions, in order to enhance cross–border climate finance (People's Bank of China, 2021).

Of course, it cannot be ignored that China is by far the largest economy and geopolitical power in the region. For these reasons, there should be high expectations on China in terms of leading on the development of green central banking in the APT. Given the level of political and economic influence China has, its progress in green central banking is not just of domestic importance, but has the capacity to shape and expedite decarbonisation and economic transformation away from ecologically damaging activities throughout the region.

China is also now the world's largest annual emitter of CO2, while its cumulative historical emissions lie second behind the US (Evans, 2021). China's decarbonisation is therefore vital to addressing climate breakdown globally, and so it is crucial that it continues to strengthen its green central banking policies in order to facilitate this transition. Having said this, analysis by CarbonBrief found that China's cumulative emissions per capita (from 1850 to 2024) are relatively low in global terms, and the lowest in the APT (Evans and Viisainen, 2024). Also, studies by Jason Hickel and Andrew Fanning find that China is responsible for 1% of global carbon emissions in excess of the scientifically–determined safe atmospheric concentration of 350 parts per million, when accounting for its 'fair' historical emissions budget based on population size (Hickel, 2020; Hickel et al., 2025). For comparison, the same study calculates the US as responsible for 38% of total excess emissions (Hickel at al., 2025).

As other researchers have noted, the PBoC's relative strength in green central banking is aided by its broad, developmental mandate, which includes more activist policy tools than many other central banks, and is shaped by its integration with national government (DiLeo et al., 2025; see also section 5.3). However, China is yet to implement monetary and financial policies that meet our high–impact threshold. As we described in our 2024 Green Central Banking Scorecard, a big factor which is holding back further progression of green central banking in China is its coal industry, as exemplified by the outstanding loans to coal made by the PBoC's special lending scheme for coal (People's Bank of China, 2022). The Chinese government (as well as other Global South governments) has argued that under the concept of 'common but differentiated responsibilities' within

the UNFCCC, China should not be required to decarbonise its economy—notably, by moving away from coal—as rapidly as Global North countries with greater historical emissions (Carlson et al., 2021).

Nonetheless, achieving high impact policies would require the PBoC to actively restrict financing to coal and other fossil fuels, such as through imposing higher risk weights and capital buffers on financial institutions' investments in fossil fuels. Of course, alongside this, parallel policies to incentivise finance for green sectors need to be maintained and strengthened.

4.4 Indonesia 🇮🇩

Indonesia is a strong performer in the APT against our scoring framework, with particularly well developed financial regulation policies. A key factor underlying its strong performance is its institutional coordination. The Sustainable Finance Committee (KKB) mandates the Bank Indonesia (BI), the Financial Services Authority (OJK), and the Ministry of Finance to lead green finance efforts in support of the Sustainable Development Goals (SDGs).

Indonesia has improved on its 2024 G20 Green Central Banking Scorecard performance by advancing in the Financial Policy category. However, this strong performance relative to other APT countries must be viewed in context: Indonesia remains one of the region's largest CO2 emitters (Nugrahaeni, 2025), and it maintains policies which support its coal industry. Furthermore, it could be doing more to use its position to support more vulnerable countries in the APT.

BI's monetary policy framework evidences an integration of environmental considerations, with the bank recognising environmental disruptions as a supply-side driver of price instability (Bank Indonesia, 2025; see also Barmes and Schröder Bosch, 2024). It coordinates with the government to address inflation through the Coordinated Inflation Target Setting, Monitoring and Control Team (TPI), which also includes a range ministries such as Agriculture and Energy (Bank Indonesia, 2025). The BI has also itself issued the sukuk Bank Indonesia (SukBI), with the proceeds being allocated to green government sukuks[5]. Additionally, 5% of BI's foreign reserves are invested in sustainable securities, though notably these are limited to global—not APT—green assets. The BI's Macroprudential Liquidity Incentives Policy (KLM), coordinated with the Ministry of Finance, offers a 50 basis points reserve requirement reduction for banks offering loans for eco-friendly housing and electric vehicle ownership.[6] However, the incentive currently applies also to high-emissions sectors, including coal, therefore diluting its impact and invalidating it in our scoring framework.

Indonesia is one of the top performers in the APT in Financial Policy, exhibiting a range of relevant initiatives. On top of BI, when it comes to green financial regulation, the OJK is playing a central role. Under the Indonesia Capital Market Roadmap: 2023–2027, the OJK is strengthening Indonesia's green finance ecosystem through implementing disclosure standards for green investment products, developing a national carbon trading platform,[7] and advancing legal structures for green sukuk bonds (OJK, 2023). In addition, the OJK's Sustainable Finance Roadmap Phase II (2021–2025) has driven two major reforms (OJK, 2021). Firstly, banks must integrate climate-related financial risks into risk management frameworks, and conduct stress tests to assess resilience (OJK, 2024).

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[5] Direct communication between Positive Money and BI

[6] Direct communication between Positive Money and BI

[7] On 26/09/2023, the Carbon Exchange was launched, where users or businesses get a "cap" or an emission quota allocation. When exceeding the cap they are required to purchase allocation from other businesses that have not exceeded or used their quota. See: https://idxcarbon.co.id

Secondly, it has introduced a green investment taxonomy aligned with ASEAN's own framework, which covers sectors including energy, real estate, transportation, and parts of agriculture and forestry. Like the ASEAN Taxonomy, Indonesia's traffic light system uses the colour green to designate activities that are aligned with green transition, amber to designate activities that are being—or can be—transitioned towards becoming sustainable, and red to designate activities that do not meet the standards for green investment. A critical flaw with Indonesia's taxonomy is its classification of some coal-fired power plants as transitional, which undermines its wider integrity (Iyer, 2024; Reuters, 2024). For this reason, Indonesia did not receive points for its taxonomy in our scoring. A credible taxonomy must serve as a tool to divert finance away from the most polluting sectors, not entrench them.

Indonesia's performance against our scoring framework reflects strong progress in integrating environmental considerations into its central banking practices and the adoption of innovative forms of coordination with government to enhance policy implementation. However, ecologically destructive activities such as fossil fuel production and deforestation remain deeply ingrained in the Indonesian economy. Its next steps will determine whether its green central banking momentum solidifies into a wider transition of the Indonesian economy towards sustainability and international leadership on green finance.

To achieve this, BI's progress in Financial Policy should be matched by strengthened Monetary Policy, which provides clear signals to incentivise green investment over dirty sectors. For example, reduced reserve requirements for banks lending to high-emission sectors such as coal must be phased out, while green assets should be given favourable status within the collateral framework through the use of larger haircuts and restrictions on dirty assets. Such policy actions should be reinforced by the removal of coal and other dirty sectors from sustainable and transition categories in Indonesia's green investment taxonomy, thus enhancing its scientific credibility.

4.5 Japan 🇯🇵

Japan's performance against our scoring framework is similar to the top performers from the ASEAN group, but some way behind its Plus Three neighbour, China. We would expect Japan to be further advanced in terms of green central banking policies, given its global economic standing and capacities. It ranks as the joint strongest in the region on Monetary Policy (alongside China), though this is relative to a very low benchmark. In other areas, particularly Financial Policy, it is falling behind the other large APT economies. Like many other central banks—particularly in the Global North—a key weakness of Japan's approach is a strong commitment to the concept of market neutrality (Thiemann et al., 2023) and a reliance on private sector leadership of the green transition, which risks undermining the coherence and ambition of green central banking policies.

Japan's most significant progress has come in the domain of Monetary Policy, where the Bank of Japan (BOJ) has taken a number of impactful steps to mobilise green finance. Since 2024, the BOJ has integrated Japan Climate Transition Bonds (JCTBs)—a key component of the government's Green Transformation (GX) strategy—into its liquidity management operations, including Open Market Operations (OMOs) and its collateral framework (BOJ, 2023). As of February 2024, JCTBs are treated equivalently to standard Japanese sovereign bonds in these frameworks, making them highly attractive to financial institutions for liquidity management and risk hedging (BOJ, 2023).

Another initiative is the BOJ's Funds–Supplying Operations to Support Financing for Climate Change Responses, its flagship green lending scheme. Launched in September 2022 and running through to March 2031, the programme offers one–year loans at a concessional interest rate of 0.5% to financial institutions supporting private sector climate investment (BOJ, 2025). As of January 2025, the outstanding balance of these loans represented approximately 13.98% of the BOJ's total loan portfolio.[8] However, the effectiveness of this policy could be undermined by the lack of a clear definition of what constitutes green investment, due to the absence of robust guidelines or a national taxonomy.

In contrast to Monetary Policy, Japan's Financial Policy is falling behind the strongest performing ASEAN countries and China. As highlighted in the 2024 G20 Green Central Banking Scorecard, the BoJ and the Financial Services Agency (FSA) have been reluctant to introduce mandatory green taxonomies or standards that would help to scale up green finance. The absence of such regulatory frameworks has contributed to fragmentation and inconsistency, as seen in the ESG evaluation and data provision space, where a lack of standardisation has led to widespread confusion among market participants.[9]

Having said this, positive steps have included the FSA introducing mandatory climate disclosures for listed companies in 2023, in alignment with the Task Force on Climate–Related Financial Disclosure (TCFD) framework (Financial Services Agency, 2023). Beyond this, a reliance on voluntary action prompted by non–binding guidelines is a key factor limiting the strength of green central banking policies in Japan. The BOJ and FSA's Supervisory Guidance on Climate–related Risk Management and Client Engagement encourages financial institutions to identify and manage climate–related financial risks and engage corporate customers in decarbonisation efforts (Financial Services Agency, 2022). Further, the BOJ has encouraged the development of climate scenario analysis by financial institutions, building on its FY2021 pilot exercises and drawing on international regulatory discussions (BOJ, 2024).

This pattern of encouraging the private sector to lead in the development of green finance, supported but not driven by public policy, is a defining feature of Japan's green central banking approach. While it enables flexibility and innovation, it also risks reinforcing inertia, without stronger public leadership. The lack of binding regulatory frameworks, green taxonomies, and clear supervisory expectations creates uncertainty and obstructs the reallocation of finance toward green activities.

Institutional capacity in Japan is not a limiting factor; both the BOJ and the FSA have the expertise and resources required to lead a more ambitious green central banking agenda. However, the BOJ's strict interpretation of market neutrality remains a constraint. Maintaining market neutrality while advancing climate objectives is untenable, as decarbonisation will inevitably require differentiated treatment of assets based on their environmental impacts.

Japan is therefore currently underperforming relative to its potential. It is a regional leader on green monetary policy, but this leadership is limited in scale due to weaker financial regulation and supervision policies. Steps it can take to improve in these areas of weakness include the development and implementation of a binding green investment taxonomy and standards to align financial flows with environmental objectives. The BOJ should also move beyond voluntary guidance towards mandatory environmental risk management standards and strengthening supervisory expectations, as well as expanding the scope and ambition of monetary policy, including greater integration of green assets into asset purchase programmes and a clearer framework for aligning the BOJ's broader portfolio with climate goals.

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[8] Calculation made by the authors with BOJ data as of 01/2025: https://www.boj.or.jp/en/mopo/measures/term_cond/yoryo36.htm[6] Direct communication between Positive Money and BI
[9] This problem was raised by the Institute for Energy Economics and Financial Analysis (IEEFA) in 2023: https://ieefa.org/resources/japan-leads-governance-esg-data-and-ratings-sector-pliant-rules-letdown

4.6 Lao People's Democratic Republic 🇱🇦

Lao PDR is at the very early stages of developing green central banking policies, and has taken only a small number of relevant actions thus far. These are primarily exploratory or capacity–building initiatives, which do not reach the level of impact required to redirect financial flows toward sustainable activities.

Consideration of Lao PDR's wider context is crucial; it is one of the smallest countries in the APT, with a population under 8 million (Worldometer, 2025), it has the second–lowest GDP per capita (after Myanmar) (IMF, 2025), and the lowest cumulative emissions (Global Carbon Budget, 2024). Therefore, it is not one of the APT countries that should be expected to lead on advancing green central banking policies in the region.

All green finance actions taken by Lao PDR's central bank and financial supervisors so far fit into our low impact category, meaning they are unlikely to have a long–term tangible impact on directing finance away from destructive industries and towards sustainable activities. We could not find any relevant Monetary Policy actions taken, though this is true for many countries in the APT. The only actions taken by Lao PDR which scored points against our framework were in the Research and Advocacy category, such as capacity–building meetings and seminars hosted by the central bank and securities commission (SSC, 2024; Xinhua, 2024).

Lao PDR's institutions have taken actions outside of Research and Advocacy, but these take the form of policy commitments or discussions which, even if they become fully implemented, are likely to have only low impact. Such actions accordingly do not score points against our framework. The small number of existing green central banking policy commitments in Lao PDR centre around a 2022 memorandum of understanding (MoU) signed by the Bank of the Lao PDR with the International Finance Corporation (IFC, 2022). Key features of the MoU are commitments to develop a climate risk assessment framework for the financial system, and green investment taxonomy. We were not able to attain any information about the progress on these policy commitments since the MoU was signed in 2022.

An important next step for green central banking in Lao PDR is therefore for the Bank of the Lao PDR to fully implement these policy commitments, so that it can then move on to higher impact actions which go beyond enhancing information and disclosures, and actively seek to restrict the flow of finance towards ecologically damaging industries. However, as a small country with the lowest GDP in the APT, Lao PDR faces more limits on its capacities than others, and so it will also need to be supported by wider green finance structures throughout the region and beyond. This is particularly important given Lao PDR's high vulnerability to climate change, due to the predominance of sectors such as agriculture and forestry within its economy (UN–HABITAT, 2025).

4.7 Malaysia 🇲🇾

Malaysia is another of the strongest performers within the green central banking landscape in the APT, showing clear leadership in some areas while leaving others relatively underdeveloped. Its green monetary policies generally remain very slim. One notable initiative Bank Negara Malaysia (BNM) has implemented is its Low Carbon Transition Facility (LCTF), which offers SMEs up to RM10 million of financing at a maximum rate of 5% p.a. to transform their business towards low-carbon operations (BMN, 2022a).

However, Malaysia's most significant progress has come in the domain of financial regulation and risk management. The issuance of the Climate Change and Principle-Based Taxonomy (CCPT) was an early and foundational move toward aligning the Malaysian financial system with climate goals (BNM, 2023a). More recently, BNM released binding guidance on climate risk management and scenario analysis, requiring financial institutions to integrate climate considerations into governance, strategy, risk assessment, and disclosure processes (BNM, 2022b). An industry-wide climate risk stress testing exercise currently underway and due for completion in 2025, represents a critical step toward systemic integration of climate risks (BNM, 2024). While still in development, it is a clear sign of the central bank's intent to operationalise climate resilience within the financial sector.

Alongside these regulatory efforts, Malaysia has been active in improving corporate sustainability disclosures. In late 2024, the National Sustainability Reporting Framework (NSRF) was co-led by BNM and the Securities Commission Malaysia. The framework is formally committed to adopting the IFRS Sustainability Disclosure Standards as its baseline, with a phased rollout that prioritises large, listed entities (Securities Commission Malaysia, 2024a). This gradual implementation reflects the diverse readiness levels across firms, but the direction of travel is clear: enhanced transparency and progressive tightening of disclosure obligations.

BNM is also going further than many other APT central banks in its consideration of nature, as a connected but distinct area of concern to climate. In collaboration with the World Bank Group, BNM published an initial exploratory report on nature-related financial risks in Malaysia, in March 2022 (World Bank Group, 2022). This collaboration was extended in December 2023 with the announcement of plans to produce a nature-related financial risks assessment guide for Malaysian financial institutions and businesses, and to develop financial instruments and regulation to support 'nature-positive' outcomes (BNM, 2023b).

Institutionally, Malaysia has demonstrated strong cross-agency coordination. The Joint Committee on Climate Change, co-chaired by BNM and the Securities Commission, plays a central role in driving green finance progress. Its work spans the development of the Climate Data Catalogue, support for transition finance pathways, and capacity-building programmes for financial institutions and SMEs (Securities Commission Malaysia, 2024b). Malaysia is also an active member of regional and international platforms such as the ASEAN Taxonomy Board and the NGFS, reinforcing its role as a key player in shaping the green finance agenda across Asia (BNM, 2023a). Malaysia has introduced a domestic green investment taxonomy for its capital markets through the Sustainable and Responsible Investment (SRI) Taxonomy, which classifies activities by environmental impact (Securities Commission Malaysia, 2022).

Nonetheless, Malaysia's path forward is not without challenges. The country remains structurally reliant on fossil fuel revenues, and high public debt limits fiscal space for green investment. Vulnerabilities to climate shocks such as flooding and food insecurity raise the stakes for effective policy responses. Institutional capacity, while improving, remains uneven across sectors. Although BNM has established a dedicated Sustainability Unit (BNM, 2023a) and embedded climate considerations into its own risk management systems, translating this institutional ambition into consistent action across the financial system remains a work in progress.

Malaysia has made commendable progress in building the regulatory and supervisory architecture for green investment, and is emerging as a leader on green central banking within the APT. Nonetheless, there is significant scope for the BNM to further integrate environmental considerations into core central banking functions, notably monetary policy. Developing actions such as mandating the disclosure of climate-related risks for companies eligible for asset purchase schemes, and integrating sustainability-linked assets into collateral frameworks, would be valuable next steps to consolidate its emerging leadership position.

4.8 Myanmar ⭐

We could not identify any green central banking policies from Myanmar's central bank and financial regulators. However, this absence must be understood in context. Myanmar has the lowest GDP per capita in the APT, placing structural limits on its institutional capacity. The country also faces severe political and economic instability, with an ongoing civil war, the aftermath of the 2021 military coup d'état and enduring high levels of poverty (UNDP, 2021). In 2025, Myanmar was further impacted by the second deadliest earthquake in its history, causing approximately 5,000 direct deaths and huge infrastructural damage (World Vision, 2025). Because of all these factors, Myanmar faces significant constraints on its capacities when it comes to the development of green central banking, compared to other APT countries. To do so, it will require support from the wider region and beyond.

4.9 Philippines 🇵🇭

The Philippines has a rapidly expanding economy yet is also highly vulnerable to climate and nature-related shocks. Considering the country's economic context, the Bangko Sentral ng Pilipinas (BSP) performs strongly in our green central banking assessment, placing in the upper cluster of APT countries. It evidences medium-impact actions across all four of our policy categories, with notable momentum in monetary and financial policy, and an institutional commitment to developing green central banking despite capacity constraints.

The BSP has made meaningful strides since 2020, becoming a plenary member of the NGFS, hosting international dialogues on biodiversity and nature-related financial risks, and publishing The Philippine Sustainable Finance Roadmap in 2021 (BSP, 2021; NGFS, 2023). It engages actively in regional green finance platforms and has produced original research, including a pioneering 2023 study on biodiversity loss and banking sector solvency (Bayangos et al., 2024).

The BSP is among the more active APT central banks in using monetary tools for green objectives. In 2023, it introduced a 15% lending cap increase for green-aligned projects and a phased reduction of reserve requirements on green and sustainability-linked bonds (BSP, 2023a). These measures provide material incentives for sustainable lending, placing the BSP behind only the Republic of Korea, Japan, and China in terms of its Monetary Policy score. The BSP has established a regulatory framework for integrating environmental and social risks into core banking practices. Since 2020, it has issued progressive circulars requiring banks to adopt ESG risk management systems, integrate sustainability into investment strategies, and conduct climate stress tests (BSP, 2024). It is also moving towards mandatory TCFD-aligned disclosures and transition plans (BSP, 2022).

Recognising that strategic planning and transparency are critical to a just transition, the BSP now requires banks to submit public transition plans that map how their portfolios will align with a climate-neutral pathway by mid-century (BSP, 2022). Alongside this, the central bank has signalled that it will mandate TCFD-aligned disclosures and, once finalised, ISSB reporting standards, thereby ensuring that banks' environmental risks and mitigation strategies are both measurable and comparable across institutions.

Through its Sustainable Central Banking Strategy, the BSP has woven sustainability into its own holdings, risk management and reporting (BSP, 2022). It has adopted the Philippine Sustainable Finance Taxonomy Guidelines, harmonised with the ASEAN Taxonomy, which classify activities as green (sustainable), amber (transition) or red (non-aligned) (BSP, 2023b). Notably, it also signed the UN Principles for Responsible Investment (PRI) in 2023

and formed an internal Responsible Investment Committee to steer ESG integration in reserve management (BSP, 2023b). However, it continues to hold fossil–fuel assets in non–monetary portfolios.

Given its relatively low GDP per capita within the APT and the Philippines' broader development challenges, the BSP is currently sitting in a strong position. To build on this trajectory, the BSP should focus on translating its climate risk stress testing into binding regulatory measures, such as capital requirements or lending restrictions for high–emission sectors. It would also benefit from strengthening the clarity and robustness of green definitions to minimise greenwashing and ensure that financial flows deliver meaningful environmental outcomes. Regionally, the BSP is well positioned to take a leadership role on biodiversity–related financial risks, an area where it has already established a credible foundation through research and convening efforts. Finally, phasing out carbon–intensive assets from the BSP's own investment portfolios would send a strong signal of alignment with the Philippines' net–zero goals and reinforce its credibility in green central banking.

4.10 **Republic of Korea**

The Republic of Korea occupies a lower–middle position in the APT's green central banking landscape, falling outside the cluster of top–performing countries. This signals an underperformance against our scoring framework for a country with large economic and institutional capacities. The Korean government's 2021 Green Finance Taskforce rightly recognised that public sector leadership would be critical to achieving its 2050 net–zero target (FSC, 2021a). Since then, some important building blocks have been introduced, but policy action remains underdeveloped and uneven.

Monetary Policy is the strongest area of Korea's green central banking policies, with only China and Japan faring better in this category, though it still falls short of initial commitments. The Bank of Korea (BOK) has taken meaningful steps to align its foreign reserves management with climate goals. As of 2023, $19.61 billion in ESG assets had been incorporated,[10] and negative screening has led to the exclusion of coal and fossil fuel–linked companies (BOK, 2021). The BOK has also committed to exploring further expansion of green assets in its reserves portfolio (BOK, 2024; 2025).

Additionally, the BOK provides preferential lending terms to commercial banks supporting green SMEs via its Regional SMEs Support programme (BOK, 2025). However, the structure of these incentives limits their impact. The lower funding rate applies to banks that have issued green loans, but is not directly tied to green lending volumes or accompanied by clear green definitions, unlike stronger frameworks in countries such as China. Moreover, green bonds are yet to be explicitly made eligible as collateral, thus reducing their attractiveness, though certain 'high–quality' green bonds have become eligible through indirect measures.[11] The BOK is also yet to integrate green securities into its open market operations (OMOs) or collateral frameworks, despite having committed to this in 2021 (BOK, 2021). Progress has been hindered by a lack of green Korean government bonds,[12] highlighting the need for stronger coordination between the BOK and the national government.

In regards to Financial Policy, the Financial Services Commission (FSC) is the Republic of Korea's key actor. The FSC has made important progress in building the foundations of a green finance approach within Korea's financial regulatory framework. Its publication of guidelines on the management of climate risk will strengthen risk management across the Korean financial sector (FSC, 2021). The K–Taxonomy, developed in 2021, also provides

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[10] Direct communication between Positive Money and BOK. The result of this strategy is that as of the end of 2023, the BOK's foreign reserves account had a total of 19.61 billion USD in ESG assets, where 44.67% were equities and 55.33% were bonds.

[11] Ibid

[12] Ibid

additional clarity on eligible green activities and will support more consistent investment decisions (FSC, 2024b). However, key policies that would help to align the financial sector in Korea with a net-zero pathway are still absent. Such policies include differentiated capital requirements for green loans, integration of climate considerations into supervisory processes, and requirements for financial institutions to disclose net-zero targets (FSC, 2024b). The implementation of ESG disclosure standards for corporates (including financial institutions) has also been delayed until 2026 at the earliest (FSC, 2024a; FinTech Global, 2025).

The BOK and FSC have laid important groundwork through monetary operations and regulatory frameworks, but delivery has lagged behind early ambitions. Stronger coordination between the BOK and the government, targeted improvements to green lending incentives, and more robust supervisory policies are key steps that would move the Republic of Korea towards the cluster of top performing APT countries against our framework. The BOK should prioritise integrating green securities into its core monetary operations, while both the BOK and FSC can strengthen supervisory tools to align the financial sector with the country's net-zero targets.

4.11 Singapore 🇸🇬

Singapore describes itself as a 'leading sustainable finance centre' in Asia and beyond (MAS, 2024a). The Asia portion of this claim is backed up by the analysis of its green central banking policies against our framework, from which it emerged as one of the strongest performers in the APT. However, Singapore still has a long way to go in order to reach the standards of green central banking that would be required to meaningfully address the ongoing ecological crisis. Exemplifying this, it has not yet registered any actions that reach the high impact level in our framework.

Green finance developments in Singapore are being driven by the Monetary Authority of Singapore (MAS), which provides the integrated functions of both central bank and financial supervisor. MAS has a notable strength in our Research and Advocacy category, given its significant engagement in—and hosting of—international green finance forums and initiatives. For example, MAS has played an important role in the Network for Greening the Financial System (NGFS, 2024), as well as leading on climate work with organisations including the Bank for International Settlements (BIS, 2024) and the Sustainable Insurance Forum (UNDP SIF, 2023).

However, research and advocacy work is not always being translated into concrete monetary and financial policies. In the category of Monetary Policy, MAS has just one action at our medium impact level, which is the provision of low-cost funding for banks and finance companies to grant ESG loans (MAS, 2025). Like the majority of the APT countries, MAS fares better in the Financial Policy category. At the medium impact level, MAS requires climate disclosures from all listed companies on a 'comply or explain' basis (SGX, 2025), and it has conducted industry-wide climate stress tests on banks and insurers (MAS, 2024b).

As in Research and Advocacy, MAS is one of the strongest performers in our Leading by Example category. Two actions which meet the medium impact level—though yet to be fully implemented—are the development of the Singapore–Asia Taxonomy for Sustainable Finance, which MAS labels the "world's first multi-sector transition taxonomy" (MAS, 2023), and the Financing Asia's Transition Partnership, a blended finance initiative which brings together international public, private and philanthropic partners to support Asia's decarbonisation and climate resilience (MAS, 2024c). Other strengths in MAS' approach include a recognition of environmental risks beyond climate (such as biodiversity loss), and engagement with a range of societal stakeholders.

While overall, Singapore was one of the strongest performers in the APT against our scoring framework, expectations on Singapore should also be high. Firstly, Singapore has by far the highest GDP per capita in the APT, and is often ranked as having the highest in the world (IMF, 2025). This provides an indication of the country's wealth, which puts it in a much stronger position to implement robust green central banking policies than many other countries in the APT, which are trying to address many social challenges with fewer resources. Secondly, Singapore is often ranked as the fourth most significant financial centre in the world (Singapore Business Review, 2025), and so the level of influence it can exert on financial flows is large compared to many other countries. This also grants it a greater degree of responsibility to implement strong green central banking policies.

Currently, a weakness that appears to be holding back the development of high impact green central banking policies in Singapore is the degree of trust MAS is placing in private financial institutions to lead Singapore's wider green transition, when incentivised through more limited and lower-impact monetary policies and financial regulation. The development of high impact policies requires central banks to move beyond flawed notions of 'market-neutrality' (Colesanti Senni and Monnin, 2020) which deter them from making more impactful interventions to align finance with green transition, and therefore establish an inherent bias towards the status quo of industrial arrangements.

Moving forward, it is important that MAS builds on its strong research and advocacy work around green finance and translates this into high impact monetary and financial policies. These policies should implement a 'double materiality' approach which recognises how financial institutions' own actions contribute to environmental breakdown, and actively seeks to limit these negative impacts. In terms of high impact monetary policies, MAS should strengthen its asset purchase programmes and collateral frameworks by positively screening for green assets, and screening out environmentally harmful assets. With regard to high impact financial policies, MAS should take a more active role in steering finance away from ecologically damaging activities, through the use of capital requirements and limits on 'dirty' lending.

4.12 Thailand 🇹🇭

Of the larger economies in the APT, Thailand is at the earlier stages of developing green central banking policies. In regards to our scoring framework, it places in between the main high-scoring and low-scoring clusters of countries, alongside the Republic of Korea. The development of policies is being driven predominantly by the Bank of Thailand (BOT), which acts as the country's central bank and supervisor of the financial sector. It is clear that green central banking is expanding as a concern of the BOT, and it has laid a foundation of initial policies. This is reflected by Thailand registering actions across all four categories in our framework.

Its strongest performance was in the Financial Policy category, where we recorded multiple medium impact policies, though these are yet to be fully implemented. These include a commitment from the BOT to require banks to provide climate disclosures in alignment with the Task Force on Climate-Related Financial Disclosures (TCFD, 2025) framework by 2026 (BOT, 2022). Added to this are commitments to develop climate scenario analysis and stress testing for banks and the wider economic system, as well as for environmental risks to be incorporated into the supervisory review process (BOT, 2021a). In comparison, Thailand has introduced few green monetary policies so far, like much of the APT. The only policy that fitted within our framework for the Monetary Policy category was a low impact action whereby the BOT has integrated ESG factors into its Strategic Asset Allocation process (BOT, 2023).

In the Leading by Example category, Thailand registered multiple low impact policies, but only one medium impact policy, which is yet to be fully implemented. This is the BOT's development of the Thailand Taxonomy, which uses a traffic light system that importantly includes a 'red' designation for activities that are "harmful to the goal of decarbonization" (BOT, 2025). The Taxonomy is currently in its second phase of development, in which its sectoral coverage is being expanded. In terms of Research and Advocacy, like the vast majority of the APT, Thailand had only actions that met our low impact level. These include the BOT's membership of the NGFS, and its creation alongside Thailand's Securities and Exchange Commission of the Working Group on Sustainable Finance (BOT, 2021b), which has set out five key initiatives to further the development of green finance in Thailand.

Considering factors such as its level of wealth and historical carbon emissions, the middling performance of Thailand's green central banking policies within the APT fits roughly with expectations. However, Thailand has a notable gap to bridge in order to join the cluster of top-scoring countries . Monetary policy stands out as an area where Thailand can do much more to enhance its green central banking policies. Medium and high impact actions that the BOT should look to develop include incorporating green assets in its collateral framework and asset purchase programmes, while excluding ecologically damaging assets such as those related to fossil fuels, and using tools such as interest rates and capital requirements to guide finance away from ecologically damaging sectors and towards green investment.

It is also notable that Thailand's medium impact Financial Policy actions are all yet to be fully implemented. In order to maintain its progress, it is important that the BOT sees these actions through to full implementation. Further medium/high impact actions should also be added, such as requiring financial institutions to publish time-specific transition plans for decarbonising their portfolios.

4.13 Vietnam 🇻🇳

Vietnam's green central banking framework remains nascent, while facing certain structural challenges. The State Bank of Vietnam (SBV) has begun developing guidelines for climate risk integration and green banking standards, and is collaborating with international partners on various green finance initiatives (GIZ, 2023).

A key milestone is the SBV's requirement that, by 2025, all banks operating in Vietnam must implement internal environmental regulations and climate-related risk management standards (Lee, 2024b). Ensuring these commitments translate into meaningful practice will require strong supervisory follow-through and implementation of Vietnam's green taxonomy (Lee, 2024b). In March 2025, the SBV also agreed a green finance collaboration with the European Investment Bank, which will support Vietnam to "strengthen climate risk management, expand green finance, attract investment, adopt global best practices and develop sustainable finance policies" (EEAS, 2025). Vietnam is also seeking to build domestic green capital markets, which would contribute to diversifying green finance beyond state funding and foreign direct investment (FDI). In partnership with the International Finance Corporation and Climate Bonds Initiative, Vietnam's State Securities Commission (SSC) has published guidance on issuing green, social, and sustainability bonds (Tran et al., 2025). The SBV and SSC have also held collaborative exchanges with the Republic of Korea's Financial Services Commission with the aim of developing sustainable finance across both countries (FSC, 2024c). These are positive steps, yet the markets remain small. Without binding green standards to ensure project credibility and investor confidence, sustainable bond issuance will struggle to scale up.

One notable structural challenge is that Vietnam's recent economic development has been heavily based on FDI and debt financing, which is likely to create fiscal pressures in terms of funding domestic green transition, alongside other social needs. Much of this FDI has come from APT countries such as the Republic of Korea, Singapore, China, and Japan. However, few of these bilateral relationships currently involve a strong green finance element. This highlights a broader risk: unless regional frameworks embed environmental and social safeguards, growing bilateral investment may exacerbate transition risks or harm vulnerable populations, particularly in countries like Vietnam where green finance frameworks are still at an early stage of maturity.

While this report's focus is central banks, there are several developments from Vietnam's government which hold significant impact for green finance, and so warrant mention. One such development is the National Green Growth Strategy for 2021–2030. The Strategy includes significant green and climate finance elements, and highlights a role for the SBV in bringing the wider financial sector in line with green objectives, and incentivising green investment (Prime Minister, 2021). Additionally, in July 2025, the Vietnamese government implemented the country's new green investment taxonomy (FiinRatings, 2025; Dương, 2025). Together, these developments should help to drive further progress in the country's green finance landscape, and the SBV will be crucial to their successful implementation.

Vietnam has demonstrated early progress and intent to build its green central banking policies, while facing structural challenges as a relatively low GDP per capita country within the APT. Several foundations—such as strong supervisory processes, and alignment of bilateral investment—still need to be established. Taking action to build out these foundations will be important to managing climate risks effectively and aligning Vietnam's fast–growing financial system with transition towards a sustainable future. Ensuring successful implementation of the new green taxonomy, strengthening supervisory capacity to enforce green banking standards, and advocating for regional frameworks that embed strong environmental and social safeguards in bilateral investment flows, would be valuable next steps for Vietnam. Crucially, countries with large economic and institutional capacities in the APT, and beyond the region, should support Vietnam in this development of green central banking policies.

5. Next steps for green central banking in East and Southeast Asia

In this section, we set out what we see as important next steps for the continued development of green central banking in the ASEAN Plus Three. Building on recommendations provided in the county–level analyses, we start by looking at the spread of green central banking policies across the APT countries, in order to identify where key gaps exist in the region. Secondly, we discuss further the varying roles and responsibilities of countries within the APT moving forward. Finally, we highlight the importance of coordination between central banks and their respective governments.

5.1 Identifying policy gaps

Of the 16 fully implemented monetary policies we found across the APT countries, seven were related to green lending schemes, while another five were related to the allocation of central banks' asset portfolio to green securities (see Figure 8). The small number of central banks that include green securities in foreign reserves management (China, Indonesia, and Republic of Korea) seems at odds with the broader interest in this topic at the APT collaborative level (see section 2), yet possibly reflects a lack of confidence in the current green securities of the region as well as preferences for dollar assets shaped by the international monetary and financial system.

Figure 8: Number of countries that have implemented green monetary policies, by category of policy 2020–2025.

NOTE: "FX" = foreign exchange
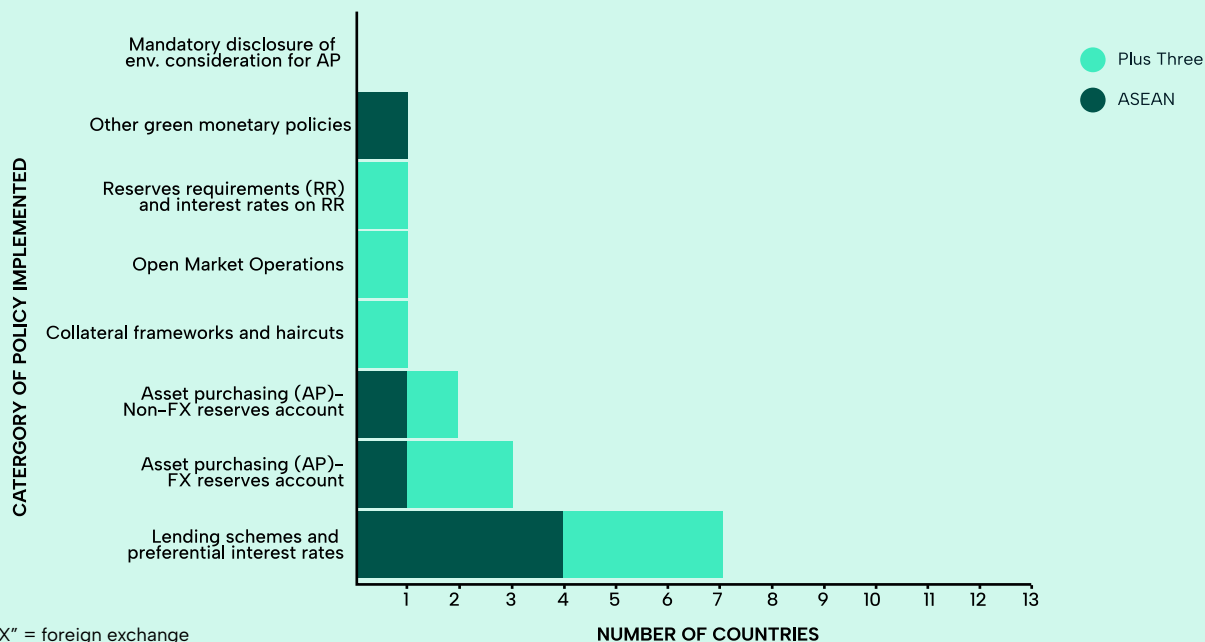
Notably, monetary policies beyond green lending have been initiated mainly by the PT countries and not ASEAN countries. The Bank of Japan (BOJ) is the only central bank that has incorporated green government bonds into its collateral framework and its Open Market Operations (OMOs) (BOJ, 2023), while Bank Indonesia (BI) has formally committed to developing green money market instruments (Bank Indonesia, 2023). These policies are critical to developing a wider appetite for green securities, as they influence the way liquidity is managed in the system.

Another notable monetary policy, developed by the People's Bank of China (PBoC), enables Chinese banks with more outstanding green loans and green bonds to hold lower capital reserves, and to receive a greater interest rate on their required reserves (Choi et al., 2020).

Monetary policy as a whole is a relative strength for the Plus Three countries, who account for the majority of fully implemented policies (see Figure 9). While lending schemes and preferential interest rates to incentivise green investment are the most common type of monetary policy, only three out of ten ASEAN countries have implemented a policy in this area, compared to all of the Plus Three. Further monetary policy areas where there is clear space for development across the APT are those which seek to restrict the flow of finance to ecologically damaging sectors, such as excluding assets in these sectors from collateral frameworks and asset purchase programmes, and placing higher reserve requirements on these assets.

Figure 9: Number of green monetary policies implemented, by country 2020–2025.
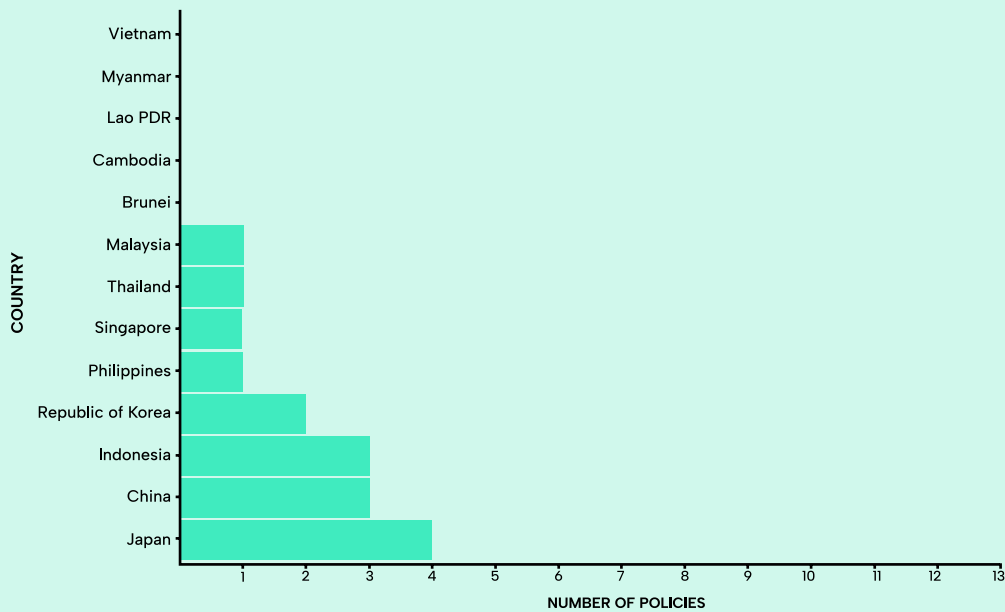
As referenced previously, financial policies were far more numerous among the APT than monetary policies, and so there are a larger number of policy areas where many countries have implemented a policy. Out of 39 fully implemented financial policies, the area with most coverage was support for the development of green financial products, for which eight countries have implemented a relevant action or policy (see Figure 10). Of these eight, five policies relate to the development of green securities.

Figure 10: Number of countries that have implemented green financial policies, by category of policy 2020–2025.

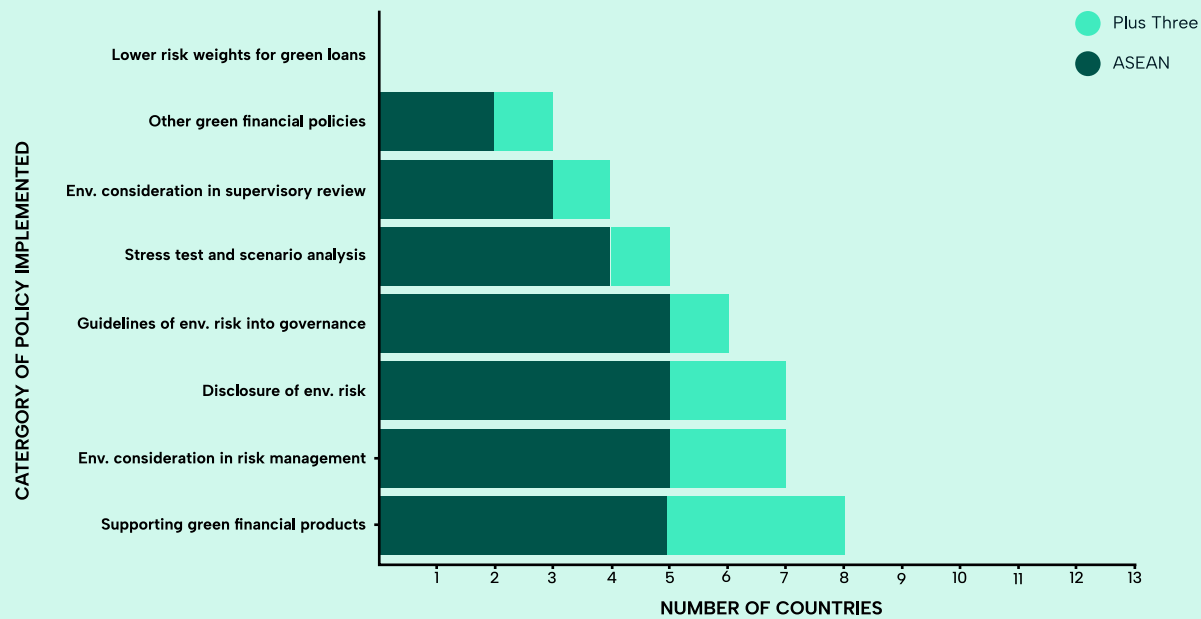Other financial policy areas with the largest coverage across APT countries include initiatives that promote the inclusion of environmental and climate considerations into the risk management practices of financial institutions. Seven countries have implemented actions in this area, of which four (China, Indonesia, Malaysia, and the Philippines) are mandatory and three are on a voluntary basis. Six countries have implemented policies relating to both disclosure of environmental risks, and issuance of guidelines on incorporating environmental risk management into governance structures. In terms of disclosures, five financial authorities have developed mandatory standards (China, Indonesia, Japan, Singapore, and the Philippines).

Financial policy is already in a stronger position than monetary policy within the APT, particularly among the ten ASEAN countries. However, as with our three other policy categories, there were no high impact policies recorded by any country in the Financial Policy category, which systematically restrict financial flows to the most ecologically damaging sectors. Examples of such policies include: implementing higher risk weights for fossil fuel exposures or large exposure restrictions, requiring financial institutions to adopt time–specific and science–based plans to decarbonise their portfolios, and to stop underwriting bonds and equities related to fossil fuel expansion. Of course, the current reality for the APT countries is one of heavy reliance on fossil fuels for basic energy needs (Hale, 2024), and so the scaling down of finance for fossil fuels must be coordinated in an orderly manner with national governments, and paired with large–scale investment in renewable energy production.

As mentioned in section 2, a priority of ASEAN's green finance work at the collaborative level has been developing a sustainable investment taxonomy for the region. Establishing coordinated taxonomies within and across the APT countries can play an important role moving forward in reshaping finance for a green transition. At the national level, over half of the APT countries have developed their own sustainable taxonomies, while Japan, Cambodia, Brunei, Laos, and Myanmar have not. From these countries, three are either considering the implementation of, or are already implementing, the ASEAN Taxonomy. Of the countries that have developed a domestic taxonomy, the Malaysian and Singaporean taxonomies adopt a traffic light system, where the classification for non–sustainable economic activities is clear. Others do not have a clear definition of unsustainable activities, and in some cases— such as coal in the Indonesian taxonomy—ecologically damaging activities are classified as green (Iyer, 2024).

The development of robust and scientifically–credible taxonomies, that are coordinated across the APT countries to drive regional green investment, will be pivotal in ensuring that stronger monetary and financial policies are not undermined by definitions of green investment that have been compromised by the lobbying interests of ecologically damaging industries.

5.2 Capacities and responsibilities within the ASEAN Plus Three

A point we have sought to emphasize throughout this report, and particularly in section 4, is that the capacities and responsibilities of each country in the APT to lead on the development of green central banking are not equal. While we want to see all countries contributing to the development of a rigorous green finance policy infrastructure in East and Southeast Asia, each country should be expected to play a differentiated role in achieving this.

The examination of ASEAN's and the APT's development of green finance initiatives at the collaborative level in section 2 presented a picture of asymmetric support to the region and its countries. The ASEAN collaboration has so far progressed most of the relevant standards, guidelines and taxonomies that could support a wider green transition in the region, despite the large economic power of the PT nations. There is clearly space then for the APT to make green finance more of a focus of its work at the collaborative level, which could have a significant regional impact given the size of the PT economies and the significant influence they hold over international financial flows (Smith, 2022).

The primary means by which PT countries have supported ASEAN countries in their development of green finance is through bilateral relationships, e.g. between the Republic of Korea and Vietnam (FSC, 2024c), and China and Indonesia (Jiaying and Xinyue, 2024). Such relationships can be very constructive and should be encouraged. However, bilateral green finance partnerships are no replacement for strong collaboration at the APT level, which could help to develop green finance more evenly across the region so that certain countries aren't left behind.

As referenced in section 2, green bond markets in the region are currently dominated by the PT countries. The disparity between each country's capital markets reflects the wider discrepancies in the economic power and influence of different APT countries. One example of a specific area where the PT countries can use their institutional capacity and expertise to support ASEAN countries is accordingly in the development of more sustainable capital markets, including issuing green sovereign bonds in local currency. This can play an important role in driving green investment throughout the region, helping countries to diversify their sources of green finance and reduce reliance on FDI and debt denominated in foreign currencies. Central banks can support this initiative by including these green sovereign bonds in their foreign reserves.

As discussed in section 3, the green central banking policies of countries such as Japan and the Republic of Korea are falling short of where we might expect them to rank within the APT, given their economic capacities and historical emissions. As stated above, countries with greater GDP and/or GDP per capita are better positioned to invest resources in the development of strong green central banking policies, while countries whose economies have benefitted from higher historical emissions also have a greater responsibility to address the negative impacts of these emissions by playing a leading role in green transition. As such, on top of action through the APT collaboration, PT countries can also show greater leadership by example, through enhancing their domestic green central banking policies.

Having emphasized the particularly large capacities and responsibilities of the PT countries, this does not mean that ASEAN countries have to wait for their leadership, and nor are they doing so. The performance of Malaysia, Singapore, Indonesia, and the Philippines against our scoring framework show that ASEAN countries are already in many cases outperforming PT countries on the implementation of impactful green central banking policies. We should expect to see this subgroup of ASEAN countries continuing to strive towards regional leadership in the development of green central banking policies over the coming years. However, not all ASEAN countries have the economic power of a G20 country like Indonesia, or the status as an international financial hub held by Singapore (Overland et al., 2021).

As detailed in section 3, there is another subgroup of countries that sit distinctly separate from the rest of the APT countries on the basis of our scoring framework: Vietnam, Cambodia, Lao PDR, Brunei and Myanmar. These countries are either yet to implement any green central banking policies or at the very early stages of doing so. Several of these countries face greater resource constraints than much of the APT, as well as deep social crises, such as Myanmar's civil war and recovery from a major earthquake (Gokmen, 2025). Lao PDR and Myanmar are also two countries set to be hardest hit by Donald Trump's tariffs regime, with 40% tariffs being imposed on both as of August 2025 (The Guardian, 2025).

It is also important to consider that these five countries have historically been subjected to long periods of colonialism—as well as damaging wars—which has impeded the development of their economies. Former colonising states owe a debt—financial, as well as ecological—to the countries they colonised, as part of repaying the wealth and resources historically extracted from these territories (Perry, 2021). Such reparations could help to finance transitions towards sustainable economies and building resilience to the levels of ecological breakdown that are already locked-in.

As such, this subgroup of five countries should be expected to have a rather different role in the coming years to their ASEAN neighbours and the PT countries, when it comes to progressing green central banking in the region. They are likely to be the countries most in need of support to strengthen their policies. This support should come from the collaborative ASEAN and APT levels, as well as bilateral relationships between individual countries.

Particularly given the prospect of diminished economic relationships with the United States, there is space for ASEAN countries to develop more mutually beneficial economic ties with their regional neighbours, and for the larger economies to play a more supportive role to others (McKillop, 2025). Indeed, in April 2025, the Chinese President Xi Jinping began visiting countries such as Vietnam, Cambodia, and Malaysia to sign new economic agreements in the wake of Trump's tariff proposals (Ratcliffe, 2025). Such strengthened relationships and support must extend to green finance, otherwise there is a risk that the gap between the cluster of five lower-scoring countries in this Scorecard and their neighbours widens, and that they are left behind amidst a wider regional green transition.

5.3 Central bank coordination with national governments

A final point to emphasise in relation to the continued development of green central banking in the APT is the importance of central bank coordination with national governments. While central banks can play a hugely important role in guiding finance to support green transition, it is central governments that ultimately hold the power to set industrial strategy and legislate for public green investment. Therefore, to maximise the potential and

efficacy of green investment, it is crucial that monetary and fiscal policy are working in alignment, which requires coordination between central banks and their national governments.

We have noted in this report many ways in which APT countries exhibit widely varying characteristics. One such dimension is the different political systems of each country, and what kind of relationship central banks and financial supervisors have with their respective national governments. The orthodox position promoted by international financial institutions such as the IMF and World Bank is that greater independence of central banks from their national governments generates more effective policymaking, and policy coordination between the two is seen as damaging this independence (Bandaogo, 2021; Adrian, 2024). However, when it comes to addressing the existential ecological crisis facing society, close coordination between central banks and national governments is vital to driving the scale of green investment required (Varoufakis, 2021).

It is notable that several of the countries whose green central banking policies scored highest against our framework exhibit close collaboration, in differing forms, between the central bank and national government. For example, the PBoC is not independent but under the purview of China's State Council (BOFIT, 2024). As such, the PBoC is tasked with supporting the central government's policy implementation. This integration with the government, which puts the PBoC on a more activist footing than many other central banks, is a large factor which has enabled China's strong progress in green central banking (DiLeo et al., 2025). The PBoC regularly co–publishes papers outlining green investment strategies alongside different arms of government, such as the Ministry of Ecology and Environment (People's Bank of China, 2024c), which both sides then play their part in carrying out.

Singapore's political and economic system contrasts significantly with China, yet it still exhibits close coordination between the central bank and government. MAS is also not formally independent, and falls under the Prime Minister's Office (PMO, 2025). This enables coordination around initiatives to boost green investment, such as green bonds which are issued by the government and managed by MAS (MAS, 2024d). Finally, Bank Indonesia (BI)—unlike its counterparts in China and Singapore—is formally independent from the government, though this does not prevent close coordination on key tasks. For example, as mentioned in the country–level analysis, BI coordinates with numerous government ministries to set its inflation target, which includes consideration of environmental supply–side shocks (Bank Indonesia, 2025), as well as coordinating on the issuance of green sukuk.

Additionally, our analysis finds cases among the APT countries where a lack of coordination between central bank and government has obstructed progress. For example, as mentioned in regards to the Republic of Korea, a lack of coordination with the central government to develop green sovereign bonds has hindered BOK's aim to integrate green securities into its collateral framework and open market operations.

That multiple top performing countries in this Scorecard exhibit close coordination between central bank and national government reaffirms how crucial this collaboration is to the development of impactful green central banking policies and green transition more broadly. Importantly, these three countries also provide evidence that such coordination is possible across a variety of political systems and structures, ranging from the central bank being a direct branch of government, to a formally independent institution. Concerns around perceptions of central bank independence therefore do not constitute a valid rationale for a lack of coordination with government, and central banks that veer away from coordination are unlikely to succeed in the development of transformative green central banking policies.

6. **Conclusion**

East and Southeast Asia are regions of crucial importance in the global fight against ecological breakdown. Including many of the world's largest and fastest growing economies, the policy choices of countries in the ASEAN Plus Three grouping over the coming years will have a huge influence on international environmental outcomes. Furthermore, much of the region is itself highly vulnerable to the physical impacts of climate breakdown, while remaining heavily dependent on fossil fuels as a source of energy and income through exports. To build towards a just green transition for East and Southeast Asia will therefore require vast levels of investment to transform its economies, and the alignment of central banks is essential to this task.

Encouragingly, central banks and financial supervisors in the majority of the ASEAN Plus Three countries have already made significant efforts to develop green finance policies that can help mobilise this investment. Financial regulation is currently the strongest green central banking policy area across the group of countries as a whole, with green monetary policies comparatively less developed. Despite the relative economic strength of the 'Plus Three' countries of China, Japan, and Republic of Korea, it is notable that several ASEAN countries are showing regional leadership, both through their development of domestic green central banking policies as well as initiatives being pursued collaboratively at the ASEAN level. The strongest performing countries exhibit forms of close coordination between central bank and national government to drive green investment.

Having said this, green central banking in the region is at an early stage of development on the whole, and has a long way to go in order to reach the standards commensurate with addressing global ecological breakdown and building a just green transition for the region. Even the best-performing countries in our scoring framework—headed up by China—achieve less than half the total available points. No country has so far implemented policies we classify as 'high impact'; those that directly shift finance away from the most environmentally harmful sectors, such as fossil fuel production.

Importantly, the degree of variation in countries' scores is significant, reflecting their wider economic disparities. One identifiable subgroup of countries that cluster together in terms of their scores includes APT states with relatively lower GDP per capita and/or absolute GDP: Vietnam, Cambodia, Lao PDR, Brunei, and Myanmar. These countries have either yet to start, or have only just begun, exploring green central banking policies. Thailand and Republic of Korea sit in the middle of the pack, while the remaining six strongest performers also cluster closely in terms of their scores, and are significantly further along in their development of green central banking. The stronger economies in the region, which also have the larger historical emissions, hold a greater responsibility to lead the development of green central banking and support less-resourced countries, to ensure a regional green transition that is inclusive and equitable.

This report provides a first benchmark of green central banking efforts across East and Southeast Asia. Continued monitoring and engagement will be critical to accelerate progress and help steer financial systems across the region toward a just and sustainable future.

Bibliography

ACMF. (2021). *ACMF ACTION PLAN 2021-2025*.
 https://www.theacmf.org/images/downloads/pdf/ACMF%20ACTION%20PLAN%202021_updated%20as%20at%2020%20April%202021.pdf

ACMF. (2024). *ASEAN Transition Finance Guidance V.2*.
 https://www.theacmf.org/initiatives/sustainable-finance/asean-transition-finance-guidance-v2

ACMF. (2025). *ASEAN Capital Markets Forum Continues to Facilitate Regional Growth through Sustainable, Resilient and Inter-connected Capital Markets.*
https://www.theacmf.org/media/news-release/asean-capital-markets-forum-continues--to-facilitate-regional-growth-through-sustainable-resilient-and-inter-connected-capital-markets

Adrian, T. (2024). *Central Bank Independence: Why It's Needed and How to Protect It.*
https://www.imf.org/en/News/Articles/2024/06/17/sp061424-central-bank-independence

AMRO. (2025a). *Joint Statement of the 28th ASEAN+3 Finance Ministers' and Central Bank Governors' Meeting (Milan, Italy, May 4, 2025) – ASEAN+3 Macroeconomic Research Office.*
https://amro-asia.org/joint-statement-of-the-28th-asean3-finance-ministers-and-central-bank-governors-meeting-milan-italy-may-4-2025

AMRO. (2025b). *Green Finance: Balancing Sustainability and Financial Stability – ASEAN+3 Macroeconomic Research Office.*
https://amro-asia.org/green-finance-balancing-sustainability-and-financial-stability

AMRO. (2025c). *Who We Are – ASEAN+3 Macroeconomic Research Office.*
https://amro-asia.org/about-us/who-we-are/

AMRO. (2025d). *AMRO Executive Committee – ASEAN+3 Macroeconomic Research Office*.
https://amro-asia.org/about-us/executive-committee/

AMRO, BFAA, & CGI. (2025). *Financing Asia's Transition to a Net-Zero Future.*
https://amro-asia.org/wp-content/uploads/2025/03/Boao-Transition-Finance-Report_Web-Version.pdf

Anwar, R. S., Mohamed, M., Hamzan, S. M., Malek, N. S. A., Zain, M. H. M., Jaafar, M. H., Sani, S., Brazil-De Vera, R. M., Desquitado, M. C. T., Praneeprachachon, V., Wong, D., Lim, B. A., Goh, G., Tan, W., & Hong, J. (2020). *Report on The Roles of ASEAN Central Banks in Managing Climate and Environment-related Risks*.
https://www.theacmf.org/images/downloads/pdf/2020-11-17-ASEAN-Task-Force-Report_for-publication.pdf

ARIC. (2025). *ASEAN+3 Asian Bond Markets Initiative (ABMI) Initiative.*
https://aric.adb.org/initiative/asean3-asian-bond-markets-initiative

Ariyapruchya, S., & Volz, U. (2023). *Sustainable Finance in Southeast Asia.*
https://www.pier.or.th/files/dp/pier_dp_197.pdf

ASEAN+3. (2022). *ASEAN PLUS THREE COOPERATION WORK PLAN 2023 – 2027 .*
https://aseanplusthree.asean.org/wp-content/uploads/2022/08/APT-Cooperation-Work-Plan-2023-2027.pdf

ASEAN+3. (2025). *Overview of ASEAN Plus Three Cooperation.*
https://aseanplusthree.asean.org/overview-of-asean-plus-three-cooperation/

ASEAN. (2015). *A Blueprint for Growth.*
https://asean.org/wp-content/uploads/2021/09/1.-AEC-2015-Progress-and-Key-Achievements_04.11.2015.pdf

ASEAN. (2024). *ASEAN MATTERS: EPICENTRUM OF GROWTH.*
https://asean.org/wp-content/uploads/2024/07/FIN_ASEAN-Annual-Report-2023-June-December-Epub.pdf

ASEAN Taxonomy Board. (2024). *ASEAN TAXONOMY FOR SUSTAINABLE FINANCE: VERSION 3.*
https://www.theacmf.org/images/downloads/pdf/ASEAN-Taxonomy-Version-3.pdf

ASEANstats. (2024). *The Structure of ASEAN Economy.*
https://www.aseanstats.org/wp-content/uploads/2024/01/00.-ASEAN-Statistical-Brief-on-GDP_19Jan2024.pdf

Balasubramanian, A., Hao Chua, J., Nauclér, T., & Pacthod, D. (2022). *Asia's $5 trillion green business opportunity.*
https://www.mckinsey.com/featured-insights/future-of-asia/green-growth-capturing-asias-5-trillion-green-business-opportunity

Bandaogo, M. S. (2021). *Why Central Bank Independence Matters. World Bank Group.*
https://documents1.worldbank.org/curated/en/284641638334557462/pdf/Why-Central-Bank-Independence-Matters.pdf

Bank Indonesia. (2023). *Synergy Strengthening National Economic Resilience and Revival.*
https://www.bi.go.id/en/publikasi/ruang-media/pidato-dewan-gubernur/Documents/Bank-Indonesia-Annual-Meeting-2023_Economic-Prospect-Policy-Directions-2024.pdf

Bank Indonesia. (2025). *Inflation.*
https://www.bi.go.id/en/fungsi-utama/moneter/inflasi/Default.aspx

Barmes, D., & Livingstone, Z. (2021). *THE GREEN CENTRAL BANKING SCORECARD: HOW GREEN ARE G20 CENTRAL BANKS AND FINANCIAL SUPERVISORS?*
https://positivemoney.org/publications/green-central-banking-scorecard/

Barmes, D., & Schröder Bosch, J. (2024). *Inflation as an Ecological Phenomenon*.
https://www.datocms-assets.com/132494/1718117150-inflation-as-an-ecological-phenomenon-jan24-v2.pdf

Bayangos, V., Cacnio, F., Cruz, R., Hallig, J., & Lomibao, N. (2024). *The Impact of Biodiversity Loss on the Philippine Banking System: A Preliminary Analysis. Bangko Sentral Ng Pilipinas*.
https://www.bsp.gov.ph/Sites/researchsite/SitePages/ResearchBlog/ResearchBlogDisp.aspx?ItemId=7

BIS. (2024). *Project Viridis: A climate risk platform for financial authorities*.
https://www.bis.org/publ/othp85.pdf

BNM. (2022a). *BNM's Fund for SMEs: Low Carbon Transition Facility (LCTF)*.
https://www.bnm.gov.my/documents/20124/6025157/lctf_broc_en.pdf

BNM. (2022b). *Climate Risk Management and Scenario Analysis*.
https://www.bnm.gov.my/documents/20124/938039/PD_Climate-Risk-Mgmt-Scenario-Analysis-Nov2022.pdf

BNM. (2023a). *Towards a Greener Financial System*.
https://www.bnm.gov.my/documents/20124/12142010/ar2023_en_ch2b.pdf

BNM. (2023b). *Bank Negara Malaysia and the World Bank Announce Initiatives to Enable the Financial Sector to Support Nature-Positive Outcomes*.
https://www.bnm.gov.my/-/cop28-pr-en

BNM. (2024). *2024 Climate Risk Stress Testing Exercise: Methodology Paper*.
https://www.bnm.gov.my/documents/20124/938039/pd_CRST_29Feb2024.pdf

BOFIT. (2024). *China's central bank overhauls monetary policy operating framework and starts trading in government bonds*.
https://www.bofit.fi/en/monitoring/weekly/2024/vw202436_1/

BOJ. (2023). *Treatment of Japan Climate Transition Bonds in the Bank's Market Operations*.
https://www.boj.or.jp/en/mopo/mpmdeci/mpr_2023/mpr231207b.pdf

BOJ. (2024). *Climate-Related Scenario Analysis – Next Step in the Banking Sector*.
https://www.boj.or.jp/en/finsys/cofsa/cof240510a.htm

BOJ. (2025). *Principal Terms and Conditions of Complementary Deposit Facility*.
 https://www.boj.or.jp/en/mopo/measures/term_cond/yoryo36.htm

BOK. (2021). *BOK's Response to Climate Change*.
https://www.bok.or.kr/eng/bbs/E0000634/view.do?nttId=10067642&menuNo=400069&pageIndex=1

BOK. (2024). *Monetary Policy for 2024*.
https://www.bok.or.kr/eng/bbs/E0000634/view.do?nttId=10081473&menuNo=400069

BOK. (2025). *Monetary Policy for 2025.*
https://www.bok.or.kr/eng/bbs/E0000634/view.do?nttId=10088858&menuNo=400423&relate=Y&depth=400423&programType=newsDataEng

BOT. (2023). *Annual Report 2023.*
 https://www.bot.or.th/content/dam/bot/documents/en/research-and-publications/reports/annual-report/AnnualReport_2023Eng.pdf

BOT. (2021a). *Bank of Thailand's sustainability commitment in support of the NGFS Glasgow Declaration.*
https://www.bot.or.th/en/financial-innovation/sustainable-finance/green/NGFS-Glasgow-declaration.html

BOT. (2021b). *Joint Statement Sustainable Finance Initiatives for Thailand.*
https://www.bot.or.th/en/news-and-media/news/news-20210818.html

BOT. (2022). *Transitioning Towards Environmental Sustainability Under the New Thai Financial Landscape*.
https://www.bot.or.th/content/dam/bot/financial-innovation/sustainable-finance/green/GreenDirectionalPaper-EN.pdf

BOT. (2025). *Thailand Taxonomy: Driving the Thai Economy Towards Sustainability*.
 https://www.bot.or.th/en/financial-innovation/sustainable-finance/green/Thailand-Taxonomy.html

Brunei Darussalam Central Bank. (2024). *WORKSHOP ON THE ASEAN TAXONOMY FOR SUSTAINABLE FINANCE.*
https://cms.bdcb.gov.bn/storage/uploads/publications/17140178143955730.pdf

BSP. (2021). *The Philippine Sustainable Finance Roadmap*.
https://www.bsp.gov.ph/Regulations/Issuances/2022/CL-2022-011.pdf

BSP. (2022). *Sustainable Central Banking Strategy*.
https://www.bsp.gov.ph/StrategicPrograms/SCBRoadmap.pdf

BSP. (2023a). *Bangko Sentral ng Pilipinas Media and Research Press Releases.* A.
https://www.bsp.gov.ph/SitePages/MediaAndResearch/MediaDisp.aspx?ItemId=6949&utm

BSP. (2023b). *2023 Sustainability Report*.
https://www.bsp.gov.ph/Media_And_Research/Publications/2023_BSP_Sustainability_Report.pdf

BSP. (2024). *REPORT ON THE PHILIPPINE FINANCIAL SYSTEM: FIRST SEMESTER 2024.*
https://www.bsp.gov.ph/Lists/Report%20on%20the%20Philippine%20Financial%20System/Attachments/33/StatRep_1Sem2024.pdf

Carlson, D. A., Robinson, S. ann, Blair, C., & McDonough, M. (2021). *China's climate ambition: Revisiting its First Nationally Determined Contribution and centering a just transition to clean energy. Energy Policy, 155, 112350.*
https://doi.org/10.1016/J.ENPOL.2021.112350

Caswell, G. (2022). *PBoC warns of defaults following climate stress test*.
https://greencentralbanking.com/2022/02/21/china-defaults-climate-stress-test-pboc/

CCPI. (2025). *Malaysia – Climate Performance Ranking 2025 | Climate Change Performance Index.*
https://ccpi.org/country/mys/

Choi, J., Escalante, D., & Larsen, M. L. (2020). *Green Banking in China–Emerging Trends With a spotlight on the Industrial and Commercial Bank of China (ICBC).*
https://www.climatepolicyinitiative.org/wp-content/uploads/2020/08/081220Green-Bankin-trends.pdf

Colesanti Senni, C., & Monnin, P. (2020). *Central Bank Market Neutrality is a Myth*. New Political Economy, 25(6), 865–879. https://doi.org/10.1080/13563467.2019.1657077

Costa, M. (2024). *"We intend to be proactive, leading by example": why Hungary is racing ahead on green finance*.
https://greencentralbanking.com/2024/01/16/hungary-green-monetary-policy-scorecard-mnb/

DiLeo, M., Helleiner, E., & Wang, H. (2025). *A less reluctant (green) Atlas? Explaining the People's Bank of China's distinctive environmental shift. New Political Economy*. https://doi.org/10.1080/13563467.2025.2504391

Dương, T. (2025). *Vietnam sets official criteria for green investment projects – Vietnam Economic Times.*
https://en.vneconomy.vn/vietnam-sets-official-criteria-for-green-investment-projects.htm

EEAS. (2025). *EIB and State Bank of Vietnam pave the way for green finance cooperation to support Just Energy Transition.* https://www.eeas.europa.eu/eib-sbv-march2025_en

Evans, S. (2021). *Analysis: Which countries are historically responsible for climate change?.*
https://www.carbonbrief.org/analysis-which-countries-are-historically-responsible-for-climate-change/

Evans, S., & Viisainen, V. (2024). *Analysis: China's emissions have now caused more global warming than EU.*
https://www.carbonbrief.org/analysis-chinas-emissions-have-now-caused-more-global-warming-than-eu/

Financial Services Agency. (2022). *Publication of "Supervisory Guidance on Climate-related Risk Management and Client Engagement."* https://www.fsa.go.jp/en/news/2022/20220715/20220715.html

Financial Services Agency. (2023). *Information on Disclosure of Sustainability Information.*
https://www.fsa.go.jp/policy/kaiji/sustainability-kaiji.html

FiinRatings. (2025). *Green Finance Spotlight: Vietnam's Green Taxonomy Officially Issued – Paving the Way for Sustainable Investment Waves*. https://fiinratings.vn/NewsDetail/11493577/en

FinTech Global. (2025). *South Korea puts ESG reporting on hold following regulatory easing*.
https://fintech.global/2025/04/29/south-korea-puts-esg-reporting-on-hold-following-regulatory-easing/

FSC. (2021a). *Green Finance to Support 2050 Zero Carbon Goals*. https://www.fsc.go.kr/eng/pr010101/75227

FSC. (2021b). *4th Green Finance Taskforce Meeting Reviews Progress and Discusses Additional Tasks.*
https://www.fsc.go.kr/eng/pr010101/77019

FSC. (2024a). *Taskforce on ESG Finance Holds Meeting and Discusses Key Details of ESG Disclosure Standards.*
https://www.fsc.go.kr/eng/pr010101/82159

FSC. (2024b). *Establishment of Green Credit Management Guidelines.*
https://www.fsc.go.kr/no010101/83596

FSC. (2024c). *Korea–Vietnam Financial Cooperation Forum Highlights Sustainable Finance and Capital Market Development*. https://www.fsc.go.kr/eng/pr010101/83138

GIZ. (2023). *Vietnam's Climate Risks and Best Practices for TCFD Disclosure.*
https://www.giz.de/en/downloads_els/Vietnam%20Climate%20Risks%20and%20Best%20Practices%20for%20TCFD%20Disclosure.pdf

Global Carbon Budget. (2024). *Cumulative CO2 emissions*.
https://ourworldindata.org/grapher/cumulative-co-emissions?tab=table

Gokmen, B. K. (2025). *Myanmar extends ceasefire until June 30 amid earthquake recovery efforts*.
https://www.aa.com.tr/en/asia-pacific/myanmar-extends-ceasefire-until-june-30-amid-earthquake-recovery-efforts/3586072

Guo, P., Liu, Y., Wu, Y., & Guan, G. (2020). *China's new green catalogue: harmonizing standards*.
https://www.sbfnetwork.org/wp-content/assets/policy-library/481_China_Chinas-new-green-catalogue.pdf

Hale, E. (2024). *Southeast Asia deepening dependence on fossil fuels, report warns.*
https://www.aljazeera.com/economy/2024/10/22/southeast-asia-deepening-dependence-on-fossil-fuels-think-tank-warns

Hickel, J. (2020). *Quantifying national responsibility for climate breakdown: an equality-based attribution approach for carbon dioxide emissions in excess of the planetary boundary. The Lancet Planetary Health, 4(9), e399–e404.*
https://doi.org/10.1016/S2542-5196(20)30196-0

Hickel, J., Sullivan, D., & Zoomkawala, H. (2025). *Responsibility for Climate Breakdown. Global Inequality Project.*
https://globalinequality.org/responsibility-for-climate-breakdown/

HSBC. (2020). *Faster Growth of ASEAN's New Economy amid the Pandemic.*
https://www.business.hsbc.com.cn/en-gb/campaigns/belt-and-road/asean-story-3

IEA. (2025). *Global Energy Review 2025*.
https://www.iea.org/reports/global-energy-review-2025/co2-emissions

IFC. (2022). A New Partnership with Bank of Lao PDR to Boost Green Finance, Support the Country's Climate Goals. https://www.ifc.org/en/pressroom/2022/a-new-partnership-with-bank-of-lao-pdr-to-boost-green-finance-su

IMF. (2025). *World Economic Outlook Database*. https://www.imf.org/en/Publications/WEO/weo-database/2025/April/weo-report

Iyer, R. (2024). *Will the new Indonesian sustainable finance taxonomy really serve its national interest?.* https://greencentralbanking.com/2024/03/05/indonesian-sustainable-finance-taxonomy-coal/

Jiaying, X., & Xinyue, H. (2025). *China's Expanding Green Investments in Indonesia: A Catalyst for Energy Transition?.* https://rsis.edu.sg/rsis-publication/rsis/chinas-expanding-green-investments-in-indonesia-a-catalyst-for-energy-transition/

Keck, F., Peller, T., Alther, R., Barouillet, C., Blackman, R., Capo, E., Chonova, T., Couton, M., Fehlinger, L., Kirschner, D., Knüsel, M., Muneret, L., Oester, R., Tapolczai, K., Zhang, H., & Altermatt, F. (2025). *The global human impact on biodiversity. Nature, 641(8062), 395–400.* https://doi.org/10.1038/S41586-025-08752-2;SUBJMETA=158,172,4081,670,704

Kedward, K., Gabor, D., & Ryan-Collins, J. (2024). *Carrots with(out) sticks: credit policy and the limits of green central banking. Review of International Political Economy, 31(5), 1593–1617.* https://doi.org/10.1080/09692290.2024.2351838

Lee, K. (2024a). *How Asean designed a green taxonomy for an Asia of contrasts.* https://greencentralbanking.com/2024/04/10/asean-south-east-asia-taxonomy/

Lee, K. (2024b). *Vietnam's central bank announces updated green credit framework.* https://greencentralbanking.com/2024/08/28/vietnam-central-bank-green-credit-framework/

Livingstone, Z., Speer, S., Herbert, J., & Clavijo, M. (2024). *The Green Central Banking Scorecard: 2024 Edition.* https://positivemoney.org/publications/green-central-banking-scorecard-2024

Macaire, C., & Naef, A. (2023). *Greening monetary policy: evidence from the People's Bank of China. Climate Policy, 23(1), 138–149.* https://doi.org/10.1080/14693062.2021.2013153

MAS. (2019). *"A Coordinated and Forward Looking Approach towards ASEAN Disaster and Climate Risk Resilience" – Keynote Address by Ms Jacqueline Loh, Deputy Managing Director, Monetary Authority of Singapore, at the NTU-ICRM's 10th Annual International Symposium on Catastrophe Risk Management on 1 August 2019.* https://www.mas.gov.sg/news/speeches/2019/a-coordinated-and-forward-looking-approach-towards-asean-disaster-and-climate-risk-resilience

MAS. (2023). *MAS Launches World's First Multi-Sector Transition Taxonomy.* https://www.mas.gov.sg/news/media-releases/2023/mas-launches-worlds-first-multi-sector-transition-taxonomy

MAS. (2024a). S*peech by Mr Chia Der Jiun, Managing Director, Monetary Authority of Singapore, at the Launch of the Singapore Sustainable Finance Association on 24 January 2024*. https://www.mas.gov.sg/news/speeches/2024/launch-of-the-singapore-sustainable-finance-association-on-24-january-2024

MAS. (2024b). *A Climate-Resilient Financial Sector.* https://www.mas.gov.sg/publications/sustainability-report/2024/sustainability-report-2023-2024/a-climate-resilient-financial-sector/risk-management

MAS. (2024c). *Australia and Singapore Collaborate to Support Sustainable Infrastructure and Decarbonisation in Southeast Asia.* https://www.mas.gov.sg/news/media-releases/2024/australia-singapore-collaborate-to-support-sustainable-infrastructure-and-decarbonisation-in-sea

MAS. (2024d). *Syndication: Green SGS (Infrastructure) Bonds.* https://www.mas.gov.sg/bonds-and-bills/auctions-and-issuance-calendar/syndication-green-sgs-infrastructure-bonds-na24300e

MAS. (2025). *MAS SGD Facility for ESG Loans*. https://www.mas.gov.sg/monetary-policy/liquidity-facilities/mas-sgd-facility-for-esg-loans

McKillop, P. (2025). *Ma Jun on a China's new path to net zero.* https://greencentralbanking.com/2025/05/27/ma-jun-china-path-to-net-zero/?utm_source=newsletter&utm_medium=email&utm_campaign=20250609

McKinsey Global Institute. (2022). *The net-zero transition: Its cost and benefits.* https://www.mckinsey.com/capabilities/sustainability/our-insights/the-net-zero-transition-what-it-would-cost-what-it-could-bring

Medina, A. F. (2025). *Brunei's Economic Diversification: Key Sectors and Investment Opportunities. ASEAN Briefing.* https://www.aseanbriefing.com/news/bruneis-economic-diversification-efforts-moving-beyond-oil-and-gas/

National Bank of Cambodia. (2023). N*ational Bank of Cambodia Partners with IFC to Boost Green Finance, Support Climate Action*. https://www.nbc.gov.kh/download_files/news_and_events/press_eng/502ENG_PressReleaseNBC_IFC.pdf

National Bank of Cambodia. (2024). *Cambodia Sustainable Finance Roadmap Action Plan Consultation Roundtable.* https://www.unescap.org/sites/default/d8files/event-documents/Cambodia%20Sustainable%20Finance%20Roadmap%20Workshop%20-%20Concept%20Note%20draft.pdf

National Bank of Cambodia. (2025). *Overview.* https://www.nbc.gov.kh/english/monetary_policy/overview.php

NGFS. (2023). *In Conversation with Ms. Chuchi G. Fonacier Deputy Governor Financial Supervision Sector, Bangko Sentral ng Pilipinas.* www.bsp.gov.ph/Regulations/Issuances/2022/M-2022-042.pdf

NGFS. (2024). *NGFS announces the appointment of new Chair and Vice Chair.* https://www.ngfs.net/en/press-release/ngfs-announces-appointment-new-chair-and-vice-chair

Nugrahaeni, R. (2025). *Can Indonesia avoid becoming Southeast Asia's carbon dumping ground?.* https://www.eco-business.com/opinion/can-indonesia-avoid-becoming-southeast-asias-carbon-dumping-ground/

OJK. (2021). *ROADMAP KEUANGAN BERKELANJUTAN TAHAP II (2021 – 2025).* https://www.ojk.go.id/id/berita-dan-kegiatan/info-terkini/Documents/Pages/Roadmap-Keuangan-Berkelanjutan-Tahap-II-%282021-2025%29/Roadmap%20Keuangan%20Berkelanjutan%20Tahap%20II%20%282021%20-%202025%29.pdf

OJK. (2023). *Indonesia Capital Market Roadmap: 2023–2027.* https://www.ojk.go.id/en/berita-dan-kegiatan/publikasi/Documents/Pages/Indonesia-Capital-Market-Roadmap-2023-2027/Indonesia%20Capital%20Market%20Roadmap%202023-2027.pdf

OJK. (2024). *BANKING CLIMATE RISK MANAGEMENT AND SCENARIO ANALYSIS 2024 GENERAL GUIDEBOOK DEPARTMENT OF BANKING REGULATION AND DEVELOPMENT, INDONESIA FINANCIAL SERVICE AUTHORITY.* https://ojk.go.id/en/berita-dan-kegiatan/info-terkini/Documents/Pages/Climate-Risk-Management-Scenario-Analysis-CRMS-2024/Book%201_General%20Guidebook%20CRMS%20OJK%202024.pdf

Overland, I., Sagbakken, H. F., Chan, H. Y., Merdekawati, M., Suryadi, B., Utama, N. A., & Vakulchuk, R. (2021). *The ASEAN climate and energy paradox. Energy and Climate Change, 2, 100019.* https://doi.org/10.1016/J.EGYCC.2020.100019

People's Bank of China. (2024a). *China Monetary Policy Report Q1 2024 Monetary Policy Analysis Group of the People's Bank of China.* http://www.pbc.gov.cn/en/3688229/3688353/3688356/5188141/5385741/2024070415211316142.pdf

People's Bank of China. (2024b). *Guiding Opinions on Further Strengthening the Financial Support for the Green, Low-Carbon, and High-Quality Development of the Yangtze River Economic Belt.* http://www.pbc.gov.cn/en/3688253/3689009/4180845/5470444/2024092915222113428.pdf

People's Bank of China. (2024c). *PBOC, MEE, NFRA and CSRC Issue Opinions on Leveraging Green Finance to Support the Beautiful China Initiative.* http://www.pbc.gov.cn/en/3688110/3688172/5188125/5480627/index.html

People's Bank of China. (2021). *Common Ground Taxonomy published as part of the PBoC and EU Commission co-led work.* http://www.pbc.gov.cn/en/3688006/3995557/4382112/index.html

People's Bank of China. (2022). *PBC Officials Answer Press Questions on Increasing Quota of Special Central Bank Lending for Clean and Efficient Use of Coal by RMB100 Billion.* http://www.pbc.gov.cn/en/3688006/3995557/4544483/index.html

Perry, K. (2021). *Finance, old and new, and the climate crisis in the Global South.*
https://positivemoney.org/uk-global/update/finance-old-and-new-and-the-climate-crisis-in-the-global-south/

PMO. (2025). *PMO | About Us.*
 https://www.pmo.gov.sg/About-Us

Prime Minister. (2021). A*PPROVAL FOR NATIONAL GREEN GROWTH STRATEGY FOR 2021 – 2030 PERIOD, WITH A VISION BY 2050* .
https://sustainabledevelopment.gov.mt/wp-content/uploads/2024/10/National-Green-Growth-Strategy-for-2021-2030-Vision-Towards-2050.pdf

Ratcliffe, R. (2025). *Xi Jinping seeks to strengthen economic ties during tour of south-east.*
https://www.theguardian.com/world/2025/apr/13/xi-jinping-seeks-to-strengthen-economic-ties-during-tour-of-south-east-asia

Reuters. (2024). *Indonesia's new green investment rulebook includes coal power plants.*
https://www.reuters.com/sustainability/sustainable-finance-reporting/indonesias-new-green-investment-rulebook-includes-coal-power-plants-2024-02-20/

Securities and Exchange Regulator of Cambodia. (2023). *Press release*.
https://www.serc.gov.kh/english/m77.php?pn=7&sn=7&no=491

Securities Commission Malaysia. (2022). *PRINCIPLES-BASED SUSTAINABLE AND RESPONSIBLE INVESTMENT TAXONOMY FOR THE MALAYSIAN CAPITAL MARKET.*
https://www.sc.com.my/api/documentms/download.ashx?id=a0ab5b0d-5d7d-4c66-8638-caec92c209c1

Securities Commission Malaysia. (2024a). *NATIONAL SUSTAINABILITY REPORTING FRAMEWORK.*
https://www.sc.com.my/api/documentms/download.ashx?id=e98c3900-7b35-4cf5-a07d-fd17acf8734e

Securities Commission Malaysia. (2024b). *About JC3 Climate Data Catalogue*.
https://www.sc.com.my/api/documentms/download.ashx?id=b7ec58ff-0557-4c14-9416-c7102f0aff2c

SGX. (2025). *Sustainability Reporting – Singapore Exchange (SGX).*
https://www.sgx.com/sustainable-finance/sustainability-reporting

Singapore Business Review. (2025). *Singapore retains 4th place in global financial centres Index.*
https://sbr.com.sg/economy/news/singapore-retains-4th-place-in-global-financial-centres-index

Smith, A. (2022). *The Countries That Represent the Largest Portion of the Global Banking Sector.*
https://www.investopedia.com/ask/answers/032315/what-countries-represent-largest-portion-global-banking-sector.asp

Speer, S., & Yedav, S. (2024). *Green Central Banking Scorecard Methodology Review.*
https://www.datocms-assets.com/132494/1717791634-green-central-banking-scorecard-methodology-review.pdf

SSC. (2024). *International Cooperations || ASEAN Capital Markets Forum: Continuing to Facilitate Regional Growth through Sustainable, Resilient and Inter-connected Capital Markets (21/10/2024).*
https://ssc.gov.vn/webcenter/portal/ubck/pages_r/l/chitit?dDocName=APPSSCGOVVN1620149067&dID=154370

Sustainable Banking and Finance Network. (2024). S*ecurities And Exchange Regulator Of Cambodia Joins SBFN | Sustainable Banking And Finance Network.*
https://www.sbfnetwork.org/securities-and-exchange-regulator-of-cambodia-joins-sbfn/

TCFD. (2025). *Task Force on Climate-Related Financial Disclosures | TCFD).* https://www.fsb-tcfd.org/

Teja, N. (2024). *Brunei faces uphill battle in efforts to wean itself off oil and gas.*
https://www.fdiintelligence.com/content/0fb63d16-d81e-5750-8767-cf02520d4230

The Association of Banks in Cambodia. (2019). *Cambodian Sustainable Finance Principles Implementation Guidelines.*
https://www.sbfnetwork.org/wp-content/assets/policy-library/280_Cambodia_SF_Principles_-_Implementation_Guidelines.pdf

The Guardian. (2025). *The full list of Trump's new tariffs – from India to Taiwan.*
https://www.theguardian.com/us-news/2025/aug/01/full-list-tariffs-country-rate-donald-trump-executive-order

The People's Repbulic of China. (2022). *Guidelines in place to support green finance.*
https://english.www.gov.cn/policies/policywatch/202206/08/content_WS629fe148c6d02e533532bd53.html

Thiemann, M., Büttner, T., & Kessler, O. (2023). *Beyond market neutrality? Central banks and the problem of climate change. Finance and Society, 9(1), 14–34.* https://doi.org/10.2218/FINSOC.8090

Tran, U., Dao, T., Ngo, T., & Cao, K. (2025). *Unlocking Vietnam's sustainable bond market: Overcoming barriers and empowering corporate leaders to drive green finance.*
 https://www.reddal.com/insights/unlocking-vietnams-sustainable-bond-market-overcoming-barriers-and-empowering-corporate-leaders-to-drive-green-finance/

UNDP. (2021). *COVID, Conflict and Poverty: Compounding Negative Shocks and Their Impact on Human Development in Myanmar*.
https://www.undp.org/asia-pacific/publications/covid-conflict-and-poverty-compounding-negative-shocks-and-their-impact-human-development-myanmar

UNDP SIF. (2023). *Monetary Authority of Singapore Executive Director, Daniel Wang, named Chair of the UNDP convened Sustainable Insurance Forum (SIF)*.
https://sustainableinsuranceforum.org/monetary-authority-of-singapore-executive-director-daniel-wang-named-chair-of-the-undp-convened-sustainable-insurance-forum-sif/

UN-HABITAT. (2025). *Building Climate And Disaster Resilience Capacities Of Vulnerable Small Towns In Lao PDR – UN-Habitat Lao PDR.*
https://unhabitat.la/projects/af2/

Varoufakis, Y. (2021). C*entral bank independence is a myth. What about green central banking?.*
https://greencentralbanking.com/2021/07/07/central-bank-independence-myth/

WMO. (2025a). *State of the Global Climate 2024.*
https://library.wmo.int/records/item/69455-state-of-the-global-climate-2024

WMO. (2025b). *WMO confirms 2024 as warmest year on record at about 1.55°C above pre-industrial level.*
https://wmo.int/news/media-centre/wmo-confirms-2024-warmest-year-record-about-155degc-above-pre-industrial-level

Wolf, M. (2025). T*rump's tariffs will damage the world. Financial Times.*
 https://www.ft.com/content/d96d4a44-2b75-4222-b77a-afe72c1b9174

World Bank. (2025). *Population, total | Data.*
https://data.worldbank.org/indicator/SP.POP.TOTL?most_recent_value_desc=true

World Bank Group. (2022). *An Exploration of Nature-Related Financial Risks in Malaysia.*
https://www.bnm.gov.my/documents/20124/3770663/wb-bnm-2022-report.pdf

World Vision. (2025). *Myanmar earthquake: Facts, FAQs, and how to help.*
https://www.worldvision.org/disaster-relief-news-stories/myanmar-earthquake-facts-faqs-how-to-help

Worldometer. (2025). *Laos Population (2025) – Worldometer.*
https://www.worldometers.info/world-population/laos-population/?fbclid=IwAR2ie0iX3gfy6Vv7sqU6fh8igSXPfr9sGzPt3Z7iCeyOCsdZndcB4zvbX9s

Xinhua. (2024). *Laos aims to promote green finance-Xinhua.*
https://english.news.cn/20241015/fce9766b8a7343e2b21a47f28706b34d/c.html

Appendix 1 – Scoring system details

Within each of the four categories of action we study, green policies are further divided into three impact levels: high, medium, and low impact.

- **High impact** policies actively contribute to shifting financial flows away from economic activity most responsible for causing the climate crisis: notably, the extraction, processing and distribution of new fossil fuels.
- **Medium impact** encompasses other policies that are likely to have a positive impact on financial flows. This includes policies that shift finance away from some carbon–intensive assets, but fall short of applying such incentives or restrictions to all new fossil fuel projects. Policies that promote investment in green assets are also considered medium impact.
- **Low impact** represents small positive steps that fall short of having tangible long–term impact on the financial system, such as research reports, voluntary guidelines, and educational initiatives.

The implementation of green policies takes place over a significant timeframe, so the Scorecard rewards points to reflect different stages of implementation. Each policy is assigned an implementation stage: under discussion, formal commitment, and fully implemented.

- **Under discussion** refers to significant discussion about the policy by senior leadership within the institution, such as at a conference, in a research paper, or in a consultation.
- **Formal commitment** refers to a commitment by the institution to implement the policy, through press releases, a long term strategy, or in bilateral interactions.
- **Fully implemented** is the stage where the policy has become fully applied to central bank operations or regulated entities.

To reflect both the impact level and implementation stage, points for each action or policy are awarded as follows:

	Low impact	Medium impact	High impact
Under discussion	0	1	2
Formal commitment	0	3	6
Fully implemented	1	5	10

Note: where a specific policy benefits green investment as well as investment in ecologically damaging sectors (e.g. fossil fuels), points are not awarded.

Each category policy category has two score limits: a category score limit, and a lesser impact score limit:

- The **category score limit** for each category determines the maximum number of points institutions can earn in that category. Once the category score limit is reached, any additional policies in that category are not awarded points.
- The **lesser impact score limit** determines the maximum number of points institutions can earn for policies in that category that have relatively lower impact for that category. This score limit ensures that countries can only score full marks in a category if they have implemented at least one policy with the highest impact level in that category.

Policy Category	Category score limit	Lesser score limit
Research and Advocacy	10	Low impact policies score a maximum of 5 points.
Monetary Policy	50	Low and medium impact policies score a maximum of 40 points.
Financial Policy	50	Low and medium impact policies score a maximum of 40 points.
Leading by Example	20	Low and medium impact policies score a maximum of 10 points.

Appendix 2 – Full breakdown of ASEAN Plus Three countries' policy scores against our framework

Country	Research and Advocacy (out of 10)	Monetary Policy (out of 50)	Financial Policy (out of 50)	Leading by Example (out of 20)	Total Score 2025 (out of 130)
China	5	16	25	4	50
Malaysia	5	5	23	10	43
Singapore	10	6	16	10	42
Indonesia	5	7	22	6	40
Philippines	5	10	18	7	40
Japan	6	16	14	3	39
Thailand	5	1	13	6	25
Republic of Korea	5	13	3	3	24
Vietnam	4	0	2	4	10
Cambodia	5	0	0	2	7
Lao PDR	4	0	0	0	4
Brunei	2	0	0	0	2
Myanmar	0	0	0	0	0

Note: No green central banking actions or policies were found for Myanmar.

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