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KEY POINTS

- The sustainable bond market in ASEAN+3 represents a tiny proportion of the region's total bond market. This highlights significant opportunities for expansion.
- Compared with the European Union, the sustainable bond market in ASEAN+3 has distinctive characteristics: (i) a shorter average maturity; (ii) a lower proportion of rated sustainable bonds; and (iii) a lower proportion denominated in local currency.
- According to a survey conducted by the Asian Development Bank and the Global Green Growth Institute, a majority of ASEAN investors and underwriters have a strong interest in green bonds, but they lack resources and relevant technical capacity.
- Renewable energy and energy efficiency are the two most promising sectors for green bond issuance and investment.
- Regional collaboration and integration can help advance market development.

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Developing the Sustainable Bond Market in ASEAN+3: Challenges and Opportunities

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Recent years have witnessed a surge in sustainable bond markets, not only in terms of financing amounts but also in the form of innovative instruments. The expanding sustainable bond family now includes green bonds, social bonds, sustainability bonds, sustainability-linked bonds, and transition bonds. Following the International Capital Market Association (ICMA) launching of the first Green Bond Principles in 2015, annual global issuance of sustainable bonds surged from USD125.3 billion in 2016 to USD1,138.3 billion in 2021. Asia is home to the second-largest regional sustainable bond market in the world after Europe, accounting for around 20% of global issuance (Figure 1).[1] The ASEAN+3 markets dominate the sustainable bond market in Asia with the equivalent of USD130.0 billion of sustainable bond issuance in the first 6 months of 2022 and USD547.9 billion of sustainable bonds outstanding at the end of June.[2]

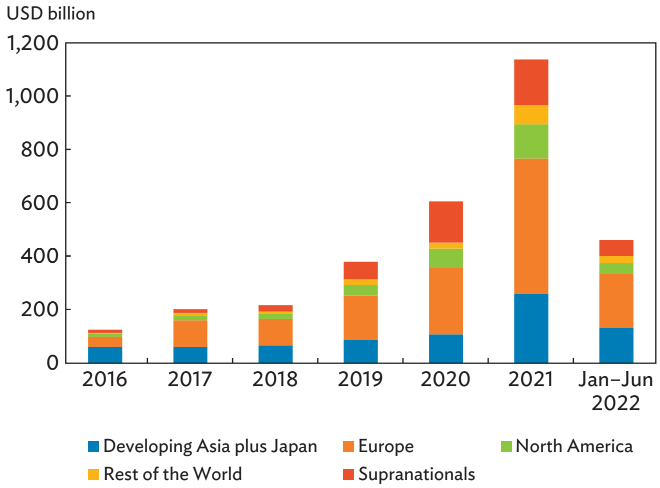
Although ASEAN+3 has a larger conventional bond market than the European Union (EU), ASEAN+3 fell behind the EU in terms of sustainable bond market development. Sustainable bonds outstanding only account for 1.2% of the total bond market in ASEAN+3 at the end of June whereas the share is 5.4% in the EU. Compared to the EU, the ASEAN+3 sustainable bond market has a few unique features that provide some insight regarding further market development.

First, the ASEAN+3 sustainable bond market has a shorter average maturity than that of the EU. According to *AsianBondsOnline*, as of June 2022, 90.1% of green bonds in ASEAN+3 carried a maturity of less than 5 years, while the corresponding share is only 37.8% in the EU market.

[1] Asian Development Bank. 2022. *Asia Bond Monitor September*. https://asianbondsonline.adb.org/abm.php#abm-2022-sep.

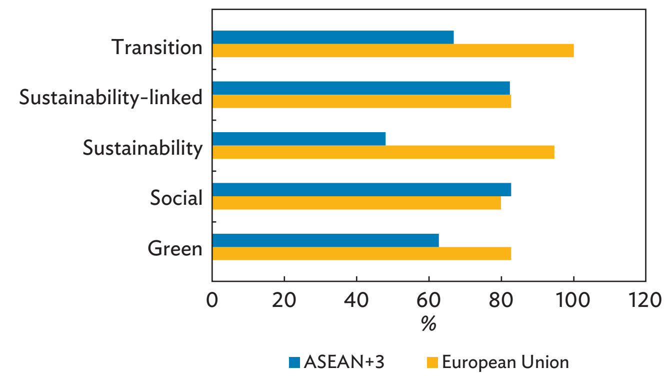
[2] ASEAN+3 refers to the 10 members of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China, Japan, and the Republic of Korea.

Figure 1: Global Sustainable Bond Issuance by Region



USD = United States dollar.
Source: *AsianBondsOnline* computations based on Bloomberg LP data.

Figure 2: Share of Outstanding Local Currency Sustainable Bonds in ASEAN+3 and European Union Markets (as of 30 June 2022)



Note: ASEAN+3 refers to the 10 members of the Association of Southeast Asian Nations (ASEAN) plus the People's Republic of China, Japan, and the Republic of Korea.
Source: *AsianBondsOnline* computations based on Bloomberg LP data.

Second, compared to the EU, ASEAN+3 has a lower share of rated sustainable bonds but a higher share of investment-grade bonds (i.e., BBB and above) among rated bonds. As of June 2022, unrated green, social, and sustainability bonds accounted for 76.6%, 81.2%, and 61.3% of respective outstanding green, social, and sustainability bonds in ASEAN+3, while the corresponding shares in EU markets are 42.3%, 48.9%, and 25.4%. This is consistent with the limited participation of international bond rating agencies in ASEAN+3 bond markets in general. Third, despite this, ASEAN+3 has witnessed rapid bond market development during the past 2 decades.

Compared to the those of the EU, ASEAN+3 sustainable bond markets have a lower share of local currency (LCY) bonds in overall sustainable bond markets and most bond types. As of June 2022, the shares of LCY green, social, and sustainability bonds among respective total green, social, and sustainability bonds outstanding in ASEAN+3 were 62.7%, 82.7%, and 47.9% (Figure 2). The corresponding shares in EU markets are at 82.6%, 79.8%, and 94.6%. One may argue that there is stronger demand for EUR-denominated bonds than for bonds denominated in the domestic currencies of ASEAN+3 member economies. However, this may not necessarily be the case. The share of LCY sustainable bonds among total sustainable bonds outstanding in ASEAN+3 is lower than the share of LCY bonds among total bonds in the ASEAN+3 market. As of June 2022, 94.9% of all bonds outstanding were dominated in an ASEAN+3 domestic currency, which is larger than the share of LCY sustainable bonds in the total ASEAN+3 bond market. This phenomenon underscores the importance of expanding the domestic investment base for LCY sustainable bonds in ASEAN+3 markets.

Overall, the above features point to the need for further development of the ASEAN+3 sustainable bond market—in particular, demand for longer-tenor and LCY-denominated sustainable bonds needs to be supported. There is also a tendency for investors in ASEAN+3 sustainable bond markets to demand quality, as indicated by the higher share of investment-grade bonds, which highlights the importance of boosting the supply of quality, or bankable, assets.

To further develop the sustainable bond market in ASEAN+3, efforts are needed on both the demand and supply sides. On the demand side, despite an increasing awareness of sustainable investments around the world, current environmental, social, and governance (ESG) investment practice in Asia remains relatively limited. According to Willis Towers Watson, Asian asset owners only allocated an average of 10% of their portfolio to ESG-related strategies.[3] This not only reflects weaker capacity in ESG investment in the region, but also weak standards and an underdeveloped ESG market ecosystem, as well as a relatively small supply of sustainable assets in Asian markets.

On the supply side—while there are widely documented benefits of issuing sustainable bonds to finance impact investments, including positive investor recognition, a broadened potential

[3] Willis Towers Watson. 2021. *ESG Beliefs and Practices Survey 2021—Asian Asset Owners: Raising Their ESG Game*. https://www.willistowerswatson.com/en-HK/Insights/2021/10/asian-asset-owners-raising-their-esg-game.

investor base, greater resilience to shocks, more social capital, and lower financing costs over the negative "greenium"—ASEAN+3 still lacks a pipeline for sustainable projects and thus has a limited supply of sustainable bonds, which is partly driven by corporations' limited capacity to identify, manage, and report related sustainable investments.[4] The lack of capacity is more pronounced in ASEAN economies where bond market development lags that of the People's Republic of China, Japan, and the Republic of Korea.

DEVELOPING SUSTAINABLE BOND MARKETS IN ASEAN ECONOMIES

Compared to Japan, the People's Republic of China, and the Republic of Korea, the majority of ASEAN's sustainable bond markets, with the exception of Singapore, are still in the early stages of development.

Currently, the share of outstanding LCY-denominated sustainable bonds to total LCY-denominated bonds in all major ASEAN markets is less than 2% (Figure 3). However, when considering only those issued by corporations, the Philippines has a much higher share of almost 10%, by far the highest proportion among major markets in ASEAN (Figure 4).

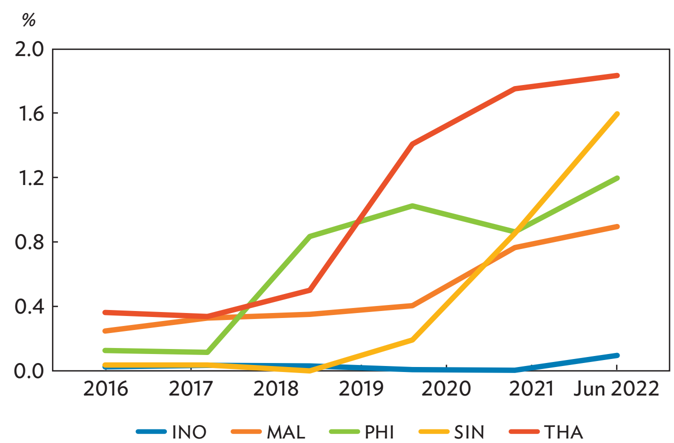
On average, the share of sustainable bonds issued by corporates in other major ASEAN markets ranges from only 2% to 4% of total outstanding LCY-denominated corporate bonds. This indicates that there are significant opportunities for the sustainable bond market to expand, thereby playing a larger role in supporting the recovery from the COVID-19 pandemic.

Significant Interest in Sustainable Bonds from Both Issuers and Investors

Based on a survey conducted between November 2021 and June 2022 by the Global Green Growth Institute and ADB,[5] a significant proportion of local capital market participants expressed significant interest in investing in and issuing green bonds. While investors are interested in investing in green bonds, their knowledge and resources are limited, particularly in Indonesia, the Philippines, and Thailand. Few respondents indicated that they have incorporated sustainable investments into their investment mandate or created green portfolios (Figure 5).

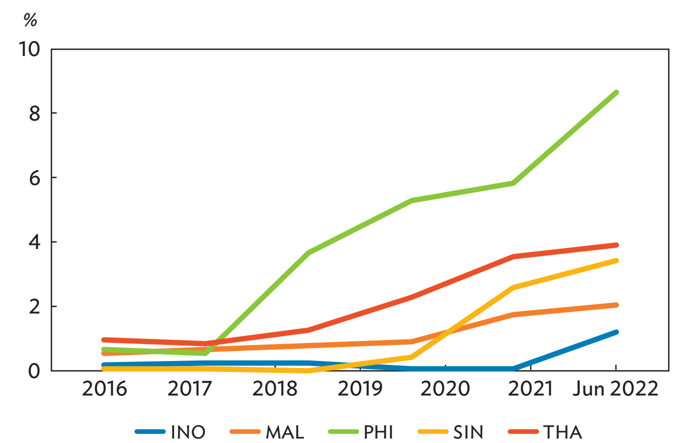
Similarly, a substantial number of underwriters' responses indicated that the majority of their clients are exploring and interested in issuing green bonds (Figure 6). However, they lack the knowledge and resources to do so. Significantly, the majority of respondents from Malaysia, the Philippines, and Thailand have indicated that they are in the process of developing an action plan. This is consistent with their respective sustainable bond market's level of development. Meanwhile, a small proportion of Malaysian respondents indicated that they have no interest in issuing green bonds.

Figure 3: Local Currency Sustainable Bonds as a Share of Total Local Currency Bonds



INO = Indonesia, MAL = Malaysia, PHI = Philippines, SIN = Singapore, THA = Thailand.
Source: *AsianBondsOnline* computations based on Bloomberg LP data.

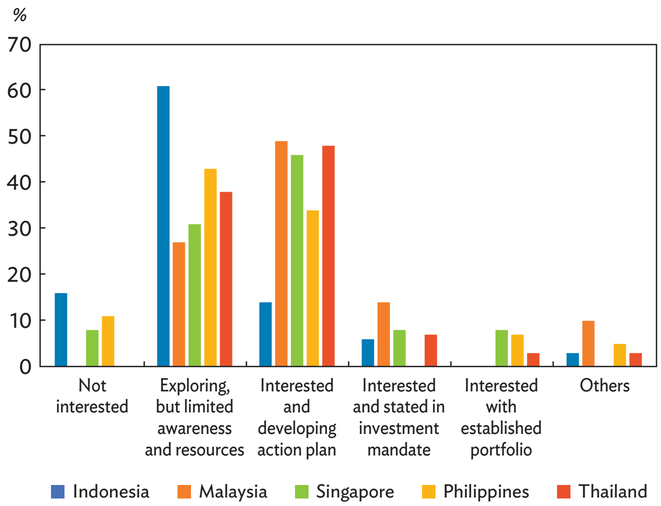
Figure 4: Local Currency Corporate Sustainable Bonds as a Share of Total Local Currency Corporate Bonds



INO = Indonesia, MAL = Malaysia, PHI = Philippines, SIN = Singapore, THA = Thailand.
Source: *AsianBondsOnline* computations based on Bloomberg LP data.

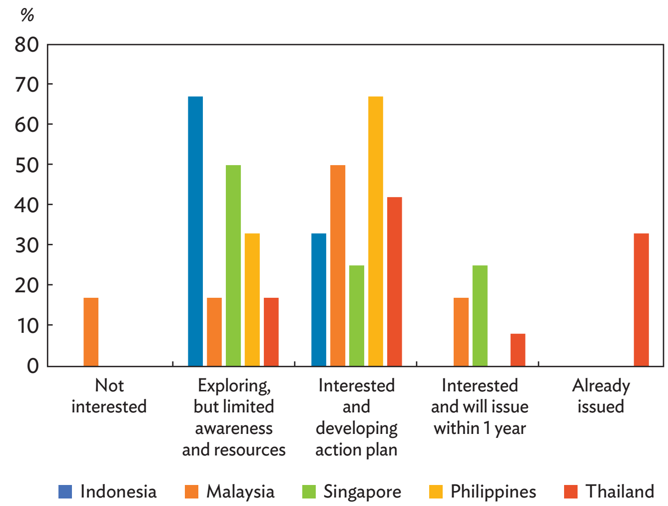
[4] ADB. 2021. *Asian Development Outlook 2021: Financing a Green and Inclusive Recovery*. https://www.adb.org/publications/asian-development-outlook-2021.
[5] ADB. 2022. *Survey on Green Bonds and Sustainable Finance in ASEAN: Insights on the Perspectives of Institutional Investors and Underwriters*. https://www.adb.org/publications/survey-green-bonds-sustainable-finance-asean.

Figure 5: Interest in Investing in Green Bonds



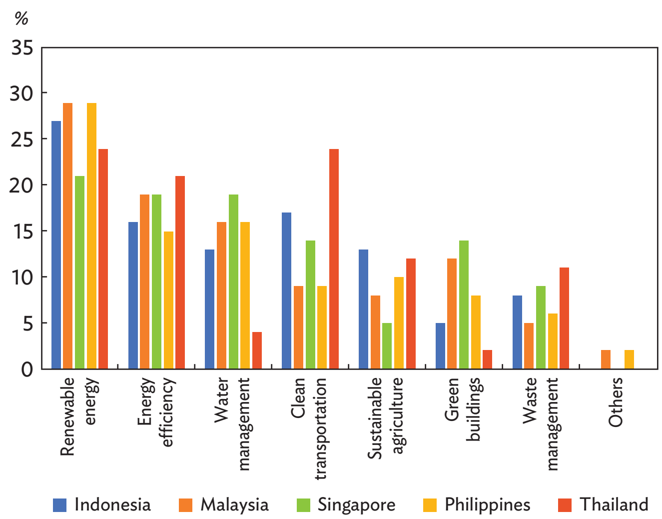
Source: Asian Development Bank and Global Green Growth Institute.

Figure 6: Interest in Issuing Green Bonds



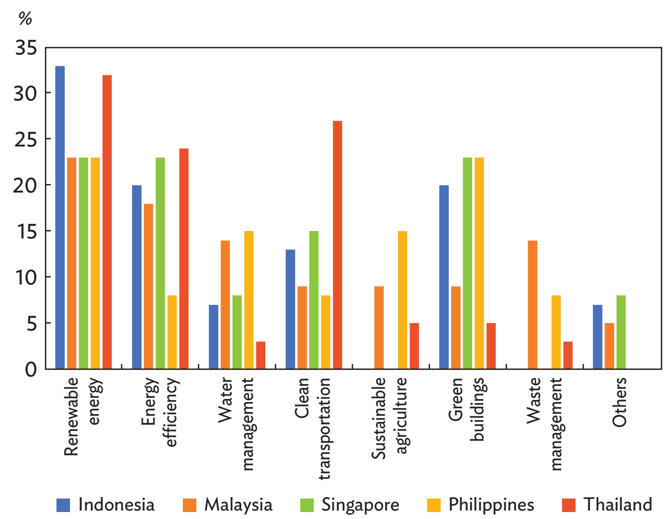
Source: Asian Development Bank and Global Green Growth Institute.

Figure 7: Most Promising Sectors for Green Bond Investments



Source: Asian Development Bank and Global Green Growth Institute.

Figure 8: Most Promising Sectors for Green Bond Issuance



Source: Asian Development Bank and Global Green Growth Institute.

Renewable Energy Clearly Stands Out as One of the Most Promising Sectors

From the perspective of both investors and underwriters, the renewable energy sector is the sector that stands out the most (Figures 7 and 8). This may be because the ASEAN Plan of Action for Energy Cooperation, 2016–2025 (Phase 2 2021–2025) has set a target to increase the proportion of renewable energy in total energy supply to 23% and increase installed renewable energy power capacity to 35% in ASEAN by 2025.[6] As commodity prices rise and the cost of renewable energy installation decreases, corporations are increasing their use of renewable energy sources to reduce operational expenses.

Energy efficiency is the second most promising sector in ASEAN. In the meantime, some Thai respondents indicated that clean

[6] ASEAN. 2020. (2021–2025) ASEAN Plan of Action for Energy Cooperation (APAEC) 2016–2025 Phase II.

transportation is an important sector for both investors and issuers. This is consistent with the existing market landscape, in which the operators of low-carbon transportation (e.g., subway and metro) are regular green bond issuers in Thailand. Similarly, the majority of Singaporean issuers invest the majority of their bond and loan proceeds in the buildings sector.[7]

Major Obstacles: Inadequate Supply of Green Bonds and Lack of Eligible Project Pipelines

The majority of institutional investors stated that the insufficient supply of green bonds is one of the main barriers preventing the development of a green bond market in the region (Figure 9). Another significant barrier, according to some investors, is the lack of clear benefits of green bonds over conventional bonds. Even the more developed markets like Singapore, Malaysia, and Thailand are facing these barriers.

In terms of the issuance, underwriters agreed with institutional investors that the pricing benefits are unclear from a capital-raising standpoint. In addition, some indicated that issuing sustainable bonds requires additional procedures and higher issuance fees without immediate clear benefits, so they are hesitant to do so (Figure 10).

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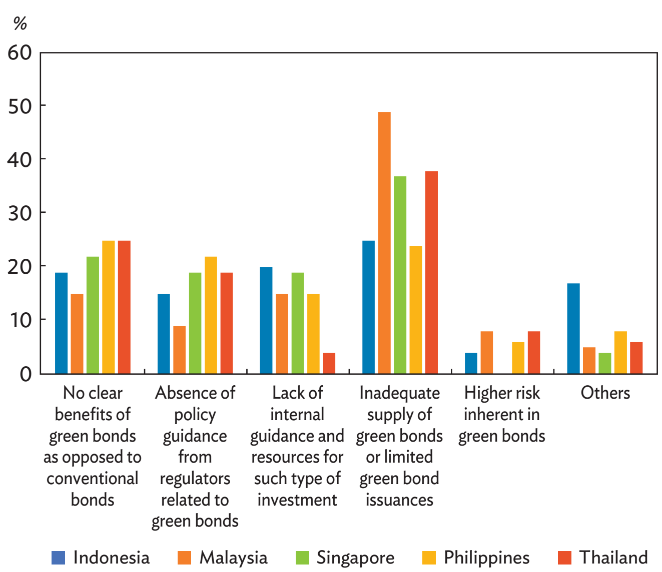
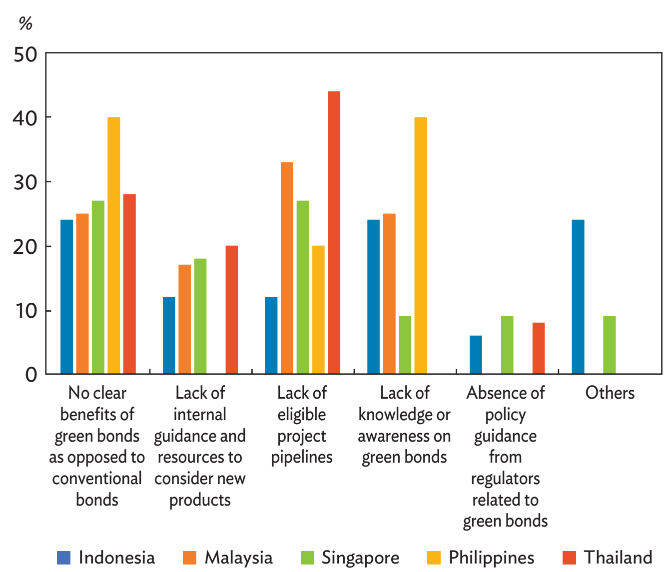
In the case of Indonesia, a number of underwriters indicated that the domestic regulator's mandatory buy-back requirement if the bond is no longer green discourages them from issuing green bonds. Investors also viewed this as an obstacle because it makes the bonds more difficult for them to market.

Figure 9: Main Obstacles to Investing in Green Bonds



Source: Asian Development Bank and Global Green Growth Institute.

Figure 10: Main Obstacles to Issuing Green Bonds



Source: Asian Development Bank and Global Green Growth Institute.

[7] Climate Bonds Initiative. 2021. *ASEAN Sustainable Finance Market: State of the Market*.

Case Study: Thaifoods Group

Thaifoods Group (TFG) is the first nonfinancial corporate social bond issuer under the ASEAN Social Bond Standards. TFG is a complete food manufacturer—in feed, farm, and food—specializing in poultry and pig production.[a]

Totaling THB1.0 billion (USD30.5 million) and with a maturity of 5 years, TFG's social bond was issued on 11 November 2021 under the ASEAN+3 Multicurrency Bond Issuance Framework, which facilitates cross-border issuance of debt securities in participating markets. The Credit Guarantee and Investment Facility, a trust fund of ADB, guaranteed 100% of the bond, which was sold to leading Thai institutional investors. TFG will use the proceeds from the bond to lend money to subsidiaries for the purpose of financing and refinancing projects and assets associated with job creation and economic advancement in local communities. Following its inaugural issuance, TFG issued two additional social bonds in July 2022, making it the only Thai company to have issued social bonds in Thailand.

As the first nonfinancial corporate social bond issuer in the region, TFG faced several challenges. These can be summed up as follows.

First, it was difficult to compile a list of **eligible expenditures** that complied with ASEAN Social Bond Standards and ICMA's Social Bond Principles. The finance division was instrumental in coordinating the efforts of TFG's various departments to ensure that the eligible projects listed in the framework make a quantifiable contribution to positive environmental and social outcomes.

Second, it was challenging to put together the **sustainable finance framework**, which explains to investors the company's sustainability policy and how it is being applied throughout its operations. To report on the impact of its social projects, TFG also needed to set up procedures for tracking the relevant data. Close coordination between the company's various divisions, from senior management to factory managers, was necessary for this process.

Third, TFG learned that choosing an **external reviewer** who is familiar with the local social context can help speed up the external review process. Unlike developed countries, a third of Thailand's workforce is employed in the low-income agriculture sector, and the majority of them rely on government loans or other assistance to help them cope with falling prices for their products.[b] The majority of Thailand's bottom 40% live in poverty (earning about USD1,000 per year), with many of them comprising urban workers and rural farming families. This is in stark contrast to farmers in more developed countries where the majority of them earn significantly higher annual incomes. As social needs vary in different contexts, choosing the right external reviewer is critical from the perspective of social bond issuers.

[a] Asian Development Bank. 2021. First Social Bond Issued by Nonfinancial Corporate Issuer Under ASEAN Social Bond Standards. News release.
[b] World Bank. 2020. *Taking the Pulse of Poverty and Inequality in Thailand.*

Source: Asian Development Bank.

POLICY RECOMMENDATIONS

The ASEAN+3 sustainable finance market has significant potential to mobilize private capital to support inclusive and sustainable economic recovery. Local policymakers and regulators, in collaboration with development partners, can play a variety of roles in fostering the growth of sustainable finance. In ASEAN+3, ADB has been trying to address these challenges by focusing on the following key areas.

Expand the Issuer Base and Increase Local Demand for Sustainable Bonds

To meet the demand of investors, the region must increase the number of issuers of sustainable bonds and expand the eligible project pipeline. Development partners can play a crucial role in enhancing the technical capacity of potential issuers, financial advisors, and underwriters of sustainable bonds. As the Secretariat of the Asian Bond Markets Initiative, ADB is providing technical assistance to establish the ecosystem required for the development of sustainable finance in the ASEAN+3 region.[8]

ADB is working closely with a number of potential issuers and underwriters to provide intensive support throughout the sustainable bond issuance process. As highlighted in the survey, companies may be interested in issuing bonds, but they frequently lack the knowledge and capacity to identify eligible projects, assets, and expenditures that meet the requirements of applicable sustainable bond principles and standards. Further, ADB recently published a handbook on green bond issuance, which is available in several ASEAN member languages and explains the process and critical factors to consider when issuing green bonds.[9] Medium-sized issuers will have greater access to the sustainable bond market as more underwriters become familiar with these products.

Meanwhile, local financial institutions can play an important role in mobilizing private capital and expanding the accessibility

[8] ADB. 2020. *Technical Assistance Report: Creating Ecosystems for Green Local Currency Bonds for Infrastructure Development in ASEAN+3.*
[9] ADB. 2021. *Detailed Guidance for Issuing Green Bonds in Developing Countries.*

and affordability of sustainable financing products for small and medium-sized businesses. Financial institutions can provide "green loans" or "social loans" to such businesses to support their environmentally and socially responsible investments. Financial institutions can raise funds for this purpose by issuing sustainable bonds and by offering green or social deposit schemes, thereby increasing the availability of sustainable products and making them more accessible to relevant stakeholders (e.g., borrowers, depositors, and/or investors).

On the demand side, development partners can act as anchor investors in sustainable bond transactions, especially those involving LCY-denominated bonds. Local investors will have more capacity and experience to independently assess the ESG aspects of underlying securities. For example, ADB has invested THB3 billion (USD98.7 million) in Energy Absolute's first green bond issuance, out of a total issue size of THB10 billion.[10]

Development partners can also issue LCY-denominated sustainable bonds to finance a pool of eligible projects in member countries. As a result, local institutional investors would have more opportunities to invest in sustainable bonds issued by multilateral institutions. The education bond, issued by ADB in February 2021 to fund education-related projects such as technical and vocational training, is one example. Dai-ichi Life Insurance Company, Limited of Japan purchased the entire 10-year bond.

Increase Project Bankability

Developed countries can provide concessional financing to reduce the risk associated with ESG-themed infrastructure projects and make them more financially viable to attract private capital.

Between 2016 and 2030, ASEAN will require USD210 billion per year, or 5.7% of members' aggregate annual gross domestic product, to support investments in climate-resilient infrastructure.[11] Clearly, the region's infrastructure financing requirements far exceed regional governments' annual budgets, and private capital must be mobilized to meet these needs. To enable the financial viability and bankability of infrastructure projects, mechanisms such as a de-risking facility and credit enhancements are necessary. The establishment of the ASEAN Catalytic Green Finance Facility (ACGF) in April 2019, an initiative of the ASEAN Infrastructure Fund, is one example of how developed countries can accelerate green infrastructure investments in emerging countries. Development partners such as Agence Française de Développement, the European Investment Bank, the KfW Development Bank, and the Government of the Republic of Korea have already pledged their support to the ACGF. In 2021, four additional partners—the EU; the Green Climate Fund; Italy's Cassa Depositi e Prestiti; and the Foreign, Commonwealth, and Development Office of the United Kingdom—pledged USD665 million toward the ACGF's activities as part of a Green Recovery Platform launched at the 26th United Nations Climate Change Conference of the Parties in Glasgow.[12] This model can be replicated in other regions, as needed.

Create an Enabling Ecosystem for Sustainable Finance

With the right policies and a healthy domestic sustainable finance ecosystem, the process of issuing sustainable bonds could be streamlined, issuance costs could be reduced, and time to market could be shortened to enable greater pricing certainty.

The presence of local green bond verifiers with in-depth knowledge of local contexts, regulations, and market practices could be a key driver for sustainable bond issuance. Local reviewers who operate in the same country as the issuers, work in the same time zone, and speak the same language will help reduce issuance costs as their fees are generally lower than those charged by international reviewers. This would make it more accessible and affordable for smaller issuers as they progress on their sustainable finance bond journey. Currently, ADB is collaborating with several local green bond verifiers in the region and assists them in pilot verifications of green bonds issued under the Climate Bonds Standard.

To facilitate greater issuance of sustainable bonds, standardized bond documentation is needed. This would enable the issuance of sustainable bonds to professional investors in multiple jurisdictions. It would significantly streamline the issuance process and promote intraregional bond issuance and investment. One example is the use of the ASEAN+3 Multicurrency Bond Issuance Framework (AMBIF), a policy initiative under the Asian Bond Markets Initiative. Under this framework, an issuer from an AMBIF-participating market can issue LCY-denominated sustainable bonds in other participating markets using the same bond documentation. As AMBIF targets only professional investors, AMBIF bonds can be issued in a more flexible and timely manner because professional investors do not require the same level of investor protection as retail investors.

While some countries have implemented green bond grant programs, others might not have the financial resources to offer comparable subsidies. Instead, regulators may offer a so-called "green lane" or "sustainable lanes" without financial subsidy. This scheme can also be implemented to streamline the cross-border issuance of financial instruments and facilitate intraregional capital flows. This could shorten time to market and may compensate the additional resources required for issuance of sustainable bonds.

[10] ADB. 2019. ADB Invests 3 Billion Thai Baht in Energy Absolute's Green Bond for Wind Farm Development. News release.
[11] ADB. 2017. *Meeting Asia's Infrastructure Needs*. https://www.adb.org/publications/asia-infrastructure-needs.
[12] ADB. 2022. *ASEAN Catalytic Green Finance Facility 2021 Financing for a Green Recovery in Southeast Asia*. https://www.adb.org/sites/default/files/institutional-document/784451/asean-catalytic-green-finance-facility-2021.pdf.

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