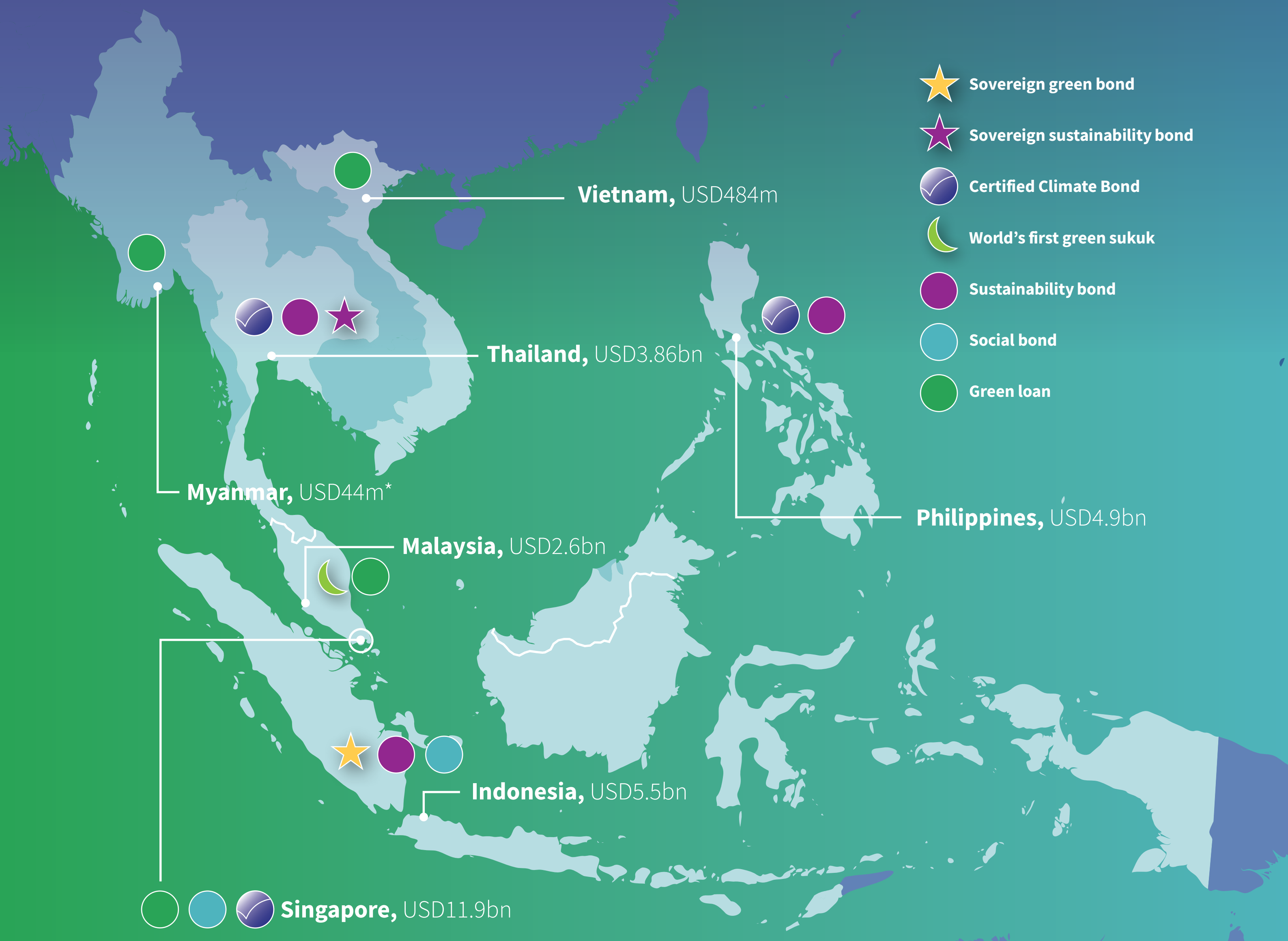
ASEAN Sustainable Finance
State of the Market

2020



Data as of 31 December 2020

*Myanmar green loan is excluded from this analysis as it does not meet the screening criteria of the Climate Bonds Green Bond Database

Climate Bonds Initiative

HSBC

Prepared by the Climate Bonds Initiative

Supported by HSBC

Introduction

The ASEAN sustainable finance market maintains rapid growth despite the negative impact of COVID-19, focusing the attention on the need for a sustainable economic recovery

Globally, due to COVID-19, the market has performed strongly but the composition is noticeably different in 2020 from previous years, with a much more even split between the main themes. The awareness of environmental threats has permeated the financial sector, whilst the rise of social and sustainability-labelled instruments has expanded the scope of funding to a broader range of environmental and social benefits. Mirroring this trend, ASEAN green, social and sustainability (GSS) issuance has also grown strongly, allowing for an array of both green and non-green labels to be used. Overall, the ASEAN issuance of GSS bonds and loans reached a record high of USD12.8bn in 2020, up slightly from the USD11.5bn issued in 2019. The cumulative issuance in ASEAN now stands at USD29.4bn.

The Association of Southeast Asian Nations (ASEAN), with a combined GDP of USD3.11tn in 2020, is among the fastest growing regions in the world.[1] However, its member countries are also highly vulnerable to the adverse effects of climate change, making transitioning to a sustainable and resilient economy a necessity. In recent years, with supportive market regulations in place, a buoyant green finance sector has emerged. With COVID-19, various themes have been adopted by issuers who have increasingly used distinct thematic debt instruments to open up a path towards more sustainable development in the region's countries.

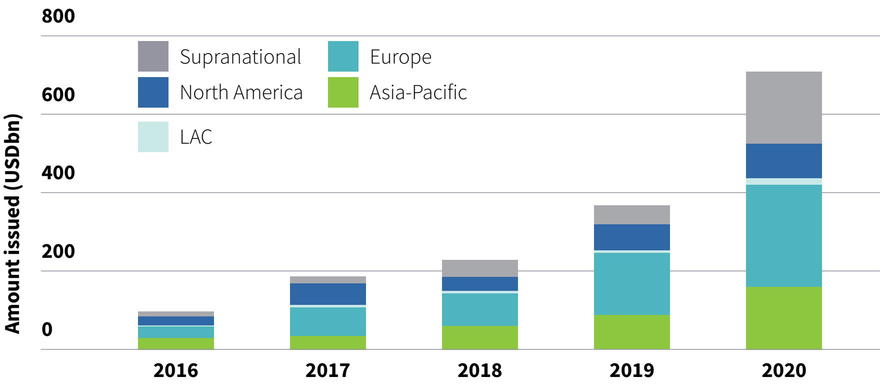
This report presents the progress made to date and the opportunities lying ahead for the ASEAN countries. In addition, it provides some examples of the wider labelled bond and loan market in the region, with a special focus on sustainability-linked instruments, and highlights key developments and initiatives that support the growth of the local sustainable finance markets in ASEAN. Finally, it also highlights country-level overviews and provides policy updates in all ASEAN countries except Brunei.

ASEAN cumulative issuance: USD29.4bn

Singapore takes the lead (mostly through green loans). The main Use of Proceeds categories are Energy and Buildings. Green labels dominate, while social and sustainability instruments are gaining more interest.

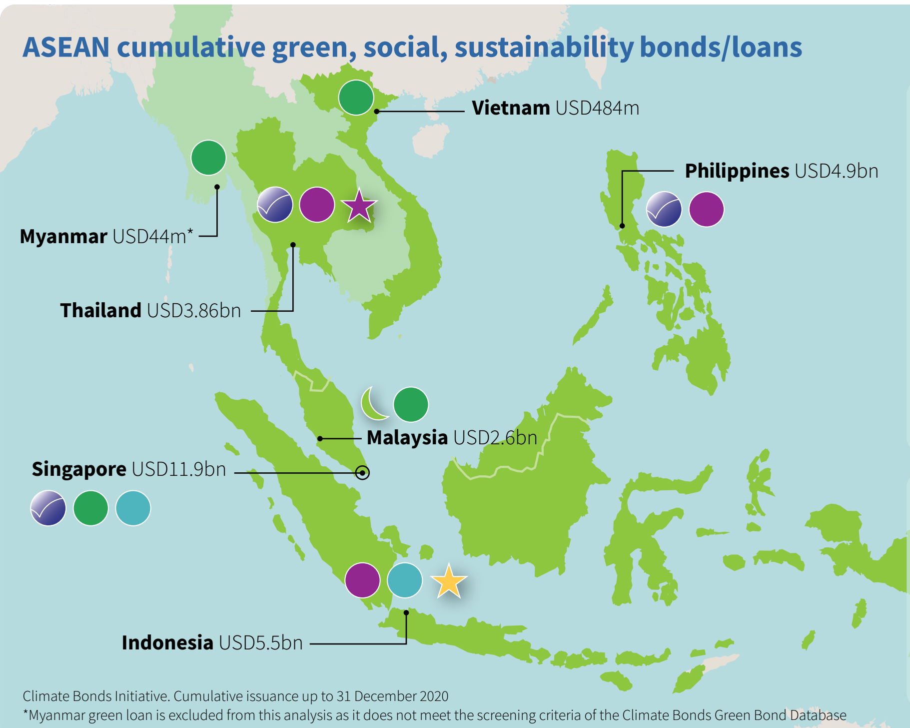
Contents

Asia-Pacific GSS issuance continues to grow, accounting for 23% of global issuance in 2020



Source: Climate Bonds Initiative

ASEAN cumulative green, social, sustainability bonds/loans



ASEAN countries

The Association of Southeast Asian Nations (ASEAN) comprises ten countries: Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam.

Climate Bonds Initiative. Cumulative issuance up to 31 December 2020
*Myanmar green loan is excluded from this analysis as it does not meet the screening criteria of the Climate Bonds Green Bond Database

Methodology and scope

To reflect the extraordinary market conditions brought about by the COVID-19 pandemic in 2020, as well as to reflect Climate Bonds' growing database coverage, we have brought forward an evaluation of the broader sustainable finance market beyond green bonds (including all years, i.e. cumulative data since market inception). We cover three overarching debt themes based on the projects, assets and activities financed: Green, Social, and Sustainability (GSS). These data and the subsequent analysis are predominantly based on the Climate Bonds Green Bond Database, as well as the Social and Sustainability Bond Database.

For the purpose of our work and this report, the sustainable debt market is defined by debt instruments that (a) have a label, and (b) directly finance sustainable projects/assets in the form of use of proceeds (UoP) bonds and labelled loans.

Green

All deals carrying a variant of the green label have been screened for inclusion in the relevant database. Screening is based on a set of process rules stipulated in Climate Bonds Green Bond Database Methodology[2], summarised in the following overarching criteria:

- Deals must carry a variant of the green label, and
- All net proceeds must verifiably (based on public disclosure) meet Climate Bonds' green definitions based on the Climate Bonds Taxonomy[3].

Only bonds with 100% of proceeds dedicated to green assets and projects that are aligned with the Climate Bonds Taxonomy are included in our Green Bond Database and figures. If there is insufficient information on allocations, a bond may be excluded.

Social and Sustainability

Drawing on existing market reference and extensive research, the inclusion of social bonds provides broad guidance on eligible sectors and subsectors that can be funded with social-themed bonds. However, a comprehensive "social taxonomy" or equivalent classification and screening system for debt instruments aiming to achieve positive social outcomes has not yet been developed, though work on this is underway in the European Union and elsewhere. Social and sustainability bonds' use of proceeds are therefore not screened against performance thresholds. They are, however, classified in accordance with the respective labels and categorized as follows:

Social: the label is exclusively related to social projects, e.g. Housing, Gender, Women, Health, Education, etc.

Sustainability: the label describes a combination of green and social projects, e.g., Sustainable, Sustainable Development Goals (SDGs), socially responsible investing (SRI), environmental, social and governance (ESG), etc. The green project categories in these instruments are screened in accordance with the Climate Bonds Green Bond Database Methodology.

Country definitions

For the purposes of this report, 'country' reflects the country of the issuing entity; in our global green bond database and statistics, 'country' reflects the country of risk, which may be different if the parent of the issuing entity is from another country. For example, ICBC Singapore issued three green bonds in April 2019 totalling USD2.2bn; these are classified as 'Singapore' in this report, but as 'China' in the database. Unless stated otherwise, the analysis reflects the amount issued (not the number of bonds or issuers).

Excluded from this analysis

Performance-linked instruments

Performance or KPI-linked debt instruments are excluded from this analysis. These instruments raise general purpose finance and involve penalties around the cost or amount of debt to be repaid (e.g. coupon step-ups) linked to not meeting pre-defined, time-bound sustainability performance targets. The two main types of instrument are commonly referred to as Sustainability-Linked Bonds (SLBs) and Sustainability-Linked Loans (SLLs).

Climate Bonds does not yet track or assess the global market of SLBs or SLLs, preventing inclusion of these debt categories in this analysis. However, we are currently developing data coverage and screening criteria for performance-linked instruments to complement existing market guidance, such as the ICMA Sustainability-linked Bond Principles (SLBP) and LMA Sustainability-linked Loan Principles. The performance-linked instrument theme is discussed in the context of specific case study examples on pages 14 to 15. We expect to include additional content on these instrument types in subsequent reports.

Transition labels

Transition finance describes instruments financing activities that are not low- or zero-emission (i.e., not green), but have a short- or long-term role to play in decarbonising an activity or supporting an issuer in its transition to Paris Agreement alignment. The transition label can thus enable the inclusion of a more diverse set of sectors and activities in the sustainable finance universe.

At present, transition bonds predominantly originate from highly polluting and hard-to-abate industries. They do not fall into the existing definitions of green but are a critical component of a transition to net zero. Example sectors include extractive industries such as mining; materials such as steel and cement; and industrials including aviation. Work around building specific KPIs and screening indicators for transition activities is underway: Climate Bonds began the definitional work with the September 2020 release of the Financing Credible Transitions Whitepaper. This was complemented by ICMA's Climate Transition Finance Handbook published in December focusing on process guidelines. In light of these recent developments, we expect to include data and analysis on carrying any variant of the transition label in future reports.

Understanding green bonds

Green bonds and loans

Green bonds and loans are debt instruments used to finance projects, assets and activities that support climate change adaptation and mitigation. They can be issued by governments, municipalities, banks and corporates. The green bond label can be applied to any debt format, including for example private placement, securitisation, covered bond, and sukuk. It is global best practice for bonds and loans to be issued in line with the Green Bond Principles (GBP), Green Loan Principles (GLP), the Climate Bonds Taxonomy and Standard, ASEAN Green Bond Standards, as well as a number of country-specific guidelines. The key is that the use of proceeds (UoPs) is ring-fenced to only finance green assets, projects and activities.

Green definitions

While there is no single set of global definitions for eligible projects to be funded with green bond and loan proceeds, the Climate Bonds Initiative uses the Climate Bonds Taxonomy, which features eight use of proceeds categories: Energy, Buildings, Transport, Water, Waste, Land use, Industry and ICT.

The Taxonomy is derived from the Climate Bonds Standard, which comprises Sector Criteria developed with expert input from the international science community and industry professionals. Issuers can apply to certify their green debt instruments under the Climate Bonds Standard V3.0 employing an independent Approved Verifier. The verifier provides a third-party assessment that the use of proceeds complies with the objective of capping global warming at 2 degrees Celsius.

ASEAN sustainable finance market overview

The ASEAN sustainable finance market has been dominated by green debt, but the share of other themes has risen in prominence in recent years both in terms of amount issued and number of issuers. Green, social, and sustainability bonds were already gaining traction before COVID-19, and are now an even more important financial instrument for countries to mobilise funds for green and sustainable recoveries and resilience to future systemic shocks. **The overall sustainable finance market performed strongly in 2020 despite COVID-19**, with USD12.1bn issued versus USD11.5bn for the full year 2019. This translates to 5.2% growth year-on-year.

Singapore remained the regional leader in 2020 with total issuance standing at around USD5bn. Similar to 2019, the sustainable finance market in Singapore was dominated by green loans in the real estate sector. Ongoing government support has been important to helping Singapore become a regional hub for sustainable finance.

Thailand and Indonesia saw remarkable growth between 2019 and 2020, supported by strong government engagement and a supportive regulatory framework. While the major driver of market development in Indonesia has been created by the sovereign and government-backed entities' issuance, Thailand's private sector has been active in conquering the Thai sustainable finance market.

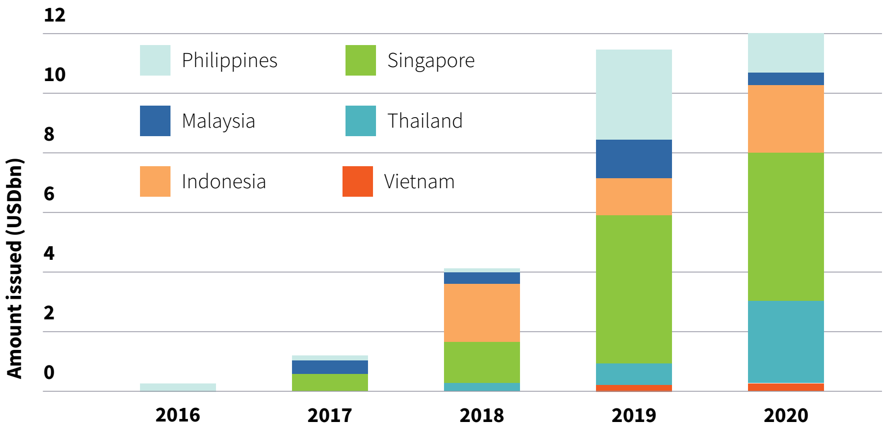
In contrast, in 2020 there was a significant decrease in terms of both the issuance volume and number of deals in **the Philippines and Malaysia**. Issuances from both countries were notably driven by the private sector. Supportive green finance market initiatives, including a green taxonomy, are currently underway, which is expected to result in issuance growth in the future.

Vietnam joined the momentum in 2019 and saw the signing of two green loans in 2020 with total size of USD257m. To date, **Myanmar, Laos and Cambodia** have yet to see GSS bond or loan issuance.[4]

Due to COVID-19, the market has become more diverse this year, building on the 2019 trends. **Green labelled theme** continued to be the most popular theme, with regional issuance going up, albeit at a much slower pace than previous years, rising from USD8.8bn in 2019 to USD9.3bn in 2020. This is a positive sign amid the short-term downward trend in the global market in 1Q20[5] and showcased a greater interest from green investors in the region.

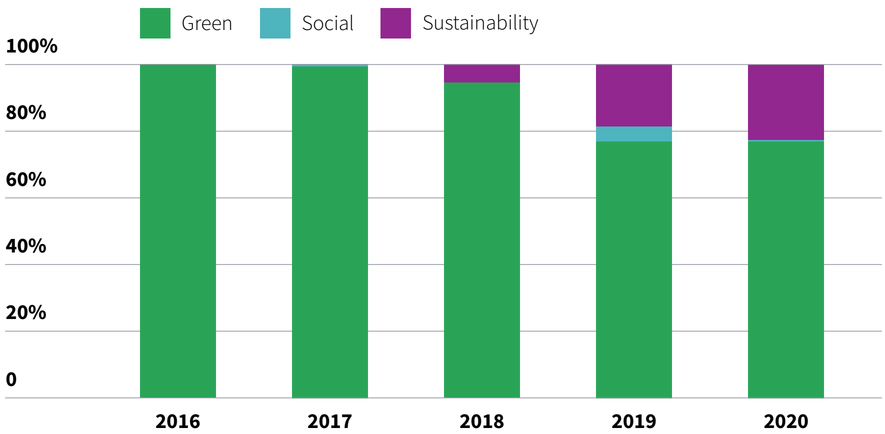
Since immediately after the outbreak of the COVID-19 pandemic, and in line with the global trend, the ASEAN sustainable finance market has been dominated by **social and sustainability bonds**, driven by an increasing need for financing health services and poverty alleviation projects, as well as to meet the United Nations Sustainable Development Goals (SDGs). Sustainability bond volumes have grown since the inaugural deal of MYR500m (USD121m) by HSBC Amanah Malaysia Bhd in the region in October 2018. In 2020, six new deals came to the market with a total size of USD2.9bn.[6] However, the social bond market was less active, reaching a size of only USD48.7m in 2020 from three small deals, shrinking to 10% of the 2019 equivalent.

ASEAN cumulative green, social and sustainability issuance by country



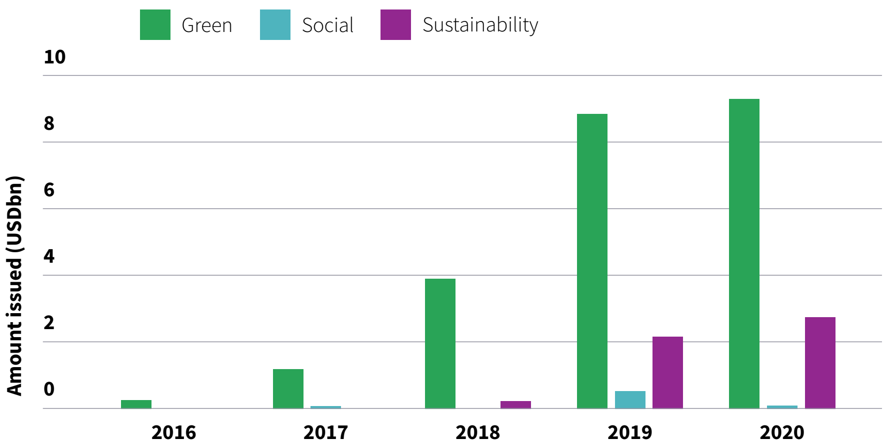
Source: Climate Bonds Initiative

Sustainability bond issuance in ASEAN took off in 2019 and 2020



Source: Climate Bonds Initiative

2020 saw growth in social and sustainability deals in the ASEAN market



Source: Climate Bonds Initiative

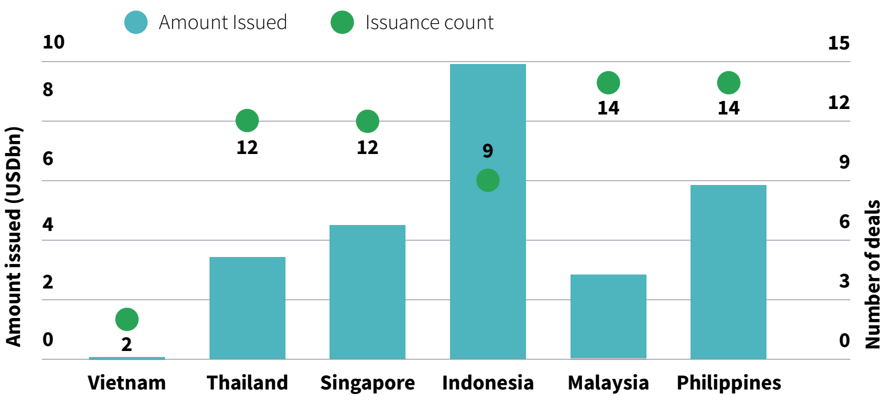
Green

As at the end of 2020, **ASEAN had seen 75 issuers[7] (44 green bond and 31 green loan) since 2016, up from 39 in 2019**. The largest Southeast Asian green loan borrower is MS Commercial Pte Ltd of Singapore with its SGD1.95bn (USD1.44bn) deal to refinance the Marina One green building projects, while the Indonesia-headquartered Star Energy Geothermal (Dajarat II) Ltd, which issued a USD790m green bond, is the top green bond issuer. Interestingly, these two are both non-financial corporates, showcasing the strong emergence of the private sector in the region.

2020 saw a consistent increase in terms of both instrument size and number of issuers. The number of green bonds (21) and green loans (19) went up to 40 in 2020 from 32 in 2019, while that of issuers increased more, from 20 in 2019 to 30 this year, including 15 issuers for each instrument type. Of these issuers, only four were repeat issuers. One example is the Republic of Indonesia with its third green sukuk transaction issued in local currency. Meanwhile, **there were 26 debut issuers**, most of whom Singapore-based, launching 34 new green bonds and loans for the regional market. Examples include Ascendas Real Estate Investment Trust (with one perpetual and one 10-year deal), Global Power Synergy of Thailand, and Arthaland of the Philippines. Among these debut issuers, 2020 saw 19 non-financial corporates , five financial corporates, and only two government-backed entities (13 new issuers of bonds and loans each) demonstrating that ASEAN corporates are increasingly turning to green bond and loan markets.

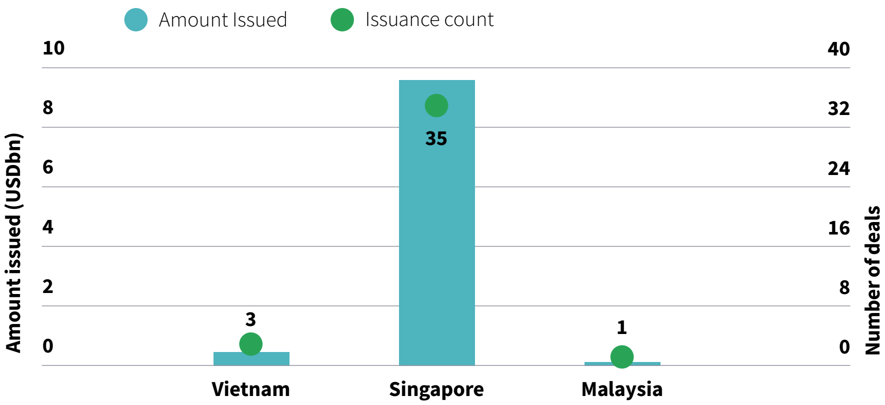
The strong new issuer growth is reflected in the positive investor sentiment and the anecdotal evidence of favourable book building. The transaction by Indonesia's Star Energy Geothermal (Dajarat II) Ltd, for instance, attracted 3.5 times oversubscription[8], which demonstrates that investors are keen to support the region's progressive shift towards a more environmentally sustainable development. Governments and regulators are also providing much support to issuance: green bonds are being put forward by regional leaders as key to facilitate green recoveries and sustainable development, for example in the Singapore Green Plan 2030[9].

Indonesia leads cumulative green bond issuance



Source: Climate Bonds Initiative

Singapore leads cumulative green loan issuance



Source: Climate Bonds Initiative

Countries

Singapore comfortably took the first place in the issuance amount ranking in 2020, achieving the largest share of 53% of total issuance in the region. Indonesia replaced the Philippines to become the second biggest issuer with 24% of the total, thanks to its third sovereign green sukuk. The Philippines' share dropped from 19% in 2019 to 9% as at the end of 2020, closely followed by Thailand with 8%. Vietnam came back to the regional race since 2019 and continued to issue two green loans in 2020 with total size of USD257m, accounting for 3% of regional green volumes. Malaysia was placed at the bottom of the rank with only 3%.

Cumulatively, **Indonesia is the largest green bond issuer in the region in terms of issuance size** with approximately USD5bn, followed by the Philippines and Singapore with USD2.9bn and USD2.3bn respectively. Meanwhile, **Singapore is the largest market for green loans** with 35 deals with total volume of about USD9.6bn. Interestingly, apart from Singapore, the ASEAN green loan market has seen two other issuers in the 2016-2020 period: one each from Vietnam and Malaysia, and both with relatively small amounts.

The comparison of number of issuances also reveals some striking differences between countries. Between 2016 and 2020, **Singapore remained the regional leader with 47 deals (12 green bonds and 35 green loans)**, almost equivalent to the total number of all the other countries combined. Malaysia saw 15 issuances (14 green bonds and one green loan), followed by the Philippines and Thailand with 14 and 12 green bonds separately, while Vietnam had only five deals (two green bonds and three green loans).

With the recent announcements of strong support for green finance by the Singaporean[10] and Indonesian[11] Governments, we expect issuance to continue on an upward trajectory. The weaker numbers from the Philippines and Malaysia are somewhat surprising, given supportive policies and incentives coming from the governments of these countries. Nonetheless, they remain active markets for Islamic (sukuk) transactions, especially for green and sustainable sukuk.

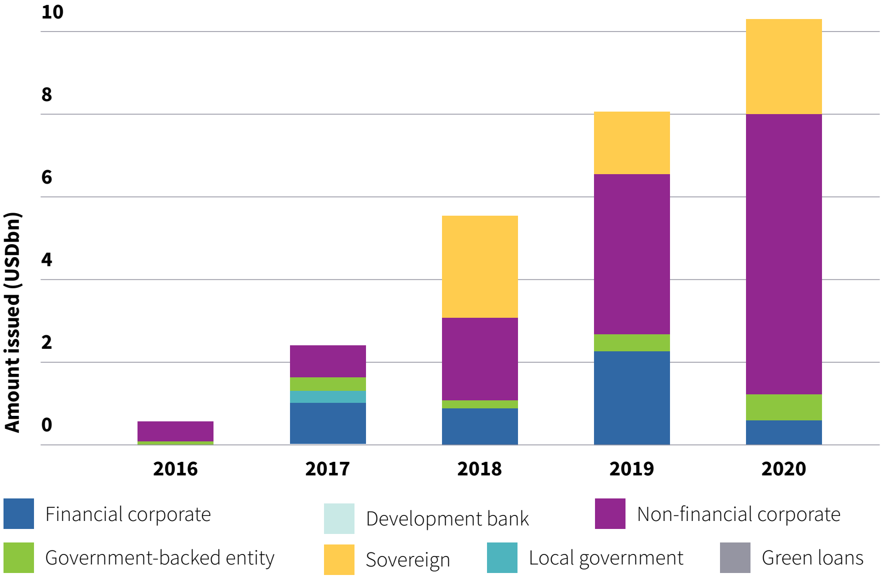
Issuer types

Issuance from ASEAN in 2020 was notably driven by the private sector, largely overshadowing the public sector.

In 2020, with 73% combined of total green bond issuance, **corporates dominated the ASEAN green bond market**. Among them, non-financial corporates were the most active issuer type, representing 67% of total green bond issuance in 2020. There was a sharp fall in the issuance volume by financial corporates from USD1.1bn in 2019 to USD295.1m 2020, almost equivalent to that of government-backed entities and equating to only 6% of the region's green bond volume in 2020. Interestingly, the Republic of Indonesia's sizeable green bonds helped to bring the sovereign issuer type back to second place, overtaking financial corporates. The only issuance from a local government to date was a small deal from Vietnam (issued in 2016).

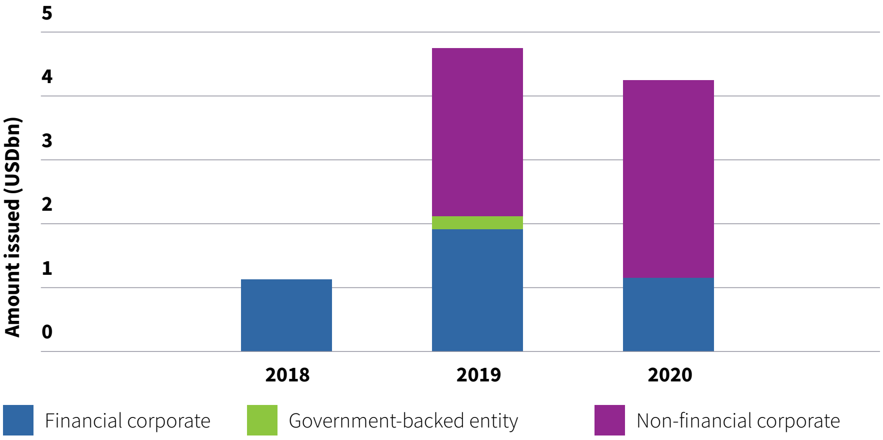
Green loans, albeit experiencing a minor fall in issuance volumes, still performed strongly in the ASEAN market, with USD4.2bn, representing 46% of the 2020 total green issuance. Unlike the green bond market, which has featured different issuer types, **the ASEAN green loan market has been largely conquered by financials and non-financials** (accounting for 73% and 26% of green loan volume in 2020, respectively), mostly related to Singapore's real estate sector.

The majority of issuance comes from corporates



Source: Climate Bonds Initiative, 2021

Green loan borrowers mostly come from the private sector



Source: Climate Bonds Initiative, 2021

Case study: Green loans in Vietnam and Myanmar

On October 9th 2020, the Asian Development Bank (ADB) and Phu Yen TTP Joint Stock Company (Phu Yen JSC) of Vietnam signed a USD186m loan to develop and operate a 257 megawatt (MW) solar power plant in Hoa Hoi, Phu Yen Province, Vietnam.[15] Funding consists of a USD27.9m loan funded by ADB, a USD148.8m B loan funded by commercial banks with ADB as Lender of Record, and a USD9.3m loan provided by Leading Asia's Private Sector Infrastructure Fund (LEAP). Commercial banks involved included Bangkok Bank, Kasikorn Bank, Kiatnakin Bank, Industrial and Commercial Bank of China (ICBC), and Standard Chartered Bank.[16] This is Vietnam's first Climate Bonds Certification.

In February 2020, Shwe Taung Group of Myanmar secured a green loan of USD44m from two Singaporean banks[17], OCBC Bank and United Overseas Bank (UOB), of which, about USD30m came from OCBC and the rest from UOB.[18] The loan will be used for a mixed project including offices, a shopping mall and the Pan Pacific Hotel which have green features such as energy-efficiency, double-glazed glass windows and rooftop solar panels.[19]

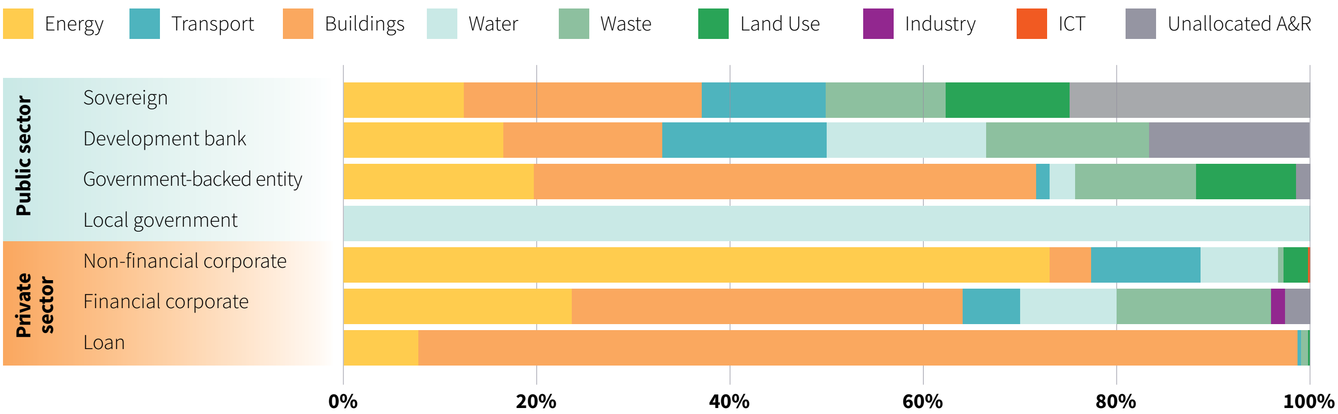
Use of proceeds

In our 2019 report, we highlighted the increasing share of the top two use of proceeds (UoP) categories: Energy and Buildings, which captured two-thirds of proceeds. **This trend continued in 2020 with the combined share of the top two increasing to a record 79% of the total**. Green buildings have clearly been the driver, achieving almost half of the cumulative volume, while Energy accounted for 30%, followed by 6% of Transport. Adaptation and Resilience projects have had a higher share of allocation than the global average with 3% versus around 0.6%, while very modest amounts have been invested in the Industry and ICT categories.

The allocation of proceeds is notably different for each country with Buildings dominating in Singapore, Energy being the largest in Vietnam, Indonesia, Malaysia and the Philippines, and Thailand seeing an even split between Energy and Transport.

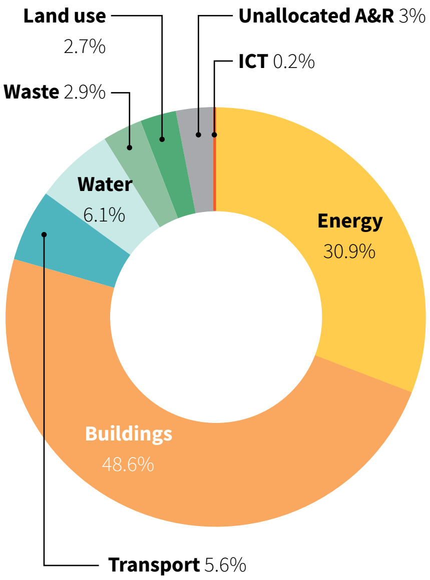
Issuance by government-backed entities focuses heavily on Buildings, while development banks and the sovereign categories have seen a more balanced and diverse allocation of use of proceeds. In the private sector, non-financial corporates focused on the Energy sector, while financial corporates tend to fund a greater variety of projects.

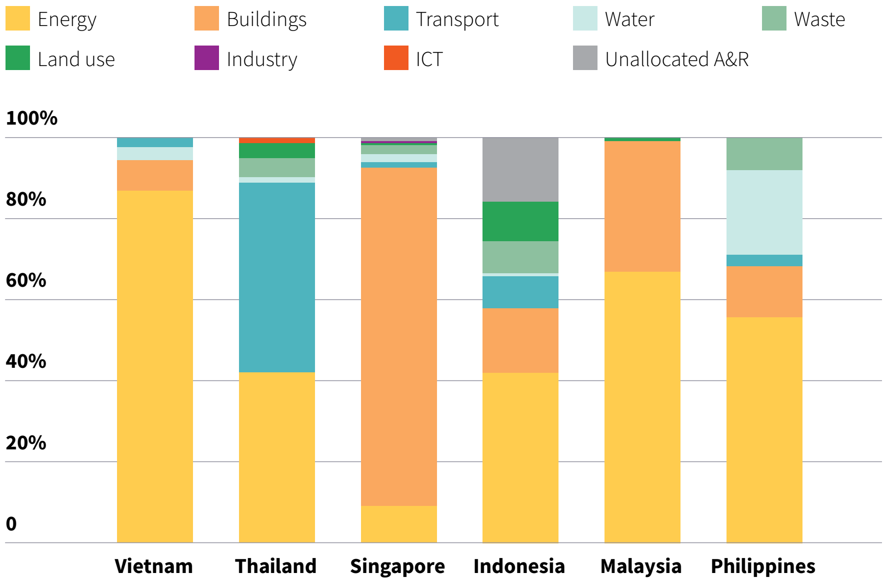
Non-financial corporates primarily finance Energy, others are more diverse



Source: Climate Bonds Initiative, 2021

Energy and Buildings represent the majority of green investment in ASEAN





Source: Climate Bonds Initiative, 2021

Currency

The ASEAN green labelled market's currency profile remained broadly similar to the past in 2020. Hard currencies[12] continued to dominate the market, reflecting the historical dominance of USD in the region, as well as a preference for "safer" currencies in a time of market uncertainty. The combined contribution of hard currencies stood at 79% of total issuance. The strongest performer in this group was USD with 38%, closely followed by SGD with 35%, while the issuance volumes in JPY and GBP were minimal. Nonetheless, with 47% issued in the local ASEAN currencies (including SGD), the regional markets offer attractive investment opportunities for domestic investors and foreign funds looking to invest in local currencies. In other parts of the world, the share of local currencies tends to be much smaller (see more at our Sustainable Debt Global state of the market H1 2020 report).

Singapore proved its market maturity as green bonds and loans were issued in a variety of currencies. Vietnamese, Indonesian and Philippine issuers tend to favour USD for their green deals, while Thai and Malaysian markets were largely offered in their own domestic currency.

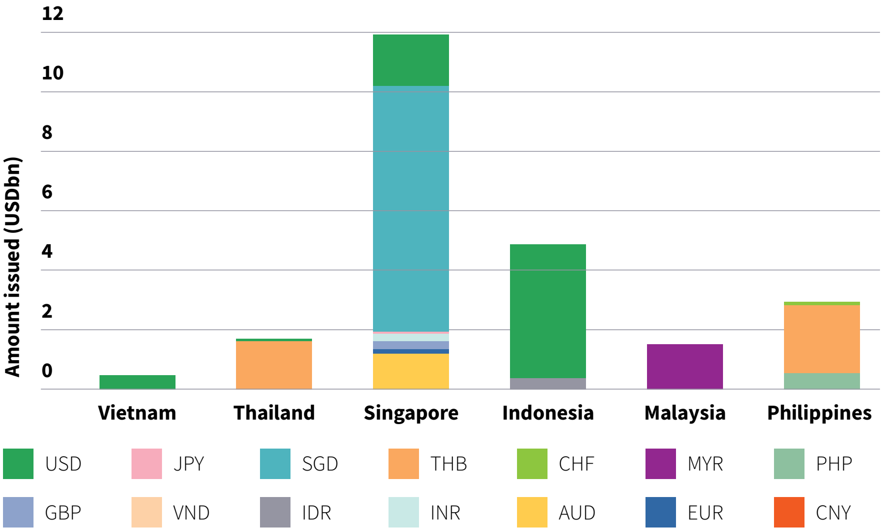
Tenor

The ASEAN green labelled universe has been characterised by shorter-term (5-10Y) and medium-term (10-20Y) deals, with 36% and 38% of the cumulative volume, respectively. A further 19% had a term of less than five years, while the longest-dated volume (over 20Y) comprised only 4%. Among new issuers in 2020, there were nine green bonds and loans with a maturity between 10 and 20 years, compared with seven of 5-10Y and six of shorter than five years.

The only perpetual in ASEAN in 2020 belonged to **Ascendas Real Estate Investment Trust** of Singapore. It marked Asia's first real estate green perpetual bond in September 2020 for an amount of USD222m, and the second green perpetual bond (AC Energy in the Philippines) in the region.

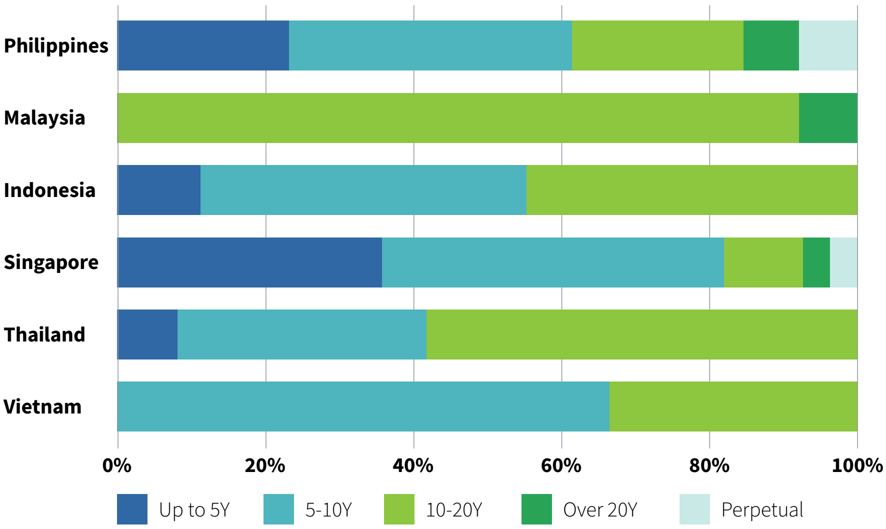
Among ASEAN countries, Vietnam, Thailand, Malaysia issuers tend to prefer longer term deals, while the Philippines and Singapore maintained a more balanced and diverse issuance in different maturities.

USD and SGD lead but a wide range of currencies are used



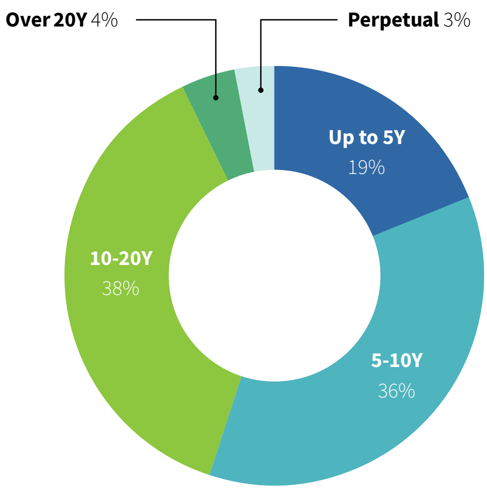
Source: Climate Bonds Initiative, 2021

Deals with maturity from 5-10Y and 10-20Y are common



Source: Climate Bonds Initiative, 2021

Majority of ASEAN tenors were 5-10Y and 10-20Y



Source: Climate Bonds Initiative, 2021

Deal size and type

The trend of the last few years continues with a larger share of below benchmark-sized (<USD500m) deals. The average size of ASEAN green bonds and loans has remained between USD200m-250m, which is small compared to more developed markets, but relatively large for the regional bond markets. However, there has been a gradual increase in the share of larger-sized deals. Compared to 2019, the number of bonds and loans in the USD500m to USD1bn and USD1bn+ ranges grew by 33% (from three to four) and 100% (from zero to one), respectively.

Of all the bonds and loans with at least a benchmark-size, two were from Singapore, while two were from Indonesia and one was from the Philippines. The only USD1bn+ deal was a green loan from the Singapore-based company, MS Commercial Pte Ltd, to refinance its Marina One green building project.

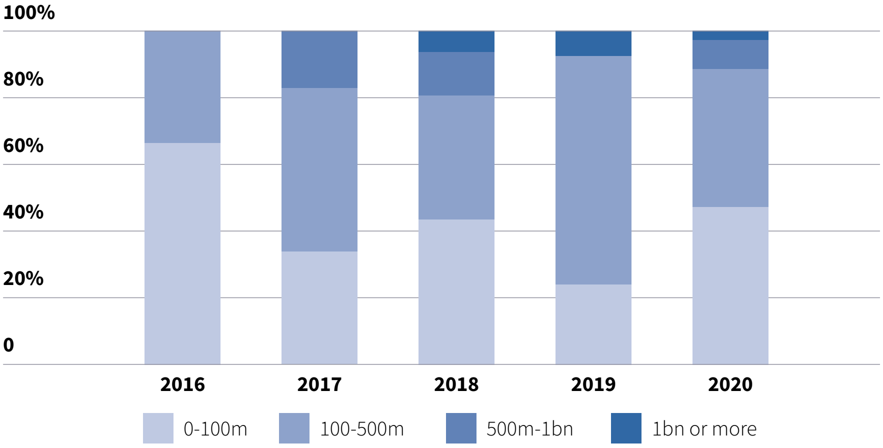
The largest forms of green finance instruments issued were loans and senior unsecured bonds with 25% and 24% shares, respectively. These were followed by sukuk (reflecting the strong focus of Indonesia and Malaysia on Islamic finance) at 19%, followed by term loans at 17%.[13]

Case study: Leader Energy's green sukuk

In July 2020, **Leader Energy** issued its first ASEAN green sustainable and responsible investment (SRI) sukuk of MYR260m (USD60.9m) to part-finance and/or part-reimburse the development of two solar photovoltaic power projects with a combined capacity of 49MW in Kuala Muda, Kedah.[20]

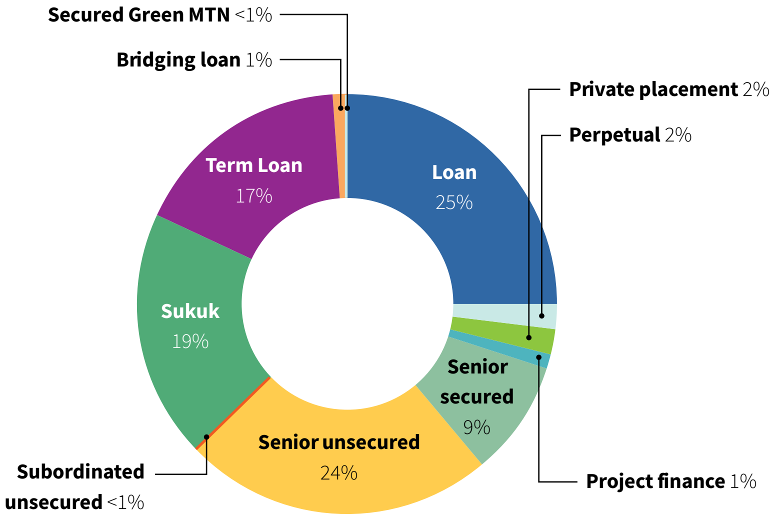
The sukuk was assigned an AA-IS rating by Malaysian Rating Corporation Berhad (MARC) and also aligned with the ICMA Green Bond Principles, ASEAN Green Bond Standards, and the Securities Commission Malaysia's SRI Framework.[21] It has the lowest weighted average cost of financing among AA3/AA- solar power project financing sukuk issuances ever and marks Leader Energy's debut project financing issuance in the Malaysian ringgit bond market.[22]

Issuances smaller than USD500m are the norm



Source: Climate Bonds Initiative, 2021

A range of green finance instruments are used in the ASEAN region



Source: Climate Bonds Initiative, 2021

External reviews

The profile of external reviews has shifted over the past years, with the Second Party Opinion (SPO), although gradually losing its popularity, still being by far the most common type of review. In 2020, SPO accounted for 33% of issuance versus 41% in 2019 and was the most popular in Indonesia, Philippines and Malaysia. Meanwhile there was an uptick in issuances with no external review over years owing to a rise in the number of unreviewed loans[14], especially in Singapore, representing 43% in 2020 compared to 37% in 2019.

In addition, **2020 saw the comeback of Assurance** after two years, with four deals from Singapore and KPMG and EY as the providers. Certification under the Climate Bonds Standard was granted to five deals in 2020 versus seven deals in 2019, representing a total amount of USD600m issued. This brings the total of ASEAN Certified Climate Bonds to date to 15, from 10 issuers in four sectors (Energy, Buildings, Transport and Land Use).

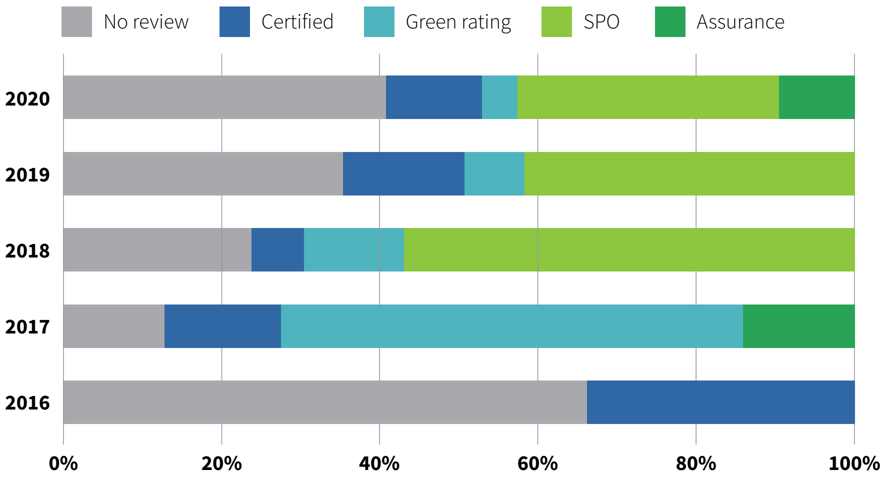
The profile of external reviews varies by country. SPO dominates in Indonesia and, to a lesser extent, in the Philippines and Malaysia. With the exception of one deal from Singapore, Malaysia is the only country in ASEAN with green ratings, most of which were provided by RAM, a verifier that was recognised as an Approved Verifier for the Climate Bonds Standard and Certification scheme in 2020. Meanwhile, apart from Thailand's inaugural issuance by TMB Bank, all Thai deals obtained external reviews, with eight being Certified Climate Bonds (CCB). With TRIS Rating, the local rating agency, becoming an approved verifier in 2020, we expect more such reviews and Certification in the future. Apart from Indonesia, each country has at least some labelled green debt with no review.

Case study: PTT Public Company Limited's green bond

In July 2020, **PTT Public Company Limited** of Thailand announced its issuance of a THB2bn (USD65m) green bond with a tenor of 3 years.[23] The proceeds will be used to finance and refinance investments made to environmental projects, such as reforesting various areas of previously forested land throughout Thailand.

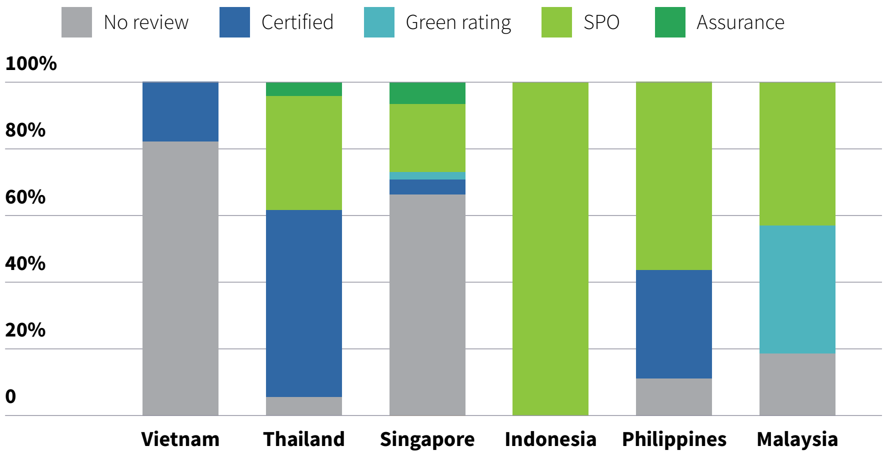
The project falls under the Conservation and Restoration Forestry segment of the Forestry Criteria of the Climate Bond Standards. The bond is the first of its kind in ASEAN to be certified under these Criteria.[24]

SPO is popular, while no review is rising



Source: Climate Bonds Initiative, 2021

External review type varies by country



Source: Climate Bonds Initiative, 2021

Sustainalytics and CICERO are the leading providers of SPOs in ASEAN

Rank*	External reviewer	Countries	Number of reviews	Type(s) of review
1	Sustainalytics	TH, SG, PH, MY, ID	21	SPO + Verification**
2	CICERO	ID, MY, SG	12	SPO
3	DNV GL	TH, PH	7	Verification**
	RAM Malaysia	MY	7	Green rating + SPO
4	KPMG	TH, SG	3	Verification** and Assurance
	Carbon Trust	ID	3	SPO
	EY	SG	3	Assurance
5	Vigeo Eiris	PH, ID	2	SPO

Note: ID: Indonesia, PH: Philippines, MY: Malaysia, TH: Thailand, SG: Singapore,
*Ranked by number of deals reviewed
**Verification is for Certified Climate Bonds (CCB)

Social and Sustainability

The ASEAN social and sustainability bond markets are still at an early stage compared to other regions, constituting 5% of Asia-Pacific and 1% of the global markets.

Cumulatively, a total of USD5.8bn of social and sustainability bonds have been issued over the 2015-2020 period, with the sustainability label heavily dominating, accounting for 89% (USD4.8bn). Social bonds only represent 11% of overall issuances with a cumulative value of USD572.8m.

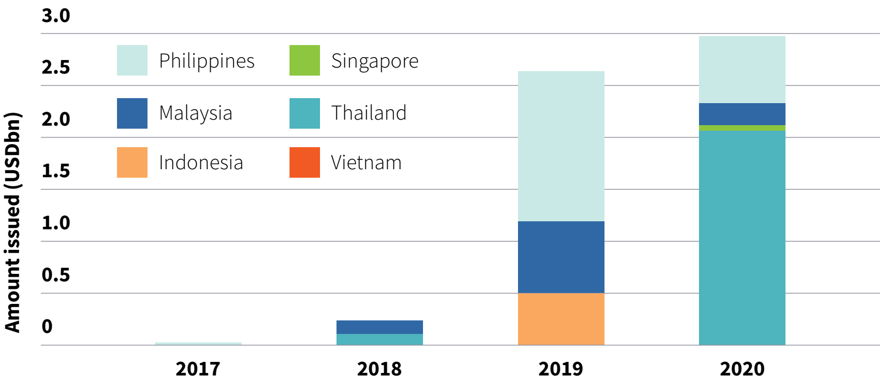
Sustainability-labelled bonds have been increasing in volume over the course of 2018-2020, with 2020 being a record year for sustainability bond issuance, reaching USD3.9bn in volume. The sustainability category encompasses a variety of labels related to a host of environmental and social objectives, often characterised by – and mapped against – the SDGs. The sustainability label is arguably more suitable for some issuers than its green counterpart due to the broader range of potentially eligible use of proceeds categories.

The rise in sustainability-labelled bonds was marked by the release of the Sustainability Bond Guidelines (SBG) by the International Capital Market Association (ICMA) in June 2018.[25] The SBG extend good practice recommendations around transparency and market integrity, drawing upon the green project categories of the Green Bond Principles (GBP) and the social categories of the Social Bond Principles (SBP).

In contrast, social bond market was much less active, with only USD38.2m in 2020 issued across two small deals. Early impact investing strategies gave rise to the concept of ethical and SRI, labelled bonds under the social theme that have been around for even longer than their green counterparts. The inaugural deal of the social bond universe carried a 'vaccine' label and was issued by the supranational International Finance Facility for Immunisation (IFFIm) in November 2006 (USD1bn). Given the increased attention to post-COVID recoveries among the regional governments, the volume of social label issuances is expected to increase in 2021.

2020 saw a particularly interesting change of composition in the use of proceeds compared to 2019, mainly due to COVID-19 response. In 1H20, a large part of social and sustainability bond issuance financed the response measures. Approximately almost half of the total sustainable debt market was used to finance pandemic-related investments. An overwhelming majority of pandemic bond emerged out of China, accounting for almost 90% of the total pandemic bonds in 2020.

Cumulative issuance by country



Source: Climate Bonds Initiative, 2021

Countries

Over the course of 2015-2020, **Thailand** led the sustainability bonds issuance, accounting for 40% in cumulative volume, followed by the **Philippines** (30%). In 2020 alone, Thailand dominated the ASEAN market with approximately 70% of the total, thanks to its USD3.45bn[26] large-sized sovereign sustainability bond, which also has a green tranche Certified against the Climate Bonds Standard.

The period of 2019-2020 was generally a strong year for ASEAN, but the period saw small issuances from **Malaysia**, **Indonesia** and **Singapore**. A total of four sustainability bonds were issued in 2020 in Malaysia, while Indonesia only saw one social bond issued in 2019 by Bank Rakyat Indonesia (BRI), the only of its kind from Indonesia to date. Proceeds for this deal were allocated towards poverty reduction programmes. The issuances that came out of Singapore were all a part of the Women Livelihood Bond (WLB) series.[27] Cambodia has seen the first signs of an emerging corporate bond market with three bonds issued, including the local issuance to support women-run Micro, Small and Medium Enterprises (MSMEs), from PRASAC Microfinance Institution in 2020 and guaranteed by CGIF. There has been no sustainability or social-labelled issuances from **Vietnam, Myanmar, Laos and Cambodia**.

Issuer types

Globally, MDBs represented most of the cumulative issuance, but in ASEAN, issuance has been led by financial corporates (44%), followed by sovereigns (39%). While the largest deal in Thailand was issued by the government, the deals from the Philippines, Malaysia, Singapore and Indonesia were mainly printed by financial corporates.

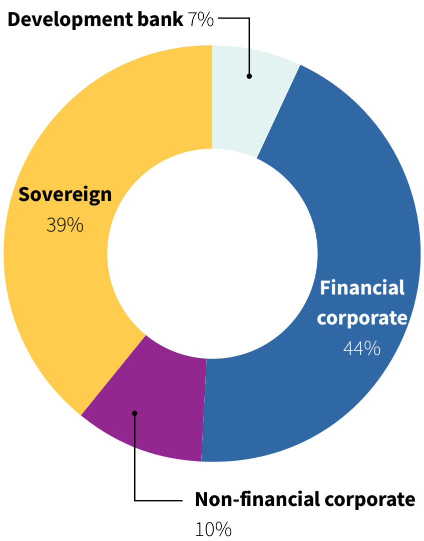
The Kingdom of Thailand has been the only sovereign sustainability bond issuer from ASEAN. The largest financial corporate issuer was **CIMB Bank Bhd** from Malaysia. CIMB's USD680m sustainability bond was originally labelled as "Sustainable Development Goals (SDG) Bonds" and had proceeds allocated towards projects aimed at achieving specific SDGs.

Rizal Commercial Banking Company (RCBC) pioneered the first peso-denominated sustainability bond from the Philippines in 2019. This deal raised a total of PHP8bn (USD167m), with proceeds split almost evenly between green projects and social projects.

The only non-financial issuer was **Manila Water Corporation** of the Philippines. In 2020, the company issued a five-year USD500m sustainability bond with proceeds allocated towards refinancing debt, and funding infrastructure capital expenditure in the company's concession area in Metro Manila. This deal signified the first and largest sustainability bond issued by a private water utility in ASEAN.[28]

At present, there is only one domestic development bank, **Development Bank of the Philippines (DBP)**, which has issued a sustainability bond.

Financial corporates and sovereigns lead



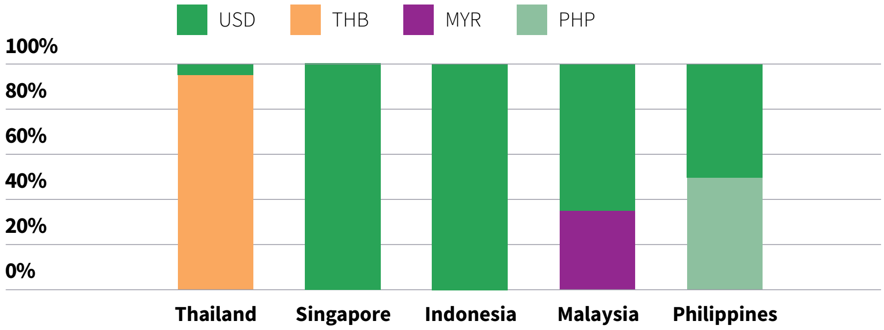
Source: Climate Bonds Initiative, 2021

Currency

Local currencies have dominated the ASEAN social and sustainability bond markets to date with their combined share standing at 60%**.** Meanwhile, hard currency, mainly USD, has accounted for 40% of the total issuances**.** The domination of local currencies was largely driven by the Thai sovereign deal which was issued in THB, bringing THB to 38% of the overall issuance volume. The shares between hard and local currencies in ASEAN differed with the shares of hard currencies for cumulative global sustainability bonds. Hard currencies represent 95% of global sustainability bond issuances. The issuance of local currencies is indicating an increased interest in ASEAN domestic sustainability bond market.

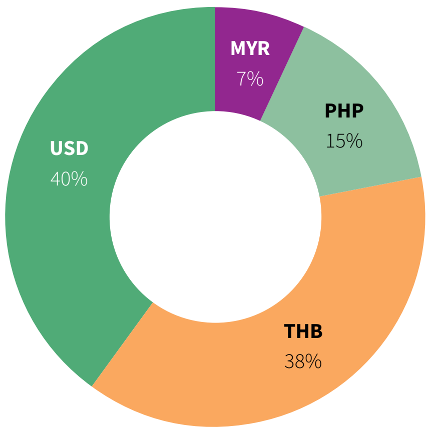
Regarding countries, Singaporean and Indonesian issuers prefer to issue social and sustainability bonds in USD; while their Malaysian and Philippine counterparts are more balanced in their choice of issuance currency, due to a stronger domestic investor base.

Local currency issuance is common in Thailand and Philippines



Source: Climate Bonds Initiative, 2021

Issuance in USD and THB makes up 78% of social and sustainability bond volumes

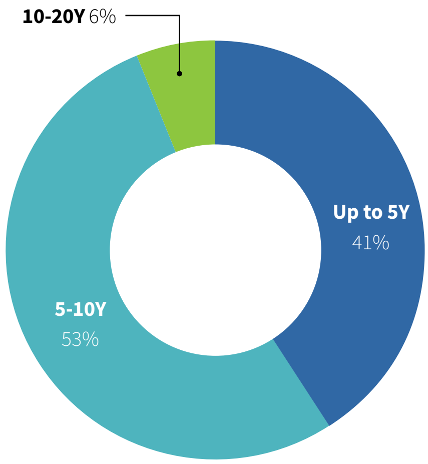


Source: Climate Bonds Initiative, 2021

Tenor

Most ASEAN social and sustainability bonds are short-dated. Around 94% of the total bonds have a tenor less than 10 years; of which, bonds with 5-10-year maturities represent 53% of the total, and bonds with up to five years of maturity comprise 41%. This finding is consistent with the global market, where global sustainability and social-labelled bonds are mostly short-dated.

50% issuance has 5-10Y tenor



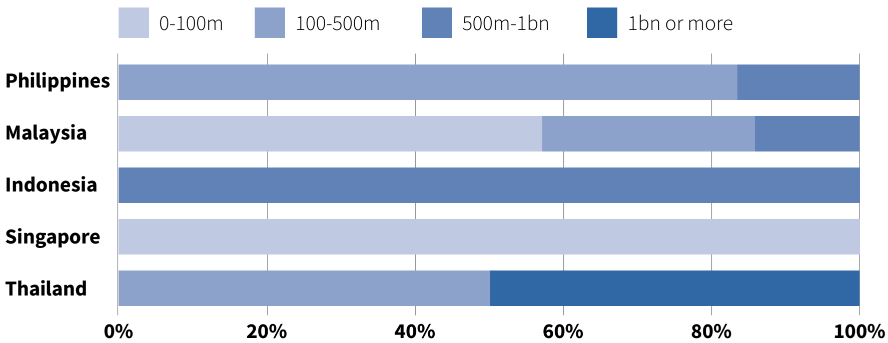
Source: Climate Bonds Initiative, 2021

Deal size

In line with the ASEAN green labelled market, **social and sustainability markets have also seen the majority of deal sizes smaller than USD500m** (accounting for 79% of all issuance). Out of a total of 19 deals issued since 2015 only three were offered in benchmark size: CIMB Bank Bhd (USD680m), Bank BRI (USD500m) and Manila Water Co Inc (USD500m). The Thai government's sustainability bond was the sole deal exceeding USD1bn.

Interestingly, the Indonesian market was the only one characterised by benchmark-sized deals, while all issuances in Singapore were under USD100m. In addition, Malaysia, Indonesia and the Philippines maintained a more balanced market in terms of deal size.

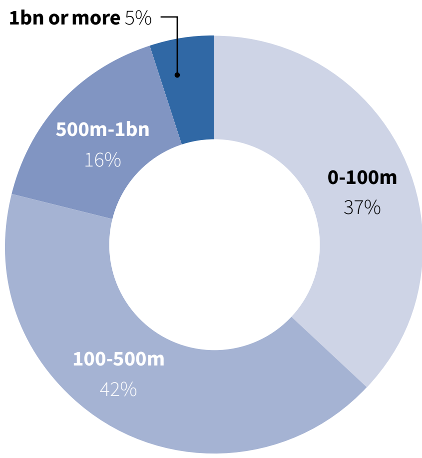
Social and sustainability bond deal sizes vary across countries



Note: Maturity shares are based on deal counts as opposed to volume issued

Source: Climate Bonds Initiative, 2021

Smaller issuances dominate



Source: Climate Bonds Initiative, 2021

Case study: Manila Water Company Inc.'s sustainability bond

In July 2020, **Manila Water Company** debuted in the international debt capital markets by issuing a USD500m sustainability bond.[31] The deal is the largest GSS bond issued by a listed private water utility in Asia.[32]

This transaction also represented the first bond issued by a Philippine company in accordance with three standards, including the ICMA Green Bond Principles and Social Bond Principles, and the ASEAN Sustainability Bond Standard[33]. The bond received a SPO from DNV GL.[34] Proceeds from the bond will be allocated to sustainable water and wastewater management, terrestrial and aquatic biodiversity conservation and affordable basic infrastructure projects developed by the company.[35]

External reviews

It is good practice for social and sustainability bonds to undergo an external review process[29]. As with their green counterparts, Second Party Opinions are a popular type of review.

The peso-denominated COVID Action Response (CARE) Bond issued by BPI in the Philippines is an example of a social bond where the issuer obtained a SPO for its framework – in this case from Sustainalytics. Prior to the issuance, BPI also expanded its green bond framework into a Sustainable Funding Framework. Similar to the existing green bond framework, BPI's Sustainable Funding Framework includes detail of the use of proceeds, project selection, proceeds management, and reporting for social bonds. Details of the projects funded by a social bond are visible in the SPO. The Sustainalytics SPO for BPI specifies that BPI's social bond would mainly constitute support for MSMEs, and validates the positive social impacts from such financing.[30]

Climate Bonds Initiative will continue to add new analysis on external reviews of other labelled bonds, including sustainability and social bonds, in future reports.

Case study: Bank of the Philippines Islands' social bond

On August 7th 2020, **Bank of the Philippines Islands** (BPI) issued its pioneering COVID Action Response Bonds (CARE Bonds) worth of a PHP21.5bn, more than seven times the initial planned issue size of PHP3bn.[39] The bond was listed at the Philippine Dealing and Exchange Corp., has a tenor of 1.75 years and an interest rate of 3.05% paid quarterly in arrears.[40] This CARE bond was issued as the third tranche of BPI's PHP100bn bond program.[41]

The Securities and Exchange Commission (SEC) confirmed that the CARE bond qualifies as a social bond under the ASEAN Social Bond Standards in the Philippines.[42] Its proceeds will be used to finance and refinance eligible MSMEs who are hardest hit by COVID-19.[43]

Case study: Thai sovereign sustainability bond

The Kingdom of Thailand, via its Public Debt Management Office (PDMO) issued a sovereign sustainability bond in taps totalling THB85bn (USD3.45bn).[36]

The proceeds have both green and social components, financing green infrastructure through the Mass Rapid Transit Orange Line (East) Project, as well as social impact projects to assist with COVID-19 recovery, such as public health measures, job creation programs and local public infrastructure development, with related social and environmental benefits.[37]

This is a first of a kind issuance by a sovereign in Southeast Asia. The government's sustainability bond framework is aligned with international and ASEAN capital markets standards, and the bond issuance is part of a 15-year, benchmark bond program to be issued in the next two fiscal years in sectors related to green and sustainable infrastructure.[38] The green tap of the bond was Certified against the Low-Carbon Transport criteria of the Climate Bonds Standard.

ASEAN Green, Social and Sustainability Bond Standards

In November 2017, the ASEAN Capital Markets Forum (ACMF), comprising market regulators from the ten ASEAN countries, released the ASEAN Green Bond Standards, a set of voluntary guidelines based on the ICMA Green Bond Principles, to create a green debt category for the ASEAN region.

- The ASEAN Green Bond Standards seek to enhance transparency, consistency and uniformity to help lower costs for issuers and investors. Key elements include:
- The issuer or issuance of the green bond must have a geographical or economic connection to the region;
- Fossil fuel power generation projects are excluded;
- Information on the process for project selection and the UoP, as well as external review reports, must be made publicly available on a designated website;
- An external review is recommended for the green bond framework, particularly for the management of proceeds and annual reports;
- The external review providers are recommended to disclose their relevant credentials and expertise and the scope of the review conducted.

ACMF also released the ASEAN Social Bond Standards and ASEAN Sustainability Bond Standards in October 2018.

The development of ASEAN Social Bond Standards was to complement the ASEAN Green Bond Standards with bond proceeds being allocated to projects/assets with positive social impacts. The Standards are aligned and guided by the ICMA's Social Bond Principles with additional features, including:

- The issuer or issuance of the green bond must have a geographical or economic connection to the region;
- Alcohol, gambling, tobacco and weaponry projects are excluded
- Information on the process for project selection and the UoP, as well as external review reports, must be made publicly available on a designated website;
- An external review is recommended

ASEAN Sustainability Bond Standards are a combination of ASEAN Green and Social Bonds Standards. Key elements include:

- The Issuer of an ASEAN Sustainability Bond must comply with both the ASEAN GBS and the ASEAN SBS.
- The proceeds allocated for the Project must not be used for Ineligible Projects specified by the ASEAN GBS as well as the ASEAN SBS

Wider labelled bond and loan Market in ASEAN

Sustainability-linked loans and bonds in ASEAN

The sustainable debt market is still at an early stage, especially in ASEAN where the development level of sustainable finance market is dependent on the development of the regional bond markets, themselves relatively recent. While Cambodia has recently created a corporate bond market, with three issues to date, Brunei, Laos, and Myanmar are yet to start a similar process. Vietnam has some development potential, while Indonesia, Malaysia, the Philippines, Singapore and Thailand, with existing corporate bond markets, have introduced a number of policies and initiatives to promote sustainable finance, with the latest instruments being **Sustainability-linked loans (SLLs) and Sustainability-linked bonds (SLBs)**.

Market guidance

SLBs are any type of bond instrument for which the financial and/or structural characteristics can vary depending on whether the issuer achieves predefined sustainability/ESG objectives. Following the publication of the first Sustainability-linked Loan Principles (SLLP) in 2019 to formulate market best practice for SLLs, the International Capital Market Association (ICMA) announced the Sustainability-Linked Bond Principles (SLBP) in June 2020. The SLBP are voluntary guidelines intended to foster the development of the SLB market.[44] Though still very small, this market segment started to grow in the second half of 2020, particularly in ASEAN where it was seen to enable issuers to access the sustainable finance market and promote capital mobilisation in a novel way. From the demand side, SLBs present additional opportunities for investors to allocate capital to meet their ESG investment targets and serve growing demand for eligible financing opportunities.

Growth and outlook

The ASEAN SLL market has been active since 2018. The sector coverage of borrowers raising funds with SLLs is wide. SLLs do not require a definition of green assets and projects to be financed, but instead allow all types of entities to commit to company-level sustainability targets linked to the terms of the debt. As such, SLLs can provide an alternative for borrowers in sectors that currently lack clear definitions of green, such as the food and beverage industry. Companies within sectors that may not have specific green assets and projects, but want to decrease their carbon footprint may also be able to utilise this format of debt. With this modality, green debt can be combined with SLLs to streamline and strengthen organizations' overall sustainability strategies – as long as the SLL targets demonstrate the requisite ambition and associated verification mechanisms are in place.[45]

Some of the key drivers of SLL growth in recent years include increasing demand for sustainability and ESG-related products from investors, and stakeholder pressure for corporates to better disclose and address their sustainability impact. This, in turn, has helped push corporates to diversify the sustainable financing mechanisms that they use to meet their sustainability goals.

Sustainability-linked loans[47]

Sustainability-linked loans (SLLs) and/or contingent facilities (such as bonding lines, guarantee lines or letters of credit) can support borrowers in meeting sustainability performance improvements such as significant greenhouse gas (GHG) emissions reductions; or reductions in waste or water usage. If targets are met, borrowers are rewarded with a reduced loan margin, resulting in cheaper cost of capital. SLLs are different from green loans in that proceeds are not linked to green projects/assets, but are intended for general corporate purposes.

Existing market guidance, including the Loan Market Association (LMA) Sustainability-linked Loan Principles, states that targets should be ambitious, specific and time-bound. Importantly, they should also be linked to sector-wide decarbonisation pathways and/or other improvement trajectories. In practice, however, most SLLs relate to the borrowers' own entity-specific sustainability improvements. A key lesson from the green bond market is that it should also be possible to assess ambition against global targets such as net-zero by 2050 to ensure rapid decarbonisation.

ASEAN Sustainability-linked loans and bonds as of March 2021

Issuer	Issue date	Amount	Country	Original label	Type
United Industrial Corp Ltd	Mar-21	USD225.1m	Singapore	Sustainability-linked loan	SLL
Thai Union Group Pcl	Feb-21	USD398.9m	Thailand	Sustainability-linked loan	SLL
Flex Ltd	Jan-21	USD2,000m	Singapore	ESG Linked loan	SLL
Louis Dreyfus Co Asia Pte Ltd	Dec-20	USD600m	Singapore	Sustainability-linked loan	SLL
Olam International Ltd	Dec-20	USD67.3m	Singapore	Sustainability-linked bond	SLB
Olam International Ltd	Jun-20	USD250m	Singapore	Sustainability-linked loan	SLL
Axiata Group Bhd	May-20	USD800.7m	Malaysia	Sustainability-linked loan	SLL
Indorama Ventures Global Services Ltd	Mar-20	USD255m	Thailand	Sustainability-linked loan	SLL
Mitr Phol Sugar Corp Ltd	Feb-20	USD170m	Thailand	Sustainability-linked loan	SLL
Olam International Ltd	Sept-19	USD525m	Singapore	Sustainability-linked loan	SLL
Louis Dreyfus Co Asia Pte Ltd	Aug-19	USD650m	Singapore	Sustainability-linked loan	SLL
Olam International Ltd	Mar-18	USD500m	Singapore	Sustainability-linked loan	SLL
Total		**USD6.4bn**			

Some corporates consider leveraging sustainable finance instruments as an integral part of their overall sustainability and ESG strategy. SLLs may be appealing to borrowers especially because they provide a financial incentive in the form of a reward for achieving specific sustainability targets. The emergence of SLLs also provide an alternative for medium and smaller-sized corporates, and large-sized corporates that do not wish to use bond issuances as part of their capital structure, hence consider a sustainability-linked credit lines as a more suitable option. At present, the ASEAN region is seeing an apparent growth of the SLL instruments.

Key concerns

Some concerns surrounding the SLBs and SLLs include the difficulty to benchmark the ambition of the targets or Key Performance Indicators (KPIs) against a wider global ambition such as the Paris Agreement. Most of the KPIs and sustainability targets have only been linked to the borrowers' own entity-specific sustainability improvements, not to a sector-wide decarbonization pathway, and limited transparency in the market – making it difficult to assess the impact and ambition of each loan. These concerns are not insurmountable and with some clear guidance, the market could be a valuable addition to the sustainable finance landscape in enabling entity-level transitions.

Case study: Surbana Jurong's Sustainability-linked bond in Singapore

On Feb 4th 2021, the Singapore-headquartered firm **Surbana Jurong Group** successfully issued a SGD250m (USD186.6m) sustainability-linked bond with a coupon rate of 2.48% and a tenor of 10 years, with Sustainability Performance Targets linked with a reduction of carbon emissions.[48] This is the first Singapore dollar-denominated sustainability-linked bond and the first public sustainability-linked bond issuance from a Southeast Asian based company.[49]

Proceeds of the bond will be used to finance the Group's future growth, pay off its existing credit lines and fund working capital, which helps to translate the UN Sustainable Development Goals featured in its 2030 Agenda into actions.[50] The bond is issued in accordance with the Group's Sustainable Finance Framework, which was created in line with the Sustainability-linked Bond Principle introduced by ICMA in June 2020.[51]

SLL market size in ASEAN

Over the course of 2020 and early 2021, there have been eight SLLs and one SLB by three ASEAN member states: Malaysia, Singapore, and Thailand. The combined size of these instruments was USD4.8bn, accounting for 75% of the cumulative value for the period 2018 – 2021 (USD6.4bn).

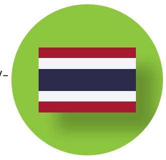
Singapore

UNITED Industrial Corporation Limited (UIC) secured its first green and sustainability-linked loans amounting to SGD300m from UOB and DBS, a combination of a SLL and a green loan, on a 50-50 basis. The green loan was used to finance major upgrading works at the Singapore Land Tower, while the sustainability-linked part was used to refinance existing facilities, as well as fund general corporate purposes. A three-year credit-revolving facility allowed UIC to utilize the loans within this time frame.

Flex, the US-Singapore electronic component maker, signed a USD2bn five-year revolving credit facility, the first ESG-linked syndicated revolving credit facility for the technology sector in early 2021. The margin is linked to Flex's performance on two environmental, social and governance (ESG) metrics: greenhouse gas emission intensity and work-related injuries.

Olam International Ltd is the leading global food, and agri-business operating throughout the agricultural value chain, including the production, processing, and trading of food products across 66 countries. Olam's sustainability-linked credit facility secured the third SSL of USD250m. Three overarching KPIs, namely (i) prosperous farmers and food systems, (ii) thriving communities, and (iii) regeneration of the living world, will be assessed by Sustainalytics on an annual basis. Interestingly, **Olam** also issued a JPY7bn (USD67.3m) sustainability-linked bond, the first of its type in the ASEAN market with a five-year tenor. The bond was issued to the Development Bank of Japan via a private placement. This interesting transaction features a potential reduction in the coupon upon Olam achieving its sustainability targets linked to its purpose of re-imagining global agriculture and food systems.[46]

Thailand



Thai Union Group PCL (Thai Union), the world's seafood leader, secured a sustainability-linked syndicated loan in both Thailand and Japan. This loan was split into a (i) credit facility equivalent to THB6.5bn, denominated in both THB and USD, and (ii) a USD183m Ninja credit facility denominated in USD and JPY subject to a five-year term. Interest rates for the SLLs are linked to sustainability based KPIs, including achieving (i) high rankings in the S&P Global Dow Jones Sustainability Indices (DJSI); (ii) GHG reduction targets; and (iii) increased oversight in Thai Union's international supply chains through an increase in the use of electronic monitoring (EM) and/or human observers onboard tuna vessels. Sustainalytics provided a second party opinion on the KPIs and alignment to the Sustainability-linked Loan Principles.

Indorama Ventures Public Company Limited (IVL), a global chemical producer, secured Thailand's first cross-border sustainability-linked Ninja loan. This syndicated loan of USD255m with a five-year term comprised of 16 Japan based banks and institutions structured with linkage to the sustainability performance of IVL and a mechanism on an interest rate adjustment subject to IVL's ESG performance. Mizuho Bank is the arranger of this syndicated cross-border sustainability-linked Ninja loan. The loan proceeds will be primarily used for refinancing purpose.

Malaysia

Malaysia's **Axiata Group Bhd**, the leading telecommunications groups in Asia specializing in digital telco, digital businesses, and infrastructure, secured USD800m in syndicated multi-currency Islamic financing facility for its sustainability-linked initiatives. The financing arrangement was led by OCBC Al-Amin Bank Bhd in syndication with Oversea-Chinese Banking Corporation Limited, Maybank Islamic Bank Bhd and MUFG Bank (Malaysia) Bhd. The SLL aimed to enhance the company's liquidity position taking advantage of benefiting from optimal financing cost. The sustainability-linked features included Axiata's commitment to reducing carbon footprint towards ensuring sustainability as the core of its business principles.

Support and opportunities for sustainable finance market development in ASEAN

Role of Development Finance Institutions (DFIs)

DFIs have a mandate to support developing countries and can achieve this through blended finance and credit enhancement mechanisms, reducing risk exposure and enhancing market incentives for investors to mobilize private capital. This is particularly relevant for large-scale projects such as infrastructure development, where the blended finance approach can generate more bankable project pipelines by providing technical support and facilitating access to funding.

In supporting the development of ASEAN sustainable bond markets, DFIs have acted as market facilitators, which is beneficial to increasing liquidity and issuance in local economies. For example, the International Finance Corporation (IFC) issued a green bond in June 2018 in Philippine peso (a Mabuhay bond) and one in Indonesian rupiah (a Komodo bond) in October 2018. Through deals like these, DFIs can support "market creation" by participating in first-time issuances and helping new issuers get their names out to investors.

DFIs such as IFC, ADB, Asian Infrastructure Investment Bank (AIIB) and the World Bank, have also subscribed to private placements or become anchor investors in debt issuance and IPOs to help the company seeking funding to build investor confidence and catalyse investments from a wider pool of private actors.

For example, IFC and ADB were anchor investors for the AC Energy's green bond issued in 2019. This bond was the first Climate Bonds-certified bond to be issued publicly and denominated in USD. IFC provided an anchor investment for USD75m, and ADB invested USD20m in the green bond to crowd-in other institutional investors.[52]

MDB issuance in local ASEAN currencies has provided an important signal for the green bond market

Currency	Bond type	IFC	EBRD	IBRD	ADB	EIB
IDR	Green bond	✓	✓			
	Vanilla bond	✓	✓	✓	✓	✓
SGD	Green bond					
	Vanilla bond	✓	✓	✓	✓	
PHP	Green bond	✓				
	Vanilla bond	✓	✓	✓	✓	✓
MYR	Green bond			✓		
	Vanilla bond	✓	✓	✓	✓	
THB	Green bond					
	Vanilla bond			✓	✓	

ASEAN Catalytic Green Finance Facility (ACGF)

The role of DFIs is important to reduce the risk and high upfront cost from an early stage of green infrastructure project preparation. Ultimately, DFIs have an important role in facilitating a green project to be more bankable and investable. ACGF is an initiative of the ASEAN Infrastructure Fund (AIF) and the ASEAN Member states. Formally launched in April 2019, this facility is dedicated to accelerating green infrastructure investment in Southeast Asia. At present, it is the only regionally-owned green finance initiative focused on developing and scaling up climate projects among member states of ASEAN. To date, ACGF has committed to supporting around USD500m for nine projects, with a total portfolio of nearly USD3bn.[53]

ACGF provides loans and necessary technical assistance for green infrastructure projects, these support will be achieved through the following three activities:

1. Originating and structuring projects, and developing a green infrastructure project pipeline

2. Providing de-risking funds to improve the bankability of green infrastructure projects

3. Building sustainable and green investment knowledge and capacity

Among some of ACGF's achievements throughout 2019 – 2020, six financing partners have indicated their willingness to provide up to USD1.4bn in co-financing for ACGF projects, and received pledges from seven knowledge partners for in-kind support. In that period, the facility has also built a pipeline of 22 bankable green projects. The facility has provided technical assistance to these projects, and four of these projects are in the process for approval to be financed by AIF.[54]

ACGF's priority for 2021 is heavily set around promoting a green recovery for the ASEAN member states. They are planning to achieve this by developing COVID-19 recovery financing models, raising financing support for government, and raising the awareness for the benefits from a green recovery.[55]

IFC Sustainable Banking Network (SBN)

Sustainable finance takes environmental, social and governance (ESG) considerations and associated risks in financial sector into account and promotes innovations that will result in increased longer-term investments in sustainable economic activities. Sustainable finance has emerged as a pathway for developing economies to de-risk investment and enable the financial flows needed to support climate action and sustainable development.

The Sustainable Banking Network (SBN) was established by IFC in 2012 aiming to serve as a knowledge and capacity-building platform for financial regulators, banking associations, and environmental regulators from emerging markets to developing sustainable finance frameworks based on national contexts and priorities.[56]

Some of the strategies of SBN to advance sustainable finance include providing technical assistance for members, convening a global platform of sustainable practitioners, and facilitate sharing knowledge exchange among members.

Role of central banks in managing climate-related risk

Climate and environmental-related risks will disrupt financial and monetary stability.[57] Extreme weather shocks, for instance, can generally reduce economic growth and caused economic loss in the short-run.[58] It will be important that these risks are properly factored into the financial measures to ensure that these risks can be mitigated and managed in the future.[59]

More central banks have been exploring the possible approaches to managing climate risks by developing policy tools to manage risks arising from climate change. This movement towards identifying the different approaches is apparent from the involvement of Central Banks in international green banking associations. Six ASEAN Central Banks are members of the Central Banks and Supervisors Network for Greening the Financial System (NGFS), and three of them are members of the Sustainable Banking Network (SBN).

NGFS's main purpose is to enhance the role of financial system to manage climate-related risks. Similarly, the SBN has a goal to move the financial sectors towards improved ESG investment.[60]

The relationship between climate and environmental-related risk to financial stability has been established by Central Banks around the world through the green banking associations, including NGFS.[61] Even though no central banks have specific written mandates to manage climate and environmental-related risks, managing risks is integral in a central bank's mandate.

ASEAN Central Banks like the Monetary Authority of Singapore[62] and Bangko Sentral ng Pilipinas[63] have issued guidelines on climate and environmental risk management for the financial industry. Malaysia's Joint Committee on Climate Change (JC3), led by Bank Negara Malaysia (BNM) and Securities Commission Malaysia (SC), has identified developing guidance documents on climate risk management and scenario analysis as one of its 2021 priorities.

ASEAN member countries are developing a regional and a national green taxonomy

While there is no regional taxonomy or standard clearly defining economic activities that are considered 'sustainable' in ASEAN, movements towards developing a regional taxonomy have become apparent in recent years. Major ASEAN countries such as Malaysia[64], Singapore[65], Vietnam, Indonesia, the Philippines, are currently developing a taxonomy or having discussions around improving clarity on the definitions of sustainable investments. Several sustainable finance working groups and task forces dedicated to developing a well-defined sustainable investment definition have been set up. Malaysia, Singapore, and the Philippines all have a task force that is chaired and facilitated by either the country's Securities Exchange Commission (SEC), Ministry of Finance or Central Bank.

The Joint Statement of the 7th ASEAN Finance Ministers and Central Bank Governors' Meeting indicated that initiative has been set up to develop an ASEAN Taxonomy for Sustainable Finance, which will serve as ASEAN's common language for sustainable finance and complement member states' national initiatives.[66]

The role of a taxonomy can be instrumental for furthering sustainable investments in ASEAN countries by providing clarity for the different market stakeholders. It will be important that taxonomies in ASEAN align with the internationally acceptable standard, such as the Common Ground Taxonomy that the International Platform on Sustainable Finance (IPSF) is aiming to release mid-2021, to ensure cohesion among market participants. This is also to ensure that the necessary SDGs and climate investment will be channelled into the region.

Post-COVID recovery and calls to build back better

Globally, trillions of dollars have been announced to shore up short-term stabilisation and longer-term economic recovery.[67] Following the recovery of the pandemic, the ASEAN region is still at risk in terms of vulnerability to climate change impacts, such as sea level rise, droughts, floods, and tropical cyclones, which are increasing in frequency. The economic cost of inaction, a loss of approximately 7% of combined GDP by 2100, is already likely to be worse, with a projected 11% of GDP loss.[68] It will be key to ensure that recovery investments take into account the longer term country objectives in mitigating impacts from climate change.

ADB sets out that a green recovery means investing in sustainable infrastructure, and promoting future-looking industries and employment, and developing economic opportunities that are socially just and inclusive. Doing this holds out the promise of being able to deliver on both growth and sustainable development in the long run. The four criticalities under green recovery strategy, especially as pertaining to infrastructure development, includes: (i) job creation; (ii) natural capital; (iii) climate change; and (iv) catalyzing capital.[69]

ASEAN Comprehensive Recovery Framework and its implementation plan

The ASEAN recognized the criticality of a concerted regional coordination to respond and recover from the pandemic. In 2020, ASEAN launched the ASEAN Comprehensive Recovery Framework that consolidates five broad strategies for ASEAN to recover from the pandemic. This Framework has adopted the principle of Building Back Better. Specifically, Broad Strategy 5 on advancing a more sustainable and resilient future, establishes that returning to 'business as usual' is not an option.[70] The implementation plan articulates detailed output of each broad strategy, one of it includes promoting sustainable investment by potentially introducing ASEAN wide possible Guidelines on Sustainable Investments.[71]

Country level opportunities to scale green recovery plans

Country	Recovery Plans
Indonesia	The Government has launched the National Economic Recovery Program, providing the latest stimulus policies for the economy in a program estimated to cost USD43bn and comprising of tax breaks for industries, capital injections into state-owned enterprises (SOEs), and liquidity support for the banking industry, among others. Indonesia had already been working on green bonds and sukuk bonds (Islamic bond) issuance pre-COVID-19 as well as creating a Sustainable Development Goals platform, SDG Indonesia One, under the government financing institution PT Sarana Multi Infrastruktur (PT SMI). To date, Indonesia has only directed 4% of its stimulus towards green programs.[72] Existing programs could be further leveraged to increase the proportion of green recovery plans.
Malaysia	The country's support to an ASEAN economic recovery plan to ensure critical infrastructure for trade and trading routes via air, land, and sea has been secured. An allocation worth USD450m has been made from the national budget to implement small infrastructure projects, including USD33m for maintenance of alternative electricity and water supply in rural areas, maintaining roads, bridges, streetlights, drainage systems, and water supplies, at the federal, state, and local levels to assist small contractors and encourage.
Philippines	The Government of Philippines has provided an assistance through green program with PHP2.5bn (USD50m) to make 145 cities more liveable and sustainable. It is part of the government's "Build, Build, Build" program. The green recovery packages will invest in urban areas by scaling up projects, such as EDSA Greenways that provides non-motorized commuting in parts of congested Manila.
Thailand	The ongoing investment in major infrastructure has been planned to be the basis of growth in the next five years, with a plan for 92 PPP projects worth THB1.09tn (USD33.39bn) from 2020 to 2027. Thailand has also embarked on the issuance of sovereign sustainability bonds to fund green infrastructure projects as seen in August 2020.
Vietnam	The National Strategy on Green Growth is the government efforts to stem environmental degradation and provide a strong framework for sustainable economic growth, especially through development of investment guidelines and methodologies for prioritizing investment opportunities and mobilizing public and private finance into green economic recovery projects.
Singapore	Singapore has unveiled its Green Plan 2030 in February 2021 that outlines its national agenda on sustainable development for the next ten years. This plan includes ambitious and concrete targets, such as quadrupling its solar energy deployment by 2025, greening 80% of all buildings by 2030, making 20% of schools carbon neutral by 2030, reducing 20% of waste sent to landfill per capita by 2026, doubling the number of electric vehicles charging points by 2030, and being a leading green finance centre in Asia and globally.[73] A portion of the Singapore Budget 2021[74] has already been dedicated to supporting the Green Plan; going forward, the Singapore Government has the opportunity to align economic recovery packages with the Green Plan to further accelerate its implementation.

Country overviews

Singapore

A steady growth in sustainable finance

Sustainable finance has been steadily gathering pace in Singapore over the years. The government through the Monetary Authority of Singapore (MAS) has promulgated and implemented core policies and regulatory measures, especially the MAS Grant Schemes, which have evolved to cover more instrument types, including the SLLs and SLBs, to underpin the development of green and sustainable finance.

MAS developed the Green Bond Grant Scheme in June 2017, which was expanded and became the Sustainable Bond Grant Scheme in February 2019. In November 2019, MAS released its Green Finance Action Plan and USD2bn green investments programme (GIP). In November 2020, MAS announced the Green and Sustainability-Linked Loan Grant Scheme and expanded the Sustainable Bond Grant Scheme to include SLBs.

The importance of sustainable finance in Singapore, as of 2020, is reflected by the number and value of green loans, green bonds, and social and sustainability bonds issued. The cumulative value between 2018-2020 of (i) green loans reached USD9.6bn, (ii) green bonds stood at USD2.3bn, while (iii) social and sustainability bonds landed at USD56.7m, demonstrating that Singapore is the largest sustainable finance markets in ASEAN.

Green loans

Green loans have dominated the sustainable finance market in Singapore in 2020. The total value of green loans hit USD3.9bn, accounting for 41% of the ASEAN cumulative value for the period of 2018–2020 but showed a decrease by 14% as compared to 2019. The currencies under the green loans are dominated by Singapore Dollars and Indian Rupees. Real estate is the key sector financed by green loans, with 14 successful deals in 2020 and two green loans financing renewable energy projects.

In the real estate sector, **M+S Pte. Ltd** secured the largest value of SGD1.95bn in ASEAN to invest in the company's sustainable asset Marina One, a global winner of the sustainable development category at the prestigious 2020 FIABCI World Prix d'Excellence Awards.

Singaporean green loans in 2020

Issuer name	Amount issued	Issue date	Use of proceeds
Keppel REIT	AUD300m (USD222.1m)	Dec-20	Buildings
City Developments Limited (CDL)	SGD470m (USD353.9m)	Dec-20	Buildings
CapitaLand Limited	INR6,500m (USD90.6m)	Nov-20	Buildings
CapitaLand Limited	INR4,250m (USD59.3m)	Nov-20	Buildings
CapitaLand Limited	INR6,250m(USD87.2m)	Nov-20	Buildings
ARA Asset Management/Chelsfield	SGD385.8m (USD285.6m)	Nov-20	Buildings
Tong Eng Group	SGD71m (USD52.6m)	Nov-20	Buildings
The Farrer Park Company	SGD120m (USD88.8m)	Sep-20	Buildings
M+S Pte Ltd	SGD1,950m (USD1.44bn)	Jul-20	Buildings
UOL	SGD120m (USD88.8m)	Jul-20	Buildings
Cleantech Solar SEA Pte Ltd	USD75m	Jul-20	Energy
Fernvale Lane Pte Ltd	SGD350m (USD251.6m)	Jul-20	Buildings
MTG Apartments Pte. Ltd. / MTG Retail Pte. Ltd	SGD730m (USD513m)	May-20	Buildings
CapitaLand Limited	SGD250m (USD176.7m)	Apr-20	Buildings
CapitaLand Limited	SGD150m (USD106m)	Apr-20	Buildings
LYS Energy	SGD14m (USD9.8m)	Mar-20	Energy
Total	**USD3.9bn**		

(Source: CBI database) Note: currency conversion rates are taken on date of issue

The other green loans were secured by **UOL Group Limited (UOL)** with a three-year term green loan of SGD120m from UOB for sustainable building projects in line with Singapore's highest environmental certification, and SGD120m that assisted the Farrer Park Company in refinancing its integrated healthcare and hospitality complex.

CapitaLand Limited (CapitaLand) issued its first three green loans in India in 2020, totalling INR17bn from DBS Bank and HSBC in India to finance the development of its green-certified International Tech Parks in Chennai, Gurgaon, and Pune. CapitaLand also secured a total of SGD400m in two bilateral green loans to catalyse greening of the Group's global portfolio of buildings by 2030 – a four-year green loan of SGD150m from DBS Bank and a three-year green loan of SGD250m from HSBC Singapore. They will be used to finance or refinance the development, investment and acquisition of buildings with the Building and Construction Authority of Singapore (BCA) Green Mark Gold certification or USGBC LEED Gold rating.

ARA Asset Management Limited (ARA) and Chelsfield secured SGD385.8m from DBS Bank and UOB to finance the acquisition and asset enhancement of their 50:50 joint venture, 5One Central (formerly known as Manulife Centre) in Singapore.

Keppel REIT Management Limited (Manager of Keppel REIT) obtained a total of AUD300m from UOB and BNP Paribas for partial financing of the acquisition of Pinnacle Office Park, a freehold Grade A commercial property located within Macquarie Park in Sydney.

City Developments Limited (CDL) issued a green Revolving Credit Facility (RCF) of SGD470m for refinancing Republic Plaza – CDL's flagship commercial property in compliance with CDL's Sustainable Finance Framework as part of its SDG Innovation Loan launched in 2019.

Fernvale Lane Pte. Ltd., with an amount of SGD350m compliant with the LMA Green Loan Principles to finance its executive condominium (EC) development. The proceeds were used to develop an EC with approximately 500 units at the Fernvale Lane site. Upon completion, the EC development aimed to obtain the BCA Green Mark Gold Plus certification, adding to its appeal to first-time homebuyers and upgraders.

GuocoLand Limited, through its indirect subsidiaries, MTG Apartments Pte. Ltd. and MTG Retail Pte. Ltd., obtained a total of SGD730m from OCBC Bank, DBS Bank and ICBC Singapore Branch for the construction of a new luxury residential cum commercial development.

The loan proceeds would be used to realize the company's efforts in sustainable development, water and energy conservation, and adoption of immersive urban greenery and landscaping.

In the renewable energy industry, **Cleantech Solar**, one of the largest commercial and industrial (C&I) focused solar PV developers in Asia, secured a green loan of USD75m from ING Bank N.V., Singapore Branch (ING) in 2020. The proceeds were used to finance Cleantech Solar's expansion across Southeast Asia. The green loan aimed to support the funding required to deliver the company's strategy of building over 500MW of solar power projects in Asia.

Green bonds

Green bonds continued to grow significantly in 2020. There were five deals with the total value of USD1.042bn issued by Vena Energy, National University of Singapore, Maxon Solar Energy, and Ascendas Real Estate Investment Trust. Singaporean dollar is the dominant currency, while one deal was issued in US dollar. The issued value in 2020 accounted for approximately 46% of the cumulative value (2017–2020) in Singapore and increased by 141% as compared to 2019.

The investments focused on renewable energy, green buildings, water, and waste, including waste prevention, reduction, and recycling, and land use. In addition, the green bonds funded green buildings and properties that have received BCA Gold certification. At the same time, the investments targeted R&D activities, production, and commercialization of next–generation sustainable high-efficiency solar technology to generate highly impactful green, especially in solar energy development.

Vena Energy obtained the fund of USD325m through issuing green bonds for solar energy related projects, (wind energy related projects, and hydropower related projects (new construction of less than 15MW of small-scale hydropower or re-powering of existing large-scale hydropower of more than 20MW). The proceeds were used to finance renewable energy projects that contribute to decarbonisation and environmental improvement.

The National University of Singapore (NUS) raised SGD300m through the issuance of a green bond to finance the projects under the university's new green finance framework. It demonstrated that the university has extended its efforts in addressing climate change and environmental sustainability. The 10-year bond will be due in 2030. DBS Bank was the sole lead manager and book-runner for the deal.

Singaporean green bonds in 2020

Issuer name	Amount issued	Issue date	Use of proceeds
Ascendas Real Estate Investment Trust	SGD300m (USD222.1m)	Sept-20	Buildings
Ascendas Real Estate Investment Trust	SGD100m (USD73.1m)	Aug-20	Buildings
National University of Singapore	SGD300m (USD222.1m)	Jul-20	Buildings, Energy, Water, Waste, Land Use
Maxeon Solar Technologies	USD200m	Jul-20	Energy
Vena Energy	USD325m	Feb-20	Energy
Total	**USD1.04bn**		

(Source: CBI database) Note: currency conversion rates are taken on date of issue

The industrial real estate investment trust, **Ascendas REIT**, priced its inaugural green bond of SGD100m in 2020 that will be due in 10 years for financing green projects that mitigate climate change by reducing greenhouse gas emissions, improving energy efficiency, reducing water consumption, or having other positive environmental impact, with OCBC Bank as the sole lead manager, book-runner, and green finance adviser. Ascendas REIT also issued SGD300m green subordinated perpetual securities in 2020 as the first real estate green perpetual securities in Asia.

Lastly, **Maxeon Solar Technologies, Ltd** issued USD200m in an aggregate principal amount of its green convertible senior notes that would be due in 2025. Maxeon intended to allocate an amount equal to the net proceeds from the offering to finance or refinance, in whole or in part, existing, and new projects meeting specified eligibility criteria related to eligible green expenditures.

Social and Sustainability bonds

Social and sustainability (S&S) bonds play a significant role in the sustainable finance market in Singapore. These bonds helped channel capital towards catalysing broader adoption of sustainability practices and helped companies meet their corporate social responsibility objectives, diversify their investor base, and achieve long– term pricing advantages.

There were two deals issued by Impact Investment Exchange (IIX), an impact asset manager based in Singapore, through **WLB Asset II Pte Ltd**, and **WBL Asset III** in 2020. The total issued value was USD38.2m equivalent in the year. It represented a strong growth as compared to USD8m issued in 2017. These are SSB Women's Livelihood Bonds aimed to make loans to each of (i) AMRU Rice (Cambodia) Co. Ltd., (ii) Chamroeun Microfinance PLC, (iii) Freyr Energy Services Pvt. Ltd., (iv) Koperasi Simpan Pinjam Mitra Dhuafa (KOMIDA), (v) LOLC (Cambodia) Plc., (vi) Maxima Microfinance Plc. and (vii) Sejaya Micro Credit Limited, which are microfinance institutions and impact enterprises located in Asia. The second deal was valued at USD27.7m.

Women's Livelihood BondTM 3 (WLB3), as part of the Women's Livelihood BondTM Series (WLB Series), was raised in compliance with the ICMA Social Bond Principles to advance 13 SDGs and support 180,000 under-served women and woman entrepreneurs in the Asia-Pacific region, and build resilience in the aftermath of the COVID-19 pandemic.

Singaporean sustainability and social bonds in 2020

Issuer name	Amount issued	Issue date	Use of proceeds
WLB Asset III Pte. Ltd	USD27.7m	Jul-20	Social
WLB Asset II Pte. Ltd	USD10.5m	Jan-20	Social
Total	**USD38.2m**		

(Source: CBI database) Note: currency conversion rates are taken on date of issue

Indonesia

Indonesia has an active sovereign green bond issuer

There have been a total of four issuances by the Sovereign (Ministry of Finance), accounting for almost half of the country's green bond issuance. Others were financial corporates and banks (PT SMI, Bank BRI), and non-financial corporates (Star Energy Geothermal and TLFF). Star Energy Geothermal is the only repeated non-financial corporate issuer from Indonesia.

Proceeds from the bonds were allocated to a wide range of mostly state-owned green infrastructure projects across Indonesia including renewable energy, low carbon transportation, sustainable waste management, and sustainable water infrastructure such as flood control infrastructure.[75]

As at 2020, Indonesia's GSS bond market stood at USD 5.5bn, with green bonds making up about USD5bn of the total issuance. There have been a total of 10 GSS bond issuances from Indonesia, with only one bond labelled as sustainable by BRI Bank.

The BRI Bank Sustainability Bond is the only sustainability bond issued to date. The proceeds were allocated towards a combination of green and social projects, including housing subsidies, MSMEs empowerment, green buildings, and low carbon transportation.[76]

Green and Islamic labelled sovereign bonds led the development of green bond market in Indonesia. To date, there has been a total of three sovereign green sukuk issuances from Indonesia, with a total volume of USD2.8bn.[77] The first global green sukuk was issued by Indonesia in 2018, and the first green retail sukuk was issued in 2019. 51% of the proceeds were used to refinance existing projects, and 49% to finance new projects.[78]

The Sovereign Green Sukuks saw growing interest from green investors between 2019 and 2020. The number of the total green investors invested in the green sukuk increased from only 29% in 2019 to 35% in 2020, indicating a strong interest from global green investors.[79]

Investor demand also included some interest from the retail sector. The IDR5.4bn (USD383.7m) sovereign green retail sukuk issued in 2020 attracted 16,992 retail investors, up from the 7,735 retail investors involved in the November 2019 issuance.[80] This increase signals an increasing interest from retail investors in supporting the government's sustainable projects.

Separately, the USD2.5bn triple tranche sukuk wakala issued in June 2020 by the Ministry of Finance to accommodate the state budget's deficit to respond to the pandemic[81] had a five-year maturity, with a USD750m global green sukuk tranche that was oversubscribed by 7.73x, with proceeds allocated to finance and refinance green projects.[82]

Star Energy, a subsidiary of PT Barito Pacific and a repeated issuer, issued a senior green bond in October 2020 worth USD1.1bn. The bond was issued in two tranches: USD320m with an 8.5-year tenor and USD790m with an 18-year tenor. This bond carried a rating of Baa3 from Moody's and a BBB- rating from Fitch, with a stable outlook, and it was listed on the Singapore Exchange (SGX).[83] Even when issued during the pandemic, this bond was able to register a 3.5x oversubscription, indicating keen support from investors in supporting ASEAN's transition towards sustainable energy. Proceeds were allocated to repay existing loans, and finance the plant's operational expenditure.[84]

The Government of Indonesia acknowledges the significant role of the private sector to cover the climate project financing gap. The average allocation between 2016 and 2020 for Indonesian climate investment was IDR89.6tn (USD6.2bn), falling short from the projected annual needs of IDR266.25tn (USD18.3bn) between 2018 and 2030 to achieve the Nationally Determined Contribution (NDC) targets.[85] As state budget alone will not be sufficient, the role of alternative funding sources such as the private sector will be necessary.

Green bonds can be used as an instrument to attract the private sector, and help Indonesia achieve its 2030 emission target. Several incentives to attract private funding for climate investments have been introduced. A tax allowance is available for geothermal and renewable activities. A renewable energy bill has been introduced to regulate the renewable tariff to spur the growth of renewable markets. The Indonesia Financial Service Authority (OJK) is also set out to design a green taxonomy in the period of 2021 – 2022 to establish a clear set of guidelines on what constitute as green assets.[86]

Indonesian green bond and sukuk issuances to date

Issuer name	Amount issued	Issue date	Use of proceeds
Republic of Indonesia	IDR5.4tn (USD383.7m)	Dec-20	Energy, Buildings, Transport, Water, Waste, Land Use
Star Energy Geothermal (Dajarat II) Ltd	IDR4.65tn (USD320m)	Oct-20	Energy
Star Energy Geothermal (Dajarat II) Ltd	IDR11.48tn (USD790m)	Oct-20	Energy
Republic of Indonesia	IDR10.9tn (USD750m)	Jun-20	Energy, Waste, Water
Republic of Indonesia	IDR10.9tn (USD750m)	Feb-19	Energy, Waste, Water
PT Sarana Multi Infrastruktur	IDR500m (USD50m)	July-18	Energy, Transport, Waste, Water, Land Use
Star Energy Geothermal (Wayang Windu) Ltd	IDR8.43tn (USD580m)	April-18	Energy
Republic of Indonesia	IDR18.16tn (USD1.25bn)	Mar-18	Energy, Buildings, Transport, Waste, Land Use
TLFF I Pte Ltd	IDR1.38tn (USD95m)	Feb-18	Land use
Total	**USD5bn**		

Indonesian sustainability bond issuances to date

Bank BRI	IDR7.26tn (USD500m)	Mar-19	Poverty reduction

(Source: CBI database) Note: currency conversion rates are taken on date of issue

The Philippines

Non-financial and financial corporates led the issuance of green and sustainability bonds in the Philippines

The Philippines is considered a leader in the ASEAN GSS bond market, as it issued the first green bond in the ASEAN market. The AP Renewables' USD226m deal in early 2016 was the first green bond issued and the first Climate Bonds Certified green bond in the ASEAN market. There have been four more green bonds certified since the first issuance

Issuance from the Philippines has been driven by the private sector (in particular, subsidiaries of the Ayala Group), with a diverse mix of domestic and global currencies. The active private sector issuers can be attributed to the government's supportive green finance initiatives. For instance, efforts to establish a green taxonomy are currently underway. The effort to develop a green taxonomy is led by the Department of Finance, under the vehicle of an inter-agency green task force. The task force is also working closely with the SEC and Central Bank to create a green taxonomy that outlines what projects constitute as green.

To date, only one government-backed entity, the **Development Bank of the Philippines (DBP)**, has issued a green bond. There has not been any sovereign issuance from the Philippines.

As at 2020, the Philippines' GSS bond market stood at USD4.9bn, with green bond making up to 64.8% (USD2.9bn) of the total GSS bond volume.[87] 2020 only saw seven more GSS bond issuances, amounting to USD1.9bn in volume. Four of these six bonds issued in 2020 are labelled as green, and three as social and sustainability bonds. The 2020 issuances also saw proceeds allocated to two new sectors, sustainable waste and water projects, further expanding the portfolio of green projects financed by GSS bonds.

There were two new issuers entering the market in 2020, Manila Water Corporation and Arthaland made their sustainability bond debuts in 2020. **Manila Water Corporation,** a subsidiary of Ayala Corporation, issued a USD500m five-year term sustainability bond with proceeds towards financing and refinancing sustainable water and wastewater management, terrestrial and aquatic biodiversity conservation, and basic water infrastructure projects.[88] The deal which generated a final order book of USD1bn attracted investors across Asia (79%) and Europe (21%).[89] The green bond framework established by the company is aligned with the ICMA Green Bond Principles, Social Bond Principles, and the ASEAN Sustainability Bond Standards. This issuance is notably the single largest sustainability bond issued by a listed private water utility in Asia, and the first ASEAN sustainability bond in the region.[90] Proceeds of **Arthaland's** five-year PHP3bn debut green bond were allocated entirely towards the development of its green buildings portfolio.

AC Energy, which remains to be the largest issuer and a repeated issuer in the Philippines, has issued six green bonds outstanding in total, ranging in size from USD75m to USD400m. In 2020, AC Energy issued two more deals with all proceeds allocated for its 5GW renewables by 2025 projects. The first deal issued in 2020 is the USD60m tap issuance to the original USD300m five-year tranche. This deal was issued as a private placement. Later in the year, AC Energy issued its second USD300m perpetual green bond, following its first perpetual issuance in December 2019.

Beyond green bond, the Philippines also saw a rise in a broader labelled bond such as social and sustainability bonds. There have been a total of 6 sustainability bond issuances, with **Rizal Commercial Banking Corporation** (**RCBC)** leading as an issuer, and followed by **Development Bank of the Philippines** and **Manila Water Corp.** Proceeds from the three bonds were allocated towards sustainable infrastructure projects, and social projects such as affordable housing and empowerment.[91]

Philippine green bond issuances to date

Issuer name	Amount issued	Issue date	Use of proceeds
AC Energy	PHP14.57 (USD300m)	Nov-20	Energy
Manila Water (Ayala Corporation)	PHP24.28bn (USD500m)	Jul-20	Waste, Water
AC Energy	PHP2.91bn (USD60m)	Jun-20	Energy
Arthaland	PHP3bn (USD59.1m)	Feb-20	Buildings
AC Energy	PHP19.43bn (USD400m)	Dec-19	Energy
Bank of the Philippine Islands	CHF100m (USD100.9m)	Sep-19	Buildings, Energy
Bank of the Philippine Islands	PHP14.57bn (USD300m)	Sep-19	Buildings, Energy
AC Energy	PHP5.34bn (USD110m)	Feb-19	Energy
RCBC (Rizal Commercial Banking Corporation)	PHP15bn (USD287.4m)	Feb-19	Energy, Buildings, Transport
AC Energy	PHP3.6bn (USD75m)	Jan-19	Energy
AC Energy	PHP10.92bn (USD225m)	Jan-19	Energy
China Banking Corp	PHP7.28bn (USD150m)	Oct-18	Buildings, Energy
BDO Unibank	PHP7.28bn (USD150m)	Dec-17	Energy
AP Renewables	PHP10.7bn (USD225.7m)	Feb-16	Energy
Total	**USD2.9bn**		

(Source: CBI database) Note: currency conversion rates are taken on date of issue

Philippine sustainability bond issuances to date

Issuer name	Amount issued	Issue date	Use of proceeds
Manila Water Co Inc	PHP24.28bn (USD500m)	Jul-20	Water, Waste, Affordable infrastructure
Rizal Commercial Banking Corp	PHP7.05bn (USD139.7m)	Apr-20	Green and social projects
Bank of the Philippine Island (BPI)	PHP21.5bn (USD441.27m)	Mar-20	Social projects; MSMEs
Rizal Commercial Banking Corp	PHP7.5bn (USD147.3m)	Nov-19	Energy, Transport, Water, Quality education, Affordable housing, Employment
Development Bank of the Philippines	PHP18.12bn (USD356.8m)	Nov-19	Pollution control, MSMEs programs, Community development
Rizal Commercial Banking Corp	PHP14.57bn (USD300m)	Sep-19	Energy, Transport, Water, Quality education, Affordable housing, Employment
Rizal Commercial banking (RCBC)	PHP8bn (USD154.3m)	Jun-19	Energy, Transport, Water, Quality education, Affordable housing, Employment
Total	**USD2.04bn**		

(Source: CBI database) Note: currency conversion rates are taken on date of issue

Vietnam

In total, USD484m of green bonds and loans were issued

Under the **Vietnam Green Growth Strategy** (VGGS)[92] approved by the Government for the 2011-2020 period, with a vision to 2050, the capital markets will play a key role in achieving the country's targets in meeting its climate goals. This has paved the way for green finance to grow in Vietnam.

USD27m worth of green bonds has been issued to date and there is some further potential. Local government issuers started the green bond market in Vietnam in small sizes and remain until today the only local government entities to have raised a green bond in the ASEAN market.

Potential future public sector issuance from, i.e. Vietnam Development Bank, Vietnam Bank for Social Policies, could support the Vietnam Green Growth Strategy and boost the nation's sustainable development.

So far, official corporate green bond issuance has not occurred in Vietnam due to the absence of an appropriate legal framework to support the issuance. However, with the introduction of Securities Law 2019[93] in November 2019 and Decree 153/2020 on the issuance of corporate bonds[94] in December 2020 to set the legal framework for all corporate bond issuances, labelled or non-labelled, corporate green bonds are expected to be present in the Vietnamese bond market soon.

In 2020, Vietnam also saw two green loans to be granted, totalling USD257m. The first green loan valued at around USD71m is part of the financing package of USD212.5m that IFC provided to **Vietnam Prosperity Joint Stock Commercial Bank** in January 2020.[95] It was IFC's first green loan to a bank in Vietnam.[96]

The second issuance was a USD186m green loan granted by ADB to **Phu Yen TTP Joint Stock Company (Phu Yen JSC)** for the development and operation of a 257MW solar power plant in Phu Yen province, Vietnam. It was the country's first Climate Bonds Certified green loan.

Recently, there has also been some 'greening' of the domestic banking sector. Under the National Action Plan for Green Growth for the period of 2014-2020[97], the State Bank of Vietnam's (SBV) Governor has issued (i) Directive No.03/CT-NHNN[98] dated March 24, 2015 on scaling up the green credit and environmental and social risk management in credit operations and (ii) Decision 1604/QD-NHNN dated August 7, 2018 approving the Scheme[99,100] on green bank development in Vietnam. According to SBV, as of 1Q19, there were 20 credit institutions providing green credit loans with a lending balance of VND242,000bn (USD10.5bn), an increase of 2% compared to 2018.[101]

Vietnamese green bond and loan issuances to date

Issuer name	Amount issued	Issue date	Type	Use of proceeds
Vietnam Prosperity Joint-Stock Commercial Bank	USD71m	Jan-20	Loan	Renewables & infrastructure
Phu Yen Joint Stock Company	USD186m	Oct-20	Loan	Solar
Vietcombank	USD200m	Jul-19	Loan	Renewables
Hochiminh City Finance and Investment State-owned Enterprise	VND523.5bn (USD23m)	Oct-16	Bond	Water, Unallocated A&R
People's Committee of Ba Ria Vung Tau Province	VND80bn (USD4m)	Sept-16	Bond	Water
Total	**USD484m**			

(Source: CBI database) Note: currency conversion rates are taken on date of issue

Thailand

Thailand is showing rapid progress on the development of sustainable finance.

The Securities Exchange Commission (SEC) of Thailand has approved the **Sustainability Development Roadmap** of 2019 to develop the ecosystem for sustainable finance, and has incorporated the SEC Strategic Plan 2020-2022.[102] The Sustainability Development Roadmap will impact the sustainable development of listed companies, including demands, opportunities and obstacles of sectors in the Thai capital market. The Thai government has strengthened a climate public expenditure and guidelines for climate budgeting analysis (CCBA),[103] which is supporting mitigation and adaptation of government in terms of climate action.[104]

The Thailand GSS bonds stood at USD3.86bn (THB121.6bn). All bonds were issued in Thai Baht.

There are currently 14 GSS bonds issued in Thailand: three bonds in 2018, four bonds in 2019 and seven in 2020. Of the seven GSS bonds issued in 2020, six were green bond issuances by Thai entities totalling to USD760m. The proceeds were used for a broad range of projects, including carbon capture, solar and wind energy and low carbon transportation.

2020 saw the first sovereign issuance in **Thailand**: **a sustainability bond** worth USD3.45bn[105] with proceeds allocated towards green and social projects.

Furthermore, the issuance of a green bond by a high-carbon emitting entity such as PTT Public Company Limited, a state-owned oil and gas company, is indicative of the broader movement towards green transition. In July 2020, PTT issued a three-year green bond, which was offered to retail investors. The proceeds were used to finance and refinance reforestation efforts throughout Thailand.

The **Global Power Synergy (GPSC)** issued its first THB5bn green bonds in August 2020. The bond received THB30bn in subscriptions, 6-times the issue size, reflecting a high investor demand for green industry bonds.[106]

Another deal in 2020 was the THB8bn green bond of **Ratch Group Public Company Limited** in November 2020. The bond proceeds will be used for investment, repayment or loans for eligible projects related to environmental conservation, consisting of wind power plant projects in Australia and the Pink-Line and Yellow-Line electric monorail projects in USD257m. The bond has four tranches with an average maturity of 11 years.

Thailand has achieved significant progress in sustainable finance development, with the growing bond market and investor awareness, the country is at an important juncture in its sustainability pathway.[107]

Thai green bond issuance to date

Issuer name	Amount issued	Issue date	Use of proceeds
BTS Group Holdings	THB8.6bn (USD278m)	Nov-20	Transport
Ratch Group PCL	TBH8bn (USD257m)	Nov-20	Energy
Global Power Synergy (PTT PCL)	THB2.5bn (USD80.3m)	Aug-20	Energy, Waste
Global Power Synergy (PTT PCL)	THB1bn (USD32.1m)	Aug-20	Energy, Waste
Global Power Synergy (PTT PCL)	THB1.5bn (USD48.1m)	Aug-20	Energy, Waste
PTT PCL	THB2bn (USD65.8m)	Jul-20	Land Use
Energy Absolute PCL	THB3bn (USD98.5m)	Oct-19	Energy
Energy Absolute PCL	THB4bn (USD129.5m)	Aug-19	Energy
Energy Absolute PCL	THB3bn (USD97.4m)	Jul-19	Energy
BTS Group Holdings	THB13bn (USD413.2m)	May-19	Transport
B. Grimm Power Public Company Limited	THB5bn (USD153m)	Dec-18	Energy
TMB Bank	USD60m	Jul-18	Energy, Waste
Total	**USD1.7bn**		

Thai sustainability bond issuance to date

Thailand Government	THB65bn (USD2.06bn)	Aug-20	Transport, Land Use
KASIKORNBANK	USD100m	Oct-18	Green and social projects
Total	**USD2.16bn**		

(Source: CBI database) Note: currency conversion rates are taken on date of issue

Malaysia

Malaysia is taking the lead in the global green Islamic finance

There have already been several landmark deals out of Malaysia, including the world's first green sukuk, issued in June 2017, by Tadau Energy Sdn Bhd.

The Securities Commission Malaysia (SC) led the way by issuing its **Sustainable and Responsible Investment Roadmap** for the Malaysian Capital Market,[108,109] followed by the **Green SRI Sukuk Grant Scheme**[110] – one of the first global examples of incentive structures to support green bond issuance. In 2020, the Joint Committee on Climate Change (JC3), co-chaired by SC and Bank Negara Malaysia (BNM), completed the broad-based consultation and pilot implementation of the Climate Change and Principles-Based Taxonomy (CCPT),[111] which will come in to effect in 2021[112] and support the issuance of green bonds and the purchase of green bonds issued in the Malaysian market by financial institutions.

The Malaysian sustainability bond and sukuk market currently stood at USD2.6bn. A total of 15 green bond, sukuk and loan deals have been issued by Malaysian entities[113] with six occurring in 2019 and three in 2020. Seven of the eight issuers in 2019 and 2020 were debuts, while **PNB Merdeka Ventures** was Malaysia's first repeated issuer, continuing a trend in Malaysia that has only seen one repeated issuer coming to market.

Three new green deals came to market in 2020. **Leader Energy** issued the first ASEAN Green Sustainable and Responsible Investment (SRI) Sukuk worth MYR260m (USD61m), with maturities ranging from one to 18 years.[114] The proceeds are to finance two solar photovoltaic power projects in Kedah which also marks Leader Energy's debut project financing issuance in the Malaysian ringgit bond market.[115]

Another ASEAN Green SRI Sukuk was issued by **Solar Management (Seremban) Sdn Bhd (SMS)**, valued at MYR260m (USD64.4m).[116] While it will primarily refinance SMS's existing financing facilities, part of the proceeds will repay shareholder's advances utilised for the development and construction of its 50MW PV solar farm in Negeri Sembilan.[117]

Among the outstanding bonds, Energy (67%) and Buildings (32%) represent almost all the allocations. The remaining 1% are spread across Water, Waste, Land Use and Adaptation funded predominantly by the Pasukhas deal. The largest issuer in the Buildings sector is PNB Merdeka Ventures, while the largest related to Energy is Quantum Solar Park (Semenanjung Sdn Bhd).

2020 also witnessed four sustainability sukuk issuances in the Malaysian market. In October 2020, **Cagamas, the National Mortgage Corporation of Malaysia**, issued a three-year MYR100m (24.8m) SRI sukuk to fund the purchase of eligible Islamic financing for affordable housing.[118] Later, **Sime Darby Property Bhd** ended 2020 with three issuances totalling at USD196.3m.

All GSS bond and sukuk deals have been issued in domestic currency (except for the USD680m sustainability deal by CIMB Bank Berhad), ranging in USD-equivalent size from about USD30m to USD500m, and tending towards longer terms. This demonstrates that the Malaysian bond market is sufficiently mature to support the development of a local GSS bond market. It is also a potential hub for GSS Islamic transactions, with 85% of outstanding GSS bonds offered in sukuk format.

Malaysian green bond, sukuk and loan issuance to date

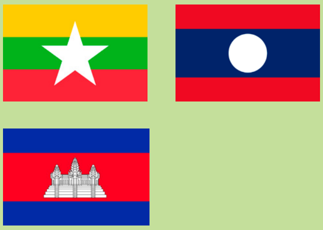
Issuer name	Amount issued	Issue date	Type	Use of proceeds
Kerian Solar Sdn Bhd	MYR342m (USD84.6m)	Dec-20	Loan	Energy
Solar Management (Seremban) Sdn Bhd	MYR260m (USD64.4m)	Sept-20	Sukuk	Energy
Leader Energy	MYR260m (USD61m)	Jul-20	Sukuk	Energy
PNB Merdeka Ventures Sdn Bhd	MYR435m (USD105m)	Dec-19	Sukuk	Buildings
Cypark Ref Sdn Bhd	MYR550m (USD131m)	Oct-19	Sukuk	Energy
Edra Solar Sdn Bhd	MYR245m (USD58m)	Oct-19	Sukuk	Energy, Land Use
Telekosang	MYR590m (USD208m)	Aug-19	Bond and Sukuk	Energy
PNB Merdeka Ventures Sdn Bhd	MYR445m (USD108m)	Jun-19	Sukuk	Buildings
Pasukhas Group	MYR15.8m (USD3.9m	Feb-19	Sukuk	Energy, Buildings, Water, Waste, Land Use, Unallocated A&R
Universiti Teknologi Mara (UiTM)	MYR222m (USD57m)	Apr-18	Sukuk	Energy
Mudajaya Group Berhad (Sinar Kamiri)	MYR245m (USD63m)	Jan-18	Sukuk	Energy
SEGI Astana SDN Bhd	MYR415m (USD104m)	Jan-18	Bond	Buildings
PNB Merdeka Ventures Sdn Bhd	MYR690m (USD170m)	Dec-17	Sukuk	Buildings
Quantam Solar	MYR1,000m (USD236m)	Oct-17	Sukuk	Energy
Tadau Energy	MYR250m (USD58m)	Jul-17	Sukuk	Energy
Total	**USD1.5bn**			

(Source: CBI database) Note: currency conversion rates are taken on date of issue

Malaysian social and sustainability sukuk issuance to date

Issuer name	Amount issued	Issue date	Use of proceeds
Cagamas (National Mortgage Corporation of Malaysia)	MYR100m (USD24.8m)	Oct-20	Sustainability
Sime Darby Property Bhd	MYR150m (USD36.8m)	Dec-20	Sustainability
Sime Darby Property Bhd	MYR500m (USD122.7m)	Dec-20	Sustainability
Sime Darby Property Bhd	MYR150m (USD36.8m)	Dec-20	Sustainability
CIMB Bank Berhad	USD680m	Oct-19	Sustainability
HSBC Amanah Malaysia	MYR500m (USD121m)	Oct-18	Sustainability
Insan Sukuk BhD	MYR100m (USD26.6m)	Apr-15	Social, Education
Total	**USD1.1bn**		

(Source: CBI database) Note: currency conversion rates are taken on date of issue



Myanmar, Laos & Cambodia

Cambodia

The Securities and Exchange Commission of Cambodia (SECC) was established in 2009. The government policies and regulations supporting the capital market development included the prakases (declarations) on (i) Public Offering of Debt Securities, (ii) Corporate Governance Policy, and (iii) Corporate Disclosure and Listing Rule on Cambodia securities exchange (CSX). At the same time, the National Bank of Cambodia (NBC) issued its own prakas (declaration) allowing commercial banks and financial institutions under its supervision to issue both equity and debt securities.

Hattha Bank Plc's bond issuance in 2018 marked the first-ever corporate bond issuance in Cambodia. The transaction was supported by the IFC and underwritten by SBI Royal Securities. In 2020, the bond market saw six issuances with a combined value of KMR194.85bn as of March 2020, and KMR247.2bn with the guarantee of the Credit Guarantee and Investment Facility (CGIF) as of April 2020.[119] However, GSS bonds have yet to be issued in the capital market.

The SECC has recently approved the ASEAN Green Bond Standards to provide both investors and issuers with guidance on investment in compliance with an ESG mandate. In addition, SECC has licensed new financial products, such as private equity, REITs, mutual funds, and other types of fund management firms. Tax incentives for issuers and investors have been in place. Government bonds are expected to launch soon and will become a benchmark for pricing all financial instruments. On both supply and demand sides, several financial institutions have received credit ratings from both international and domestic credit rating agencies, e.g., Moody's, Fitch; and institutional investors like life insurance companies have shown interests in corporate bond investment to diversify their portfolios.

Creating the infrastructure for energy sector development is one of the priorities in Cambodia's national economic development towards sustainability, as the country heavily depends on imported fossil fuels and imported electricity, making the domestic electricity price one of the highest in ASEAN. Green bonds and loans can be effective debt instruments to help energy corporates mobilize fund and expand investor base. This strategy would help the country shape a clean and market-oriented power system in future.

Lao PDR

The Lao Securities Exchange (LSX) was officially established in October 2010 under the authority of Lao Securities Comission (LSC). The first transaction came into the securities market in January 2011. The capital market has gradually developed thanks to continued activities in the bond market in recent years. The Government of Lao PDR and LSX-listed EDL Generation Public Company (EDL-Gen), an electricity energy firm in Lao PDR operating 10 wholly owned hydropower plants, one solar plant, and five Independent Power Plants (IPPs), have issued 14 sovereign bonds. Three of the 14 bonds are USD denominated for USD312m while the other 11 are THB-denominated for THB22.5bn (USD750m) to leverage the Thai capital market to support the investment in infrastructure projects since 2014.[120] Bangkok-based advisory firm Twin Pine Consulting acted as financial advisor for these transactions.

Hydro power is dominant in the energy sector and the econmy as a whole. Investment in infrastructure for hydropower projects to serve economic development through issuing green bonds and securing green loans as refinancing instruments for Lao energy companies and financial institutions can be seen as a sustainable strategy. To this end, EDL-Gen may consider issuing green bonds and obtaning green loans in other ASEAN capital markets, e.g. Thailand, Singapore, etc., to extend investor base and mobilize capital from a wider range of investors.[121]

Myanmar

Yangon Securities Exchange (YSX) was established in 2014 under the management of the Securities and Exchange Commission of Myanmar (SECM). In 2016, Kanbawza Bank became YSX's settlement bank, and First Myanmar Investment became the first listed stock. In fact, the securities market of Myanmar is still small given that only five companies are listed as of end of 2019. The YSX expects the Myanmar's capital market to expand to overseas investors in addition to the local investments.

In February 2020, OCBC Bank and UOB Singapore granted a USD44m green loan[122] to Shwe Taung Group for a variety of green buildings projects, including offices, a shopping mall, and a hotel in Myanmar. Green features in the project include energy-efficient systems that lower energy consumption, such as double-glazed glass windows and rooftop solar panels. The features are expected to collectively reduce energy consumption by 15-20%.[123]

In principle, the capital market can complement bank financing. Green bonds leverage institutional investors to finance green development. This approach helps enlarge the financial resources available to Myanmar, complementing their own investments, to garner the support needed to implement the Paris Agreement and make its economy green.

Conclusions and outlook

The ASEAN sustainable finance market continues to evolve in light of the ongoing pandemic and heightened attention on sustainability.

The impact of the COVID-19 pandemic, coupled with ongoing climate change concerns, has focused ASEAN governments' attention on the need for sustainable economic recoveries. The transition to sustainable finance has increasingly become a high-priority issue for both private and public sector entities. Sustainable finance instruments, including both green and non-green labels, are one avenue to channel funds into projects and assets with positive environmental and/or social impacts.

2020 saw a continuation of the trend from 2019, where the ASEAN market witnessed the diversification of different labelled instruments, ranging mainly from green to social, sustainability and sustainability-linked themes. The combined market volume continued to increase, albeit at a much slower pace than previously. However, the growth remains fragmented and many national markets are still in their infancy.

Singapore is by far the regional champion in green lending in terms of both issuance volumes and deal counts. However, its green bond market, despite seeing a noticeable growth, remains small in comparison with its ambition to become a green finance hub.

Thailand saw great strides in the sustainable finance market development, with its successful inaugural sovereign sustainability bond issuance. Similarly, the expansion of the **Indonesian** market was also supported by the public sector, especially with the strong participation of the government as an issuer. Meanwhile, there was a significant decrease in terms of both the issuance volumes and number of deals in the **Philippines** and **Malaysia**. Issuances from both countries were notably driven by the private sector. Supportive green finance market initiatives, such as a green taxonomy, are currently underway, which is expected to result in issuance growth in the future. Outside the core markets, the development of sustainable finance market remains very low in **Vietnam**, **Cambodia**, **Laos** and **Myanmar.**

Other labelled instruments are necessary to meet larger financing needs

Green bonds, with the transparency and accountability of the "use-of-proceeds" model, have worked relatively well so far; but such instruments will most likely not be enough to meet the large financing needs of the low-carbon transition. Thus, other instruments, such as sustainability-linked bonds and loans or transition bonds will help to accommodate this problem.

In November 2020, the MAS introduced a Green and Sustainability-Linked Loan Grant Scheme and expanded its Sustainable Bond Grant Scheme to include SLBs. With a new impetus from the Singaporean Government in place, it is expected that sustainability-linked products will continue to develop in 2021 and beyond. However, caution needs to be exercised with the KPI-linked model to ensure that the targets are ambitious enough and in line with global and science-based trajectories for decarbonisation, and to ensure verifiable progress is made over time.

Moreover, transition bonds will be critical for financing projects which do not fall within existing sets of green definitions but are key to meeting the global climate targets. Works like the "Financing Credible Transition" whitepaper,[124] provides guidance for identifying credible transitions aligned with the Paris Agreement and use of the transition label in practice.

Government support is crucial for market development

After Indonesia, 2020 saw another government, the Thai government, participating in the sustainable finance market as a sovereign issuer. The need for additional governments in the region to act remains essential to signal to private sector bond market participants the importance of developing the market. With Singapore and Vietnam recently revealing their intention to issue a green bond, we expect that the ASEAN sovereign green club will soon expand, in line with the global trend.

There is also an urgent need for stimulus packages to kick-start regional economies, which presents a valuable opportunity for change through the "build back better" agenda, a principle which has been adopted under the ASEAN Recovery Comprehensive Recovery Framework. Given the fact that issuances from ASEAN in 2020 were notably driven by the private sector, further government support could expectedly result in an increased use of labelled debt and help to promote the regional market into the 2020s.

There is also a greater role that MDBs and DFIs could play to assist de-risking initial green issuances and support ongoing GSS programmes from the private sector.

Regional opportunity

ASEAN is highly exposed to the impacts of climate change. A year on from our previous report, additional evidence has emerged of the environmental, economic and social costs that climate impacts will impose on the region. Internationally, Net Zero by 2050 commitments are accelerating, as is the push for stronger 2030 interim targets.

A transition is slowly underway to replace grey & brown sectors – i.e. those with a negative impact on the environment – to greener business processes, products and services that have a lower carbon footprint. This will bring some disruption in several sectors but is also a source of opportunity for new economic growth and development models against the backdrop of net zero objectives.

Opportunities lie with the issuance of further sovereign labelled bonds by Singaporean and Vietnamese governments and others. In addition, brand-new instruments, such as sustainability-linked products, will also emerge.

But additional investment bridging is needed. Not only to meet SDG based outcomes for ASEAN nations but to supply the new capital flows needed for climate resilient infrastructure that can withstand the climate driven shocks to come. The ADB estimates that over USD1tn is needed every year to 2030 to meet these twin outcomes.

National governments, corporations and local financial institutions all have a responsibility to face the climate investment challenge. New regional and national regulatory measures that encourage sustainable investment are welcome.

As are the moves to develop green finance hubs that concentrate expertise and facilitate entry points for institutional investors. Malaysia sees a future role as an international centre for sustainable Islamic finance and green sukuk. Singapore is active in its positioning as a green finance hub for the region, matching moves made by financial centres far to the north. Internationally, global pension funds like those in Canada and significantly, nearby Australia are increasingly looking offshore for long term opportunities to partner in infrastructure, technology and host of other sectors. Financial centres that can help match green opportunities and climate-aware investors are another component in attracting new investment flows.

This combination of net-zero commitments, policy action, green hubs, global investor and banking sector support is the platform that will support national development and sustainable growth paths into the 2030s. By supporting the greening of financial markets and financial instruments, ASEAN nations will be better placed to attract long-term capital and prepare economies and civil society for a low carbon, climate resilient future.

Regional and domestic measures across ASEAN in support of sustainable finance development

2015

Vietnam – Directive on Promoting Green Credit and Managing Environmental and Social Risk in Lending Activities.

2017

Singapore – Monetary Authority of Singapore (MAS) launched the Green Bond Grant Scheme to offset the cost of the external review for green bonds. MAS is a founding member of the Network for Greening the Financial System (NGFS).

ASEAN – ASEAN Capital Markets Forum (ACMF) launched the ASEAN Green Bond Standards, aligned to the ICMA Green Bond Principles.

Malaysia – Financial Services Authority enacted green bond requirements regulation.

2018

Philippines – Securities and Exchange Commission (SEC) approved guidelines on the issuance of green bonds under the ASEAN Green Bond Standards.

ASEAN – ACMF published the ASEAN Social Bond Standards and the ASEAN Sustainability Bond Standards.

2019

Indonesia – Second Demonstration issuance of a Sovereign Green Sukuk (USD750m). Bank of Indonesia joined the NGFS.

Malaysia – Bank Negara Malaysia (BNM) released Climate Change and Principle based Taxonomy (CCPT) Discussion Paper for public consultation.

Thailand & the Philippines – The SECs launched their Guidelines for the offering and sale of green bonds.

Malaysia & Thailand – BNM and Bank of Thailand became members of the NGFS.

Singapore – MAS renamed the Green Bond Grant Scheme to the Sustainable Bond Grant Scheme to include social and sustainability bonds and lower minimum issuance size to SGD20m. MAS launched the Green Finance Action Plan.

Malaysia – The Joint Committee on Climate Change (JC3) was established, serving as a platform to pursue collaborative actions for building climate resilience within the Malaysia financial sector. The JC3 is co-chaired by BNM and SC.

Malaysia – SC updated SRI Sukuk framework and Sustainable & Responsible Investment Roadmap.

2020

Philippines – the Central Bank of the Philippines (Bangko Sentral ng Pilipinas, or BPS) approved the Sustainable Finance Framework requiring banks to incorporate sustainability practices into their portfolios and business practices, and to promote ESG principles.

Malaysia – The Ministry of Finance approved the allocation of another MYR2bn under the extended Green Technology Financing Scheme (known as GTFS 3.0) which will be in force until 2022 with a guarantee by Danjamin Nasional to encourage issuances of SRI sukuk.

Singapore – MAS launched the Guidelines on Environmental Risk Management for Banks, Insurers and Asset Managers.

Malaysia – The JC3 completed key initiatives such as the broad-based consultation and pilot implementation of the CCPT, a stock-take on disclosure practices of selected financial institutions against TCFD recommendations and a gap analysis on the green finance landscape. Financial institutions licensed by BNM will begin capturing exposures based on the CCPT for internal risk management and supervisory purposes in 2021.

Vietnam – Decree 153/2020/ND-CP on prescribing private placement and trading of privately placed corporate bonds in domestic market and offering of corporate bonds in international market introduces a new legal framework for corporate green bonds in Vietnam.

Singapore – MAS expanded its Sustainable Bond Grant Scheme to include sustainability-linked bonds. MAS also announced the launch of the Green and Sustainability-Linked Loan Grant Scheme to support corporates of all sizes to obtain green and sustainable financing and encourage banks to develop green and sustainability-linked loan frameworks to make such financing more accessible to small and medium-sized enterprises (SMEs).

Philippines – BPS joined the NGFS.

Thailand – Thai Government marked 2020 with Certified Sovereign Green Issuance for Recovery, Sustainability, Infrastructure projects.

Endnotes

1. https://www.statista.com/statistics/796245/gdp-of-the-asean-countries/
2. Climate Bonds Initiative, Green Bond Database Methodology, 2020.
3. Climate Bonds Initiative, Climate Bonds Taxonomy, 2020
4. Myanmar green loan is excluded from our analysis as it doesn't meet our screening criteria under Climate Bonds Standards
5. The global green bond market saw a dip in Q1 2020 and then bounced back to the plus side. See more at our Sustainable Debt Global state of the market H1 2020 report
6. The sustainability-linked bond issued by Olam International Ltd of Singapore is excluded
7. For readability, 'issuer' is used interchangeably with loan borrower in the following sections.
8. IGLC. 2020. Star Energy Geothermal makes USD 1.1 billion green bond offering. https://iclg.com/ibr/articles/14813-star-energy-geothermal-makes-usd-1-1-billion-green-bond-offering
9. SG green Plan. 2021. Introducing the Green Plan. https://www.greenplan.gov.sg/
10. via its Green Finance Action Plan launched in November 2019
11. Via OJK's Sustainable Finance Roadmap Phase II (2021-2025)
12. In this report, hard currencies include USD, EUR, GBP, AUD, JPY, SGD
13. Term loans refer to loans with a clear maturity date; other loans are categorised simply as loans. Bridging loans are short term, up to one year, have relatively high interest rates, and are usually backed by some form of collateral, such as real estate or inventory
14. It is less common to get a green loan externally reviewed
15. Climate Bonds Initiative. Certification Phu Yen. https://www.climatebonds.net/certification/phu-yen-ttp
16. Climate Bonds Initiative. 2020. ADB & Phu Yen JSC sign first Certified Green Loan for Viet Nam. https://www.climatebonds.net/2020/10/adb-phu-yen-jsc-sign-first-certified-green-loan-viet-nam-186m-solar-project-funding
17. This deal is excluded from our analysis since it doesn't meet our screening criteria under Climate Bonds Standards.
18. Business times. 2020. OCBC, UOB provide US$44m green loan to Myanmar Conglomerate. https://www.businesstimes.com.sg/companies-markets/ocbc-uob-provide-us44m-green-loan-to-myanmar-conglomerate
19. Etail Banker International. 2020. Singapore banks give $44m green loan to Myanmar conglomerate. https://www.retailbankerinternational.com/news/singapore-banks-give-44m-green-loan-to-myanmar-conglomerate/
20. The Asset. 2020. HSBC amanah arranges first ASEAN green SRI sukuk. https://theasset.com/article-esg/41285/hsbc-amanah-arranges-first-asean-green-sri-sukuk-for-leader-energy
21. MARC. 2020. "GOLD" IMPACT ASSESSMENT ASSIGNED TO LEADER ENERGY SDN BHD'S PROPOSED ASEAN GREEN SRI SUKUK WAKALAH. https://www.marc.com.my/index.php/marc-rating-announcements/1224-gold-impact-assessment-assigned-to-leader-energy-sdn-bhd-s-proposed-asean-green-sri-sukuk-wakalah-20200515
22. The Asset. 2020. HSBC amanah arranges first ASEAN green SRI sukuk. https://theasset.com/article-esg/41285/hsbc-amanah-arranges-first-asean-green-sri-sukuk-for-leader-energy
23. Climate Bonds Initiative. Certification PTT Public Company. https://www.climatebonds.net/certification/ptt%20public%20company
24. Climate Bonds Initiative. Certification PTT Public Company. https://www.climatebonds.net/certification/ptt%20public%20company
25. ICMA, Sustainability Bond Guidelines, 2018
26. The bond is issued in taps. Initially, the issuer issued THB30bn but then it reopened the bond and issued another THB35bn on 21st Jan 2021. Hence the total amount comes out to be THB65bn. On 19th March 2021, the government reopened the bond again, making the outstanding amount come out to be THB85bn (USD3.45bn)
27. Shearman & Sterling. 2020. IIX'S WOMEN'S LIVELIHOOD BOND™ 2. https://www.shearman.com/news-and-events/news/2020/02/iix-women-livelihood-bond-2
28. Global Water Intel. 2020. $1.9bn demand for Manila Water sustainability bond. https://www.globalwaterintel.com/news/2020/31/1-9bn-demand-for-manila-water-sustainability-bond
29. The external review process of social and sustainability bonds is in line with Social Bond Principles and Sustainability Bond Guidelines by ICMA
30. Sustainalytics. 2020. Second Party Opinion Bank of the Philippines Island Sustainable Funding Framework. https://www.bpiexpressonline.com/media/uploads/5ee07272d52ba_SPO_-_BPI_Sustainable_Funding_Framework.pdf
31. Business Inquirer. 2020. Manila water raises USD500m from sale of sustainability bonds. https://business.inquirer.net/303529/manila-water-raises-500m-from-sale-of-sustainability-bonds
32. The Asset. 2020. Manila water debuts with sustainability bond. https://www.theasset.com/article-esg/41100/manila-water-debuts-with-sustainability-bonds#:~:text=Manila%20Water%20Company%2C%20one%20of,US%24500%20million%20sustainability%20bond.&text=The%20Reg%20S%20 10%2Dyear,offer%20a%20yield%20of%204.50%25.
33. Global Chronicle. 2020. Manila water company raises 500m sustainability notes. https://www.globallegalchronicle.com/manila-water-companys-500-million-sustainability-notes-offering/
34. Business Inquirer. 2020. Manila water raises USD500m from sale of sustainability bonds. https://business.inquirer.net/303529/manila-water-raises-500m-from-sale-of-sustainability-bonds
35. Business Inquirer. 2020. Manila water raises USD500m from sale of sustainability bonds. https://business.inquirer.net/303529/manila-water-raises-500m-from-sale-of-sustainability-bonds
36. Climate Bonds Initiative. 2020. Thailand Sovereign. https://www.climatebonds.net/certification/thailand-sovereign
37. Climate Bonds Initiative. 2020. Thai Govt Marks 2020 with Certified Sovereign Green Issuance: Commitment to Recovery, Sustainability, Infrastructure. https://www.climatebonds.net/2020/12/thai-govt-marks-2020-certified-sovereign-green-issuance-commitment-recovery-sustainability#:~:text=The%20Kingdom%20of%20Thailand%20has,sustainability%20bond%20deal%20in%20August.
38. Climate Bonds Initiative. 2020. Thai Govt Marks 2020 with Certified Sovereign Green Issuance: Commitment to Recovery, Sustainability, Infrastructure. https://www.climatebonds.net/2020/12/thai-govt-marks-2020-certified-sovereign-green-issuance-commitment-recovery-sustainability#:~:text=The%20Kingdom%20of%20Thailand%20has,sustainability%20bond%20deal%20in%20August.
39. https://www.pds.com.ph/wp-content/uploads/2020/08/Disclosure-No.-2463-2020-Press-Release-BPI-raises-21.5-billion-from-pioneering-CARE-Bonds.pdf
40. https://www.pds.com.ph/wp-content/uploads/2020/08/Disclosure-No.-2463-2020-Press-Release-BPI-raises-21.5-billion-from-pioneering-CARE-Bonds.pdf
41. Bank of the Philippine Islands. 2020. BPI launches PH's first COVID response bonds. https://www.bpi.com.ph/covid-19-service/bpi-launches-ph%E2%80%99s-first-covid-response-bonds
42. Bank of the Philippine Islands. 2020. BPI launches PH's first COVID response bonds. https://www.bpi.com.ph/covid-19-service/sec-confirms-bpi%E2%80%99s-care-bonds-as-social-bonds
43. Bank of the Philippine Islands. 2020. BPI launches PH's first COVID response bonds. https://www.bpi.com.ph/covid-19-service/bpi-launches-ph%E2%80%99s-first-covid-response-bonds
44. International Capital Markets Association (ICMA). 2020. Sustainability-linked Bond Principles. https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/Sustainability-Linked-Bond-Principles-June-2020-171120.pdf
45. The sustainable loan market: A snapshot of recent developments, https://insights.nordea.com/en/sustainability/sustainable-loan-market/
46. Olam. 2020. Olam continues to pioneer sustainable financing with the first sustainability linked fixed rate note issuance in Asia (ex-Japan). https://www.olamgroup.com/news/all-news/press-release/olam-continues-to-pioneer-sustainable-financing-with-the-first-sustainability-linked.html
47. Sustainability Linked and Loan Principles. 2019. Sustainability-Linked Bond Principles. https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/LMASustainabilityLinkedLoanPrinciples-270919.pdf
48. The Asset. 2021. Urbana Jurong bond will pay premium if sustainability goals not met. https://www.theasset.com/article-esg/42863/surbana-jurong-bond-will-pay-premium-if-sustainability-goals-not-met
49. The Asset. 2021. Urbana Jurong bond will pay premium if sustainability goals not met. https://www.theasset.com/article-esg/42863/surbana-jurong-bond-will-pay-premium-if-sustainability-goals-not-met
50. Surbana Jurong. 2021. Surbana Jurong Group bond, Southeast Asia's first public sustainability-linked bond, is more than six times oversubscribed. https://surbanajurong.com/resources/news/surbana-jurong-group-bond-southeast-asias-first-public-sustainability-linked-bond-is-more-than-six-times-oversubscribed/
51. Surbana Jurong. 2021. Surbana Jurong Group bond, Southeast Asia's first public sustainability-linked bond, is more than six times oversubscribed. https://surbanajurong.com/resources/news/surbana-jurong-group-bond-southeast-asias-first-public-sustainability-linked-bond-is-more-than-six-times-oversubscribed/
52. AC Energy. ADB and IFC Invest in AC Energy Green Bonds. 2019. https://www.acenergy.com.ph/2019/03/01/adb-and-ifc-invest-in-ac-energy-green-bonds/; Climate Bonds Initiative Green Investment Infrastructure Opportunities (GIIO), Philippines 2020.
53. Asian Development Bank. ASEAN Catalytic Green Finance Facility 2019 – 2020. 2021. https://www.adb.org/sites/default/files/institutional-document/670821/asean-catalytic-green-finance-facility-2019-2020.pdf
54. Asian Development Bank. 2021. ASEAN Catalytic Green Finance Facility 2019 – 2020. https://www.adb.org/sites/default/files/institutional-document/670821/asean-catalytic-green-finance-facility-2019-2020.pdf
55. Asian Development Bank. 2021. ASEAN Catalytic Green Finance Facility 2019 – 2020. https://www.adb.org/sites/default/files/institutional-document/670821/asean-catalytic-green-finance-facility-2019-2020.pdf
56. www.ifc.org/sbn
57. Network for Greening the Financial System. 2019. Climate Change as a source of Financial Risk. https://www.ngfs.net/sites/default/files/medias/documents/ngfs_first_comprehensive_report_-_17042019_0.pdf
58. Cavallo and Noy, 2009; Batten, 2018; and Batten et al., 2019
59. Network for Greening the Financial System. 2019. Climate Change as a source of Financial Risk. https://www.ngfs.net/sites/default/files/medias/documents/ngfs_first_comprehensive_report_-_17042019_0.pdf
60. ASEAN. 2020. Report on the Roles of ASEAN Central Bank in Managing Climate Risk. https://asean.org/storage/2020-11-17-ASEAN-Task-Force-Report_for-publication.pdf
61. Network for Greening the Financial System. Climate Change as a source of Financial Risk. 2019. https://www.ngfs.net/sites/default/files/medias/documents/ngfs_first_comprehensive_report_-_17042019_0.pdf
62. Monetary Authority Singapore (MAS). Regulatory and Guidance. https://www.mas.gov.sg/regulation/regulations-and-guidance?topics=Risk%20Management%2FEnvironmental%20Risk
63. Banko Sentral Ng Pilipinas. 2020. Sustainable Finance Network. https://www.bsp.gov.ph/Regulations/Issuances/2020/c1085.pdf
64. Network for Greening the Financial System. 2020. Joint-Statement on Greening the Financial Sector. https://www.bnm.gov.my/-/joint-statement-bnm-sc-greening-the-financial-sector
65. Monetary Authority Singapore (MAS). 2021. Industry taskforce proposes taxonomy and launches environmental risk management handbook to support green finance. https://www.mas.gov.sg/news/media-releases/2021/industry-taskforce-proposes-taxonomy-and-launches-environmental-risk-management-handbook
66. ASEAN. 2021. Joint Statement of the 7th ASEAN Finance Ministers and Central Bank Governors' Meeting (AFMGM). https://asean.org/joint-statement-of-the-7th-asean-finance-ministers-and-central-bank-governors-meeting-afmgm/
67. Asian Development Bank. 2021. ASEAN Catalytic Green Finance Facility 2019 – 2020. https://www.adb.org/sites/default/files/institutional-document/670821/asean-catalytic-green-finance-facility-2019-2020.pdf
68. Asian Development Bank. 2021. ASEAN Catalytic Green Finance Facility 2019 – 2020. https://www.adb.org/sites/default/files/institutional-document/670821/asean-catalytic-green-finance-facility-2019-2020.pdf
69. Asian Development Bank. 2020. Green Finance Strategies for Post-COVID-19 Economic Recovery Era in Southeast Asia. https://www.adb.org/sites/default/files/publication/639141/green-finance-post-covid-19-southeast-asia.pdf
70. ASEAN. 2021. ASEAN Comprehensive Recovery Framework. https://asean.org/storage/ASEAN-Comprehensive-Recovery-Framework_Pub_2020_1.pdf
71. ASEAN. 2021. Implementation Plan. https://asean.org/storage/ACRF-Implementation-Plan_Pub-2020.pdf
72. Climate Policy Initiative. 2021. Improving the impact of fiscal stimulus in Asia: An analysis of green recovery investments and opportunities. https://www.climatepolicyinitiative.org/publication/improving-the-impact-of-fiscal-stimulus-in-asia-an-analysis-of-green-recovery-investments-and-opportunities/
73. SG Green Plan. 2021. Joint-segment on sustainability. https://www.greenplan.gov.sg/cos/
74. https://www.mof.gov.sg/singaporebudget/budget-speech/e-building-a-sustainable-home-for-all#Building-A-Sustainable-Home-For-All
75. Ministry of Finance. 2020. Green Sukuk Impact Report 2020. Retrieved from https://pea4sdgs.org/sites/default/files/2020-08/Green%20Sukuk%20Report%202020%20%282%29.pdf
76. BRI Sustainability Bond Report. 2019. Retrieved from https://bri.co.id/documents/20123/56786/BRI_2019_Annual_Sustainability_Bond_Report_DRAFT_vFF_compressed.pdf
77. Climate Bonds Initiative Database; UNDP and Ministry of Finance of the Republic of Indonesia. 2020. Study on Green Retail Sukuk. Retrieved from https://www.id.undp.org/content/indonesia/en/home/library/Study-on-Indonesia-Retail-Green-Sukuk.html
78. Ministry of Finance. 2020. Green Sukuk Impact Report 2020. Retrieved from https://pea4sdgs.org/sites/default/files/2020-08/Green%20Sukuk%20Report%202020%20%282%29.pdf
79. Indonesia Ministry of Finance, Fiscal Planning Agency (BKF). 2020. Retrieved from https://fiskal.kemenkeu.go.id/baca/2020/12/08/183846871859715-green-sukuk-investasi-aman-sekaligus-menyelamatkan-lingkungan
80. Ministry of Finance, Directorate of Budget Financing and Risk Management (DJPPR). https://www.djppr.kemenkeu.go.id/page/load/2990
81. The Jakarta Post. 2020. Retrieved from https://www.thejakartapost.com/news/2020/06/18/govt-raises-2-5b-through-global-sukuk-offering-to-address-pandemic-deficit.html
82. UNDP and Ministry of Finance of the Republic of Indonesia. 2020. Study on Green Retail Sukuk. Retrieved from https://www.id.undp.org/content/indonesia/en/home/library/Study-on-Indonesia-Retail-Green-Sukuk.html
83. Think Geoenergy. 2020. Retrieved from https://www.thinkgeoenergy.com/star-energy-geothermal-salak-darajat-successfully-raise-1-1bn-green-bond-funding/
84. Star Energy Geothermal. 2020. Retrieved from https://www.starenergygeothermal.co.id/2020/10/14/star-energy-geothermal-group-raises-us-1-11-billion-from-new-green-bonds/
85. Ministry of Finance, Fiscal Policy Agency. 2021. Retrieved from https://fiskal.kemenkeu.go.id/nda_gcf/en/publications/indonesia-s-commitment-on-climate-change-amidst-the-covid-19-pandemic
86. Otoritas Jasa Keuangan (OJK). 2021. Sustainable Finance Roadmap Phase II (2021 – 2025). https://ojk.go.id/id/berita-dan-kegiatan/publikasi/Documents/Pages/Roadmap-Keuangan-Berkelanjutan-Tahap-II-%282021-2025%29/Roadmap%20Keuangan%20Berkelanjutan%20Tahap%20II%20%282021%20-%20 2025%29.pdf
87. Climate Bonds Initiative Database
88. Business Inquirer. 2020. Manila water raises USD500m from sale of sustainability bonds. https://business.inquirer.net/303529/manila-water-raises-500m-from-sale-of-sustainability-bonds
89. The Asset. 2020. Manila Water Debuts with Sustainability Bonds. https://www.theasset.com/article-esg/41100/manila-water-debuts-with-sustainability-bonds#:~:text=Manila%20Water%20Company%2C%20one%20of,US%24500%20million%20sustainability%20bond.&text=The%20Reg%20S%20 10%2Dyear,offer%20a%20yield%20of%204.50%25.
90. Business Inquirer. 2020. Manila water raises USD500m from sale of sustainability bonds. https://business.inquirer.net/303529/manila-water-raises-500m-from-sale-of-sustainability-bonds
91. Business World Online. 2020. RCBC Issues P8 billion in sustainability bonds. https://www.bworldonline.com/rcbc-issues-p8-billion-in-sustainability-bonds/
92. GIZ. 2018. Vietnam Green Growth Strategy. https://www.giz.de/en/downloads/VietNam-GreenGrowthStrategy-giz2018.pdf
93. Thư viện pháp luật. https://thuvienphapluat.vn/van-ban/chung-khoan/Luat-Chungkhoan-2019-399763.aspx
94. Nghị định. http://www.vbma.org.vn/vbma/user_files/upload/file/ND%20153%20thay%20the%20ND%20163.pdf
95. IFC. 2020. IFC Supports Vietnam Prosperity Bank to Boost Climate Financing, Reduce Greenhouse Gas Emissions. https://pressroom.ifc.org/all/pages/PressDetail.aspx?ID=18540
96. Climate Bonds Initiative. 2020. Green Bond Fact Sheet. https://www.climatebonds.net/files/files/2020-01_VT_Vietnam_Prosperity_Joint-Stock_Commercial_Bank.pdf
97. Vietnam Energy Partnership Group. PM Decision 403/QĐ-TTg on the Approval of the national Action Plan on Green Growth in Viet Nam for the period of 2014-2020. https://vepg.vn/legal_doc/decision-403-qd-ttg-on-approval-ofthe-national-action-plan-on-green-growth-in-viet-nam-for-theperiod-of-2014-2020/
98. Văn bản pháp luật. https://vanbanphapluat.co/directive-no-03-ct-nhnn-2015-green-credit-growth-environmental-social-risks-credit-granting

99. State Bank of Vietnam 2018. Scheme on green bank development in Vietnam: Directing credit flows into eco-friendly projects. https://bit.ly/39DQ0Ij
100. State Bank of Vietnam 2019. Green credit growth in Vietnam: Opportunities, challenges and solutions. https://bit.ly/3g86idE
101. SBV. 2019. Green finance in Vietnam made positive initial signs.
102. Thailand Securities Exchange Commission. Sustainable Development Roadmap. https://www.sec.or.th/cgthailand/EN/pages/overview/sustainabledevelopmentroadmap.aspx
103. UNDP. 2013. Thailand Climate Public Expenditure and Institutional Review (CPEIR). https://www.th.undp.org/content/thailand/en/home/library/environment_energy/CPEIRThailand.html
104. Report: Development Finance Assessment Snapshot Thailand Financing the future with an integrated national financing framework
105. The bond is issued in taps. Initially, the issuer issued THB30bn but then it reopened the bond and issued another THB35bn on 21st Jan 2021. Hence the total amount comes out to be THB65bn. On 19th March 2021, the government reopened the bond again, making the outstanding amount come out to be THB85bn (USD3.45bn)
106. GPSC. 2020. https://investor.gpscgroup.com/news.html/integrate/1/id/790518
107. UNDP. 2017. Report: Development Finance Assessment Snapshot Thailand Financing the future with an integrated national financing framework. https://www.undp.org/content/dam/rbap/docs/dg/dev-effectiveness/RBAP-DG-2018-Development-Finance-Assessment-Snapshot-Thailand.pdf
108. Securities Commission Malaysia. https://www.sc.com.my/api/documentms/download.ashx?id=89dea0ab-f671-4fce-b8e4-437a2606507c
109. Securities Commission Malaysia. 2019. Sustainable and Responsible Investment Roadmap for the Malaysia Capital Market. https://www.sc.com.my/resources/publications-and-research/sri-roadmap
110. In January 2021 this Grant Scheme was renamed as the SRI Sukuk and Bond Grant Scheme and made applicable to all sukuk issued under the SC's Sustainable and Responsible Investment (SRI) Sukuk Framework or bonds issued under the ASEAN Green, Social and Sustainability Bond Standards (ASEAN Standards)
111. Bank Negara Malaysia. 2021. Joint Statement by Bank Negara Malaysia and Securities Commission Malaysia: Towards Greening the Financial Sector. https://www.bnm.gov.my/-/joint-statement-bnm-sc-greening-the-financial-sector
112. https://www.regulationasia.com/malaysian-fis-to-start-applying-climate-risk-taxonomy/
113. Note: An entity is classified as Malaysian if Malaysia is its 'country of risk' as determined by Bloomberg.
114. The Star. 2020. HSBC amanah arranges first ASEAN SRI sukuk. https://www.thestar.com.my/business/business-news/2020/08/12/hsbc-amanah-arranges-first-asean-green-sri-sukuk-for-leader-energy
115. The Star. 2020. HSBC amanah arranges first ASEAN SRI sukuk. https://www.thestar.com.my/business/business-news/2020/08/12/hsbc-amanah-arranges-first-asean-green-sri-sukuk-for-leader-energy
116. Global Chronicle. 2021. Solar Management (Seremban) Sdn. Bhd.'s MYR260 Million Green SRI Sukuk Issuance. https://www.globallegalchronicle.com/solar-management-seremban-sdn-bhd-s-myr260-million-green-sri-sukuk-issuance/
117. RAM. 2020. RAM Sustainability assigns highest environmental benefit rating to Solar Management (Seremban)'s ASEAN Green SRI Sukuk. https://www.ram.com.my/pressrelease/?prviewid=5427
118. The Edge Markets. 2020. Cagamas issues RM450m Islamic bonds for affordable housing. https://www.theedgemarkets.com/article/cagamas-issues-rm450m-islamic-bonds-affordable-housing
119. The Asset. 2020. Cambodian bond gets a boost from CGIF backed issuance. https://theasset.com/article/40720/cambodian-bond-market-gets-a-boost-from-cgif-backed-issuance
120. Climate Bonds Initiative. 2020. ASEAN State of the Green Finance Market 2019. https://www.climatebonds.net/system/tdf/reports/cbi_asean_sotm_2019_final.pdf?file=1&type=node&id=47010&force=0
121. Southeast Asian Journal of Economics, Volume 8 Number 2/ July – December 2020, Securities Commission Organization and Stock Exchange Development in Vietnam and Laos, https://www.researchgate.net/publication/341398464_Securities_Commission_Organization_and_Stock_Exchange_Development_in_Vietnam_and_Laos
122. Myanmar green loan is excluded from our analysis as it doesn't meet our screening criteria under Climate Bonds Standards
123. FiNews. 2020. Myanmar Secures First Green Loan from Singaporean Banks. https://www.finews.asia/finance/30908-myanmar-secures-first-green-loan-from-singaporean-banks
124. Climate Bonds Initiative & Credit Suisse. 2020. Financing Credible Transitions. https://www.climatebonds.net/transition-finance/fin-credible-transitions

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