ASEAN SUSTAINABLE FINANCE
STATE OF THE MARKET 2021

Climate Bonds INITIATIVE

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About this report

The Association of Southeast Asian Nations (ASEAN) is an economically dynamic and culturally diverse region with a population of 650 million. The region comprises 10 member countries—Brunei, Cambodia, Indonesia, Lao People's Democratic Republic (Lao PDR), Malaysia, Myanmar, the Philippines, Singapore, Thailand, and Vietnam—that together make up the fifth largest economy in the world, set to become the fourth largest by 2050.[1]

This is the fourth iteration of the Climate Bonds Initiative's ASEAN State of the Market Report series. As the sustainable debt market has grown, the scope of this report has expanded, and now includes analysis of the green, social, and sustainability (GSS) bond and loan markets, plus sustainability-linked bonds (SLBs) and sustainability-linked loans (SLLs) and transition bonds, collectively described as GSS+ debt. It also covers unlabelled bonds from climate-aligned issuers. This report describes the shape and size of GSS+ themed and unlabelled climate-aligned debt market originating from ASEAN and priced on or before 31 December 2021.

About the Climate Bonds Initiative

Climate Bonds Initiative (Climate Bonds) is an international organisation working to mobilise global capital for climate action. It promotes investment in projects and assets needed for a rapid transition to a low-carbon, climate resilient, and fair economy. The mission's focus is to help drive down the cost of capital for large-scale climate and infrastructure projects and to support governments seeking increased capital markets investment to meet climate and greenhouse gas (GHG) emission reduction goals.

Climate Bonds conducts market analysis and policy research; undertakes market development activities; advises governments and regulators; and administers a global green bond Standard and Certification scheme.

Climate Bonds screens green finance instruments against its global Taxonomy to determine alignment, and shares information about the composition of this market with partners. The aim is to help build investment products that enable shifting capital allocations towards low-carbon assets and projects.

List of abbreviations

A&R: Adaptation and resilience

ASEAN: Association of Southeast Asian Nations

DNSH: Do no significant harm

ESG: Environmental, social, and governance

GBDB: Green bond database

GHG: Greenhouse gas

GSS: Green, social and sustainability

GSS+: GSS, SLBs, SLLs, and transition

ICT: Information communication technology

KPI: Key performance indicator

SDG: Sustainable development goal

SLB: Sustainability-linked bond

SLL: Sustainability-linked loan

SPO: Second Party Opinion

SPT: Sustainability performance target

S&S: Social and sustainability

UoP: Use of proceeds

YOY: Year-on-year

Contents

1. Introduction

The ASEAN sustainable debt market continued to grow rapidly in 2021, setting an annual issuance record for green, social, and sustainability (GSS) bonds and loans at USD24bn, with an additional USD27.5bn of sustainability-linked bonds and loans. This market expansion, including the rise of performance-linked instruments in 2021, reflects enduring regional enthusiasm in balancing the allocation of capital for the response to the COVID-19 pandemic with facilitating long-term, low carbon, and climate-resilient economic growth.

While ASEAN is among the fastest growing economies in the world, member countries are also facing challenges from environmental degradation and climate-related natural disasters at alarming rates and must accelerate the transition towards net-zero emissions and climate resilience. The region was hard hit by the COVID-19 pandemic with economic and social ramifications increasing fiscal pressures. These twin challenges drove ASEAN countries to mobilise resources at scale, to respond to the immediate impacts of the COVID-19 crisis, while pursuing a build-back-better strategy to ensure that the long-term transition towards a low carbon and climate-resilient economy remains on course.

The steadily growing ASEAN sustainable debt market has played a key role in mobilising capital for the transition to a low carbon and resilient economy. As initially reported in the ASEAN Sustainable Finance State of the Market 2020 Report released in April 2021, the ASEAN GSS debt market reached a total of USD12.1bn of GSS debt in 2020 originating from ASEAN-6 countries (Singapore, Malaysia, Vietnam, Indonesia, Thailand and the Philippines). This compares with USD11.5bn in 2019, representing 5.2% of year-on-year (YOY) growth.[2]

Building on the 2020 report and using an updated 2020 number of USD13.6bn (See Box 1), **this fourth ASEAN Sustainable Finance State of the Market Report presents the region's sustainable finance progress to the end of 2021**. This report highlights new developments in **the GSS market**, covering green debt (bonds and loans) and the wider labelled bond market, including other types of Use of Proceeds (UoP) bonds (i.e., social bonds and sustainability bonds). While the methodology for data analysis for GSS issuances remains the same as in the 2020 Report, **the scope of coverage in this report is extended to cover GSS+ instruments**, including transition bonds, performance-linked instruments (i.e., sustainability-linked loans (SLLs) and sustainability-linked bonds (SLBs)), and unlabelled climate-aligned bonds. Transition instruments (transition bonds, SLLs and SLBs) and climate-aligned bonds are analysed as independent segments of the market, as their structures and mechanisms are not directly comparable with GSS bonds.

Finally, the report provides country-level updates, focusing on notable deals, policies and initiatives that countries have put in place in 2021 to encourage the growth of sustainable finance in ASEAN. New regional sustainable finance initiatives are also highlighted, and a market outlook for the remainder of 2022 and beyond is presented.

Inclusion of pending bonds

The Climate Bonds Green Bond Database (GBDB) includes bonds with 100% of net proceeds dedicated to green activities, assets, projects, and/or expenditures aligned with the Climate Bonds Taxonomy. The Social and Sustainability Bond Database includes bonds classified with these two respective themes and related labels. All bonds in both databases as of February 2021, which was the time that the analysis for the ASEAN Sustainable Finance State of the Market 2020 Report was conducted, are included in this report's findings.

However, there were USD1.6bn of ASEAN GSS bonds priced in 2020 which remained under assessment (pending) for inclusion at the time of the report writing and were not included in the total. These pending bonds were later added to our databases, thus contributing to the revision of the figure of total 2020 GSS issuances used in this 2021 installation of the report. The details of the included pending bonds are listed in the table below.

Pending bonds reflect the challenges of determining the alignment of what is often a rather broad list of categories of potentially eligible assets, projects, activities, and expenditures. Despite the rapid evolution of the thematic bond market globally and in ASEAN, there has been a notable lack of standardisation in disclosure. Inadequate detail and/or clarity at the asset and/or project level in green and sustainable bond frameworks is an issue that investors continue to face. Climate Bonds encourages higher levels of ambition, innovation, and materiality of a bond's UoP that result in positive, material, and long-lasting climate benefits. Transparency and completeness of information from issuers are essential to determine a bond's alignment with market standards and green taxonomies.

Issuer	Theme	Amount issued in local currency	Amount issued in USD	Bonds added to Climate Bonds' Databases after the publication of the ASEAN Sustainable Finance State of the Market Report 2020 report (USD)	Country
BCG Energy	Green	USD0.044bn	USD0.044bn	USD0.044bn	Vietnam
PT PLN	Green	USD0.5bn	USD0.5bn	USD0.5bn	Indonesia
Cagamas Bhd	Sustainability	MYR0.8bn	USD0.2bn	USD0.2bn	Malaysia
Cagamas Bhd	Sustainability	MYR0.035bn	USD0.008bn	USD0.008bn	Malaysia
Rizal Commercial Banking	Sustainability	PHP16.62bn	USD0.34bn	USD0.34bn	Philippines
Bank of the Philippine Islands	Sustainability	PHP21.5bn	USD0.44bn	USD0.44bn	Philippines

2021 Highlights from the ASEAN sustainable debt market

- The ASEAN sustainable debt market continued to grow in 2021 with record issuance of GSS debt totaling USD24bn compared to USD13.6bn in 2020, up 76.5% YOY.
- Cumulatively (2016--2021), the ASEAN GSS market stood at USD54.5bn at the end of 2021, compared to USD30.4bn a year earlier.
- Singapore remained the regional leader, with GSS debt issuance of USD13.6bn in 2021 compared to USD4.9bn in 2020.
- Cumulative green deals originating from the ASEAN-6 countries stood at USD39.4bn at the end of 2021, contributing 72% to the cumulative total GSS issuances between 2016--2021.
- The green theme remained the most popular in 2021. Nearly two thirds (63.9%) of GSS deals originating from ASEAN in 2021 were green, followed by sustainability (35.5%), with the latter showing an increase compared to 2020 (26%). Total volumes of ASEAN green and sustainability debt issuances in 2021 stood at USD15.4bn and USD8.5bn, respectively. The region saw a small volume of social bond issuances (USD0.13bn) in 2021.
- Non-financial corporate issuers were responsible for most (79%) of the ASEAN green volumes in 2021, while sovereign issuance continued to dominate the social and sustainability market, responsible for 51% of issuances.
- When looking at the GSS+ market, 2021 also saw very rapid growth in the SLL and SLB markets, with the combined volume of these newly introduced instruments reaching USD27.5bn, more than three times the 2020 figure. The cumulative figure for the SLL and SLB markets at the end of 2021 was similar to that of the green UoP theme at around USD39bn.

2. Methodology

Scope and structure of analysis

This report includes seven sustainable debt themes: green, social, and sustainability UoP bonds and loans; transition bonds; and SLBs and SLLs (collectively referred to as the GSS+ market), and unlabelled climate-aligned bonds.

The analysis below covers GSS bonds and loans in combination with transition debt (transition bonds and performance-linked debt – SLLs and SLBs) and unlabelled climate-aligned bonds analysed in independent subsections. The disaggregated analysis is due to the structural differences between the instruments.

The themes can be described as follows:

GSS+ market

GSS debt instruments

Green: dedicated environmental benefits (green bonds and loans, together referred to as green debt, captured since 2012)

Social: dedicated social benefits (social bonds, captured since 2020)

Sustainability: green and social benefits combined into one instrument (sustainability bonds, captured since 2020)

Transition debt instruments

SLBs: coupon step-ups/step-downs linked to entity-level sustainability performance targets (SPTs) (captured since 2021)

SLLs: rate step-ups/step-downs linked to entity-level SPTs (captured since 2021)

Transition bonds: UoP supporting transition at activity or entity level (captured since 2021)

Unlabelled climate-aligned bonds

Unlabelled climate-aligned bonds: bonds that finance climate-aligned projects, assets, and expenditures, but are not labelled by issuers (captured since 2012)

Methodology overview

This report is based on four Climate Bonds' databases:

1. Green Bond Database (GBDB)

2. Social and Sustainability Bond Database

3. SLB and Transition Bond Database

4. Unlabelled Climate-aligned Database

Coverage and data sources

These databases cover only bonds, except for the GBDB, which also includes green-labelled loans assessed in accordance with the process described below. SLL data is derived from Refinitiv. These third-party data are indicative and not assessed against any set of criteria, as Climate Bonds does not yet have screening indicators for SLLs.

Minimum requirements for inclusion

Apart from the climate-aligned database (see below), to qualify for inclusion, debt instruments must have a label. Green, social, sustainability, and transition bonds and loans must finance sustainable projects, activities, or expenditures. SLBs/SLLs must annunciate clear SPTs for the entity. Debt labels describe the types of projects, activities, or expenditures financed, and/or their benefits. Green, social, sustainability, and transition are the most common labels, but a broad range of labels is used (see Appendix A).

Green

All deals in the green theme have been screened to verify their integrity. Screening is based on a set of process rules stipulated in Climate Bonds GBDB Methodology, including the following two overarching criteria:[3]

1. Deals must carry a variant of the green label.

2. All net proceeds must verifiably (public disclosure) meet Climate Bonds' green definitions derived from the Climate Bonds Taxonomy.[4]

We review all green debt instruments to ensure their green credentials.

Social and sustainability

Climate Bonds does not yet screen social and sustainability bonds' UoP against performance thresholds. The UoP is, however, classified in accordance with the respective labels and categorised as follows:

Sustainability: label describes a combination of green and social projects, activities, or expenditures, e.g., sustainable; Sustainable Development Goal (SDG); socially responsible investment; or environmental, social and governance (ESG), etc.

Social: label is exclusively related to social projects, e.g., pandemic, COVID-19, housing, gender, women, health, education, etc.

Any instrument financing only green projects is included in the green theme, and the GBDB should it meet eligibility requirements, irrespective of its label. A sustainability-labelled bond that only finances social projects, as well as one that finances a combination of green and social, is considered to fall under the sustainability theme. Because of this, our analysis of social and sustainability-themed bonds provides an initial indication of capital market funding aimed at each theme based on the deal label (see Appendix B).

The EU Platform on Sustainable Finance published its Final Report on Social Taxonomy in February 2022.[5] Climate Bonds will assess this report and incorporate its content and subsequent work on specific objectives, sub-objectives, and constituent significant contribution/do no significant harm (DNSH) criteria into the Social and Sustainability Bond Database where possible.

This report is based on bonds priced on or before 31 December 2021, hence the EU report and the principles for its proposed social taxonomy did not feature in the screening process.

Sustainability-linked bonds and loans

SLBs and SLLs raise general purpose finance and involve penalties/rewards (e.g., coupon or rate step-ups/step-downs, early repayment obligations, etc.) linked to not meeting/meeting pre-defined, time bound SPTs and associated Key Performance Indicators (KPIs), typically at the entity level.

Climate Bonds records but does not yet screen SLBs or SLLs against thresholds or targets. Screening methodologies for these debt products are under development.

Transition bonds

Transition debt includes 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 above described SLBs and SLLs can lend themselves well to this purpose when calibrated appropriately. In addition, the market has seen the emergence of transition UoP bonds, which are intended to enable the inclusion of a more diverse set of sectors and activities. This segment currently includes labels such as transition, energy transition, blue transition, and green transition.

At present, transition bonds predominantly originate from highly polluting, hard and expensive-to-abate industries. These often do not fall into the existing definitions of green but are a critical component of a transition to net zero. Example sectors include extractives such as mining; materials such as steel and cement; and transport, including aviation and shipping.

Climate Bonds records but does not yet screen transition bonds against thresholds or targets. As relevant criteria at both activity (sector) and entity levels are developed, Climate Bonds will introduce screening for bonds and issuers in those sectors. Climate Bonds is currently developing criteria for the Cement, Basic Chemicals, and Steel industries, along with Hydrogen as a cross-industry solution.

Unlabelled climate-aligned (climate-aligned) bonds

Climate-aligned bonds are not self- or externally labelled as green and their UoP is not earmarked or ring-fenced. Nonetheless, these general purpose bonds finance climate-aligned projects, assets, and expenditures. This financing is defined at the entity level based on the share of green revenues of an issuer. Climate Bonds' research on these issuers covers both public and private companies, and the detailed methodology is available in the Climate Bonds' Climate-Aligned Investment Opportunities: Climate Aligned Bonds and Issuers 2020 Report.[6]

Climate Bonds has been researching bonds financing climate-aligned assets since 2012, to identify opportunities in the unlabelled bond market, and drive investments towards green assets and technologies. Because they are not labelled as green, climate-aligned bonds often lack the visibility and transparency inherent in green bonds that typically come with a framework detailing the relevant assets, projects, or expenditures being financed. Identifying these bonds highlights opportunities to scale up the labelled green bond market; for example, as climate-aligned debt rolls off, it could be refinanced with a green label. The green label could achieve cheaper funding for the issuer and enable its inclusion in dedicated mandates. This research also offers an entity level assessment by identifying the share of revenues linked to green activities for bond issuers included in the scope of the analysis.

In 2021 Climate Bonds identified total global capital flows into climate-aligned assets and activities amounting to USD795bn, on top of the USD2.96tn labelled GSS+ debt universe.

Glossary related to the Unlabelled climate-aligned (climate-aligned) bonds:

Climate-aligned issuers: issuers that derive at least 75% of their revenues from climate-aligned business activities. These comprise:

- **Fully-aligned issuers**: issuers that derive ≥ 95% of revenue from climate-aligned activities.
- **Strongly-aligned issuers**: issuers that derive ≥ 75% of revenue from climate-aligned activities.

Unlabelled climate-aligned bonds: bonds that finance climate-aligned activities but are not labelled by the issuer.

Climate-aligned bond universe or climate-aligned bonds: the universe of climate-aligned outstanding bonds. These comprise:

- **Fully-aligned issuers**: 100% of outstanding debt is considered climate-aligned.
- **Strongly-aligned issuers**: pro-rata amount based on the issuers' percentage alignment. For example, if an issuer is 80% aligned, 80% of its outstanding debt is considered climate-aligned.

Climate-aligned outstanding debt: outstanding volume issued by fully-aligned + strongly-aligned issuers.

Labelled bonds are not included in the unlabelled climate aligned research due to differences in format and to avoid double counting.

3. Market overview

The ASEAN GSS market

The ASEAN GSS market continued to expand in 2021, with a volume of USD24bn compared to USD13.6bn the prior year, representing 76.5% YOY growth. Singapore, Thailand, Malaysia, and Vietnam saw increased volume compared to 2020, while Indonesia and the Philippines saw a decline YOY.

Singapore maintained its position as regional leader, with total GSS volume of USD13.6bn in 2021, more than double the 2020 figure of USD4.9bn, with the growth driven by the green theme. Thailand followed, adding USD4.4bn of GSS debt dominated by the sustainability theme.

The green theme made up the majority (63.9%) of ASEAN GSS deals in 2021, followed by the sustainability theme (35.5%), whose share increased from the previous year (26%). Total volumes of ASEAN green and sustainability debt in 2021 stood at USD15.4bn and USD8.5bn, respectively. The region saw a small volume of social bonds (USD0.13bn) in 2021 from Thailand.

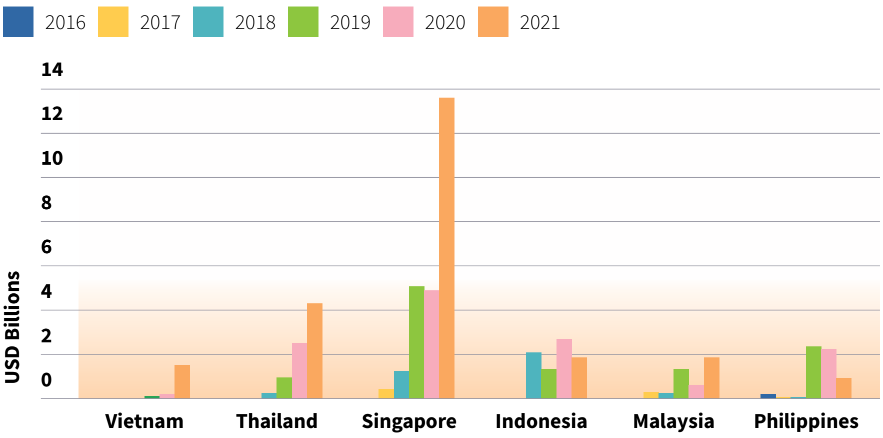
Cumulatively, the ASEAN GSS volume stood at USD54.5bn at the end of 2021, compared to USD30.4bn the prior year. Singapore dominates, with cumulative volumes of USD25.3bn in 2021, followed by Thailand at USD8.3, and Indonesia at USD8.1bn.

The green theme remained the most popular in 2021. Cumulative green volumes in ASEAN stood at USD39.4bn at the end of 2021, or roughly 72% of the region's GSS market, followed by sustainability debt at USD14.4bn, which accounted for the other 27%. The social theme was negligible, with cumulative volume of USD0.6bn making up 1% of the market.

Social and sustainability debt began to emerge from ASEAN in 2018 and was boosted by the COVID-19 response in 2020. While the green theme remained dominant in 2021, the market share of the sustainability label increased largely driven by the multiple reopenings of the 2020 Thai sustainability bond (See page 22).

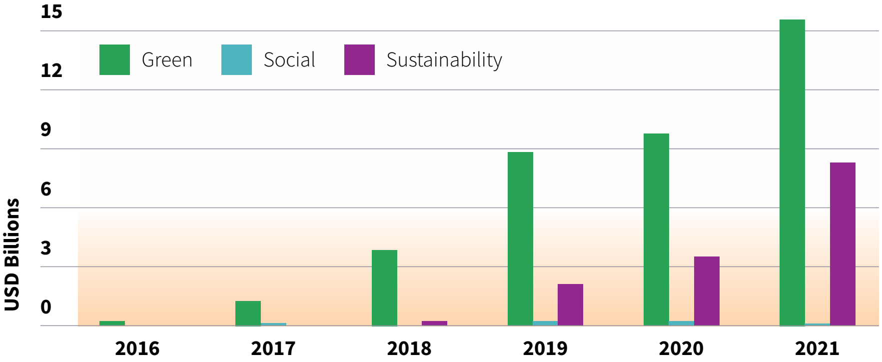
The growing volumes of green and sustainability labels in 2021 indicates the dual priorities of ASEAN entities in financing both crisis response and recovery from COVID-19 and long-term green economic growth.

Annual GSS issuance from ASEAN-6 countries



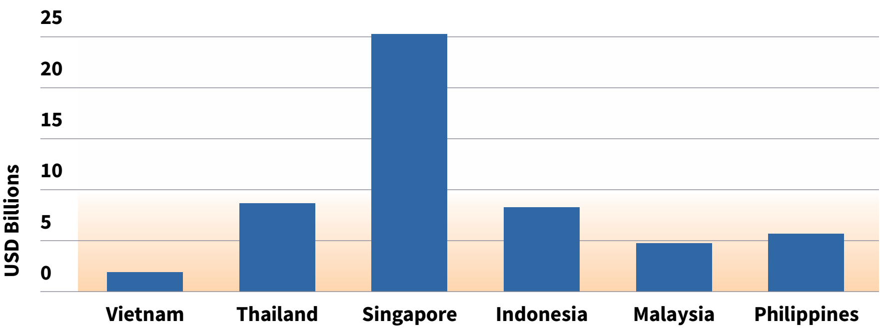
Source: Climate Bonds Initiative

Green has consistently been the dominant theme



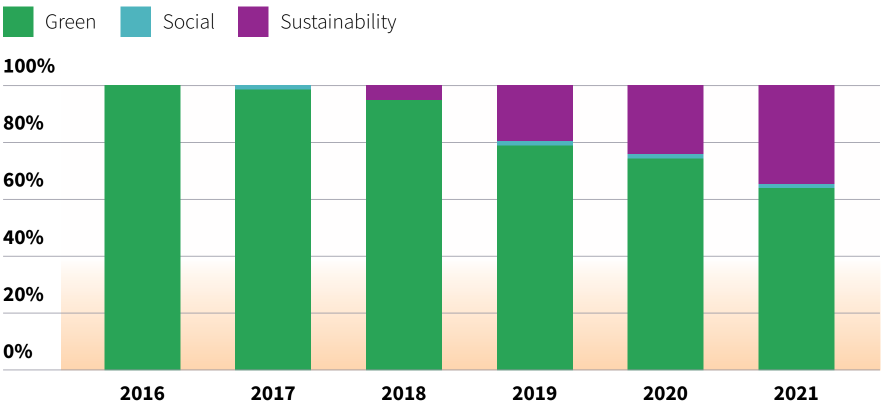
Source: Climate Bonds Initiative

Singapore was the largest source of debt (2016-2021)



Source: Climate Bonds Initiative

Sustainability is gaining traction among ASEAN 6 issuers



Source: Climate Bonds Initiative

Green

ASEAN-6 countries issued a total of USD15.4bn of green debt in 2021, of which Singapore was the largest source with volume of USD12bn. This was followed distantly by Vietnam (USD1bn), Indonesia (USD0.8bn), Thailand (USD0.8bn), the Philippines (USD0.5bn), and Malaysia (USD0.1bn), respectively. Total cumulative green volumes from the ASEAN-6 countries reached USD39.4bn, contributing 72% to cumulative regional GSS volumes (USD54.5bn).

Singapore is the largest country source

Singapore again dominated ASEAN green bond issuance in 2021, reflecting strong support for green finance from the Singaporean government.[7] The National Environment Agency (NEA) issued its debut green bond in September. The SGD1.65bn (USD1.23bn) bond was split between 10- and 30-year tenors, with UoP earmarked for sustainable waste management systems. The first eligible project is the Tuas Nexus Integrated Waste Management facility, which includes systems for incinerable and food waste, household recyclables, dewatered sludge, and wastewater processing.[8] A very large volume of green loans was also issued in the country, with largest loans financing the Buildings sector.

In **Thailand**, large green bonds in 2021 came from transport and energy. Several Renewable Energy green bonds were issued by BCPG Public Company Limited in 2021, totalling USD365m. Other major Renewable Energy deals came from B. Grimm Power Public Company Limited (B.Grimm PCL) (USD93m green bond), SPCG PCL (USD44m green bond) and Energy Absolute PCL (USD50m green loan).[9,10] In the transport sector, the largest issuer was Bangkok Mass Transit System PCL (BTS Group Holdings PCL), with a USD309m green bond in November. Toyota Leasing (Thailand) Co., Ltd. also issued a USD64.1m green bond in April.[11] There was also a large green loan in the Buildings sector, a THB675m (USD22m) green Loan to Asian Capital Real Estate (ACRE) for eco-friendly residential development in Phuket.[12]

In June 2021, **Indonesia** issued its fifth sovereign sukuk (Islamic bond) worth USD750m under its green sukuk programme, which it launched in 2018. In November, the government also issued a green retail sukuk worth USD350m, with proceeds financing energy, waste and water projects.[13] PT Bank BTPN Tbk (BTPN) provided a green loan facility of IDR1.06tn with a three-year tenor to PT Kepland Investama to refinance activities in the buildings sector.[14]

The **Philippines** was the source of two green bonds from the energy sector in 2021. ACEN Finance, a wholly-owned subsidiary of AC Energy Corporation (ACEN), issued a USD-denominated USD400m green bond, with a fixed perpetual coupon of 4.0%.[15] Energy Development Corporation (EDC) issued PHP5bn worth of green bonds, making up the first tranche of EDC's shelf registration of PHP15bn worth of green bonds.[16]

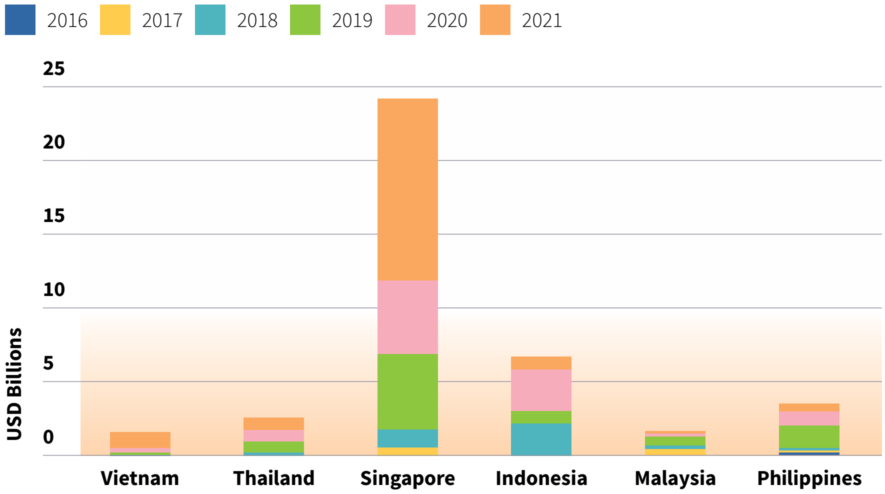
Malaysia saw three green deals in 2021, all from the solar energy sector. reNIKOLA issued a green sukuk facility up to RM390m (USD95m).[17] MFP Solar Sdn Bhd secured a MYR100m (USD24.3m) green term loan facility to finance multiple rooftop solar photovoltaic (PV) plants.[18] UiTM Holdings issued green deals (green sukuk and loan) of MYR100m (USD24.5m).

Most of the green debt originating from **Vietnam** in 2021 came from the transport and energy sectors. Dau Tieng Tay Ninh Energy, which is a B.Grimm's solar farm project in Vietnam, received syndicated green loans of USD160.5m, including a USD32.5m loan funded by the Asian Development Bank (ADB) and Leading Asia's Private Infrastructure Fund (LEAP), and a USD128m syndicated loan from Thai commercial banks.[19] Other green loan deals were Lien Lap Wind Power Joint Stock Co. (USD173m.), Thuan Binh Wind Power JSC (USD57m) and VinFast (Vingroup) (USD400m).

The private sector leads

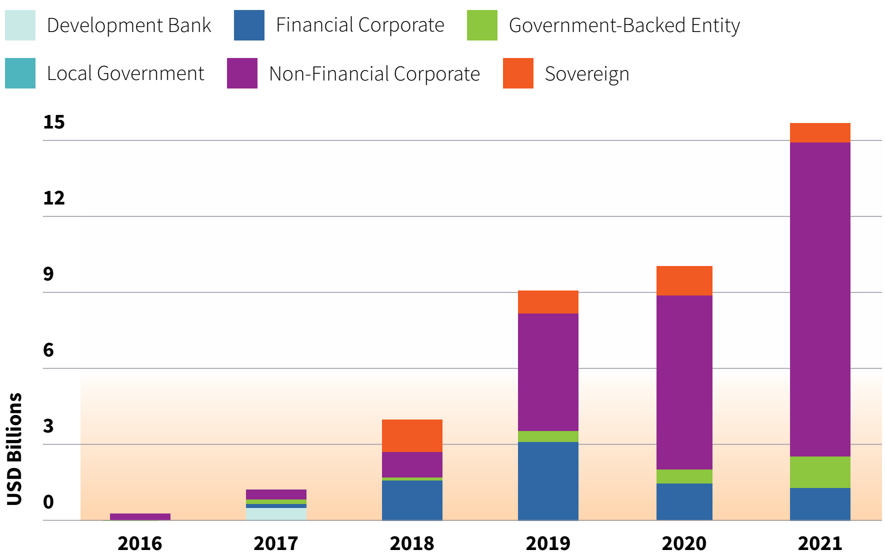
Non-financial corporate issuers were responsible for most (79%) of the ASEAN green volumes in 2021, continuing the trend from prior years. Government-backed entities increased its share in 2021, accounting for 8% of issuance compared to 6% in 2020. Financial corporates and sovereigns were less active in 2021, contributing 8% (compared to 15% in 2020) and 5% (compared to 12% in 2020), respectively. There were no green deals from ASEAN national development banks and local governments in 2021.

Singapore is the largest source of green debt among the ASEAN-6



Source: Climate Bonds Initiative

Non-financial corporates dominated ASEAN green volumes in 2021



Source: Climate Bonds Initiative

Two-thirds go to Buildings and Energy

Buildings and Energy continued to dominate green UoP in ASEAN. The two categories received two-thirds of proceeds in 2019 growing to 79% in 2020. The cumulative regional picture remained the same in 2021. More than half (53%) of the cumulative ASEAN green UoP between 2016--2021 was earmarked for Buildings, and Buildings and Energy combined accounted for 79.5% of the cumulative UoP of green debt (bonds and loans) issued from the ASEAN region during the same period.

Transport (7.5%), Waste (5.7%), Adaptation & Resilience (A&R) (3.3%), Water (2.2%), Land Use (1.8%) and Information Communication Technology (ICT) (0.1%) received smaller allocations. This indicates large untapped potential for market diversification.

Singaporean issuers invested most of their UoP in Buildings, while Renewable Energy accounted for the largest shares in all other ASEAN-6 countries. Transport accounted for large shares of green UoP in Thailand and Vietnam.

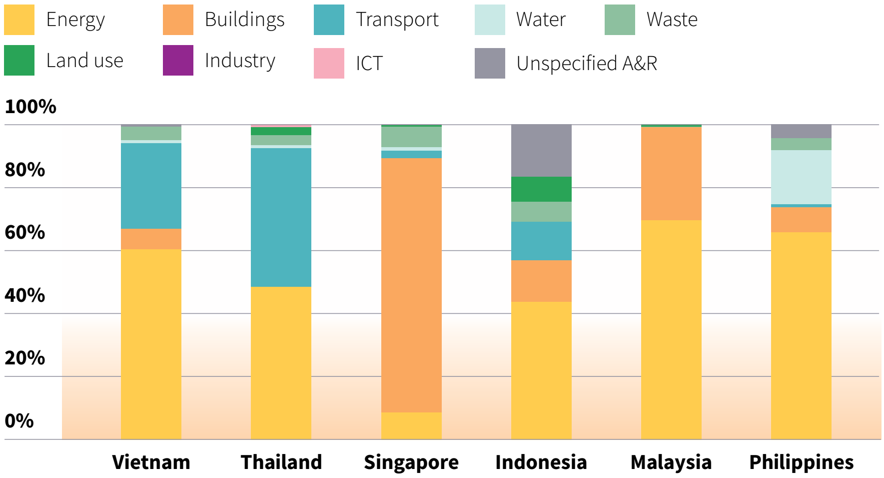
SGD is the preferred currency

In 2021, ASEAN green debt was issued in multiple local and international currencies similar to 2020. Hard currencies, particularly USD and SGD, continued to dominate the market. Two emerging trends were observed in 2021. First, unlike in 2020, the cumulative share of SGD-denominated green deals (45%) in the ASEAN green debt market outsized USD-denominated green deals (34%). Second, the share of cumulative green volume in local ASEAN currencies (including SGD) rose to 59% in 2021, from 47% in 2020, though this was driven by the large volume of SGD-denominated green debt (USD17.9bn) originating from Singapore in 2021. This demonstrates strong growth of green debt in local currencies, led by SGD.

Note: In this report, hard currencies include USD, EUR, GBP, AUD, JPY, SGD

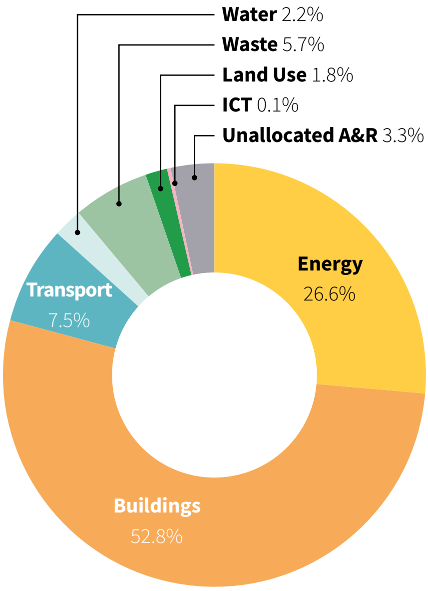
Singapore proved its market maturity with green bonds and loans originating from the country issued in a variety of currencies. Vietnamese, Indonesian and Philippine issuers tend to favour USD for their green debt, while deals originating from Thailand and Malaysia largely came in domestic currencies. Between 2016 and 2021, all green debt originating from Malaysia was denominated in local currency (MYR), and 98% from Thailand were denominated in THB.

Green debt from all ASEAN countries included allocations to Energy (2016-2021)



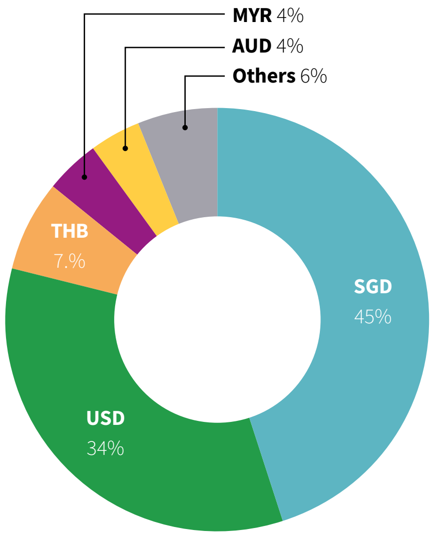
Source: Climate Bonds Initiative

Bulidings dominate cumulative UoP from ASEAN issuers



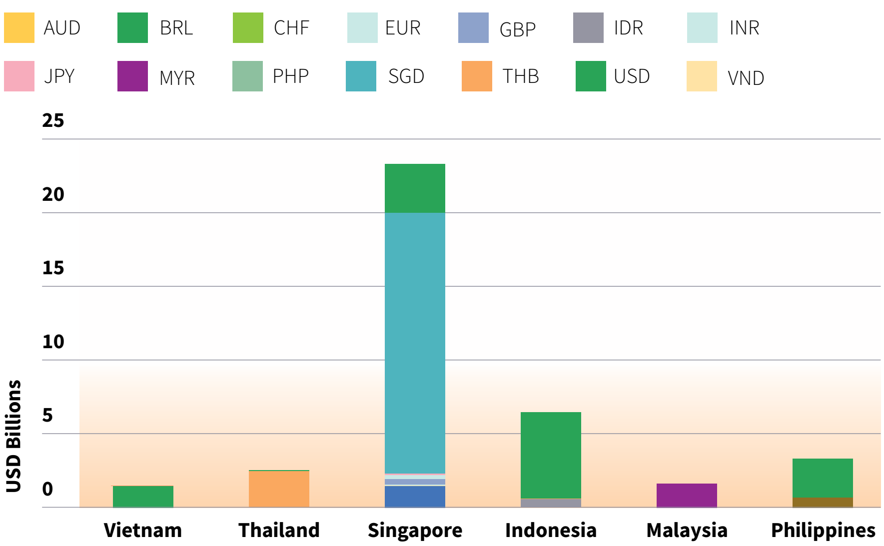
Source: Climate Bonds Initiative

45% of cumulative green deals from ASEAN denominated in SGD



Source: Climate Bonds Initiative

Hard currencies dominated (2016-2021)



Source: Climate Bonds Initiative

Shorter tenors prevail

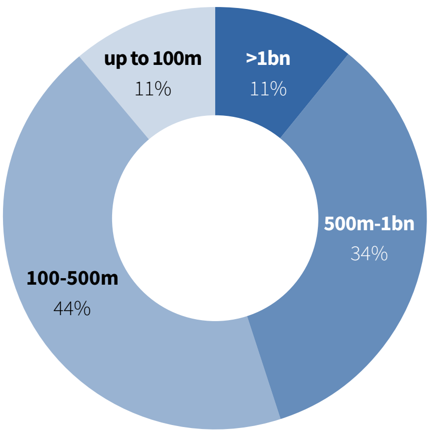
The ASEAN green labelled universe remains characterised by shorter tenors of five years or less, which accounted for 49% of the cumulative volume of issuances between 2016-2021. A further 28% had a term of 5-10 years. This continues the trend from 2020, where the market was dominated by shorter tenors. Longer green deals comprise 23% of the market, with medium-term (10--20 year) deals accounting for 14%, over-20-year deals for 7%, and perpetual for 2%.

Deal size is varied

More than half (55%) of the cumulative volume of green debt originating from ASEAN at the end of 2021 comprised below benchmark-sized deals (≤USD500m), of which the majority (44%) was medium-sized deals (100-500m). Deals above USD1bn accounted for the remaining 11% share.

Among the ASEAN-6 countries, Singapore and Indonesia have seen the most diverse mixture of deal sizes, ranging from below USD100m to above USD1bn. The largest market share of big deal sizes (USD500m-1bn and above USD1bn) also came from these two countries. Green debt originating from the Philippines is mostly in the medium-sized category (USD100-500m), but also extends to smaller (up to USD100m) and larger (USD500m- USD1bn) deals. No individual green instrument originating from Thailand, Vietnam, or Malaysia exceeded USD500m.

Medium sized deals took 44% of cumulative ASEAN green volumes

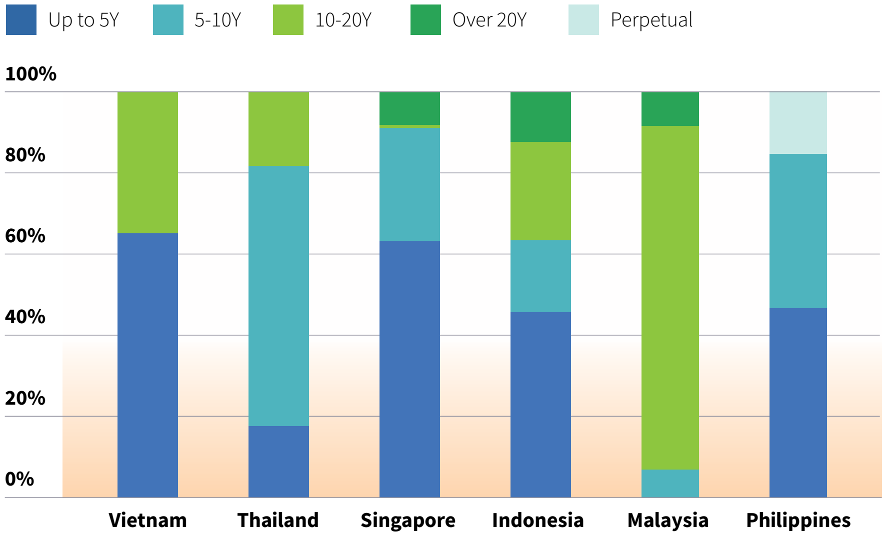


Source: Climate Bonds Initiative

More external reviews are needed

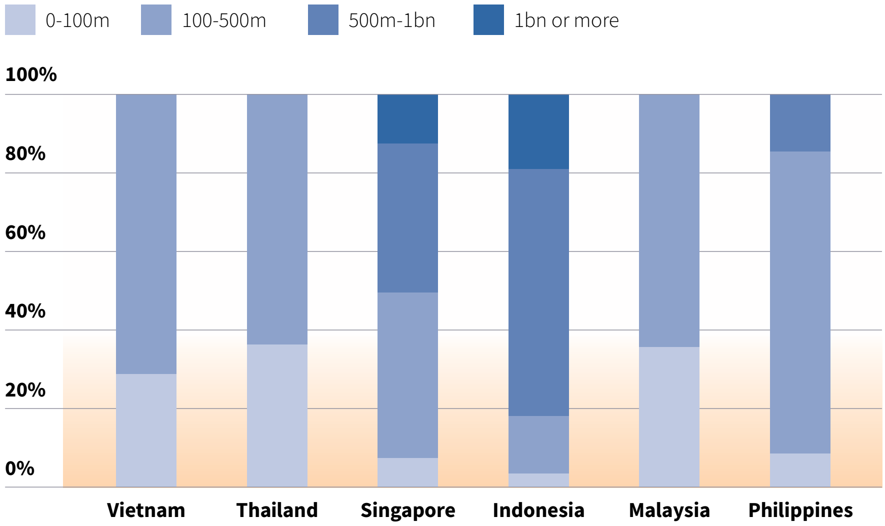
The ASEAN green debt market saw a decrease in external reviews per the total number of transactions between 2020 to 2021. There were 41% of deals (30 out of 73 deals) with external reviews in 2021, down from 53% (23 out of 43 deals) in 2020. Green deals with no reviews stood at 43 deals, or 59% of all deals in 2021, showing an increase compared to 20 deals, or 47%, in 2020. Among different external review types, Second Party Opinion (SPO) remains the most

Green bonds originating from ASEAN-6 countries (2016-2021)



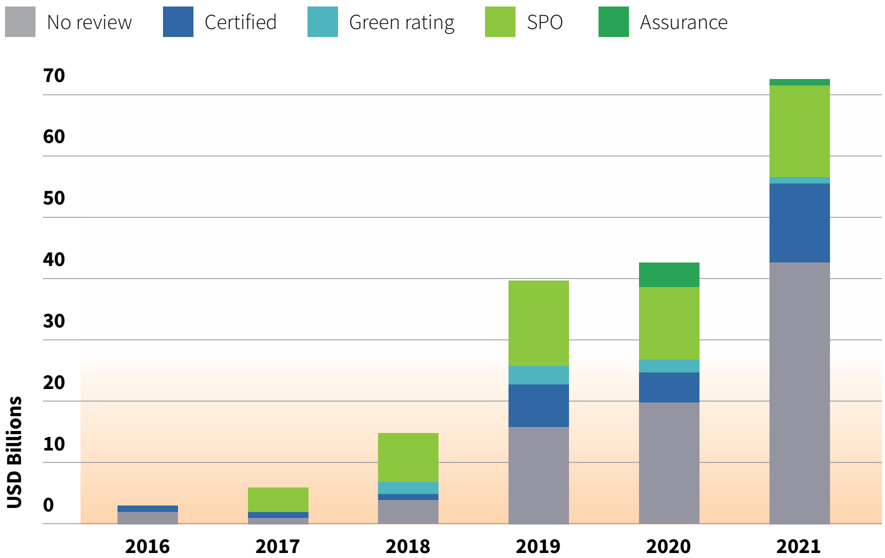
Source: Climate Bonds Initiative

Singapore and Indonesia cover the most diverse green bond deal sizes among ASEAN-6 countries (2016-2021)



Source: Climate Bonds Initiative

41% of deals did not obtain an external review in 2021



Source: Climate Bonds Initiative

common type of review in 2021, while Climate Bonds Certification has gained popularity. Green rating and Assurance are used by some, but remain much less popular than the first two types of review.

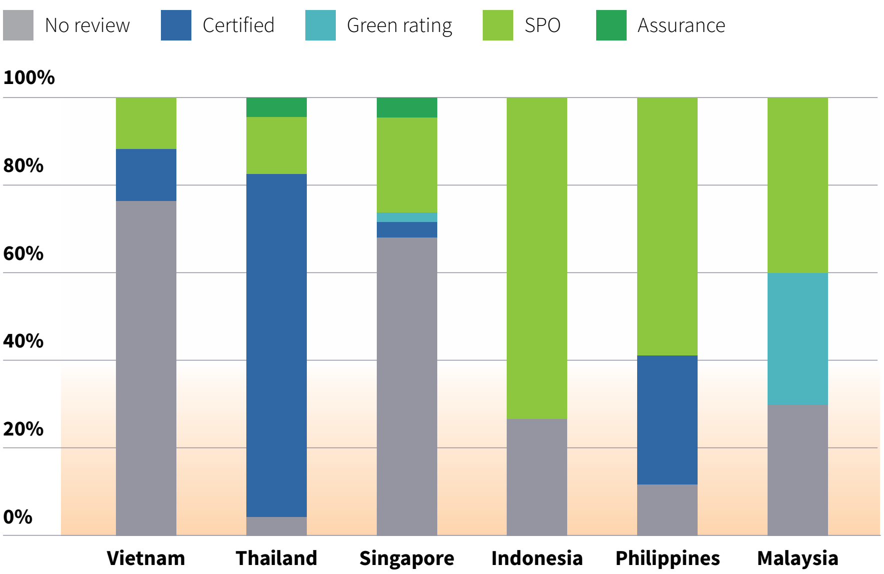
The profile of external reviews varies by country. SPO is the most common form of external review in Indonesia, the Philippines, and Malaysia as of 2021. Singapore and Malaysia are the only two countries in ASEAN that used green ratings provided by JCR and RAM Holdings, respectively. Each country has some green debt without any review. More than half of all green deals from Singapore and Vietnam have not obtained an external review.

Meanwhile, Certification has gained popularity as a type of external review, particularly in Thailand. Most Thai deals obtained Climate Bonds Certification.

Table 1: Certified green bonds originating from ASEAN in 2021

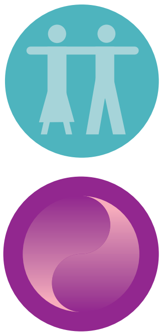
Full Issuer Name	Issuance amount (Local)	Issuance amount (USD)	Issue Date	Country	UoP
Energy Absolute PCL	THB1.5bn	USD50.18m	15/02/2021	Vietnam	Energy, Transport
B.Grimm Power Public Company Limited	THB3bn	USD93.14m	06/07/2021	Thailand	Energy
BCPG PCL	THB2bn	USD60.85m	15/09/2021	Thailand	Energy
BCPG PCL	THB1bn	USD30.42m	15/09/2021	Thailand	Energy
BCPG PCL	THB1bn	USD30.42m	15/09/2021	Thailand	Energy
BCPG PCL	THB4bn	USD121.69m	15/09/2021	Thailand	Energy
BCPG PCL	THB4bn	USD121.69m	15/09/2021	Thailand	Energy
SPCG PCL	THB1.5bn	USD44.59m	01/10/2021	Thailand	Energy
Bangkok Mass Transit System PCL	THB4.2bn	USD127.27m	08/11/2021	Thailand	Transport
Bangkok Mass Transit System PCL	THB1.5bn	USD45.45m	08/11/2021	Thailand	Transport
Bangkok Mass Transit System PCL	THB2.5bn	USD75.76m	08/11/2021	Thailand	Transport
Bangkok Mass Transit System PCL	THB200m	USD60.61m	08/11/2021	Thailand	Transport
Sembcorp Financial Services	SGD400m	USD302.36m	09/06/2021	Singapore	Energy

The profile of external reviews varied by country in 2021



Source: Climate Bonds Initiative

Social and sustainability



The combined ASEAN social and sustainability (S&S) debt market expanded in 2021 compared to 2020, with sustainability bonds reaching USD8.5bn. The cumulative volume of sustainability bonds originating from ASEAN reached USD14.4bn, roughly 27% of the cumulative ASEAN GSS market as of 2021.

Two social bonds (USD0.13bn) issued in ASEAN in 2021 originated from Thailand. As of 2021, the total volume of social bonds originating from ASEAN countries reached USD0.61bn, around 1% of the cumulative ASEAN GSS market.

The growth of ASEAN S&S issuances in 2021 was largely driven by the 2020 Thai sustainability bond which reopened seven times in 2021 (see page 22). With the reopening, Thailand maintained its position as the most prolific source of S&S debt, with cumulative volume at USD5.8bn by the end of 2021, equivalent to 38% of the cumulative ASEAN S&S market (USD15.1bn) during the same period.

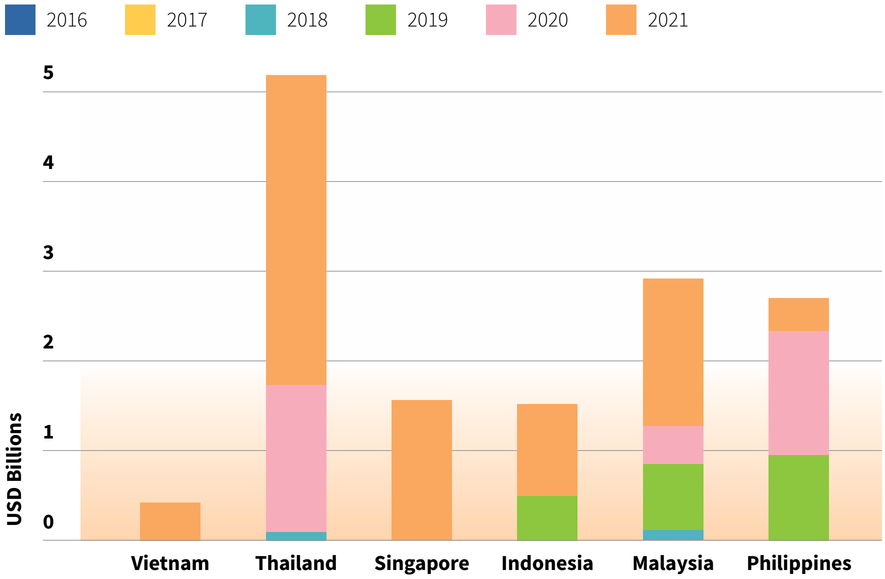
Note: No S&S deals were issued by ASEAN-6 countries in 2016.

Thailand leads in social and sustainability

The first sustainability bond originating from Singapore was priced in 2021. The USD1.5bn bond was issued by UOB, with proceeds directed to eligible businesses and/or projects in areas such as green buildings and renewable energy, as well as eligible social assets, including COVID-19-related temporary bridging loans extended to small businesses. The bond achieved comprehensive investor reach and participation across Asia Pacific, Europe and the US.[20]

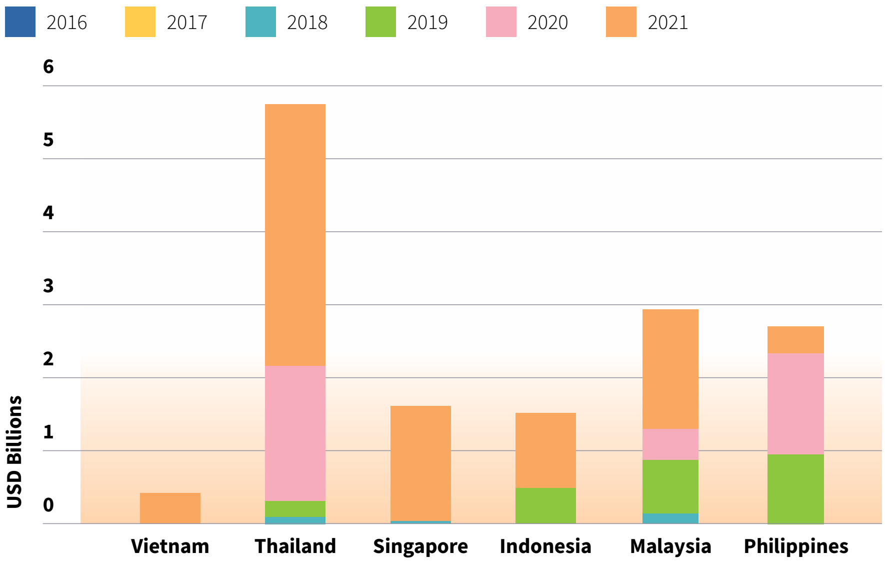
Thailand is the regional leader in the S&S market because of its 2020 sovereign sustainability bond. During 2021 the deal, which was issued to finance green transport and social impact projects to assist with COVID-19 recovery, was reopened seven times for a total of USD3.04bn. Two social bonds also originated from Thailand in 2021. In March, the National Housing Authority priced a USD100m social bond, with proceeds financing projects to benefit 13,569 households or 54,000 people.[21] In November, Thaifoods Group launched its first social bond totalling THB1bn (USD30.5m) with a maturity of 5 years. Proceeds will finance and refinance projects and assets associated with job creation and economic advancement in local communities. This is the first social bond issued by a non-financial corporate issuer under the ASEAN social bond standards.[22]

Thailand is the largest source of sustainability debt



Source: Climate Bonds Initiative

Thailand leads the ASEAN S&S market



Source: Climate Bonds Initiative

In September 2021, **Indonesia** issued the first sovereign SDG bond in Southeast Asia, raising USD584m to fund social and environmental projects to support SDGs. Prior to this, the Government of Indonesia had designed a securities framework to ensure that the proceeds of the SDG Bond would be directed to the most appropriate projects.[23] Other sustainability bond issuances include those by PT Indonesia Infrastructure Finance (USD150m) in January, and Bank Mandiri (USD300m) in April.[24]

In March 2021, Rizal Commercial Banking Corporation (RCBC), one of the largest banks in the **Philippines**, raised PHP17.9bn (USD368.28) through its ASEAN sustainability peso bonds with tenors of 2.5 and 5.2 years.[25]

Vietnam's Vinpearl JSC issued a USD425m bond, maturing in 2026 with a coupon rate of 3.25% per annum, as the world's first Exchangeable Sustainable Bond (ESB), exchangeable into shares of Vingroup JSC.[26]

In April 2021, the **Government of Malaysia** issued the world's first sovereign USD-denominated sustainability sukuk, a USD800m 10-year deal. The proceeds will be used for eligible green and social projects aligned with UN SDGs.[27] The sustainability sukuk was oversubscribed by 6.4 times and achieved spread compression of 40bps in the primary market.[28]

Sovereigns drive volumes

Similar to 2020, sovereign issuance continued to dominate the S&S market in 2021, responsible for 51% of the volume. Financial corporates remained the second larger issuer (25%) of ASEAN S&S debt, followed by government-backed entities (17%) which also became more active in 2021. The sovereign share largely reflects the reopening of the Thai sustainability bond and the sovereign sustainability sukuk from Malaysia.

Local currencies take 60%

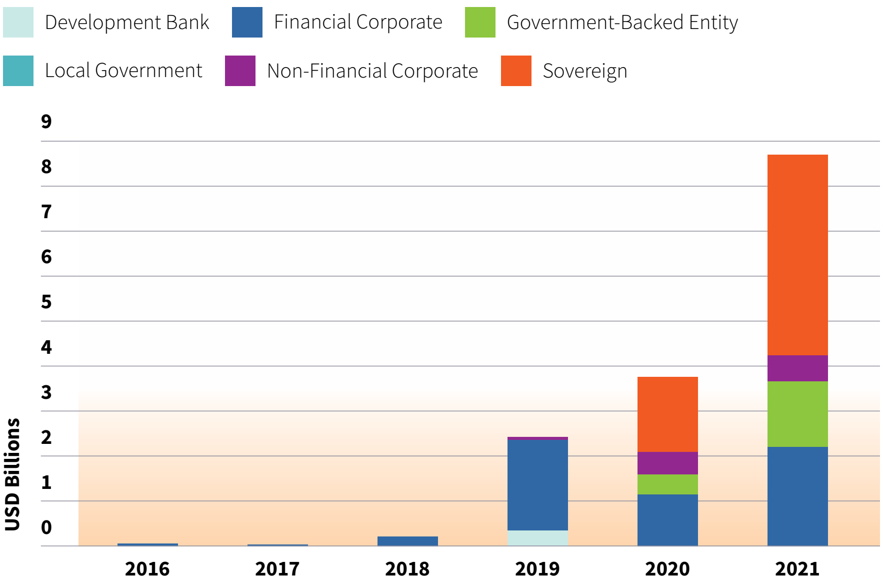
Local currencies dominated cumulative ASEAN S&S issuances in 2021, with their combined share standing at 60%, compared to 40% of deals in non-ASEAN currencies.

Of the S&S debt originating from the ASEAN-6, most of the volumes originating from Thailand and the Philippines were dominantly in local currency. Volumes from Malaysia were split between local currency and USD, while Singaporean, Indonesian and Vietnamese issuers preferred USD.

Shorter tenors dominate

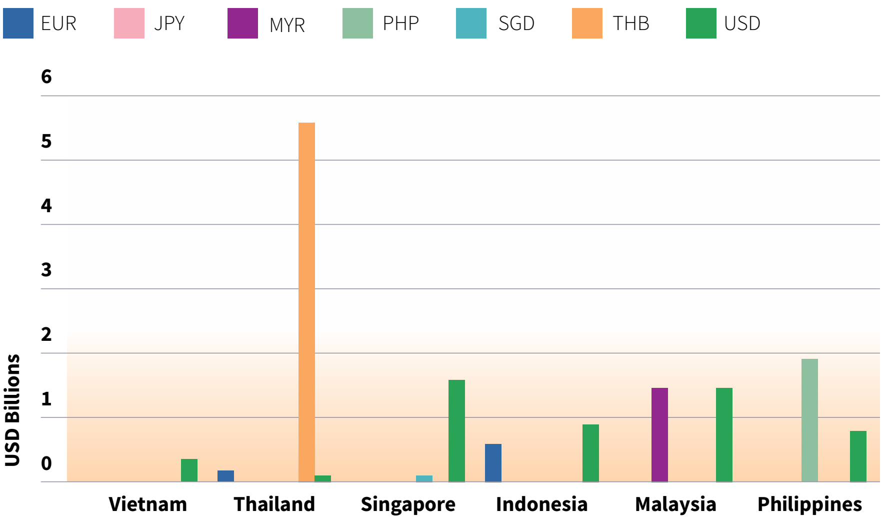
At the end of 2020, most ASEAN S&S bonds were short-dated, with around 94% of the total bonds with a tenor of less than 10 years; split between the 5-10-year tenor (50%) and up to five years (44%). This regional picture has changed in 2021. While the largest share (46%) of ASEAN S&S bonds in 2021 still have a short tenor of up to 5 years, the cumulative market picture as of 2021 shows a rise of longer dated deals (10-20 years) up to 35% of the total market share. Deals with a tenor of 5-10 years accounted for the remaining 19%.

Sovereign issuance drove the ASEAN S&S market in 2021



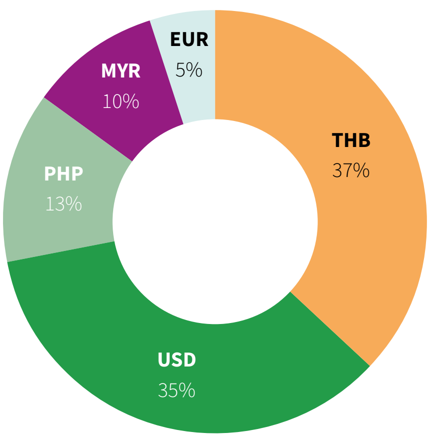
Source: Climate Bonds Initiative

The Thai sovereign sustainability bond boosted the availability of local currency debt in 2021



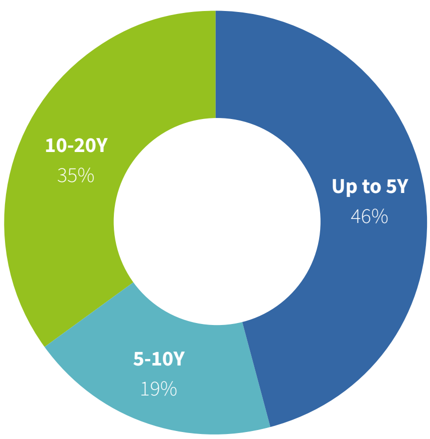
Source: Climate Bonds Initiative

Local currencies lead ASEAN S&S volumes in 2021



Source: Climate Bonds Initiative

The ASEAN S&S bond market has a barbell maturity profile in 2021

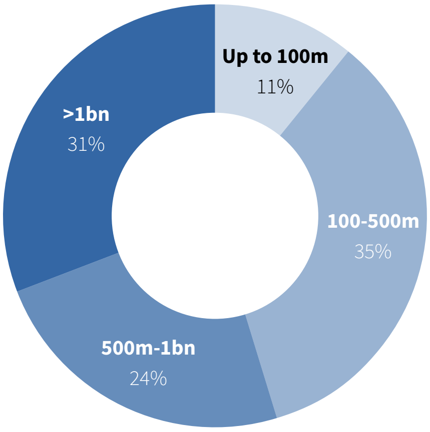


Source: Climate Bonds Initiative

2021 saw more benchmark deals

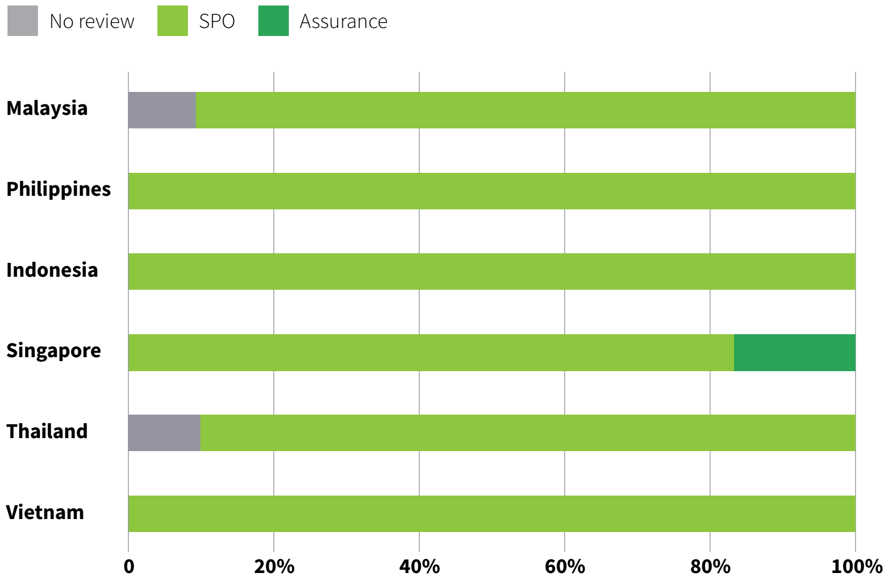
At the end of 2020, the ASEAN S&S market was characterised by smaller deals (≤USD500m) which accounted for 80% of all deals. This regional picture, too, also changed as of 2021, with the increasing dominance of larger deals. Benchmark sized (USD500m) or larger deals dominated the ASEAN S&S market at the end of 2021, together accounting for the combined market share of 55%, of which 31% was above USD1bn, and 24% valued between above USD500m-USD1bn. Bonds with USD100-500m in size accounted for 35% of the market. Small deals (up to USD100m) accounted for only 11% of the market.

55% of S&S volumes comprise bonds of at least USD500m



Source: Climate Bonds Initiative

SPO was the main external review for S&S issuers in 2021



Source: Climate Bonds Initiative

Most S&S deals get an SPO

Out of all of ASEAN S&S deals (28) in 2021, SPO is the most popular type of external review for almost all deals (27), except only one deal that carried an Assurance report. While issuers from all other countries used SPO, Singapore saw issuers adopt type of Assurance in 2021.

4. Spotlight: Climate-aligned issuers and bonds

Thailand is the most prolific source of climate-aligned debt amongst ASEAN countries

Three ASEAN countries are home to climate-aligned debt: Thailand (USD2.8bn, nine issuers, 55 deals), Malaysia (USD44.2m, one issuer, six deals), and Indonesia (USD46.9m, one issuer, three deals). Collectively they account for USD2.9bn of outstanding climate-aligned debt.[29] Thailand is the most prolific country source with 96% of total volumes and nine climate-aligned entities. Bangkok Expressway & Metro PCL. is the top climate-aligned issuer, with over 40% of ASEAN's climate-aligned debt.

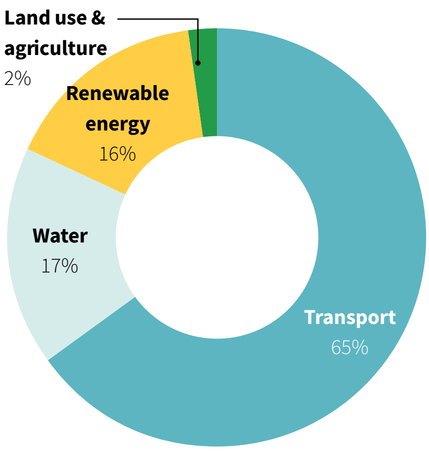
Climate-aligned debt originating from ASEAN is almost exclusively local currency, with THB being the most popular at 95%. USD issuance accounts for approximately 3% of volumes, while the remaining share is issued in MYR. Indonesian Pabrik Kertas Tjiwi Kimia Tbk PT, a pulp and paper company, is the only entity with three deals issued in USD.

Most of the ASEAN climate-aligned companies operate in the Renewable Energy theme; however, it only accounts for 16% of the outstanding volume. Transport, on the other hand, takes 65% of the volume, which comes almost exclusively from Bangkok Expressway & Metro PCL. Four of the companies operate in the water business, with Eastern Water Resources Development and Management PCL accounting for 13% of the Water theme.

Maturing debt brings opportunity to relabel

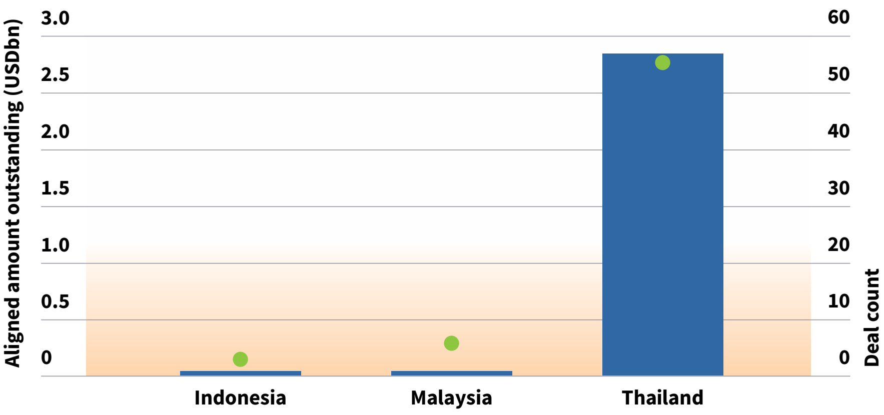
Almost 60% of the climate-aligned debt that originated from ASEAN countries will mature by 2025. This provides climate-aligned entities with opportunities to refinance their debt with labelled bonds. So far, only climate-aligned companies based in Thailand have issued labelled green bonds, including BTS Group Holdings PCL (nine deals) and Energy Absolute PCL (six deals). Malaysian Edra Solar Sdn Bhd is the only entity to have issued a sustainability labelled bond.

Most climate-aligned bonds financed transport in 2021



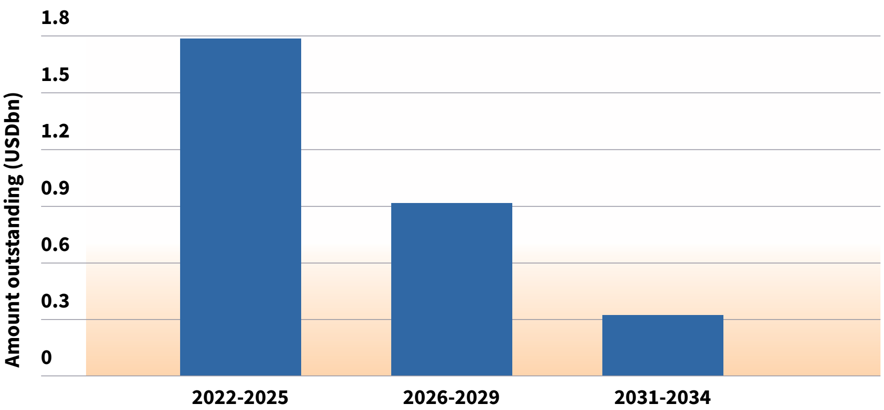
Source: Climate Bonds Initiative

Thailand leads ASEAN climate-aligned issuance



Source: Climate Bonds Initiative

USD1.8bn in climate aligned bonds matures within 3-years



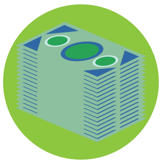
Source: Climate Bonds Initiative

Table 2: Top 6 ASEAN climate-aligned issuers

Issuer	USD Aligned Amt Outstanding	Deal Count	Country
Bangkok Expressway & Metro PCL	1,220 m	21	Thailand
BTS Group Holdings PCL	682 m	8	Thailand
Eastern Water Resources Development and Management PCL	66 m	2	Thailand
Edra Solar Sdn Bhd	44 m	6	Malaysia
Energy Absolute PCL	70 m	3	Thailand
Pabrik Kertas Tjiwi Kimia Tbk PT	47 m	3	Indonesia

5. Spotlight: Sustainability-linked bonds and loans

Financing the transition



Sustainable finance has played an important role in financing ASEAN's green and climate investments, but gaps remain. The GSS labels alone do not cover the financing needs of high-emission and hard-to-abate brown sectors. Therefore, transition finance is needed to support rapid change in emission-intensive activities in these sectors, such as energy, heavy manufacturing industries and agriculture, that can be steered into a green future, and help phase out activities harmful to the environment, such as the use of coal. This will involve mobilising transition finance at scale for activities, assets, and projects in these sectors. The financing can comprise UoP bonds and/or performance-linked instruments such as SLBs and SLLs. We discuss both mechanisms and their adoption in ASEAN in the section below.

Transition bonds

Transition UoP bonds (transition bonds) support issuers on a credible net-zero pathway via direct financing to decarbonising their activities. The transition bond market is still nascent. ASEAN saw its maiden transition bond in 2021 with the Chinese Construction Bank in Singapore issuing a USD2bn deal designed to support China's carbon-intensive industries, such as gas and other power generators, manufacturing, and steel production.[30] In June 2021, the Green Financial Industry Taskforce of Singapore (GFIT) released a white paper on green finance solutions that incorporates the use of transition finance and recognises the role of government-led support, such as commercial risk cover, as key to developing transition finance.

Sustainability-linked bonds and sustainability-linked loans

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 new. Within the region, as green and sustainable financing grow, the emergence of SLBs and SLLs opens the door for more issuers to participate in sustainable financing.

SLBs and SLLs are forward-looking, performance-based debt instruments issued with links, SPTs and associated KPIs at the entity level. SLBs and SLLs can be a useful tool for issuers on a low-carbon transition trajectory as they finance whole entities in transition and help to build experience and credibility on target setting. A major advantage of sustainability-linked instruments lies in the flexibility caused by the absence of pre-defined eligible projects. **While the issuer commits to reaching their ESG goals, there are no restrictions on how to spend proceeds.** Moreover, in contrast with the GSS debt markets where a limited number of projects with environmental and social benefits can be considered, any company can issue SLBs or SLLs which helps to broaden access to the sustainable finance market.

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. 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 sustainable investment targets and serve growing demand for eligible financing opportunities.

Despite the impressive growth and popularity of SLBs and SLLs, issuers, borrowers, and investors must be mindful of the pitfalls around the target-linked mechanism. In order to be seen as useful and credible sustainable finance instruments that yield real behaviour change for an entire entity, these deals should always have ambitious SPTs, calibrated in line with sector-based pathways, and provide significant financial reward/penalty. Other key concerns include the difficulty to benchmark the ambition of the targets or KPIs against a wider global ambition such as the Paris Agreement. Most of the SPTs and KPIs have only been prescribed by (1) the borrowers' own entity-specific sustainability improvements, not to a sector-wide decarbonisation pathway, and (2) exhibit limited transparency in the market especially with impressive growth – making it difficult to assess the impact and ambition of each bond or loan.

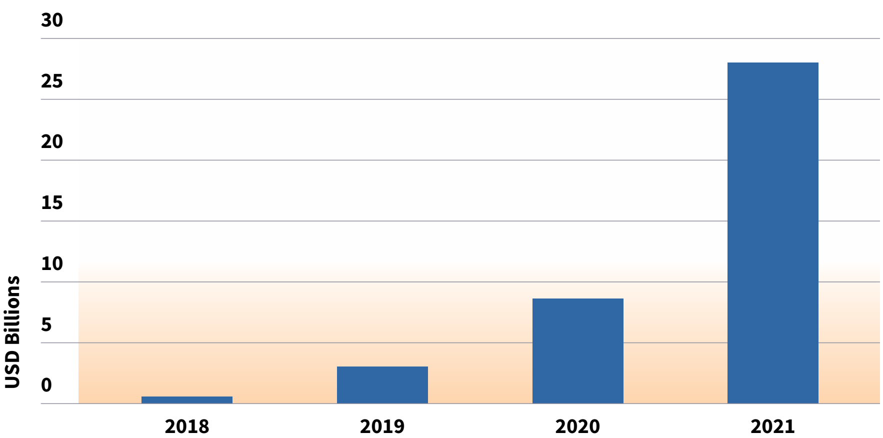
These concerns are not insurmountable and with some clear guidance the sustainability-linked instrument market could be a valuable addition to the sustainable finance landscape in ASEAN, including in enabling entity-level transitions. To enhance the comparability and integrity of the market, Climate Bonds is defining sector-based Transition Finance Standards suitable for transition bonds, SLBs, and transitioning entities building on the whitepaper *Transition Finance for Transforming Companies*. Though the initial guidance will focus on bonds, issuers and borrowers could also apply the framework to loans (SLLs and other labelled loans), along with other types of funding to support a credible decarbonisation strategy. A finalised version of the recommendations will be published in 2022.[31]

ASEAN market is developing

The year 2021 saw a breakthrough in the SLL and SLB market when the combined volume of these instruments reached USD27.5bn, more than tripling in size from 2020 (USD8.6bn). Interestingly, the market size of ASEAN SLLs and SLBs in 2021 far exceeded that of green bonds and loans in 2021 (USD15.4bn), although the latter market started in 2016. At the end of 2021, the cumulative volume of the ASEAN SLL and SLB market was equivalent to that of the green theme at around USD39bn.

Singapore was the largest source of ASEAN SLLs and SLBs at the end of 2021, with 94 out of a total of 129 deals with a cumulative volume of USD33.6bn, accounting for 84.5% of the market. Thailand followed with 19 deals and USD2.3bn of the volume. Indonesia and Malaysia also entered the race with more than USD1bn of volume and five and eight deals, respectively. Cambodia and Myanmar also issued one each in 2020 representing the first GSS+ deal of any theme from each country.

SLB issuance volume is multiplying in ASEAN



Source: Climate Bonds Initiative

In March 2021, Trafigura Group Pte Ltd. of Singapore announced a huge USD5.5bn sustainability-linked transaction, including the closing of its new 365-day European multi-currency syndicated revolving credit facility worth of USD1.85bn and the extension and increase of its 3-year USD3.65bn facility. The facilities include three KPIs which are tested and verified annually by a third-party review agency: (1) cutting operational GHG emissions, (2) responsible sourcing of metals, and (3) growing Trafigura's renewable power portfolio.[32]

Also in 2021, Singapore's head-quartered Sembcorp Industries Ltd, via its wholly-owned subsidiary, Sembcorp Financial Services Pte. Ltd, priced its inaugural SLB of SGD675m (USD497m) with a coupon rate of 2.6% per annum.[33] This rate will be stepped up by 0.25% from the first interest payment date if the company's target to reduce GHG emissions to 0.4 tonnes of carbon dioxide equivalent per megawatt hour or lower by 31 December, 2025 is not achieved.[34]

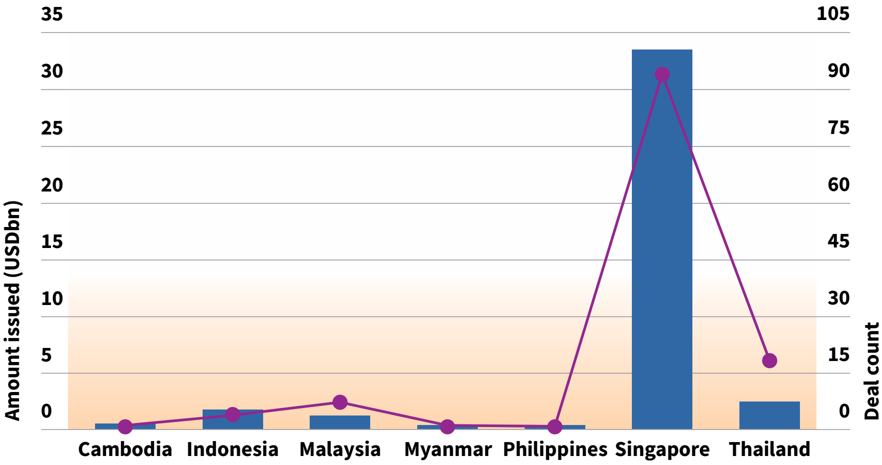
Thai Union Group Public Co Ltd, the world's leading seafood processor, has been an active sustainability-linked issuer in the Thai market. Out of 16 SLBs and SLLs originating from Thailand in 2021, Thai Union Group Public Co Ltd was responsible for eight. In July 2021, the company issued Thailand's first SLB of THB5bn (USD150.70m) with a coupon rate of 2.47% per annum. The interest reward/penalty is linked to the company's achievement of SPTs which are: (1) remaining in the Dow Jones Sustainability Index, (2) reducing carbon emission from manufacturing operations by 4% annually and (3) increasing the monitoring and surveillance of the company's wild-caught tuna supply chain.[35]

The only sustainability-linked deal issued in Indonesia in 2021 came from Japfa Comfeed Indonesia Tbk PT with a 5.375% coupon maturing in 2026.[36] The proceeds from the USD350m bond were used to repay the company's existing notes and for general corporate purposes.[37] The SLB prioritises an environmental KPI that is linked to the achievement of a SPT to minimise the impact related to water pollution from untreated wastewater.[38] The failure to achieve this target will lead to a 25 basis point coupon step-up applicable to the remaining interest periods.[39]

Yinson Holdings Berhad of Malaysia also issued a SLB, a MYR1bn (USD236.3m) sukuk in 2021. This is Malaysia's first sustainability-linked sukuk which supports Yinson's efforts to achieve its climate transition strategy and reinforces its commitment towards a low-emission future by achieving carbon neutrality by 2030 and net zero by 2050.[40]

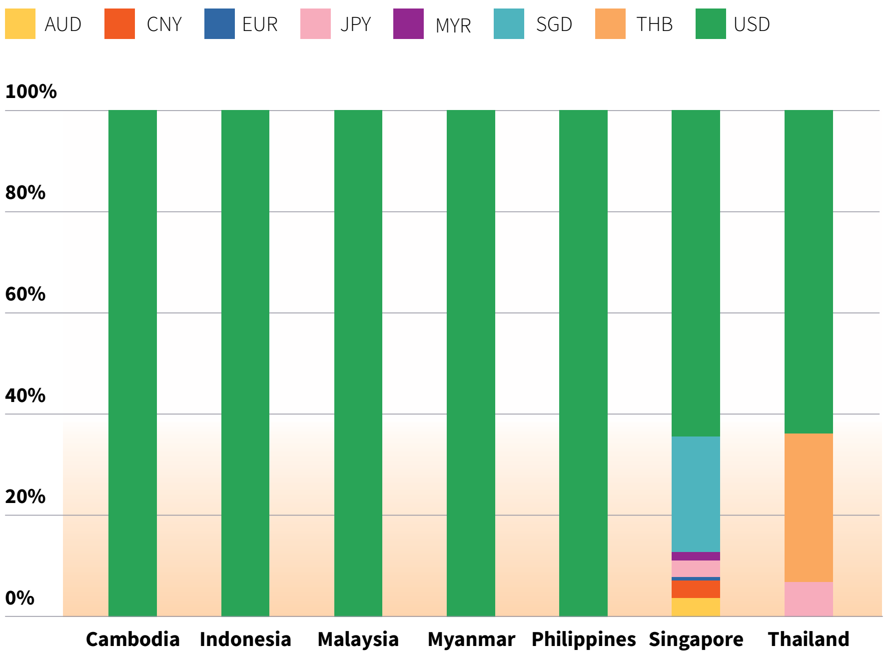
At the end of 2021, 67% of cumulative ASEAN SLL and SLB volume was USD-denominated, followed by SGD with 20%. AUD, CNY, and JPY each received 3%, while local currencies, including THB and MYR, accounted for the smallest shares of 2% and 1%, respectively. The remaining 1% of deals were EUR-denominated.

Singapore leads SLB issuance in both volume and number



Source: Climate Bonds Initiative

USD dominates sustainability-linked volumes



Source: Climate Bonds Initiative

While USD prevailed, Thailand and Singapore also issued sustainability-linked transactions in their respective local currencies (THB and SGD). SLLs and SLBs originating from other ASEAN countries were all USD-denominated.

Transition finance presents huge opportunities for an inclusive approach to a Paris-aligned future. Climate Bonds recommends that countries take at least the following three actions:

1. Foster a common understanding of transition concepts and national and sector-specific decarbonisation pathways in the ASEAN context. Mobilise support from key stakeholders across the public and private sectors, including the investment community.

2. Identify priority high GHG-emitting sectors and activities to include in a (regional) transition standard, focusing on those that require the most guidance and setting realistic time frames to determine pathways for complex activities and technologies.

3. Define the relevant scope/premise for a transition standard/taxonomy and it's context within wider green/sustainable finance taxonomies. Sector experts should be identified to guide the development of a transition standard, as part of the governance process and technical review, and the definitions should be reviewed regularly.

6. Sustainable finance developments in ASEAN

Several regional initiatives and national developments provided a strong momentum that further advanced the growth of ASEAN sustainable debt markets in 2021.

Regional initiatives

ASEAN Taxonomy for Sustainable Finance

The 2021 Joint Statement of the 7th ASEAN Finance Ministers and Central Bank Governors' Meeting announced an initiative 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.[41] Subsequently, **the ASEAN Taxonomy Board** was established by four sectorial bodies under the ASEAN finance cooperation process, namely the ASEAN Capital Market Forum (ACMF), the ASEAN Insurance Regulators' Meeting (AIRM), the ASEAN Senior Level Committee on Financial Integration (SLC) and the ASEAN Working Committee on Capital Market Development.

After an initial period of work, the ASEAN Taxonomy Board **published the ASEAN Taxonomy for Sustainable Finance (Version 1) in November 2021**. The Taxonomy is designed to be inclusive of the different starting points of ASEAN economies, and Version 1 encapsulates all the key components of a sustainable finance taxonomy that is tailored to address the needs of all ASEAN member states (AMS) while being credible at the same time.

Specifically, Version 1 of the Taxonomy provides the key concepts as a basis for consultation, discussion, and collaboration with stakeholders as the ASEAN Taxonomy Board develops the Taxonomy further. Currently, there are **two parts** of the Taxonomy:

- **Foundation Framework**: This contains qualitative classification of activities. A decision tree classifies activities as green, amber (transition) or red (excluded)
- **Plus Standard Framework**: this will contain quantitative screening criteria at the activity level.

Given the varying stages of development across the region, technical thresholds or quantitative screening criteria were not included in the first iteration of the Taxonomy. Instead, Version 1 focused on setting out the conceptual framework for the Plus Standard via an intentional phased approach. The Plus Standard Framework will have **multiple thresholds set for each activity, with a scenario of three thresholds illustrated in Version 1**.

The need for flexibility was embedded in the design of the ASEAN Taxonomy, as it is necessary to ensure inclusivity across all participating economies in a complex region with a complex taxonomy. International investors are yet to express clear views on this development; however, the Version 1 document recognises that the complexity created by including multiple phases may require additional efforts for users to understand. Nevertheless, the advantage of this system is that it takes into consideration the different starting points of emissions generated by different entities for the same activity.

Follow up work is likely to be convened in 2022 to put forward thresholds and develop the Version 1 document into a full taxonomy. Going forward, the taxonomy is likely to be instrumental for furthering ASEAN sustainable investment objectives. It will also be pivotal in ensuring the integrity of the rapidly growing ASEAN sustainable finance market by providing clarity on the definitions of sustainable investments, and their impacts for the different market stakeholders.

The ASEAN SDG Bond Toolkit

Even before COVID, the regional trajectory indicated that none of ASEAN's SDG targets for 2030 were likely to be met.[42] The COVID-19 pandemic has had severe negative impacts on most SDGs, threatening to reverse decades of progress on the nearly achieved SDGs and derail laggards. At the same time, the crisis also presented a unique opportunity for ASEAN countries to refocus resources towards investments that simultaneously deliver a climate-aligned and sustainable recovery and have a transformative impact towards the SDGs.

SDG bonds are GSS bonds whose use of proceeds further aligns with and contributes to specific SDGs. Not all GSS bonds are SDG bonds; while some GSS bonds are explicitly SDG-aligned and/or marketed as SDG bonds, others are not. Going forward, ASEAN issuers like DFIs and policy banks will benefit from a how-to guide that they can adhere to when issuing an SDG bond. Key challenges for these institutions to issue SDG bonds currently stem from the need for more: (i) socialisation on the SDG bond concept and how they build on the ICMA GSS bond principles, and the ASEAN GSS bond standards; (ii) exposure to examples of SDG bond frameworks that could help inform their own frameworks; (iii) guidance on key principles, processes, and data needed to develop SDG criteria, select metric indicators and report impact; and (iv) a supportive ecosystem comprising market players such as SPO providers and other capacity building and advisory bodies.

Responding to these challenges, the ACMF commissioned, through the ADB, the development of an ASEAN SDG bond toolkit as a key market education and capacity-building resource. The toolkit is part of a wider effort of the ACMF to expand the knowledge and understanding of ASEAN market participants about how to issue sustainable finance-themed bonds.

After a period of work and consultation, **the *ASEAN SDG Bond Toolkit: A Practical Guide to Issuing SDG bonds in ASEAN*, developed by the Climate Bonds Initiative for the ACMF, was published in December 2021**.[43] The toolkit is not aimed at creating a new SDG label in addition to the existing GSS labels, nor does it seek to create a new set of standards or guidelines that replace existing GSS bond principles, frameworks, market standards and taxonomies. Instead, it collates and synthesises relevant information to provide a primer-level background for potential SDG bond issuers in ASEAN.

It is expected that the toolkit will enable more issuers from ASEAN countries to participate in the SDG bond markets to meet their funding needs and support the nascent markets to become more mature and vibrant. The toolkit is a living document, which can be updated as the market practices for SDG bonds develop further. By highlighting issues that deserve more consideration and addressing the current missing links in the nascent ASEAN SDG bond markets, which builds on the existing ASEAN GSS debt market, the toolkit could also stimulate further debate between players, including regulators, bond issuers, funds, and their investors, SPOs etc., leading to more investment in the much-needed market infrastructure for SDG bonds.

ASEAN Sustainable Banking Principles

The ASEAN central banks endorsed the initiative on ASEAN **Sustainable Banking Principles** in March 2021. These will serve as guiding principles for the development of sustainable banking guidelines.[44] ASEAN central banks also collaborated on a report describing the roles of ASEAN central banks in managing climate and environment-related risks to better understand the implications of climate risk on the ASEAN financial sector and economy.[45] It provides a set of non-binding recommendations to the central banks on safeguarding financial stability whilst supporting a low-carbon transition. Several ASEAN central banks are already acting on the recommendations.

The Green Recovery Program (under the ACGF)

The **ACGF Green Recovery Program** was established in 2021 and will kick start green investments and help design governments' green stimulus packages.[46] The Program builds on the **ASEAN Catalytic Green Finance Facility (ACGF)**, which was approved by the **ASEAN Infrastructure Fund (AIF)** in April 2019. The ACGF leverages resources from AIF, the ADB and other development partners to accelerate the development of green infrastructure in Southeast Asia and bridge bankability gaps.[47] The AIF has committed an estimated USD500m for nine projects, with a total portfolio size of around USD3bn, including ADB co-financing.[48]

The ACGF Green Recovery Program will play a key role in stimulating green investment in ASEAN by helping countries bridge a major gap in financing green infrastructure, with the region's annual investment needs estimated to be USD210bn even before the COVID-19 pandemic hit. The gap is likely to have widened during the pandemic, as the region's economy contracted by 4.4% in 2020. The Program will provide technical assistance and concessional loans to about 20 green infrastructure projects across Southeast Asia. Over a 30-year period, the projects are expected to reduce carbon dioxide emissions by 119 million tonnes and create 340,000 green jobs in key sectors such as sustainable transport, renewable energy and energy efficiency systems, as well as low-carbon agriculture and natural resources.[49]

The ASEAN+3 Asian Bonds Markets Initiative (ABMI)

Launched in December 2002 by ASEAN and China, Japan and Korea (ASEAN+3), the Asian Bonds Markets Initiative (ABMI) aims to nurture local currency bonds market to strengthen financial stability and reduce the region's vulnerability to the sudden reversal of capital flows.[50] Through the ABMI, the ADB provided technical assistance (TA) to the Thaifoods Group's social bond issued in November 2021. The TA covers identification of eligible assets, projects, and expenditures, development of a sustainable finance framework, and facilitation of external review. The bond was issued under the ASEAN+3 Multicurrency Bond Issuance Framework, and was 100% guaranteed by the Credit Guarantee and Investment Facility (CGIF), a trust fund of the ADB.[51]

The Energy Transition Mechanism (ETM)

The Energy Transition Mechanism (ETM) is another innovative program launched in ASEAN in 2021. Announced during the UNFCCC COP 26 in Glasgow by Indonesia, the Philippines, and the ADB, the ETM seeks to catalyse capital and accelerate the transition from coal to clean energy in ASEAN. It aims to retire coal-fired power plants early; to scale up clean, renewable energy solutions; and to ensure that the transition is just and affordable.[52] By leveraging a market-based approach, the ETM will provide low-cost financing by combining resources from concessional public finance, private sector investment, and philanthropies. According to the ADB, the mechanism will comprise two multibillion-dollar funds, with one devoted to accelerating early retirement or repurposing of coal-fired power plants, and the other to new clean energy investments. A pre-feasibility study has been completed and a full feasibility study is underway to finalise the financial structure of ETM and identify pilot activities. There is also a possibility of Vietnam joining the mechanism.[53]

New net-zero commitments in ASEAN

Several new carbon emission reductions and net-zero commitments were also announced by ASEAN countries in 2021. Such raised ambitions could further contribute to stronger regional momentum for capital mobilisation through the ASEAN sustainable finance market to accelerate decarbonisation. Key announcements were:

- **Thailand** set a target to achieve carbon neutrality by 2050 and net-zero emissions by 2065, which was announced at the UNFCCC COP26 in November 2021.[54]
- **Indonesia** announced its intention to reach a net-zero emissions target by 2060 or sooner, which is at least a decade earlier than the previous 2070 target.[55]
- **Vietnam** announced its commitment to a net-zero carbon emission target by 2050 at COP26.[56]
- Leading to the UNFCCC COP26, **Malaysia** announced a 2050 carbon neutrality goal, alongside a commitment to stop building new coal-fired power plants.[57]

Country overviews and national policy developments

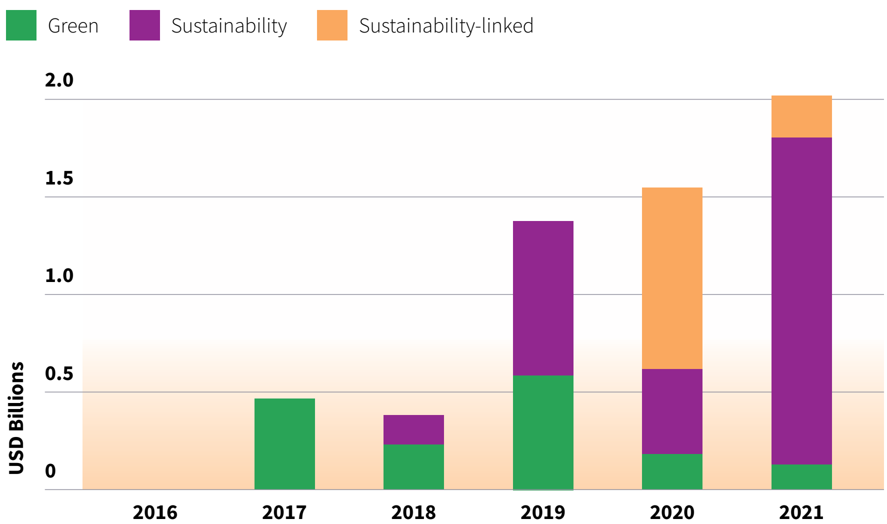
Malaysia

As of 2021, Malaysia had seen three consecutive years of growth in the combined GSS+ market. The sustainability label remained the most prominent financing instrument, accounting for roughly half (51%) of the cumulative market share. Green debt (bonds and loans) accounted for 29% of the market, followed by 20% from sustainability-linked instruments.

The market landscape has been shaped by several recent developments. In 2018, Malaysia established the Green Sustainable and Responsible Investment (SRI) Sukuk Grant Scheme—one of the first global examples of incentive structures to support green bond issuance. The scheme provides tax exemption benefits for green sukuk issuers. **In January 2021, this Grant Scheme was renamed the SRI Sukuk and Bond Grant Scheme** and extended to all sukuk issued under the Securities Commission Malaysia (SC) SRI Sukuk Framework or bonds issued under the ASEAN Green, Social and Sustainability Bond Standards (ASEAN Standards).[58] Eligible issuers can claim the grant to offset up to 90% of the external review costs incurred, subject to a maximum of MYR300,000 (USD68,785) per issue. Further, the tax exemption on this grant was extended for a five-year period ending 2025. Meanwhile, the existing tax reduction on issuance costs of SRI sukuk approved by or lodged with the SC has been extended till the end of 2023. With the financial support, the Grant has encouraged more companies to finance green, social and sustainability projects through SRI sukuk and bonds issuance.

On 30 April 2021, Bank Negara Malaysia released its Climate Change and Principle-based Taxonomy (CCPT) as the guiding principles related to climate objectives for financial institutions and other market players.[59] The primary objective was to provide a standardised classification and reporting of climate-related exposures, to support risk assessments and to monitor their financing and investments. Although the CCPT does not distinguish its application between the retail and corporate segments, it is more corporate-focused given that corporate segments have a comparatively higher carbon footprint.[60]

The 2021 sovereign sukuk boosted sustainability volumes in Malaysia



Source: Climate Bonds Initiative

In December 2021, the SC released its consultation paper on its principles-based SRI Taxonomy.[61] The SRI Taxonomy was developed to enable capital market participants to identify economic activities which align with environmental, social and sustainability objectives, and provide guiding principles in financing a credible transition.

Malaysia - Top issuers

Issuer	Amount issued (local)	Amount issued (USD)	Format	Number of deals	UoP
Green					
reNIKOLA	MYR390m	USD95m	Bond	1	Energy
MFP Solar Sdn Bhd	MYR100m	USD24.3m	Loan	1	Energy
UiTM Holdings	MYR100m	USD24.5m	Bond	2	Energy
Social, Sustainability, Sustainability-linked					
Malaysia Wakala Sukuk Bhd (Government of Malaysia)	USD800m	USD800m	Sustainability	1	
Agroto Business(M) Sdn Bhd	MYR200m	USD47.34m	Sustainability	1	
Cagamas Bhd	MYR3306m	USD798.34m	Sustainability	13	
Yinson Holdings Berhad	MYR1000m	USD236.3m	Sustainability-linked	1	

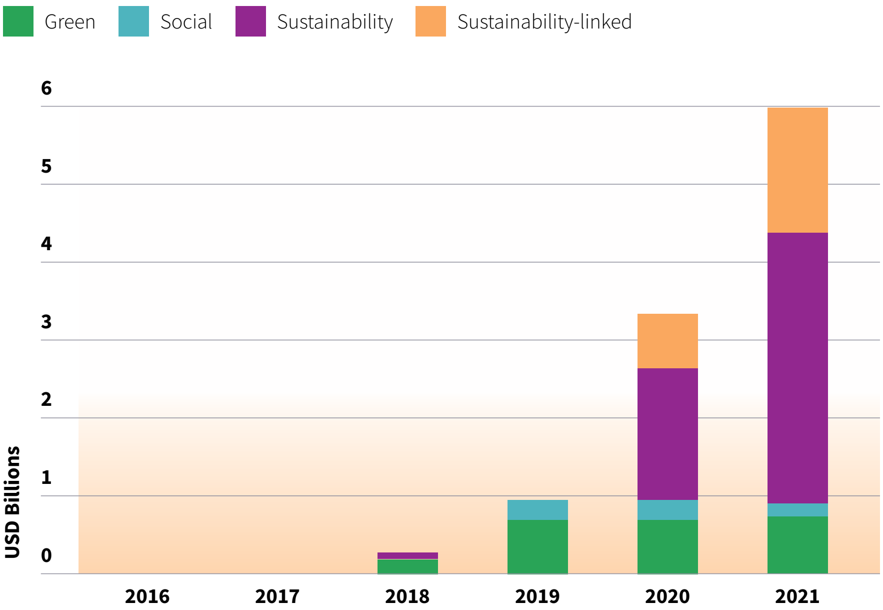
Thailand

The sustainable finance landscape in Thailand in 2021 remains dominated by the sustainability label, driven by the 2020 sovereign sustainability bond. Sustainability-labelled bonds accounted for 49% of the cumulative value of the combined GSS+ instruments in the Thai market in 2021. This was followed by a 24% share of green bonds, 21% of sustainability-linked instruments, and 5% of social bonds respectively.

The Thai government has developed national and regional policies for facilitating further growth in sustainable finance. **The latest SEC Strategic Plan 2021--2023 maintains a goal to build a robust foundation to support sustainable development**. To promote the sustainable development of businesses across multiple industries, the SEC Thailand issued **regulations in May 2021 governing the issuance and sale of SLBs**. The SLB regulations are also based on internationally recognised standards and incorporate references to conventional debt security regulations.

In August 2021, the Working Group on Sustainable Finance, including the Fiscal Policy Office, the Bank of Thailand, the Thai SEC, the Office of Insurance Commission, and the Stock Exchange of Thailand, jointly published **Sustainable Finance Initiatives for Thailand**.[62] The Initiatives recommend five Key Strategic Initiative (KSIs), including:

The Thai sovereign dominates the thematic market



Source: Climate Bonds Initiative

1. Developing a Practical Taxonomy,
2. Improving the Data Environment,
3. Implementing Effective Incentives,
4. Creating Demand-led Products and Services, and
5. Building Human capital.

This will set out the direction and framework for driving sustainable finance across the financial sector in Thailand.

In September 2020, SEC Thailand amended the regulations on the preparation of the annual registration statement (Form 56-1) and annual report (Form 56-2) by consolidating both forms into one called Form 56-1 One Report. This 56-1 One Report will not only reduce the burden of ongoing reporting of listed firms, but also improve the quality of ESG disclosure by requiring the listed firms to disclose more on how their businesses have been operating under the ESG principles. For instance, disclosure of policies, goals and ESG-oriented performance, greenhouse gas emission, and respect for human rights. In addition, the registration statement for securities offering of both Thai and foreign firms has also been revised to be in line with the Form 56-1 One Report. **The Form 56-1 One Report came into force for the accounting period ending 31 December 2021**, and the revised registration statement has been effective from 1 January 2022 onwards.

Thailand - Top issuers

Issuer	Amount issued (local)	Amount issued (USD)	Format	Number of deals	UoP
Green					
BCPG PCL	THB12000m	USD365m	Bond		Energy
Bangkok Mass Transit System PCL (BTS Group Holdings PCL)	THB10200m	USD309m	Bond		Transport
B.Grimm Power Public Company Limited	THB3000m	USD93m	Bond		Energy
SPCG PCL	THB1500m	USD44m	Bond		Energy
Energy Absolute PCL	THB1500m	USD50m	Loan		Energy
Asia Capital Real Estate	THB675m	USD22m	Loan		Buildings
Social, Sustainability, Sustainability-linked					
Indorama Ventures PCL	THB10000m	USD302.2m	Sustainability-llinked bond	3	
Thai Union Group PCL	THB6950m	USD210.3m	Sustainability-llinked bond	3	
Bangkok Expressway and Metro Public Company Limited	THB6000m	USD191.2m	Sustainability bond	4	
KasikornBank	EUR155m	USD182m	Sustainability bond	1	
National Housing Authority	THB3000m	USD97.3m	Social bond	1	

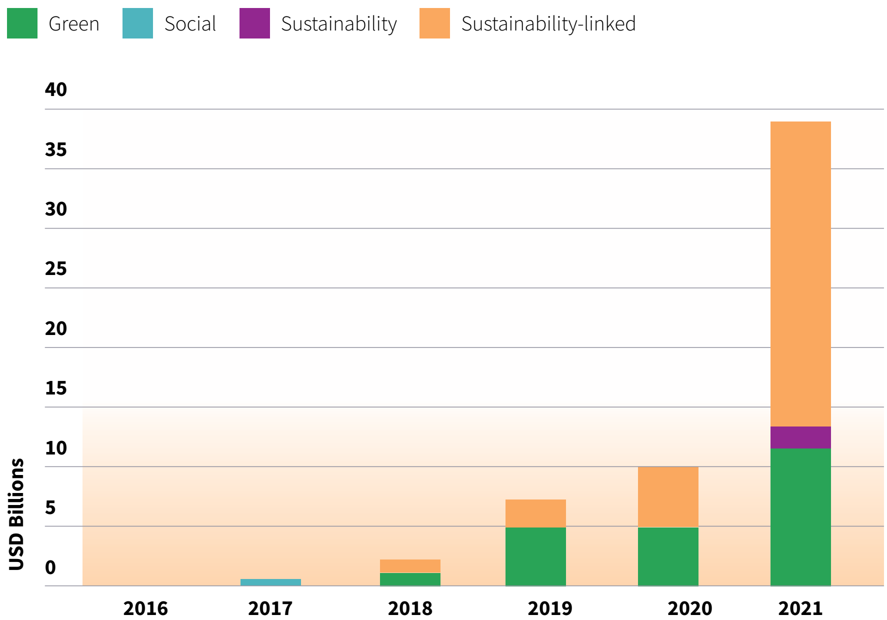
Singapore

While green volumes have been growing consistently since 2016, at the end of 2021 the Singaporean GSS+ market was characterised by the prominent growth of sustainability-linked instruments. Sustainability-linked instruments accounted for 57% of cumulative GSS+ debt originating from the country at the end of 2021. This was followed by 40% of green debt (bonds and loans), and 3% of sustainability bonds.

In January 2021, the Green Finance Industry Taskforce (GFIT), convened by the Monetary Authority of Singapore (MAS) and chaired by HSBC, proposed a first draft of its taxonomy for Singapore-based financial institutions to identify activities that can be considered green or transitioning towards green.

In February 2021, Singapore introduced its **Singapore Green Plan 2030**, a nationwide movement to advance Singapore's national

Sustainability-linked instruments prevail in Singapore



Source: Climate Bonds Initiative

agenda on sustainable development which featured five key pillars:

1. City in Nature
2. Sustainable Living
3. Energy Reset
4. Green Economy
5. Resilient Future.[63]

To achieve these targets, the government will introduce multiple initiatives, one of which is to develop Singapore as the ASEAN green finance hub.

In Budget 2021, it was announced that the Singapore Government and Statutory Boards would issue green bonds to finance select public infrastructure projects. Public sector green bond issuance is expected to help deepen market liquidity for green bonds in Singapore, as well as to attract green issuers, capital, and investors. So far, up to SGD19bn (USD13.7bn) of eligible public sector green projects have been identified. The government plans to establish a **green bond framework** for sovereign green bonds and worked with Statutory Boards to support their green bonds. In September 2021, Singapore's National Environment Agency issued its **first green bond** worth SGD1.65bn (USD1.23bn). Singapore had not issued a sovereign green bond by the end of 2021.

In October 2021, Enterprise Singapore launched the Enterprise Financing Scheme-Green (EFS-Green). Effective from 1 October 2021 to 31 March 2024, EFS-Green provides for risk-sharing of 70% to support lending by partner financial institutions to Project Developers, System Integrators and Technology & Solution Enablers in clean energy, circular economy, green infrastructure and clean transportation sectors.

In December 2021, **the Singapore Exchange (SGX) introduced several enhancements to its sustainability reporting regime** for listed entities with effect from the financial year (FY) commencing 2022. These included climate reporting consistent with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) for all issuers on a comply or explain basis from FY2022; and mandatory reporting for issuers in (i) financial (ii) agriculture, food and forest products and (iii) energy industries from FY2023, followed by (iv) materials and buildings and (v) transportation industries from FY2024.

Singapore - Top issuers

Issuer	Amount issued (local)	Amount issued (USD)	Format	Number of deals	UoP
Green					
Asia Square Tower 1 Pte Ltd	SGD2100m	USD1548m	Loan	1	Buildings
National Energy Agency	SGD1650m	USD1230m	Bond	2	Waste
GLP	USD1150m	USD1150m	Bond	2	Energy, Buildings Transport
South Beach Consortium	SGD1220m	USD908m	Loan	1	Buildings
GOLD Ridge	SGD900m	USD669m	Loan	1	Buildings
Social, Sustainability, Sunstainability-linked					
Sembcorp Financial Services PTE Ltd	SGD675m	USD497m	Sustainability-linked bond	1	
Nanyang Technological University	SGD650m	USD481m	Sustainability-linked bond	1	
China Construction Bank (Singapore)	CNY2000m	USD310m	Sustainability-linked bond	1	
United Overseas Bank Ltd	USD1500m	USD1500m	Sustainability bond	2	
FLCT Treasury Pte Ltd	SGD110m	USD81.2m	Sustainability bond	1	
Sustainability-linked loans					
Trafigura Pte Ltd	USD3650m	USD3650m	Sustainability-linked loan	1	
Flex Ltd (fka Flextronics International Ltd)	USD2000m	USD2000m	Sustainability-linked loan	1	
Changi Airport Group (Singapore) Pte Ltd	SGD2000m	USD1508m	Sustainability-linked loan	1	
Trafigura Pte Ltd	USD1345m	USD1345m	Sustainability-linked loan	1	
AirTrunk Pte Ltd	AUD1622m	USD1194m	Sustainability-linked loan	1	

Indonesia

At the end of 2021, the Indonesian GSS+ market was dominated by the green theme, but with growing shares of sustainability and sustainability-linked instruments. Green debt leads the Indonesian market at 65% of volume followed by equal shares of sustainability bonds and sustainability-linked instruments at 15% each. Social bonds make up a 5% market share.

Indonesian authorities implemented several sustainable finance related initiatives in 2021. The Financial Service Authority (OJK) launched the **Sustainable Finance Roadmap Phase II (2021–2025) on 15 January 2021** to build on the successful implementation of key milestones under Phase I, which ran from 2015 to 2019. The updated Phase II Roadmap includes plans for the development of a complete market ecosystem for sustainable finance and the definition of an appropriate taxonomy in conjunction with other institutions. It also hopes to address the limited amount of research into sustainable finance and the lack of human resources dedicated to assessing and verifying green and other sustainable finance projects.

The OJK also issued **OJK Circular Letter 16/ SEOJK.04/2021 to extend the scope of the annual reporting requirements (in OJK regulation No. 29/2016) to include a sustainable reporting component**. This circular letter sets out the content and component of a sustainability report. All financial service institutions are required to submit a sustainable finance action plan and a sustainability report by April 2022.[64] **The OJK also released Technical Guidelines for Securities Companies on the Implementation of OJK Sustainable Finance Regulation** to provide general guidelines on the principles of sustainable finance for securities companies, specifically for underwriters and broker-dealer firms.[65] Guidelines for wealth management firms will be launched separately

As of December 2021, Indonesia had four local green indices: SRI KEHATI Index, IDX ESG Leader Index, ESG Sector Leaders IDX KEHATI and Indeks ESG Quality 45 IDX KEHATI. In 2021, **Indonesia Stock Exchange (IDX) announced support for the Taskforce for Climate-related Financial Disclosure (TCFD)** and committed to helping Indonesia Listed Companies implement the TCFD recommendations. Indonesia's four sovereign bonds have added credibility to the efforts that are being made to galvanise a domestic GSS debt market and they have earned Indonesia international recognition as a pioneer. Indonesia is finalising the green taxonomy that will be launched in early 2022.

Green is the preferred theme among Indonesian issuers

Source: Climate Bonds Initiative

Indonesia - Top issuers

Issuer	Amount issued (local)	Amount issued (USD)	Format	Number of deals	UoP
Green					
Republic of Indonesia	USD1.1bn	USD750m (global green sukuk); USD350m (IDR5tn) (green retail sukuk)	Bond	1	Energy, Buildings, Transport, Waste, Land Use, Unalloc. A&R
Kepland Investama PT	IDR1.1tn	USD73m	Loan	1	Buildings
Social, Sustainability, Sunstainability-linked					
Republic of Indonesia	EUR500m	USD585.8m	Sustainability bond	1	
Japfa Comfeed Indonesia Tbk PT	USD350m	USD350m	Sustainability-linked bond	1	
Bank Mandiri Persero Tbk PT	USD300m	USD300m	Sustainability bond	1	
Indonesia Infrastructure Finance PT	USD150m	USD150m	Sustainability bond	1	

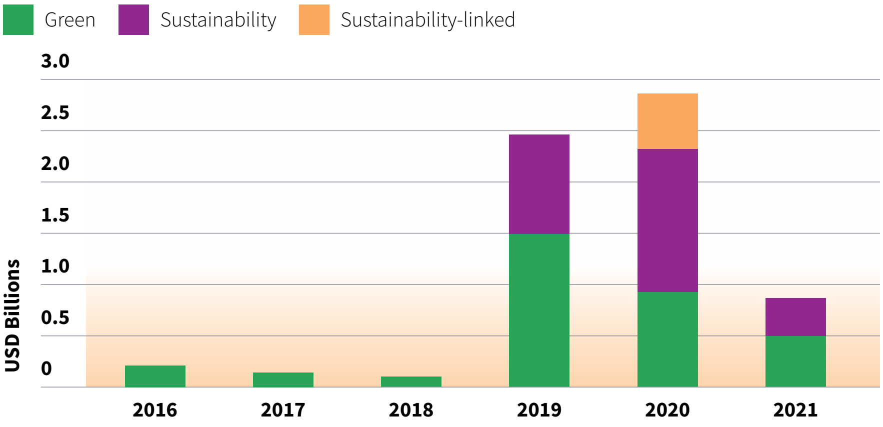
Philippines

UoP debt makes up 93% of the GSS+ volumes in the Philippines market, split 52% of green and 41% of sustainability debt. Sustainability-linked instruments accounted for 7% of the cumulative volume at the end of 2021.

In late 2021, the **Philippine Sustainable Finance Guiding Principles** were launched by the Inter-Agency Technical Working Group for Sustainable Finance as principles-based guidance that helps identify economic activities that contribute to supporting sustainable development, with a focus on addressing the impacts of climate change, and to encourage the flow of capital to these activities.[66] The **Philippine Sustainable Finance Roadmap** was also launched to coordinate and harmonise the government's green policies including outlining government actions in pursuit of developing a sustainable finance ecosystem.[67]

The Bangko Sentral ng Pilipinas (BSP) has stated its intention to strengthen its sustainable finance framework to encourage banks to issue more GSS bonds. In 2021, the BSP has a total of USD550m investment in the BIS Green Bond Fund.[68] BSP acknowledges that the impacts of climate change pose a risk to the financial system and will affect the credit and operational risk exposure of banks, which will extend to profitability and solvency if unmitigated.[69] Consequentially, BSP has considered climate-related weather risk in its inflation forecasting.[70] In addition, BSP has published Guidelines on Sustainable Finance Framework requiring: the integration of sustainability principles including those addressing environmental and social risk areas in corporate governance and the formulation of risk management frameworks as well as defining strategic objectives and operations of banks.[71] Following this, the **Environmental and Social Risk Management Framework was released in October 2021** which sets out the expectations on the integration of environmental and social risks in the credit and operational risk management systems of banks.[72]

Philipine issuers have embraced green and sustainability bonds



Source: Climate Bonds Initiative

Philippines - Top issuers

Issuer	Amount issued (local)	Amount issued (USD)	Format	Number of deals	UoP
ACEN Finance	USD400m	USD400m	Green	1	Energy
Rizal Commercial Banking	PHP17.9bn	USD368.28m	Sustainability	2	NA
Energy Development Corp	PHP5bn	USD102.55m	Green	2	Energy

Vietnam - Top issuers

Issuer	Amount issued (local)	Amount issued (USD)	Format	Number of deals	UoP
Thuan Binh Wind Power JSC	USD57m	USD57m	Green loan	1	Energy
Vinpearl JSC	USD425m	USD425m	Sustainability bond	1	NA
VinFast (Vingroup)	USD400m	USD400m	Green loan	1	Transport
Lien Lap Wind Power Joint Stock Co	USD173m	USD173m	Green loan	4	Energy
Dau Tieng Tay Ninh Energy	USD160.5m	USD160.5m	Green loan	3	Energy

Vietnam

The Vietnamese bond market has grown to represent over USD70bn in 2021. Over 80% of the volume comes from government debt, with development banks being the second-largest issuer type. In late 2020, the National Assembly of Viet Nam passed Environmental Protection Law 2020 with major changes compared to the previous version.[73] Among the changes are the inclusion of the definition, general requirements of green bonds and potential incentives applicable to eligible issuers which will be specified in the following sub-law documents. **A green taxonomy** is being developed together with the promulgation of the law. This new law is expected to be introduced in 2022.

Cambodia

No GSS bonds had originated from Cambodia by the end of 2021 although key policy and regulatory infrastructure is in place. The Securities and Exchange Regulator of Cambodia (SERC) 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, SERC licensed new financial products, such as private equity, real estate investment trusts (REITs), mutual funds, and other types of fund management firms. There are tax incentives for both issuers and investors. Following the signing on 31 December, 2020 of Cambodia's new law allowing the government to sell, trade and manage bonds, regular government bonds are expected to launch soon and will become a benchmark for pricing all financial instruments.[74] Several financial institutions have obtained credit ratings from both international and domestic credit rating agencies, e.g., Moody's, Fitch; and institutional investors, like life insurance companies, have expressed interest in corporate bond investors to diversify their portfolios.

7. Outlook

The ASEAN sustainable finance market has continued to expand in the aftermath of COVID-19. Green and sustainability themes dominate in the largest ASEAN-6 economies. Two regional key trends can be observed in 2021: 1) the dominance of the green theme, but with the increasing market share of sustainability instruments in the GSS markets; and 2) the exponential growth of sustainability-linked instruments.

Local currency capital markets are at different stages of development across member economies, but are generally growing. The extent of current sustainable finance market development also varies greatly by country, but the legal and policy frameworks are becoming more supportive towards sustainable finance, with the notable addition of a draft ASEAN Taxonomy in 2021.

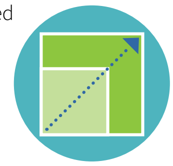
While supply has increased, demand for sustainable finance instruments in ASEAN is also growing, from multiple sources. Greater investor understanding of climate risk, the enthusiasm to explicitly align sustainable investment with the SDGs, new investment product launches, and broadening market presence have all contributed to demand. Several regional policies and actions suggest continuing progress to promote local currency sustainable finance in ASEAN.

Issuers, investors, development finance institutions (DFIs), regulators, central banks, policymakers, and stock exchanges each have a role to play in the creation of a credible sustainable finance market in ASEAN. Climate Bonds suggests the following actions:

1. Sovereign GSS Bonds can underpin thriving local markets

Sovereign GSS bonds support government climate action plans, create accountability, and attract private capital to sustainable projects. Sovereign GSS bonds are a proven catalyst for green market creation, acting as large, liquid benchmarks; lynch-pin investments for dedicated funds; and encouraging the development of the necessary infrastructure such as a community of local verifiers.

2. Identification of the climate-aligned universe can enlarge potential investments



The unlabelled climate-aligned bond universe can extend the opportunity set for investors. Identification of this portion of the market also highlights opportunities for issuers to refinance maturing debt with labelled bonds.

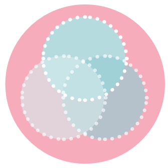
3. Grant schemes can help with the costs

Regulators and central banks can use grants to encourage sustainable finance flows, for example by sponsoring the costs associated with obtaining an SPO. Singapore has set a precedent for this, others could follow.

4. Policy makers must lead by example

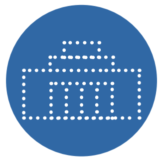
Green/sustainable projects in the real economy should be encouraged through policy and institutional changes, for example, ambitious energy standards for buildings, or the introduction of zero emissions zones or vehicle charging stations in town centres through urban planning. Public procurement should have a sustainable focus, e.g., new public buildings should include maximum energy efficiency, public sector vehicles should be zero emission, and public construction projects should integrate climate resilience and natural capital solutions.

5. Blended finance solutions attract a diverse pool of investors



DFIs and multilteral development agencies can partner with the private sector to encourage more investors to support sustainability initiatives through de-risking of green and sustainable projects.

6. Central banks can mobilise build back better



ASEAN central banks must use their post-pandemic recovery toolkits to protect member states from future systemic risk arising from climate change.

7. Local stock exchanges can increase visibility and support market integrity

Dedicated GSS bond segments on stock exchanges with reference information on green and sustainable assets and projects; indices to define the investible universe and enable the construction of ETFs and other derivatives.

8. Credibility is key to mobilising transition finance to support decarbonisation in ASEAN

Key stakeholders from both the public and private sectors should be engaged to foster a common understanding of transition concepts that is credible. This should include the development of national and/or sector-specific decarbonisation pathways in the ASEAN context that are both transparent and science-based.

8. Appendices

Appendix A

The following table shows the composition of labels in each theme.

Green	Sustainability	Social	SLB	Transition
Blue	ESG	Affordable Housing	Sustainability-linked	Transition
Climate	Green Innovation	Education	ESG-linked	Blue Transition
Green	Positive Impact	Gender Equality	SDG-linked	Green Transition
Green (Carbon Neutrality)	Sustainability	Healthcare	Social Impact-linked	Low-carbon Transition
Renewable Energy	Sustainability Awareness	SDG Housing	Social & Sustainability-linked	
Solar	SDG	Town Revitalisation		
Environmental	Socially Responsible Investing (SRI)	Youth		
Water		Employment		
PACE				

Appendix B

Methodology notes & caveats

1. Due to the methodological difference between green and other themes, it is important to note that **Climate Bonds analysis of other themes is merely an indicator of the financing aimed at each, based on the label applied to each deal**.

For instance, some deals labelled as SDG, and therefore included under the sustainability theme, may only actually finance social projects. Importantly, there will also, for example, be various deals under the social and sustainability themes that finance, in whole or in part, pandemic-related investments. *Climate Bonds is developing more granular UoP analysis for other themes*.

2. Climate Bonds GBDB includes many loans and ABS deals. These have historically been treated these as issuer types, and the same applies to this report. However, under Climate Bonds new methodology, these are considered *different instrument* – not *issuer* – types. It remains uncommon to see loans or ABS deals with a sustainability, social, or pandemic label. Performance-linked loans are not included.

Climate Bonds Database updates

Climate Bonds has expanded data coverage to other labelled debt instruments, particularly sustainability and social bonds, and a separate database covering these will be launched in 2022. The extended databases will complement other enhancements to our data collation and analysis including the collection of more granular information on the UoP and impacts of green bonds, more robust and detailed analysis of climate-aligned issuers, and a more detailed assessment of SDG alignment.

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