

Foreword

As Sustainable Responsible Investment (SRI) gains prominence amid growing investor awareness and participation in the ethical and sustainability-themed investment market, this research publication - aptly entitled **Trending:**Sustainable responsible investment in Malaysia and the region - is most timely, given that it provides insights on how the key ASEAN regional markets, namely Malaysia, Indonesia, the Philippines, Singapore, Thailand and Vietnam are driving SRI and adopting environmental, social and governance (ESG) practices.

This publication also provides insights on how the ASEAN6¹ countries are shaping policies to mitigate the impact of climate change while striving to advance or incorporate sustainability in their organizational and investment objectives.

Among the significant developments in the SRI market is the exponential growth of ASEAN sustainable bonds and *sukuk* (Islamic bonds) and the increasing investment focus on energy, green buildings and transportation, as well as the growing issuance of sustainability-themed products.

The publication also zooms in on the development of the ASEAN bourses in adopting ESG and sustainability; the green roadmaps, policies and regulations; and how these factors align with international initiatives to achieve a sustainable agenda by 2030.

With more ASEAN countries developing sustainability-themed assets, there is promising growth for the region's responsible investment market segment in the years ahead.



Lya RahmanChairperson,
Sustainable Investment Platform
Steering Committee

About SIP

- ► The Institutional Investors Council Malaysia (IIC) and Capital Markets Malaysia (CMM) jointly established the Sustainable Investment Platform (SIP) in April 2021. The SIP's objective is to support institutional investors and the fund management industry in building the depth of SRI strategies which align financial returns with broader ESG priorities
- Notably, the SIP's mandate coincides with several initiatives that strive to bring sustainable finance and responsible investing into the mainstream Malaysian capital market.

Market perspectives

Malaysia, along with the rest of ASEAN, are fast-tracking into sustainable responsible investment as they target positive impact and positive returns.

Prior to the COVID-19 pandemic, global markets were already trending on SRI as major investors sought positive impact as well as positive returns. For institutional investors, this new bottom line has accelerated the use of ESG methodology as part of the screening and filtration process for investment selection.

ASEAN, with a sizeable capital market exceeding US\$4.0t of assets under management, is stepping up focus on SRI as a new investment area. In just five years, 2016 to 2020, the ASEAN markets recorded an exponential 185% CAGR growth of ASEAN sustainable bonds, as well as an exponential 278% CAGR growth of sustainability-themed *Shariah*-compliant *sukuk*.

Looking ahead, the progressive ESG policy developments of the ASEAN6 countries and their increasing commitment toward net-zero carbon are fast-tracking the regional growth of sustainable responsible investment into the next decade.



Liew Nam SoonEY Asean Regional Managing
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ASEAN investment matters

Buoyant dynamics and talent diversity continue to attract investor focus

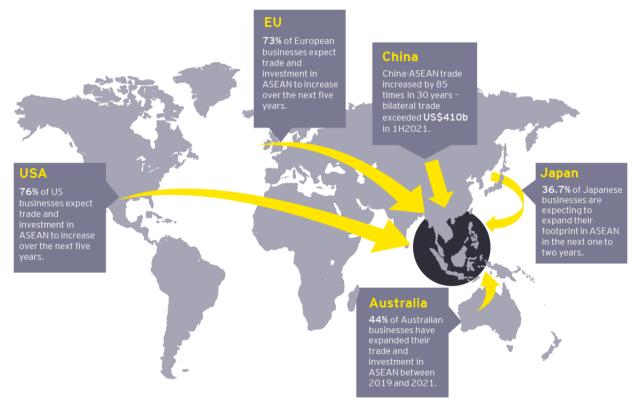
ASEAN is a key regional hub propelled by dynamic economies and strong international trade linkages. ASEAN GDP, estimated at over US\$3.0t, is projected to grow at a steady pace of about 5.3% CAGR over the medium-term, 2022 to 2025.

Today, the ASEAN6 total market capitalization of over US\$2.8t1 is ranked 11th among global capital markets. The EY Capital Confidence Barometer 2021 (Southeast Asia) indicated that two-thirds of Southeast Asian executives perceived that their companies have outperformed in operational stability relative to their competitors during the pandemic. This confidence elevates the optimism for a near-term recovery with 86% saying they expect revenues to return to pre-pandemic levels by 2022. By mid-2022, more than half (56%) of Southeast Asian executives² expect to pursue mergers and acquisitions.

ASEAN's growth is well-supported by its significant middle-class population of 193 million people comprising a third (33%) of the ASEAN6 population and its relatively young consumer demographics with over half (57%) of its population aged below 30 years.

Furthermore, among the emerging markets, ASEAN is a focal point of global investor interest as reflected by the findings of 2021 investor surveys across key OECD markets, including Australia, China, Japan, the European Union (EU) and the USA as highlighted below:

Chart 1: ASEAN focus - international trade and investment expectations



ASEAN6 market capitalization includes the Indonesia Stock Exchange (IDX), Bursa Malaysia, the Philippine Stock Exchange (PSE), Singapore Exchange (SGX), the Stock Exchange of Thailand (SET), Ho Chi Minh Stock Exchange (HOSE) and Hanoi Stock Exchange (HNX), as of September 2021.
 Refers to survey respondents in the EY Capital Confidence Barometer 2021 (Southeast Asia)

- 2021 ASEAN Business Outlook Survey: ASEAN's role in the Asia-Pacific, The American Chamber of Commerce in Singapore, March 2021 2020 JETRO Survey on Business Conditions of Japanese Companies Operating Overseas (Asia and Oceania), Japanese External Trade Organization (JETRO),
- Australia Business in ASEAN Survey 2021, Australia-ASEAN Chamber of Commerce, August 2021 EU-ASEAN Business Sentiment Survey, EU-ASEAN Business Council, 2019-2020
- Press Conference on Economic and Trade Cooperation between China and ASEAN, the 18th China-ASEAN Expo, and the 18th China-ASEAN Business & Investment Summit Held in Beijing, China-ASEAN Business and Investment Summit (CABIS), 17 August 2021

 Wang Yi: Trade between China and ASEAN Increases by Nearly 40 Percent in the First Half of 2021, Ministry of Foreign Affairs of the People's Republic of China,
- 3 August 2021
- World Federation of Exchanges

ASEAN is committed to mitigating the impact of climate change

Thailand

- ► To reduce GHG emissions by 20% from the projected business-as-usual level by 2030
- ► To increase the installed capacity of renewable energy (RE) to 30% by 2037
- ► SET launched the SET Link platform to assist listed companies to enhance sustainability practices

Malaysia

- ► To reduce 45% of economy-wide carbon intensity¹ by 2030
- ► To increase the total installed capacity of RE to 31% by 2025 and 40% by 2035
- ► SC released a public consultation paper on principles-based SRI Taxonomy

Singapore

- ► To reduce emission intensity by 36%
- ► To deploy at least 2GWp of solar power by 2030 and 200MW of energy storage systems beyond 2025
- ► SGX is investing SG\$20m to expand its sustainability capabilities and initiatives



Notes

²Singapore's enhanced nationally determined contribution (NDC) aim to achieve peak emissions at 65MtCO₂e around 2030.

Sources: United Nations Framework Convention on Climate Change (UNFCCC); respective government agencies' official websites; media releases; EY research, Malaysia

 $^{^1}$ Carbon intensity refers to greenhouse gas (GHG) intensity from seven GHGs namely carbon dioxide (CO $_2$), methane (CH $_4$), nitrous oxide (N $_2$ 0), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF $_6$) and nitrogen trifluoride (NF $_3$).

and advancing sustainability

Vietnam

- ➤ To reduce 9% to 27% of GHG emissions by 2030
- ► To increase the utilization rate of RE from about 7% in 2020 to more than 10% in 2030
- ► The World Bank³ provided an US\$11.3m grant to spur energyefficiency investments in Vietnam

Philippines

- ► To reduce 75% of GHG emissions⁴ by 2030
- ➤ To increase RE capacity to at least 20,000MW by 2040
- ► The Government plans to spend about P318.6b on green projects in 2021-2022

Indonesia

- ► To reduce 29% of GHG emissions by 2030
- ➤ To increase new and renewable sources of energy to at least 23% by 2025 and 31% by 2050
- Indonesia requires at least Rp67,803t for green investment and green financing

Notes

- ³ The World Bank, acting on behalf of the Green Climate Fund (GCF), signed the grant with the State Bank of Vietnam (SBV). The total financing support from the GCF includes a US\$75m guarantee.
- ⁴ For the Philippines, of the 75% targeted reduction of GHG emissions, 72.29% is conditional upon the support of climate finance, technologies and capacity development and 2.71% is unconditional and shall be implemented through domestic resources.

Sources: United Nations Framework Convention on Climate Change (UNFCCC); respective government agencies' official websites; media releases; EY research

Executive summary

Why ASEAN investment matters

Buoyant economic growth

Between 2010 and 2020, ASEAN1 recorded an above average economic growth of 6%. Over the next four years, 2022-25, the ASEAN economy is expected to grow steadily at a moderate pace of 5.3%, surpassing the average global growth forecast of 3.8%.

Commitment to a low-carbon economy

The ASEAN6 countries are generally committed to addressing climate change by reducing GHG emissions by an estimated average of 38% by 2030. To date, there are 67 ASEAN6 signatories to the UN Principles for Responsible Investment (PRI), including asset owners, asset managers and service providers.

Exponential growth in sustainable bonds and sukuk

ASEAN6 issued significant increases in sustainable bonds and sukuk (CAGR 198%) to finance growth which is aligned with ESG principles.

Average RE investment of US\$50b

The ASEAN RE sector is anticipated to attract an average investment of US\$50b per annum from 2025 to 2030.

Potential US\$1t of green/low-carbon business opportunities

By 2030, the ASEAN green / low-carbon economy is estimated to provide potential annual business opportunities of nearly US\$1t.

Did vou know?

ASEAN average GDP growth forecast (2022-25)

ASEAN6 average target for reduction in GHG by 2030

198%

CAGR of ASEAN sustainable bonds and sukuk issuance (2016-20)

US\$50b

Value of ASEAN average investment per annum in RE (2025-30)

US\$1t

Value of ASEAN potential business opportunities from the green/lowcarbon economy

Note: ¹ ASEAN refers to Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, the Philippines, Singapore, Thailand and Vietnam



- ► Global
- **▶** Bonds
- ► Equities
- ► Mutual funds

Definition:

Sustainable responsible investment (SRÍ)

SRI generally includes sustainable-themed investments which are focused on ESG or the sustainable development goals (SDGs). SRI also includes impact investing based on positive. measurable social and environmental impact alongside financial returns.

Generally, the broader "responsible investment" segment does not directly target ESG or SDG-related themes. The four strategies adopted in the selection of targets include the integration of ESG factors in investment decisions, positive screening, negative screening and norms-based screening.

SRI by themes

- ► Sustainability-themed investment: targets ESG or SDG-related themes
- ► Focused on social, financial market return and environmental impact

SRI by strategies and operations

- ► Responsible investment: general investment conducted in a sustainable responsible manner but not directly targeting ESG or SDG-related areas
- ► Focused on financial market return

Sustainability-themed bonds/sukuk, equities and funds

Sustainability-themed

Invest in themes or assets around the **UN SDGs**

Impact investing

Generate positive, measurable social and environmental impact alongside financial return

All investment products

ESG integration

Integrate ESG factors into investment decisions to better manage risk and enhance financial returns

Positive screening

Select companies across industries based on their sustainability performance

Negative screening

Exclude activities or industries with clearly defined negative impact

Norms-based screening

Screen against the minimum standards of business practices based on international norms

SRI products

Bonds / Sukuk

- Green
- Sustainability
- Social

Equities

Sustainability indices

Mutual funds

Sustainability-related funds / ESG funds / SDG-themed funds

Note: SRI excludes green loans, social loans and sustainability loans

- Global Sustainable Investment Review 2020, Global Sustainable Investment Alliance (GSIA)
 Financing for Sustainable Development Report 2020, United Nations, Inter-agency Task Force on Financing for Development
 World Investment Report 2020 and 2021, United Nations Conference on Trade and Development (UNCTAD)

Global

Global institutional investors are focusing on ESG considerations

According to the EY Global Institutional Investor Survey (GIIS) 2021, 90% of institutional investors are focusing on the integration of ESG considerations into investment decision-making aside from risk identification across their portfolios and investment targets. Almost three-quarters (74%) are likely to divest companies with poor ESG track records. Most investors (77%) plan to step up on physical risk1 analysis and 80% will do more to evaluate transition risks².

Chart 2: Highlights of the EY Global Institutional Investor Survey 2021



of institutional investors will put greater emphasis on the corporates' ESG performance while making investment strategies and decisions.



of the investors surveyed would like the reporting of ESG performance measures against a set of globally consistent standards to become a mandatory requirement.



said that investing in companies that have aggressive carbon-reduction initiatives is crucial in their decision-making strategies.



mentioned that the lack of supply in green investments may lead to investors overpaying for areen assets.



of institutional investors are now more prone to divest companies with poor ESG performance.

About the EY GIIS 2021:

EY teams conducted a survey in June to July 2021 and received responses from 320 institutional investors across 19 countries. The respondents comprised Chief Investment Officers (28%) Managing Directors (27%), CEOs (19%), Research Directors (12%), portfolio managers (10%) and equity analysts (5%) from the Americas (38%), EMEIA³ (36%) and Asia-Pacific (26%).

Notes:

¹ Physical risks refer to the impact of climate change on a business' ability to provide its products and services

² Transition risks refer to the market impact that might result from the move to a low-carbon economy

³ EMEIA refers to Europe, the Middle East, India and Africa

Source: Is your ESG data unlocking long-term value?, EY, November 2021

Global sustainable investment

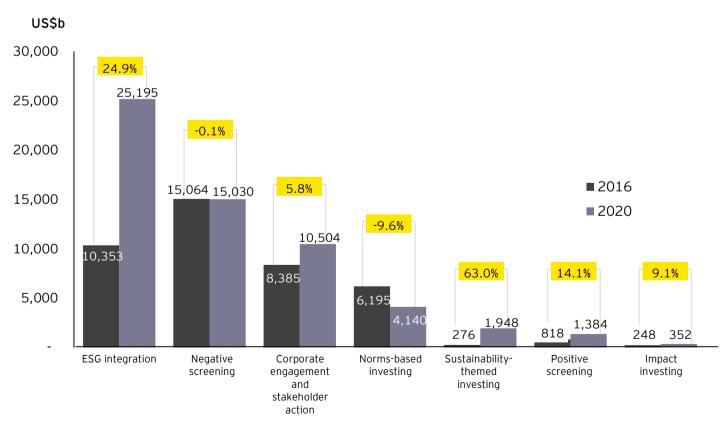
Among the sustainable investment strategies, ESG integration is the leading strategy, generating investments of over US\$25t in 2020.

Although sustainability-themed investing is a comparatively new investment strategy, it has experienced a significant 63% CAGR growth since 2016 to reach nearly US\$1.9t of assets in 2020.

From 2016 to 2020, ESG integration and sustainability-themed investing posted strong growth while norms-based screening, positive screening as well as negative screening have experienced more variable trajectories.

In the medium- to long-term, the development of SRI will be shaped by investors' preferences for ESG-related products, regulatory support to transition financial systems to be "greener" and the growth of investment products and services related to ESG (e.g., funds, ratings and indices).

Chart 3: Global sustainable investing strategies, 2016-20



ESG Investing: Practices, Progress and Challenges 2020, Boffo, R., and R. Patalano, OECD Paris Global Sustainable Investment Review 2020, GSIA

Exponential growth of ASEAN sustainable bonds and sukuk

From 2016 to 2020, ASEAN sustainable bonds and sukuk issuance grew exponentially at 198% CAGR to US\$22.1b in 2020. The preliminary estimate of total sustainable bonds and sukuk issued was US\$29.8b in 2021.

As of 2 November 2021, green bonds and *sukuk* comprised nearly two-thirds (63%) of ASEAN sustainable bonds and *sukuk* issuance. Green bonds and *sukuk* rose exponentially by 106% CAGR, from US\$253m in 2016 to US\$4.5b in 2020.

Chart 4: Growth trend of ASEAN6 sustainable bonds and sukuk, 2016-21*

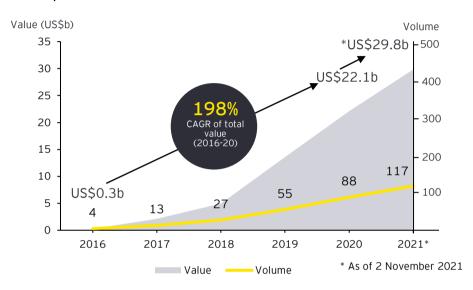
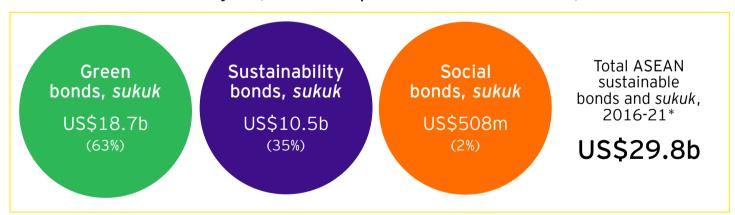


Chart 5: ASEAN6 - Value of green, sustainability and social bonds and sukuk, 2 November 2021



Notes:

The value of bonds and sukuk includes the respective bonds and green sukuk, sustainability sukuk and social sukuk as of 2 November 2021.

- ¹ Green bonds and *sukuk* are debt instruments which enable capital-raising and investment for projects with environmental benefits. ² Sustainability bonds and *sukuk* are debt instruments where the proceeds will be applied to financing both green and social projects.
- ³ Social bonds and *sukuk* are debt instruments that raise funds for new and existing projects with positive social outcomes.

- ASEAN Capital Markets Forum
- ASEAN Sustainable Finance, State of the Market 2020, Climate Bond Initiatives (CBI)
- Media releases
- ▶ EY research

ASEAN6 markets: SRI bonds and sukuk

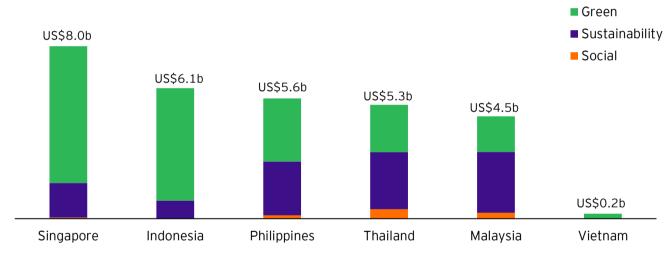
From 2016 to 2020, Singapore issued nearly half (45%) of the ASEAN green bonds valued at US\$6.4b.

Malaysia leads in sustainable *sukuk* issuance with total *sukuk* (green, sustainability and social *sukuk*) valued at US\$3.9b.

The Philippines has an estimated one-third or 33% share of ASEAN sustainability bonds valued at US\$2.5b.

Thailand issued the most social bonds with a total issuance of US\$436m.

Chart 6: ASEAN6 aggregated value of SRI bonds and *sukuk* issuances by type, 2016-21*



Note: Sustainable bonds and sukuk include green, sustainability and social bonds/sukuk as of 2 November 2021. Numbers may not add up to total due to rounding adjustments.

- ASEAN Capital Markets Forum
- ► ASEAN Sustainable Finance, State of the Market 2020, CBI
- ▶ Media releases
- ► EY research

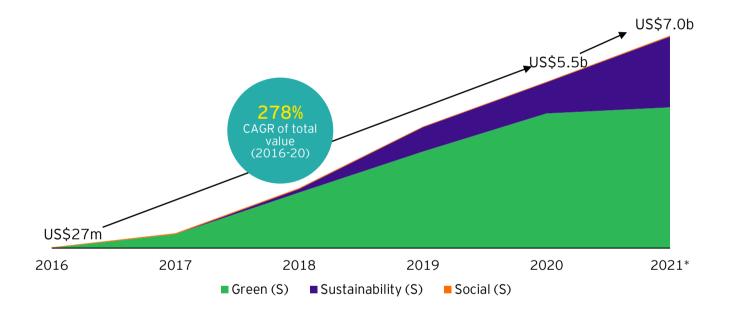


ASEAN6: sustainable sukuk on high growth trajectory

Over the last five years, 2016-20, ASEAN6 sustainable *sukuk* issuances grew 204 times.

As of 2 November 2021, the value of ASEAN6 sustainable *sukuk* is estimated to be U\$\$7.0b. Among the sustainable *sukuk* (green, sustainability and social), Malaysia is the prime issuer at U\$\$3.9b. Two-thirds (66%) of ASEAN6 *sukuk* are green *sukuk*, valued at U\$\$4.7b.

Chart 7: ASEAN6 value of sustainable sukuk issuances, 2016-21*



Total ASEAN6 <i>sukuk</i> issued (as of 2 November 2021)	No. of issuers	Value (US\$)	% of total sukuk
Green sukuk	19	4.7b	66%
Sustainability sukuk	8	2.3b	33%
Social sukuk	1	27m	1%

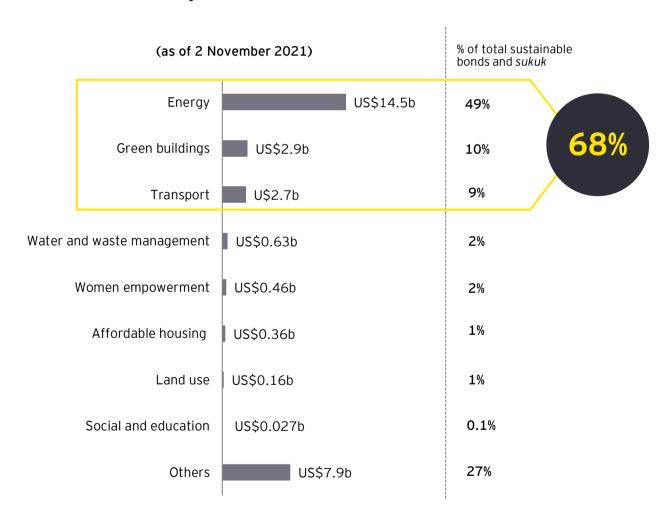
Note: Numbers may not add up to 100% due to rounding adjustments.

- ASEAN Capital Markets Forum
- ► ASEAN Sustainable Finance, State of the Market 2020, CBI
- Media releases
- ▶ EY research

ASEAN6: sustainable bonds and sukuk are financing energy, green buildings and the transport sector

- The energy sector is the key driver of ASEAN6 sustainable bonds and sukuk, comprising almost half (49%) of the bond issuances.
- ▶ Green buildings account for 10% of the ASEAN6 issuance of sustainable bonds, followed by the transport sector at 9%.
- These three sectors command 68% of the ASEAN6 total issuance of bonds and sukuk.

Chart 8: ASEAN6 - Percentage of total sustainable bonds and sukuk



Note: Others refer to sustainability (including green) projects such as pollution prevention and control, clean transportation, sustainable water and wastewater management, climate change adaptation and green buildings.

Numbers may not add up to 100% due to rounding adjustments.

- ASEAN Sustainable Finance, State of the Market 2020, CBI World Investment Report 2020 2021, UNCTAD
- EY research

ASEAN6: overview of the bond market

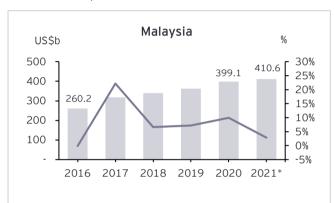
Significant market development

From 2016 to 2020, the significant development of the ASEAN6 bond market strengthened its financial sector's resilience. The total estimated ASEAN6 bonds outstanding is projected to reach over US\$2.0t in 2021.

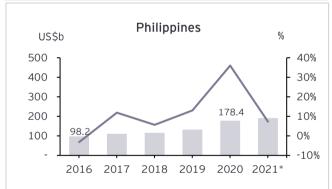
Malaysia, Indonesia, Singapore and Thailand accounted for more than 83% share of the ASEAN6 bond market in 2020.

Chart 9: ASEAN6 total outstanding bonds¹, 2016-21*

* As of 30 September 2021

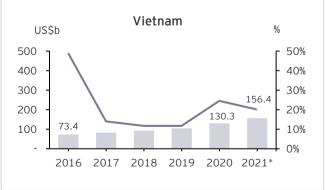












Note:

Total outstanding bonds include local currency (LCY) outstanding bonds (government bonds, corporate bonds and central bank bonds). LCY-denominated bonds are bonds issued by government, corporates and financial institutions.

- Asia Bond Online; data retrieved from official website on 17 November 2021. Asia Bond Monitor September 2021, Asia Bond Online, September 2021

ASEAN: green bond standards

Green bonds and *sukuk* issued by ASEAN corporates and financial institutions adopt either one of the following green bond standards and guidelines issued by ACMF, CBI or ICMA.

Chart 10: Key green bond standards and guidelines in ASEAN

	ASEAN Green Bond Standards (AGBS)	Climate Bonds Standards (CBS)	Green Bond Principles (GBP)
Issuer	► ASEAN Capital Markets Forum (ACMF)¹	Climate Bonds Initiative (CBI)	► International Capital Market Association (ICMA) ²
Project details	 To enhance transparency and create uniformity of the green bonds in ASEAN Eligible for green projects with clear environmental benefits Fossil fuel power generation projects are excluded to mitigate greenwashing 	 The Climate Bonds Standard & Certification Scheme is for relevant stakeholders to identify and prioritize low-carbon and climate-resilient investments and mitigate greenwashing. Bonds, loans or other debt instruments under the Certification Scheme are aligned with the GBP and other global green bond standards (including the AGBS) All eligible projects and financing assets are aligned with the Paris Agreement goals. 	 To enhance transparency and disclosure and promote integrity in the development of the green bond market. Eligible for green projects with clear environmental benefits. The proceeds of green bonds can be managed through a bond-by-bond approach or portfolio approach.
Reporting	 Encouraged to provide more frequent periodic reporting 	 Mandatory to prepare and disclose the Green Bond Framework pre-issuance or at issuance. 	► Information on the use of proceeds should be updated and readily available annually until full allocation, and on a timely basis in the event of material developments.
External review	Voluntary basis (but recommended)	► Mandatory	► Recommended

Notes:

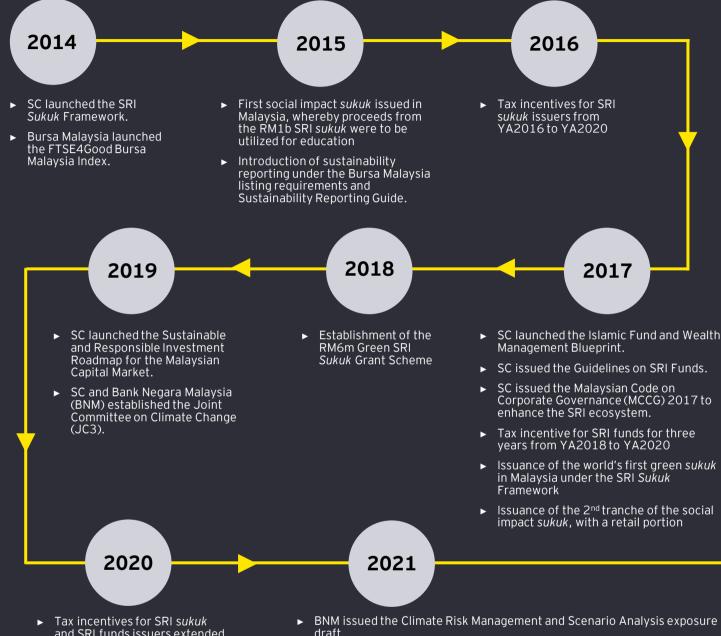
Sources: ACMF official website, ICMA official website, CBI official website, EY research

 $^{^1\}mathrm{ACMF}$ also published the ASEAN Social Bond Standards (ASBS) and the ASEAN Sustainability Bond Standards (ASUS).

²ICMA also published the Sustainability Bond Guidelines (SBG) and the Sustainability-Linked Bond Principles (SLBP).

Illustration:

SRI initiatives in the Malaysian capital market



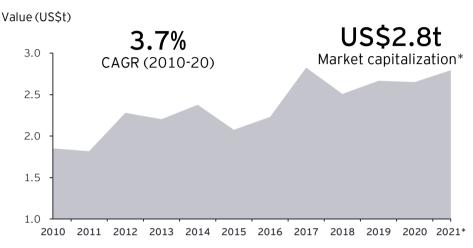
- and SRI funds issuers extended from YA2021 to YA2023 (Budget 2020)
- The Government approved an additional RM2b allocation under the Green Technology Financing Scheme (GTFS 3.0) until 2022 to encourage the issuance of SRI Sukuk (Budget 2021).
- draft.
- SC issued the revised MCCG 2021 which incorporates ESG areas of focus.
- SC expanded its Green SRI *Sukuk* Grant Scheme, and renamed it as the SRI *Sukuk* and Bond Grant Scheme.
- SC released a public consultation paper on Principles-based SRI Taxonomy.
- SC launched the NaviGate: Capital Market Green Financing Series, to create greater awareness and connectivity between green companies and the capital markets.
- The Government issued a RM666m Sukuk Prihatin to contribute toward the COVID-19 fund.
- The Government issued the world's first sovereign US dollar-denominated Sustainability Sukuk, via the issuance of US\$800m 10-year trust certificates, where the proceeds will be used for eligible social and green projects that are aligned to the SDG goals.
- The Government has proposed the issuance of up to RM10b of sustainable *sukuk* for eligible social or environment-friendly projects (Budget 2022).

Source: EY research

ASEAN bourses are serious about ESG and sustainability

- ► ASEAN6 stock exchanges are part of the Sustainable Stock Exchanges (SSE) initiatives.
- ► ASEAN6 stock exchanges require public listed companies to submit ESG disclosure information.
- ▶ Most ASEAN6 bourses have launched sustainability-equity indices as a transparent platform for investors to track the performance of companies with good ESG practices.

Chart 11: Total ASEAN6 market capitalization, 2010-21*



*Market capitalization of seven stock exchanges in ASEAN which include IDX, Bursa, PSE, SGX, SET, HOSE and HNX. Historical 2010-20 data as at 31 December each year, except for 30 September 2021.

	Malaysia	Indonesia	Philippines	Singapore	Thailand	Vietnam
Stock exchange	Bursa Malaysia (Bursa)	Indonesia Stock Exchange (IDX)	Philippine Stock Exchange (PSE)	Singapore Exchange (SGX)	The Stock Exchange of Thailand (SET)	Ho Chi Minh Stock Exchange (HOSE)
Requires ESG reporting	✓		/			✓
Written guidance on ESG reporting¹	✓	✓	✓	✓	✓	/
ESG-related training		✓	/	/	/	✓
Sustainability equity indices	► FTSE4Good Bursa Malaysia	► SRI-KEHATI Index		► SGX ESG Leaders Index	► SET Thailand Sustainability Index	► Vietnam Sustainability Index (VNSI)
In ► F Bi M	Index ► FTSE4Good Bursa	► IDX ESG Leaders Index		► SGX ESG Transparency Index	(SETTHSI)	ilidex (VIVSI)
	Malaysia ► ESG Se Shariah Index Leade	Leaders IDX KEHATI				
		► ESG Quality 45 IDX KEHATI				

Reporting instruments referenced in written guidance on ESG reporting include the Global Reporting Initiative (GRI), the Sustainability Accounting Standards Board (SASB), the International Integrated Reporting Council (IIRC), the Carbon Disclosure Project (CDP), the Task Force on Climate-Related Financial Disclosures (TCFD) and the Climate Disclosure Standards Board (CDSB)

- Tinancial Services Authority of Indonesia or Otoritas Jasa Keuangan (OJK); Securities Commission Malaysia (SC); Bursa Malaysia; Bangko Sentral ng Pilipinas (BSP); SGX; SET; State Securities Commission (SSC) of Vietnam Market Statistics November 2021, World Federation of Exchanges; data retrieved from official website on 17 November 2021 Rediscover ASEAN: a growth story of 10 countries, EY, May 2017 SSE Initiatives

- World Investment Report 2020 2021, United Nations Conference on Trade and Development (UNCTAD) EY research

ASEAN6: equity markets Steady growth

From 2016 to 2020, the total market capitalization of the ASEAN6 markets grew at 4.4% CAGR to US\$2.6t in 2020, catapulting ASEAN6 to 11th position among the world's largest capital markets.

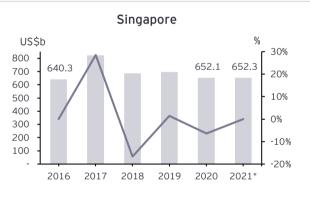
Chart 12: ASEAN6 market capitalization1, 2016-21*

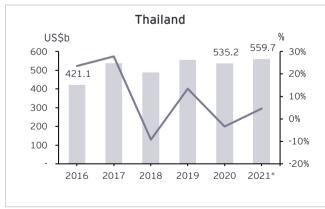














¹Market capitalization of seven stock exchanges in ASEAN6 including Bursa, IDX, PSE, SGX, SET, HOSE and HNX. Historical data as of 31 December from 2016 to 2020, except September 2021.

- Market Statistics November 2021, World Federation of Exchanges; data retrieved from official website on 17 November 2021 OJK; SC; Bursa Malaysia; BSP; SGX; SET; SSC Vietnam *Rediscover ASEAN: a growth story of 10 countries*, EY, May 2017

- EY research

ASEAN6: sustainability indices

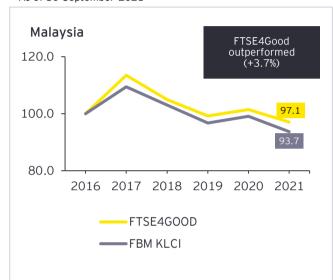
Mixed performance

Equities

From 2016 to 2020, Malaysia's FTSE4Good, and Singapore's ESG Leaders and ESG Transparency indices outperformed their respective local capital market indices. These sustainability indices are indicative references of the ESG investment focus in the ASEAN markets.

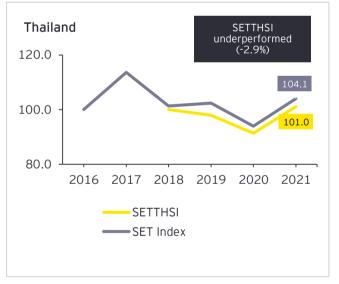
Chart 13: ASEAN6 sustainability index performance¹, 2016-21*

* As of 30 September 2021









- Refinitiv (formerly Thomson Reuters)
- EY research

Index performance (as of 31 December each year) includes the Jakarta Composite Index, Indonesia Sri KEHATI Index, LQ45 Index, FTSE4Good Bursa Malaysia Index, FBM KLCI, Singapore ESG Leaders Index, Singapore ESG Transparency Index, Straits Times Index, SETTSHI and Stock Exchange of Thailand (SET) Index

² Indonesia's LQ45 Index constituents comprise 45 companies that have been included in the top 60 companies with the largest market capitalization and highest transaction value within the last 12 months, listed in the IDX for a minimum of 3 months and have sound financial conditions, growth prospects, high transaction value and frequency.

^{*}Historical information for IDX ESG Leaders Index (2016-19), FTSE4Good Shariah (2016-20) and SETTSHI (2016 and 2017) is not available, and VNSI is not accessible as at 22 September 2021. 2021 figures as at September 2021.

1

Mutual fund

ASEAN6: mutual fund market

Double-digit growth momentum

The generally robust economic outlook of the ASEÁN6 markets will continue to attract investor focus on the trending fund opportunities in the growth sectors.

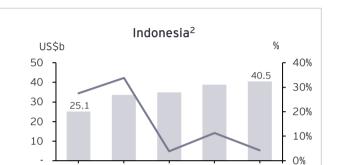
From 2016 to 2020, total assets under management (AUM) of ASEAN6 grew rapidly by 15.9% CAGR to US\$4.0t in 2020.

Total AUM

Y-O-Y growth

Chart 14: ASEAN6 total AUM1, 2016-20





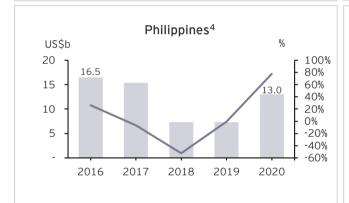
2018

2019

2020

2016

2017









- Notes:

 1 All figures are based on total AUM, except Thailand and Vietnam which are based on net asset value (NAV).

 2 Indonesia AUM includes the money market, equities, balanced funds, fixed income, protected funds, index funds and exchange-traded funds.

 3 Malaysia AUM includes equities, fixed income securities, money market placements, unit trust funds, private equity/unquoted stocks and others.

 4 the Philippines AUM includes feeder funds, fund-of-funds, fixed income funds, balanced funds, equities, bond funds, money market funds and others.

 Historical data for 2019 and 2020 as of June for each respective years.

 5 Singapore AUM includes traditional and alternative funds (i.e. hedge fund, private equity, REITs, real estate).

 6 Thailand NAV includes mutual funds and trust funds, excluding property funds, infrastructure funds, vayupak funds and country funds.

 7 Vietnam refers to HOSE NAV. Y-O-Y growth for 2015-16 is not available.

- PT Bareksa Portal Investasi; SC Malaysia; Trust Officers Association of the Philippines; Monetary Authority of Singapore (MAS); The Securities and Exchange Commission (SEC), Thailand; SSC Vietnam EY research



- ► Priority areas
- ► Roadmaps and action plans
- ► Sustainability roadmaps and plans
- ► Regulatory focus

ASEAN sustainable capital market: roadmap and priority areas

In May 2020, the ASEAN Capital Markets Forum (ACMF) launched the Roadmap for the ASEAN Sustainable Capital Markets as part of its vision to develop an open and vibrant capital markets ecosystem which facilitates and mobilizes private sector capital in the financing of sustainable activities.

The ASEAN Roadmap outlined four priority areas including:

- ► Strengthening foundations
- Catalyzing products and enabling access to underserved areas
- Raising awareness and capacity building
- Increasing connectivity

Chart 15: Roadmap for ASEAN Sustainable Capital Markets - priority areas

- Promoting Exploring Promoting Examining transition corporate institutional Strengthening a common investor standards sustainability foundations taxonomy disclosures disclosures Using technology Developing SRI **Improving** Developing Catalyzing products to facilitate fund standards ESG indices and enabling access market access cross-border for sustainable to underserved Explorina participation in products areas incentives sustainable
- Raising awareness and capacity building

 Enhancing technical competence

 Promoting knowledge transfer

 Increasing public awareness
- Developing a Leveraging Coordinating public database multilateral efforts with public of sustainable Increasing and financial and connectivity products, philanthropic sectors projects and efforts investors

Source:

► Roadmap for ASEAN Sustainable Capital Markets, 2021-25, ACMF

products

Roadmaps and action plans

ASEAN6 regulators are at the early stages of introducing carbon tax or carbon trading with the goal of reducing GHG emissions and achieving carbon neutrality.

While the carbon tax discourages GHG emissions, the carbon emission trading scheme allows green asset owners to trade their carbon surpluses with other entities as a country transitions to a low-carbon economy.

Chart 16: Development stages of carbon regimes in ASEAN6*

Planning stage

Malaysia

- ► 12th Malaysia Plan 2021-25: the Government announced plans to conduct a feasibility study on carbon pricing (including carbon tax and a carbon emission trading scheme).
- Budget 2022: a Voluntary Carbon Market initiative will be launched under Bursa Malaysia, a voluntary platform for carbon credit trading between green asset owners and other entities
- ► Budget 2022: Electronic vehicle (EV) incentives which will support the Low Carbon Mobility Blueprint, including the full exemption of import and excise duties and sales tax for EVs.

Thailand

The Government is conducting a study to impose a carbon emission tax on the industrial sector, in line with the plan to reduce excise tax revenue from fossil fuels and promote EVs.

Implementation stage²

Indonesia

- ► The Government plans to develop a presidential decree on the carbon exchange mechanism and pilot project for carbon trading in the energy sector.
- ► To impose a carbon tax in April 2022, starting with coal power plants
- ► A carbon tax rate: according to carbon market pricing or higher, with a floor rate of IDR30 (or US\$0.21) per kilogram of CO2e

Vietnam

- The National
 Assembly of Vietnam
 (November 2020)
 passed the revised
 Law on Environmental
 Protection which
 includes the
 introduction of an
 emission trading
 scheme and carbon
 pricing for GHG
 emissions.
- The revised Law on Environmental Protection took effect on 1 January 2022.

Singapore

- ► A carbon tax was implemented in January 2019 as part of the measures to reduce emissions, create green growth opportunities and transition to an energyefficient low-carbon economy.
- ► Carbon tax rate: SGD5/tCO2e (valid until 2023)
- ► The Government plans to announce the revised carbon tax rate for 2024 in Singapore Budget 2022.

Notes:

¹Updates as at 24 January 2022.

²The implementation stage includes countries that have announced the date the law takes effect.

*The Philippines Government has yet to announce any plans to impose a carbon tax (as of 24 January 2022). The Department of Finance stated the preference for the adoption of an intensity-based carbon emissions trading scheme over a carbon tax.

Source: EY research

ASEAN6: national development plans and policies on sustainability practices

ASEAN regulators and policymakers are developing policies and action plans toward achieving the Sustainable Development Agenda by 2030. These policies and plans include sustainable agendas/ green plans, sustainable investment, power or energy development plans and climate change adaptation or mitigation plans.

Chart 17: ASEAN6 sustainability-related roadmaps and action plans

National development plans and policies	MY	ID	PH	SG	TH	VN
National development plan ¹	✓	✓	✓	✓	✓	✓
National action plan on sustainable agenda or green plan ²	✓	✓	✓	✓		✓
Long-term blueprint for low-carbon and climate resilience plan ³		✓		✓		
Climate change adaptation or mitigation plan ⁴	✓	✓	✓	✓	✓	✓
Power or energy development plan (including RE or alternative energy) ⁵	✓	√	✓	✓	✓	✓
ESG-related or green taskforce or committee	✓	✓	✓	✓	✓	✓
Sustainable investment and/or sustainable or green finance roadmap ⁶	√	√		✓	✓	✓

Notes:

Sources: Government official websites; EY research



¹Refers to the annual development plan, mid-term plans and/or five to ten years plans. Examples of national development plans include the 12th Malaysia Plan (MY) and the Singapore Green Plan 2030 (SG)

²Examples of sustainable or green plans include the Roadmap of SDGs Indonesia towards 2030 (ID), the Environmental Sustainability in Malaysia 2020 - 2030 roadmap (MY), the Singapore Green Plan 2030 (SG), Thailand's NDC Roadmap 2021 - 2030 (TH), the National Action Plan for the Implementation of the 2030 Agenda for Sustainable Development (VN)

³Examples of low-carbon and climate resilient plans include Indonesia's Long-term Strategy for Low Carbon and Climate Resilience 2050 (ID LTS-LCCR 2050) and Singapore's Long-Term Low-Emissions Development Strategy (LEDS) - Charting Singapore's Low Carbon and Climate Resilient Future (SG)

⁴Examples of climate adaptation or mitigation plans include the National Climate Change Action Plan 2011-2028 (PH) and the Climate Change Master Plan 2015 - 2050 (TH)

⁵Examples of power or energy plans include The Philippine Energy Plan 2018-2040 (PH), the Alternative Energy Development Plan 2015-2036 (TH) and the Power Development Plan 2018-2037 (TH)

⁶Examples of sustainable investment or green finance roadmaps include the Sustainable Finance Roadmap Phase II, 2021 - 2025 (ID), SRI roadmap (MY), the Green Finance Action Plan (SG), a Sustainable Finance Roadmap

which is incorporated into the SEC Strategic Plan 2020-2022 (TH), and the Financial Sector Action Plan on the Implementation of the National Green Growth Strategy up to 2020 (VN)

Illustration:

12th Malaysia Plan: advancing sustainability

According to the 12th Malaysia Plan, Malaysia's development is aimed at advancing sustainability and promoting the green economy.

Sustainability, roadmaps, plans

Among the priorities highlighted include enhancing green financing and incentives, driving investment in RE and promoting the circular economy.

Chart 18: Malaysia's five-year sustainability plans under the 12th Malaysia Plan

Achieve

carbon

neutrality by

2050

Green economy

- Introduce an economic model based on the areen economy
- Implement the Low Carbon Mobility Blueprint action plan
- Mandatory adoption of National Green Standards
- Enhance existing green incentive schemes (i.e., Green Technology Financing Scheme (GTFS), Green Investment Tax Incentives (GITA), Green Investment Tax Exemptions (GITE)
- Introduce the Green Transport Index to promote a cleaner and sustainable transport system
- Increase the recycling rate of household waste by 40% and scheduled waste by 35%

Waste and water management

- Manage waste: waste separation at source, bolster the "reduce, reuse and recycle" (3R) initiative and minimize single-use plastics (National Cleanliness Policy 2019)
- Establish integrated waste management facilities: manage different types of waste (e.g., solid waste, industrial waste and sewage)
- Develop a blueprint for the circular economy: solid waste, plastics, scheduled waste and agri-commodities
- Develop the Water Sector Transformation 2040 agenda across four phases
- Promote resource recovery from water and wastewater treatment: sludge, bio-sludge, bio-effluent and biogas

Carbon emissions

- Develop a national adaptation plan to reduce GHG emissions
- Develop a Nationally Determined Contribution roadmap to set mitigation plans in fulfilling the Paris Agreement commitment
- Reduce hydrochlorofluorocarbon (HCFC) consumption by 67% in 2025

RE

Promote the RE Certificate: enable the procurement and trading of RE

- Introduce a strategic long-term National Energy Policy: aligned with the carbon neutral aspiration
- Introduce an Act on energy-efficiency and conservation to regulate energy consumption by high intensity consumers (e.g., commercial and industrial sectors)

Sustainable cities

- Target 120 cities to achieve sustainable city status
- Adopt the green and resilient city concepts in cities, township developments and industrial estates
- Adoption of green certification tools during the construction and operational phases will be expanded (including government buildings and infrastructure projects)

Note: Malaysia's Climate Change and Principle-based Taxonomy (CCPT) and the plan to introduce carbon pricing and carbon tax are complementary plans to achieve carbon neutrality by 2050.

Source: Twelfth Malaysia Plan, Economic Planning Unit, 27 September 2021

2

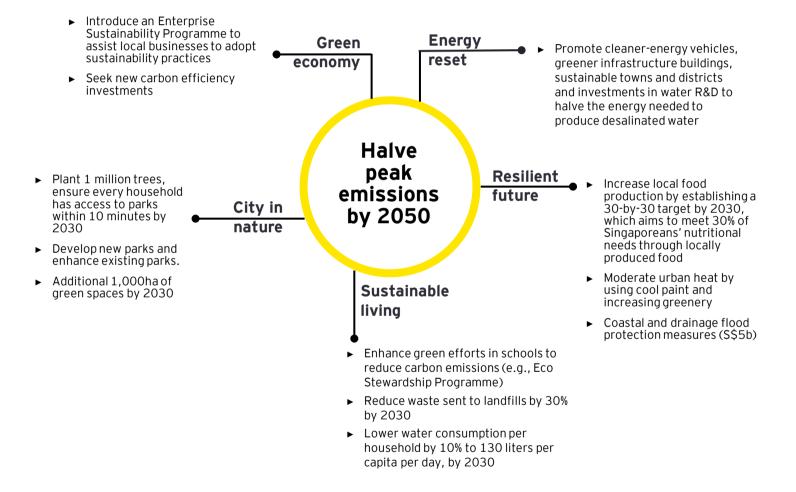
Illustration:

Singapore Green Plan 2030

Singapore's Green Plan 2030 aims to roll out bold and shared actions to address climate change.

In this 10-year plan, Singapore plans to enhance its commitments under the UN's 2030 Sustainable Development Agenda and the Paris Agreement.

Chart 19: Sustainability initiatives under the Singapore Green Plan 2030



Note: The Financial Institutions Climate-related Disclosure and Charting Singapore's Low-carbon and Climate Resilient Future documents support Singapore's plan to halve peak emissions by 2050.

Source: Singapore Green Plan 2030

ASEAN6: tracking ESG regulatory focus

ASEAN6 regulators are encouraging companies to adopt ESG management practices in the banking and capital markets.

Chart 20: Key ESG regulations (policies and frameworks), ASEAN6, 2015-21

2015-16

ASEAN

FTSE Russell launched the FTSE4Good ASEAN 5

SGX introduced a sustainability reporting requirement based on a "comply or explain" basis.

Thailand

- ► SET announced the Thailand Sustainability Investment.
- Disclosure of information on the securities market requires public listed companies to report on the environmental and social impacts annually.

Vietnam

The Government issued a circular on public disclosure for listed companies.

2017

ASEAN

The ACMF launched the Green Bond Standards.

Malaysia

- SC released Guidelines on SRI funds. SC issued the new Malaysian Code on Corporate Governance (MCCG 2017).

Indonesia

- OJK issued a regulation on the Implementation of Sustainable Finance for Financial Services Companies, Issuers, and Public Companies which requires all listed companies to publish sustainable reports.
- OJK issued a regulation to regulate the issuance and terms of green bonds.

Singapore

- MAS launched the Green Bond Grant Scheme.
- SGX introduced a mandatory sustainability reporting requirement for all SGX-listed issuers effective financial year ending on 31 December 2017, or after.

Thailand

SEC Thailand issued the Corporate Governance Code in 2017.

SBV released the Green Project - Catalogue 1 which identifies six categories of projects for green financing.

2018

ASEAN

The ACMF launched the ASEAN Social Bond Standards (ASBS) and ASEAN Sustainability Standards (ASUS).

Malavsia

- Bursa Malaysia announced the mandatory disclosure of sustainability statements by public listed companies.
- BNM launched the Value-Based Intermediation (VBI) strategy paper and guidance documents.

- The MoF Indonesia issued a sovereign Green Bond
- and Green Sukuk framework.

 OJK, WWF Indonesia and eight of Indonesia's leading banks launched Indonesia's Sustainable Finance Initiative (IKBI).

Philippines

SEC Philippines approved the Guidelines on the Issuance of Green Bonds under the ASEAN Green Bond Standards (AGBS).

Singapore

The Association of Banks in Singapore issued the Guidelines on Responsible Financing.

▶ SEC Thailand introduced the green bond regulation.

Vietnam

- Decree on provincial government debt management on the issuance of municipal bonds, including municipal green bonds
- Decree on regulation on the issuance, registration, depository, listing and transaction of government debt instruments, including the introduction of green government bonds.
- Decree on regulation on the issuance of corporate bonds, including the legal framework for corporate green bonds issued.

2019

Malaysia

- SC revised the SRI Sukuk Framework.
- ► BNM issued the Value-based Intermediation Financing and Investment Impact Assessment Framework (VBIAF) Guidance Document.

Thailand

- SEC Thailand adopted the ASEAN Social and Sustainability Bond Standards.
- The Thai Bankers' Association released the Sustainable Banking Guidelines on Responsible Lending.

Singapore

▶ MAS enhanced the Green Bond Grant Scheme to the Sustainable Bond Grant Scheme (SBGS).

Philippines

- ► SEC Philippines issued Sustainability Reporting Guidelines for Public Listed Companies.
- SEC Philippines issued Guidelines on the Issuance of Sustainability Bonds under the ASUS.
- SEC Philippines issued Guidelines on the Issuance of Social Bonds under the ASBS.
- ► The Commissioners approved the National Climate Risk Management Framework of 2019.

2020

Malaysia

- Cápital Markets Malaysia (CMM) and Global Compact Network Malaysia jointly launched the Global Compact Network Malaysia Centre of Excellence.
- SC revised the Guidelines on the Registration of Bond Pricing Agencies.
- CMM launched the Malaysian Sustainable Finance Initiative (MSFI).

Philippines

- The Asian Development Bank (ADB) issued the ASEAN+3 Multi-currency Bond Issuance Framework Implementation Guidelines for the Philippines.
- BSP released the Sustainable Finance Framework.

Singapore

- MAS launched the Green and Sustainability-Linked Loan Grant Scheme (GSLS), effective 1 Jan 2021.
- MAS issued the Guidelines on Environmental Risk Management for banks, insurers and asset managers.

Thailand

- SEC Thailand and the Thailand Greenhouse Gas Management Organization signed an MoU to encourage PLCs and listing companies to disclose their carbon footprints in their annual reports.
- SET Thailand launches SETLink, an online disclosure platform to assist PLCs to enhance their sustainability practices.

Vietnam

 Government issued an updated decree on corporate bonds (including for corporate green bonds), effective 1 January 2021.

2021

Malaysia

- ► SC issued the revised MCCG 2021 which incorporates ESG areas of focus.
- ► SC expanded its Green SRI Sukuk Grant Scheme and renamed it as the SRI Sukuk and Bond Grant Scheme.
- ► BNM issued the Climate Change and Principle-based Taxonomy.
- ► SC issued the five-year Capital Market Masterplan 3.
- ► SC released a public consultation paper on the Principles-based SRI Taxonomy.
- Establishment of a RM1b Low Carbon Transition Facility for small and medium enterprises to adopt sustainable and low-carbon practices.
- BNM issued the Climate Risk Management and Scenario Analysis exposure draft.

Indonesia

- The Government of Indonesia is finalizing a Green Taxonomy.
- OJK issued a further guidance for issuers or public companies on preparing their annual and sustainability reports.

Singapore

- MAS launched the Handbook on Implementing Environmental Risk Management for banks, insurers and asset managers.
- ► GFIT issued a consultation paper on the proposed taxonomy for Singapore-based financial institutions.
- ► GFIT issued the Financial Institutions Climaterelated Disclosure document.
- GFIT issued a white paper on Fostering Green Finance Solutions.
- SGX is accelerating its SGX FIRST sustainability agenda with the launch of new ESG derivatives.

Vietnan

 SSC commissioned the guidelines on How to Issue Green Bonds, Social Bonds and Sustainability Bonds.

Sources: Government official websites; EY research

ASEAN6 countries have joined international initiatives on sustainable finance.

Member of the Sustainable Banking Network Indonesia Thailand **Philippines** Vietnam

Member of the Network of Central Banks and Supervisors for Greening the Financing System (NGFS)					
✓	Malaysia	✓	Singapore		
✓	Indonesia	✓	Thailand		
✓	Philippines				

Supporter of the Task Force on Climate-related Financial Disclosures (TCFD)					
✓	Malaysia	✓	Singapore		
✓	Indonesia	✓	Thailand		
✓	Philippines	✓	Vietnam		

Member of the Coalition of Finance Ministers for Climate Action (Helsinki Principles)						
✓	Malaysia	✓	Philippines			
✓	Indonesia					

*Information as at 17 November 2021.

Source: EY research

ASEAN regulators and policymakers are taking progressive actions to align their national efforts with global initiatives on sustainability.

Key ESG-related taskforces/committees organized at the national level include:

Malaysia

- Malaysian Green Financing Taskforce
- Joint Committee on Climate Change (JC3)
- Malaysian Climate Change Action Council (MyCAC)
- Malaysian Sustainable Finance Initiative (MSFI)
- JC3 plans to establish a CCPT Implementation Group

Indonesia

Sustainable Finance Taskforce

Philippines

Inter-agency Task Force on Green Finance

Singapore

- Inter-Ministerial Committee on Climate Change
- Green Financé Industry Taskforce (GFIT)

Thailand

- A working group on Sustainable Finance Inter-ministerial working group on updating the NDC

Vietnam

- Vietnam Business Council for Sustainable Development (VBCSD)
- National Committee of Climate Change (NCCC)
- Advisory Council of the NCCC



- ► SRI market prospects
- ▶ SRI market phase assessment
- ► Green business opportunities
- ► Green infrastructure investment

ASEAN6: prospects for SRI - growth drivers

The COVID-19 pandemic has created opportunities for the ASEAN6 countries to build greener and more sustainable economies. Resolute efforts by the ASEAN6 countries to step up on ESG policies and formulate action plans are encouraging the development of conducive green-focused ecosystems.

SRI market prospects

Guided by ESG, sustainability roadmaps and policies, and keeping up with consumer trends, the far-sighted corporates and investors in the ASEAN6 markets have already begun reshaping their strategies to seize new investment opportunities in sustainable businesses and practices.

Chart 21: ASEAN6 SRI growth drivers

ASEAN6 regulators are progressing alignment with global policy developments on ESG and sustainability

ASEAN6 policymakers and regulators are formulating national roadmaps, blueprints, policies and action plans anchored on sustainability, climate change and low-carbon to catalyze sustainability initiatives among local businesses.

ASEAN6 bourses have also issued sustainability reporting guidelines to complement the financial reporting for public-listed companies.

ASEAN corporates are moving into long-term ESG value propositions

ASEAN corporates are developing ESG propositions to create long-term value. By setting agile strategies and developing competencies to navigate a fast-evolving landscape that is ESG-focused, businesses can better compete and stand out.

For ASEAN businesses, a commitment to ESG would also involve transitioning to low-carbon measures, such as embracing RE sources or adopting initiatives to reduce GHG emissions. In terms of the social agenda, businesses could enhance efforts to reduce social and gender inequalities.

ASEAN6 SRI prospects

Consumer behaviors are driving ESG and sustainability practices

Global and regional consumer surveys highlight increasing consumer awareness on the impact of climate change and their trending preference to support and work for companies that care about and act on ESG issues.

With the rising middle-class¹ population in ASEAN6, from 33% of the total population² in 2020 to the projected 50% by 2030, the adoption of ESG practices and SRI investments are likely to see a positive growth trajectory.

Investors are increasing their focus on corporates with leading ESG practices

The recent exponential surge in ASEAN green, social and sustainable bonds demonstrate investors' increasing interest in financing projects with environmental and social benefits. ASEAN sustainability indices³ provide investors with transparency to gauge the sustainability performance of listed companies with ESG practices.

Notes:

¹Middle class refers to the number of people living in households earning or spending between US\$10 and US\$100 per person per day (2005 PPP US\$). Data retrieved from the Development, Aid and Governance Indicators (DAGI), Brookings on 19 November 2021.

²The total ASEAN6 population data is retrieved from the United Nations, Department of Economic and Social Affairs, Population Division (2018) on 19 November 2021.

³ASEAN sustainability indices refer to the Indonesia SRI-KEHATI Index, Malaysia's FTSE4Good Bursa Malaysia Index, Singapore's ESG Leaders Index and ESG Transparency Index, and the SET Thailand Sustainability Index (SETTHSI).

SRI market phase assessments

ASEAN6: assessing the SRI market phase

The maturity of the SRI market in the ASEAN6 countries varies depending on the stage of the economic development of each country.

ESG and sustainability development policies and initiatives have been introduced to support the development of the SRI market.

Chart 22: ASEAN6 state of SRI market development - broad assessment

	Early stage	Intermediate stage	Advanced stage
Green definition/ taxonomy	TH	ID PH VN SG	MY
Sustainable debt market	VN		MY ID PH SG TH
Sustainability risk management	PH	VN ID	MY SG TH
Sustainability disclosure		ID TH VN	MY PH SG
Sustainability index	PH	VN	MY ID SG TH
Policies to mainstream sustainable finance		VN	MY ID PH SG TH

Notes:

- Policies to mainstream sustainable finance aim to measure the general efforts of the ASEAN countries' governments in developing and mainstreaming sustainable finance.
- Green taxonomy, sustainability risk management and sustainability disclosure aim to assess the extent of policy and regulatory actions in relation to specific sustainability finance themes.
- The sustainability debt market and sustainability index aim to evaluate the progress in the deployment of sustainable finance.

Source: EY research

Potential US\$1t of business opportunities from ASEAN's low-carbon economy

By 2030, ASEAN's low-carbon economy may potentially provide annual business opportunities valued at US\$1t. Key growth sectors include:

- Sustainable energy and resources (US\$270b)
- ► Sustainable and healthy food systems (US\$205b)
- ► Efficient industries and logistics (US\$200b)
- ► Green and connected cities (US\$185b)

Chart 23: ASEAN6 sectors - green schemes and green investment policies

Sectors	MY	ID	PH	SG	TH	VN
Agriculture ¹		✓	✓		✓	✓
Construction ²	✓			✓		
Energy and Industry ³	✓	✓	✓	√	✓	
Forestry, peatland and marine resources ⁴		✓	✓			
Medical services ⁵					✓	
Transport and public utilities ⁶	✓		✓	✓		
Tourism ⁷					✓	
Urban and regional development ⁸		✓				
Waste ⁹	√	✓	✓	✓		

² Construction: green buildings that adopt energy-efficient equipment and achieve environmental sustainability standards ³ Energy and industry: develop and empower the usage of RE and energy efficiency

⁷ Tourism: support sustainable tourism standard system and conserve and rehabilitate the environment

⁸ Urban and regional development: improve housing development

- Southeast Asia's Green Economy: Pathway to Full Potential, Bain & Company, 25 November 2020
- ▶ Regional Study on Green Jobs Policy Readiness in ASEAN 2021, ASEAN and International Labour Organization

¹ Agriculture: R&D and technologies to optimize waste production, improve smart farming, ensure food and product safety, as well as to develop high-value food products

Forestry, peatlands, marine resource: reduce emissions from deforestation and forest degradation through sustainable management and the protection and enhancement of carbon stocks; reduce marine debris, monitor and map marine waste

Medical services: intensive capacity building in technology and human capital in R&D and production technology for vaccines, biopharmaceuticals and medical devices as well as clinical research and product registration of pharmaceuticals and medical devices

Transport and public utilities: invest and catalyze investments in EVs, build efficient and accessible rail and bus networks, smart transport options, the usage of biofuel and biogas

⁹Waste: reduce waste, improve waste treatment and move toward becoming a zero waste nation

Accelerating ASEAN green infrastructure investments

In April 2019, the ASEAN Infrastructure Fund (AIF) introduced the ASEAN Catalytic Green Finance Facility (ACGF) to accelerate green infrastructure investment in ASEAN.

The ACGF green financing initiative focuses on developing and supporting climate-positive and environmentally sustainable infrastructure projects.

The eligibility criteria to apply for ACGF financing include having:

- ► Clear environmental goals and targets
- ► A financial sustainability plan
- ► A roadmap for attracting private capital investment

Green infrastructure projects include RE, energy-efficiency solutions, sustainable urban transport, water supply and sanitation, waste management and climate-resilient agriculture.

Chart 24: Selected green investment projects financed by ACGF

De-risking and financing green infrastructure

- ▶ US\$1.4b in total project costs
- ▶ US\$823m in financing from ADB
- ► US\$410m partner resources leveraged
- ▶ US\$278m in private capital to be mobilized for ACGF projects
- ▶ US\$40m AIF funding committed toward ACGFeligible projects
- Reduction of 73.000 tons of CO₂ per year expected from ACGF projects

Enabling green infrastructure

22 projects to provide technical assistance during training events and international investor roundtables on green financing

Leveraging resources and partnerships

- US\$1.4b pledged in cofinancing from partners
- US\$7.5m in technical assistance pledged
- Six co-financing partnerships established

Did you know?

COP26 in Glasgow:

The UK Government, Italian state lender Cassa Depositi e Prestiti (CDP), the European Union, and the Green Climate Fund (GCF) have pledged their commitment to contribute U\$\$665m to support the ACGF's ASEAN Green Recovery Platform for low-carbon and climate-resilient infrastructure projects in ASEAN and accelerate COVID-19 pandemic recovery in the region.

Note: The ACGF is owned by the finance ministries of the 10 ASEAN member countries and ADB. Co-financing partners include ADB, Agence Française de Développement, AIF, the European Investment Bank, the EU, KfW, and the Republic of Korea.

- Partners Pledge US \$665 Million to Support Green Recovery in ASEAN, ADB, 2 November 2021
- ASEAN Catalytic Green Finance Facility 2019-2020: Accelerating Green Finance in Southeast Asia, ADB, January 2021

RE is a key beneficiary of green investment

The ASEAN Plan of Action for Energy Cooperation (APAEC) 2021-25 targets RE to constitute 23% of total primary energy supply and 35% installed power capacity by 2025.

Under ASEAN's Sustainable Development Scenario (2025-30):

- ▶ Nearly two-thirds (61%) of power sector investment are being considered for renewable energy.
- ▶ Over one-third (36%) of investment is proposed for electricity networks to enable the flexibility needed to integrate renewables to current electricity transmission systems.
- Approximately US\$508b of investment is required for capacity expansion between 2018-40, based on the APAEC Targets Scenario.
- Investments in fossil fuel are to be reduced from the current 37% to 2% under the Sustainable Development Scenario.

Chart 25: Current RE share of electricity capacity (%)

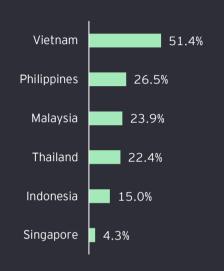
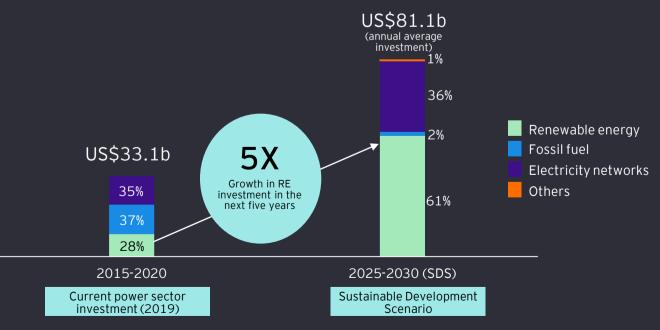


Chart 26: ASEAN RE investments



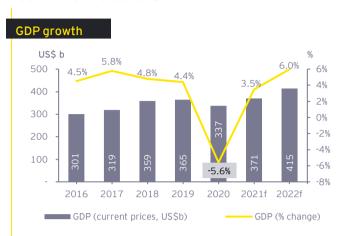
- Southeast Asia can reach clean energy targets by investing in transmission, 2021, International Energy Agency (IEA) Regional Energy Trends Report 2020: Tracking SDG 7 in the ASEAN region, United Nations Economic and Social Commission for the Asia and the Pacific (UNESCAP), 2020



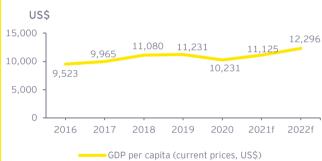
- ► Country profiles
- ▶ Industry glossary, research sources and charts
- ► Industry contacts
- ► EY contacts

Malaysia

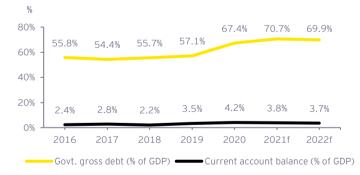
Economic Indicators



GDP per capita



Government gross debt and current account balance



Social indicators

Population (million) ³	32.8
Population density (persons per km²)³	99.8
Urban population (% total) ³	76.6
Life expectancy (female/males, years) ³	78.1/ 74

Sovereign credit rating	Rating	Outlook
Fitch ⁴	BBB+	Stable
Moody's ⁵	А3	Stable
S&P ⁶	A-	Negative

Fixed broadband performance (as of October 2021)

Download speed (Mbps) ⁷	110.8
Upload speed (Mbps) ⁷	57.5
Internet penetration(%) ⁸	84.2

ESG indicators ESG element Fitch ESG Relevance Score* Refer notes below RS 5 CO₂ per capita ¹⁰ F 8.42 Climate Risk Index¹¹ Ε 99 (rank of climate risk out of 180 countries) Gini Index Coefficient 12 S 41.1 Corruption Perception Index¹³ G 57 (rank of transparency out of 180 countries) S = social E = environment G = governance

Notes:

*Fitch ESG Relevance Score indicates the significance and materiality of ESG risk impact on a sovereign's credit rating with score from RS1 to RS5:

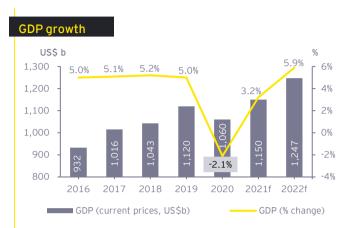
- ▶ RS1 = ESG issues are irrelevant to the overall sovereign credit rating
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Indonesia

Economic Indicators



GDP per capita USŚ 5,000 4 538 4,500 4.225 4.196 3,947 3,886 4,000 3,922 3,500 3.606 3,000 2016 2017 2018 2019 2020 -GDP per capita (current prices, US\$)

Government gross debt and current account balance % 60% 43.3% 41.4% 36.6% 30.6% 40% 29.4% 30.4% 28.0% 20% -0.4% -0.3% -1.0% -1.8% -1.6% -2.9% -2.7% 0% 2016 2017 2018 2019 2021f -20%

Social indicators

Population (million) ³	276.3
Population density (persons per km²)³	152.6
Urban population (% total) ³	56.0
Life expectancy ³ (female/males, years)	73.6 / 69.3

Sovereign credit rating	Rating	Outlook
Fitch ⁴	BBB	Stable
Moody's ⁵	Baa2	Stable
S&P ⁶	BBB	Negative

Fixed broadband performance (as of October 2021)

Download speed (Mbps) ⁷	29.6
Upload speed (Mbps) ⁷	18.2
Internet penetration(%) 8	73.7

ESG indicators		ESG element	
Fitch ESG Relevance S	core*	Refer notes below	RS 5
CO ₂ per capita ¹⁰		Е	2.16
Climate Risk Index ¹¹ (rank of climate risk out o	of 180 countries)	E	14
Gini Index Coefficient ¹	.2	S	38.2
Corruption Perception (rank of transparency out		G	102
E = environment	S = social	G = gove	rnance

Notes:

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Current account balance (% of GDP)

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Govt. gross debt (% of GDP)

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Philippines

Economic Indicators



GDP per capita US\$ 3,800 3,621 3,600 3.512 3.492 3,400 3,280 3,323 3.153 3,200 3,108 3.000 2016 2017 2018 2019 2020 2021f 2022f GDP per capita (current prices, US\$)

Government gross debt and current account balance % 80% 62.3% 59.1% 51 7% 38 1% 37 3% 37.1% 37.0% 40% 20% 3.6% 0.4% -0.4% -0.7% -0.8% -1.8% -2.6% 0% 2017 2019 2016 2018 2020 2021f 2022f -20% Govt. gross debt (% of GDP) Current account balance (% of GDP)

Social indicators

Population (million) ³	111.0
Population density (persons per km²)³	372.4
Urban population (% total) ³	47.1
Life expectancy (female/males, years) ³	75.3 /67.1

Sovereign credit rating	Rating	Outlook
Fitch ⁴	BBB	Negative
Moody's ⁵	Baa2	Stable
S&P ⁶	BBB+	Stable

Fixed broadband performance (as of October 2021)

Download speed (Mbps) ⁷	71.1
Upload speed (Mbps) ⁷	69.8
Internet penetration(%) ⁸	67.0

ESG indicators		ESG element	
Fitch ESG Relevance So	core*	Refer notes below	RS 5
CO ₂ per capita ¹⁰		Е	1.24
Climate Risk Index ¹¹ (rank of climate risk out o	f 180 countries)	Е	17
Gini Index Coefficient ¹	2	S	42.3
Corruption Perception (rank of transparency out		G	115
E = environment	S = social	G = gove	rnance

Notes:

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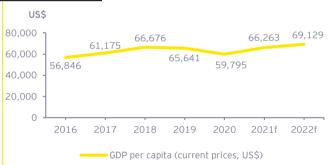
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Singapore

Economic Indicators



GDP per capita



Government gross debt and current account balance



Social indicators

Population (million) ³	5.9
Population density (persons per km²)³	8,423.8
Urban population (% total) ³	100
Life expectancy (female/males, years) ³	85.5/ 81.2

Sovereign credit rating	Rating	Outlook
Fitch ⁴	AAA	Stable
Moody's ⁵	Aaa	Stable
S&P ⁶	AAA	Stable

Fixed broadband performance (as of October 2021)

Download speed (Mbps) ⁷	257.2
Upload speed (Mbps) ⁷	247.2
Internet penetration(%) ⁸	90.0

ESG indicators ESG element

Fitch ESG Relevance Score*		Refer notes below	RS 5
CO ₂ per capita ¹⁰		Е	7.78
Climate Risk Index ¹¹ (rank of climate risk out of 180 countries)		Е	130
Gini Index Coefficient 12		S	45.9
Corruption Perception Index ¹³ (rank of transparency out of 180 countries)		G	3
F = environment	S - social	G = 00V0	rnanco

E = environment

S = social

G = governance

Notes:

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Thailand

Economic Indicators



GDP per capita



Government gross debt and current account balance



Social indicators

Population (million) ³	69.9
Population density (persons per km²)³	136.9
Urban population (% total) ³	50.7
Life expectancy (female/males, years) ³	80.6/73.1

Sovereign credit rating	Rating	Outlook
Fitch ⁴	BBB+	Stable
Moody's ⁵	Baa1	Stable
S&P ⁶	BBB+	Stable

Fixed broadband performance (as of October 2021)

Download speed (Mbps) ⁷	223.7
Upload speed (Mbps) ⁷	174.1
Internet penetration(%) ⁸	69.5

ESG indicators ESG element Fitch ESG Relevance Score* Refer notes below RS 5 CO₂ per capita ¹⁰ Ε 3.69 Climate Risk Index¹¹ E 34 (rank of climate risk out of 180 countries) Gini Index Coefficient 12 S 34.9 Corruption Perception Index¹³ G 104 (rank of transparency out of 180 countries) E = environment S = socialG = governance

Notes:

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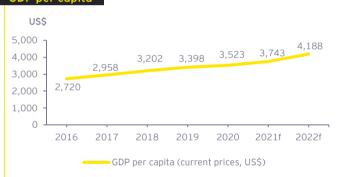
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Vietnam

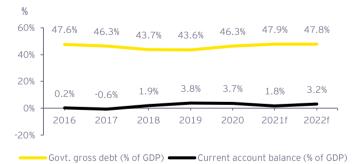
Economic Indicators



GDP per capita



Government gross debt and current account balance



Social indicators

Population (million) ³	98.2
Population density (persons per km²)³	316.6
Urban population (% total) ³	36.6
Life expectancy (female/males, years) ³	79.4/71.2

Sovereign credit rating	Rating	Outlook
Fitch ⁴	ВВ	Positive
Moody's ⁵	Ba3	Positive
S&P ⁶	ВВ	Positive

Fixed broadband performance (as of October 2021)

Download speed (Mbps) ⁷	84.1
Upload speed (Mbps) ⁷	74.4
Internet penetration(%) ⁸	70.3

ESG indicators ESG element Fitch ESG Relevance Score* Refer notes below RS 5 CO₂ per capita ¹⁰ Ε 2.61 Climate Risk Index¹¹ E 38 (rank of climate risk out of 180 countries) Gini Index Coefficient 12 S 35.7 Corruption Perception Index¹³ G 104 (rank of transparency out of 180 countries) E = environment S = socialG = governance

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Industry glossary

Abbreviation	Definition	Abbreviation	Definition
3R	Reduce, reuse and recycle	N20	Nitrous oxide
ACGF	ASEAN Catalytic Green Finance Facility	NAV	Net asset value
ACMF	ASEAN Capital Markets Forum	NCCC	National Committee on Climate Change
ADB	Asian Development Bank	NDC	Nationally determined contribution
AGBS	ASEAN Green Bond Standards	NF_3	Nitrogen trifluoride
AIF	ASEAN Infrastructure Fund	NGFS	Network of Central Banks and Supervisors for
APAEC	ASEAN Plan of Action for Energy Cooperation		Greening the Financing System
ASBS	Asean Social Bond Standards	OECD	Organisation for Economic Co-operation and
ASUS	Asean Sustainability Bond Standards		Development
AUM	Assets under management	OJK	Financial Services Authority of Indonesia
BNM	Bank Negara Malaysia	PFC	Perfluorocarbon
BSP	Bangko Sentral ng Pilipinas	PH	Philippines
CABIS	China-ASEAN Business and Investment	PLC	Public listed company
CADIS	Summit	PRI	Principles for Responsible Investment
CBI	Climate Bonds Initiative	PSE	Philippine Stock Exchange
CBS	Climate Bonds Standard	PT SMI	PT Sarana Multi Infrastruktur (Persero)
CCPT		RE	Renewable energy
CCPT	Climate Change and Principles-Based	SASB	
CDCD	Taxonomy	SBG	Sustainability Accounting Standards Board
CDSB	Climate Disclosure Standards Board		Sustainability Bond Guidelines
CH ₄	Methane	SBGS	Sustainable Bond Grant Scheme
CMM	Capital Markets Malaysia	SBV	State Bank of Vietnam
CO ₂	Carbon dioxide	SC	Securities Commission Malaysia
COP26	2021 United Nations Climate Change	SDG	Sustainable Development Goal
	Conference	SEC TH	Securities and Exchange Commission, Thailand
ESG	Environmental, social and governance	SET	Stock Exchange of Thailand
EU	European Union	SETTHSI	SET Thailand Sustainability Index
EV	Electric vehicle	SF ₆	Sulphur hexafluoride
GBP	Green Bond Principles	SG	Singapore
GFIT	Green Finance Industry Taskforce	SGX	Singapore Exchange
GHG	Greenhouse gas	SIP	Sustainable Investment Platform
GRI	Global Reporting Initiative	SLBP	Sustainability-Linked Bond Principles
GSIA	Global Sustainable Investment Alliance	SRI	Sustainable responsible investment
GSLS	Green and Sustainability-Linked Loan Grant	SSC	State Securities Commission of Vietnam
	Scheme	SSE	Sustainable Stock Exchanges
HCFC	Hydrochlorofluorocarbon	TCFD	Task Force on Climate-Related Financial Disclosur
HFC	Hydrofluorocarbon	TH	Thailand
HNX	Hanoi Stock Exchange	THSI	Thailand Sustainability Investment
HOSE	Ho Chi Minh Stock Exchange	UNCTAD	United Nations Conference on Trade and
ICM	Islamic capital market		Development
ICMA	International Capital Market Association	UNFCCC	United Nations Framework Convention on Climate
ID	Indonesia		Change
IDX	Indonesia Stock Exchange	VBCSD	Vietnam Business Council for Sustainable
i-ETF	Islamic Exchange Traded Fund		Development
IIRC	International Integrated Reporting Council	VBI	Value-Based Intermediation
IKBI	Indonesia Sustainable Finance Initiative	VBIAF	Value-based Intermediation Financing and
i-REIT	Islamic Real Estate Investment Trust		Investment Impact Assessment Framework
JC3	Joint Committee on Climate Change		Guidance Document
JETRO	Japanese External Trade Organization	VN	Vietnam
LCY	Local currency	VNSI	Vietnam Sustainability Index
LEDS	Long-Term Low-Emissions Development		,
	Strategy (Singapore)		
LTS-LCCR	Long-term Strategy for Low Carbon and		
2050	Climate Resilience 2050 (Indonesia)		
MAS	Monetary Authority of Singapore		
MCCG	Malaysian Code on Corporate Governance		
MGFT	Malaysian Green Financing Taskforce		
MSFI	Malaysian Sustainable Finance Initiative		
	Malaysia		
IVI Y			
MY MyCAC	Malaysian Climate Change Action Council		

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Charts

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Industry contacts

Capital Markets Malaysia





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As part of its developmental mandate, the Securities Commission Malaysia (SC) set up the Capital Markets Promotion Council (CMPC) in 2012 to strengthen its internationalisation agenda for Malaysia's capital market. In 2014, the SC rebranded CMPC as Capital Markets Malaysia (CMM) to spearhead both the local and international positioning and profiling of the Malaysian capital market with its wide range of conventional and Islamic products, supported by a strong governance infrastructure.

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