Building climate resilience through sustainable finance

Green and Sustainability Bond Issuance Process and Project Selection

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ADDRESSING SOUTHEAST ASIA'S FINANCING GAPS

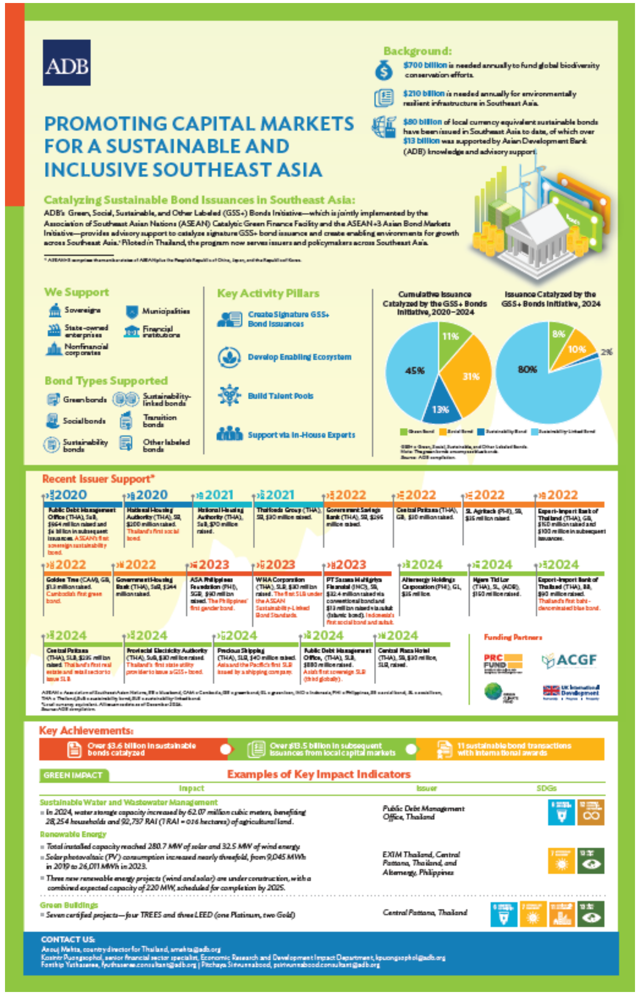
$700 billion is needed annually to fund global biodiversity conservation efforts

$210 billion of annual investment is needed for climate-responsive infrastructure in Southeast Asia, or 5.7% of GDP

$80 billion of sustainable bonds were issued in Southeast Asia

>$14 billion of sustainable bonds were catalyzed by ADB through advisory support (all in local currencies)

Catalyze **Replicate** **Scale Up**



[Promoting Capital Markets for a Sustainable and Inclusive Southeast Asia]

TYPE OF SUSTAINABLE BONDS

Use-of-proceeds (UoP) based

Proceeds allocate to **ELIGIBLE PROJECTS** with clear environmental and/or social benefits

Green

- Green buildings
- Renewable energy
- Energy efficiency
- Clean transportation
- Sustainable agriculture

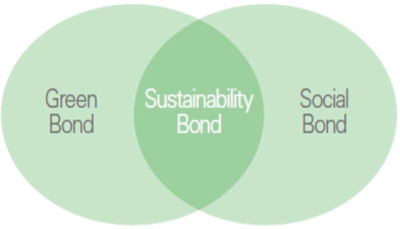
Social

- Affordable basic infra (e.g. clean drinking water)
- Access to essential services (e.g. education, financial services, healthcare)
- Employment generation

*especially but not exclusively for a target populations

Sustainability

- green and social projects



KPI-based

Proceeds can be used for general purpose, along with sustainability-related targets (KPI) and financial mechanisms at **ENTITY LEVEL**

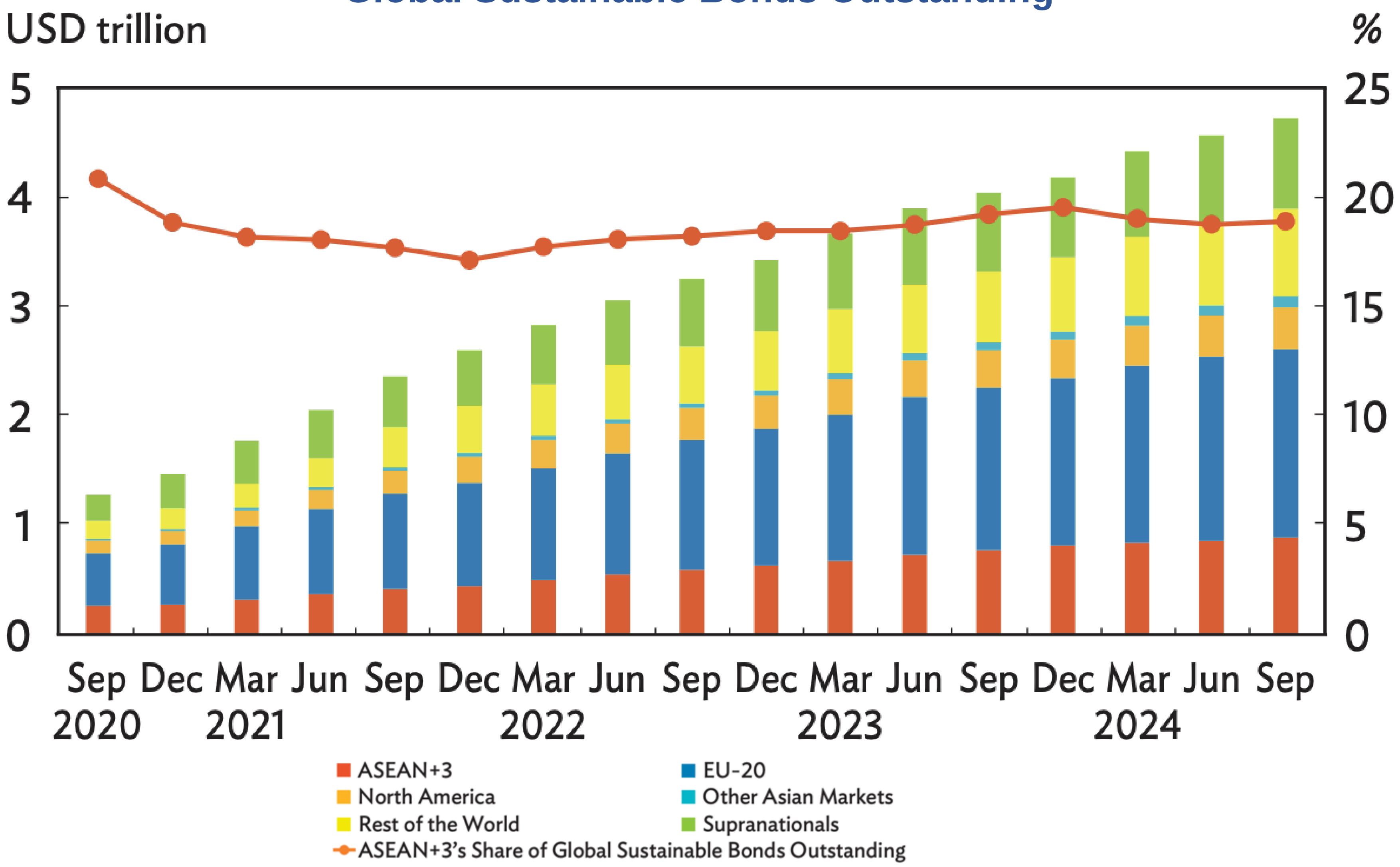
Sustainability-linked

- Basis of SLB is an entity level transition plan/ decarbonization pathway
- Financial mechanisms are triggered when targets are met or missed
- Support hard-to-abate sectors that cannot issue use-of-proceeds bond
- Support sustainability at entity level
- KPI should be material and relevant to the business and ambitious enough
- Using SMART approach (Specific-Measurable-Achievable-Relevant-Time-bound)
- <u>Examples of KPIs</u>: reduction of GHG emissions, reduction of water ulitization

ADB

STATE OF SUSTAINABLE FINANCE MARKET

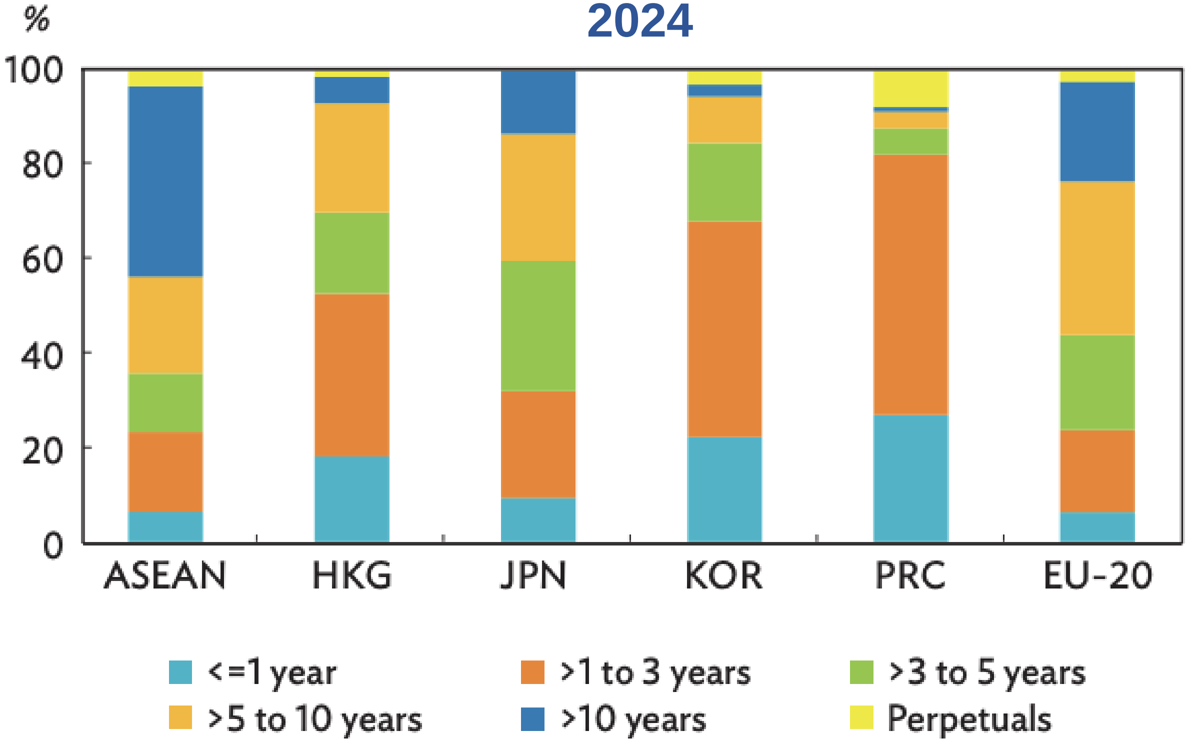
Global Sustainable Bonds Outstanding



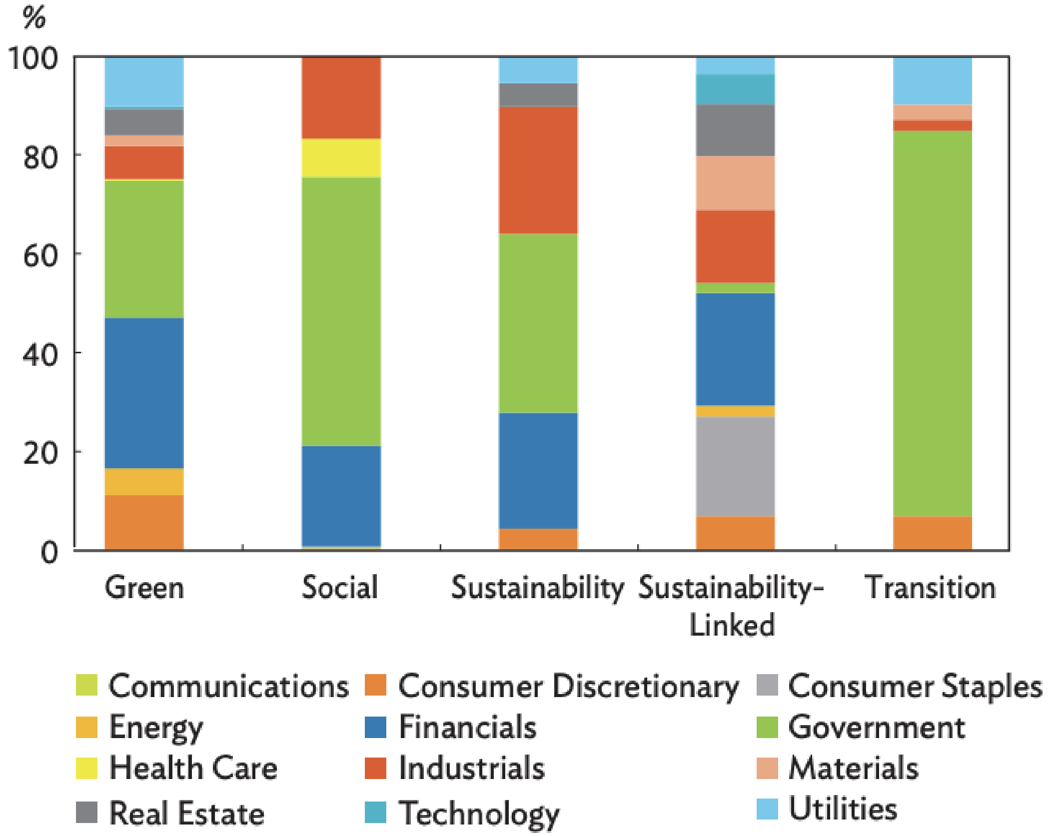
Source: ADB. Asia Bond Monitor November 2024.

STATE OF SUSTAINABLE FINANCE MARKET

Maturity Profile of Sustainable Bonds Outstanding at the End of September 2024

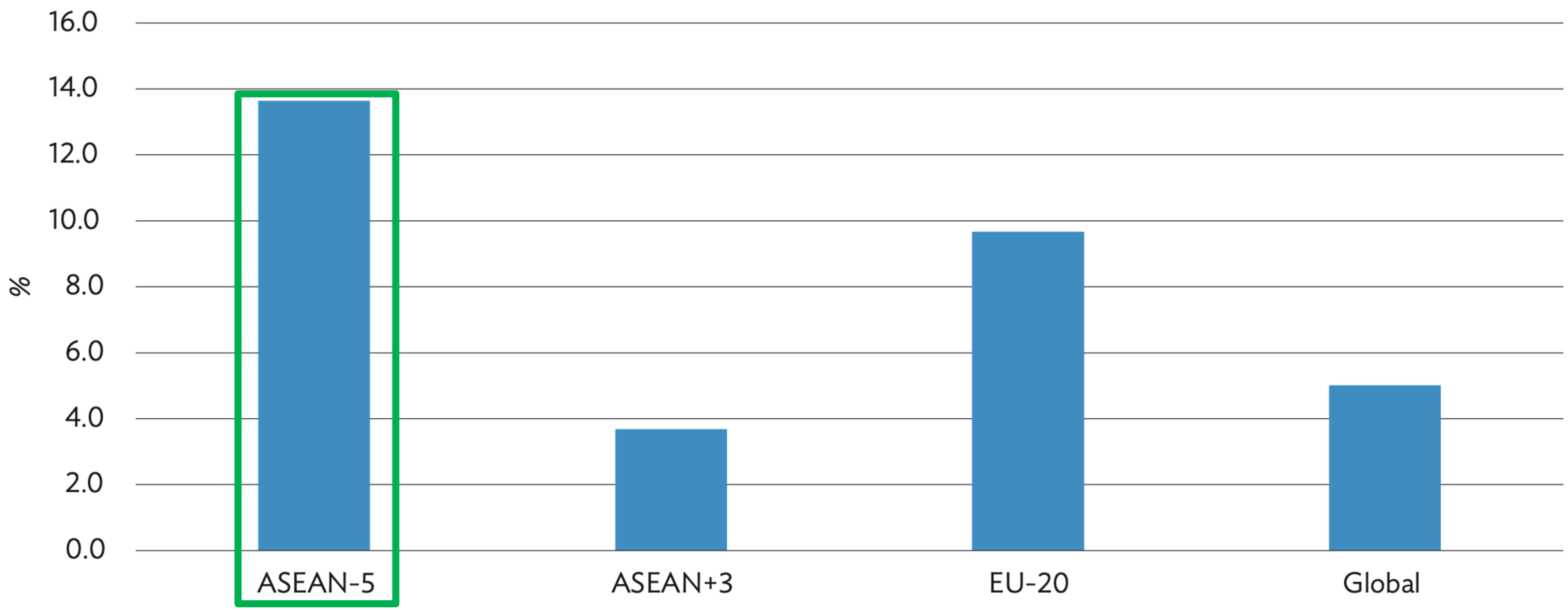


ASEAN+3 Sustainable Bond Issuance by Sector in the Third Quarter of 2024



Source: ADB. Asia Bond Monitor November 2024.

SUSTAINABLE BOND ISSUANCE AS SHARE OF TOTAL BOND ISSUANCE



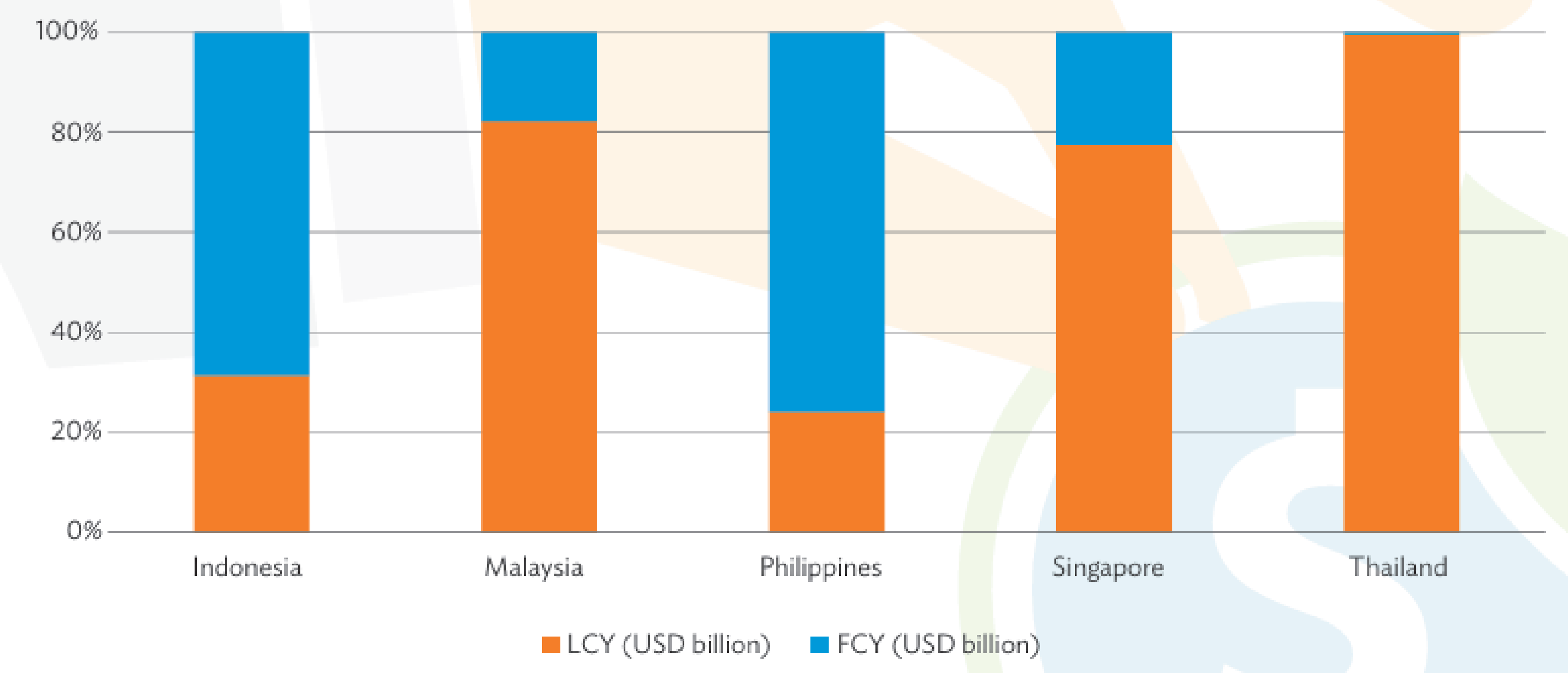
ASEAN = Association of Southeast Asian Nations, EU-20 = European Union 20.

Notes:

1. ASEAN-5 comprises Indonesia, Malaysia, the Philippines, Singapore, and Thailand. ASEAN+3 comprises ASEAN-5 plus the People's Republic of China, Japan, and the Republic of Korea.
2. Data include both local currency and foreign currency issues.
3. Data from January to September 2024.

Source: *AsianBondsOnline* calculations based on Bloomberg LP data.

CONSOLIDATED SUSTAINABLE BONDS OUTSTANDING BY CURRENCY TYPE



FCY = foreign currency, LCY = local currency, USD = United States dollar.

Note: Data are as of the end of June 2024 and include both local currency and foreign currency issues.

Source: *AsianBondsOnline*.

KEY STEPS TO ISSUE SUSTAINABLE BONDS

UoP

SLB

Identify projects/assets | Develop sustainable bond framework | Confirm internal process and controls | Report on allocation & credentials | Set up for impact reporting | External review

KEY PRINCIPLES AND STANDARDS – ICMA

The Principles

The Green Bond Principles

The Social Bond Principles

The Sustainability Bond Guidelines

The Sustainability-Linked Bond Principles

Use of Proceeds*

Green, Social, Sustainability Bonds ("GSS" or "UoP")

Core Components:

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

Key Recommendations:

1. Bond Frameworks
2. External Reviews

General Purposes*

Sustainability-Linked Bonds ("SLBs")

Core Components:

1. Selection of Key Performance Indicators (KPIs)
2. Calibration of Sustainability Performance Targets (SPTs)
3. Bond characteristics
4. Reporting
5. Verification

Financial Instrument Guidance

Climate Transition Finance

Climate Transition Finance Handbook (CTFH)
(Guidance may be applied to GSS/UoP Bonds or SLBs)

Thematic Guidance

!

'Green, social and sustainability bonds are subject to the same capital market and financial regulation as other listed fixed income securities'

Source: International Capital Market Association

KEY PRINCIPLES AND STANDARDS – ASEAN SUSTAINABLE BOND STANDARDS

KEY STEPS TO ISSUE SUSTAINABLE BONDS

UoP

Identify projects/assets	Develop sustainable bond framework	Confirm internal process and controls	Report on allocation & credentials	Set up for impact reporting	External review

KEY PRINCIPLES AND STANDARDS – ASEAN STANDARDS

ASEAN Capital Markets Forum

Four core components (UoP):

1. Use of Proceeds
2. Process for Project Evaluation and Selection
3. Management of Proceeds
4. Reporting

Key recommendation:

1. External Reviews

Criteria	Green Bonds	Social Bonds
Use of Proceeds	No fossil fuel power	Negative list: projects which involve activities that pose a negative social impact related to: • Alcohol • Gambling • Tobacco • Weaponry
Issuer eligibility	Must have geographical or economic connect to the ASEAN region	
Reporting	• More frequent periodic reporting to increase transparency • Continuous disclosure and ensure that information is publicly accessible from a website designated by the Issuer throughout the tenure of the bonds	

KEY STEPS TO ISSUE SUSTAINABLE BONDS

SLB

Identify projects/assets | Develop sustainable bond framework | Confirm internal process and controls | Report on allocation & credentials | Set up for impact reporting | External review

KEY PRINCIPLES AND STANDARDS – ASEAN STANDARDS

Five core components (SLB):

1. Selection of Key Performance Indicators (KPIs)
2. Calibration of Sustainability Performance Targets (SPTs)
3. Bond characteristics
4. Reporting
5. Verification

ASEAN Capital Markets Forum

Criteria	Green Bonds	Social Bonds
Issuer eligibility	Must have geographical or economic connect to the ASEAN region	
Reporting	• More frequent periodic reporting to increase transparency • Continuous disclosure and ensure that information is publicly accessible from a website designated by the Issuer throughout the tenure of the bonds	
External review	Must appoint an external reviewer to review the SLB framework	

KEP STEPS TO ISSUE SUSTAINABLE BONDS

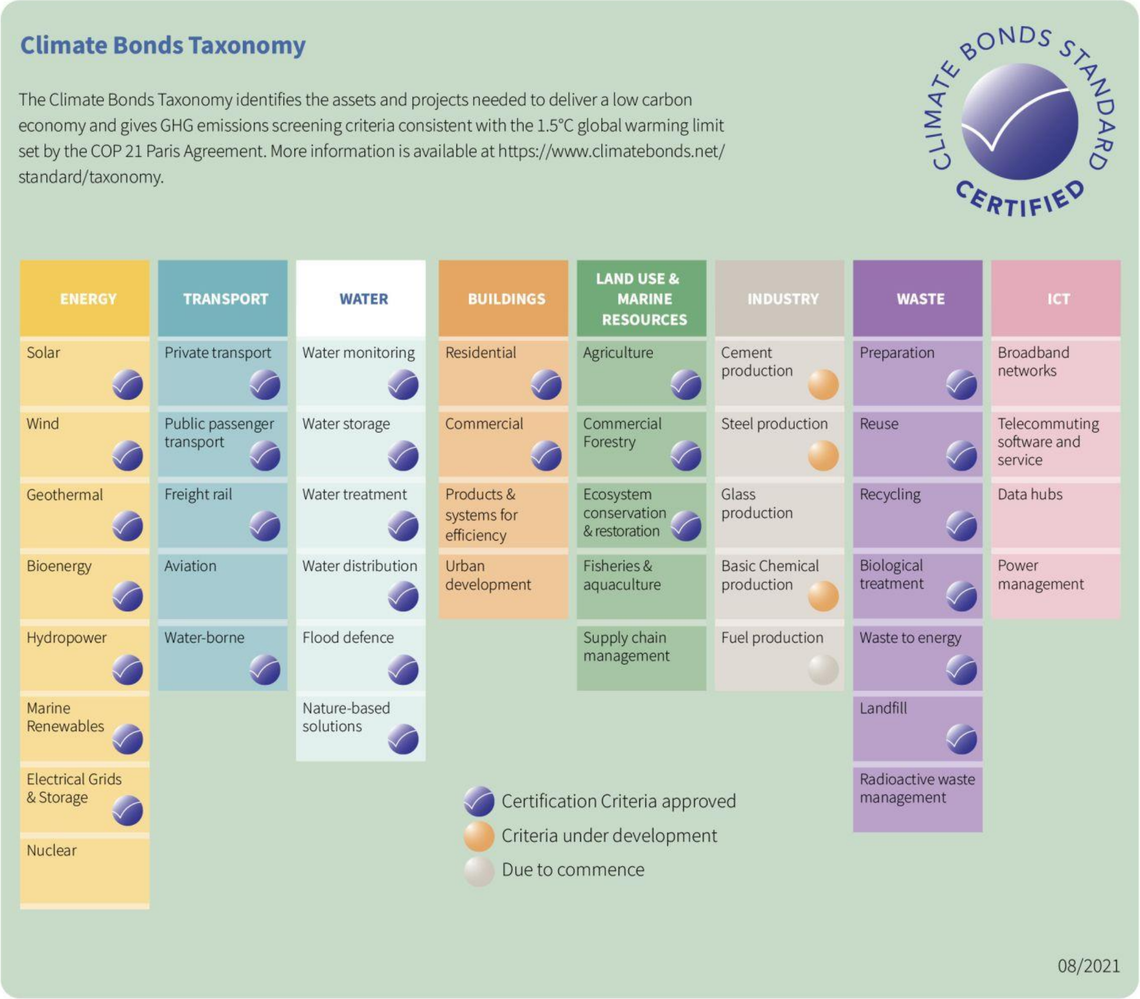
UoP

Identify projects/assets	Develop sustainable bond framework	Confirm internal process and controls	Report on allocation & credentials	Set up for impact reporting	External review

WHAT CAN GREEN BONDS FINANCE?

GREEN PROJECT CATEGORIES INCLUDE, BUT ARE NOT LIMITED TO:

- Renewable energy
- Energy efficiency
- Pollution prevention and control
- Environmentally sustainable management of living natural resources and land use
- Terrestrial and aquatic biodiversity conservation
- Clean transportation
- Sustainable water and wastewater management
- Climate change adaptation
- Circular economy adapted products, production technologies and processes and/or certified eco-efficient products
- Green buildings



KEP STEPS TO ISSUE SUSTAINABLE BONDS

UoP

Identify projects/assets	Develop sustainable bond framework	Confirm internal process and controls	Report on allocation & credentials	Set up for impact reporting	External review

WHAT CAN SOCIAL BOND FINANCE?

SOCIAL PROJECT CATEGORIES INCLUDE, BUT ARE NOT LIMITED TO:

- Affordable basic infrastructure (e.g. clean drinking water, sewers, sanitation, transport, energy)
- Access to essential services (e.g. health, education and vocational training, healthcare, financing and financial services)
- Affordable housing
- Employment generation, and programs designed to prevent and/or alleviate unemployment stemming from socioeconomic crises, including through the potential effect of SME financing and microfinance
- Food security and sustainable food systems
- Socioeconomic advancement and empowerment

EXAMPLES OF TARGET POPULATION

- Living below the poverty line
- Excluded and/or marginalized populations and/or communities
- People with disabilities
- Migrants and/or displaced persons
- Undereducated
- Underserved, owing to a lack of quality access to essential goods and services
- Unemployed
- Women and/or sexual and gender minorities
- Aging populations and vulnerable youth
- Other vulnerable groups, incl. as a result of natural disasters

"Target populations" can vary depending on local contexts and, in some cases, may address the general public

Source: International Capital Market Association

KEY STEPS TO ISSUE SUSTAINABLE BONDS

UoP

SLB

Identify projects/assets | **Develop sustainable bond framework** | Confirm internal process and controls | Report on allocation & credentials | Set up for impact reporting | External review

WHAT IS ADDITIONAL DOCUMENT TO BE SUMMITTED?

Filing

+

Framework

SPO/verification report

EXAMPLES OF TABLE OF CONTENTS INCLUDED IN THE FRAMEWORK

- Company information
- Details of framework in accordance with:
  - 4 components of UoP bond, or
  - 5 components of SLB

KEY STEPS TO ISSUE SUSTAINABLE BONDS

UoP

Identify projects/assets | Develop sustainable bond framework | **Confirm internal process and controls** | Report on allocation & credentials | Set up for impact reporting | External review

HOW CAN WE DEVELOP INTERNAL PROCESS AND CONTROLS?

- **Leverage on existing arrangements**
- Process how projects fit within the eligible projects categories
- List of department / representative involved

OR

- **Establish new committee / working group**
- Process how projects fit within the eligible projects categories
- List of department / representative involved

KEP STEPS TO ISSUE SUSTAINABLE BONDS

UoP

Identify projects/assets	Develop sustainable bond framework	Confirm internal process and controls	**Report on allocation & credentials**	Set up for impact reporting	External review

WHAT ARE APPROACHES FOR ALLOCATION OF PROCEEDS?

- **Ringfencing** – separate the proceeds from its business-as-usual operations by putting the proceeds into a specific sub-account or sub-portfolio

OR

- **Earmarking –** no segregation of proceeds, but the proceeds are tracked (common practice)

KEY STEPS TO ISSUE SUSTAINABLE BONDS

UoP

Identify projects/assets | Develop sustainable bond framework | Confirm internal process and controls | Report on allocation & credentials | **Set up for impact reporting** | External review

WHAT ARE EXAMPLES OF IMPACT INDICATORS FOR GREEN AND SOCIAL BONDS?

Project categories	Examples of impact indicators
Renewable energy	Annual renewable energy generation (in MWh/GWh) Installed renewable energy capacity (in MW)
Sustainable water management and wastewater management	Reduction of water losses in water transfer/ distribution Reduction of water consumption in economic activities (e.g. industrial process) Annual amount of wastewater treated, reused in m^3 / as %
Green buildings	kWh/m^2 of gross building area
Access to essential services (education)	Number of students reached (by gender, age, geographic location) Increased school enrolment rate / reduced school dropout rate
Access to essential service (finance)	Number of loans to underserved groups Number of people provided with access to financial services
Employment generation	Number of loans provided to SMEs / microenterprises

!

‘Availability of data and ability to collect data is crucial’

KEY STEPS TO ISSUE SUSTAINABLE BONDS

UoP

SLB

Identify projects/assets | Develop sustainable bond framework | Confirm internal process and controls | Report on allocation & credentials | Set up for impact reporting | **External review**

WHAT TO CONSIDER WHEN SELECTING TYPES OF EXTERNAL REVIEWER?

Example:

Second Party Opinion

Certification

Jurisdiction of issuance

Investor preference

Issuer’s positioning

KEY PRINCIPLES AND STANDARDS

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The Green Bond Principles | The Social Bond Principles | The Sustainability Bond Guidelines | The Sustainability-Linked Bond Principles

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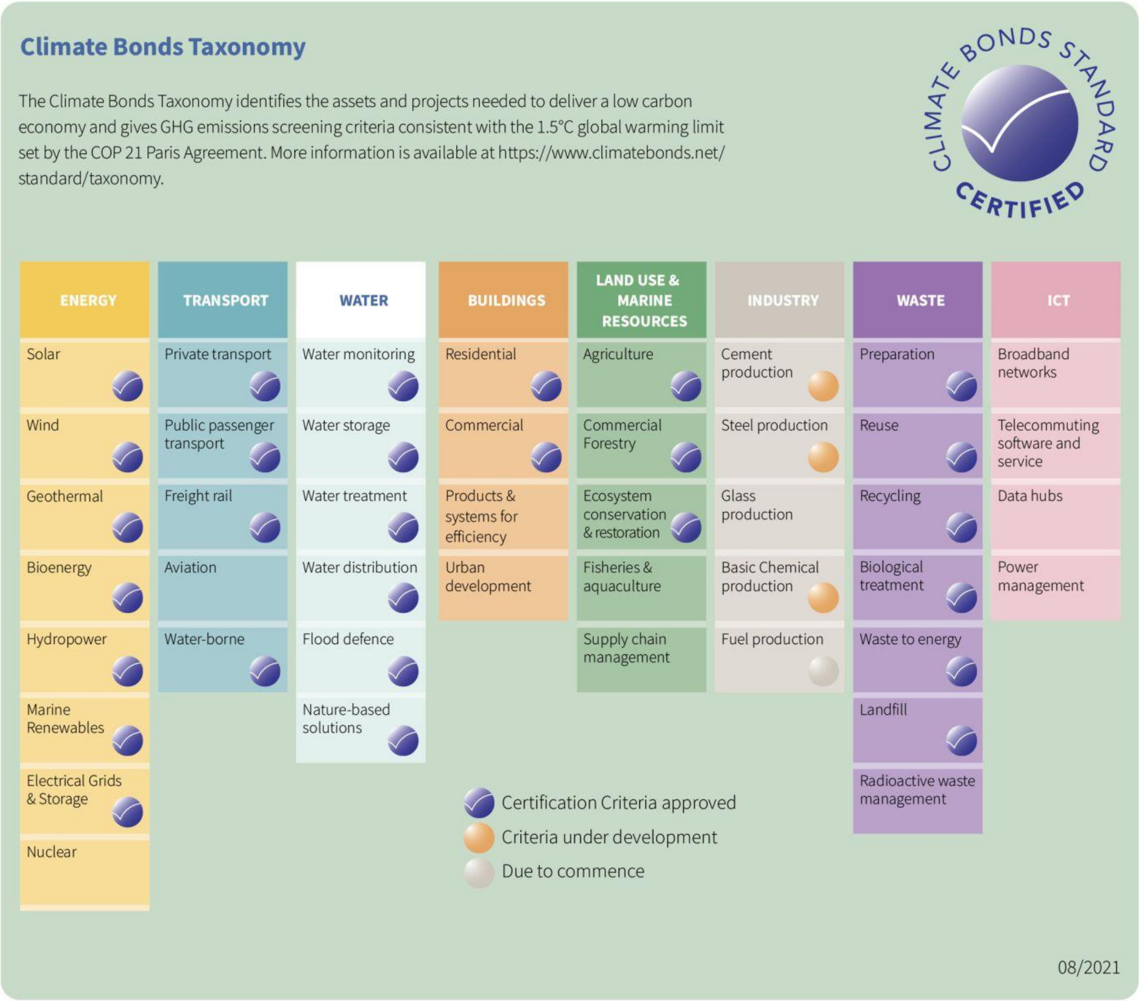

ADB

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EXAMPLES OF TARGET POPULATION

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- Unemployed
- Women and/or sexual and gender minorities
- Aging populations and vulnerable youth
- Other vulnerable groups, incl. as a result of natural disasters

“Target populations” can vary depending on local contexts and, in some cases, may address the general public

MAJOR ACHIEVEMENTS AND MILESTONES

PRC FUND
POVERTY REDUCTION AND REGIONAL COOPERATION FUND

ACGF
ASEAN CATALYTIC GREEN FINANCE FACILITY

AUG 2020
Public Debt Management Office (THA), sustainability bond, $964 million raised and $6 billion in subsequent issuances. ASEAN's first sovereign sustainability bond.

SEP 2020
National Housing Authority (THA), social bond, $200 million raised. Thailand's first social bond.

SEP 2021
National Housing Authority (THA), sustainability bond, $70 million raised.

NOV 2021
Thaifoods Group (THA), social bond, $30 million raised.

JUN 2022
Government Savings Bank (THA), social bond, $295 million raised.

JUN 2022
Central Pattana (THA), green bond, $30 million raised.

JUL 2022
SL Agritech (PHI), social bond, $35 million raised.

SEP 2022
Export-Import Bank of Thailand (THA), green bond, $150 million raised.

DEC 2022
Golden Tree (CAM), green bond, $1.3 million raised. Cambodia's first green bond.

DEC 2022
Government Housing Bank (THA), sustainability bond, $244 million raised.

JUL 2023
ASA Philippines Foundation (PHI), social (gender) bond, $90 million raised. The Philippines' first gender bond.

OCT 2023
WHA Corporation (THA), sustainability-linked bond, $30 million raised. The first sustainability-linked bond under the ASEAN Sustainability-Linked Bond Standards.

DEC 2023
PT Sarana Multigriya Finansial (INO), Social bond, $32.4 million raised, and social *sukuk* (*Islamic bonds*), $13 million raised. Indonesia's first social bond and *sukuk*.

MAY 2024
Alternergy (PHI), green loan, $35 million.

JUN 2024
Ngern Tid Lor (THA), social loan, $150 million.

JUN 2024
Export-Import Bank of Thailand (THA), blue bond, $90 million raised. Thailand's first THB-denominated blue bond.

AUG 2024
Central Pattana (THA), sustainability-linked bond, $235 million raised. Thailand's first real estate and retail sector to issue sustainability-linked bond.

AUG 2024
Provincial Electricity Authority (THA), sustainability bond, $30 million raised. Thailand's first state utility provider to issue a GSS+ bond.

OCT 2024
Precious Shipping (THA), sustainability-linked bond, $40 million raised. First sustainability-linked bond issuer in Asia and the Pacific from the shipping industry.

NOV 2024
Public Debt Management Office (THA), sustainability-linked bond, $880 million raised. Asia's first sovereign sustainability-linked bond.

IFR ASIA AWARDS 2024

ANNUAL ISSUANCE VOLUME

- **2020**: > $1 billion raised
- **2021**: >$100 million raised
- **2022**: > $755 million raised
- **2023**: >$165.4 million raised
- **2024**: > $1.46 billion raised

CATALYTIC ROLES OF THE PROJECT

- Catalyzed several "**firsts**" transactions e.g. first sovereign SLB in Asia, first gender bond in the Philippines, first social bond in Indonesia, first green bond in Cambodia
- Approx **$2 million in TA --→ >$3 billion** in new issuances (and **>$13 billion in total**)
- Going **beyond ASEAN**

ASEAN = Association of Southeast Asian Nations; CAM = Cambodia; GSS+ = Green, Social, Sustainable, and Other Labeled; INO = Indonesia, PHI = Philippines, THA = Thailand.

[a] Local currency equivalent, information as of November 2024.

Source: Asian Development Bank.

ADB

HIGHLIGHT TRANSACTION – GOVERNMENT SAVINGS BANK

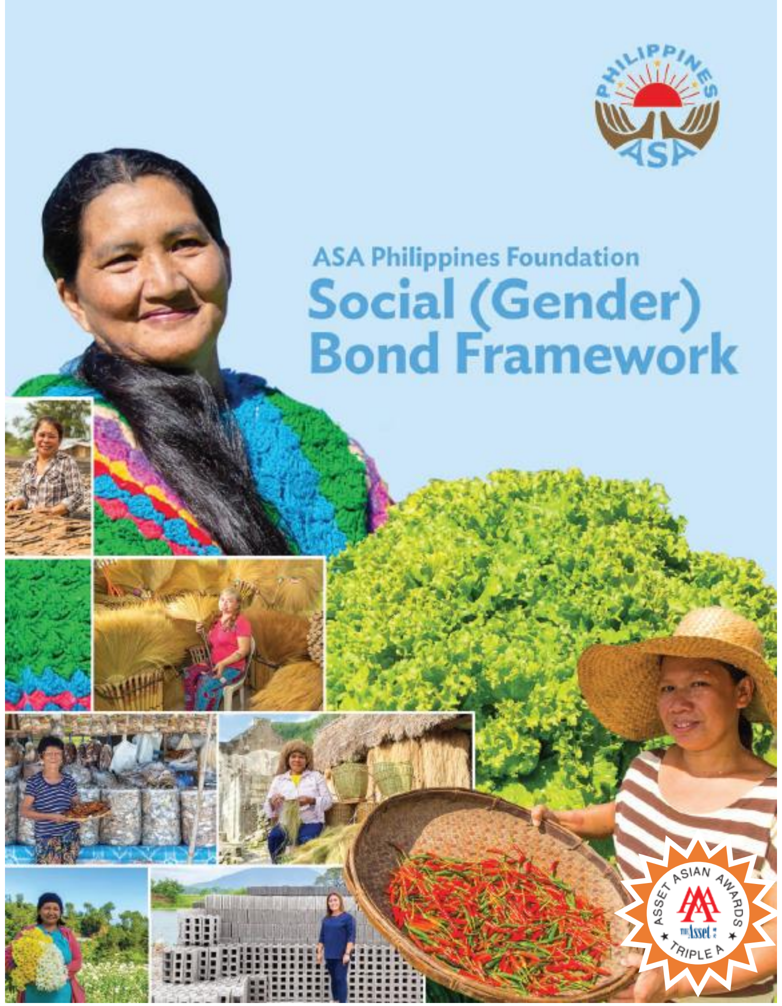
- First social bond by state-owned financial institution in Thailand
- THB 10 billion ($295 million), 3 years tenor
- Significant demand from local investors, leading upto 2 times bid-to-cover ratio
- Supported in collaboration with ASEAN Catalytic Green Finance facility

Examples of social project categories:

Low-interest loans to grassroot customers	Retail customers' occupational capabilities (e.g. unemployed groups)	Loans to SMEs and communities

Source: https://www.gsb.or.th/media/2022/07/%E0%B8%9C%E0%B8%A5%E0%B8%87%E0%B8%B2%E0%B8%99-Social-Finance-Framwork.pdf

HIGHLIGHT TRANSACTION – ASA PHILIPPINES FOUNDATION



- The first gender bond issued in the Philippines, issued under the ICMA Social Bond Principles and ASEAN Social Bond Standards
- PHP5 billion ($90 million), 5 years maturity
- Issued on 5 July 2023

Examples of social project categories:

Lending to low-income women borrowers to promote self-employment

Lending to low-income women borrowers to improve access to water, electricity, housing and education

Source: [ADB Supports the Philippines' First Gender Bond Issued by ASA Philippines Foundation | Asian Development Bank](); https://storage.googleapis.com/asa_files/FS/Social-Bond-Frameworks_ASA-Phils_online_w-paginations.pdf

HIGHLIGHT TRANSACTION – PT. SARANA MULTIGRIYA FINANSIAL

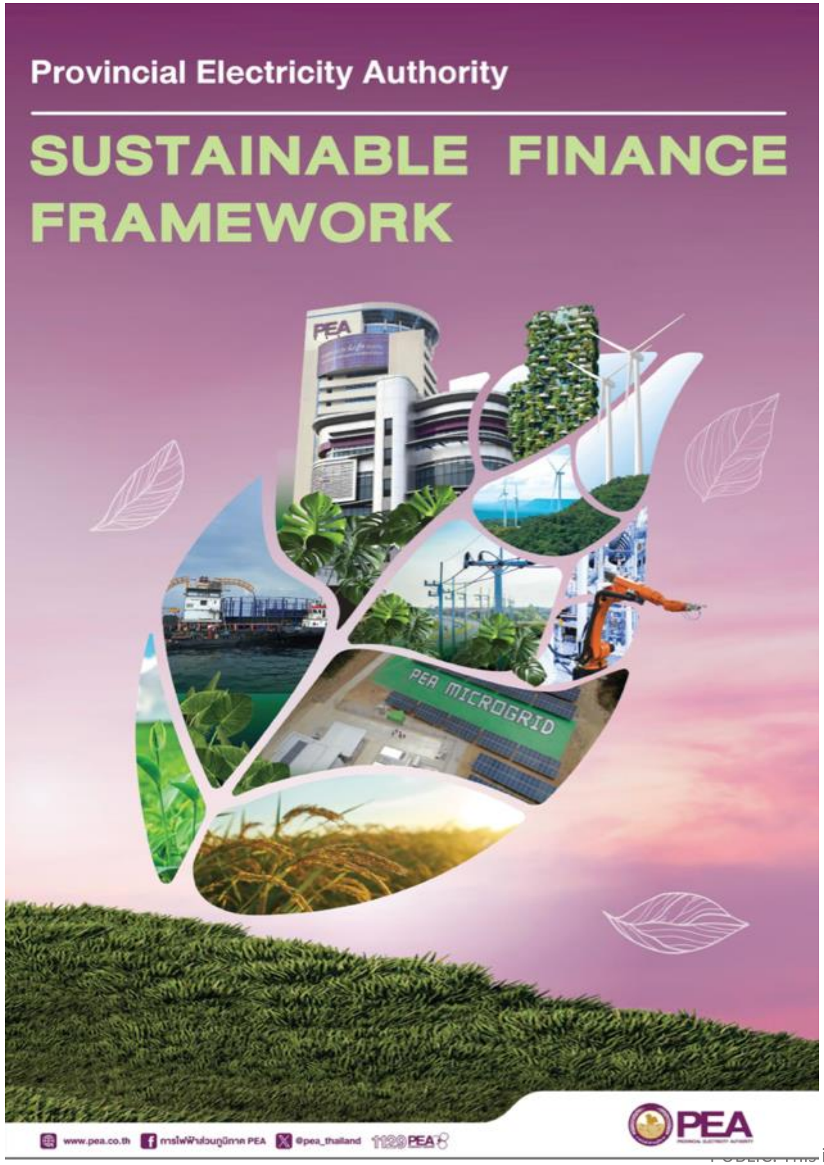
- The first social bond and sukuk issued in Indonesia, under the ICMA Social Bond Principles and the ASEAN Capital Markets Forum's Social Bond Standards.
- Social Bond: 500 billion rupiah ($32.4 million)
- Social Sukuk : 200 billion rupiah ($13 million)
- 3 years maturity, issued on 22 December 2023

Examples of social project categories:

Affordable housing projects for low-income earners

Source: [ADB supports Indonesia's first social bond and Sukuk issuance]

HIGHLIGHT TRANSACTION – PROVINCIAL ELECTRICITY AUTHORITY



- First sustainability bond by a utility operator in Thailand
- THB 1 billion ($35 million),5 years maturity
- Listing on 21 August 2024
- Aligned with ASEAN Taxonomy for Sustainable Finance

Examples of green project categories:

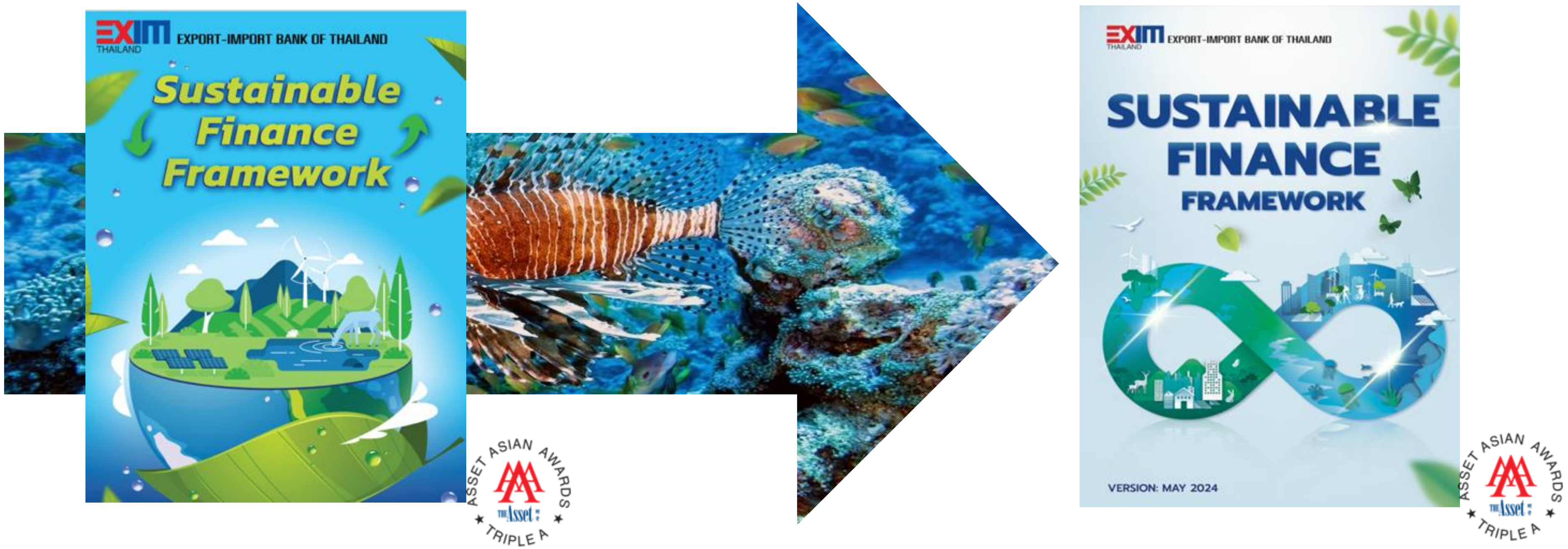
Renewable energy

Climate change adaptation

Examples of social project categories:

Access to basic infrastructure

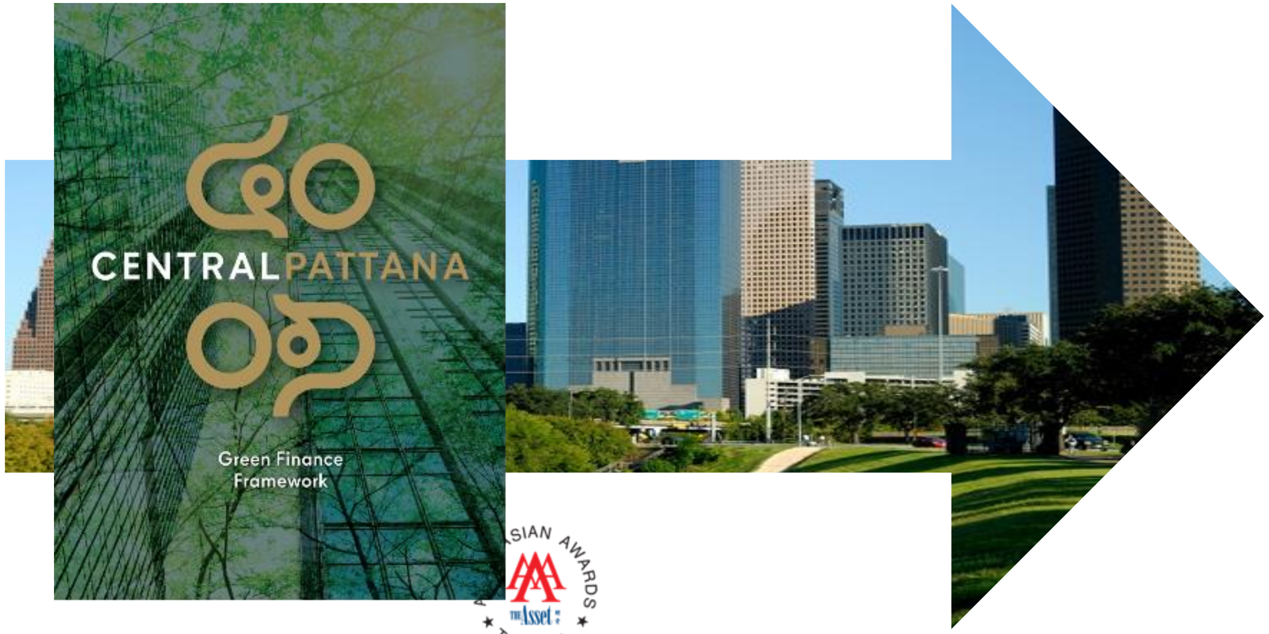
HIGHLIGHT TRANSACTION – EXIM THAILAND

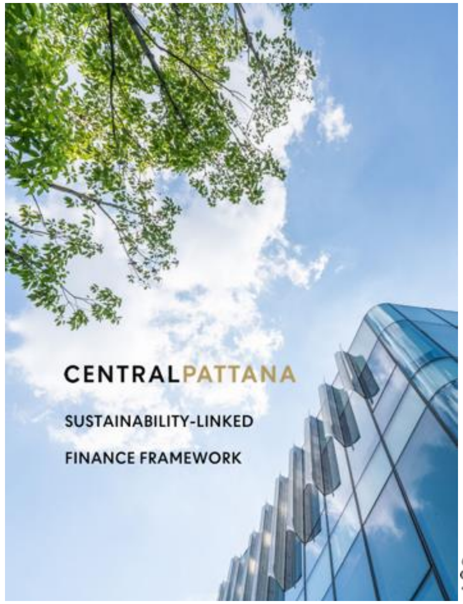


- **First floating-rate green bond by issued under Thai Overnight Repurchase Rate (THOR).**
- THB 5 billion (≈ $150 million), 3- and 4-years maturity, issued in 2022
- Support investment in green projects, particularly solar and wind projects. As of 2023, total installed capacity of renewable projects financed and refinanced was 313.23 MW across ASEAN and East Asia region

- **First THB-denominated Blue Bond in Thailand**
- THB 3 billion (≈ $90 million), 3-year maturity
- The framework extended from green and social projects in 2022 to include eligible blue projects such as:
  - marine renewable energy
  - sustainable fisheries, aquaculture and marine value chain
  - sustainable marine transportation and ports
  - sustainable coastal and marine tourism

HIGHLIGHT TRANSACTION – CENTRAL PATTANA





- **First green bond by Thailand's real estate and retail industry developer**
- THB 1 billion (≈ $30 million), 3-year maturity, issued under the ASEAN Green Bond Standards and ICMA Green Bond Principles in 2022
- The proceeds will support investments in green projects and achieve the company's Journey to Net Zero plan by 2050

- **First sustainability-linked bond by Thailand’s real estate and retail industry developer, aligned with ICMA SLB Principles and ASEAN SLB Standards**
- THB 8 billion (≈ $240 million), 5- and 7-year maturity, with 3 times over subscription from local institutional and HNW investors
- The proceeds will support clean energy projects, aiming to become a Net Zero greenhouse gas emissions organization by 2050
- 2 KPIs are 1) reduction of carbon intensity scope 1 and scope 2 emissions and 2) provision of free spaces*

*First SLB includes only KPI 1)

EXAMPLES FOR SOCIAL FINANCE FRAMEWORK

1. Use of Proceeds

"Company A has formulated a social finance framework, aligning with the Social Bond Principles 2023, published by the ICMA; the Social Loan Principles… and ASEAN Social Bond Standards…

Net proceeds of any social finance instruments issued under this framework will be allocated to finance and/or refinance, either wholly or in part, investments in ongoing and new projects, aimed at supporting Company A's sustainability agenda. The eligibility criteria and projects have been mapped to the UN SDGs."

Social Project Category	Eligibility Criteria	UN SDGs
Affordable housing	Affordable housing program Target group: low-income earners	
Employment generation	Loans given to SMEs, incl. women-led SMEs to generate employment and self-employment Target group: underserved, unemployed and women and gender minorities	

2. Project Selection and Evaluation

"Company A has established the Social Finance Working Group, consisting of representatives from relevant departments: ….

The Social Finance Working Group meets at least once a year and is responsible for:

- *Review the eligibility of the projects, assets, and expenditures*
- *Review social and environmental risks associated with the projects*
- *Review and monitor the impact indicators and approve the annual updated report under the social finance framework"*

3. Management of Proceeds

"An amount equal to the net proceeds from the social finance instrument will be tracked with the Company A's general pool of funds and will be allocated to eligible social projects only.

The treasury team will manage the associated projects registered through Company A's internal system, and the balance of the tracked proceeds will be monitored regularly to ensure that inflow of funds will not exceed the value of the outstanding instruments. Until full allocation, any unallocated proceeds may be temporarily placed in cash, cash equivalents,… that align with Company A's cash management."

4. Reporting

"Company A will publish updates of the allocation of proceeds and will be made publicly available on its website, annually until full allocation.

***Allocation reporting**:*

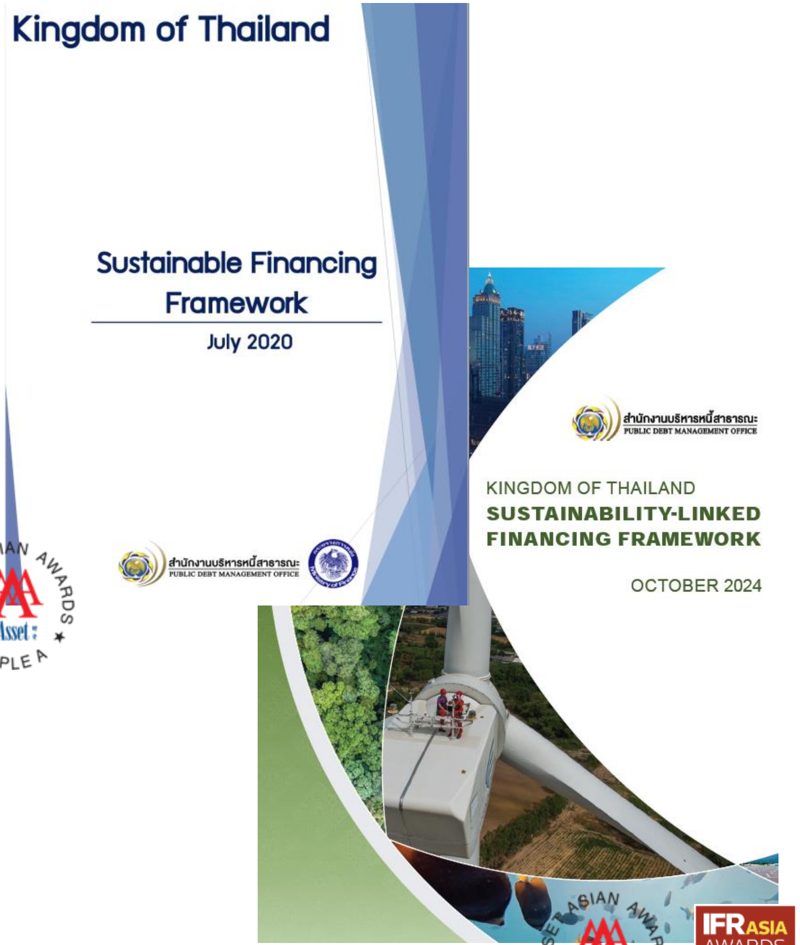
- *Summary of the eligible projects*
- *Description of major eligible projects*
- *Summary of the allocation of proceeds and proportion to finance/refinance*
- *Summary of unallocated proceeds and their management*

Impact reporting:

Social Project Category	Sample Impact Indicators
Affordable housing	Number of low-income earners supported by geographical location and gender
Employment generation	Number of SME financed Amount of loan disbursed

Remark: These are examples only, not an exhaustive list of information

HIGHLIGHT TRANSACTION – GOVERNMENT OF THAILAND



CASE STUDY – THAILAND'S APPROACH IN DEVELOPING GSS+ BOND MARKET - Key Highlights and Lessons Learned

Setting clear issuance plan - Over $14 billion of GSS+ bonds outstanding. Regular issuance since 2020 expanded the investor base.

Setting credible and verifiable targets - Asia's first sustainability-linked bond in November 2024, with KPI tied to the country's NDC commitments (2.7 times oversubscribed).

Promoting SOE issuances – Encouraged SOEs, particularly financial institutions to issue sustainable bonds, leading to greater supply and increased transparency:

- 4 leading SOE banks have issued GSS+ bonds, totaling almost $2 billion THB equivalent
- 2 SOEs supporting affordable housing and access to basic infrastructure (electricity) have also issued GSS+ bonds.
- Clear borrowing plans for green and sustainable projects and support from senior management/policymakers are important.

SOEs can support the country's transition by helping to green SMEs and supply chains and can demonstrate commitment to promoting greater disclosures and transparency.

EXAMPLES FOR SLB

1. Selection of KPI and 2. calibration of SPT

"The sustainability-linked finance framework is aligned with ICMA Sustainability-Linked Bond Principles 2024, ASEAN Sustainability-Linked Bond Standards 2022,…

Adapted from CPN's sustainability-linked finance framework
***KPI**: Carbon intensity scope 1 and scope 2 emissions (kgCO2e/m2)*

***Rationale and Materiality**: As a leading operator of commercial buildings, CPN consumes a substantial amount of electricity from external sources… This KPI is also with CPN's net zero policy.*

***SPT**: to achieve a 56% reduction in carbon intensity (scope 1 and scope 2 emission) by 2034.*
- *Baseline: 2019, with recorded carbon emissions scope 1 and scope 2 at 89.4 kgCO2e/m2*

Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Time span					1	2	3	4	5	6	7	8	9	10	11	12
BAU	90	72	51	62	[redacted]											
Target	90	-	-	-	85	81	77	73	69	65	61	57	53	48	44	40
Reduction (%)					6	10	14	19	23	28	32	37	41	47	51	56

- *Strategies to achieve the SPT*
  1. *Adapt advanced carbon management systems*
  2. *Invest in onsite renewable energy*
  3. *Etc."*

3. Financial Characteristics

"Under this framework, sustainability-linked features will result in, such as, but not limited to, a coupon adjustment, or a margin adjustment, or a premium payment, if the predetermined SPT related to the KPI is not met. The exact KPI, SPT and the corresponding changes to the bond's (loan's) conditions will be specified in the relevant documentation of the specific transaction.

Investor will be informed whether the SPT is achieved or not within xx day of the relevant applicable Target Observation Date.

***Fallback mechanisms**: Baseline and SPT may change or recalculate based on specific circumstances, such as M&A and spin-offs. Any recalculation will be outlined in specific document and verified by an independent external reviewer."*

4. Reporting

"Annually, regular updates on the progression of the KPIs will be provided, and in any case for any date or period critical for assessing the SPT that may potentially adjust the financial characteristics. This information will be incorporated into Sustainability Report (or other report that may officially replace the Sustainability Report in the future) and will be publicly available on its website.

The report will include the following:
- *The most recent data on the performance of the KPIs, including the baselines*
- *A verification assurance report, conducted on the basis of limited assurance, detailing the performance of the KPI against the SPT*
- *Any other relevant information which may enable investors to monitor the progress of the KPI*

When feasible, information may include a qualitative or quantitative explanation of the contribution of the main factors behind the evolution of KPI, positive sustainability impacts of performance improvement and any re-assessments of KPI, restatement of the SPT and/or adjustments of baselines or KPI scope."

5. Verification

"The verification will be conducted annually and for all periods relevant to the assessment of the SPT performance, leading to potential financial adjustment. Company A will seek an independent and external verification of the performance level for the stated KPI by the external verifier. The verification will be made publicly available with the Sustainability Report on the website. Prior to the issuance of a bond or the loan borrowing, a second party opinion (SPO) will be obtained from an appointed reviewer to confirm the framework's alignment with relevant principles. The SPO will be made available on the website."

Remark: These are examples only, not an exhaustive list of information

ADB

TANGIBLE OUTPUTS SUPPORTED BY ADB

Over $ 4 billion of sustainable bonds catalyzed

Over $14 billion in subsequent issuances

12 internationally-awarded sustainable bond transactions

4 local verifiers supported (2 in the pipeline)

OTHER ACTIVITIES: UPSTREAM AND MARKET ECOSYSTEM

INO: New sustainable bond regulation launched at ASEAN Capital Market Conference

INO: Launched GSS+ Bonds/Sukuks Accelerator Program with CGIF, UNDP and OJK

Sharing experiences of the ABMI with non-ASEAN+3 DMCs.

REG: Four local green bond verifiers, accredited by Climate Bonds Initiative (two in the pipeline – PHI & CAM)

PEFINDO CREDIT RATING AGENCY

FiinRatings ENLIGHTEN THE MARKET

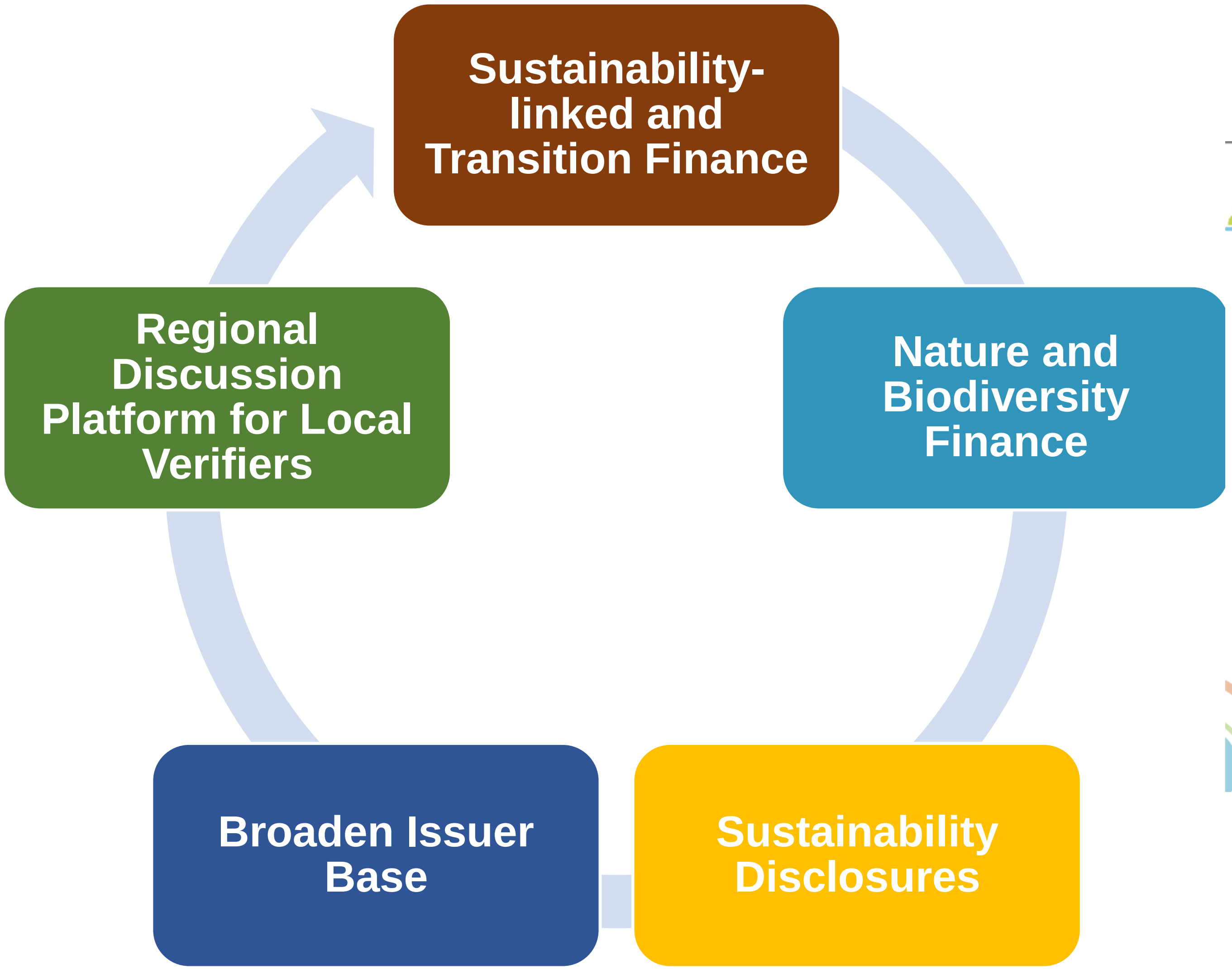
TRIS RATING

RAM

Thailand: launched a consultation to adopt sustainability disclosure standards

ADB

FUTURE PRIORITIES



Mobilizing Private Capital for Sustainable Development Through Sustainable Bonds: Case Studies from Indonesia and Thailand

Bridging Southeast Asia's Climate-Resilient Financing Gaps

Southeast Asia has vulnerability to environmental disruptions above the global average and significant greenhouse gas emissions relative to other developing market regions. Four Association of Southeast Asian Nations (ASEAN) member countries—Indonesia, Malaysia, Thailand, and Viet Nam—are among the world's top emitters and each is also at high risk of suffering climate-related disasters.[1] This region's vulnerability is intensified by rapid population growth and a significant reliance on environmentally sensitive sectors like agriculture. Projections under the high-emissions scenario outlined by the Intergovernmental Panel on Climate Change suggest that by 2100 climate change could lead to gross domestic product (GDP) reductions of 24% in developing Asia and 30% in Southeast Asia (Figure 1).[2]

In 2018–2019, economies in Asia and the Pacific mobilized USD519.9 billion in climate financing, with the majority concentrated in East Asia. ASEAN member countries allocated only USD28.0 billion, approximately 5% of Asia and the Pacific's total climate finance during this period. Public finance accounted for USD18.0 billion of ASEAN's climate finance spending, while the remaining USD10.0 billion, or about 35%, came from private sources, corporations, and financial institutions.[3] The Asian Development Bank (ADB) estimates that ASEAN member countries will need to invest USD210 billion annually between 2016 and 2030—equivalent to 5.7% of the region's GDP—in climate-resilient infrastructure.[4] The current level of investment, largely reliant on public sources, falls well short of what is required.

ASEAN's sustainable bond market has significant potential to attract more private capital and help bridge the region's climate financing gap. Despite ongoing efforts to develop sustainable bond markets in ASEAN member countries, issuance remains relatively low compared to new issuances in their broader bond markets. This indicates substantial opportunities to expand sustainable bond markets across the region, though both the public and private sectors must strengthen their efforts to realize this potential.

1 J.L. Smith and W. Nichols. 2024. Brazil, India, Saudi Arabia among Largest Emitters with Most to Lose from Climate Change. *The Trendline*. 8 May. https://www.maplecroft.com/products-and-solutions/climate-and-environment/insights/brazil-india-saudi-arabia-among-largest-emitters-with-most-to-lose-from-climate-change/.
2 ADB. 2023. Thematic Report: Asia in the Global Transition to Net Zero. *Asian Development Outlook 2023*. https://www.adb.org/sites/default/files/publication/876891/ado-2023-thematic-report.pdf.
3 ADB. 2023. *Climate Finance Landscape of Asia and the Pacific*. https://www.adb.org/publications/ado-2023-thematic-report.
4 ADB. 2022. *ADB Southeast Asia Innovation Hub: Catalyzing Green and Innovative Finance*. https://www.adb.org/publications/adb-southeast-asia-green-finance-hub.

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[Accelerating Green Bonds for Municipalities in Southeast Asia]

THANK YOU