



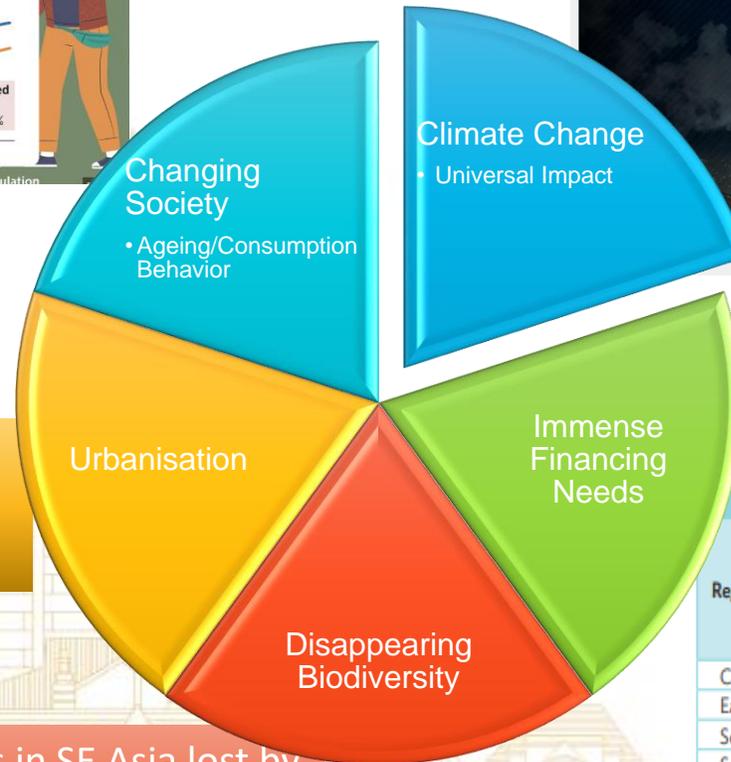
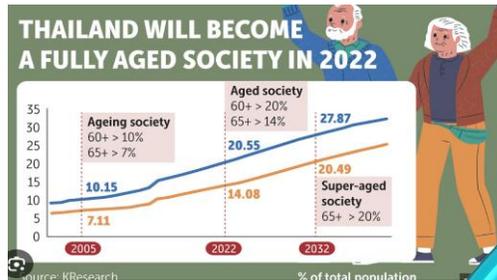
A member of  MUFG
a global financial group

Navigating ESG Challenges: How the Financial Sector Drives Sustainable Change



Immense Challenges to Sustainable Development

Across Asia Pacific Region



Cities in the region expected to grow in population by more than 550 million in the next decade

42% of all species in SE Asia lost by end of century ?

Asia Pacific: 99 of top 100 cities facing largest environmental risks

64 MILLION ASIANS WILL BE PUSHED INTO POVERTY FOR EVERY 10% RISE IN FOOD PRICES DUE TO CLIMATE CHANGE.



ASIA AND THE PACIFIC IS CURRENTLY RESPONSIBLE FOR OVER 50% OF GLOBAL CARBON DIOXIDE EMISSIONS.

OVER 60% OF ASIA AND THE PACIFIC'S POPULATION WORK IN SECTORS MOST AT-RISK FROM CLIMATE CHANGE IMPACTS.

Table 1: Estimated Infrastructure Investment Needs by Region, 45 DMCs, 2016-2030
(\$ billion in 2015 prices)

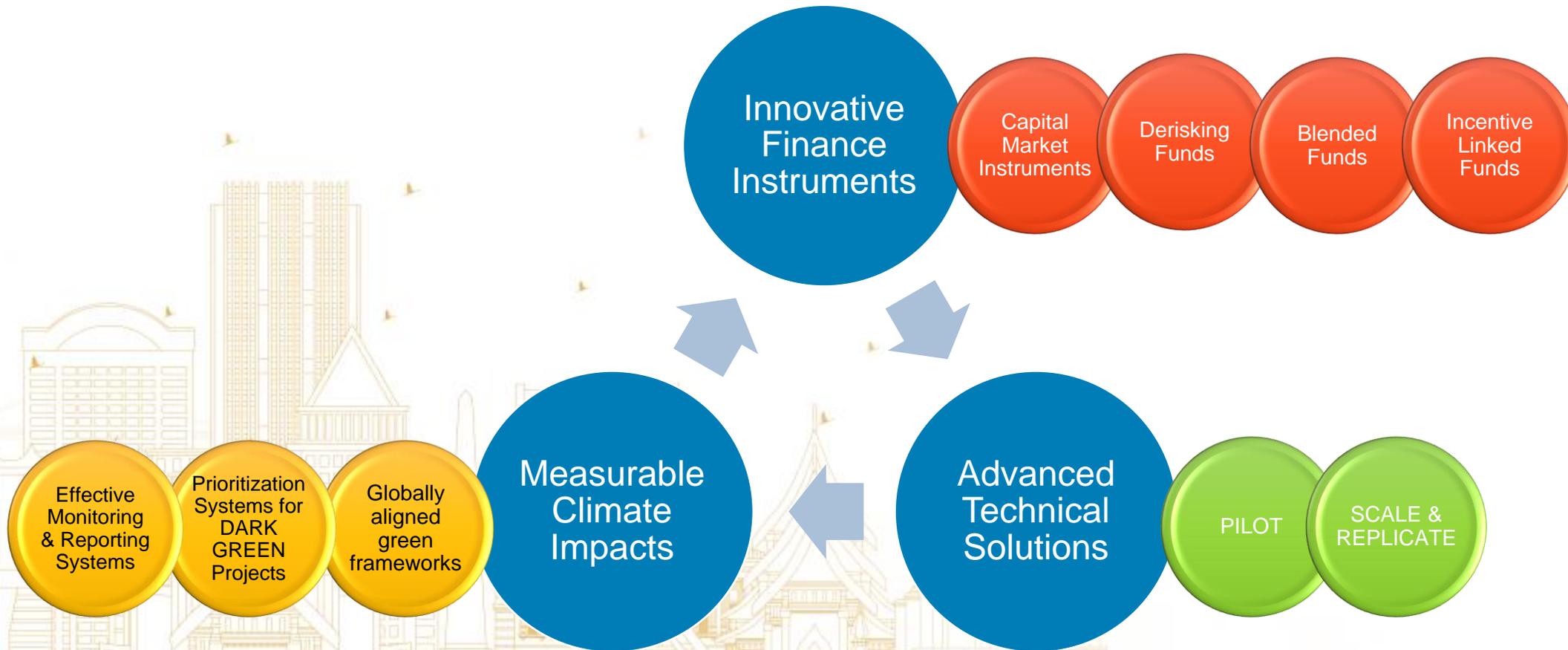
Region/Subregion	Projected Annual GDP Growth	2030 UN Population Projection (billion)	2030 Projected GDP Per Capita (2015 \$)	Baseline Estimates			Climate-adjusted Estimates**		
				Investment Needs	Annual Average	Investment Needs as % of GDP	Investment Needs	Annual Average	Investment Needs as % of GDP
Central Asia	3.1	0.096	6,202	492	33	6.8	565	38	7.8
East Asia	5.1	1.503	18,602	13,781	919	4.5	16,062	1,071	5.2
South Asia*	6.5	2.059	3,446	5,477	365	7.6	6,347	423	8.8
Southeast Asia	5.1	0.723	7,040	2,759	184	5.0	3,147	210	5.7
The Pacific	3.1	0.014	2,889	42	2.8	8.2	46	3.1	9.1
Asia and the Pacific	5.3	4.396	9,277	22,551	1,503	5.1	26,166	1,744	5.9

\$711 billion needed annually to reverse biodiversity loss by 2030

Catalyze Finance From ALL Sources

In Time !

“Leverage Development Funds + Technical Solutions + Institutional Solutions”



ADB Initiatives Underway

In Thailand and SEA Region

Finance Instruments Development: *Capital Markets*

GSS + Bonds Initiative: \$ 2 bn catalyzed

Finance Instruments Development: *Catalytic / Blending Funds*

SDG Indonesia One: Green Finance Facility

Finance Instruments Development: *Derisking Funds*

ACGF
ASEAN CATALYTIC GREEN FINANCE FACILITY

ASEAN Catalytic Green Finance Facility

MOBILIZING CAPITAL MARKETS FOR A CLIMATE-RESPONSIVE AND INCLUSIVE SOUTHEAST ASIA

About \$210 billion of annual investment was needed for climate-responsive infrastructure in Southeast Asia even before the pandemic.

Sustainable bond markets in Southeast Asia only account for 3% of the region's total bonds outstanding.

Over \$2.1 billion in sustainable bonds were catalyzed by the Asian Development Bank's (ADB) knowledge and advisory support, with nearly \$12 billion in subsequent issuances between 2020 and 2023. Association of Southeast Asian Nations (ASEAN) capital markets have shown the potential to quickly mobilize large amounts of capital for climate-smart infrastructure and social development.

Significant amounts of public and private funds must be mobilized to invest in climate-responsive infrastructure and social development. Capital markets have the potential to quickly mobilize large amounts of capital for a number of projects.

Catalyzing Sustainable Bond Issuances in Southeast Asia

The ASEAN Catalytic Green Finance Facility's (ACGF) Green, Social, Sustainable and Other Labeled (GSSO) Bonds Initiative provides advisory support to sovereign, municipal, and state-owned enterprise issuers while GSSO's Asian Bond Markets Initiative (ABMI) focuses on supporting corporate issuers to catalyze signature GSS+ bond issuances and create enabling environments for growth.

Key Activity Pillars

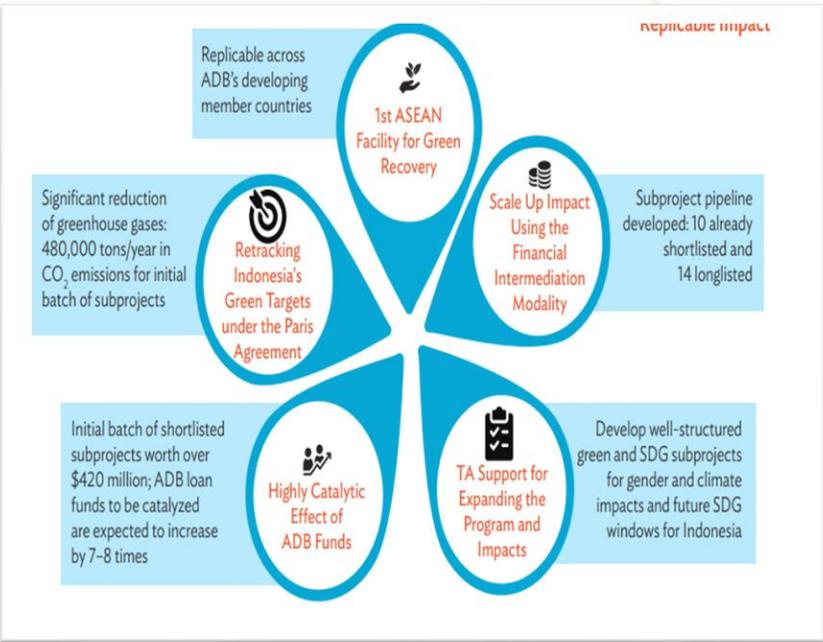
- Signature GSS+ Bond Issuances:** We provide hands-on support to potential issuers.
- Enabling Ecosystems:** Sustainable finance enabled through the development of a bond taxonomy, sustainability disclosure requirements, and the promotion of local venues.
- Talent Pool Development:** We offer capacity building and knowledge support on green and sustainable finance.
- In-House Experts:** A team of ADB in-house experts provides on-the-ground support to ensure successful sustainable bond issuance.

We Support

- Sovereigns
- Municipalities
- State-owned enterprises
- Financial institutions
- Nonfinancial corporates

Bond Types

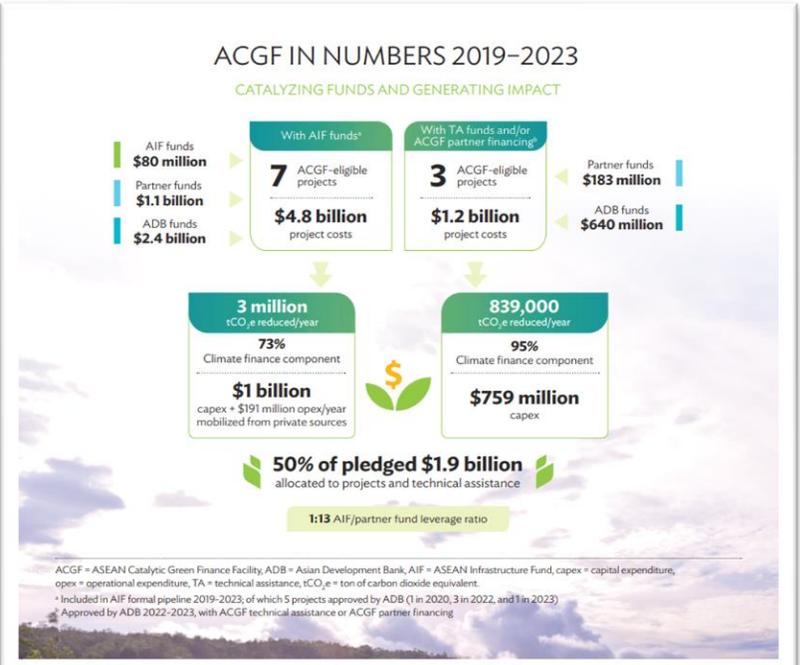
- Green bonds
- Social bonds
- Sustainability-linked bonds
- Blue bonds
- Other labeled bonds



Recent Issuer Support*

Year	Issuer	Amount	Notes
2020	Public Debt Management Office (THA)	\$964 million	sustainability bond, \$964 million raised and \$6 billion in subsequent issuances. ASEAN's first sovereign sustainability bond.
2020	National Housing Authority (THA)	\$200 million	social bond, \$200 million raised. Thailand's first social bond.
2021	National Housing Authority (THA)	\$70 million	sustainability bond, \$70 million raised.
2021	Thaifoods Group (THA)	\$30 million	social bond, \$30 million raised.
2022	Government Savings Bank (THA)	\$295 million	social bond, \$295 million raised.
2022	Central Pattana (THA)	\$30 million	green bond, \$30 million raised.
2022	SL Agritech (PHI)	\$35 million	social bond, \$35 million raised.
2022	Export-Import Bank of Thailand (THA)	\$150 million	green bond, \$150 million raised.
2022	Golden Tree (CAM)	\$1.3 million	green bond, \$1.3 million raised. Cambodia's first green bond.
2022	Government Housing Bank (THA)	\$244 million	sustainability bond, \$244 million raised.
2023	ASA Philippines Foundation (PHI)	\$90 million	social (gender) bond, \$90 million raised. The Philippines' first gender bond.
2023	WHA Corporation (THA)	\$30 million	sustainability-linked bond, \$30 million raised. The first sustainability-linked bond under the ASEAN Sustainability-Linked
2023	PT. Sarana MultiGriya Finansial (INO)	\$32.4 million	social bond, \$32.4 million raised, and social sukuk (Islamic bonds), \$13 million raised. Indonesia's first social bond and sukuk.

CAM = Cambodia, INO = Indonesia, PHI = Philippines, THA = Thailand. *Local currency equivalent.



ADB Initiatives Underway

In Thailand and SEA Region

Replicable
Projects
Development

Thematic
Programs
Development

ADB Private Sector Financing Supports Two New Bangkok Metro Lines



News Release | 0
Read time: 1 min

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BANGKOK, THAILAND (4 June 2019) — The Asian Development Bank (ADB) signed an agreement with a financing package of 9.9 billion Thai baht (\$311 million equivalent) for the construction of the Pink and Yellow lines of Bangkok's mass rapid transit (MRT) system.

ADB, BANPU Sign 2.4 Billion Thai Baht Deal to Support Electric Tuktuks in Thailand and Battery Production in PRC



Electric vehicle adoption into the public transport sector is a powerful game changer that can help to cut emissions at densely populated urban centres right across the region.

News from Country Offices | 23
January 2024
Read time: 1 min

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ADB to Help Build 100-MW Solar Park in Cambodia

News from Country Offices | 24 May 2019
Read time: 3 mins



PHNOM PENH, CAMBODIA (24 May 2019) — The Asian Development Bank (ADB) has approved a \$7.64 million loan to support the construction of a 100-megawatt (MW) solar power park in Cambodia, which will help the country develop renewable energy resources, diversify its energy mix, and improve the



THE CRITICALITY: Nature Loss

Nature and Biodiversity: Defining the area of focus
Biodiversity is "the variability among living organisms from all sources including terrestrial, marine and other aquatic ecosystems and the ecological complexes of which they are part; this includes diversity within species, between species and of ecosystems." Nature is a broader definition that encompasses biodiversity ("all life on Earth") plus "the geology, water, climate, other inanimate components that comprise our planet."
(Convention on Biological Diversity)

GLOBAL TIPPING POINTS: Asia Particularly at Risk

Two fifths of the world's most significant marine biodiversity has been lost and the rest will disappear by 2100 (WRIE).

Southeast Asia alone:

14.5% forest cover lost in the last 15 years

up to 80% wetlands threatened with drainage through conversion to agriculture or development

more than 50 million migratory wading birds imperilled due to lost wetlands

640 million people living on coastlines most vulnerable to rising sea levels and weather catastrophes

9.6 million people displaced in 2019 due to cyclones, typhoons, and floods

THE CLIMATE CHANGE Linkage to Nature

Nature is critical in building climate resilience
Rehabilitation and conservation of ecosystems and improving ecosystem services is critical for strengthening resilience of vulnerable communities and infrastructure to climate impacts. This includes measures such as restoration of coastal mangroves, wetlands, and mountain landscapes; watershed management; reforestation for cooling; climate resilient cropping systems; and water resource management.

Nature is a vital carbon sink

- Land-based ecosystems can provide up to 20%-30% of the mitigation required to ensure global warming stays below 1.5°C towards 2050 (UNCCD)
- The ocean absorbs 25% of all carbon dioxide emissions, and captures 90% of the excess heat these emissions generate (UN)
- Forest and wetland ecosystems are critical for carbon storage (UNEP)

THE FINANCING NEED

NBSs require a massive scaling up in funds to fight against nature loss.

An estimated \$711 billion needed each year to reverse biodiversity loss by 2030

Annual investments in nature-based solutions (NBS) will need to be quadrupled by 2050 from \$133 billion (2020 level)

NATURE-BASED SOLUTIONS
+
INNOVATIVE FINANCE APPROACHES
NBSs are actions and policies that protect, manage and restore natural ecosystems, while addressing societal challenges

CHALLENGES

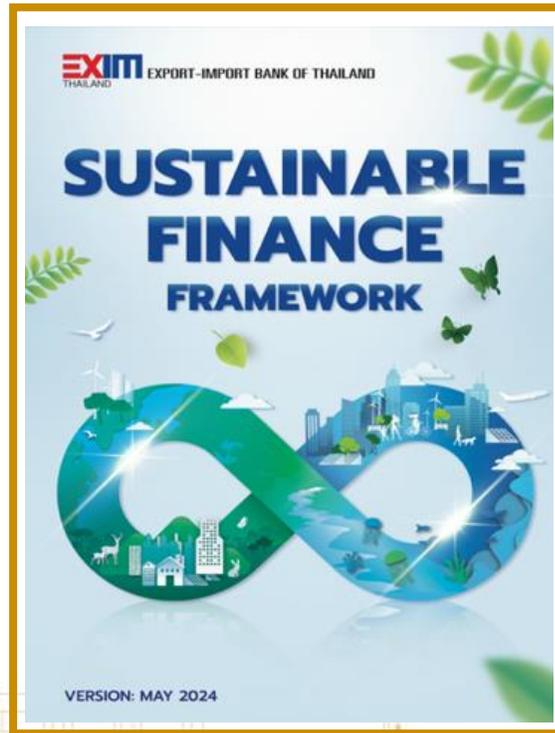
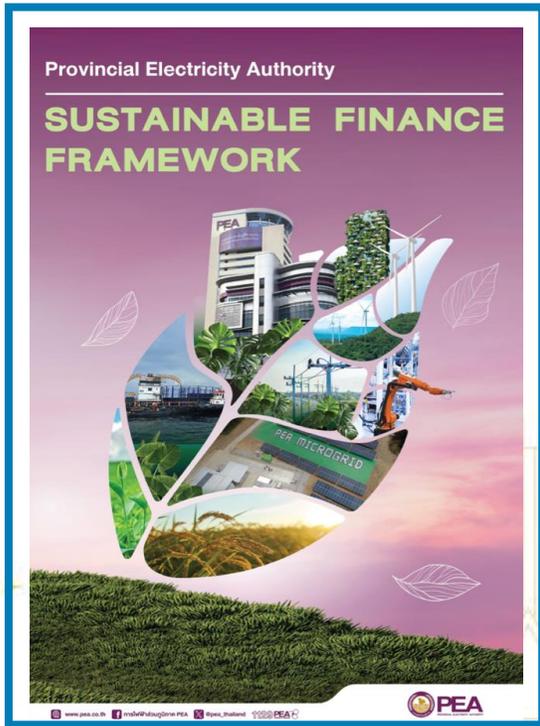
- Lack of national/regional focus on NBS
- Lack of a scalable pipeline of NBS Projects
- Capacity weakness on NBS project preparation
- Lack of knowledge on innovative finance approaches to scale up private capital flows
- Risk perception of global pools of capital
- Underdeveloped innovative market instruments such as nature credits



BENEFITS

- Protection of biodiversity
- Greater carbon
- A more sustainable ecology for economic growth and poverty reduction
- Some estimates indicate that investing in nature can generate up to \$10 trillion in additional annual business revenue and create employment opportunities worth up to \$395 million by 2030

GSS+ Bonds Initiative



- 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
- The first DFI to develop a sustainable finance framework covering blue projects
 - 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

ADB

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Catalyzing Sustainable Bond Issuances in Southeast Asia

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Key Activity Pillars

- Signature GSS+ Bond Issuances:** We provide hands-on support to potential issuers.
- Talent Pool Development:** We offer capacity building and knowledge support on green and sustainable finance.
- Enabling Ecosystem:** Sustainable finance enabled through the development of a bond taxonomy, sustainability disclosure requirements, and the promotion of local verifiers.
- In-House Experts:** A core team of ADB in-house experts provides on-the-ground support to ensure successful sustainable bond issuance.

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2021	National Housing Authority (THA)	sustainability bond	\$70 million raised
	Thaibonds Group (THA)	social bond	\$30 million raised
2022	Government Savings Bank (THA)	social bond	\$295 million raised
	Central Pattana (THA)	green bond	\$30 million raised
2022	Export-Import Bank of Thailand (THA)	green bond	\$750 million raised
	Golden Tree (CAM)	green bond	\$1.8 million raised
2022	Government Housing Bank (THA)	sustainability bond	\$244 million raised
	ASA Philippines Foundation (PHI)	social (gender) bond	\$90 million raised
2023	ASA Philippines Foundation (PHI)	social (gender) bond	\$90 million raised
	WHA Corporation (THA)	sustainability-linked bond	\$30 million raised
2023	PT. Sarana MultiGrupa Finansial (IND)	Social bond	\$32.4 million raised
	SL Agritech (PHI)	social bond	\$55 million raised

Major Highlights

- Over \$2.1 billion of sustainable bonds catalyzed
- Almost \$12 billion in subsequent issuances
- Invest internationally awarded sustainable bond transactions

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Mobilizing Capital Markets for a Climate-Responsive and Inclusive Southeast Asia (adb.org)

ADB

GSS+ Bonds Initiative

- Over **\$2 billion** of sustainable bonds catalyzed
- Over **\$12 billion** in subsequent issuances
- **Seven internationally-awarded** sustainable bond transactions



Krungsri: Join Forces to Support Thailand's Net Zero Transition

DEMAND

- **Involvement in Sustainable Finance Development in ASEAN and Thailand**

- Working Group on Strengthening Demand and Supply for Sustainable Finance



- **Funding support from MDBs**



- **Thailand ESG Fund**



- **Financing the Transition (Brown to Less-brown Business)**

SUPPLY

- **Knowledge sharing from MUFG on international ESG case studies**



- **Collaboration with ADB to build quality supply**



- MOF Sustainability Bond
- EXIM Blue Bond

- **Krungsri's Sustainable Finance products**

REGULATION/ GUIDELINES

- **Industry Handbook**



- **Thailand Taxonomy**

- **Phase 1** Energy and Transportation
- **Phase 2:** Manufacturing, Agriculture, Real Estate and Construction, and Waste Management sector.



- **MUFG Asia Transition White Paper**

- **Climate Change Act (in progress)**

Krungsri as Your Strategic Partner to Reach Net Zero Targets

CORPORATE & INVESTMENT BANKING CLIENTS

SME CLIENTS

GREEN

SUSTAINABILITY

SOCIAL

SUSTAINABILITY-LINKED

TRANSITION

SUSTAINABILITY-LINKED LOANS/ BONDS/ FX/ DERIVATIVES

To be further explored under Thailand Taxonomy and Thai SEC Guideline

LOAN FOR GREEN BUSINESSES

LOAN FOR PPA OPERATOR

WOMEN-LED SMES (WSMES)

LOAN FOR GREEN ACTIVITIES AND TRANSITION LOANS



Embark on Your Transition Finance Journey

- Begin **NOW** with data collection, developing ESG corporate strategy & pathway towards net zero, and addressing investment requirements.
- **Krungsri** is ready to support your Transition Finance requirement and be partner of choice.

1 CORPORATE'S TRANSITION PLAN PREPARATION



2 SUSTAINABLE FINANCE SUPPORT



- **Due Diligence**
- Ensure alignment with **Best Market Practices and Standards**
- **Financing support through Sustainable Finance initiatives**

