



**NUS
INVESTMENT
SOCIETY**

SUSTAINABLE FINANCE EXPLAINED

**OVERVIEW OF TRENDS, INSTRUMENTS AND
IMPACT**

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INTRODUCTION

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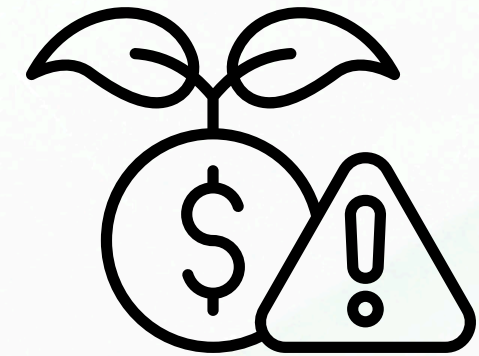
OVERVIEW

Sustainable finance is often framed as a moral evolution of investing, capital flowing toward “good” companies and away from “bad” ones.

In reality: Sustainable finance emerged because Traditional Markets struggle to price long-term, systematic

Puts economic costs on:

- Climate change
- Environmental degradation (GHGs)
- Demographic shifts



Sustainable finance allows us to plan for risks before they become financial crises

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SUSTAINABLE FINANCE IN SOUTHEAST ASIA

SEA is among the most exposed globally to climate-related risks, including rising temperatures, extreme weather events, and sea-level rise yet continues to rely on carbon-intensive growth to support development.



Growth in the region has to continue so how should this growth be financed?



Because of this, sustainable finance has become a capital allocation problem.

Where should capital flow to support economic growth, manage transition risk, and preserve long-term economic resilience?

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Market Overview

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Markets Overview

In response, there are 3 markets in sustainable finance each addressing a different weakness in traditional finance:

- 1. Public Markets:** Sustainability reshapes how risk is priced to allocate capital
- 2. Private Markets:** Capital finances transition, infrastructure, and innovation
- 3. Carbon Markets:** Puts a price on pollution, ensuring that emitting carbon is not free

To understand sustainable finance we have to understand how these markets function individually, and how they interact to influence future investments.

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Public Markets

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Public Markets

- In SEA, sustainable finance bond issuance (consisting green, social, sustainability, and sustainability-linked bonds) became the core instrument to drive growth, because they are the easiest way to channel large pools of capital into transition infrastructure.
- ASEAN sustainable bond issuance reached ~USD 24.9bn in 2024, a significant 28.1% YoY growth, demonstrating the scale of financing needed in order to achieve sustainable development goals (SDGs).

What does this mean?

- Public market is necessary to attract and serve the growing appetite for impact investing from both institutional and retail investors.

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Forms of sustainable finance Instruments

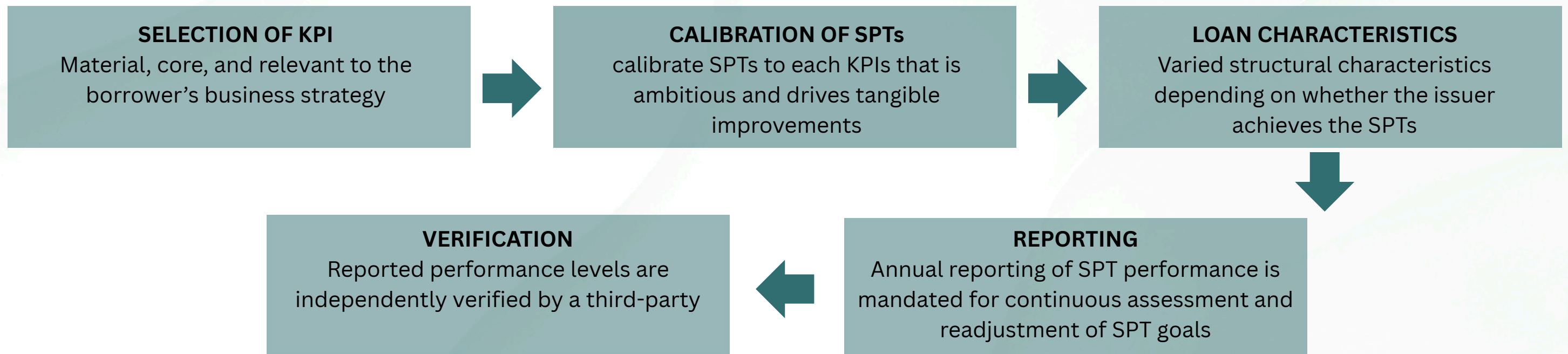
- The instruments can be broadly separated under two classifications: use of proceeds and target-linked. Their main distinction exists in the way in which the proceeds are being used.

	Target-Linked	Use of Proceeds
Definition	Raise capital for projects with a positive environmental and/or social impact; net proceeds are used to finance or refinanced eligible projects	Proceeds used to incentivise the achievement of predetermined Sustainability Performance Targets (e.g., reduction of greenhouse gas emission)
Financial Instruments	Sustainability-Linked Loans Sustainability-Linked Bonds	Green Bonds Social Bonds Sustainability Bonds Green Loans

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Target-Linked - SLLs

- Sustainability-Linked loans (SLLs) are firstly introduced in 2017 (Phillip x ING \$1B revolving credit facility deal) and originated in the syndicated loan market.
- Tied to certain sustainability performance targets (SPTs), the issuance is governed by the following principles:







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Use of Proceeds

GREEN BONDS

- **Singapore** is issuing up to SGD 35Bn in sovereign and public-sector green bonds by 2030 to fund sustainable infrastructure, specifically targeting projects like Jurong Region line and Cross Island Line.

Issuer	Issuance (S\$ billion)	Green Category	
Singapore Government/ Monetary Authority of Singapore ("MAS") ^[a]	9.2	Clean Transportation	
National Environment Agency ("NEA") ^[b]	1.7	Sustainable Waste Management	
Housing & Development Board ("HDB") ^[c]	8.5	Green Buildings	
Public Utilities Board ("PUB") ^[d]	1.1	Sustainable Water and Wastewater Management	
Total	20.5		

Source: Ministry of Finance Singapore

SOCIAL BONDS

- There is insufficient demand for ASEAN social bonds. Barriers to growth include a lack of understanding, and insufficient historical data on potential investment returns.
- Optimism rise with Bank of the **Phillippine's** issuance of a PHP 21.6Bn (USD 443Mn) COVID Action Response Bond.

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Use of Proceeds

SUSTAINABILITY BONDS

- Issuance surge across currencies by development banks such as World Bank, sovereigns and agencies, recording a total of ~USD24.5bn in October 2024.
- Key issue remains the risk of greenwashing, the lack of certainty as to the usage of proceeds and the project's tangible outcomes.

GREEN LOANS

- Enhanced grant scheme from Monetary Authority of Singapore (MAS) continues to expand and facilitate corporates' transition to sustainable business practices. It covers up to S\$100,000 per loan over 3 years.
- As a predominantly loan driven market, the scheme anchors sustainability framework to financial institutions' practices and provide further drivers of change.

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Private Markets

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Private Markets

If public markets signal risk, private markets provide capital where public markets can't. This is done through private equity, venture capital, infrastructure, and private credit.

This happens when:

- Risks are too high for public investors
- Projects are illiquid and long-dated
- Returns depend on execution rather than sentiment

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Private Equity in SEA

In ASEAN, where infrastructure gaps and transition needs are large, private capital is critical.

Private equity and infrastructure funds are actively investing in:

- Renewable energy platforms in Vietnam, Indonesia, and the Philippines
- Waste, water, and circular economy solutions
- Energy efficiency and sustainable logistics

Solar and wind projects across Southeast Asia are often financed by private infrastructure funds backed by long-term institutional capital. These investments add clean capacity, reduce emissions and would not scale without patient private capital.

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Blended Finance in ASEAN

Blended finance where public or philanthropic capital absorbs first losses to attract private capital.



It is used to mobilise larger pools of private capital for sustainable infrastructure projects across emerging markets.

What does it do?

Private capital creates additional financing activities that would not occur but requires patience, specialised expertise, and customised risk management.

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Carbon Markets

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Making Pollution a Financial Cost

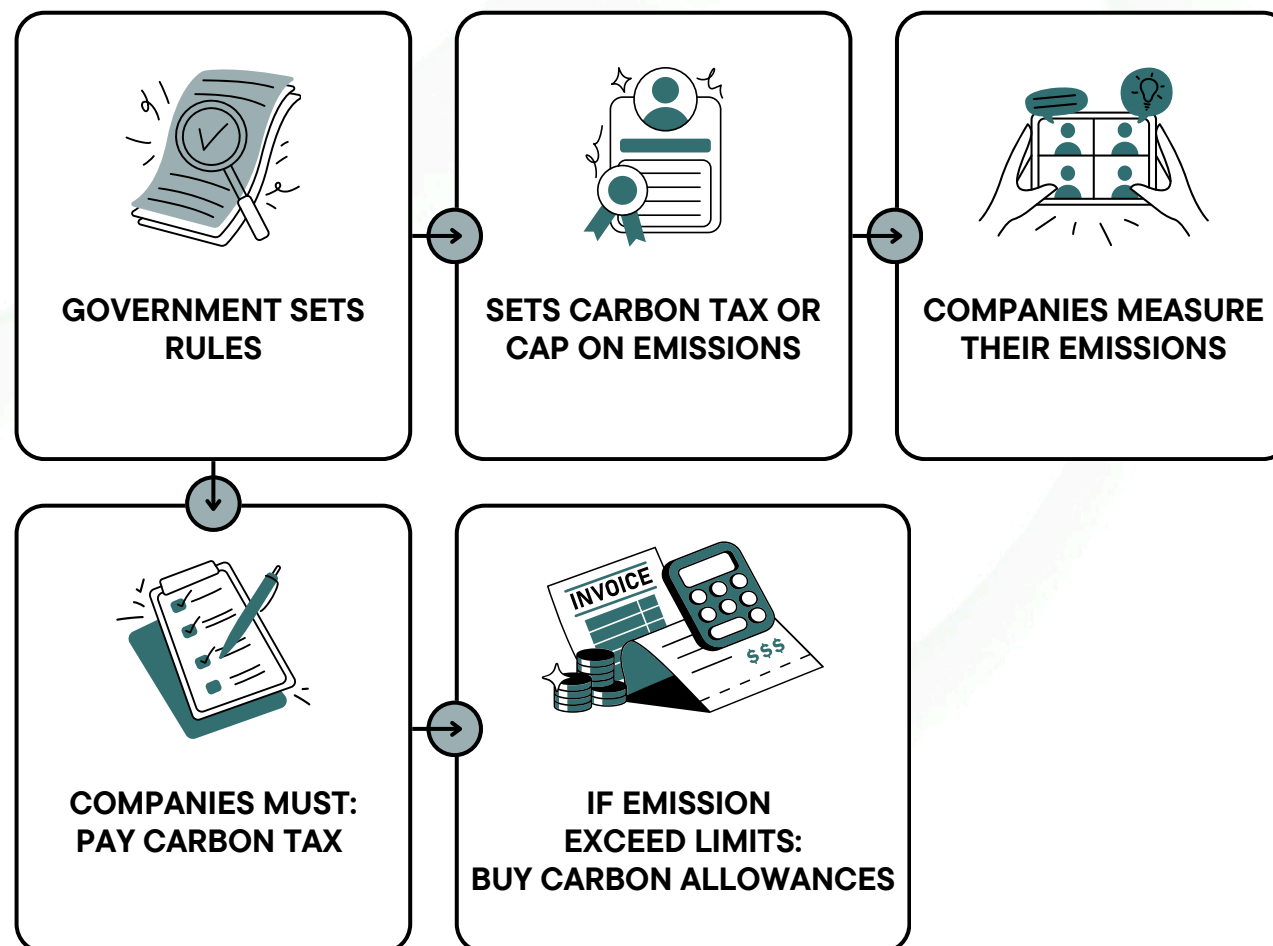
- Carbon Markets exists to put a price on carbon emissions, it makes emissions into something that companies must account for financially.
- Carbon Markets work in 2 ways:

	Compliance (mandatory)	Voluntary
What are they?	Government-regulated systems where companies are legally required to pay for their emissions	Allow companies to buy carbon credits to offset emissions they cannot eliminate
Different forms	Carbon Tax Emissions trading system (ETS)	Projects that stop emissions from happening e.g. Renewable energy projects Projects that take out CO2 from the air e.g. Reforestation

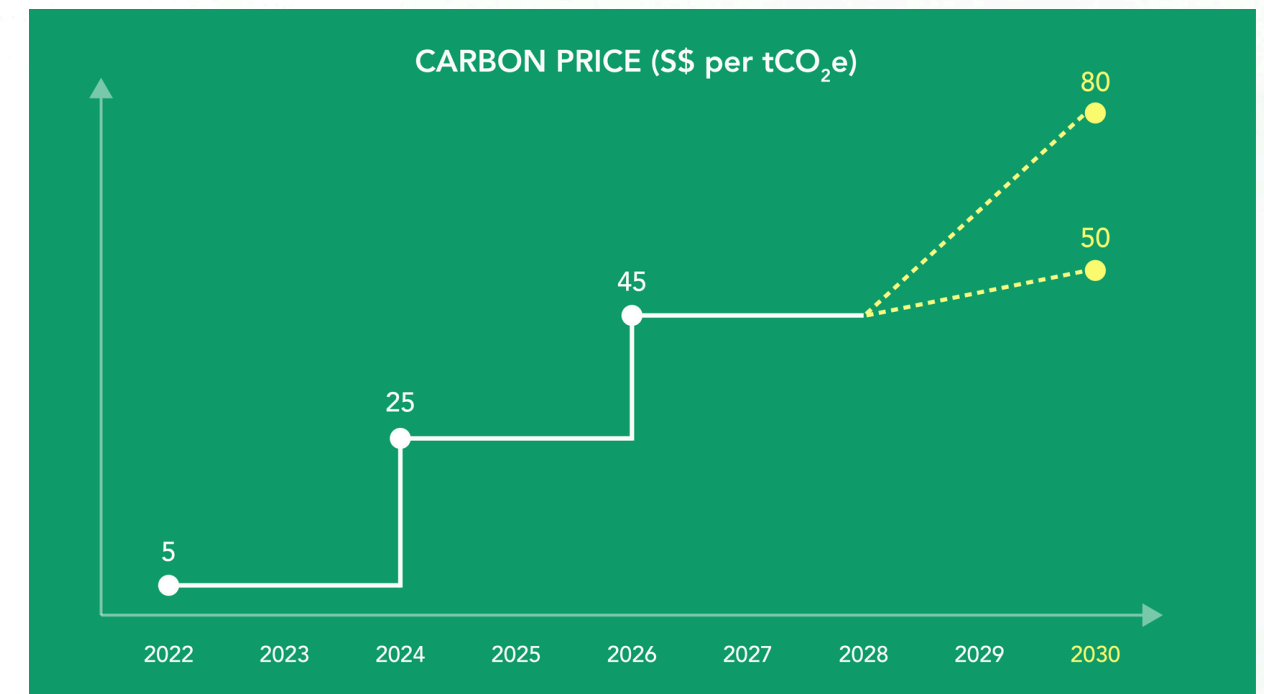
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Compliance Markets

- Forces behaviour change by law.
- How it works:



Carbon tax in Singapore:



Source: NCCS Singapore

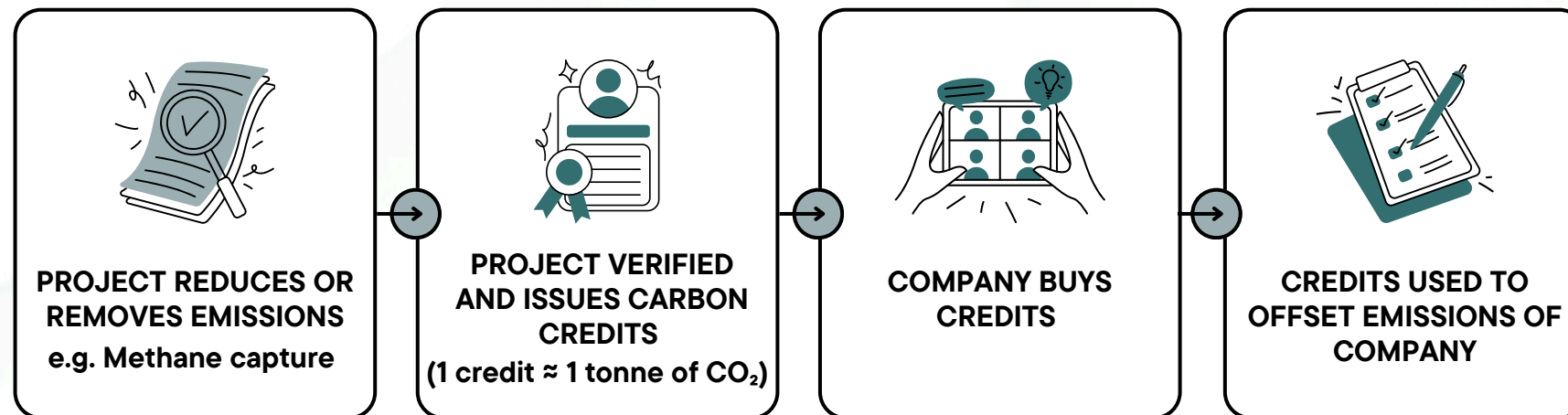
- To support the net zero, carbon tax was raised from S\$5/tCO₂e to S\$25/tCO₂e in 2026.
- Will reach S\$50-80/tCO₂e by 2030.

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Voluntary Markets

Buying of carbon credits is used to offset emissions.

- How it works



Voluntary markets face challenges:

- Would this project exist without carbon revenue?
- Will emissions reductions last?
- Are reductions real and measurable?

Voluntary carbon markets are best seen as a transitional tool, not a long-term substitute for cutting emissions.

Motivations for buying carbon credits:

- Companies cannot remove emissions overnight.
e.g. Airlines cannot switch to zero-emissions planes
- Carbon credits help act as a temporary tool while awaiting new innovations to meet climate targets.

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Paris Agreement & Article 6

The depth of carbon markets is still limited and prices can be volatile. Not a lot of people have confidence in it yet. It still developing and much of the current carbon market framework is based on Article 6 of the Paris Agreement but there are still many gaps.

Gaps	The Issue	Why it matters
No Fully Enforced Global Rulebook	does not strictly enforce how emissions reductions must be measured, verified, and traded across borders	Credits from different countries are not always comparable Investors are unsure whether credits will remain valid in the future
Weak Enforcement and No Central Authority	The Paris Agreement relies largely on self-reporting and peer pressure, not penalties	No automatic punishment for non-compliance Policy credibility becomes uncertain

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Conclusion

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Why Sustainable Finance Needs All Three Markets

Sustainable finance cannot work through a single market alone.

Public Markets

Reprice sustainability risks at scale, shaping valuations and cost of capital.

Private Markets

Finance the transition directly, funding infrastructure and innovation that public markets cannot.

Carbon Markets

Puts a price on pollution, ensuring environmental costs are no longer ignored.

Each market addresses a different gap. Together, they guide capital, enable real-world change, and anchor financial decisions to environmental reality.

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