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SOUTHEAST ASIA REMAINS OFF TRACK IN NET ZERO AMBITIONS

The Edge, Malaysia



COMPILED BY **LEE WENG KHUEN** | INFOGRAPHIC BY **NURUL AIDA MOHD NOOR/THE EDGE** SOURCE: BAIN & COMPANY, GENZERO, STANDARD CHARTERED AND TEMASEK

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Southeast Asian governments are grappling with the challenges of rising energy demand, a burgeoning middle class, strong pressure not to increase energy and electricity prices, and the need to deliver just and equitable growth — before even considering ambitious plans to decarbonise and build industries of tomorrow.

While corporates and investors are keen to play their part, Satish Shankar, regional managing partner for Asia-Pacific at Bain & Company, says uncertainties about the transition path and supporting regulation and policies make it difficult to take decisive action at scale and invest the billions of dollars that are needed to ensure a speedy and effective transition.

Kimberly Tan, managing director and head of investment group at investment platform company GenZero, believes that an acceleration of effort by countries, corporates and investors is imperative as Southeast Asia remains woefully off-track despite significant progress seen in 2023.

"Emissions increased by 13% or 400 MtCO₂e (metric tonnes of carbon dioxide-equivalent) in 2023 and will continue to increase as primary energy consumption increases alongside GDP (gross domestic product) growth. Renewable energy investment in Southeast Asia increased by 9% in 2023. However, renewable energy constitutes less than 10% of electricity generation in the region. Total green investment increased by 20% from US\$5.2 billion to US\$6.3 billion in 2023 but remains far short of the US\$15 trillion needed to fund Southeast Asia's transition by 2030," she explains in the Southeast Asia's Green Economy 2024 — Moving The Needle report by Bain & Company, GenZero, Standard Chartered and Temasek.

Having said that, she is optimistic about the region as a destination for green investment given the ample headroom for increased deployment of commercially ready and cost-effective technologies from low penetration levels today. "We believe this could unlock incremental annual revenues of US\$300 billion by 2030 and present a meaningful opportunity to invest into companies with fit-for-purpose technologies and business models which could become the new market leaders in the green economy," she adds.

Malaysia reported an upward trajectory in the 2024 Green Index Score to 43 from 41 a year ago. Here is the overall progress achievement for the country.

REQUIREMENTS AND ASSESSMENT	YEAR	COMMENTARY
Ambition	2023	Target-setting and quality
	2024	Target cascading
Progress	Current state	Decreased emissions by 2%, but relatively high emissions per capita (11.3t); 18% RE (renewable energy) share for power generation, -1% of battery EV in annual 4W passenger car sales
Roadmap	National sector-level roadmap	Recently announced National Energy Transition Roadmap (Aug 2023), a detailed, long-term plan for energy transition
	Corporate roadmap	4/10 major emitting companies have released roadmap to achieve net zero
Accelerators	Regulatory framework	No mandatory emissions reporting, but structured permitting process for RE electricity exists; REDD+ ¹ implementation is in good progress and requires mandatory certificate for oil palm growers (MSPO)
	Financial prerequisites	Incentives for EV, solar and green building exist and started to develop carbon tax policy in 2023 - 0.5M carbon credits; has agency providing guarantee to SMEs ² , but no incentives on organic agriculture
	Infrastructure, tech and human capital	Grid sufficient for current RE penetration, grid upgrade plans being implemented; -1K EV charging stations, 2 registered NBS projects; has low SRI adoption level
Investment	Corporate investment	Required capital investment of US\$27 billion but with only US\$1 billion private investments made in 2023

Notes: ¹ Reducing emissions from deforestation and forest degradation in developing countries; ² Small and medium enterprises

Legend: ■ Highly unlikely to be on track ■ Unlikely to be on track ■ Likely to be on track ■ Highly likely to be on track

While Southeast Asia (SEA) only accounts for about 7% of global emissions, its emissions are steadily increasing and expected to rise rapidly, unless steps are taken to reduce its emissions intensity

Emissions of SEA are still rising ... as primary energy grows

SEA annual greenhouse gas emissions¹ (MtCO₂e)

SEA primary energy consumption² (TWh)

SEA needs to bend the emissions curve

SEA CO₂ emissions³ (Mt)

SEA GDP (US\$ bil, Real GDP, Base: 2010)

SEA primary energy consumption (TWh)

Notes: ¹ Actual GHG emissions data used until 2020; ² Primary energy consumption and CO₂ emissions in 2030 refers to stated policies scenario from IEA; ³ Primary energy consumption in 2022 for Brunei, Cambodia, Laos, and Myanmar was calculated by multiplying y-o-y between 2021-2022 of ASEAN

Unlocking the region's green economy could be worth another US\$300 billion annually by 2030

Southeast Asia green economy revenue pool by 2030

- Others - US\$300bil
- Industrial & waste - US\$30bil
- Building - US\$40bil
- Nature & agriculture - US\$60bil
- Transport - US\$70bil
- Power - US\$90bil

~5% of 2030F SEA GDP

Notes: ¹ Gross new revenue — updated the size of prize data from 2020 and 2022 reports; Others — Carbon trading market; annual gross new revenue does not include economic losses from green transition such as job losses, businesses shut down from coal plants phase-out, or economic losses of decreasing sales of ICE (internal combustion engines) vehicles

Southeast Asia has committed to cut emissions by 32% by 2030 with an urgent need for accelerated actions to shift the trajectory

Emissions outlook

GHG emissions in SEA region (GtCO₂e)

Business-as-usual¹

Current trajectory

2020 Actual: 3.4

2030 Estimated: 7.3

4.9 (Unconditional NDC²)

3.9 (Conditional NDC³)

-2.4Gt gap in 2030

Notes: ¹ Projected emissions level should there be no significant change in technology, economics, or policies such that historical trends continue; ² Emissions level committed by SEA countries that can be reached with own resources and capabilities and without international support; ³ Emissions level committed by SEA countries that can be reached subject to international support and/or other conditions; GHG = greenhouse gas; NDC = Nationally Determined Contribution — a country's official commitment to greenhouse gas emissions reduction as submitted to the United Nations Framework Convention on Climate Change

In 2023, Malaysia's private green investment jumped 326% to US\$1.03 billion, accounting for about 16% of the total private green investment in Southeast Asia. It was due to the increase in large-scale deals seen specifically under the building sector.

New investments made in Malaysia (US\$ mil)

2023 total = US\$1,030 (~16% of SEA)

2021: 122 (4 deals)

2022: 241 (5 deals)

2023: 1,030 (9 deals)

- Minimal food loss
- Renewable energy (Other)
- Improved waste management
- Solar
- Biofuel
- Buildings
- Other