

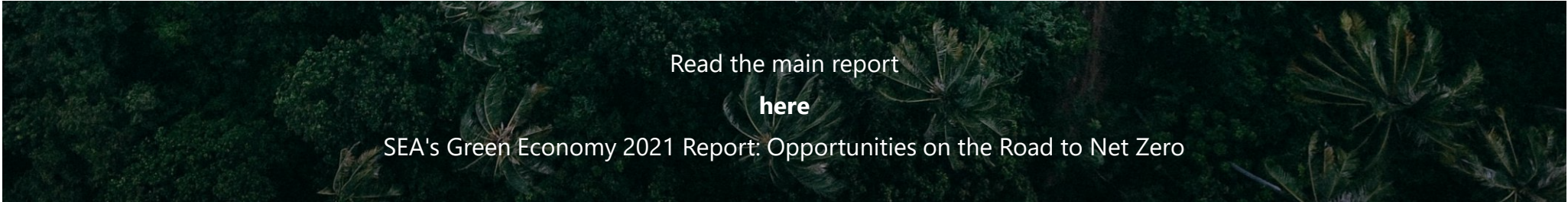
An aerial photograph of a tropical island. The island is covered in dense, vibrant green forest. The surrounding water is a clear, bright turquoise color. In the lower center, a small boat is visible on the water. The overall scene is lush and scenic, representing a natural environment.

Thailand

Perspectives on the Green Economy

2021

Main report

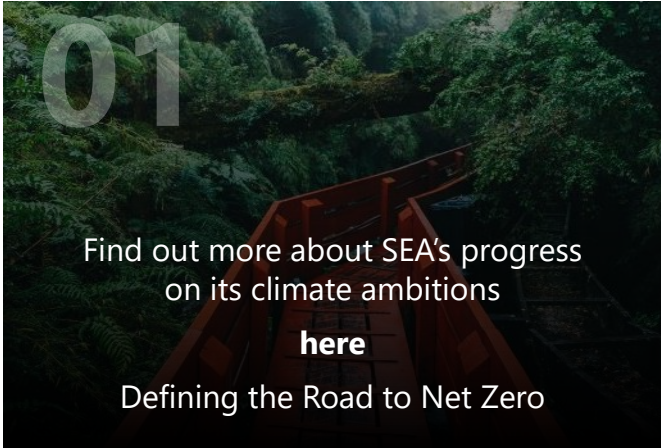


Read the main report

here

SEA's Green Economy 2021 Report: Opportunities on the Road to Net Zero

Deep-dive sections

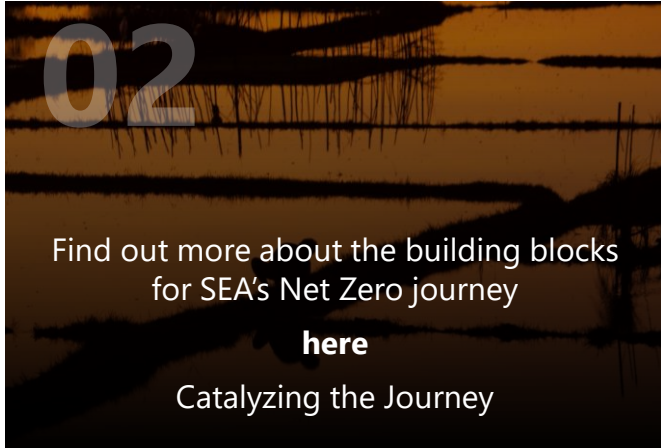


01

Find out more about SEA's progress on its climate ambitions

here

Defining the Road to Net Zero

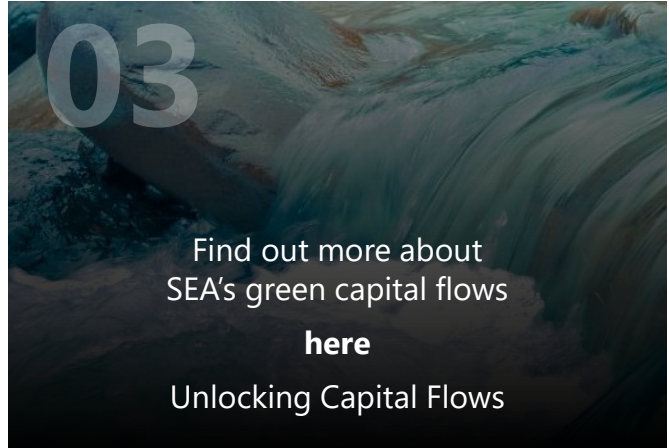


02

Find out more about the building blocks for SEA's Net Zero journey

here

Catalyzing the Journey



03

Find out more about SEA's green capital flows

here

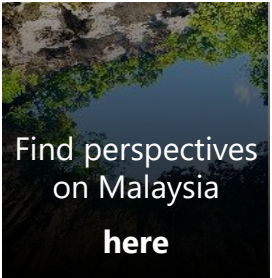
Unlocking Capital Flows

Country insights



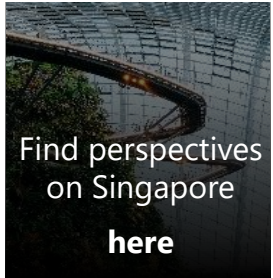
Find perspectives on Indonesia

here



Find perspectives on Malaysia

here

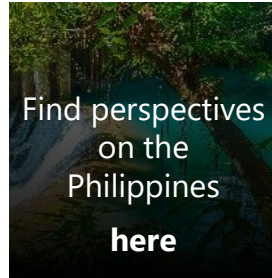


Find perspectives on Singapore

here

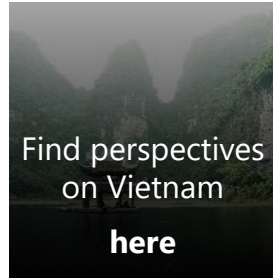


Thailand
This report



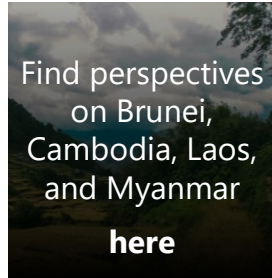
Find perspectives on the Philippines

here



Find perspectives on Vietnam

here



Find perspectives on Brunei, Cambodia, Laos, and Myanmar

here



THAILAND

Key takeaways

A

Thailand can develop its green economy while building up climate resilience

Thailand's location offers it regional connectivity, but also exposes it to high risks of climate events such as flooding and drought. It can build up its climate resilience, ramp up waste management, and export energy and agriculture.

Key opportunities:



Solar power producer



Water resilience and security



Digitalization of agricultural practices



E-waste management



Smart city innovations



Sustainable infrastructure development

B

Sustainability policies rising to the top of mind for government and businesses, and conditional absolute annual emissions are projected to decrease in 2030 from 2018 levels

Thailand is pushing to install renewables and restore forest cover as part of its efforts to cut emissions (compared to business-as-usual levels). In line with government commitments, businesses are also answering the call with 4 Science Based Targets initiative (SBTi) signatories since 2020 (5 total) and multiple others with Net Zero targets as soon as 2030. Based on the latest conditional nationally determined contributions (NDC), Thailand's 2030 absolute annual emissions, emissions per capita, and emissions intensity for GDP are expected to decrease compared to 2018, though unconditional NDC targets imply that absolute emissions and emissions per capita will keep increasing.

C

Capital increasingly being deployed into the green economy, with a focus on energy

Thailand's green investment space shows strong promise. It leads the region in green initial public offerings (IPOs) and corporate investments, but private equity/venture capital (PE/VC) deals and infrastructure spending are still catching up.



THAILAND

A



Thailand could develop its green economy while building up climate resilience

Key opportunities:



Solar power producer

The recently completed hydro-floating solar hybrid project at Sirindhorn Dam is proof of Thailand's domestic demand for solar power. Due to its proximity and anti-dumping duties, Thailand has also become an export hub for Chinese photovoltaic (PV) players. Ramping up PV production capacity is a priority, while ensuring social responsibility towards workers and local communities.



Electronic waste (e-waste) management

With >400,000 tons of e-waste, Thailand's waste-management sector deal with hazardous metals like lead, mercury and cadmium frequently. Yet the current system is too labor-intensive to handle them quickly and safely. Smart sensors and AI sorting systems would be a huge boost to the industry.



Water resilience and security

Climate change exacerbates Bangkok's vulnerability to flooding and Thailand's propensity for extreme heat.¹ Two of its largest sectors, agricultural and high-tech manufacturing, are also water-intensive. Advanced water management solutions that address both water resilience and security, such as predictive analytics and treatment plants, have huge latent potential.



Smart city innovations

As one of the key foci of Thailand's 20-year national development plan, the smart city concept has and will continue to receive strong governmental backing. In 2020, 39 cities committed to pursuing smart city development. Ways to more effectively handle climate issues like pollution, droughts and floods, like digital twin technologies, would be impactful.



Digitalization of agricultural practices

Thailand's smart farming market is forecasted to be \$270 million by 2022, and credit is available - foreign investments topped \$250 million in 2020. However, for the potential of intelligent agriculture to be unleashed, the technological, economic, and social hurdles for its many smallholder farmers must be addressed.



Sustainable infrastructure development

Thailand has committed to revamping its transportation system by building more motorways, double-track trains, and high-speed rail to link airport connectivity. In all, improvements to public transportation are expected to draw \$43 billion and promise to cut emissions.

Notes: 1. Thailand ranks first in Southeast Asia (SEA) in economic losses from climate disasters from 2000-2019 (~4x of second highest)

Sources: ADB; Eco-Business; Eco-Business (2); ISSUU; Bangkok Post; ASEAN Post; Siam Legal; Bain 2020 SEA Green Economy Report



THAILAND

B

Sustainability policies rising to the top of mind for government and businesses

Governmental policies for climate change

No	Net Zero target
20% unconditional ¹	emissions reduction from business-as-usual by 2030 (25% conditional)
ETS²	under consideration
30% of total installed capacity	to be renewables by 2030
55%	of total area to be restored as forest cover by 2037

Landmark moves in the past year

In 2021



Notes: 1. Target reduction (base year 2005). Approximately 555 MtCO₂e. Unconditional reductions are not dependent on external support. Conditional targets dependent on availability of international support; 2. Emissions trading scheme

Sources: UNECCC; SBTi; PR Newswire; Bangkok Post; Bloomberg Company websites

Business commitments to Net Zero

5 SBTi signatories

Joined in...

2021	SCG	STARBOARD INNOVATION QUALITY
2020	FPL	C.P. GROUP
2019	NRF	

Multiple others with Net Zero targets

Non-exhaustive

By...

2030	bangchak
2050	B.GRIMM POWER



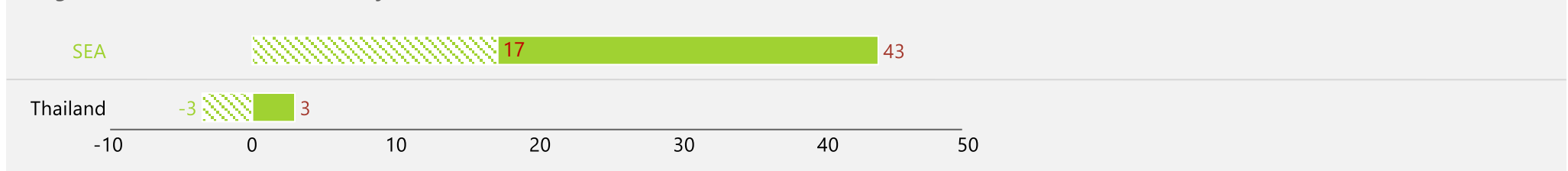
THAILAND

From 2018 to 2030, Thailand's unconditional absolute annual emissions expected to increase, but less than SEA overall, and conditional emissions to decrease

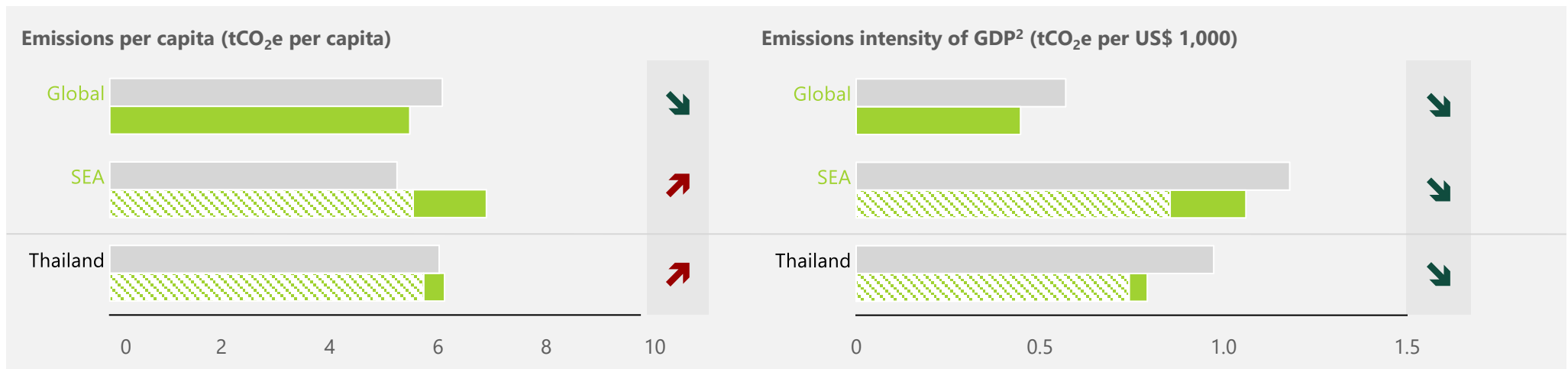
Based on latest NDC targets

Thailand's unconditional absolute annual emissions set to increase from 2018 to 2030, but conditional emissions to decrease; in both cases, Thailand outperforms SEA¹ overall

Change in absolute annual emissions by 2030 (from 2018), %



Thailand's unconditional emissions per capita set to increase while conditional emissions decrease from 2018 to 2030; unconditional and conditional emissions intensity of GDP set to decrease. Both metrics are lower than SEA overall in 2030



■ 2018 (actual) ■ 2030 (conditional NDC) ■ 2030 (unconditional NDC)

Notes: 1. SEA benchmarks include Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Singapore, Thailand, the Philippines, and Vietnam. For countries with only one emission target, it is taken to be both conditional and unconditional; 2. GDP at constant prices (2010) used except for Brunei, Cambodia, Laos, and Myanmar (current prices used)

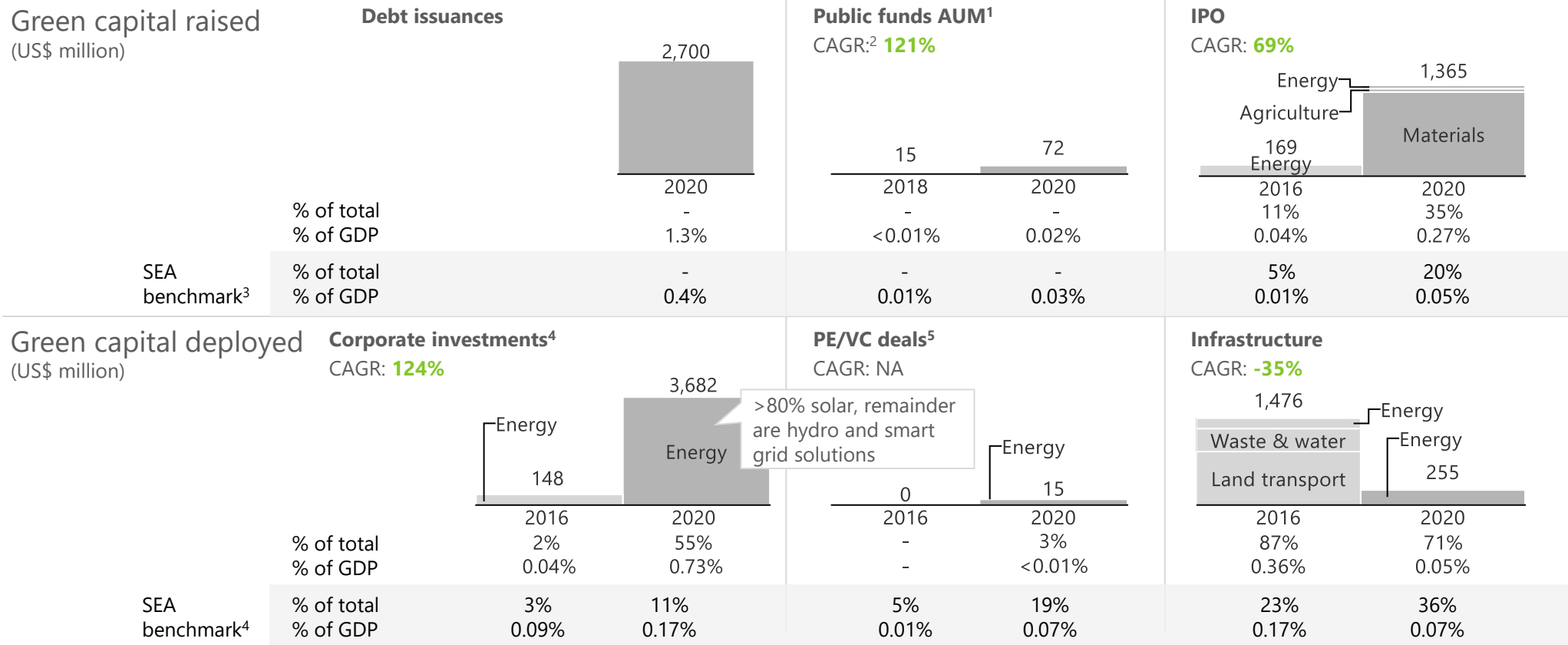
Sources: Bain analysis; EIU; Euromonitor; Climate Watch; Country NDCs



THAILAND



Capital increasingly deployed in green energy sector



Key insights:

Green fundraising on rise though from low base; spike in IPO in 2020 was due to a single fundraise by SCG Packaging
 Increasing share of capital flowing into green corporate and PE/VC investments, but slight dip in infrastructure in 2020
 Three asset categories have more than one-third of capital raised or deployed in green assets (all above SEA benchmarks)
 In 2020, most attractive sector was **Energy** and **Materials**

Notes: 1. Includes funds raising capital for environmental and social sustainability objectives. Assets under management (AUM); 2. Compounded annual growth rates; 3. Total value of asset category and GDP only includes SEA countries with available data; 4. Excludes investments <\$15 million; 5. Excludes investments <\$10 million

Sources: Climate Bonds; Asia Assets Domicile; Dealogic; Pitchbook; Capital IQ; AVCI; Preqin; World Bank



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