

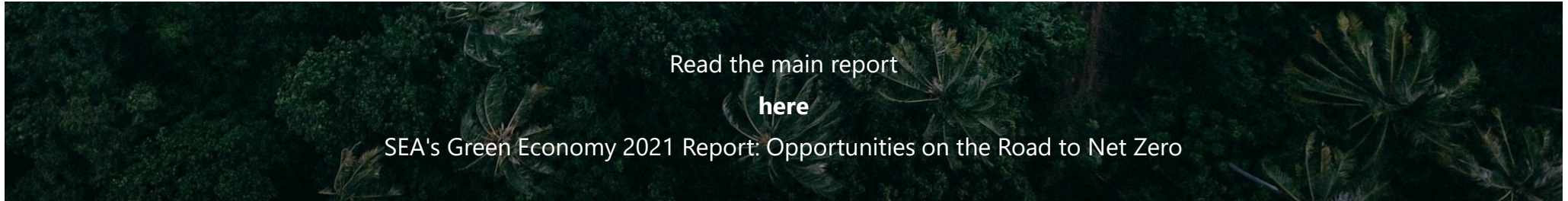


Vietnam

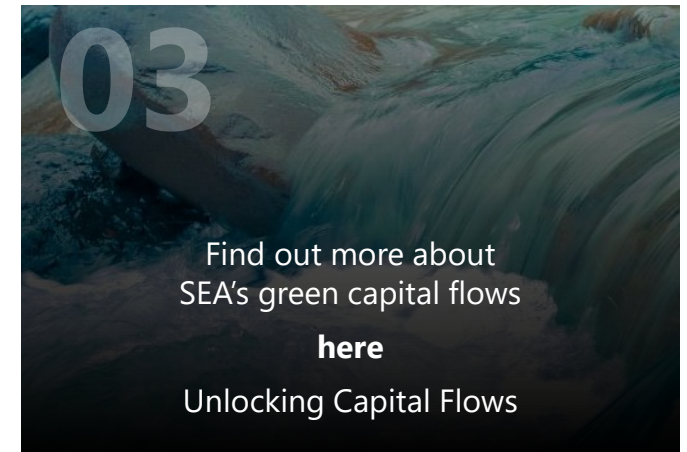
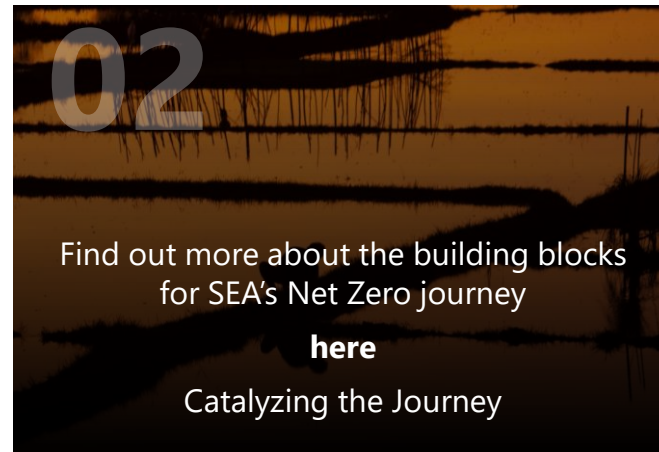
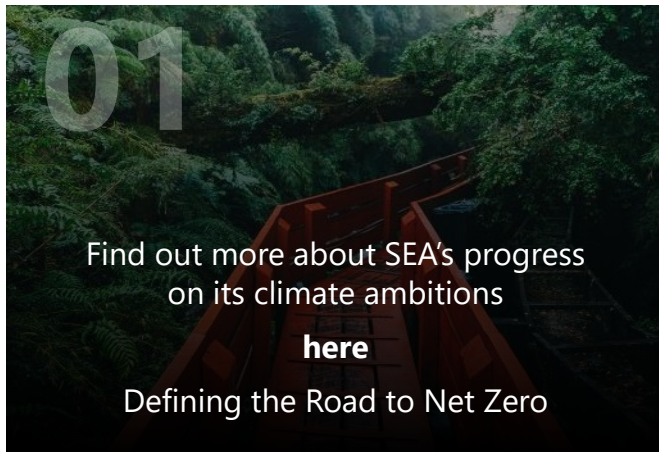
Perspectives on the Green Economy

2021

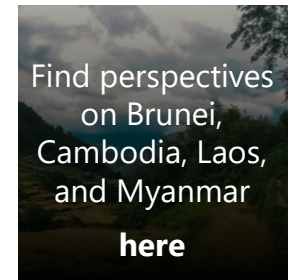
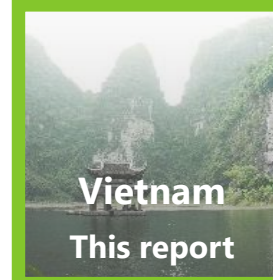
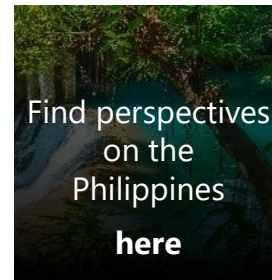
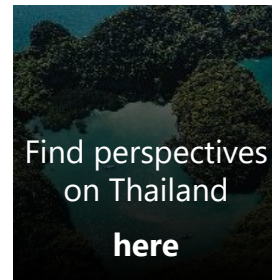
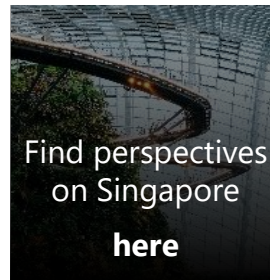
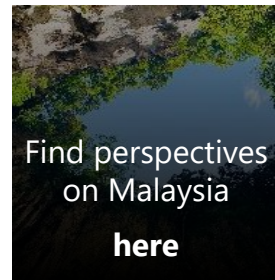
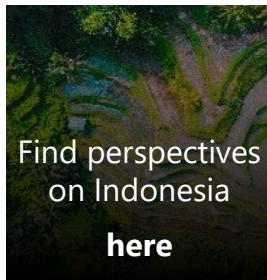
Main report



Deep-dive sections



Country insights





VIETNAM

Key takeaways

A

Vietnam could become a renewables powerhouse with the right market structures

Vietnam has huge renewables potential and an increasingly urbanized population. It can invest in its electrical grid infrastructure and develop smart cities while also lifting its rural population by digitalizing its agricultural sector.

Key opportunities:



Solar energy infrastructure



Wind energy powerhouse



Electric bikes and batteries



Urban reforestation



Sustainable rice cultivation



Circularity and waste management

B

Government forges ahead on clean energy to inspire further action among businesses, but absolute annual emissions are projected to continue increasing until 2030 from 2018

Despite not having a Net Zero target, Vietnam is pushing to reduce emissions through expanding renewable sources and carbon regulations. Businesses are also starting to answer the call with 2 Science Based Targets initiative (SBTi) signatories since 2020. However, with the current set of policies, Vietnam’s 2030 absolute annual emissions, emissions per capita, and emissions intensity for GDP are still expected to increase compared to 2018 levels – and all three are expected to be higher than Southeast Asia (SEA) overall levels.

C

Growing green capital deployment but no green fundraising yet

Vietnam’s green investment space is increasing but still small. Corporate investments and infrastructure spending have grown, but no green capital raising activity yet.



VIETNAM

Vietnam could become a renewables powerhouse with the right market structures

Key opportunities:



Solar energy infrastructure

Solar capacity in Vietnam increased ~150x from 2018 to 2020, with rooftop solar accounting for >50% of total capacity. Government regulatory leadership is required to make investments (e.g., grid modernization) more attractive, so that the ecosystem can mature and scale.



Urban reforestation

Prime Minister Nguyen Xuan Phuc called for a billion trees to be planted by 2025. To mitigate the worst effects of torrential rain (such as flooding and landslides), most of the spaces marked out are in urban areas. Advanced green city solutions should be leveraged to monitor and encourage their growth.



Wind energy powerhouse

With 475 GW of offshore wind power potential, Vietnam is third among emerging markets. Production capacity is increasingly rapidly to realize this; it is projected to increase ~30x to 18 GW by 2025. With feed-in tariffs extended to 2023, upgrading transmission lines to deal with fluctuating supply is the next priority.



Sustainable rice cultivation

Methane from rice cultivation makes up 50% of agricultural emissions and 15% of total emissions in Vietnam. Established technological solutions exist - alternate wetting and drying would reduce emissions by more than 25%. Simple-to-use digital platforms that can drive smallholder adoption would be most impactful.



Electric bikes and batteries

Motorbike ownership in Vietnam far outpaces car ownership (by ~20x). Yet major cities like Hanoi and Ho Chi Minh City plan to restrict motorbikes as they are polluting; E-bikes are therefore an attractive alternative. Other than as a source of electric vehicle (EV) demand, given its supply of nickel and cobalt, Vietnam also has the potential to be a key producer of EV batteries.



Circularity and waste management

85% of Vietnam's municipal solid waste (15.9 million tons by 2030) are buried without treatment in landfills. The formation of the Packaging Recycling Organization Vietnam and the National Waste Management Strategy prove that both businesses and the government are eager for high-tech players in the waste management sector.

Sources: [Climate Action Tracker](#); [Eco-Business](#); [Eco-Business \(2\)](#); [CCAC](#); [Dang Hoa Tran et al.](#); [ICAP](#); [Globe News Wire](#); [Bain](#) 2020 SEA Green Economy Report; [IRENA 2021](#); [Vietnam Briefing](#); [PV Tech](#)



VIETNAM

Government forges ahead on clean energy to inspire further action among businesses

B

Governmental policies for climate change

No	Net Zero target
8% unconditional ¹	emissions reduction from business-as-usual by 2030 (25% conditional)
ETS²	legalized , to take effect by Jan 2022
32% of total installed capacity	to be renewables by 2030
42%	of total area to be restored as forest cover restored by 2030

Business commitments to Net Zero

2 SBTi signatories

Joined in...

2021



2020

Maple Company Ltd

Landmark moves in the past year

In 2021



Notes: 1. Target reduction (base year: 2014); 2. Emissions trading scheme

Sources: UNFCCC; SBTi; EIA; Viet Nam News; Pinsent Masons; Company websites



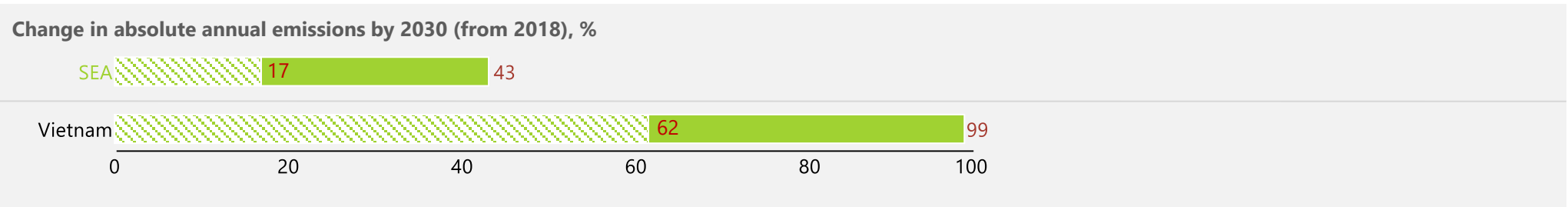


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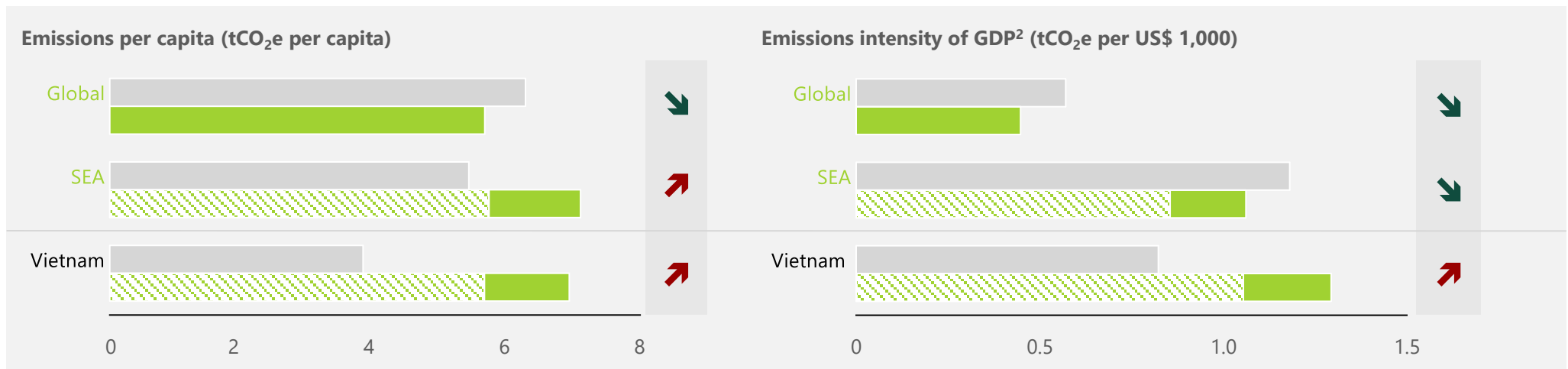
From 2018 to 2030, Vietnam's absolute annual emissions expected to increase more than SEA overall; emissions intensities also set to increase

Based on latest NDC targets

Vietnam's absolute annual emissions set to increase from 2018 to 2030, ~2x more than SEA¹ overall



Vietnam's emission per capita and emissions intensity of GDP set to increase from 2018 to 2030, regardless of availability of international support



■ 2018 (actual) ■ 2030 (conditional NDC)³ ■ 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); 3. Nationally determined contributions

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

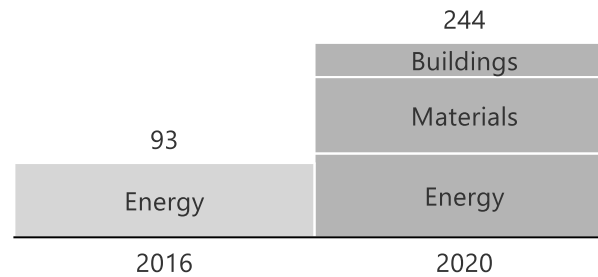


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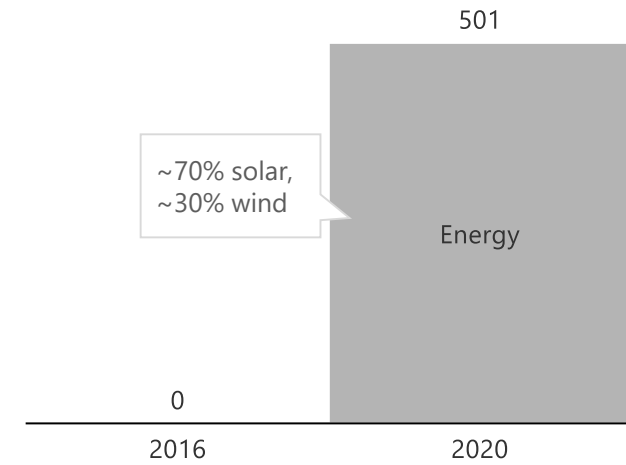
Growing green capital deployment, but no green fundraising yet

Green capital deployed (US\$ million)

Corporate investments¹
CAGR:² **27%**



Infrastructure
CAGR: NA



	2016	2020
% of total	2.0%	10.2%
% of GDP	0.05%	0.09%
SEA benchmark ³		
% of total	3%	11%
% of GDP	0.09%	0.17%
Infrastructure		
% of total	-	19%
% of GDP	-	0.19%
Infrastructure		
% of total	23%	36%
% of GDP	0.17%	0.07%

Key insights:

Green corporate investments and infrastructure spending are increasing, in absolute terms, as a share of total capital deployed, and as a proportion of total GDP. However, Vietnam's green capital deployed is still below SEA averages. Lack of green debt issuance, public funds, PE/VC and IPO activity suggests fundraising gap exists. In 2020, most attractive sector was **Energy**.

Notes: 1. Excludes investments <\$15 million; 2. Compounded annual growth rates; 3. Total value of asset category and GDP only includes SEA countries with available data

Sources: Capital IQ; Preqin; World Bank



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