

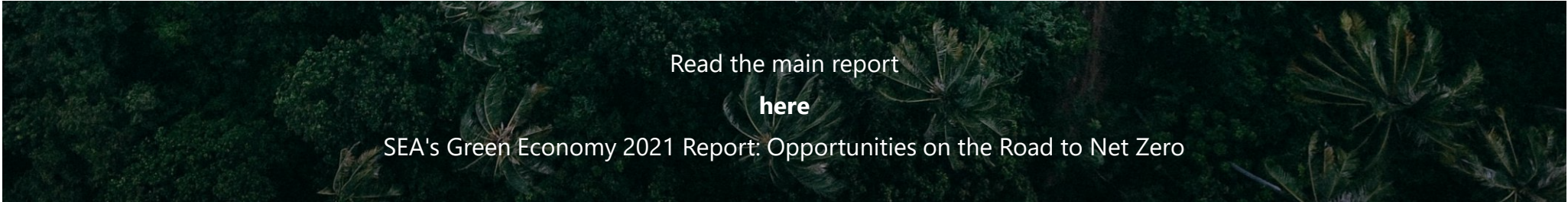
Indonesia



Perspectives on the Green Economy

2021

Main report

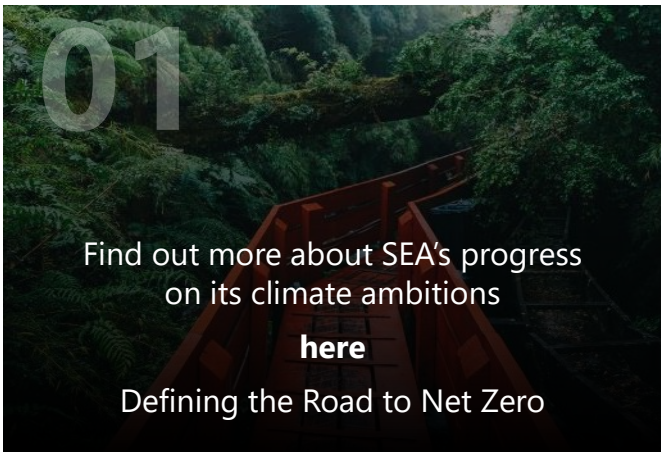


Read the main report

here

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

Deep-dive sections

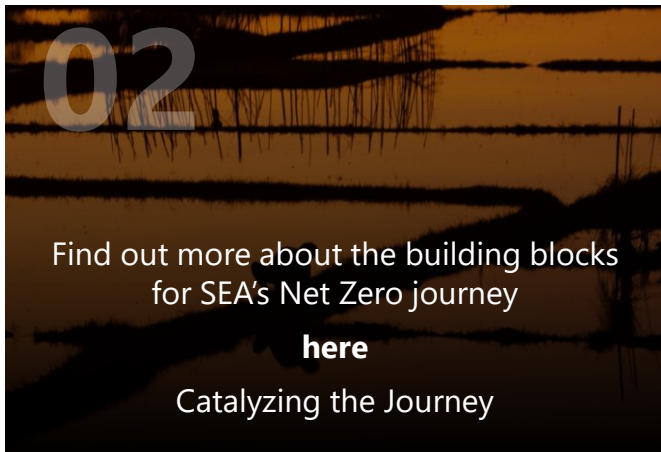


01

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

here

Defining the Road to Net Zero

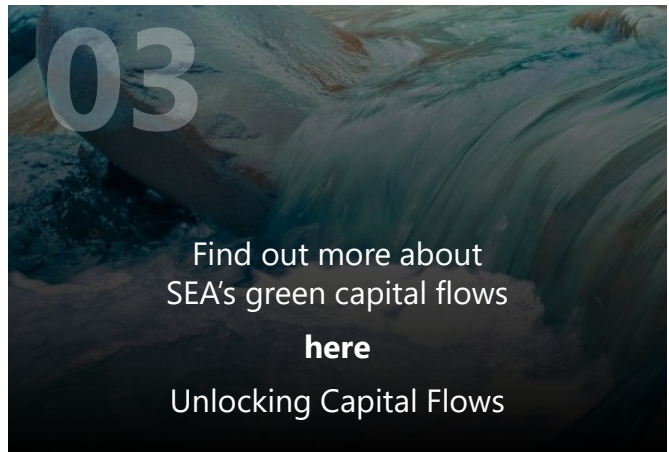


02

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

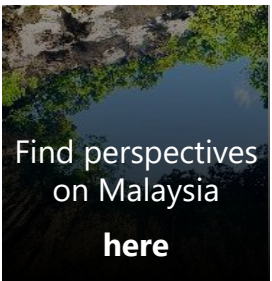
here

Unlocking Capital Flows

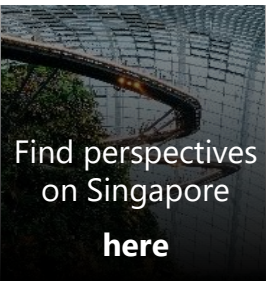
Country insights



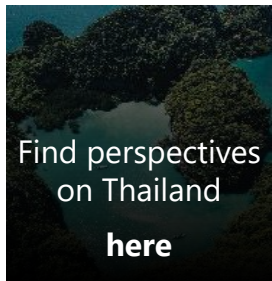
Indonesia
This report



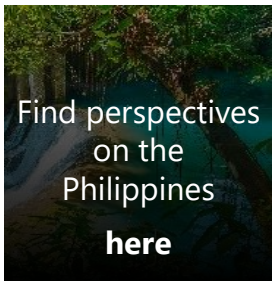
Find perspectives on Malaysia
here



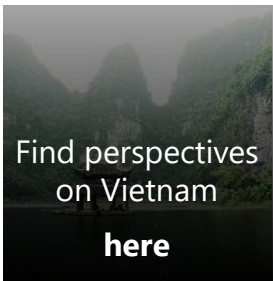
Find perspectives on Singapore
here



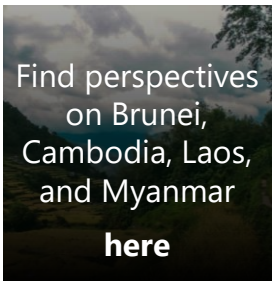
Find perspectives on Thailand
here



Find perspectives on the Philippines
here



Find perspectives on Vietnam
here



Find perspectives on Brunei, Cambodia, Laos, and Myanmar
here



INDONESIA

Key takeaways

A

Indonesia has the size and natural resources to be a game changer in Southeast Asia’s (SEA’s) sustainability journey

It has the potential to lead the world in geothermal energy production, the forest area to offset local as well as global emissions, and the digital exposure and know-how to drive productivity increases across industries.

Key opportunities:



Renewable energy infrastructure



Geothermal powerhouse potential



Electric vehicle (EV) ecosystem development



Nature-based solutions



Halal-certified agri-food supply



Digitalization of agricultural practices

B

Indonesia’s 2060 Net Zero target is unifying the government and businesses, and conditional absolute annual emissions are projected to decrease in 2030 from 2018 levels

Indonesia is pushing to reach its 2060 Net Zero target by banking on electrification and investments in its natural capital. In line with government commitments, businesses are also answering the call with 1 Science Based Targets initiative (SBTi) signatory in 2020 and multiple others with Net Zero targets as soon as 2030. Based on the latest conditional nationally determined contributions (NDC) targets, Indonesia’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 without sufficient international support.

C

Green investment space is nascent today, with promising activity for tomorrow

Indonesia’s market potential is clear, and green investments are following suit as numerous green shoots appear – though still in early stages.



INDONESIA

Indonesia has the size and natural resources to be a game changer in SEA's sustainability journey

Key opportunities:



Renewable energy infrastructure

Renewables are necessary to achieve Indonesia's emissions target. Grid modernization, pricing mechanisms, and other physical and regulatory infrastructures could mitigate early exploration costs and integrate the myriad sources. Businesses that lead these developments have a formidable competitive advantage.



Nature-based solutions

With 92.1 million ha of forests, Indonesia can generate credits to offset both domestic and global emissions. Early activity is promising – for instance, Katingan Mentaya has generated 7.5 million carbon credits (or the annual emissions of 2 million cars). With clearer government regulations, there is significant potential to scale this market even further.



Geothermal powerhouse potential

With 24 GW of geothermal reserves (40% of world's capacity), Indonesia can overtake the US and become the world leader in geothermal production. To meet its goal of installing 7.2 GW more capacity, Indonesia will require \$15 billion more in investments.



Halal-certified agri-food supply

Indonesia has a large Muslim population (~240 million people) – a huge market for halal-certified food. To comply with halal standards, most practices in the Indonesian food industry are in line with sustainability standards. Green food supply is therefore not just an opportunity, but an imperative.



EV ecosystem development

EVs are expected to increase as share of automotive market to 69% of all vehicles on the road by 2050. To match shifting consumer preferences and meet their emission targets, transportation companies like Gojek are aiming to fully electrify their vehicle fleet by 2030. Establishing the necessary charging infrastructure and starting with two-wheeled vehicles are the first steps for Indonesia's EV ecosystem to blossom.



Digitalization of agricultural practices

Digitalization offers significant opportunities to improve yield and productivity while driving sustainability. However, given smallholder structure of Indonesia's farmer base (93%), these solutions can only scale if they are technologically and financially accessible and have a demonstrable impact on the bottom line.

Sources: [Climate Action Tracker](#); [World Bank](#); [Eco-Business](#); [Eco-Business \(2\)](#); [Ministry of Environment and Forestry](#); [FAO](#); [Bain](#); [Islamic Organization for Food Security](#); [World Population Review](#); [Bain 2020 SEA Green Economy Report](#)



INDONESIA

Indonesia's 2060 Net Zero target is unifying the government and businesses

B

Governmental policies for climate change

2060 Net Zero target

29% emissions reduction from business-as-usual by 2030 (41% conditional)
unconditional¹

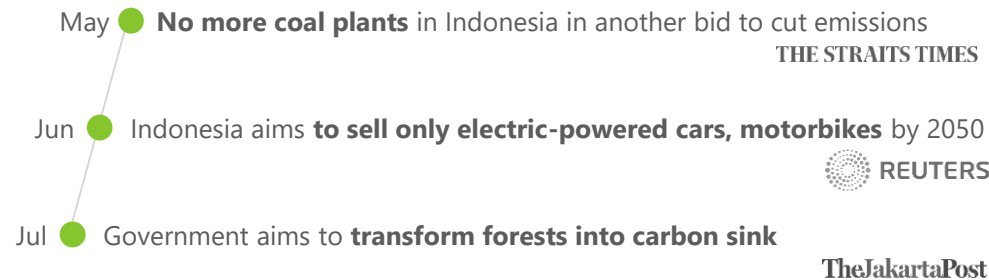
\$5 proposed price/tCO₂e of **carbon tax**, with emissions trading scheme under consideration

48% to be renewables by 2030
of total installed capacity²

5.8M & 1.9M ha of forests and peatlands to be protected, respectively, by 2030

Landmark moves in the past year

In 2021



Notes: 1. Target reduction (base year: 2010). Unconditional reductions are not dependent on external support. Conditional targets dependent on availability of international support; 2. Compared with 30% in 2020

Sources: [UNECCC](#); [Reuters](#); [Mongabay](#); [Straits Times](#); [Reuters](#); [Jakarta Post](#); [SBTi](#); [Eco-Business](#); [Jakarta Post\(2\)](#); [Company websites](#)

Business commitments to Net Zero

1 SBTi signatory

Joined in...

2020 **Ecogreen**
Oleochemicals

Multiple others with Net Zero targets

Non-exhaustive

By...

2030 **gojek**

2050 **INDIKA**
ENERGY

2060 **BukitAsam**
beyond coal **PERTAMINA**

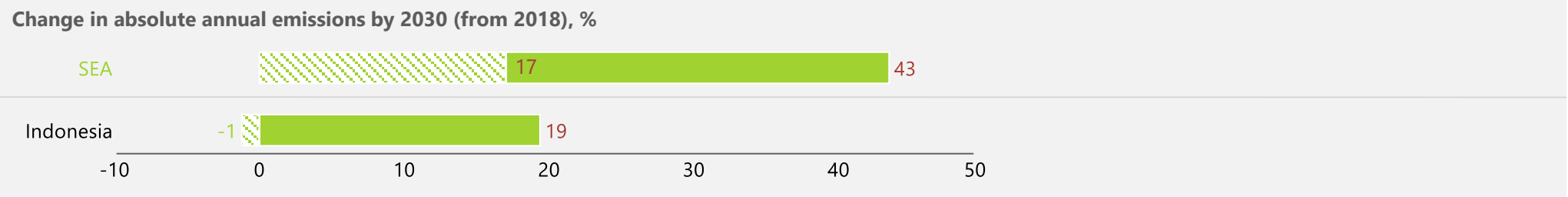


INDONESIA

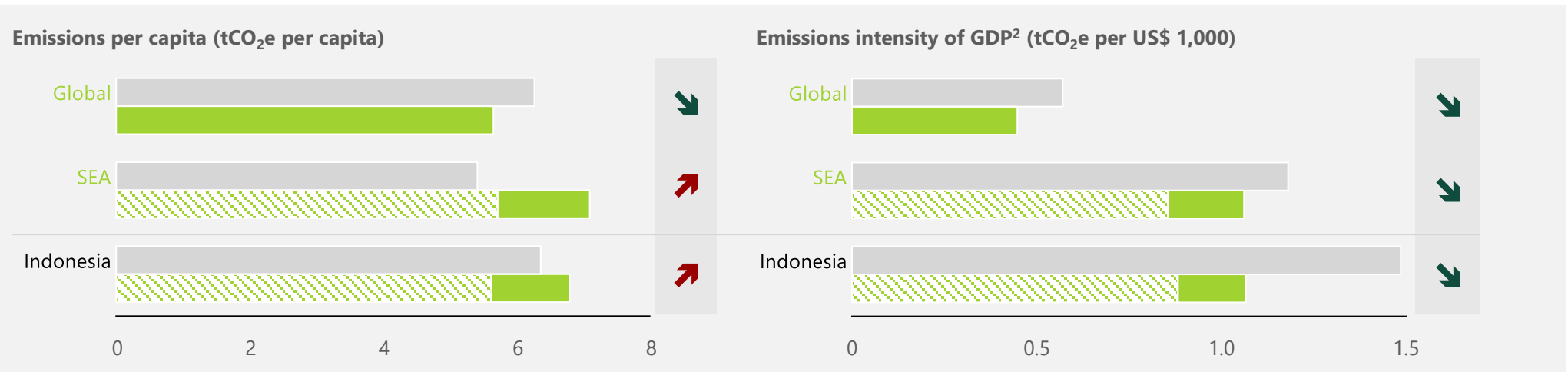
From 2018 to 2030, Indonesia's unconditional absolute annual emissions expected to increase less than SEA overall, and conditional emissions to decrease

Based on latest NDC targets

Indonesia's unconditional absolute annual emissions set to increase from 2018 to 2030, but conditional emissions to decrease; in both cases, Indonesia's emissions projected to increase less than SEA¹ overall



Indonesia's unconditional emissions per capita set to increase from 2018 to 2030 while conditional emissions per capita to decrease; emissions intensity of GDP to decrease in both scenarios



■ 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



INDONESIA

Green investment space is nascent today, with promising activity for tomorrow



Green capital raised (US\$ million)

Debt issuances

2,300

2020

% of total
% of GDP

-
0.3%

SEA
benchmark⁴

% of total
% of GDP

-
0.4%

Public funds AUM¹ CAGR:² 57%

30

2018

<0.01%

74

2020

<0.01%

IPO³ CAGR: NA

0

2016

-
-

Buildings

2

2020

0.5%
<0.01%

5%
0.01%

20%
0.05%

Green capital deployed (US\$ million)

Corporate investments⁵ CAGR: -55%

362

Energy

2016

% of total
% of GDP

2.4%
0.04%

Forestry

Energy

15

2020

<0.01%

SEA
benchmark⁴

% of total
% of GDP

3%
0.09%

11%
0.17%

Infrastructure CAGR: -21%

762

Energy

Waste & water

2016

8%
0.08%

300

Energy

2020

22%
0.03%

23%
0.17%

36%
0.07%

PE/VC deals⁶

Indonesia has promising start-ups, but deal flow is still nascent. Examples include:

eFishery

is a series B start-up that has raised \$20.2M since 2013. It leverages data and IoT⁷ to improve smallholder fishery productivity and sustainability

Jejak.in

is a seed stage start-up. It protects Indonesia's forests by leveraging IoT devices to measure, report, and verify carbon removal

Notes: 1. Includes funds raising capital for environmental and social sustainability objectives. Assets under management (AUM); 2. Compounded annual growth rates; 3. Initial public offering; 4. Total value of asset category and GDP only includes SEA countries with available data; 5. Excludes investments <\$15 million; 6. Private equity/venture capital; 7. Internet of things

Sources: Climate bonds; Asia Assets Domicile; Dealogic; Pitchbook; Capital IQ; AVCJ; Preqin; World Bank; CrunchBase

Key insights:

Green capital raised has increased, but green capital deployed has decreased more – possibly due to Covid-19 concerns
Green capital raised and deployed are less than SEA overall, in terms of proportion of GDP and share of total investment
Green PE/VC still limited in Indonesia at this stage
All capital deployed in 2020 was in **Energy**



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BAIN & COMPANY 

 Microsoft

TEMASEK