



“BUILDING BACK BETTER”: SOUTHEAST ASIA’S TRANSITION TO A GREEN ECONOMY AFTER COVID-19

**Assessment and recommendations
for parliamentarians**

LAPHRI ASEAN PARLIAMENTARIANS
FOR HUMAN RIGHTS

 **Hanns
Seidel
Foundation**



ASEAN PARLIAMENTARIANS FOR HUMAN RIGHTS

APHR is a regional network of current and former parliamentarians who use their unique positions to advance human rights and democracy in Southeast Asia. We seek to help create a region where people can express themselves without fear, live free from all forms of discrimination and violence, and where development takes place with human rights at the forefront.

Our members use their mandate to advocate for human rights inside and outside of parliaments, regionally and globally. They work closely with civil society, conduct fact-finding missions, and publish recommendations and opinions on important issues affecting the region.

APHR was born out of the recognition that human rights issues in Southeast Asia are interconnected, and from the desire of progressive legislators to work together across borders to promote and protect human rights.



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Cover page: Sheep graze on a pasture next to a wind turbine on a sunny winter day near Herrnleis, close to Vienna, Austria. © EPA-EFE

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LIST OF ACRONYMS

ACRF	ASEAN Comprehensive Recovery Framework
ADB	Asian Development Bank
AMS	ASEAN Member States
APHR	ASEAN Parliamentarians for Human Rights
ASEAN	Association of Southeast Asian Nations
BAU	Business-as-usual
CO₂	Carbon dioxide
COP26	26th United Nations Climate Change Conference of the Parties
COVID-19	Coronavirus disease 2019
GDP	Gross domestic product
GHG	Greenhouse gas
GNI	Gross national income
MP	Member of parliament
MSME	Micro-, small and medium-sized enterprise
NDCs	Nationally determined contributions
SDGs	Sustainable Development Goals
SOE	State-owned enterprise
UN	United Nations
UNFCCC	United Nations Framework Convention on Climate Change
USD	United States Dollar

GLOSSARY

Business-as-usual (BAU): practices and policies that maintain the status quo or baseline conditions. When predicting climate change impacts, business-as-usual scenarios imply that there are no changes in existing practices and policies. They are often referred to as carbon-intensive due to their significant contribution to greenhouse gas emissions.

Brown policies: policies that maintain or increase greenhouse gas emissions, which accelerate climate change. This report examines four brown policies: i) bailouts by governments to companies without green strings attached, ii) government subsidies for environmentally harmful industries, iii) government subsidies for environmentally harmful products, and iv) deregulation of environmental standards.

Carbon dioxide (CO₂): an important greenhouse gas, which is released from human activities such as fossil fuel burning and deforestation, as well as natural processes such as animal respiration and volcanic eruptions.¹ The concentration of CO₂ strongly corresponds with temperate changes, meaning that when CO₂ levels go up so do temperatures.

Circular economy: an economic system that eliminates waste and pollution, extends the life cycle of products and materials in use, and improves the natural environment.² Reusing, reducing, and recycling materials are central principles of a circular economy, while banning single-use plastic packaging is a popular approach to transition to a circular economy.

Similar terms: closed-loop economy and zero-waste economy.

Clean energy: sources of energy that are renewable or that emit small amounts of greenhouse gases in the atmosphere, therefore causing little or no pollution and helping reduce global warming. Solar power, geothermal power, wind power and hydropower are examples of clean energy. Infrastructure that supports and enables clean energy investment is called clean energy infrastructure.

Similar terms: alternative energy, low-carbon energy and renewable energy.

Climate change: increasing changes in climate measures such as precipitation, temperature or wind patterns over an extended period, typically a decade or longer. Since the industrial revolution, the average global temperature has increased significantly. This phenomenon is referred to as global warming.

Climate change adaptation: adjustments in human and natural systems in response to actual or expected changes in the climate to moderate harms or exploit beneficial opportunities.³

Climate change mitigation: efforts to reduce the emission of greenhouse gases or enhance their storage to curb climate change. Investments in clean energy, natural infrastructure and tree planting are examples of climate change mitigation.

1 NASA. (May 2021). Carbon dioxide. <https://climate.nasa.gov/vital-signs/carbon-dioxide/>.

2 Ellen MacArthur Foundation. (ND). What is a circular economy? A framework for an economy that is restorative and regenerative by design. <https://www.ellenmacarthurfoundation.org/circular-economy/concept/>.

3 IPCC. (2018). Annex I: Glossary. <https://www.ipcc.ch/sr15/chapter/glossary/>.

Environmental degradation: activities that deteriorate the health of natural resources, such as water, soil, and air. Clearcutting large forest areas, bottom trawling to catch fish in oceans, and driving diesel-based vehicles are considered environmentally degrading activities.

Extreme weather event: a rare weather event at a particular place or time of year.⁴ This is statistically measured using past climate observations. A pattern of extreme weather events that persist over an extended period are called extreme climate events.

Global warming: a long-term increase in the earth's average surface temperature, primarily associated with the release of greenhouse gases such as carbon dioxide.

Greenhouse gas (GHG) emissions: Greenhouse gases (GHGs) are a group of compounds that trap heat in the earth's atmosphere. While these gases are necessary to keep the planet warm enough for human survival, fossil fuel burning and other human activities have rapidly increased their abundance. In particular, human activities have caused the atmospheric increase of carbon dioxide (CO₂) by 50% since the industrial revolution.⁵ Other important GHGs that have the potential to rapidly raise the global temperature include methane, nitrous oxide, and chlorofluorocarbon.

Similar term: carbon emissions.

Nationally determined contributions (NDCs): submissions by countries that joined the Paris Agreement under the UN Framework Convention on Climate Change (UNFCCC) that detail the targets and means they set to reduce GHG emissions. Countries are expected to review their NDCs every year and submit increasingly ambitious targets every five years after the 26th Conference of the Parties (COP). Countries that are members of the UNFCCC belong to the COP, which meets every year to adopt decisions to advance the Convention, the Paris Agreement, and other legal instruments.

Natural ecosystem: An ecosystem is a *"functional unit consisting of living organisms, their non-living environment and the interactions within and between them."*⁶ A natural ecosystem refers to a biosphere that is naturally occurring without the influence of human beings. Tropical rainforests, coral reefs, and mangroves are examples of natural ecosystems.

Similar terms: natural system and natural environment.

Natural infrastructure: infrastructure that restores and conserves the naturally occurring or naturalized features in a landscape or uses engineered solutions that mimic the natural ecosystem functions and processes. Public parks that also serve as flood walls are an example of natural infrastructure.

Similar terms: green infrastructure and nature-based solutions.

Net-zero GHG emissions: when greenhouse gases entering the atmosphere are balanced by those leaving the atmosphere. Similar term: carbon neutrality.

4 IPCC. (2018). Annex I: Glossary. <https://www.ipcc.ch/sr15/chapter/glossary/>.

5 Richard Betts. (Mar 2021). Met Office: Atmospheric CO₂ now hitting 50% higher than pre-industrial levels. Carbon Brief. <https://www.carbonbrief.org/met-office-atmospheric-co2-now-hitting-50-higher-than-pre-industrial-levels>.

6 IPCC. (2018). Annex I: Glossary. <https://www.ipcc.ch/sr15/chapter/glossary/>.



A student sits on a wooden bridge as sea water rises invading the land at the coastal erosion community of Ban Khun Samut Chin village, off the shore of Samut Prakan province, Thailand. © EPA-EFE

EXECUTIVE SUMMARY

The COVID-19 pandemic and its subsequent economic recession have revealed the failure and fragility of our current economic system, which has prioritized business interests over the well-being of people and the environment, deepened inequalities and failed to protect the most vulnerable.

As countries in Southeast Asia are adopting measures to recover from the COVID-19 pandemic's economic recession, as well as policies to boost their economy, now presents the ideal opportunity to break away from the past and shift towards a just, sustainable and resilient economy that protects the human rights of all.

Shifting towards a greener economy is part of “*building back better*” efforts that involve moving away from fossil fuel-dependent industries and instead towards clean and renewable sources of energy that cause little or no pollution and help reduce Greenhouse gas (GHG) emissions and global warming. These moves will not only help the region to more rapidly absorb the immediate impacts of the recession, but also to avoid and be more resilient to future similar shocks and crises caused by climate change.

As one of the most at-risk regions in the world from climate change, Southeast Asia has much to gain from adopting a green economic recovery from COVID-19. In their own ASEAN Comprehensive Recovery Framework, Southeast Asian governments recognize that: “*climate change represents a fundamental risk to ASEAN,*” and that “*actions to mitigate the impacts of climate change should be taken immediately.*”⁷

7 ASEAN Secretariat. (Nov 2020). ASEAN Comprehensive Recovery Framework. 37th ASEAN Summit, Ha Noi, Viet Nam: ASEAN Secretariat, p 38.

A green COVID-19 recovery plan reduces the impacts of climate change. It would also help avoid a 25% drop in ASEAN's GDP; mitigate the region's debt crisis; help create jobs in climate-friendly sectors; and address the large-scale human rights crises created both by COVID-19 and climate change.

To help parliamentarians seize this opportunity, ASEAN Parliamentary for Human Rights (APHR) evaluated recovery measures taken in Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Timor-Leste between February 2020 and April 2021. This assessment was undertaken to identify best practices MPs can adopt in their respective countries, as well as structural obstacles they need to overcome to promote a transition to a green economy.

Through its assessment, APHR found that only minimal green policy measures have been adopted as part of the national COVID-19 recovery plans. Moreover, the few positive measures approved were critically undermined by the widespread adoption of those that contribute to global warming and create significant barriers to a low-carbon economic transition. Countries in the region clearly lacked a unified strategy on a green recovery from COVID-19.

Among the few policies adopted conducive for a green economic transition were:

- **Subsidies and tax reductions for environmentally friendly products** such as in **Indonesia** and the **Philippines** where governments issued tax reductions for industries and micro-, small and medium-sized enterprises adopting renewable energy projects;
- **Tax increases for environmentally harmful products** such as in **Singapore**, where the government is expected to raise the rate of petrol tax up to 15% per liter as part of its long-term goal to support electric vehicles;
- **Investment in clean transport infrastructure** such as the **Philippines** government's allocation of a budget to develop accessible sidewalks and protected bicycle lanes under the *Bayanihan to Recover as One Act* enacted in September 2020;
- **Incentives for electric vehicles** such as the **Singapore** government's rebates on the registration and road tax for electric vehicle owners during the pandemic;
- **Investment in clean energy infrastructure** as seen in **Indonesia, Malaysia, and Singapore** where governments took measures to accelerate clean energy production through incentivizing installations of rooftop solar panels, LED street lights, and transmission lines;
- **Funding for clean research and development** as seen in **Thailand** where in November 2020, the Board of Investment approved over USD 1 billion worth of projects, which covered the supply chain, research, and development of electric vehicles;
- **Incentives for clean-energy and energy-efficient electric appliances** as seen in **Singapore** where the government provided household vouchers for energy- and water-efficient appliances, such as climate-friendly refrigerators, water-efficient shower fittings and LED lights;
- **Support for buildings upgrades and new green housing** like in **Singapore** where the government plans to raise the minimum energy performance of new and existing buildings, and to ensure that at least 80% of Singapore's buildings will be greened by 2030;⁸ and
- **Investment in natural infrastructure and green spaces** such as in **Singapore**, where the government has devoted resources to improve the country's natural landscape.

8 "Greened" in this instance refers to buildings meeting minimum energy performance requirements established by the Building and Construction Authority and the Singapore Green Building Council in the Singapore Green Building Masterplan. See: <https://www1.bca.gov.sg/buildsg/sustainability/green-building-masterplans>.

However, these policies were critically undermined by numerous environmentally degrading ones. For instance, bailouts with no green strings attached for high GHG-emitting businesses exceeded USD 50 billion in Indonesia, Malaysia, Philippines, and Singapore.⁹ Government subsidies for environmentally harmful products and industries also counteracted positive measures taken. For example, the Malaysia government's full exemption of the sales tax on domestically-made vehicles encouraged higher polluting vehicles based on GHG emissions.¹⁰ Further, no evidence of green worker retraining and job creation measures were found during the pandemic, seriously hampering the region's ability to move swiftly towards a green economy.

Among the focal countries, Singapore had the most recovery measures across sectors that supported a green recovery, whereas Indonesia and the Philippines had the most recovery measures opposing it.

Key challenges in the region to enabling a green recovery include weak institutional frameworks on climate change, resource constraints, and lack of data transparency and cross-sectoral collaboration.

Moving forward, the legislative actions of members of parliament (MPs) will have tremendous long-term impacts on the economy and environment. In this context, MPs have a crucial role to play in promoting a green recovery. Through their legislative power, budgetary oversight, and constitutional mandate, MPs lie at the heart of fulfilling climate change commitments, which shape the daily lives of their constituents. They can play a unique role in ensuring the region "builds back better" by:

- Promoting the adoption of the green recovery policies identified in this report;
- Prioritizing budget allocations on renewable energy, public transport, energy efficiency, electric vehicles, and other key areas supportive of a low-carbon economic transition;
- Promoting investment in natural infrastructure and green spaces during budget debates to avert potential damages from climate-related disasters, such as floods and droughts;
- Ensuring social and environmental impact assessments are conducted for all recovery projects with public consultations before approval decisions are made in parliament;
- Vocalizing the environmental and human rights concerns of coal development and other environmentally harmful policies, which may increase future GDP losses; and
- Raising awareness on climate issues during parliamentary debates and improving access to public information and civic engagement on the issue.

9 ADB. (26 Apr 2021). ADB COVID-19 Policy Database. Data calculated from 01 – Liquidity support and 04 – Equity support in Indonesia, Malaysia, Philippines, and Singapore. <https://covid19policy.adb.org/policy-measures>.

10 Justin Lim. (Mar 2021). Malaysian Automotive Association says has not planned to apply for sales tax exemption extension. The Edge Markets. <https://www.theedgemarkets.com/article/malaysian-automotive-association-says-has-not-planned-apply-sales-tax-exemption-extension>.

METHODOLOGY

The research findings are based on an extensive desk-based literature review of peer-reviewed articles, technical papers and briefs from governmental and nongovernmental organizations and credible news media reports. APHR also conducted 18 virtual interviews in April and May 2021 with 20 expert stakeholders, including MPs, civil society representatives, and academic researchers. A sample questionnaire is attached in Appendix B. The names and organizational affiliation of respondents are not included in the report to maintain their confidentiality.

APHR focused on six countries where it has the strongest presence: Indonesia, Malaysia, Philippines, Singapore, Thailand, and Timor-Leste. Since some policies introduced during the pandemic may have been in the pipeline prior to COVID-19, the language of the policy documents and related press releases were analyzed to judge their applicability within the economic recovery from COVID-19.

The overarching benchmark for this assessment is the Paris Agreement's objective of halting the global mean temperature increase to well below 2 degrees Celsius and limiting the global temperature increase to 1.5 degrees Celsius.¹¹

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11 [UNFCCC] United Nations Framework Convention on Climate Change. (2015). Paris Agreement. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>.



Bikers pedal along a newly-constructed bike lane in Manila, Philippines. © EPA-EFE

1. What is a green recovery?

“Green recovery” is an umbrella term for regulatory and fiscal reforms that aim to accelerate economic recovery while cutting GHG emissions.

Reforms focus on shifting away from fossil fuel-dependent industries and instead towards the development of clean energy that is renewable, or that emits a small amount of GHG in the atmosphere, therefore causing little or no pollution and helping reduce global warming. Clean energy includes solar power, geothermal power, wind power and hydropower.

A number of policies have been identified as green recovery measures that can mitigate climate change by reducing GHG across various industries. APHR identified 11 such policies that can accelerate a green economic transition.¹² These are referred to as **“green policies”** and include:

- Conditional government support for polluting businesses with green strings attached;
- Government subsidies or tax reductions for environmentally friendly products;
- Tax increases for environmentally harmful products;

¹² Based on the work of researchers at Climate Policy Initiative and Vivid Economics, Oxford Smith School of Enterprise and the Environment, and the feedback of interview respondents for the report. See: Climate Policy Initiative and Vivid Economics. (Feb 2021). Improving the impact of fiscal stimulus in Asia: An analysis of green recovery investments and opportunities; and Cameron Hepburn and others. (4 May 2020). Will COVID-19 fiscal recovery packages accelerate or retard progress on climate change? Working Paper No. 20-02. Oxford Smith School of Enterprise and the Environment.

- Investment in clean energy infrastructure;
- Investment in clean transport infrastructure;
- Incentives for electric vehicles;
- Incentives for clean energy and energy-efficient electric appliances;
- Support for buildings upgrades and new green housing;
- Funding of clean research and development;
- Green worker retraining and green job creation; and
- Investment in natural infrastructure and green spaces.

APHR also identified four negative policies that instead contribute to global warming and create significant barriers to a transition to a green economy. These policies are referred to as negative “**brown policies**” and include:

Support for polluting businesses with no green strings attached or the need for them to change their operations to adopt more climate-friendly practices;

- Providing subsidies or waived fees for environmentally harmful industries;
- Providing subsidies or tax reduction for environmentally harmful products; and
- Deregulating environmental standards.

This report assessed whether ASEAN countries adopted any of these “green” or “brown” policies as part of their COVID-19 economic recovery measures.

It is also important to note that green recovery is only one element of a **just and sustainable economic recovery from COVID-19**. A just and sustainable economic recovery is, for APHR, one that promotes, protects and respects human rights, notably by:

- Keeping the global temperature below 1.5 degrees Celsius at the end of the century;
- Ensuring affordable social protection and access to essential services to all;
- Enhancing opportunities for decent, sustainable, and safe employment; and
- Guaranteeing essential goods, self-sufficiency, and food sovereignty.

These elements are stated in [APHR’s manifesto on the COVID-19 economic response](#), which was endorsed by 68 current and former MPs from Southeast Asia in November 2020. The UN Sustainable Development Group (SDGs), UN Special Rapporteur on extreme poverty and human rights, and ASEAN Member States (AMS) have made similar endorsements.¹³

13 UNSDG. (Apr 2020). A UN framework for the immediate socio-economic response to COVID-19; UN Special Rapporteur on extreme poverty and human rights. (Sept 2020). Looking back to look ahead: A rights-based approach to social protection in the post-COVID-19. Geneva, Switzerland: UN OHCHR; and ASEAN Secretariat. (Nov 2020). ASEAN Comprehensive Recovery Framework. 37th ASEAN Summit, Ha Noi, Viet Nam: ASEAN Secretariat.



Workers load coal into a handcart at an old unused coal terminal in Jakarta, Indonesia. © EPA-EFE

2. Why promote a green recovery in Southeast Asia?

2.1 To limit global warming and meet the objective of the Paris Agreement

The COVID-19 crisis takes place in the midst of a wider public emergency: climate. Southeast Asia is amongst the most vulnerable regions in the world to the impacts of climate change, threatening the region's access to food, water, and other natural resources. The combined impacts will lead to heightened conflicts, poverty and pandemics.

It is crucial for the future of all that the measures adopted to boost the economy following the COVID-19 pandemic help the region accelerate climate mitigation efforts. The global trajectory of GHG emissions reduction is well below what is needed to limit the rise in temperature and curtail climate change.¹⁴ The pervasive reach of changing climate demands strong and immediate action by Southeast Asian governments to reduce global warming and build resilience against future losses.

At the 37th ASEAN Summit in November 2020, ASEAN Member States (AMS) adopted the ASEAN Comprehensive Recovery Framework (ACRF), which stated that a return to business-as-usual (BAU) is no longer an option in the post-pandemic world.¹⁵

14 Swiss Re Institute. (Apr 2021). The economics of climate change: no action is not an option. Zurich, Switzerland: Swiss Re Institute.

15 ASEAN Secretariat. (Nov 2020). ASEAN Comprehensive Recovery Framework.

Under the ACRF, Southeast Asian governments recognize that:

“Climate change represents a fundamental risk to ASEAN given the potential scale of devastation and disruption caused by carbon emissions to environment, and the many natural disasters already experienced in ASEAN which are aggravated by climate change. Driven by this risk, as well as threats of future pandemics, actions to mitigate the impacts of climate change should be taken immediately.”¹⁶

The recovery framework acknowledges that clean energy, green jobs, natural infrastructure, and sustainable and responsible investment are strategic priorities needed to tackle climate change.¹⁷

Despite the ACRF endorsement, national policies and Nationally Determined Contributions (NDCs) to the Paris Agreement in Southeast Asia continue to fall short of limiting GHG emissions.

NATIONALLY DETERMINED CONTRIBUTIONS AND COP26

The Paris Agreement was signed in December 2015 under the UN Framework Convention on Climate Change (UNFCCC). The central objective of the Paris Agreement is halting the global temperature increase to well below 2 degrees Celsius, preferably to 1.5 degrees Celsius.¹⁸ Countries that have signed the Paris Agreement are members of the Conference of the Parties (COP). The COP meets every year. The next meeting, COP26, was postponed to November 2021 in Glasgow, UK, due to the pandemic.



Delegates including then-French President Francois Holland and then-UN Secretary-General Ban Ki-moon after the adoption of the COP21 final agreement at the World Climate Change Conference 2015 (COP21) in Le Bourget, north of Paris, France, in December 2015. © EPA-EFE

Under the Paris Agreement, countries are required to submit action plans of how they intend to reduce their GHG emissions. These action plans are called Nationally Determined Contributions or NDCs.

There are two types of contributions to reduce GHG emissions in the NDCs: unconditional and conditional. Unconditional NDCs are considered implementable without outside support, while conditional NDCs are considered implementable only with outside support. Conditional targets are often of lower ambition compared to unconditional ones.

Countries are expected to review their NDCs every year and submit increased ambitious targets every five years after COP26, which will be the first time for countries to review their NDCs.

16 Ibid, Nov 2020, p 38.

17 Ibid, Nov 2020.

18 UNFCCC. (2015). Paris Agreement.

No country in Southeast Asia is a role model in achieving the Paris Agreement objective. According to Climate Action Tracker's rating,¹⁹ the NDC of Viet Nam is critically insufficient,²⁰ those of Indonesia and Singapore are highly insufficient,²¹ and that of the Philippines is compatible with the 2 degrees Celsius halt but not consistent with the 1.5 degrees Celsius limit.²² Governments have mostly made conditional pledges to reduce GHG emissions, meaning national climate change commitment will mainly be fulfilled upon receiving international support. Civil society actors have criticized current NDCs as empty gestures that amplify people's vulnerability to climate hazards.²³

The severity of the climate crisis does not match the national climate commitments in Southeast Asia. Economic growth and socio-economic well-being will likely plummet if countries delay action to meet the Paris Agreement.²⁴ The window of opportunity is quickly closing, making progressive climate actions increasingly urgent.



By ensuring recovery measures promote a low-carbon economic transition, MPs can effectively help reduce GHG emissions and respond to the urgency of limiting global warming.

2.2 To avoid a 25% drop in ASEAN's GDP by the end of the century

The COVID-19 pandemic has pushed at least 26 million people into extreme poverty across the Asia-Pacific region,²⁵ while Southeast Asia's economy contracted for the first time in more than two decades.²⁶ Alongside this public health emergency, the longstanding climate crisis has also increased hardships for people in Southeast Asia. Between January 2020 and May 2021, 92 natural disasters were recorded in the region,²⁷ affecting more than 17 million people and resulting in financial damages exceeding USD 2.85 billion.²⁸

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- 19 Climate Action Tracker rates countries' NDCs based on their "fair share," which refers to warming levels if all governments followed the same approach. They used a 6-point scale: i) critically insufficient – warming would exceed 4 degrees Celsius, ii) highly insufficient – warming would be between 3 and 4 degrees Celsius, iii) insufficient – warming would be between 2 and 3 degrees Celsius, iv) compatible – warming would be held below but not well below 2 degrees Celsius, v) Paris Agreement compatible – warming consistent with the 1.5 degrees Celsius limit, and vi) role model – warming more than consistent with the 1.5 degrees Celsius limit.
- 20 Climate Action Tracker. (30 Nov 2020). Viet Nam. <https://climateactiontracker.org/countries/vietnam/>.
- 21 Climate Action Tracker. (22 Sep 2020). Indonesia. <https://climateactiontracker.org/countries/indonesia/>; and Climate Action Tracker. (30 Jul 2020). Singapore. <https://climateactiontracker.org/countries/singapore/>.
- 22 Climate Action Tracker. (27 Nov 2020). Philippines. <https://climateactiontracker.org/countries/philippines/>.
- 23 Mohamed Adow and others. (Feb 2021). People's voices in national climate plans. Friedrich-Ebert-Stiftung.
- 24 Swiss Re Institute. (Apr 2021). The economics of climate change: no action is not an option.
- 25 Daniel Gerszon Mahler and others. (11 Jan 2021). Updated estimates of the impact of COVID-19 on global poverty: Looking back at 2020 and the outlook for 2021. <https://www.blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-looking-back-2020-and-outlook-2021>. Note: Estimate from baseline of \$3.20 per day in purchasing power parity.
- 26 [ADB] Asian Development Bank. (Apr 2021). Asian Development Outlook 2021: Financing a green and inclusive recovery. Manila, Philippines: ADB.
- 27 Emergency Events Database. (May 2021). EM-DAT international disaster database. Louvain-la-Neuve, Belgium: Centre for Research on the Epidemiology of Disasters, Université Catholique de Louvain.
- 28 Ibid, May 2021.



By mainstreaming climate issues in policy actions, MPs can prevent much of the anticipated economic losses and socioeconomic burdens of more frequent and intense natural disasters.

Of all the world's regions the research suggests **ASEAN economies have the most to lose from climate inaction and the most to gain from implementing a green recovery.**²⁹ The region relies heavily on natural resources for its economic growth and is highly exposed to negative environmental factors, such as extreme weather events, sea level rises, and temperature increases. **If the global temperature is kept well below 2 degrees Celsius, in accordance with the Paris Agreement, ASEAN countries could avoid a 25% drop in GDP by the end of the century.**³⁰

In 2019, Indonesia's Ministry of National Development Planning (BAPPENAS) found that a low carbon development plan could deliver an average GDP growth rate of 6% per year from 2019 to 2045 while reducing GHG emissions by 43% by 2030.³¹ However, despite this finding, less than 4% of COVID-19 related spending that can directly affect the environment was invested in climate-friendly policies in Indonesia.³² Instead, most spending went towards fossil fuel-dependent industries, a strategy also witnessed in the Philippines and Singapore.³³

2.3 To mitigate the debt crisis in Southeast Asia

Between April 2020 and April 2021, the COVID-19 recovery packages across the 11 countries in Southeast Asia equaled USD 1.15 trillion, according to the Asian Development Bank (ADB).³⁴ With many of these countries borrowing money to finance their recovery packages,³⁵ the rise in sovereign debt is troubling for the long-term fiscal health of the region. In 2019, three Southeast Asian countries – Cambodia, Indonesia, and Laos – were demonstrating warning signs of having unsustainable debt levels (Table 1).

29 Swiss Re Institute. (Apr 2021). The economics of climate change: no action is not an option.

30 Ibid, Apr 2021.

31 BAPPENAS. (2019). Low-carbon development: A paradigm shift towards a green economy in Indonesia. Jakarta, Indonesia: BAPPENAS, Low Carbon Development Indonesia.

32 Climate Policy Initiative and Vivid Economics. (Feb 2021). Improving the impact of fiscal stimulus in Asia: An analysis of green recovery investments and opportunities. Note: COVID-19 economic measures that directly affect the health of natural resources and GHG emissions is referred to as environmentally relevant measures.

33 Ibid, Feb 2021.

34 ADB. (Apr 2021). Total package by measure (USD million). <https://covid19policy.adb.org/>.

35 Ugo Gentilini, Mohamed Almenfi, and Pamela Dale. (Dec 2020). Social protection and job responses to COVID-19: A real-time review of country measures. <https://openknowledge.worldbank.org/handle/10986/33635>.

Table 1. Southeast Asian countries' external debt stocks and ratios (2019)

Country	Total external debt stocks (in USD million)	External debt stocks to GNI	External debt stocks to exports
Cambodia	15,329	62%	70%
Indonesia	402,084	37%	194%
Laos	16,686	94%	237%
Myanmar	11,114	15%	59%
Philippines	83,661	20%	78%
Thailand	180,230	34%	53%
Timor-Leste	203.4	8.4%	15.5%
Viet Nam	118,490	49%	42%

Note: Data for Brunei, Malaysia, and Singapore were not available. Values in blue exceed debt sustainability levels, which are above 60% for external debt to Gross National Income (GNI) ratios and above 150% for external debt to export ratios. Source: World Bank.³⁶

Despite the vulnerability of Southeast Asia to the negative impacts of climate change, these risks are often not evaluated in regional borrowing or lending strategies.³⁷ For example, in the face of more frequent and intense natural disasters, the likelihood of countries defaulting on their loans and servicing their debt is high. That is why overspending during COVID-19 puts economies in a vicious cycle of debt when governments invest mainly in fossil fuel technologies that contribute to greater GHG emissions and temperature increases.



By using COVID-19 funds to mitigate climate risks, MPs can prevent the unsustainable rise in debt levels. This will also promote intergenerational equity and justice.

³⁶ World Bank. (Oct 2020). International Debt Statistics 2021. Washington, DC: World Bank. <http://hdl.handle.net/10986/34588>.

³⁷ Arjuna Dibley and others. (Apr 2021). National COVID debts: Climate change imperils countries' ability to repay. Nature 591:184-187. <https://doi.org/10.1038/d41586-021-00871-w>.

INTERGENERATIONAL EQUITY AND JUSTICE

Intergenerational equity is the principle that generations have certain duties to those that follow behind them. This principle can be applied to the socioeconomic and environmental impacts of COVID-19 recovery measures and climate change. These duties include ensuring the use of natural resources supports the sustainable functioning of the planet's ecosystems and taking effective action to protect children and the unborn against the adverse effects of climate change.³⁸



Climate demonstrators in Stockholm, Sweden as part of a student strike movement called Friday for Future. © EPA-EFE

Intergenerational equity is embodied in the core objectives of the 1945 UN Charter and re-iterated in various international legally binding agreements, including the UNFCCC. In Southeast Asia, national laws across the region have also affirmed the right to a healthy environment, with a notable case by the Supreme Court of the Philippines powerfully upholding intergenerational equity.³⁹

In New Zealand, Scotland, Finland, Iceland, and Wales, governments have placed intergenerational well-being ahead of national GDP in their public budgets,⁴⁰ requiring projects to demonstrate improvements to current and future generations.⁴¹

2.4 To accelerate economic recovery through job creation in climate-friendly sectors

While pledges made by countries around the world to achieve net-zero GHG emissions by 2050 cover 70% of the global CO₂ emissions, few domestic legislations are in place to deliver on these promises.⁴² To close the gap between ambition and action, the International Energy Agency estimated that investment in clean energy and clean energy infrastructure needs to triple by 2030. In return, global GDP would be 4% higher than based on current trends. A net increase of **nine million jobs could be created through investments in clean energy**, as resources shift away from fossil fuels. On top of this, **an additional 16 million jobs could be created** through greater energy efficiency.⁴³

38 United Nations General Assembly. (Oct 2020). Advance Edited Version Report of the Human Rights Council. https://www.ohchr.org/Documents/AboutUs/NY/GA75/A_75_53_Add.1_AEV.docx.

39 Supreme Court of the Philippines, Minors Oposa v. Secretary of the Department of Environment and Natural Resources (“DENR”), decision, 30 July 1993.

40 Wellbeing Economy Alliance. (18 May 2021). Wellbeing Economy Governments. <https://wellbeingeconomy.org/wego>.

41 Government of New Zealand. (9 Feb 2021). Budget 2021: Budget Policy Statement. <https://budget.govt.nz/budget/2021/bps/index.htm>; and Government of Scotland. (Dec 2020). Scotland's Wellbeing: The impact of COVID-19. <https://nationalperformance.gov.scot/scotlands-wellbeing-impact-covid-19>.

42 [IEA] International Energy Agency. (May 2021). Net zero by 2050 A roadmap for the global energy sector. <https://www.iea.org/reports/net-zero-by-2050>.

43 Ibid, 2021.



By diverting public spending from fossil fuel to clean energy,

MPs can boost job creation for economic recovery and increase access to clean energy sources.

Similarly, ADB estimated that capital expenditure of USD 172 billion in key climate-friendly areas, such as clean energy transition, circular economy models, and sustainable urban development, can create 30 million jobs in Southeast Asia by 2030.⁴⁴ This amount represents 15% of the total monetary value of recovery packages in the region, as of April 2021.⁴⁵

2.5 To address the human rights crisis caused by COVID-19 and climate change

“Climate change is a reality that now affects every region of the world...The world has never seen a threat to human rights of this scope.”

Michelle Bachelet, UN High Commissioner for Human Rights.⁴⁶

A green recovery from COVID-19 is necessary for Southeast Asian governments to meet the Paris Agreement, as well as prevent a large-scale human rights catastrophe.⁴⁷

44 ADB. (Mar 2021). Implementing a green recovery in Southeast Asia. ADB Brief No. 173.

45 ADB. (26 Apr 2021). ADB COVID-19 Policy Database. <https://covid19policy.adb.org/policy-measures>

46 Michelle Bachelet. (Sept 2019). Global update at the 42nd session of the Human Rights Council. <https://www.ohchr.org/EN/NewsEvents/Pages/DisplayNews.aspx?NewsID=24956>.

47 Amnesty International. (June 2021). Stop burning our rights! What governments and corporations must do to protect humanity from the climate crisis: Report. <https://www.amnesty.org/en/documents/pol30/3476/2021/en/>.

KEY HUMAN RIGHTS VIOLATIONS CAUSED BY CLIMATE CHANGE

Climate change has implications on the full range of human rights.

Right to life: Outdoor air pollution is a leading cause of premature deaths in Southeast Asia. It is primarily produced by the burning of fossil fuels (coal and oil). In 2018, it was responsible for 450,000 deaths,⁴⁸ and this number is expected to rise by more than 650,000 per year by 2040.⁴⁹

Right to health: Changes in temperature and human migration have increased the number and spread of emerging infectious diseases. About 75% of the global disease burden is in Asia.⁵⁰ In 2019, Southeast Asia experienced the largest increase in dengue-related mortality.⁵¹

Right to food: Climate change threatens one-third of global food production, with Southeast Asia among the most affected regions.⁵² In the Lower Mekong Basin areas, climate change will decrease rice yield up to 12% by 2050 in the absence of measures.⁵³

Right to water and sanitation: The climate crisis will deepen the extent and severity of droughts, bringing challenges such as agricultural disruption and water shortages. All Southeast Asian countries have experienced prolonged droughts from 2015 to 2016 and again from 2018 to 2020.⁵⁴ Between 15% and 25% of the region's population live in drought hotspots.⁵⁵

Right to adequate housing: Informal settlements and precarious housing are growing amid the climate crisis, which continues to displace people and push them into poverty. At least 69 million people were displaced by natural disasters in Southeast Asia between 2008 and 2020.⁵⁶

Right to work and an adequate standard of living: Alongside more frequent and intense natural disasters, climate change imperils millions of lives and livelihoods that depend on the health of natural resources, including agriculture, fisheries, forestry, and tourism. In particular, the jobs of more than 90 million agri-food workers across Southeast Asia will be affected by lower crop yields and stagnant labor productivity attributed to climate change.⁵⁷



Villagers at their home on Ghoramara Island, which is submerging into the Bay of Bengal, about 160 kms south of Calcutta, Eastern India. © EPA-EFE

48 IEA. (2019). Southeast Asia energy outlook 2019. <https://www.iea.org/reports/southeast-asia-energy-outlook-2019>.

49 Ibid, 2019.

50 Sarah J. Coates and Scott A. Norton. (2021). The effects of climate change on infectious diseases with cutaneous manifestations. *International Journal of Women's Dermatology* 7(1):8-16.

51 Ibid, 2021.

52 Matti Kummu and others. (2021). Climate change risks pushing one-third of global food production outside the safe climatic space. *One Earth* 4(5):720-729.

53 USAID. (2013). USAID Mekong ARCC: Climate change impact and adaptation study for the Lower Mekong Basin (2013-2014). <https://www.usaid.gov/asia-regional/documents/usaid-mekong-climate-change-study-main-report-2013>.

54 UNESCAP and ASEAN. (2020). Ready for the dry years: building resilience to drought in South-East Asia. Second edition, executive summary for policymakers. Bangkok, Thailand: UNESCAP.

55 Ibid, 2020.

56 International Displacement Monitoring Centre. (2020). Disaster events 2008-2020 (new displacement) per hazard type. <https://www.internal-displacement.org/database/displacement-data>.

57 FAOSTAT. (2020). Food and agriculture data. <http://www.fao.org/faostat/en/>.

Not everybody is impacted in the same way by climate change and the resulting human rights violations. Those already in more vulnerable situations because of discrimination and exclusion, such as women, the poor, migrants, indigenous peoples, rural workers, persons with disabilities, older persons, LGBTQIA+ persons, and refugees are disproportionately impacted.⁵⁸ Many people will also suffer disproportionately from compounded negative climate impacts because of **intersecting** forms of discrimination.⁵⁹

Under international human rights law, all states have obligations to respect, protect and promote the human rights of all people based on the treaties they have joined.⁶⁰ Considering the devastating impact of climate change on people's human rights, these obligations include mitigating the effects of climate change and ensuring all individuals can adapt to its consequences.⁶¹

When states fail to take effective measures against the foreseeable impacts of climate change, they expose people to human rights violations and are in breach of their legal obligations as duty bearers. Their obligations also extend to populations outside their territories and require they refrain from engaging in potentially harmful activities within and outside borders.⁶²

Because individuals and groups most affected by climate change are also often those already subjected to multiple forms of discrimination and exclusion,⁶³ states must ensure that policies towards a green economic transition do not exacerbate but rather reduce existing inequalities.



By pursuing a just and green recovery plan, MPs can ensure that states establish the necessary preconditions for all individuals and groups to fully enjoy their human rights.

58 APHR. (Dec 2020). COVID-19 economic response: ASEAN parliamentarians' manifesto.

59 Intersectionality refers to the multiple forms of discrimination that intersect with people's individual experiences, especially those of marginalized groups. For example, discrimination based on gender, race, economic class, sexual orientation, and ability can all simultaneously overlap to privilege and oppress one group over another. This concept is essential to recognize the cross-cutting human rights issues of climate change in policymaking, as the impacts of climate change are unequally felt across communities, populations, and geographies. See: Amnesty International. (June 2021). Stop burning our rights! What governments and corporations must do to protect humanity from the climate crisis: Report; and UNFCCC. (Dec 2019). Enhanced Lima work programme on gender and its gender action plan. FCCC/CP/2019/L.3.

60 [UN OHCHR] United Nations Human Rights Office of the High Commissioner. (2021). Status of ratification interactive dashboard. Accessed on 20 May 2021. <https://indicators.ohchr.org/>.

61 UN OHCHR. (2021). Frequently asked questions on human rights and climate change. Fact Sheet No. 38.

62 Ibid, 2021.

63 Amnesty International. (June 2021). Stop burning our rights! What governments and corporations must do to protect humanity from the climate crisis: Report. <https://www.amnesty.org/en/documents/pol30/3476/2021/en/>.



Taxis wait for passengers on the side of a nearly empty road, in Bangkok, Thailand. © EPA-EFE

3. Assessing the measures taken during COVID-19

APHR assessed whether, as part of their COVID-19 economic recovery plans, six Southeast Asian countries (Indonesia, Malaysia, Philippines, Thailand, Timor Leste, and Singapore) adopted positive “green” policies that help mitigate climate change or any “brown” policies that instead contribute to heightened GHG emissions (See Section 1).

To do so, APHR examined data from the national economic recovery plans adopted in the six focal countries (See Appendix A), associated measures specific to the recovery, as well as ongoing green initiatives outside of the recovery plan that could be linked to the post-COVID-19 environment. Along with the policy actions, the environmental intentions of the policies were examined to assess their long-term contribution to climate change mitigation goals.

OVERVIEW OF ECONOMIC RECOVERY PACKAGES



People wear protective face masks as they receive social assistance packages amid the coronavirus pandemic in Deli Serdang, North Sumatra, Indonesia. © EPA-EFE

The monetary value of recovery packages ranged from USD 254 million in Timor-Leste to USD 115 billion in Indonesia.⁶⁴ To finance their packages, governments took mixed strategies, from drawing from national reserves and wealth funds to obtaining loans and grants from bilateral and multilateral agencies, such as the US Federal Reserve Board, World Bank, and the UN.

Of the six countries, Singapore had the highest per capita value in total packages, followed by Malaysia, Thailand, and Indonesia. In comparison, recovery packages in the Philippines and Timor-Leste were less than 9% of their GDP in 2019.⁶⁵ The combined

monetary value of packages in the six countries represented 90.87% of the total regional value of packages, resulting in this report covering a significant proportion of COVID-19 related spending in Southeast Asia.

Economic recovery measures often targeted state-owned enterprises (SOEs), micro-, small and medium-sized enterprises (MSMEs), and low-income households alongside medical workers, displaced workers, farmers, migrants, and recent graduates.

3.1 Overview of key findings

APHR found that only minimal green policy measures had been adopted as part of the COVID-19 recovery in Southeast Asia. Of the 11 positive “*green policies*” identified by APHR that can help reduce GHG emissions (See Section 1), most countries only adopted measures under two or three of those policies, with Singapore standing out by implementing actions under nine of these “*green policies*.”

Governments most frequently enacted subsidies or tax reductions for environmentally friendly products and investments in clean transport and energy infrastructure in their recovery plans. No country, however, has taken any measures to provide green conditional support or bailout for polluting businesses, and no measures have been taken to retrain workers in green sectors or support the creation of green jobs during the pandemic.

Among the focal countries, **Singapore** fared the best in integrating sustainable policies into its COVID-19 recovery plan, especially with its Green Plan. These included investment in building upgrades and green housing, funding for clean research and development, incentives for electric vehicles and energy-efficient appliances, and support for natural infrastructure and green spaces.

64 ADB. (26 Apr 2021). ADB COVID-19 Policy Database. <https://covid19policy.adb.org/policy-measures>

65 Ibid, Apr 2021.

Indonesia, the **Philippines**, and **Thailand** ranked far worse, adopting positive green measures in only three out of the eleven “green policies.” Thereafter, **Malaysia** took action in two out of the eleven policies, while **Timor-Leste** did not implement any positive green policies.

The few green recovery measures adopted were critically undermined by the fact that all six focal countries adopted negative “brown policies” that directly contribute to climate change. Most notably all six countries provided unconditional support for high GHG-emitting industries, including aviation, oil and gas, and land development, with no green strings attached. Most of the countries also granted subsidies for environmentally harmful industries or products during the pandemic.

Indonesia and the **Philippines** had policies that ticked off all four “brown policies” identified by APHR (See Section 1). These two countries stood out due to their environmental deregulation measures taken during the pandemic. **Malaysia**, **Singapore**, and **Thailand** had policies in three of the four “brown” policy categories, and **Timor-Leste** in two, while also remaining heavily dependent on the petroleum industry.

Recovery measures taken by the governments in the six focal countries demonstrate a critical lack of coherent strategy towards a green economic transition. The potential environmental gains from the few green recovery measures adopted will likely be significantly counteracted by the fact that countries mostly adopted policies that directly contribute to heightened emissions.

Table 2. Environmentally relevant COVID-19 economic measures in focal countries, February 2020 - April 2021.

Policy measures	Indonesia	Malaysia	Philippines	Singapore	Thailand	Timor-Leste
Positive green^a						
Conditional government support or bailouts with green strings attached	None	None	None	None	None	None
Subsidies or tax reductions for environmentally friendly products	✓	✓	✓	✓	None	None
Tax increases for environmentally harmful products	None	None	✓	✓	None	None
Clean energy infrastructure	✓	✓	(✓) ^b	✓	None	(✓) ^b
Clean transport infrastructure	✓	None	✓	✓	✓	None
Electric vehicle incentives	None	None	None	✓	✓	None

Policy measures	Indonesia	Malaysia	Philippines	Singapore	Thailand	Timor-Leste
Clean energy electric and energy-efficient appliance incentives	None	None	None	✓	None	None
Buildings upgrades & new green housing	None	None	None	✓	None	None
Clean research and development	None	None	None	✓	✓	None
Natural infrastructure and green spaces	None	None	None	✓	None	(✓) ^b
Green worker retraining and job creation	None	None	None	✓	None	None
Negative brown ^a						
Government support or bailouts without green strings	✓	✓	✓	✓	✓	✓
Subsidies or waived fees for environmentally harmful industries	✓	✓	✓	✓	✓	None
Subsidies or tax reductions for environmentally harmful products	✓	✓	✓	✓	✓	✓
Deregulation of environmental standards	✓	None	✓	None	None	None

Notes: ^a Positive green refers to policies that encourage a low-carbon recovery and negative brown refers to policies that increase GHG emissions under BAU climate change scenarios. ^b A check mark indicates actions taken for the policy categories and a check mark with parenthesis signifies provisional actions that are missing strategy plans. Measures not designed for the COVID-19 recovery are not counted.

Key sources: Global Recovery Observatory,⁶⁶ ADB COVID-19 Policy Database,⁶⁷ APHR interviews, April-May 2021.

66 Oxford Smith School of Enterprise and the Environment. (May 2021). Global Recovery Observatory. <https://recovery.smithschool.ox.ac.uk/tracking/>.

67 ADB. (26 Apr 2021). ADB COVID-19 Policy Database. <https://covid19policy.adb.org/policy-measures>.

3.2 Assessment of positive green policies (sustainable low-carbon recovery)

Subsidies or tax reductions for environmentally friendly products

▶ Refers to financial assistance or reduction in the rate of taxes on goods and services that have minimal or no harm on the environment.

Direct rebates and tax reductions for environmentally friendly products are important to incentivizing individual climate action. Providing targeted support on the purchasing of environmentally friendly products will increase demand for these products and help enable a level playing field among businesses.

Number of countries enacting measures under this policy: 4/6

For example:

- In **Indonesia** and the **Philippines**, the governments issued tax reductions for industries and MSMEs adopting renewable energy projects. These measures can help curb power outages, which have been re-occurring events during the pandemic.⁶⁸ Unlike renewable energy sources, coal power plants typically require consistent levels of energy demand to maintain production and cost efficiency. When this level drops, as was witnessed during the lockdowns caused by COVID-19, coal power plants are unable to operate at their optimal conditions, resulting in a less stable and reliable energy supply.
- Under the Public Transport Subsidy, the **Malaysia** government funded unlimited monthly passes on all rail services from June 2020 to December 2020.⁶⁹ This action supported the use of public transport, although investment in clean transport infrastructure was missing in the overall recovery plan as of April 2021.
- In March 2020, the **Singapore** government announced the roll out of a USD 18.4 million climate-friendly household package for those in public housing. The package offers vouchers to help households invest in energy- and water-efficient appliances that lower GHG emissions and lead to electricity cost savings.⁷⁰

Interviews with expert stakeholders suggest that market-based measures for environmentally friendly products are low-hanging fruits that can incentivize behavioral changes without significant structural policy reforms.

68 Sara Jane Ahmed. (June 2020). Philippines power sector can reach resilience by 2021. Institute for Energy Economics and Financial Analysis.

69 ADB. (26 Apr 2021). ADB COVID-19 Policy Database: Malaysia. <https://covid19policy.adb.org/policy-measures/MAL>.

70 Ang Hwee Min. (Mar 2020). S\$24.8 million climate-friendly household package for 1- to 3-room HDB households to roll out this year. CNA News. <https://www.channelnewsasia.com/news/singapore/s-24-8-million-climate-friendly-household-package-for-1-to-3-12499846>.

Tax increases for environmentally harmful products

▶ Refers to increases in the rates of taxes on goods and services with harmful effects on the environment.

Imposing a tax on environmentally harmful products can correct market failures, as the costs of their negative environmental and social side-effects can be integrated into the market prices. These tax increases can encourage consumers to choose environmentally friendly options and also generate additional revenue to deliver public services. Taxes on petroleum products and carbon emissions are common environmental taxation measures. Given that not all segments of the population are equally affected by the use and taxation of such products, the distribution of the tax burden and spending is critical to ensure tax increases are fair and just.

Number of countries enacting measures under this policy: 2/6

For example:

- In February 2021, the **Singapore** government announced it would raise the rate of petrol tax up to 15 cents per liter as part of a long-term goal to support electric vehicles. Rebates will be provided to Singaporeans who rely on vehicles for their livelihoods. However, since the demand for petrol is relatively inflexible amid few alternatives, the tax will mostly affect delivery workers rather than the petrochemical industry.⁷¹ The inclusive component of this policy measure needs further consideration so that the burden of the petrol tax increase is not passed to consumers.
- In May 2020, the **Philippines** government temporarily imposed a 10% tax on the import of petroleum products to enhance resources for battling COVID-19. In the first quarter of the first year of the pandemic, the Bureau of Customs of the Philippines collected USD 419 million in tax revenue from this additional import tax.⁷² Although the action promotes a low-carbon transition, the tax was solely for generating revenue, leading to uncertainty about the long-term sustainability impacts on the economy.

71 Sanjay C. Kuttan. (Feb 2021). Commentary: Impact of petrol duty hike goes beyond immediate effect on cost of living. Channel NewsAsia: Singapore Edition.

72 Ben O. de Vera. (May 2020). 7.55B liters of oil marked as gov't moves to buttress revenues. Inquirer.Net. <https://business.inquirer.net/298013/7-55b-liters-of-oil-marked-as-govt-moves-to-buttress-revenues>.

Investment in clean transport infrastructure

▶ Refers to investment in transport activity that reduces GHG emissions, which include building railways, installing electric vehicle recharging stations, and expanding walking and cycling paths.

The 4th ASEAN Energy Outlook 2013-2035 stated that the transportation industry in the region consumes the most energy after the industrial sector.⁷³ Road transportation accounts for more than 90% of transport-related CO₂ emissions across Southeast Asia,⁷⁴ meaning that measures to improve public transportation and the uptake of alternative fuels are critical for a green recovery.

Number of countries enacting measures under this policy: 4/6

For example:

- Under the ASEAN Catalytic Green Finance Facility, **Thailand's** Ministry of Finance and National Housing Authority partnered with ADB to issue the country's first sustainability bonds, which will finance the Mass Rapid Transit Orange Line.⁷⁵ This measure seeks to promote the Paris Agreement and Sustainable Development Goals (SDGs), but has faced delays due to allegations of corruption over the tender process.⁷⁶
- The **Philippines** government has allocated a budget to develop accessible sidewalks and protected bicycle lanes under the Bayanihan to Recover as One Act enacted in September 2020. Since the pandemic, bicycle sales have surged in Manila, as have bicycle accidents, reaching a record high in 2020. Awareness programs of proper lane use have yet to be adequately implemented to prevent road collisions.⁷⁷
- Amid the uptake in cycling, enforcement of rules and registration of bicycles is being reviewed by the **Singapore** government, which may provide insights for other countries to address bicycle and pedestrian safety.⁷⁸ These legislative actions will be important as Singapore seeks to expand its cycling network to 1,320 km by 2030 from 460 km today, and repurpose roads as sidewalks through the Singapore Green Plan 2030. The Green Plan is spearheaded by five ministries to synchronize activities for “a green and inclusive recovery from COVID-19.”⁷⁹ Also, the Singapore government aims to expand the rail network to 360 km by 2030 from 230 km today, as part of its green commute initiative.
- In **Indonesia**, the government provided a capital injection of USD 240.02 million into the SOE rail company, PT Kereta Api Indonesia,⁸⁰ supporting clean transport infrastructure and reduction in traffic congestion under the National Economic Recovery Program.

73 ASEAN Centre for Energy for Energy. (2015). The 4th ASEAN Energy Outlook 2013-2035. Jakarta, Indonesia: ASEAN Secretariat.

74 ASEAN Secretariat. (2019). Guidelines on Sustainable Land Transport Indicators on Energy Efficiency and Greenhouse Gas (GHG) Emissions in ASEAN. Jakarta, Indonesia: ASEAN Secretariat.

75 ADB. (24 Sept 2020). ADB Supports Thailand's Green, Social, and Sustainability Bonds for COVID-19 Recovery. <https://www.adb.org/news/adb-supports-thailand-green-social-and-sustainability-bonds-covid-19-recovery>.

76 Bangkok Post. (8 Feb 2021). Orange Line needs scrutiny. <https://www.bangkokpost.com/opinion/opinion/2064239/orange-line-needs-scrutiny>.

77 Bim Santos. (19 Feb 2021). Bicycle accidents hit record high in 2020 as number of cyclists grow amid subpar infrastructure. The Philippine Star. <https://philstarlife.com/news-and-views/499928-bicycle-accidents-2020>.

78 Zhaki Abdullah. (12 Apr 2021). Panel to review rules on cycling on the road, registration of bicycles to be studied: Chee Hong Ta. CNA. <https://www.channelnewsasia.com/news/singapore/cycling-on-the-road-registration-bicycles-licensing-panel-review-14607690>.

79 Government of Singapore. (2021). Singapore Green Plan: Our Global Commitment. Accessed on 20 May 2021, <https://www.greenplan.gov.sg/key-focus-areas/our-global-commitment/>.

80 Energy Policy Tracker. (20 May 2021). Indonesia. <https://www.energypolicytracker.org>.

Incentives for electric vehicles

▶ Refers to targeted support to boost the manufacturing and consumption of electric vehicles through awarding long-term contracts to manufacturers and providing consumer cash rebates.

The costs of electric vehicles are generally more expensive than fossil-fueled cars, the latter which emit more waste and GHG emissions over their lifetime.⁸¹ Market incentives that encourage the uptake of green technologies at an equitable cost can contribute to the effective roll out of electric vehicles.

Despite many countries having a roadmap for electric vehicles, only **Singapore** and **Thailand** had incentives for them as a recovery measure. Incentives in Singapore support both the production and consumption of electric vehicles, whereas those in Thailand only focus on production.

Number of countries enacting measures under this policy: 2/6

For example:

- Intending to phase out vehicles with internal combustion by 2040, the **Singapore** government has provided rebates on the registration and road tax for electric vehicle owners during the pandemic. Under the Green Plan, the government will develop 60,000 charging points in public and private carparks by 2030. The roll out of electric vehicles will have positive impacts on the reduction of GHG emissions from the energy sector, which accounted for 73% of Singapore's total emissions in 2018.⁸²
- As part of its new Electric Vehicle package, the **Thailand** Board of Investment approved additional incentives for the local production of battery modules and battery cells by granting a 90% reduction of import taxes for two years on raw materials not available locally. Qualified electric vehicle projects will also be granted a 3-to-8-year tax holiday as part of this package.⁸³

Others:

- Although outside the recovery plan, in **Indonesia**, the private delivery company *Grab* and the state-owned electricity company PLN IUD Bali rolled out 30 electric motorcycles and seven public charging stations in Bali in November 2020.⁸⁴ This partnership exists under the ongoing 2019 presidential regulation on electric vehicles.

81 Jasper Jolly. (Mar 2021). Fossil fuel cars make 'hundreds of times' more waste than electric cars. The Guardian.

82 WRI Climate Watch. (2018). CAIT. <https://www.climatewatchdata.org/ghg-emissions>.

83 Bangkok Post. (4 Jan 2021). Thailand BOI Approves New EV Package, and Over 35 Billion Baht in Large Investment Projects. <https://www.bangkokpost.com/business/2032607/thailand-boi-approves-new-ev-package-and-over-35-billion-baht-in-large-investment-projects>.

84 Musthofid. (Nov 2020). Grab strengthens Indonesia's EV ecosystems. Jakarta Post. <https://www.thejakartapost.com/life/2020/11/30/grab-strengthens-indonesias-ev-ecosystem.html>.

Investment in clean energy infrastructure

▶ Refers to investment in clean energy generation and storage. Clean energy, also called renewable energy, comes from naturally replenishing and renewing processes, such as sunlight, geothermal heat, wind, and water.

The energy sector is the leading source of GHG emissions in Southeast Asia.⁸⁵ Policy support for clean energy can ensure enhanced energy security by reducing market exposure to volatile fossil fuel prices and enabling more reliable supplies of energy at affordable prices. Since clean energy infrastructure is often labor-intensive at the early stages of development, investment in this area will be helpful to boost job creation.⁸⁶ Under the ASEAN Plan of Action for Energy Cooperation, AMS are committed to having renewable energy for 23% of their energy demand by 2025.⁸⁷ If this is met, the region can gain an additional USD 25 billion in annual GDP growth.⁸⁸

Number of countries enacting measures under this policy: 3/6 and 2 provisional actions that are recovery measures that are missing strategy plans for implementation.

For example:

- In **Indonesia, Malaysia, and Singapore**, the governments took measures to accelerate solar energy production. These measures cover installations of rooftop solar panels, LED street lights and transmission lines.⁸⁹ The Malaysia government, for example, will start the bidding process for 1,400 MW of solar generation, which is estimated to bring in USD 1.2 billion in private investment and create 25,000 new jobs.⁹⁰

Provisional:

- In October 2020, the **Philippines** marked a milestone in Southeast Asia, becoming the first country to declare a coal moratorium on new coal power plants.⁹¹ The decision by the Philippines government to modernize the national grid was affirmed by the impacts of COVID-19 and recent typhoons, pointing to the need for more flexible energy systems.⁹² However, an action plan has yet to materialize from the coal moratorium.
- Likewise, the **Timor-Leste** government proposed greater use of renewable energy in its national economic recovery plan but has yet to issue an action plan on diversifying from oil and gas post-COVID-19.⁹³

85 [World Resources Institute] WRI Climate Watch. (2018). CAIT. <https://www.climatewatchdata.org/ghg-emissions>

86 Heidi Garrett-Peltier. (2017). Green versus brown: Comparing the employment impacts of energy efficiency, renewable energy, and fossil fuels using an input-output model. *Economic Modelling* 61:439-447.

87 ASEAN Centre for Energy. (Nov 2020). ASEAN Plan of Action for Energy Cooperation (APAEC) Phase II: 2021-2025. Jakarta, Indonesia: ASEAN Secretariat.

88 Sustainable Energy for All. (Oct 2020). The recover better with sustainable energy guide for Southeast Asian nations. <https://www.seforall.org/data-and-evidence/recover-better-southeast-asia>.

89 Energy Policy Tracker. (20 May 2021). Indonesia. <https://www.energypolicytracker.org>; Rob Carnell and others. (Aug 2020). Asia's lamentable green response to Covid-19. ING; and Government of Singapore. (Feb 2021). Budget 2020: Emerging Stronger Together.

90 Rob Carnell and others. (Aug 2020). Asia's lamentable green response to Covid-19. ING.

91 Climate Home News. (28 Oct 2020). Philippines declares moratorium on new coal power plants. <https://www.climatechangenews.com/2020/10/28/philippines-declares-moratorium-new-coal-power-plants/>.

92 Ibid, Oct 2020.

93 Government of Timor-Leste. (Aug 2020). Economic Recovery Plan. http://timor-leste.gov.tl/wp-content/uploads/2020/09/ECONOMIC_RECOVERY_PLAN_en-screen.pdf.

Funding of clean research and development

▶ Refers to funding in research and development in environmentally friendly products and green technologies, such as electric vehicles and energy-efficient appliances.

In absence of research and development, green technologies may fall short of competing with high-energy consuming and GHG-emitting products. Public spending in this area can lead to better performing products that use fewer and more sustainable resources that also last longer. As more businesses enter the market through investment in clean research and development, the price of environmentally friendly products could be lowered. Governments can partner with the private sector to mobilize resources to generate technological improvements while advancing low-carbon economic growth.

Number of countries enacting measures under this policy: 2/6

For example:

- The **Singapore** government outlined research and development activities to support the expansion of electric vehicles and urban sustainability innovations in their 2020 and 2021 budget. As one of the measures, the government has partnered with *Durapower*, a private company, to develop lightweight and fast-charging batteries in electric vehicles.
- In November 2020, the **Thailand** Board of Investment approved more than USD 1 billion worth of projects, covering the supply chain and research and development of electric vehicles.⁹⁴ These incentive schemes can help tackle rising air pollution and growing unemployment in the country. However, the Thai government's recent decision to delay the upgrade of its fuel emissions standard to Euro 5, which would reduce PM_{2.5} emissions, has led to skepticism about the environmental goals of the new electric vehicle projects.⁹⁵

Incentives for clean energy and energy-efficient electric appliances

▶ Refers to support for manufacturers to produce electric appliances that use clean energy and require less energy overall, and for consumers to purchase these appliances.

Southeast Asia has some of the fastest annual growth rates in electricity demand in the world.⁹⁶ Fossil fuel use has doubled as a result, with oil and coal making up the lion's share of the regional energy mix and power generation (Figure 1). Despite this increase, an estimated 218 million people in Asia still do not have access to electricity.⁹⁷

94 Bangkok Post. (4 Jan 2021). Thailand BOI Approves New EV Package, and Over 35 Billion Baht in Large Investment Projects. <https://www.bangkokpost.com/business/2032607/thailand-boi-approves-new-ev-package-and-over-35-billion-baht-in-large-investment-projects>.

95 Danny Marks. (23 Dec 2020). Drive less to help solve Bangkok's air pollution. Bangkok Post. <https://www.bangkokpost.com/opinion/opinion/2039775/drive-less-to-help-solve-bangkoks-air-pollution>.

96 International Energy Agency. (Oct 2019). Southeast Asia Energy Outlook 2019.

97 Sustainable Energy for All. (Oct 2020). The recover better with sustainable energy guide for Southeast Asian nations. <https://www.seforall.org/data-and-evidence/recover-better-southeast-asia>.

Electricity is an essential part of daily needs, affecting people’s ability to get an education, to work, to communicate, and to cook without air pollution.⁹⁸ Risks of respiratory disease from cooking with polluting fuels, such as wood, charcoal and coal, are acute for women in low-income households that cannot afford clean cooking appliances.⁹⁹ Equitable access to safe energy helps ensure access to services such as health, education, and livelihoods among marginalized populations affected by the pandemic and climate change.

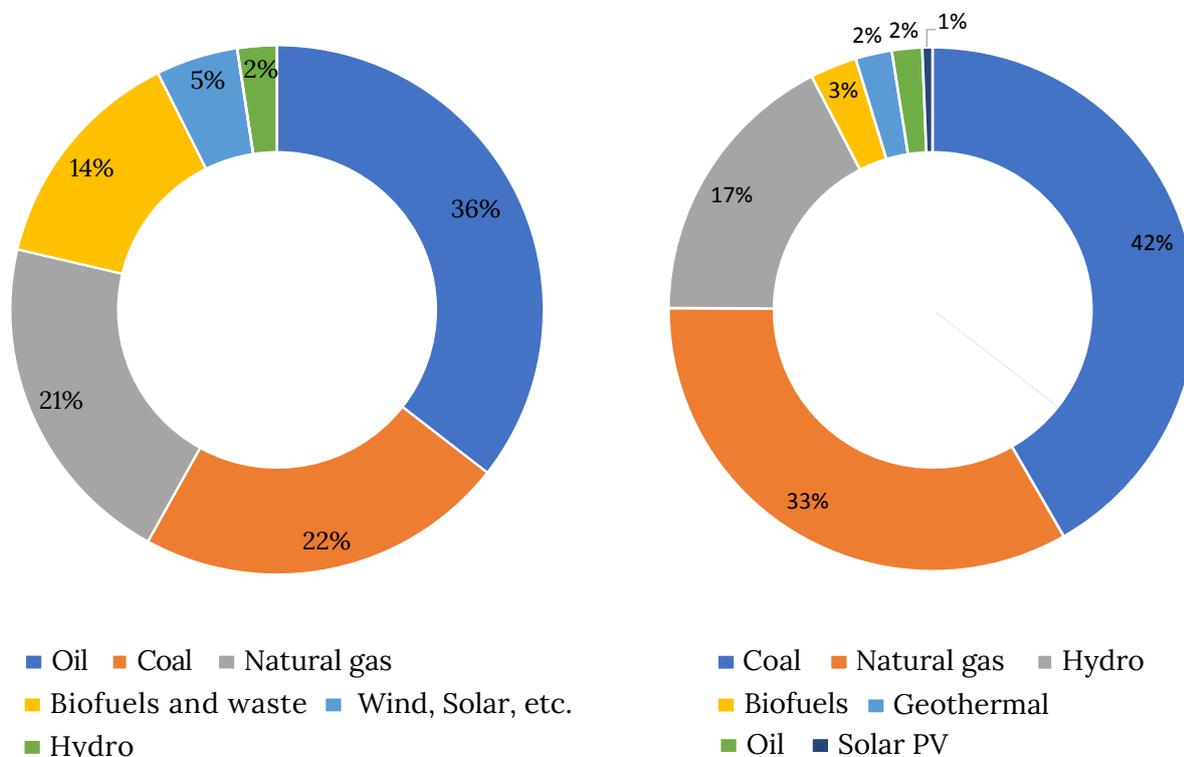


Figure 1. Energy supply in ASEAN 2018 a) Total energy supply by source and b) Total electricity generation by source. Note: Power supply from wind and waste was excluded in Figure 1.b since their contributions were less than 1% of the total amount. Data source: IEA.¹⁰⁰

Number of countries enacting measures under this policy: 1/6

- In November 2020, the **Singapore** government provided household vouchers for energy- and water-efficient appliances, such as climate-friendly refrigerators, water-efficient shower fittings, and LED lights.¹⁰¹ These vouchers are aimed at phasing out appliances that use high global warming refrigerants by 2022. The government also created grants to encourage companies to switch to more climate-friendly refrigerants. Energy efficiency measures on appliances are nested within the Green Plan, which also contains targets to improve energy efficiency in buildings by 80% by 2030.

98 Ibid, Oct 2020.

99 IEA. (June 2020). Sustainable Recovery. World Energy Outlook Special Report.

100 IEA. (2020). Data and Statistics. Energy supply indicators: Total energy supply (TES) by source, electricity generation by source. Accessed 21 May 2021, <https://www.iea.org/data-and-statistics/>.

101 Channel NewsAsia. (Nov 2020). More than 300,000 HDB households to get e-vouchers to buy energy- and water-efficient appliances. <https://www.channelnewsasia.com/news/singapore/more-than-300-000-hdb-households-to-get-e-vouchers-to-buy-energy-13657848>.

Support to buildings upgrades & new green housing

▶ Refers to improved thermal efficiency and targeted support to social housing and government buildings to accelerate energy efficiency in buildings.

Recovery measures to retrofit existing buildings and develop green housing can lead to financial savings and sustainability through lower consumer electricity bills and demand on the electricity grid. In ASEAN, the buildings sector was responsible for 23% of final energy use and 24% of energy-related GHG emissions in 2019.¹⁰² Energy efficiency policy options in the buildings sector, especially for cooling, will help countries meet the rising energy demand in an affordable and sustainable way.

Energy efficiency is among the fastest and cheapest avenues to drive economic growth and reduce GHG emissions in Southeast Asia.¹⁰³ The region has about a USD 400 billion untapped investment potential for energy efficiency projects, of which USD 152 billion is in the buildings sector,¹⁰⁴ potentially creating about 2.4 million jobs, benefitting the thousands of laid-off construction workers during the pandemic across Southeast Asia.

Number of countries enacting measures under this policy: 1/6

- In **Singapore**, the government will raise the minimum energy performance of new and existing buildings under the Green Plan. The Building and Construction Authority aims to deliver on three key targets “80-80-80 in 2030”.¹⁰⁵ By 2030, at least 80% of Singapore’s building by gross floor area will be greened,¹⁰⁶ 80% of new buildings will have Super Low Energy certification, and 80% of best-in-class buildings will achieve improvement in energy efficiency.¹⁰⁷ With buildings accounting for 20% of total GHG emissions and 40% of total electricity consumption in Singapore,¹⁰⁸ sustained efforts in energy efficiency of buildings will help the country achieve their climate change goals.

Others:

- Although outside the recovery plan, in February 2021, the Department of Energy in the **Philippines** issued energy conservation guidelines, which require all new and existing buildings to adopt renewable energy technologies.¹⁰⁹ This action, which falls under the 2019 Energy Efficiency Act, presents an opportunity for the Philippines to mainstream the greening of buildings in the country. For the numerous public buildings that were retrofitted into quarantine facilities, energy conservation can enhance the health management of the patients by promoting stable power supply.

102 IEA. (April 2021). ASEAN roadmaps towards sustainable and energy efficient buildings and cooling in Southeast Asia. <https://www.iea.org/events/asean-roadmaps-towards-sustainable-and-energy-efficient-buildings-and-cooling-in-southeast-asia>.

103 Sustainable Energy for All. (Oct 2020). The recover better with sustainable energy guide for Southeast Asian nations. <https://www.seforall.org/data-and-evidence/recover-better-southeast-asia>.

104 Ibid, Oct 2020.

105 Government of Singapore. (ND). Green Building Masterplans. <https://www1.bca.gov.sg/buildsg/sustainability/green-building-masterplans>.

106 New and existing buildings must be 50% and 40% more energy efficient compared to 2005 levels, respectively, to be considered “greened.” Singapore has greened 43% of its buildings as of end of 2020; Ibid, ND.

107 Ibid, ND.

108 Jacqueline Yuen. (May 2020). Green building developments and opportunities: Singapore. Hong Kong Trade Development Council. <https://research.hktdc.com/en/article/NDI2MDUyMjk4>.

109 Bong Lozada. (20 Feb 2021). DOE requires solar, renewable energy technologies in buildings. Inquirer.Net. <https://newsinfo.inquirer.net/1398021/doe-requires-solar-renewable-energy-technologies-in-buildings>.

Investment in natural infrastructure and green spaces

► Refers to investment in infrastructure that is compatible with the natural ecological processes and initiatives that enhance or maintain the benefits of these processes, such as upgrading public and national parks, tree planting, and biodiversity protection.

Research suggests areas of natural greenery around cities have helped mitigate the decrease in leisure-time physical activity caused by the pandemic.¹¹⁰ These areas include parks, gardens, and nature trails. The co-benefits of having more green spaces include healthier, active lifestyles, removal of air pollution, and reduction of urban heat stress.¹¹¹

Mounting evidence indicates that the rise in infectious diseases of wildlife origin positively correlates with biodiversity loss.¹¹² Zoonotic pathogens can form and spread more easily when wildlife habitats are fragmented and no longer act as buffers between human and animal populations.¹¹³ For COVID-19, infection risk has increased in areas where the natural ecosystems were removed,¹¹⁴ thus ensuring ecological integrity in cities not only provides social and environmental benefits but also immunity to disease outbreaks.¹¹⁵

Number of countries enacting measures under this policy: 1/6 and 1 provisional action that is still missing a strategy plan for implementation.

For example:

- Under the Green Plan, the **Singapore** government has devoted resources to improving the country's natural landscape for the COVID-19 recovery. These measures include expanding the total area of urban parks, establishing rooftop gardens and community farming on public housing estates, and planting one million trees across the island in the next ten years. Tree planting is expected to sequester 70,000 tons of CO₂,¹¹⁶ helping to reduce overall GHG emissions and cooling the country's land-surface temperature.

Provisional:

- Under the national recovery plan in August 2020, the **Timor-Leste** government has proposed promoting ecotourism, and community fruit and vegetable gardens near urban housing.¹¹⁷ A strategy plan for these proposed measures was missing.

Others:

- Although not part of the recovery plan, in December 2020, the Bangkok Metropolitan Administration of **Thailand** launched Green Bangkok 2030, which aims to increase green space per capita to 10 square meters per person by 2030.¹¹⁸ This initiative in expanding public parks and green spaces is an important step to tackling urban pollution in the country.

110 Yiyang Yang and others. (2021). Urban greenery cushions the decrease in leisure-time physical activity during the COVID-19 pandemic: A natural experimental study. *Urban Forestry & Urban Greening* 62:127136.

111 Ibid, 2021; and Ronald C. Estoque and others. (2017). Effects of landscape composition and pattern on land surface temperature: An urban heat island study in the megacities of Southeast Asia. *Science of the Total Environment* 577:349-359.

112 Kate E. Jones and others. (2008). Global trends in emerging infectious diseases. *Nature Letters* 451:990-994; and Felicia Keesing and others. (2010). Impacts of biodiversity on the emergence and transmission of infectious diseases. *Nature* 468(7324):647-652.

113 Ibid, 2010.

114 Yang Ye and Hongfei Qiu. (2021). Using urban landscape pattern to understand and evaluate infectious disease risk. *Urban Forestry & Urban Greening* 62:127126.

115 Ibid, 2021; and Helen Rusetto and others. (2021). Greenspace exposure and COVID-19 mortality in the United States: January-July, 2020. *Environmental Research*.

116 Government of Singapore. (2021). Singapore Green Plan: City in nature. Accessed on 20 May 2021, <https://www.greenplan.gov.sg/key-focus-areas/city-in-nature/>.

117 Government of Timor-Leste. (Aug 2020). Economic Recovery Plan.

118 C40 Cities. (Dec 2020). Case study: The Green Bangkok 2030 Project. https://www.c40.org/case_studies/the-green-bangkok-2030-project.

Green worker retraining and job creation

▶ Refers to retraining members of displaced or soon-to-be-displaced workforces with new skills suitable for industries supportive of a green economy, such as renewable energy, sustainable agriculture, and digital commerce. Green job creation refers to creating jobs in these industries, responding to environmental protection, economic development, and social inclusion.

A sustainable recovery needs to foster policies that safeguard the rights of all workers.¹¹⁹ Those most at risk of losing their jobs work in or are reliant on the fossil fuel industries. Unfortunately, none of the focal countries have adopted clear guidelines nor incentives on green job creation in their labor reactivation programs, or in retraining the labor force to adapt to new clean industries.

For example, in **Indonesia**, the government allocated USD 1.3 trillion to enhance employment through the Kartu Pra Kerja program, which provides skills training to unemployed workers.¹²⁰ Although the program is notable for its funding size and accessibility to informal workers, MSMEs, and recent graduates, no particular sectors nor skills were prioritized, leading to mixed results.¹²¹

Targeted training can improve people's employability by bridging the gap between workers' existing knowledge and current and future industries' expectations. Investment in green sectors is also most effective when paired with timely training.¹²² Not adequately training the workforce could delay the roll out of new jobs to boost the economic recovery due to the different expectations and qualities between employers and employees.

Number of countries enacting measures under this policy: 0/6 and 1 provisional action that is missing an implementation strategy.

- In **Singapore**, more than 30,000 workers employed in the petrochemical industry will need to be retrained as the country shifts to clean energy production.¹²³ While the government has introduced the Enterprise Sustainability Programme under the Green Plan, worker retraining for low-carbon industries has not yet been articulated in the broader Jobs Support Scheme and SGUnited Jobs and Skills Package launched during the pandemic.

Examples outside of Southeast Asia:

- In May 2020, **Pakistan** government approved a Green Stimulus recovery package with the objectives of job creation and restoration of natural ecosystems.¹²⁴ The package targets unemployed youth, women, and daily wage workers to earn income from nature-based interventions, such as planting trees, enhancing the protection of natural forests, and improving water sanitation.¹²⁵ This plan will deliver jobs compatible with climate change goals.¹²⁶
- In **Venezuela**, the government introduced cash for work programs in their recovery plan to create jobs in the recycling sector for the country's migrant workers.¹²⁷

119 APHR. (Dec 2020). COVID-19 economic response: ASEAN parliamentarians' manifesto.

120 Ugo Gentilini, Mohamed Almenfi, and Pamela Dale. (Dec 2020). Social protection and job responses to COVID-19: A real-time review of country measures. <https://openknowledge.worldbank.org/handle/10986/33635>.

121 Alin Halimatussadiyah and others. (Dec 2020). Thinking ahead: Indonesia's agenda on sustainable recovery from COVID-19 Pandemic. Jakarta, Indonesia: Universitas Indonesia and Ministry of National Development Planning; and APHR interview, 20 April.

122 IEA. (June 2020). Sustainable Recovery. World Energy Outlook Special Report.

123 APHR interview, 5 May.

124 Malik Amin Aslam Khan. (May 2020). Opinion: Pakistan's 'Green Stimulus' to combat Covid-19, protect nature. <https://www.thethirdpole.net/en/energy-hi/pakistans-green-stimulus-to-combat-covid-19-protect-nature/>.

125 Ibid, May 2020.

126 Ibid, May 2020.

127 UNEP. (June 2020). Opportunities to respond and build back better while leaving no one behind in Latin America and the Caribbean. https://wedocs.unep.org/bitstream/handle/20.500.11822/32433/COVID_LAC.pdf.

To optimize the use of public spending, governments may benefit from prioritizing training on low-carbon industries, such as renewable energy, electric vehicles, and railways, which are expected to accommodate more jobs in the near future.¹²⁸ Similar policy measures can also be applied to boost economic recovery in the agri-food system, which employs around 30% of the Southeast Asian population.¹²⁹ Embedding incentives for sustainable agriculture into COVID-19 policy measures not only allows farmers to shorten the supply chain and meet the consumer demand for healthier food, but also reduces GHG emissions from the land-use sector.

Conditional government support for businesses with green strings attached

► Refers to government support in the form of loan guarantees or loans for businesses on the condition that they meet GHG emission reductions and other climate-related targets.

The COVID-19-induced recession presents a unique opportunity for governments to strengthen their role in promoting inclusive and sustainable economic growth. With many businesses in need of financial support to recover from the pandemic, governments can exercise fiscal responsibility by issuing bailouts with green strings attached for high GHG-emitting businesses. From this, businesses will be incentivized to take climate action, and governments will be held accountable to the public, who themselves will incur the costs of the financial assistance through their taxes.

Number of countries enacting measures under this policy: 0/6

None of the countries in Southeast Asia issued bailouts with green conditions. While there are laws in most Southeast Asian countries that require governments to ensure the profitability of SOEs, steps should be taken to ensure that public investment in the private sector promotes a green recovery.

Examples outside of Southeast Asia:

- In **France**, the government included a number of environmental requirements to a rescue package to the national carrier Air France. Air France will receive USD 7.5 billion in support if they halve CO₂ emissions per passenger per kilometre by 2030 and halve domestic emissions by the end of 2024 among some of the conditions.¹³⁰
- In **Austria**, the government and commercial banks imposed environmental requirements to a USD 667 million bailout of Austrian Airlines. The package is conditional on Austrian Airlines reducing domestic and global CO₂ emissions by 50% and 30% respectively by 2030.¹³¹
- In June 2020, the **Sweden** government announced that state support for Scandinavian airline SAS will only be available if SAS' targets to reduce GHG emissions align with the Paris Agreement's 1.5-degrees Celsius goal.¹³²

128 IEA. (June 2020). Sustainable Recovery. World Energy Outlook Special Report.

129 Glenn B. Grgorio and Rico C. Ancog. (May 2020). Impact of COVID-19 pandemic on agriculture production in Southeast Asia: Reinforcing transformative change in agricultural food systems. Los Baños, Laguna, Philippines, Southeast Asian Regional Center for Graduate Study and Research in Agriculture. Policy Paper 2020-1.

130 ADB. (23 Jul 2020). Greening the Post-COVID-19 Recovery. <https://www.adb.org/news/infographics/greening-post-covid-19-recovery>.

131 Ibid, July 2020.

132 Sharon Marris. (Jun 2020). Coronavirus: Sweden demands tougher emissions goals for SAS bailout. Sky News. <https://news.sky.com/story/coronavirus-sweden-demands-tougher-emissions-goals-for-sas-bailout-12007530>.

3.3 Assessment of negative brown (business-as-usual recovery) policies

Liquidity support for high GHG-emitting businesses with no green strings attached

▶ Refers to government support in the form of loan guarantees or loans for businesses without the need for them to change their operations to adopt more climate-friendly practices.

Unlike their European counterparts, all six focal countries disbursed unconditional liquidity support through the recovery packages, targeting transports including airline, tourism, and fossil fuel-based energy sectors. Bailouts with no green strings attached for businesses exceeded a total of USD 50 billion in Indonesia, Malaysia, Philippines, and Singapore, where publicly accessible data was available.¹³³

Green policy measures in this area are not only critical to reducing GHG emissions but also to enabling market conditions for green technologies post-COVID-19. With emergency decrees giving more fiscal power to the government, conditional bailouts can help reduce corruption in budgetary spending through greater parliamentary oversight on stimulus allocation.¹³⁴

Number of countries enacting measures under this policy: 6/6

For example:

- Under the National Economic Recovery Program, the **Indonesia** government provided state capital injections to PT Pertamina (Oil & Gas SOE), Garuda Indonesia (Airline SOE), and PLN (electricity SOE), totalling more than USD 6.29 billion.¹³⁵ Capital injections included compensation payments and investment bailouts, all without green strings attached.

In April 2020, the **Thailand** government provided Thai Airways International a USD 1.55 billion loan guarantee.¹³⁶ While there were conditions for the airline to prove its economic viability post-COVID-19, no environmental measures were attached. Further, in August 2020, the government promised to inject USD 743 million in soft loans to support seven low-cost domestic airlines.¹³⁷ No green strings were also found in this package.

133 ADB. (26 Apr 2021). ADB COVID-19 Policy Database. Data calculated from 01 – Liquidity support and 04 – Equity support in Indonesia, Malaysia, Philippines, and Singapore. <https://covid19policy.adb.org/policy-measures>.

134 UN Office on Drugs and Crime. (ND). COVID-19 emergency packages in Southeast Asia. <https://www.unodc.org/southeastasiaandpacific/en/what-we-do/anti-corruption/topics/covid-19.html>.

135 Energy Policy Tracker. (20 May 2021). Indonesia. <https://www.energypolicytracker.org>.

136 Bangkok Post. (Apr 2020). SEPC to throw THAI lifeline. <https://www.bangkokpost.com/business/1910244/sepc-to-throw-thai-lifeline>.

137 Bangkok Post. (Aug 2020). PM agrees to bail out 7 airlines. <https://www.bangkokpost.com/thailand/general/1976423/pm-agrees-to-bail-out-7-airlines>.

Subsidies or waived fees for environmentally harmful industries

▶ Refer to financial assistance on the production of goods and services that are harmful to the environment.

Most of the focal countries issued subsidies for environmentally harmful industries as part of the COVID-19 recovery packages. Beneficiaries of subsidies were private transport, domestic airline carriers, travel accommodation, and palm oil companies. While these policy measures provide immediate support to ailing sectors, they also produce negative side-effects of crowding out limited resources for more sustainable industries, which already receive fewer subsidies.

Number of countries enacting brown policies in this category: 5/6

For example:

- Both the **Philippines and Singapore** government waived the airport fees of domestic carriers. Under the second recovery package (Bayanihan 2 Act), domestic airline carriers in the Philippines were exempted from paying airport fees until December 2020.¹³⁸ As well as allowing airport operators and carriers to defer fees for one year, the Singapore government extended the public parking waiver for private buses from May 2020 to March 2021.¹³⁹ This latter measure was estimated to cost USD 17 million.¹⁴⁰
- In February 2020, the **Indonesia** government, via the SOE Pertamina, provided USD 2 million worth of jet fuel discounts for airlines across nine airports to stimulate domestic tourism.¹⁴¹
- Lawmakers in **Thailand** also approved policies to boost domestic tourism to mitigate the severe losses in the tourism sector. Under the Rao Tiew Duay Kan (We Travel Together) program, the government subsidized 40% of the tourist package and did not require registered properties to take any climate action to receive support.¹⁴² The program's third phase ended in August 2021.¹⁴³
- The National Economic Recovery Plan (PENJANA) in **Malaysia** completely exempted the export tax of palm oil from July 2020 to December 2020.¹⁴⁴ Despite the temporary economic relief to oil palm smallholders and corporations, the export tax exemption likely increased environmental degradation as palm oil production is a leading source of GHG emissions and human rights abuses across Southeast Asia.¹⁴⁵

138 ADB. (26 Apr 2021). ADB COVID-19 Policy Database. <https://covid19policy.adb.org/policy-measures>.

139 CNA. (Oct 2020). Government extends season parking waiver for private buses as part of COVID-19 support. <https://www.channelnewsasia.com/news/singapore/season-parking-waiver-private-buses-extended-covid-19-support-13422104>.

140 Ibid, Oct 2020.

141 Oxford Smith School of Enterprise and the Environment. (May 2021). Global Recovery Observatory. <https://recovery.smithschool.ox.ac.uk/tracking/>.

142 Chiang Rai Times News. (Mar 2021). Thai lawmakers extend We Travel Together" domestic tourism scheme. <https://www.chiangraitimes.com/tourism/thai-lawmakers-extend-we-travel-together-domestic-tourism-scheme/>.

143 Ibid, Mar 2021.

144 Malay Mail. (Jun 2020). Covid-19: Palm oil industry rejoice as economies reopen. <https://www.malaymail.com/news/money/2020/06/14/covid-19-palm-oil-industry-rejoice-as-economies-reopen/1875338>.

145 Thomas Guillaume and others. (2018). Carbon costs and benefits of Indonesian rainforest conversion to plantations. *Nature Communications* 9:2388; and Amnesty International. (Nov 2016). The great palm oil scandal: Labour abuses behind big brand names.

Subsidies or waived fees for environmentally harmful products

▶ Refer to financial assistance on the consumption of goods and services that are harmful to the environment.

All governments have provided subsidies for environmentally harmful products in their recovery plan. Utility waivers on household electricity and water bills were widely adopted. Although these measures were important to alleviate the immediate economic burden on low-income populations, they can also delay the transition toward clean energy sources.

Number of countries enacting measures under this policy: 6/6

- For example, the **Indonesia** government lowered the domestic price of electricity generated by fossil fuel and industrial gas and placed an exemption on the electricity bill of low-income residential customers for three months.¹⁴⁶ Since over 85% of Indonesia's power generation comes from fossil fuels, utility waivers also elevate GHG emissions.¹⁴⁷ Due to high fossil fuel subsidies, Indonesia is one of the few countries in the world where new coal plants can compete with clean energy as the cheapest form of electricity.¹⁴⁸
- The governments of **Malaysia**, the **Philippines**, **Thailand**, and **Singapore** all issued tourist vouchers as consumer incentives for travel during the pandemic. Those eligible for the travel schemes received non-cash credit on their travel or had their airfare and accommodation costs subsidized. No option was available to divert the use of vouchers for sustainable tourist activities.
- The **Malaysia** government's full exemption of the sales tax on domestically made vehicles and 50% of the tax on imported vehicles also negatively contributes to transport-based GHG emissions.¹⁴⁹ Cars purchased are likely to be fossil fuel-based as the country does not have the necessary infrastructure to produce and accommodate electric vehicles. As a result, the share of households owning a car in the country may penetrate beyond 90%, requiring more carparks for this change.¹⁵⁰

Overall, there will be limited progress on climate action if subsidies for environmentally harmful products exceed those of beneficial ones.

146 Energy Policy Tracker. (20 May 2021). Indonesia. <https://www.energypolicytracker.org>.

147 David Fickling. (May 2021). Indonesia can't afford the luxury of Australia's carbon habit. Bloomberg Opinion. <https://www.bloomberg.com/opinion/articles/2021-05-31/why-indonesia-can-walk-away-from-fossil-fuels-but-richer-australia-can-t>.

148 Ibid, May 2021.

149 Justin Lim. (Mar 2021). Malaysian Automotive Association says has not planned to apply for sales tax exemption extension. The Edge Markets. <https://www.theedgemarkets.com/article/malaysian-automotive-association-says-has-not-planned-apply-sales-tax-exemption-extension>.

150 PwC Malaysia. (Nov 2015). Riding Southeast Asia's automotive highway. <https://www.pwc.com/my/en/publications/riding-southeast-asia-automotive-highway.html>.

Deregulation of environmental standards

▶ Refers to the reduction or elimination of environmental restrictions on industries, often for the benefit of the private sector.

Number of countries enacting measures under this policy: 2/6

- In October 2020, the **Indonesia** government enacted the Omnibus Law. Despite being in the pipeline long before COVID-19, it was executed during the pandemic as a means to accelerate job creation and economic recovery. The policy was included in this report due to its objectives of overhauling regulations to attract foreign investment and create jobs amid the pandemic.¹⁵¹ Under the Law, decisions on the environmental feasibility of projects have shifted from “*an obligation of result to an obligation of conduct.*”¹⁵² Notably, developers are no longer required to preserve 30% of the forest area.¹⁵³
- **Indonesia’s** parliament also passed the Mining Bill in May 2020, which allows automatic mining permit extensions up to 20 years.¹⁵⁴ People who live near mines and rely on natural resources for their livelihoods will be the most heavily affected, as they will likely be forced to move deeper into the forests to survive, increasing their exposure to zoonotic pathogens.¹⁵⁵ Greater mining activities will likely increase GHG emissions from land use, which already accounts for 43% of the country’s total emissions in 2018.¹⁵⁶
- In the **Philippines**, the government lifted the ban on new mineral mines under Executive Order 130 in April 2021.¹⁵⁷ The Order highlights the role of the extractive sector in reviving the country’s economy.¹⁵⁸ Unlike the moratorium on new coal power, which has yet to be integrated into the Philippine Energy Plan, the granting of new mineral mining permits took immediate effect. Mineral mining operations severely degrade natural resources, including water and land, account for 10% of the total global energy-related emissions, and are linked with numerous human rights violations.¹⁵⁹

151 Arizka Warganegara. (Oct 2020). Omnibus bill reveals Jokowi’s bedfellows. East Asia Forum. <https://www.eastasiaforum.org/2020/10/28/omnibus-bill-reveals-jokowis-bedfellows/>.

152 Raynaldo Sembiring, Isna Fatimah, and Grita Anindarini Widyaningsih. (2020). Indonesia’s Omnibus bill on job creation: A setback for environmental law? *Chinese Journal of Environmental Law* 4:97-109.

153 Ricky Mohammad Nugraha. (9 Oct 2020). Omnibus law erases requirement to preserve 30 percent forest areas. *Temp.Co.* <https://en.tempo.co/read/1394291/omnibus-law-erases-requirement-to-preserve-30-percent-forest-areas>.

154 Hans Nicholas Jong. (May 2020). With new law, Indonesia gives miners more power and fewer obligations. *Mongabay.* <https://news.mongabay.com/2020/05/indonesia-mining-law-minerba-environment-pollution-coal/>.

155 *ibid*, May 2020.

156 WRI Climate Watch. (2018). CAIT. <https://www.climatewatchdata.org/ghg-emissions>.

157 Leilani Chavez. (15 Apr 2021). ‘Complete turnaround’: Philippines’ Duterte lifts ban on new mining permits. *Mongabay.* <https://news.mongabay.com/2021/04/complete-turnaround-philippines-duterte-lifts-ban-on-new-mining-permits/>.

158 *Ibid*, Apr 2021.

159 Mehdi Azadi. (2020). Transparency on greenhouse gas emissions from mining to enable climate change mitigation. *Nature Geoscience* 13:100-104.; and Ashoka Mukpo. (29 Jul 2020). 2019 was the deadliest year ever for environmental activists, watchdog group says. *Mongabay.* <https://news.mongabay.com/2020/07/2019-was-the-deadliest-year-ever-for-environmental-activists-watchdog-group-says/>.



A boy plays on a dried up reservoir of the Mekong River following a drought affecting the Thai-Lao border city of Wiang Kaen, Chiang Rai province, northern Thailand. © EPA-EFE

4. Challenges to a green recovery

There are numerous challenges to enabling a green recovery in Southeast Asia, which can be broadly captured in three areas: i) institution and politics, ii) resource constraints, and iii) information-sharing.

For parliamentarians to be able to promote a green recovery from the pandemic, they must take into consideration the existing obstacles to building a green economy.

4.1 Absence of strong institutional frameworks on climate change

Firstly, countries in Southeast Asia lack strong institutional frameworks on climate change, making it difficult to advance structural reforms.

For example:

- In the **Philippines**, the Climate Change Commission is an autonomous agency responsible for developing and monitoring national climate action plans, yet lacks the authority to enforce changes.¹⁶⁰ The Commission has neither the carrots or sticks to encourage or reprimand actions among affected public agencies and private companies, meaning it has an ineffectual role in reducing national GHG emissions.¹⁶¹

¹⁶⁰ APHR interview, 22 April.

¹⁶¹ Ibid, 22 April.

- In April 2021, the **Malaysia** government held the inaugural meeting of the Climate Change Action Council, which is expected to support a green recovery from COVID-19.¹⁶² This initiative shows progress on climate action, although might be short-lived if a clear mandate on climate change is not issued by the Prime Minister's office.¹⁶³

While climate commitments are low in many countries, the adoption of climate-friendly policies has enabled civil society and private actors to initiate court actions against their government. In the Philippines, non-state actors were able to challenge the Department of Energy to create an enabling environment for renewable energy.¹⁶⁴ This challenge moved to the Supreme Court in 2016, which found that the Department of Energy did not effectively implement the 2008 Renewable Energy Act, ordering it to do so in a timely manner.¹⁶⁵

In addition, in December 2019, the Commission on Human Rights of the Philippines announced that fossil fuel companies could be held liable for climate impacts, and that these companies have an obligation to respect human rights laws.¹⁶⁶

More climate change cases may likely emerge as constituents gain greater environmental awareness.

|| The cases in the Philippines indicate the importance of enforced legislative climate actions to implement a green economic transition.

4.2 Resource constraints amplified by natural disasters

Resource constraints, amplified by natural disasters, are also key limiting factors to a green recovery from COVID-19.

For instance, recent natural disasters in the **Philippines** and **Timor-Leste** required the governments to re-allocate public spending earmarked for the recovery to emergency relief. In Timor-Leste, the government had to divert about USD 100 million of the annual budget to remedy the infrastructural damages caused by Cyclone Seroja in April 2021.¹⁶⁷ The reduced national budgets lead to fewer resources for climate-friendly policy measures.

However, the expediency with which member states managed the COVID-19 crisis indicates that mobilizing internal resources to address the climate crisis is possible.¹⁶⁸ In some countries, including Indonesia, annual fossil fuel subsidies exceeded the amount of the initial COVID-19 recovery packages, highlighting the discrepancy in spending priorities.¹⁶⁹ Fossil fuel subsidies overpower investments in renewable energy by 2.42 times in the Asia-Pacific region.¹⁷⁰

162 Malay Mail. (13 Apr 2021). Govt's approach to climate change issues outlined in MyCAC, says minister. <https://www.malaymail.com/news/malaysia/2021/04/13/govts-approach-to-climate-change-issues-outlined-in-mycac-says-minister/1966216>.

163 APCR interview, 15 April.

164 APCR interview, 4 May.

165 APCR interview, 4 May.

166 Grantham Research Institute on Climate Change and the Environment. (2021). In re Greenpeace Southeast Asia et al., 2015. https://climate-laws.org/geographies/philippines/litigation_cases/in-re-greenpeace-southeast-asia-et-al-2015-__-commission-on-human-rights-of-the-philippines-2015.

167 APCR interview, 10 May.

168 Lowy Institute. (13 Mar 2021). Covid Performance Index. Note: Thailand, Singapore and Malaysia were among the top 20 global performers of managing COVID-19. <https://interactives.lowyinstitute.org/features/covid-performance/>.

169 UNESCAP. (Apr 2020). Economic and social survey of Asia and the Pacific 2020: Towards sustainable economies. <https://www.unescap.org/publications/economic-and-social-survey-asia-and-pacific-2020>.

170 Ibid, Apr 2020.

Removing these subsidies can free up money to invest in more stable clean energy sources.

By redirecting funds to clean energy sources,



Southeast Asian governments can also accelerate job creation in sectors that will have a strong presence in the post-pandemic world.

Investments in green policies enhance economic and population well-being over the long term.

4.3 Lack of data transparency and cross-sectoral collaboration

A culture of information-sharing within and between state institutions has yet to be widely fostered in Southeast Asia.¹⁷¹ The siloed approach of decision-making is pervasive, as few countries have public budgets or incentives for cross-sectoral collaboration.

Unsurprisingly, constituents, which politicians represent, are frequently left in the shadows during critical policy decisions. Without guaranteed access to information, public awareness of climate change issues remains low and unevenly distributed across Southeast Asia.¹⁷²

The COVID-19 pandemic has served as a litmus test in determining countries' preparedness to emergency crises and climate change commitments. Many governments were swift to form task forces to guide the national response to COVID-19 but nearly all failed to consult marginalized persons and civil society groups.¹⁷³ To build a stronger and more resilient future, lawmakers will need to place the rights and dignity of those most affected by climate change and health outbreaks at the center of decision-making.

Many governments have instead used the pandemic to further restrict civic space.¹⁷⁴ People's right to participate in public affairs through their fundamental freedoms, including peaceful assembly and freedom of expression, has worsened as a result.

Enhanced public participation, through data transparency on economic, environmental, and social matters, such as budgetary spending and GHG emissions, could not only help boost public morale post-COVID-19 but also help develop inclusive economic recovery plans.

171 APHR interviews, April-May.

172 Sharon Seah and others. (Dec 2020). The Southeast Asia Climate Outlook: 2020 Survey Report. Singapore: ISEAS-Yusof Ishak Institute. <https://www.iseas.edu.sg/wp-content/uploads/2020/12/Southeast-Asia-Climate-Outlook-2020-Survey-Report.pdf>.

173 Dheepa Rajan and others. (Apr 2020). Governance of the Covid-19 response: a call for more inclusive and transparent decision-making. *BMJ Global Health* 5(5):e002655.

174 David Kaye. (13 Apr 2020). Report of the Special Rapporteur on the promotion and protection of the right to freedom of opinion and expression: Disease pandemics and the freedom of opinion and expression. A/HRC/44/49; and International Center for Not-for-Profit Law. (2021). COVID-19 Civic Freedom Tracker. Note: Restrictive measures on civil freedoms were found in Indonesia, Malaysia, Philippines, and Thailand. <https://www.icnl.org/covid19tracker/>.



An ASEAN flag is placed on top of a pile of waste by Greenpeace activists calling for a stop to waste dumping, in front of the Ministry of Foreign Affairs in Bangkok, Thailand. © EPA-EFE

5. What can parliamentarians do?

While COVID-19 has dominated the public discourse in the past year, most people in Southeast Asia view COVID-19 and the climate crisis as of equal priority for governments.¹⁷⁵ However, APHR found that only minimal green policy measures had been adopted as part of the COVID-19 recovery in the region. The few positive measures implemented were critically undermined by the fact that all countries in the study adopted unconditional bailouts to rescue polluting industries and provided subsidies for environmentally harmful products.

This runs contrary to ASEAN's own commitments to urgently transition to clean energy and mitigate the impacts of climate change. Without strong climate change commitments and inclusive green recovery measures, GHG emission levels will likely reach beyond the acceptability of the Paris Agreement and escalate human rights violations as the climate crisis intensifies.

A green transition would not only mitigate the rise in global temperature, but also ensure a more rapid economic recovery, avoiding a 25% drop in ASEAN's GDP, curtailing the region's debt crisis, and helping create jobs in climate-friendly sectors.

Moving from the rescue to the recovery period, the legislative actions of MPs will have tremendous long-term impacts on the economy and environment as they gear toward economic growth. With time quickly running out to keep global warming below 1.5 degrees Celsius, Southeast Asian parliamentarians must urgently push forward policies for a green economic recovery.

Indeed, as representatives of the people, MPs are well-positioned to advance policies to reduce the adverse effects of climate change, raise awareness on the climate crisis, and scrutinize legislation that may be harmful to the well-being of current and future generations. **Through their legislative power, budgetary oversight, and constitutional mandate, MPs lie at the heart of fulfilling climate change commitments, which shape the daily lives of their constituents.**

175 Sharon Seah and others. (Dec 2020). The Southeast Asia Climate Outlook: 2020 Survey Report.

Recommendations for parliamentarians:

In Southeast Asia

- Urge your government to submit more ambitious NDC targets to the Paris Agreement and hold them accountable to existing targets by requesting regular progress updates;
- Use APHR's manifesto, this report, and other relevant documents to promote the adoption of the identified green recovery policies (See Section 1);
- Prioritize budget allocations on renewable energy, public transport, energy efficiency, electric vehicles, and other key areas supportive of a low-carbon economic transition;
- Promote investment in natural infrastructure and green spaces during budget debates to avert potential damages from climate-related disasters, such as floods;
- Ensure social and environmental impact assessments are conducted for all recovery projects with public consultations before approval decisions in parliament;
- Vocalize the environmental and human rights concerns of coal development and other environmentally harmful policies, which may increase future GDP losses;
- Promote meaningful civic participation and environmental participatory rights, to ensure a green recovery that supports individual human rights;
- Establish a national framework on climate change consistent with the Paris Agreement, to improve complementarity between national environmental and economic legislation, and strengthen the oversight of national and international commitments;
- Meet constituents to understand their most urgent climate concerns, and raise these to the government; and
- Use parliamentary committees and debates to mainstream climate issues and solicit the inputs of non-state actors, such as civil society groups, for the recovery plan.

Indonesia

- Use the budget debates to clarify the government's position on not increasing their NDCs and highlight the repercussions of this action for long-term economic growth;
- Assign green conditions on bailouts for large businesses including SOEs, such as PT Pertamina, Garuda Indonesia, and PLN, in accordance with the Paris Agreement;
- Remove fossil fuel subsidies and phase out coal by 2040 to create an enabling environment for renewable energy investment;
- Encourage dialogue among constituents and policymakers on the importance of climate action in the media and public events by discussing the harms of the Omnibus Law, Mineral and Coal Mining Law, and other environmental deregulatory efforts; and
- Incentivize job training in sectors positive to the green economy, such as renewable energy and energy efficiency, by prioritizing them in the Kartu Pra Kerja program.

Malaysia

- Raise awareness on GDP losses, human rights violations, and delayed economic recovery of not submitting more ambitious NDCs as the climate crisis intensifies;
- Work with the Climate Change Action Council to get a clear mandate on climate action from the Prime Minister's Office, which will help guide the COVID-19 recovery;
- Enact legislative provisions of rebates on electric vehicle purchases and investment support for pilot electric vehicle projects, including capital grants and loan guarantees;
- Incentivize the training and hiring of workers in sectors beneficial to the green economy through labor reactivation programs such as PEMERKASA; and
- Develop legislation to hold private companies accountable for climate-related human rights violations in consultation with constituents and civil society actors.

Philippines

- Encourage the government to take a bottom-up approach to raise the ambition of NDCs, helping to increase parliamentary and civilian oversight in the review process;
- Work with the Department of Energy to integrate the coal moratorium into the Philippine Energy Plan and establish a target to phase out coal by 2040, as indicated in APHR's coal briefer;
- Use the findings by the Human Rights Commission on the possible liability of fossil fuel and high GHG-emitting companies to climate-related human rights violation to highlight the investment risks of lifting the mineral mining ban under Executive Order 130;
- Adopt legislation that will increase the authority of the Climate Change Commission and penalties for agencies and private actors that fail to adhere to climate policies;
- Provide incentives to reskill laid-off and furloughed workers in future green industries through labor reactivation programs such as TESDA; and
- Launch educational awareness programs to encourage public participation in existing and future green recovery measures, such as expanded pedestrian and cycling paths.

Singapore

- Provide only green conditional support for large businesses including SOEs that meet GHG emissions targets in alignment with the Paris Agreement;
- Push for the inclusion of women, non-profit representatives, and those outside the traditional high GHG-emitting industries in the Emerging Stronger Taskforce;
- Develop legislation to halt investment in coal-fired plants abroad, building on the Development Bank of Singapore's commitment to end coal investment in the country;
- Introduce tax reforms that will raise and transfer corporate taxes for green policies, reducing the costs of a low-carbon transition among marginalized individuals; and
- Implement a clear roadmap on green job creation through SGUnited, Job Support Scheme, and related labor reactivation programs.

Thailand

- Work with the Ministry of Transport to upgrade the fuel emissions standard to Euro 5, helping to attract investment in clean transport, such as electric trains and buses;
- Legislate a mandatory ban on single-use plastic bags by collaborating with the Ministry of Natural Resources and Environment, private companies, and civil society groups;
- Endorse a bill on air pollution control, such as the one drafted by the Thailand Clean Air Network, to promote the right to a healthy environment and a greener economy;
- Revise outdated policies, such as the Factory Act and Enhancement and Conservation of National Environmental and Quality Act, to include stringent penalties for state and non-state actors that fail to adhere to social and environmental safeguards; and
- Develop an overarching climate change law to meet the Paris Agreement, guiding the implementation of more ambitious NDCs and sustainable recovery from COVID-19.

Timor-Leste

- Raise human rights concerns related to not submitting an NDC with quantifiable targets to reduce GHG emissions during parliamentary budget debates and question periods;
- Develop clear action plans on green policies, such as ecotourism, agroecological farming, and renewable energy, under the national recovery plan to boost investment;
- Work with the Ministry of Education to establish environmental courses in the school curriculum to raise public awareness and knowledge capacity on climate issues;
- Partner with the private sector to co-finance MSMEs that are engaged in sectors supportive of a sustainable recovery, such as renewable energy and organic farming; and
- Incentivize vocational training in green industries to diversify the economy beyond oil and gas sectors and equip unemployed workers with competitive skills post-COVID-19.

Appendix A:

Summary of economic COVID-19 recovery measures taken by governments, February 2020 to April 2021

Country	Key packages and measures	Total amount as proportion of GDP	Value of package per capita in USD
Indonesia	<ul style="list-style-type: none"> National Economic Recovery (PEN) Program Affordable Food Program (Sembako and Jabodetabek) Conditional cash transfer program (PKH) Unconditional cash transfer program (BST and BLT Dana Desa) Village Fund Labor program (Kartu Pra Kerja) Electricity bill waiver 	10.90% (USD 115 billion)	426.18
Malaysia	<ul style="list-style-type: none"> 6R Recovery Plan (Resolve, Resilience, Restart, Recovery, Revitalise and Reform) Prihatin Rakyat Economic Stimulus Package Short-Term Economic Recovery Plan (STERP) Special Prihatin Grant (GKP) Strategic Programme to Empower the People and Economy (Pemerksa) Food Security Fund Electricity bill discount 	27.55% (USD 98 billion)	3,064.48
Philippines	<ul style="list-style-type: none"> Bayanihan to Heal as One Act (Bayanihan 1), Bayanihan to Recover as One Act (Bayanihan 2) Emergency Subsidy Program Rice subsidy program COVID-19 Adjustment Measures Program (CAMP) Social Amelioration Program 	8.24% (USD 30 billion)	280.47

Country	Key packages and measures	Total amount as proportion of GDP	Value of package per capita in USD
Singapore	<ul style="list-style-type: none"> • Unity, Resilience, Solidarity, and Fortitude packages • Job Support Scheme (JSS) • SGUnited Jobs • Self-Employed Persons Income Relief Scheme (SIRS) • Point-to-Point Support (P2P) • Foreign worker levy waiver and rebate • Temporary Relief Fund and COVID-19 Support Grant • Solidarity payments to adult Singaporeans • Solidarity Utilities Credit 	28.58% (USD 100 billion)	17,621.90
Thailand	<ul style="list-style-type: none"> • Rao Mai Ting Gun (We Do Not Leave Anyone Behind) scheme • Rao Tiew Duay Kan (We Travel Together) program • Rao Chana (We Win) Program • Khon La Khrueng co-payment scheme • Electricity and tap water subsidy • E-vouchers for household goods 	18.02% (USD 95 billion)	1,364.33
Timor-Leste	<ul style="list-style-type: none"> • Cash transfers • Wage subsidy • Utility bill waivers including electricity, water, and property rental owned by the government 	8.65% (USD 254 million)	196.42

Source: Gentilini et al,¹⁷⁶ ADB COVID-19 Policy Database.¹⁷⁷

176 Ugo Gentilini, Mohamed Almenfi, and Pamela Dale. (Dec 2020). Social protection and job responses to COVID-19: A real-time review of country measures. <https://openknowledge.worldbank.org/handle/10986/33635>.

177 ADB. (26 Apr 2021). ADB COVID-19 Policy Database. <https://covid19policy.adb.org/policy-measures>.

Appendix B:

NDC summary in Southeast Asia

Country	Share of regional GHG emissions ^a	First NDC	Updated NDC
Brunei Darussalam	0.64%	<ul style="list-style-type: none"> • 20% conditional reduction in GHG emissions below BAU by 2030 • Submitted in December 2020 	<ul style="list-style-type: none"> • Submitted the first NDC in December 2020
Cambodia	1.5%	<ul style="list-style-type: none"> • 27% conditional reduction in GHG emissions below BAU by 2030; contains sectoral target breakdowns • Submitted in February 2017 	<ul style="list-style-type: none"> • 27% conditional reduction in GHG emissions below BAU by 2030; 41.7% GHG reduction below BAU, including land use, land-use change and forestry (LULUCF), by 2030; contains sectoral target breakdowns • Submitted in December 2020
Indonesia	38%	<ul style="list-style-type: none"> • 41% conditional reduction in GHG emissions below BAU, including LULUCF, by 2030 • Unconditional: 29% • Submitted in November 2016 	<ul style="list-style-type: none"> • No update as of 13 May 2021
Lao PDR	1.1%	<ul style="list-style-type: none"> • No economy wide GHG targets. Targets focus on increases in forest cover, renewable energy, and electricity access. • Submitted in September 2015 	<ul style="list-style-type: none"> • No economy wide GHG targets. Targets focus on increases in forest cover, renewable energy, and water and waste management. • Submitted in March 2021

Country	Share of regional GHG emissions ^a	First NDC	Updated NDC
Malaysia	12%	<ul style="list-style-type: none"> • 45% reduction in GHG emissions intensity from 2005 levels by 2030 • Conditional: 10% • Unconditional: 35% • Submitted in November 2016 	<ul style="list-style-type: none"> • No update as of 13 May 2021
Myanmar	4.6%	<ul style="list-style-type: none"> • No GHG targets included in the NDC. Targets focus on increases in hydroelectric generation, access to clean sources of electricity. • Submitted in September 2017 	<ul style="list-style-type: none"> • No update as of 13 May 2021
Philippines	9%	<ul style="list-style-type: none"> • 70% conditional reduction in GHG emissions below BAU by 2030 • Submitted in October 2015 	<ul style="list-style-type: none"> • 75% reduction in GHG emissions below BAU by 2030 • Conditional: 72.29% • Unconditional: 2.71% • Submitted in April 2021
Singapore	2.6%	<ul style="list-style-type: none"> • 36% unconditional reduction in emissions intensity from 2005 levels by 2030 • Submitted in September 2016 	<ul style="list-style-type: none"> • Emissions peaks around 2030 to achieve 36% unconditional reduction in emissions intensity from 2005 levels • Submitted in March 2020
Thailand	16%	<ul style="list-style-type: none"> • 25% reduction in GHG emission from BAU by 2030 • Conditional: 5% • Unconditional 20% • Submitted in September 2016 	<ul style="list-style-type: none"> • 25% reduction in GHG emission from BAU by 2030 • Conditional: 5% • Unconditional 20% • Submitted in November 2020

Country	Share of regional GHG emissions ^a	First NDC	Updated NDC
Timor-Leste	0.24%	<ul style="list-style-type: none"> • No economy wide GHG targets. Outline commitments to renewable energy, sustainable agriculture, and reforestation among others. • Submitted in August 2017 	<ul style="list-style-type: none"> • No update as of 13 May 2021
Viet Nam	15%	<ul style="list-style-type: none"> • 25% reduction in GHG emissions below BAU by 2030 • Conditional: 17% • Unconditional: 8% • Submitted November 2016 	<ul style="list-style-type: none"> • 27% reduction in GHG emissions below BAU by 2030 • Conditional: 18% • Unconditional: 9% • Submitted in September 2020

Note: ^a Emissions share in 2018 excludes land use, land-use change, and forestry.
Source: WRI Climate Watch,¹⁷⁸ UNFCCC NDC Registry.¹⁷⁹

178 WRI Climate Watch. (2018). CAIT. <https://www.climatewatchdata.org/ghg-emissions>.

179 UNFCCC. (13 May 2021). NDC Registry. <https://www4.unfccc.int/sites/NDCStaging/Pages/All.aspx>.

“BUILDING BACK BETTER”: SOUTHEAST ASIA’S TRANSITION TO A GREEN ECONOMY AFTER COVID-19

Assessment and recommendations for parliamentarians

The COVID-19 pandemic and its subsequent economic recession have revealed the failure and fragility of our economic system, which has prioritized business interests over people and the environment, deepened inequalities, and failed to protect the most vulnerable.

To recover from the recession caused by the pandemic, countries are now adopting recovery measures to boost their economy. The type of economic model these measures will support is crucial in shaping our future, and this moment presents an ideal opportunity to break away from the past and shift towards a more just, sustainable and resilient economy.

Shifting towards a greener economy is an essential part of “*building back better*” by moving away from fossil fuel-dependent industries and instead towards clean and renewable sources of energy that help reduce Greenhouse gas (GHG) emissions and global warming.

It will not only help the region to more rapidly absorb the immediate impact of the recession, but also to avoid and be more resilient to future similar shocks and crises caused by climate change.

To help parliamentarians seize this opportunity APHR evaluated recovery measures taken in Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Timor-Leste between February 2020 and April 2021. This assessment was undertaken to identify best practices MPs can adopt in their respective countries, as well as structural obstacles they need to overcome to promote a transition to a green economy.