



# Benchmarking Asia's Climate Action



**GETTING ASIA TO NET ZERO**

A High-level Policy Commission Convened by the Asia Society Policy Institute

# GETTING ASIA TO NET ZERO: BENCHMARKING ASIA'S CLIMATE ACTION

A REPORT ON BEHALF OF THE HIGH-LEVEL POLICY  
COMMISSION ON GETTING ASIA TO NET ZERO

CONVENED BY THE ASIA SOCIETY POLICY INSTITUTE  
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## GETTING ASIA TO NET ZERO

The High-level Policy Commission on Getting Asia to Net Zero aims to urgently accelerate Asia's transition to net zero emissions while ensuring that the region thrives and prospers through this transition. Through research, analysis and engagement, the commission's diverse set of recognized Asian leaders seek to advance a powerful, coherent, and Paris-aligned regional vision for net zero emissions in Asia. The Asia Society Policy Institute serves as the commission's secretariat. For more information and a list of commissioners, visit: [AsiaSociety.org/NetZero](https://AsiaSociety.org/NetZero)

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# HIGH-LEVEL POLICY COMMISSION ON GETTING ASIA TO NET ZERO

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# FOREWORD

Extreme weather this year in Asia has laid bare how the region could suffer in a climate-changed world. Just this summer, record-breaking heat waves and unprecedented flooding have impacted broad swaths of Southeast Asia, South Asia, and East Asia – leading to crop failure, energy shortages, damaged infrastructure, and widespread deaths.

The Asian region is currently responsible for more than half of annual global emissions. Its share of global emissions also continues to grow, driven by a number of large emerging economies that have yet to peak their emissions.

Should these trends continue, Asia and key countries in the region will eventually eclipse the cumulative historical emissions of more developed regions. This will make it harder for Asia to continue evading responsibility for addressing its own emissions under the guise that others should act first. And it could also unleash a deluge of emissions that both Asia and the world simply cannot afford.

Asia's economy is also particularly vulnerable to the impacts of climate change. Even in a middle-of-the-road scenario in which the world warms 2°C by 2050, Asia could lose 14.9% of its GDP by that date, not to mention the impact on human livelihoods.

Yet there is a silver lining behind Asia's high emissions and climate vulnerability. Ambitious climate action – sooner rather than later – could bring massive benefits to Asia's economy and its people.

According to analysis commissioned by the High-level Policy Commission on Getting Asia to Net Zero, achieving net zero emissions by 2050 could boost the Asia-Pacific's GDP by as much as 6.3% above predicted levels and create up to 36.5 million additional jobs by the 2030s. Additional analysis has shown that these benefits could be even greater for significant emitters like India and Indonesia if they bring forward their net zero targets.

This potential opportunity is another reason why addressing Asia's ambition gap on climate action is so critical for the region's future. It is not solely about ensuring survival in the face of climate change, or addressing emissions from the world's largest current contributors – it is also about the growth potential that could be realized if climate action is prioritized and accelerated.

In light of Asia's outsized emissions footprint, it is urgent to plug the remaining gaps between Asia's climate action and the targets outlined in the Paris Agreement. This includes aligning net zero ambition with a midcentury timeline while also limiting emissions as fast as possible in the near term.

This supplementary analysis outlines where Asia stands in relation to the Acceleration Agenda launched by UN Secretary-General António Guterres earlier this year. Asia and the world need a drastic course correction – but with the political will to close the gaps identified, Asia's future could be steered in the necessary direction.

Luckily, the commissioned research has shown that the most impactful, cost-effective solutions are ones that are already available: rapidly phasing out fossil fuels and massively scaling up renewable energy, especially solar and wind power.

Beyond high-level climate leadership, financial, technical, and other resources will be needed to support emerging economies on faster action. Developed countries could move even faster to make space for developing countries that are starting at different points and to provide financial and other resources so that developing countries can attain the economic and social benefits of ambitious climate action. These are core elements for delivering climate justice and a just transition. They could also help avoid a stalemate in which neither side is willing to be a first mover.

This is a critical year for accelerating momentum on climate action ahead of the first Global Stocktake at COP28 in December 2023. The climate-change-fueled impacts that Asia is increasingly forced to confront remind us that collectively we are off track to achieve the Paris Agreement's goals. It is now up to countries and other influential actors to translate the science into a road map for future climate action.

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# ACRONYMS

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<b>AFOLU</b>	Agriculture, forestry and other land use
<b>ASEAN</b>	Association of Southeast Asian Nations
<b>BAU</b>	Business-as-usual
<b>BOGA</b>	Beyond Oil and Gas Alliance
<b>CH<sub>4</sub></b>	Methane
<b>CO<sub>2</sub></b>	Carbon dioxide
<b>COP27</b>	27 <sup>th</sup> United Nations Climate Change Conference
<b>COP28</b>	28 <sup>th</sup> United Nations Climate Change Conference (2023)
<b>GDP</b>	Gross domestic product
<b>G20</b>	Group of Twenty
<b>GHG</b>	Greenhouse gas
<b>GST</b>	Global Stocktake
<b>HFCs</b>	Hydrofluorocarbons
<b>IPCC</b>	Intergovernmental Panel on Climate Change
<b>IMF</b>	International Monetary Fund
<b>JETP</b>	Just Energy Transition Partnership
<b>LDC</b>	Least developed countries
<b>LTS</b>	Long-Term Strategy
<b>LULUCF</b>	Land use, land-use change and forestry
<b>N<sub>2</sub>O</b>	Nitrous oxide
<b>NAP</b>	National Adaptation Plan
<b>NF<sub>3</sub></b>	Nitrogen trifluoride
<b>NDC</b>	Nationally Determined Contribution
<b>OECD</b>	Organization for Economic Co-operation and Development
<b>PFCs</b>	Perfluorochemicals
<b>RE</b>	Renewable energy
<b>SF<sub>6</sub></b>	Sulfur hexafluoride
<b>SIDS</b>	Small island developing states
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change

## KEY FINDINGS

This report outlines how Asian economies stack up on climate action against the targets set forth in the Acceleration Agenda launched by UN Secretary-General António Guterres in March 2023. The goal of the agenda is to accelerate climate action to limit global warming to 1.5°C above preindustrial levels and prevent the worst impacts of climate change. It spells out actions across three core pillars: ambition, credibility, and implementation.

This analysis focuses primarily on actions that national-level governments can take to cut greenhouse gas (GHG) emissions, including to achieve net zero GHG emissions and mitigate emissions in the near term. The geographic scope covers members of the UN's Asia-Pacific Group<sup>1</sup> as well as Australia and New Zealand. Notable findings include the following:

### NET ZERO

- 16 Asian economies – but no developed economies in the region – have net zero targets in law or policy documents that align with those of the Acceleration Agenda. Emerging economies with significant emissions that have aligned their targets include Malaysia, the United Arab Emirates (the host of this year's COP28 climate talks), and Vietnam.
- 44 economies in Asia have at least proposed some sort of net zero target. However, only seven of these economies (Australia, Fiji, Japan, Maldives, New Zealand, South Korea, and Taiwan) have signed their targets into law, while another 19 economies have enshrined their targets in policy documents.
- 13 economies in Asia have taken no action toward adopting a net zero target. This category includes some significant emitters, including Iran, Pakistan, and the Philippines.
- The targets adopted by Asian emitters span from 2030 to 2070. While most targets aim to reach net zero by 2050 or earlier, eight economies have targets that do not yet accord with a midcentury timeline, including six that are aiming for 2060 (China, Bahrain, Indonesia, Kazakhstan, Kuwait, and Saudi Arabia), one for 2065 (Thailand), and one for 2070 (India).
- The 18 economies that have submitted a Long-Term Strategy (LTS) account for the vast majority of Asia's annual emissions (77.6%), GDP (85.3%), and population (75.2%).

### NATIONALLY DETERMINED CONTRIBUTIONS AND EMISSIONS REDUCTION TARGETS

- 11 Asian economies that are either G20 members or whose annual emissions<sup>2</sup> rank among the top 20 emitters globally were analyzed as “significant emitters.” Their emissions account for 85.6% of Asia's emissions, which equate to just under half (46.5%) of global emissions. They also make up 87.8% of Asia's GDP and 83.1% of the region's total population.

<sup>1</sup> A total of 57 economies were analyzed, including all members of the UN's Asia-Pacific Group with the exception of Turkey. Australia, New Zealand, and Taiwan are also included in the analysis.

<sup>2</sup> Based on figures from 2020.

- All three developed economies within this “significant emitters” group – Australia, Japan, and South Korea – meet the Acceleration Agenda’s criteria for Nationally Determined Contributions (NDCs) to be economy-wide, have absolute targets, and cover all GHGs.
- Developing economies in the “significant emitters” group generally do not meet any of the Acceleration Agenda’s three criteria for NDCs. This means there are critical gaps in emissions control among a group of economies with an outsized impact on global emissions.
- Addressing a range of challenges faced by developing economies – such as a lack of capacity to monitor non-CO<sub>2</sub> gases – may help these economies upgrade their targets and plug critical gaps in global emissions control.

## CLEAN ENERGY

- 33 economies in Asia have included renewable energy generation targets in the most recent updates to their NDCs. Another 20 economies have pursued some sort of renewable energy target but do not yet include it in their NDCs.
- Only 10 economies have put forth net zero targets for electricity generation. This group is led by Samoa, which identified a goal to achieve 100% renewable electricity by 2025 in its updated NDC, as well as Fiji, Tuvalu, and Vanuatu, all of which included similar targets for 2030 in their NDC updates.
- New Zealand is the only developed country in Asia to put forth a net zero electricity generation target that aligns with the Acceleration Agenda, with a target aiming for 2035.

## FOSSIL FUELS

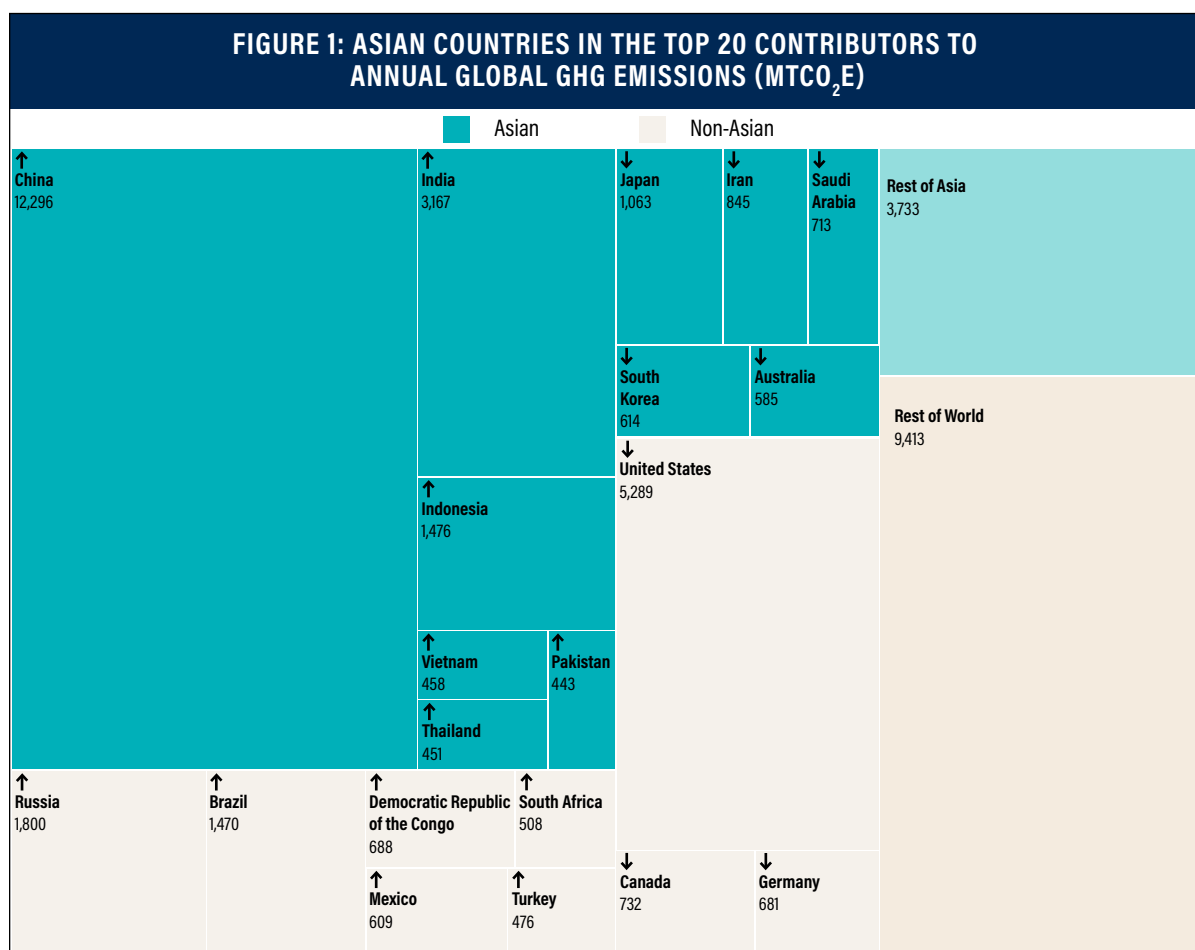
- Only one country – New Zealand – has aligned its commitment to phase out coal power by 2030 with the dates set forth in the Acceleration Agenda. However, a number of subnational jurisdictions have done so, including local regions in Australia, Japan, the Philippines, South Korea, and Taiwan.
- Over ten economies have taken some action to halt new coal projects and/or phase out coal, including Indonesia, Malaysia, the Philippines, South Korea, Sri Lanka, and Vietnam. However, many of these commitments still lack clarity or are incomplete, such as by allowing planned coal plants already in the pipeline to go ahead with construction.
- Six economies have supported a call for governments to negotiate a Fossil Fuel Non-Proliferation Treaty, led by Vanuatu and Tuvalu. These two economies have also joined the Beyond Oil and Gas Alliance as core members, with New Zealand and Fiji both joining in a partial capacity.
- Iran leads the region in fossil fuel subsidies, shelling out over more than twice as much as the third-ranking country, China. Saudi Arabia ranks second, and the United Arab Emirates and Indonesia round out the top five.



# THE CASE FOR GREATER CLIMATE ACTION FROM ASIA

Asia's growth story over the past several decades has been remarkable. Between 1981 and 2014, the region reduced the number of people living below the global poverty level by more than half,<sup>3</sup> and further improvements have been achieved since then. Much of this growth has been fueled by the migration of global manufacturing to the region, earning Asia a reputation as “the world’s workshop.” Asia now accounts for around 40% of global GDP and approximately 60% of the world’s population.

One of the consequences of this growth, however, has been Asia's evolution into a major contributor to global greenhouse gas (GHG) emissions. Much of this pollution has been driven by a handful of major economies – including China, India, Japan, and South Korea – that have relied heavily on coal and other fossil fuels to power their manufacturing and urbanization. More recently, as supply chains have shifted, other large economies have become more significant contributors to the region's pollution footprint, such as Indonesia, Thailand, and Vietnam. As a result, Asia's comparative share of global emissions continues to grow.



Source: Climate Watch (2022).

<sup>3</sup> Asian Development Bank, “Redefining Poverty in Asia and the Pacific: ADB’s Take,” September 17, 2014, <https://www.adb.org/features/redefining-poverty-asia-and-pacific-adbs-take>.

According to the latest science from the Intergovernmental Panel on Climate Change (IPCC), global GHG emissions must peak by 2025 at the latest and be reduced by 43% by 2030 in order to limit global temperature rise to 1.5°C, the goal set out in the Paris Agreement. To stabilize global temperatures and meet the 1.5°C target, CO<sub>2</sub> emissions must reach net zero by the early 2050s. Even limiting warming to around 2°C would still require emissions to peak before 2025 and be reduced by about 25% by 2030.

Asian countries now account for more than half the world's annual global emissions. Among the top 20 emitters globally, 11 countries are in Asia or are generally considered part of the Asia-Pacific region.<sup>4</sup> Moreover, many of these significant emitters have yet to peak their emissions and bring them into structural decline – thus posing a major challenge to efforts to peak global emissions before 2025, as is needed to maintain progress toward the Paris Agreement's temperature goals.

At the same time, Asia is particularly exposed to the impacts of climate change: even in a middle-of-the-road scenario in which the world warms 2°C by 2050, the Asian economy stands to lose 14.9% of its GDP by that date. ASEAN countries are even more exposed and could lose as much as 17% of their GDP.<sup>5</sup>

It is thus critical to shine a spotlight on Asia in the global race to net zero. To secure a prosperous future for Asia's economy and its people, Asia must reduce its emissions at speed and scale. This means that political leaders in Asia must drive ambitious, high-level commitments to climate action.

A major challenge complicating the race to decarbonize Asia is the right of emerging economies to develop in a way that maximizes benefits for their economies, trade, interconnectedness, and peoples' livelihoods. In this regard, there is good news: modeling commissioned by the High-level Policy Commission on Getting Asia to Net Zero shows that taking more ambitious climate action sooner could actually enhance Asia's economic and social development – providing countries with even greater benefits than they would achieve if they continued business-as-usual (BAU) development.

According to this analysis, achieving net zero emissions by 2050 could boost GDP in the Asia-Pacific region by as much as 6.3% above predicted levels under a baseline scenario, while creating up to 36.5 million additional jobs by the 2030s.<sup>6</sup> The opportunity could be even bigger for the region's major emerging economies – such as India, where the analysis finds that moving up the country's net zero target to 2050 could boost GDP as much as 7.3% above expected levels. The net zero transition could also create energy cost savings for households in the Asia-Pacific region on the order of \$270 billion.

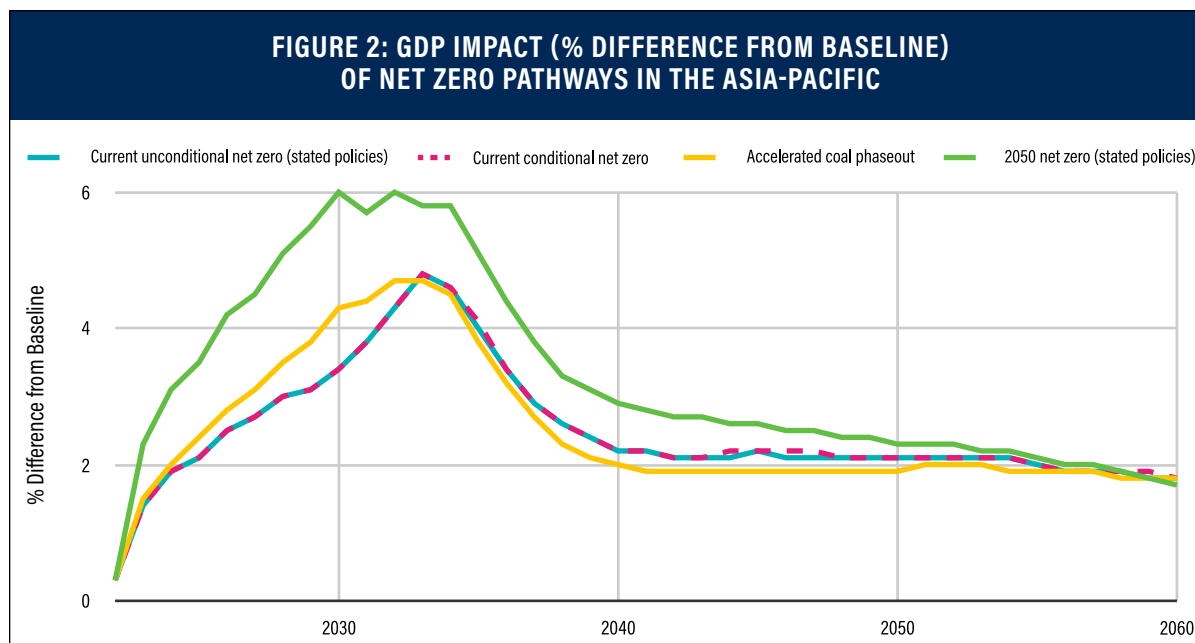
Reduced dependence on fossil fuels is a major driver of beneficial outcomes. A net zero 2050 pathway could improve the Asia-Pacific region's trade balance by as much as \$827 billion, largely as a result of declining fossil fuel imports. This improved trade balance could be responsible for nearly a third of the benefits to GDP. It could also strengthen energy independence by ensuring that economies could meet their energy needs with local resources. These implications are significant in a world where fossil fuel prices are increasingly volatile and unpredictable geopolitics pose an ongoing risk to nations' dependence on imported fuels.

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4 Emissions based on 2020 data. Australia is generally considered part of the Asia-Pacific region.

5 Swiss Re Group, "The Economics of Climate Change: Impacts for Asia," May 21, 2021, <https://www.swissre.com/risk-knowledge/mitigating-climate-risk/economics-of-climate-change-impacts-for-asia.html>.

6 Asia Society Policy Institute, "Getting Asia to Net Zero," April 19, 2023, <https://asiasociety.org/policy-institute/getting-asia-net-zero/pan-regional-report>.



The modeling makes clear that reducing emissions faster is in the interest of Asian countries. This is one reason why a number of Asian countries have been stepping up in recent years by adopting net zero targets in quick succession, increasing the ambition of their emissions reduction targets in their Nationally Determined Contributions (NDCs), committing to ambitious clean energy targets, and taking action to end the use of coal-fired power. This report captures the leadership actions taken by countries that are pushing to align their targets with those set out in the Paris Agreement.

Yet the world is still sorely off track. In the words of UN Secretary-General António Guterres, “humanity is on thin ice – and that ice is melting fast.” If the world does not take action to reduce emissions sooner, the horrific impacts of climate-induced disasters will pose even greater challenges to development and prosperity. Such a scenario would ultimately impose much greater costs on the world than implementing climate action today – not to mention the opportunity cost of the missed economic, trade, health and other benefits that accompany near-term investment in climate action.

To provide a road map for countries to get on track with climate action to maintain and protect a livable planet, in March 2023, Secretary-General Guterres launched what he termed the “Acceleration Agenda.” This agenda sets out the actions that government, business, and finance leaders must take to avoid crossing dangerous climate thresholds and to deliver justice for those on the front lines of the climate crisis. To promote alignment with this platform, Secretary-General Guterres is convening a Climate Ambition Summit at the United Nations Headquarters in New York in September 2023. The summit is an opportunity to demonstrate the collective global will to accelerate the pace and scale of a just transition to a more equitable, renewable-energy-based, climate-resilient global economy.

This report benchmarks the state of climate action in Asia, especially in relation to the Acceleration Agenda. It focuses on actions that could be taken by national-level governments to mitigate emissions.

The geographic scope covers members of the UN's Asia-Pacific Group<sup>7</sup> as well as Australia and New Zealand, which are often considered part of the Asia-Pacific region and maintain deep relationships with many of the other countries analyzed here.

The analysis aims to identify leadership action where it exists, evaluate the nature of the gap between what is happening and what is needed, and spur critical momentum toward closing this gap. In other words, it intends to serve as an objective tool to understand where climate action stands and where it needs to go – especially in relation to actions that may require political will to take hold. The analysis concludes by placing this benchmarking in the context of political opportunities for Asian countries and the world in 2023.

It is important to note that the scope of the Acceleration Agenda is much broader than what is covered in this analysis. It also spells out key actions for businesses and financial institutions, as well as steps that must be taken to deliver climate justice for the most vulnerable. The Acceleration Agenda also makes recommendations for sector-specific actions, especially for high-emitting sectors, as well as for assembling the finance that will be needed to get Asia and the world to net zero. These are all crucial elements of the agenda that must not be forgotten, as they will play an important role in facilitating government action, building the support and capacity necessary for implementation, and potentially inciting an ambition loop that can motivate governments to act even faster.

The first Global Stocktake (GST) at COP28 in December 2023 will assess the global state of progress and remaining gaps that must be filled to achieve the Paris Agreement's goals. While this process is expected to expose major deficiencies, it also provides an opportunity to highlight legitimate leadership and set expectations ahead of the next round of NDCs due in 2025.

Asian countries have a chance to shift the goalposts by collectively aligning their ambition with a 1.5°C trajectory. As previous modeling has shown, this is not only possible – it could also be the more beneficial path for the region.

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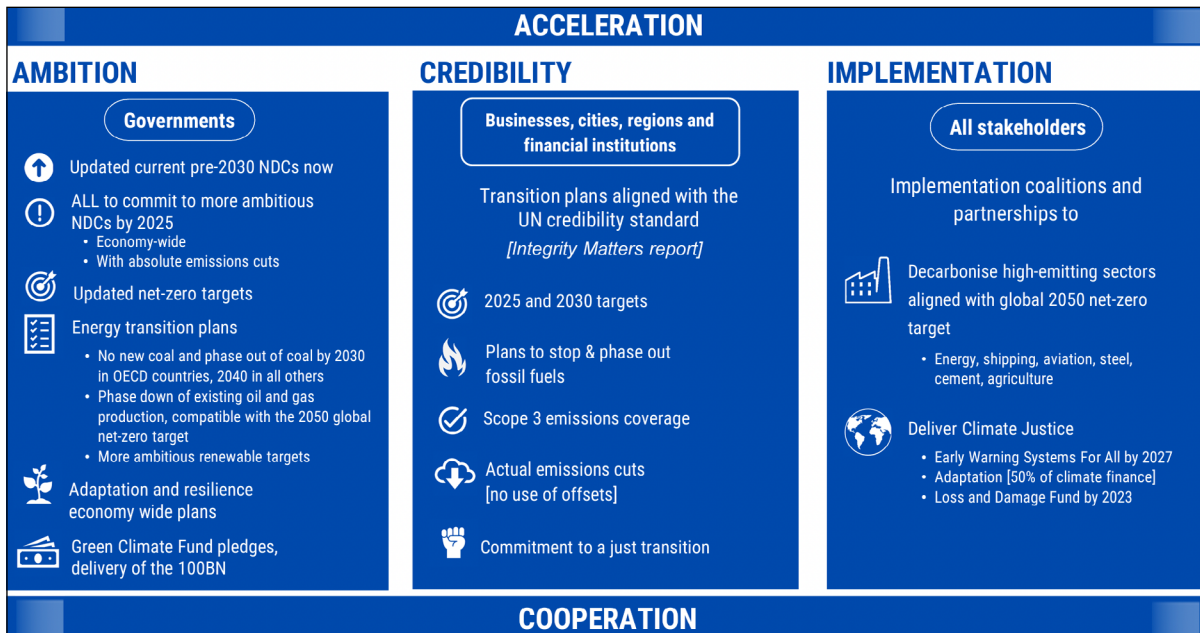
<sup>7</sup> A total of 57 economies were analyzed, including all members of the UN's Asia-Pacific Group with the exception of Turkey. Australia, New Zealand, and Taiwan are also included in the analysis.

# BENCHMARKING ASIA'S CLIMATE ACTION

This report outlines how Asian economies stack up on climate action against the targets set forth in the UN Secretary-General's Acceleration Agenda. It focuses on actions that national-level governments could take to achieve net zero and mitigate emissions in the near term. The geographic scope covers members of the UN's Asia-Pacific Group as well as Australia and New Zealand, as these two countries are often considered part of the Asia-Pacific region.<sup>8</sup>

The Acceleration Agenda was launched in March 2023 in a speech by Secretary-General Guterres. It aims to accelerate action to limit global warming to 1.5°C above preindustrial levels and prevent the worst impacts of climate change. The agenda spells out on actions across three pillars: ambition, which is aimed primarily at government leaders and especially major emitters; credibility, which calls for businesses, cities, regions, and financial institutions to align their net zero actions with UN-backed credibility standards; and implementation, which covers partnerships that will help address implementation challenges across areas such as accelerating the decarbonization of high-emitting sectors (energy, shipping, aviation, steel, cement, agriculture) and delivering climate justice (international financial system reform, early warning systems, adaptation, loss and damage). Figure 3 outlines the key elements of the Acceleration Agenda.

FIGURE 3 KEY ELEMENTS OF THE ACCELERATION AGENDA



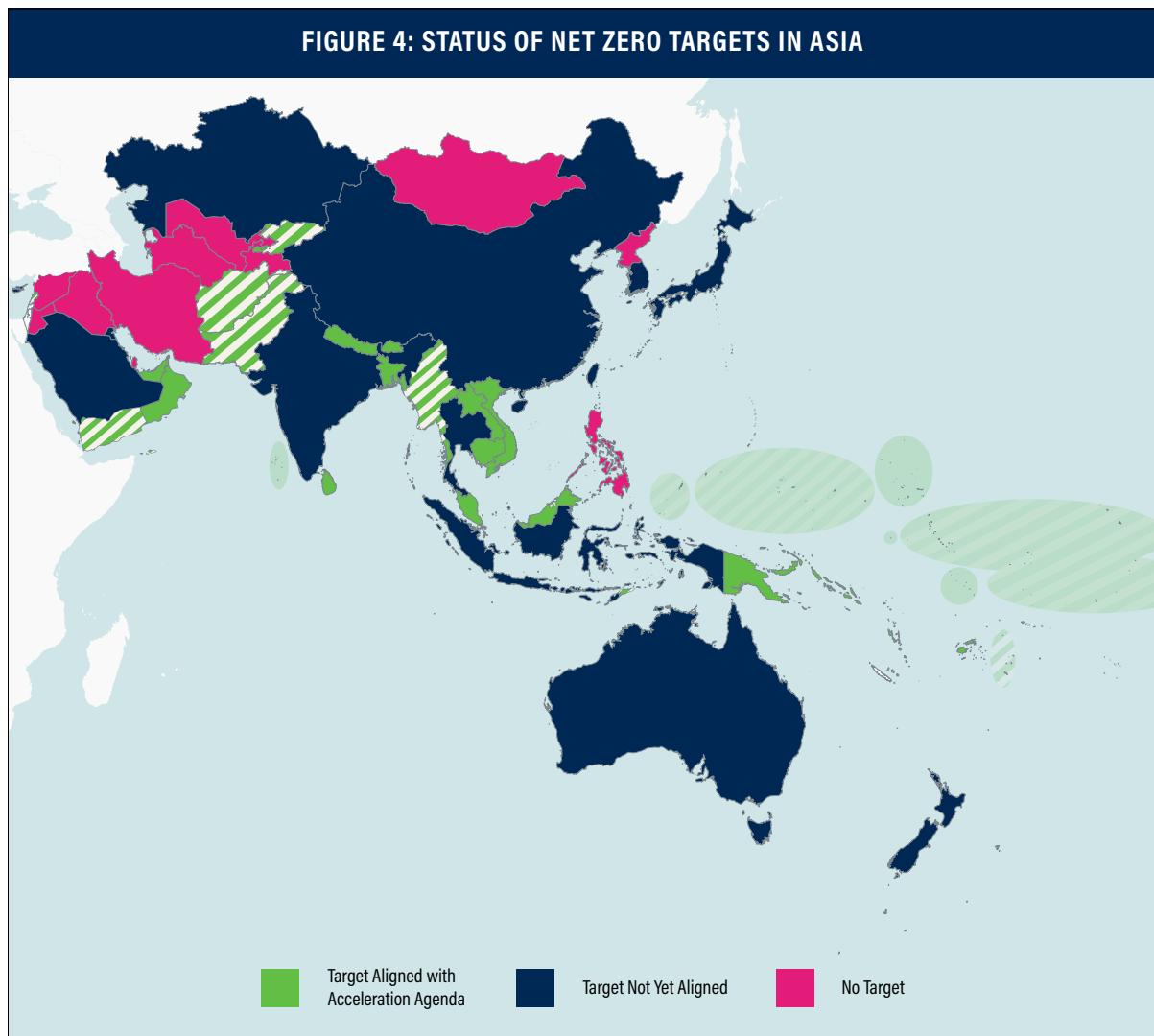
Source: United Nations (2023).

<sup>8</sup> A total of 57 economies were analyzed, including all members of the UN's Asia-Pacific Group with the exception of Turkey. Australia, New Zealand, and Taiwan are also included in the analysis.

## NET ZERO

The Acceleration Agenda aims to bring forward net zero targets as close as possible to 2040 for developed countries and 2050 for emerging economies. This bifurcated structure takes into account differences in starting points for emissions reductions that may pose challenges for emerging economies while aligning global climate action with the need to achieve net zero emissions by the early 2050s to meet the 1.5°C goal outlined in the IPCC’s findings.

Among the 57 economies considered in this analysis, 44 have at least proposed some sort of net zero target. However, only seven of these – Australia, Fiji, Japan, Maldives, New Zealand, South Korea, and Taiwan – have signed their net zero targets into law, while another 19 have enshrined their targets in policy documents. This means that 18 other economies have only announced targets or proposed them, providing little detail about their plans for implementation. Furthermore, 13 economies have taken no action toward adopting a net zero target. This final category includes some significant emitters, including Iran, Pakistan, and the Philippines.



Note: Stripes indicate where an economy's net zero target is only proposed and/or under discussion, and is not yet written into law or policy.  
 Source(s): UNFCCC (2023), Climate Watch (2022), Net Zero Tracker (2023).

The targets adopted by Asian emitters span from 2030 to 2070.<sup>9</sup> While most targets aim to reach net zero by 2050 or sooner, eight countries have targets that do not yet accord with a midcentury timeline, including six that are aiming for 2060 (China, Bahrain, Indonesia, Kazakhstan, Kuwait, and Saudi Arabia). Thailand's 2065 target and India's 2070 target are the latest among the group, although both targets have been written into policy documents, arguably making them more substantive than targets that have merely been declared or proposed for discussion.

**FIGURE 5 NET ZERO TARGETS ALIGNED WITH ACCELERATION AGENDA**

SOUTH ASIA		SOUTHEAST ASIA		WESTERN ASIA		OCEANIA	
<b>Bhutan</b>	2050 (already self-declared carbon-neutral)	<b>Cambodia</b>	2050	<b>Oman</b>	2050	<b>Fiji</b>	2050
<b>Maldives</b>	2030 (conditional on international support)	<b>Malaysia</b>	2050	<b>United Arab Emirates</b>	2050	<b>Marshall Islands</b>	2050
<b>Nepal</b>	2045	<b>Laos</b>	2050			<b>Papua New Guinea</b>	2050
<b>Sri Lanka</b>	2050	<b>Singapore</b>	2050			<b>Tuvalu</b>	2050
		<b>Vietnam</b>	2050			<b>Vanuatu</b>	2050

Source(s): UNFCCC (2023), Climate Watch (2022), Net Zero Tracker (2023)

Note: Targets are assessed as aligned with the Acceleration Agenda only if they are in law, in policy document, or part of a political declaration or pledge. Targets deemed as "proposed/under discussion" are therefore not included.

Although most Asian countries with targets aim to achieve net zero by 2050 or earlier, only 16 have targets in law or policy documents that align with the Acceleration Agenda's deadline of 2050 for emerging countries and 2040 for developed countries. Figure 5 lists these countries.

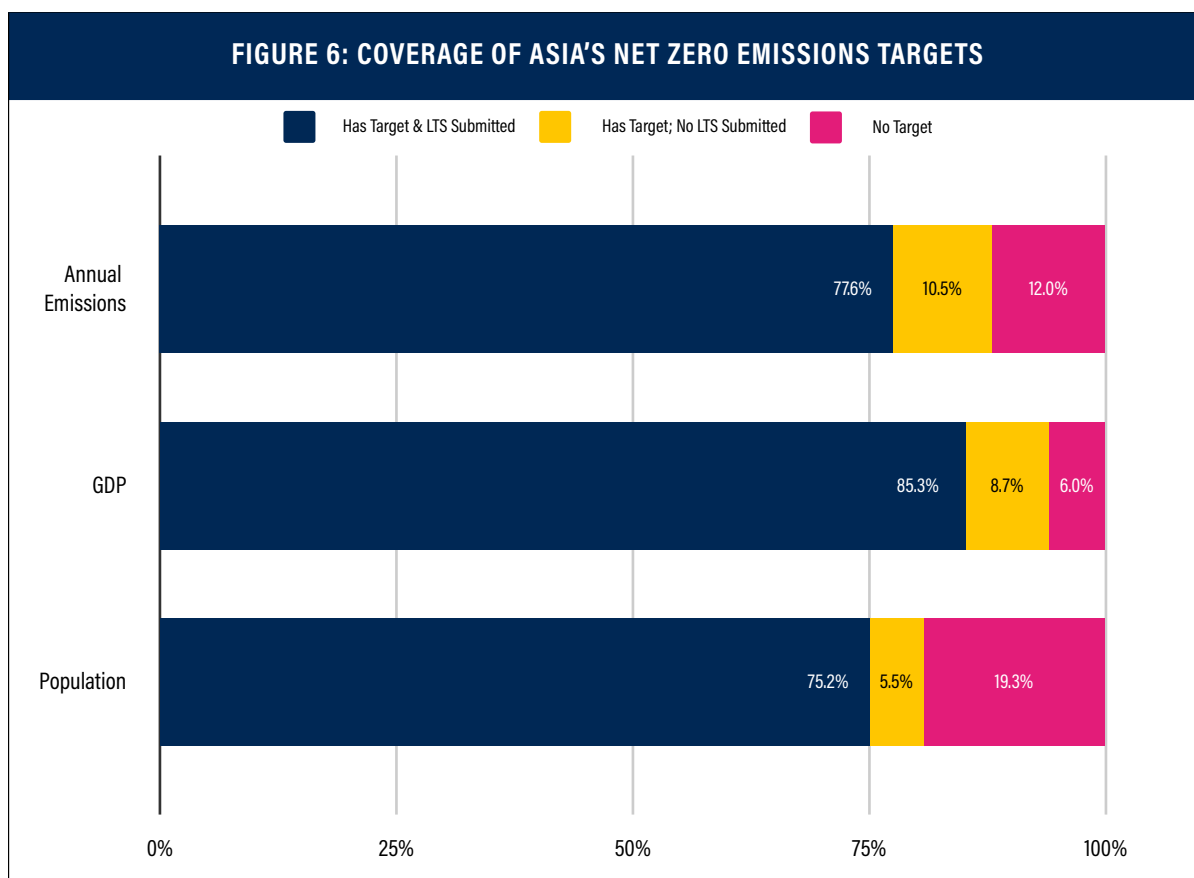
Small island developing states (SIDS) have led the charge in aligning their mitigation actions with the highest level of ambition. This has given them greater credibility in pushing for action from significant emitters whose emissions trajectories may determine their futures, especially through initiatives such as the High Ambition Coalition and the Carbon Neutrality Coalition. The earliest targets for developed countries in Asia are for net zero by 2050, meaning that no developed country in the region has yet aligned with the agenda. Emerging economies with significant emissions that have aligned their targets include Malaysia and Vietnam. The host of this year's COP28 climate talks, the United Arab Emirates, has also aligned its target.

Another proxy for the seriousness of targets is whether countries have taken steps to communicate

<sup>9</sup> Bhutan has declared that it has already achieved carbon neutrality, though it has still written a net zero by 2050 target into its NDC.



a Long-Term Strategy (LTS) to the United Nations Framework Convention on Climate Change (UNFCCC). A total of 18 countries analyzed have done so, meaning that some countries with targets enshrined in law or policy documents have not yet taken this action. However, the 18 countries that have submitted LTS documents make up the vast majority of Asia's annual emissions (77.6%), GDP (85.3%), and population (75.2%). Interestingly, the total emissions from the 13 countries that have no net zero target (12.0%) eclipse those emissions from countries with targets that have yet to submit their LTS documents (10.5%).



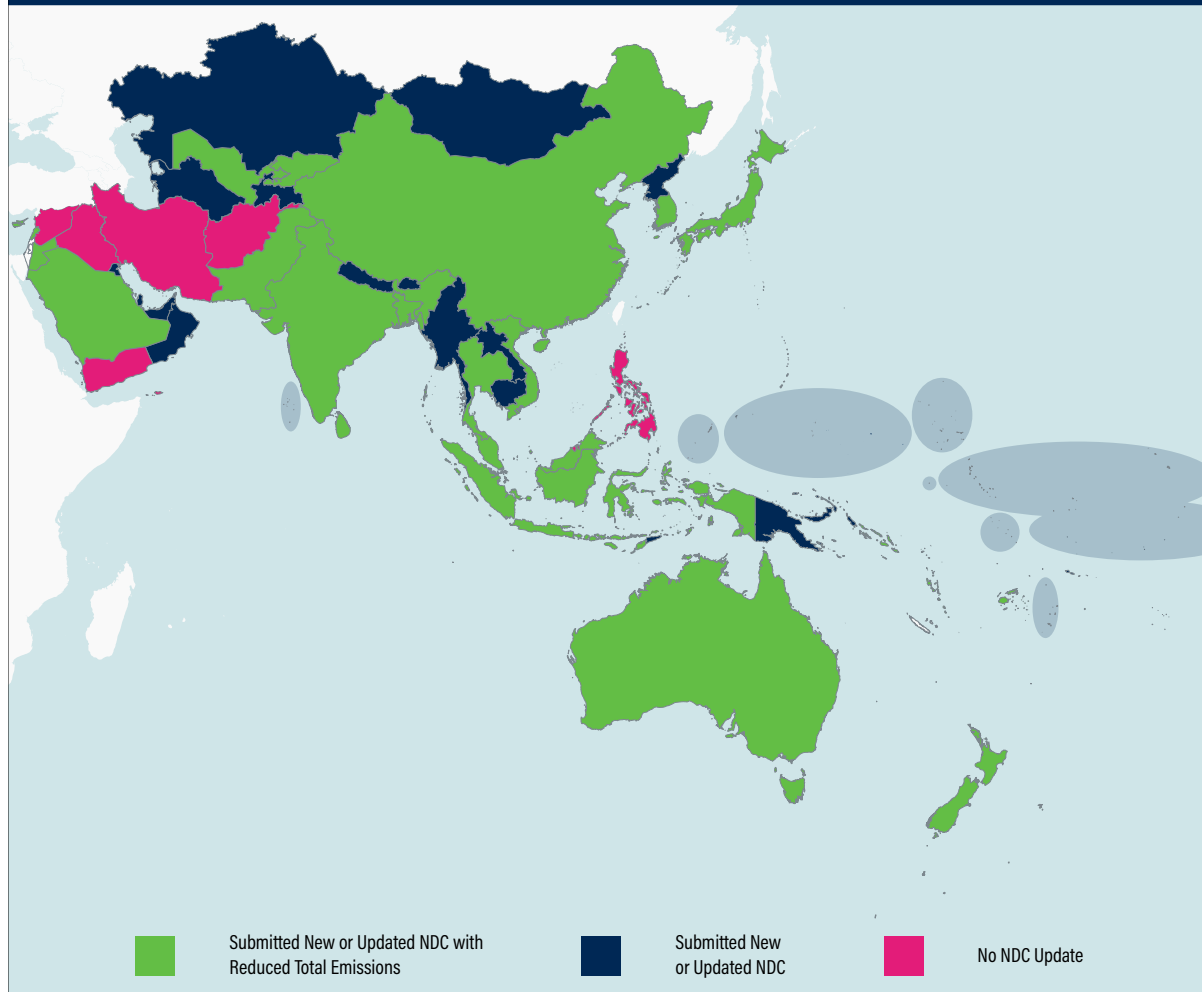
Source: ASPI analysis.

## NATIONALLY DETERMINED CONTRIBUTIONS AND EMISSIONS REDUCTION TARGETS

Net zero targets will have little utility if near-term emissions blow through the global emissions budget. This underscores the importance of including interim emissions reduction targets in countries' NDCs, which are to be submitted to the UNFCCC on a five-year cycle laid out in the Paris Agreement. The flexible nature of NDCs under the Paris Agreement means there is considerable variation in the structure, coverage, and ambition of countries' targets. It is expected, although not required, that countries will increase the ambition of their targets with each updated submission. Indeed, among those Asian countries that have updated their targets, over half increased their ambition. A handful of countries have not updated their targets at all since their initial NDC was adopted.



FIGURE 7: STATUS OF NDC ENHANCEMENTS IN ASIA



Source(s): UNFCCC (2023), Climate Watch (2022).

The Acceleration Agenda stipulates baseline criteria for the next round of NDCs to be submitted in 2025, especially for G20 governments and other major emitters. These criteria include three core components: (1) targets should be economy-wide in coverage, rather than covering only certain sectors; (2) they should present absolute emissions cuts, as opposed to intensity targets or targets compared to a baseline scenario; and (3) targets should cover all GHGs, rather a portion of gases, such as only CO<sub>2</sub>. While all three of these aspects are structural, it is implied that targets should also align with the level of global action needed to limit temperature rise to 1.5°C based on the Paris Agreement's goal.

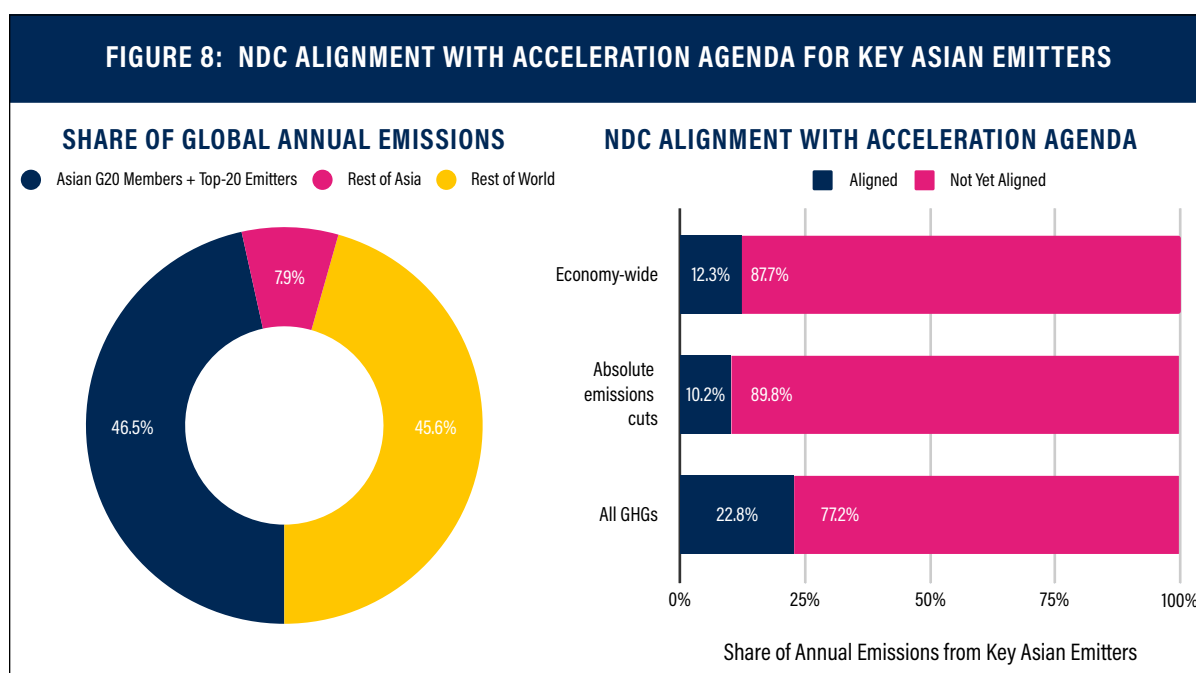
As a proxy for major emitters, this analysis looked at Asian countries that are either G20 members or whose annual emissions in 2020 ranked among the top 20 countries globally. This group includes 11 countries: Australia, China, India, Indonesia, Japan, Saudi Arabia, and South Korea (all of which are G20 members), as well as Iran, Vietnam, Thailand, and Pakistan. Together, these 11 countries account for 85.6% of Asia's emissions, and just under half (46.5%) of global emissions. They also make up 87.8% of Asia's GDP and 83.1% of the total population.

Notably, these countries' emissions outpace their GDP on a global level: Their total GDP accounts for only around a third of the world's, as compared to their nearly half of emissions and population. While this gap reflects the comparative developing status of a number of the countries, it also indicates that reducing the emissions intensity of GDP may be easier in the near term as these countries continue to develop, but may become more difficult over time.

Comparing these countries' emissions reduction targets in their most updated NDCs to the criteria outlined in the Acceleration Agenda, it is evident that developed countries, understandably, have a head start. All three developed countries within the group – Australia, Japan, and South Korea – already meet the criteria. Conversely, most of the emerging economies still have significant gaps in these structural elements of their targets. There are a few exceptions: Vietnam specifies the economy-wide coverage of its NDC, and Thailand includes the range of GHGs. Yet even when the fair share of ambition is taken into account, the level of ambition of many emerging economies is still critically insufficient.

Addressing a range of challenges may help these countries upgrade their targets and plug critical gaps in global emissions control. For instance, some countries have raised concerns about capacity to monitor non-CO<sub>2</sub> GHGs as a barrier to including these gases in their targets. Strengthening efforts around capacity building and technology-sharing partnerships could help overcome such challenges.

Beyond this, pursuing absolute emissions reductions will require countries to have already peaked their emissions. The IPCC has indicated that global emissions must peak by 2025 to align with the Paris Agreement, and the next round of NDCs are expected to cover the period from 2025 through at least 2035. Therefore, the focus on absolute emissions reductions from major emitters suits the expected decline in global emissions from 2025 onward. More modeling would be helpful to guide these countries toward the ideal ambition of 2035 emissions reductions to maintain progress toward the Paris Agreement's goals.



Source: ASPI analysis.

FIGURE 9 STATUS OF NDC ENHANCEMENTS FOR KEY ASIAN EMITTERS

COUNTRY	SHARE OF ANNUAL GLOBAL GREENHOUSE GAS EMISSIONS (2020)	NDC SUBMISSION STATUS	CURRENT NDC TARGET	AMBITION LEVEL (PER CLIMATE ACTION TRACKER)	ECONOMY-WIDE DECARBONIZATION PLANS	ABSOLUTE EMISSION CUTS	ALL GHGs COVERED
<b>China</b>	25.88%	Updated First NDC (2021)	Peak CO <sub>2</sub> before 2030 and reduce CO <sub>2</sub> emissions per unit of GDP by over 65% from 2005 levels	Increased Ambition, but highly insufficient for a 1.5°C world	Not specified	Intensity target; trajectory target	CO <sub>2</sub>
<b>Indonesia</b>	3.11%	Updated First NDC (2022)	Reduce emissions by 31.89% below BAU by 2030 (unconditional); reduce emissions by 43.20% below BAU (conditional)	Increased Ambition, but critically insufficient for a 1.5°C world	Not specified	Baseline scenario target	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O
<b>India</b>	6.67%	Updated First NDC (2022)	Reduce carbon intensity of GDP by more than 45% by 2030 and reduce emissions by 1 billion tonnes	Increased Ambition, but highly insufficient for a 1.5°C world	Not specified	Intensity target	Not specified
<b>Japan</b>	2.44%	Updated First NDC (2021)	Reduce GHG emissions by 46% compared to 2013 levels	Increased Ambition, and insufficient for a 1.5°C world	Economy-wide	Base year target	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub>
<b>Saudi Arabia</b>	1.50%	Updated First NDC (2021)	Reduce and avoid GHG emissions by 278 million tons of CO <sub>2</sub> eq annually by 2030 compared to 2019 base year	Increased Ambition, N/A	No GHG target	Not applicable	No GHG target
<b>South Korea</b>	1.29%	Updated First NDC (2021)	Reduce GHG emissions by 40% compared to 2018 levels	Increased Ambition, but highly insufficient for a 1.5°C world	Economy-wide	Base year target	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub>

COUNTRY	SHARE OF ANNUAL GLOBAL GREENHOUSE GAS EMISSIONS (2020)	NDC SUBMISSION STATUS	CURRENT NDC TARGET	AMBITION LEVEL (PER CLIMATE ACTION TRACKER)	ECONOMY-WIDE DECARBONIZATION PLANS	ABSOLUTE EMISSION CUTS	ALL GHGs COVERED
<b>Australia</b>	1.23%	Updated First NDC (2022)	Reduce GHG emissions by 43% below 2005 levels by 2030	Increased Ambition, but insufficient for a 1.5°C world	Economy-wide	Base year target	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub>
<b>Iran</b>	1.78%	Intended Nationally Determined Contribution (2015); Iran has signed but not yet ratified the Paris Agreement.	Reduce GHG emissions by 4% compared to BAU by 2030 (unconditional); reduce GHG emissions by up to 12% compared to BAU by 2030 (conditional)	Critically insufficient for a for a 1.5°C world	Not specified	Baseline scenario target	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub>
<b>Vietnam</b>	0.96%	Updated First NDC (2022)	Reduce GHG emissions by 15.8% by 2030 below business as usual levels (BAU) (unconditional); reduce GHG emissions by 43.5% below BAU (conditional)	Increased Ambition, but critically insufficient for a 1.5°C world	Economy-wide	Baseline scenario target	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs
<b>Thailand</b>	0.95%	Updated First NDC (2022)	Reduce GHG emissions by 30% from the projected BAU level by 2030 (unconditional); reduce GHG emissions by up to 40% by 2030 (conditional)	Increased Ambition, but critically insufficient for a 1.5°C world	Not specified	Baseline scenario target	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub>
<b>Pakistan</b>	0.93%	Updated First NDC (2021)	Reduce emissions by 15% below BAU by 2030 (conditional); reduce emissions by an additional 35% (by 50% total) below BAU (unconditional)	Increased Ambition, N/A	Not specified	Baseline scenario target	CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O

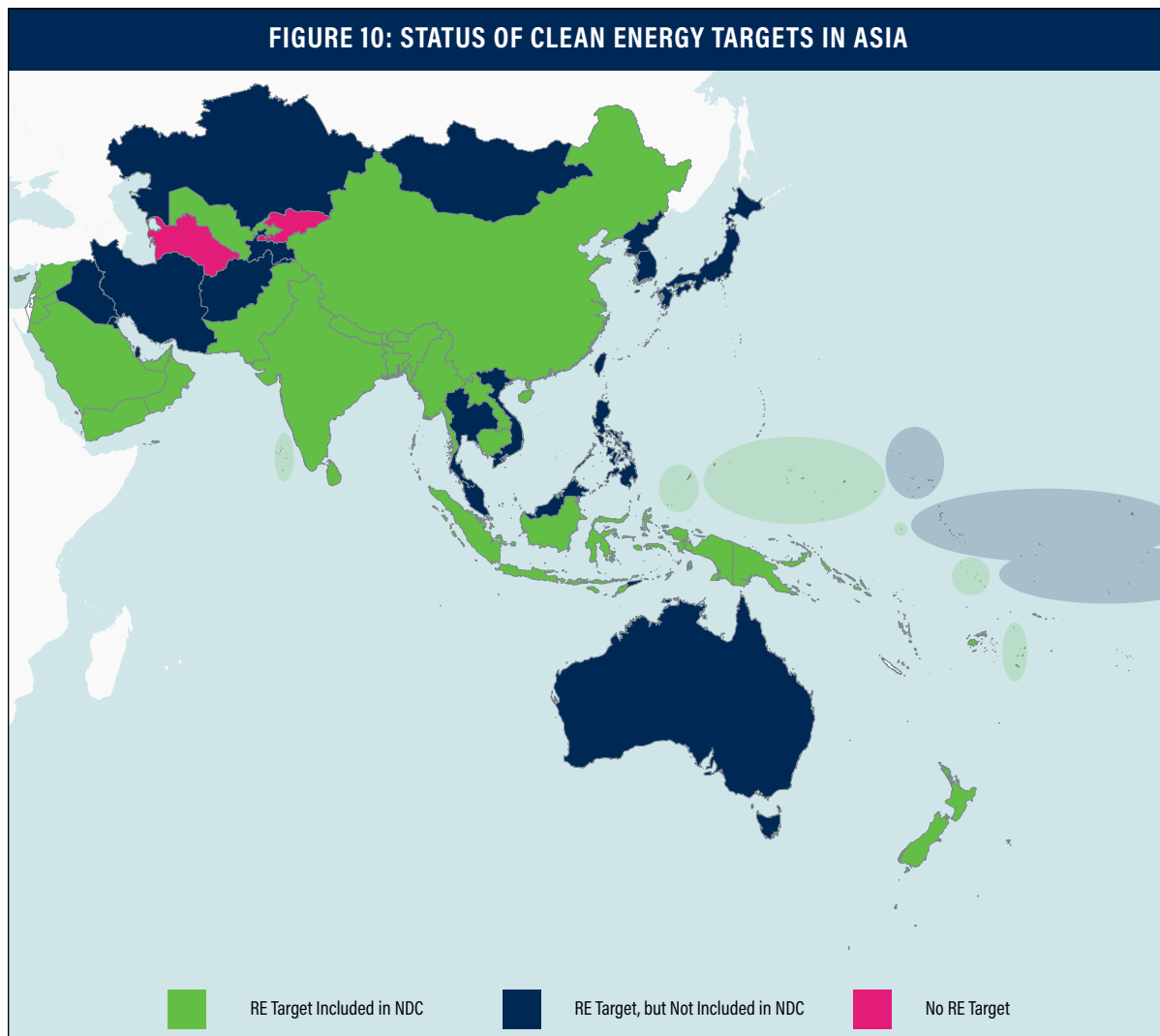
Source(s): UNFCCC (2023), Climate Action Tracker (2023), Climate Watch (2022).

## ENERGY TRANSITION

The Acceleration Agenda also puts forth criteria to accelerate the clean transition of the energy sector. It proposes a number of specific actions, including decarbonizing electricity generation, phasing out coal power, ending licensing and funding of new fossil fuel production, stopping the expansion of existing oil and gas reserves, and shifting fossil fuel subsidies to renewable energy. Based on these actions, this analysis assesses the state of countries' energy transition plans from two perspectives: (1) ramping up clean energy and (2) ending fossil fuels. The Acceleration Agenda also calls for speeding up the decarbonization of high-emitting sectors (shipping, aviation, steel, cement, agriculture, and aluminum), although relevant progress is not assessed here.

### CLEAN ENERGY

On the electricity generation side, the Acceleration Agenda specifies that developed countries should achieve net zero electricity generation by 2035 and the rest of the world by 2040. Countries should present plans with tangible actions to achieve these targets, which imply that renewable and other non-fossil energy sources will be ramped up to replace existing fossil fuel generation capacity.



Source(s): UNFCCC (2023), Climate Watch (2022), official government websites.

FIGURE 11 ECONOMIES IN ASIA WITH NET ZERO ELECTRICITY GENERATION TARGETS

	TARGET	CONTEXT OF TARGET
<b>Fiji</b>	RE to contribute close to 100% of power generation by 2030	Updated first NDC (2020) committed to achieving close to 100% electricity from renewable sources.
<b>Indonesia</b>	Net zero power sector by 2050	Goal was pursuant to the JETP, which was signed in 2021.
<b>Kiribati</b>	To become a 100% solar energy powered country by 2036	Goal was identified in the Development Plan (2020-2023).
<b>Marshall Islands</b>	RE to contribute 100% of electricity generation by 2050	In 2018, Marshall Islands LTS submitted to the UNFCCC titled "Til Eo 2050 Climate Strategy 'Lighting the Way'" that identified net zero emissions and 100% RE as targets for 2050.
<b>New Zealand</b>	RE to contribute to 100% electricity generation by 2035	In its latest updated NDC (2021), New Zealand set an aspirational goal to achieve 100% renewable electricity by 2035.
<b>Palau</b>	100% renewable electricity by 2032	In January 2023, the President of Palau gave a statement that the country wants to achieve 100% renewable electricity by 2032.
<b>Samoa</b>	RE to contribute 100% of electricity generation by 2025	In July 2021, Samoa submitted its Second NDC, which identified a goal to generate 100% of electricity from renewable sources.
<b>Solomon Islands</b>	RE to contribute 100% of electricity generation by 2050	National Energy Policy (2014) aims to achieve 100% clean sources of electricity through renewable resources and technologies by 2050.
<b>Tuvalu</b>	RE to contribute 100% of electricity generation by 2030	Updated first NDC (2022) committed to achieving 100% electricity from renewable sources.
<b>Vanuatu</b>	RE to contribute 100% of electricity generation by 2030	Updated first NDC (2022) committed to transitioning into 100% electricity from renewable sources.

Source(s): UNFCCC (2023), Climate Watch (2022).

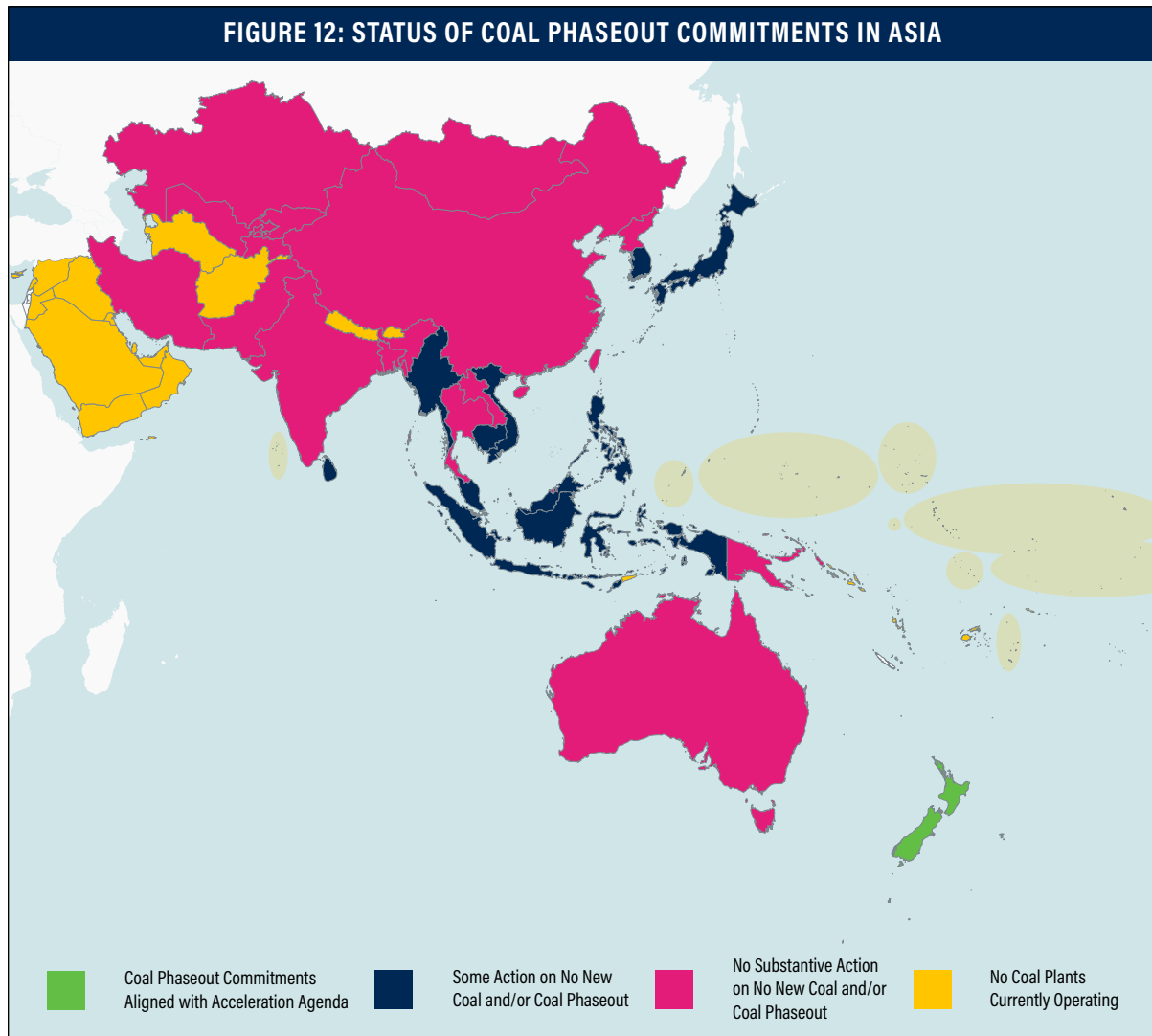
Renewable energy (RE) targets are already widespread. A majority of economies in Asia have included concrete renewable energy targets in their updated NDCs, as illustrated by Figure 10. These 33 economies are complemented by 20 others that have pursued some sort of renewable energy target but have not yet added it to their NDC. Kyrgyzstan and Turkmenistan stand alone as economies that do not appear to have adopted any concrete renewable energy targets, although it should be noted that Kyrgyzstan already produces around 90% of its electricity from clean sources, mostly hydropower.

Only 10 economies in Asia have put forth net zero targets for electricity generation from their power sector. The vast majority of these are SIDS that have comparatively small power sectors and already face the challenges of maintaining a secure power supply as island nations. These targets are led by Samoa, which identified a goal to achieve 100% renewable electricity by 2025 in its updated NDC, as well as Fiji, Tuvalu, and Vanuatu, all of which included similar targets for 2030 in their NDC updates. New Zealand is the only developed economy in Asia to put forth a net zero electricity generation target that aligns with the Acceleration Agenda, with a target aiming for 2035.

Indonesia, the only significant emitter on the list, has set a goal to achieve net zero in the power sector by 2050, which is still a decade behind the proposed action. This target was proposed as part of the Just Energy Transition Partnership (JETP) deal agreed in November 2022 during the G20 Leaders' Summit in Bali, Indonesia, thus illustrating how action to unlock finance for developing countries may encourage significant emitters to pursue such targets. Given the contingency of the target on the deal, however, it is critical for funder countries to now deliver. Indonesia has also delayed the launch of its investment plan under the deal, which was initially slated to go live in August 2023.

**FOSSIL FUELS**

The flip side of expanding clean energy is phasing out fossil fuels. On the demand side, this means halting the use of fossil fuels in the power sector, while on the supply side, it entails ceasing production of coal, oil, and gas. The International Energy Agency found that a net zero by 2050 pathway leaves no room to accommodate investment in new fossil fuel production and unabated coal power going forward.



Source(s): Bloomberg (2023), Ember (2022), UNFCCC (2023), Climate Watch (2022).

FIGURE 13 ASIAN SIGNATORIES TO THE GLOBAL COAL TO CLEAN POWER TRANSITION STATEMENT

	GLASGOW GLOBAL COAL TO CLEAN POWER TRANSITION STATEMENT SIGNATORY STATUS	ADDITIONAL ACTION	
		NO NEW COAL	COAL PHASEOUT
<b>Brunei</b>		No new coal plants planned	
<b>Indonesia</b>	Indonesia excluded the clause on no new coal under the Glasgow Statement, noting that it will consider accelerating coal phaseout into the 2040s, conditional on agreeing additional international financial and technical assistance.	In 2021, it was announced that there will be no new coal after 2023; however, projects already in the pipeline were not included.	In 2022, Indonesia signed the JETP to support its planned coal phaseout; however, actual investments are delayed at least until late 2023.
<b>Kazakhstan</b>	Kazakhstan only endorsed the clause on supporting a just and inclusive transition away from unabated coal power. It did not endorse no new coal or coal phaseout under the Glasgow Statement.	No additional action. Kazakhstan is still proposing new coal plants, although a verbal pledge to phase out coal in heat generation by 2050 was announced at COP26.	
<b>New Zealand</b>		Joined No New Coal Energy	Phase out coal completely by 2030
<b>Philippines</b>	Philippines only endorsed the clause on supporting a just and inclusive transition away from unabated coal power. It did not endorse no new coal or coal phaseout under the Glasgow Statement.	Moratorium on new coal plants not already in the permitting pipeline since 2020	
<b>Singapore</b>			In 2023, Singapore's central bank began consultation on the phaseout of coal-fired power plants.
<b>South Korea</b>			According to the latest Basic Electricity Plan in 2022, South Korea aims to phase down coal-fired power generation to 19.7% of the power mix by 2030.
<b>Sri Lanka</b>		No capacity addition of coal power plants; joined No New Coal Energy Compact	
<b>Vietnam</b>		According to the latest Power Development Plan (PDP) 8, no new coal-fired power plants will be built beyond those already under construction or planned for completion by 2025 or sooner.	Vietnam backtracked on phaseout plans in its latest PDP 8, now aiming to phase out coal-fired power by 2050.

Source(s): Government of the United Kingdom (2021), Bloomberg (2023), Ember (2022), UNFCCC (2023), official government websites.

Note: Cyprus, the Maldives, and Nepal also endorsed the statement. However, given their lack of operating coal plants, they are not featured in the above figure.



Asia plays an outsized role globally in fossil fuel consumption and production. In 2021, China and India alone accounted for two-thirds of global coal consumption, and that share continues to rise. On the production side, more than 70% of the world's coal output comes from Asian countries, with China far in the lead. Asia is also home to a concentration of the world's major producers of oil and gas, especially when the Middle East and Australia are considered.

The Acceleration Agenda calls for all countries to commit to adding no new coal power now and to phasing out coal power by 2030 for OECD countries and by 2040 for the rest of the world. It is encouraging that a number of countries in Asia have already made some movement toward ending new coal and/or phasing out coal power. Figure 12 illustrates this, though it also shows that only one country – New Zealand – has aligned its commitment to phase out coal power by 2030 with the dates set forth in the Acceleration Agenda. Moreover, many countries' commitments still lack clarity or are incomplete, such as by allowing planned coal plants already in the pipeline to go ahead with construction. Though it is not illustrated in Figure 12, a number of subnational jurisdictions have committed to phasing out coal power in line with the Acceleration Agenda, including regions in Australia, Japan, the Philippines, South Korea, and Taiwan.

Movement to phase out coal power in Asia has been accelerated by the Global Coal to Clean Power Transition Statement released at COP26 in November 2021. The statement comprised four clauses, including one specifically on coal phaseout and another on ending new coal power. A number of Asian countries signed onto the statement, though some significant emitters omitted these critical clauses. Nevertheless, many of the countries that signed the statement have continued to take further action to implement their commitments, as outlined in Figure 13.

On the fossil fuel production side, action remains limited overall, especially with regard to the Acceleration Agenda's call for an end to expanding oil and gas production – even though Asia is home to some of the largest oil and gas producers in the world. However, a similar set of players as those with net zero targets for electricity generation have taken some degree of action. Six countries have called for governments to negotiate a Fossil Fuel Non-Proliferation Treaty, led by Tuvalu and Vanuatu. This includes calls to end the expansion of coal, oil, and gas production; produce an equitable plan for winding down existing fossil fuel production; and fast-tracking the adoption of clean energy. Tuvalu

**FIGURE 14 ASIAN ENDORSERS OF KEY INITIATIVES ON FOSSIL FUEL PRODUCTION PHASEOUT**

	FOSSIL FUEL NON-PROLIFERATION TREATY (FFNT)	BEYOND OIL & GAS ALLIANCE (BOGA)
<b>Timor-Leste</b>	Yes	
<b>Fiji</b>	Yes	Yes
<b>Solomon Islands</b>	Yes	
<b>Tonga</b>	Yes	
<b>Tuvalu</b>	Yes	Yes
<b>Vanuatu</b>	Yes	Yes
<b>New Zealand</b>		Yes

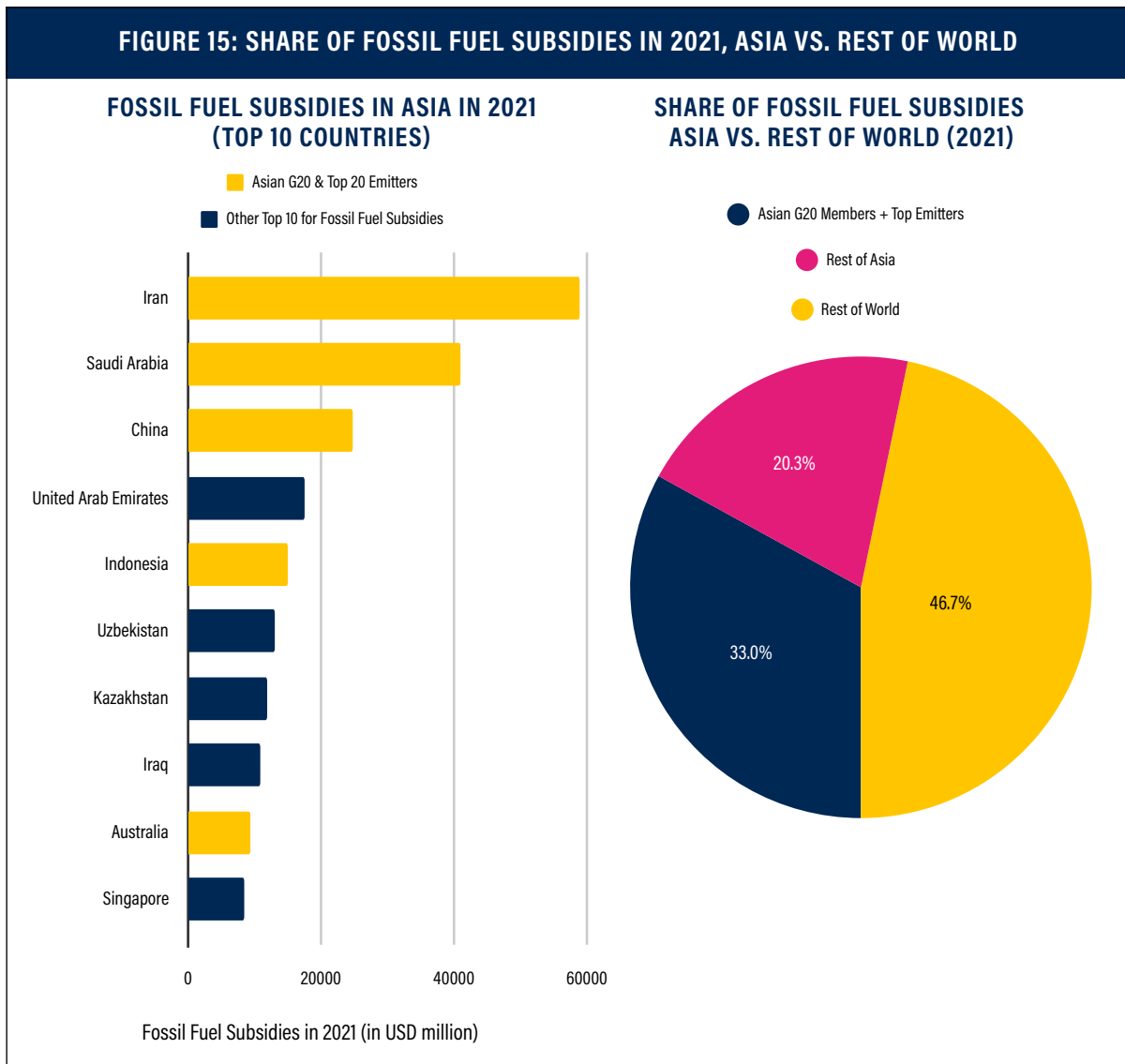
Source(s): Fossil Fuel Non-Proliferation Treaty Initiative (2023), Beyond Oil and Gas Alliance (2023).

BOGA has a tiered membership structure that includes core members, associate members, and Friends of BOGA.

See Appendix II for more details. Green indicates core membership, light blue indicates associate membership, and dark blue indicates Friends of BOGA.

and Vanuatu have also joined the Beyond Oil and Gas Alliance (BOGA) as core members, committing to end new concessions, licensing, or leasing rounds for oil and gas production and exploration and to set a Paris Agreement–aligned date for ending oil and gas production and exploration on the territory under their jurisdiction. New Zealand joined BOGA as an associate member, having taken concrete steps to contribute to the reduction of oil and gas production, and Fiji has supported the initiative as a “Friend of BOGA.”

A recent analysis by the International Monetary Fund (IMF) found that the fossil fuel industry reaped benefits of \$13 million per minute from subsidies, which remain a key aspect of fossil fuel policy across Asia. More than half of all fossil fuel subsidies in the world were granted by Asian countries in 2021. Repurposing these subsidies toward clean energy would remove a perverse incentive for inefficient fossil fuel production and consumption while accelerating the clean energy transition. Iran leads the region in fossil fuel subsidies, shelling out more than twice as much as the third-ranking country, China. Saudi Arabia ranks second, and the United Arab Emirates and Indonesia round out the top five.

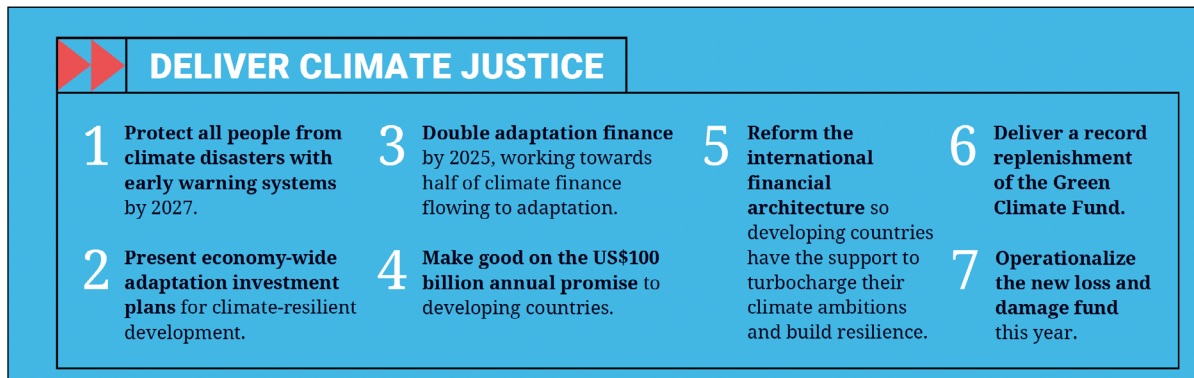


Source(s): Fossil Fuel Subsidy Tracker (2022), ASPI analysis.

## CLIMATE JUSTICE

Beyond actions aimed at cutting emissions, the Acceleration Agenda puts forth a range of actions designed to deliver climate justice while getting the world on track to align with the Paris Agreement. These include the actions outlined below, which are primarily related to adaptation and finance, including loss and damage.

FIGURE 16 **CLIMATE JUSTICE COMPONENTS OF THE UN SECRETARY-GENERAL'S ACCELERATION AGENDA**



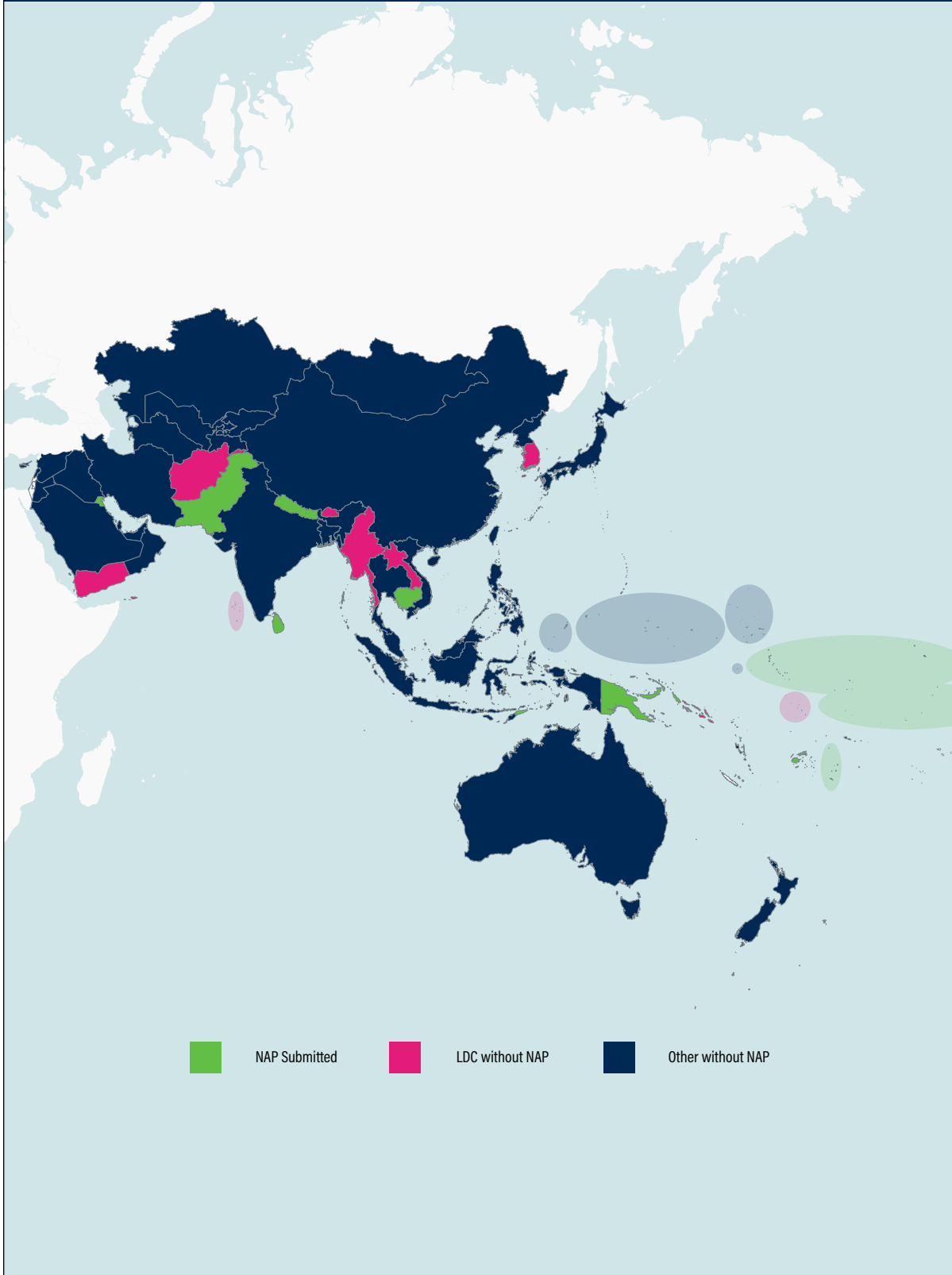
Source(s): United Nations (2023).

## ADAPTATION

While efforts to determine how best to measure adaptation action continue as part of negotiations on the Global Goal on Adaptation, one means of assessing preparedness is to look at countries' actions to adopt National Adaptation Plans (NAPs). These are plans that aim to reduce countries' vulnerability to the impacts of climate change by building adaptive capacity and resilience and to integrate adaptation into new and existing policies and programs, at multiple levels of government, and in specific strategies, plans, and budgets.

The NAP process has primarily targeted least developed countries (LDCs), in part to provide more resources to these countries on adaptation planning, though any country is welcome to submit a NAP to the UNFCCC's repository. Twelve Asian countries have submitted NAPs, covering a portion of the LDCs in the region but not all of them. Developing adaptation plans, whether in the form of NAPs or otherwise, will be critical for channeling finance and other resources to the highest-impact areas as the Asian region is increasingly exposed to climate impacts.

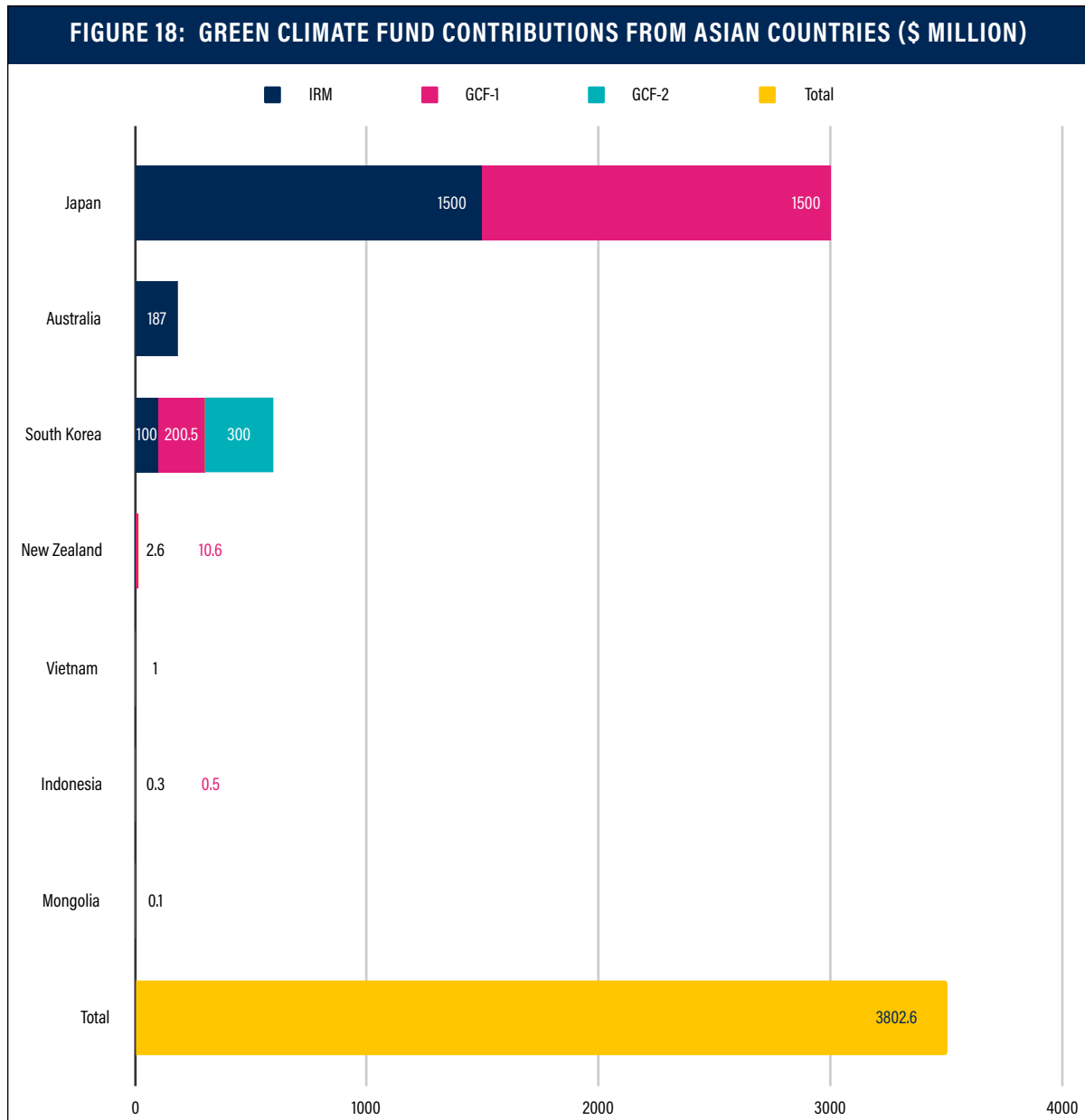
FIGURE 17: STATUS OF NATIONAL ADAPTATION PLANS IN ASIA



Source(s): UNFCCC (2023).

## FINANCE

The Acceleration Agenda includes a number of finance-related components, as adequate finance will be critical for countries to increase the ambition of their climate targets. This year is important as 2023 marks the second replenishment of the Green Climate Fund, which was established in 2010 as the world's largest multilateral fund dedicated to helping developing countries address the climate crisis. Developed countries were asked to contribute to the fund during its establishment. Developing countries were also encouraged to contribute to give them a stake in the fund; Indonesia, Mongolia, and Vietnam all contributed. In September 2023, South Korea became the first Asian country to announce a contribution to the fund's second replenishment. Its \$300 million pledge is for a quantity greater than its previous contributions. Other Asian nations could reinforce their credibility by announcing contributions soon and at a level that matches and ideally builds on previous contributions.



Source(s): Green Climate Fund (2023).

# THE ROAD AHEAD: ACCELERATING ASIA'S CLIMATE ACTION

The politics of international climate action are entering a consequential phase. The outcomes of the first Global Stocktake are due in December 2023 at COP28, which will kick off a critical period through 2025 when parties are expected to update their NDCs with emissions reductions targets for 2035 and even 2040.

This report provides a snapshot of Asia's ambition gap and how the region can accelerate climate progress, especially ahead of COP28. By benchmarking the state of climate action in Asian countries against the UN Secretary-General's Acceleration Agenda, the analysis sheds light on the actions that Asian countries could take in order to align with the Paris Agreement's goals and avoid crossing dangerous climate tipping points.

One bright spot is the many examples of Asian leadership identified in this report. In some countries, climate action is already aligned with the Acceleration Agenda, showing that this level of ambition is feasible in both developed and developing economies. More regional champions and first movers could help steer Asia's ambition in the necessary direction.

Another benefit of the Acceleration Agenda is that it provides a clear road map for countries that do not yet align with its criteria. The gap in action is significant, and the challenge is growing even more urgent – especially as Asian nations grapple with extreme weather, energy and food shortages, and other hardships compounded by the climate crisis.

Taking steps to align with the Acceleration Agenda can restore and strengthen trust among regional neighbors. Action is especially needed from significant historical and current emitters that are disproportionately responsible for climate change, as it will directly influence the prospects for vulnerable regions that are existentially threatened by climate impacts.

To get Asia to net zero, broader action to formalize net zero targets in law or policy documents and under the UNFCCC architecture will be critical for ensuring transparency and mobilizing the investment necessary to implement them. And near-term action is vital to keep the world on track to achieve net zero targets.

Major emitters should ensure that their targets align with the need to peak global emissions by 2025 and map out how to achieve absolute emissions reductions by 2035. While action to ramp up clean energy is already widespread, it must go hand in hand with a managed decline of fossil fuel consumption and production – otherwise, the literal and figurative costs of the transition will be even higher.

At the highest level, the Acceleration Agenda creates a mirror reflecting the action needed to keep the Paris Agreement's 1.5°C target from slipping beyond reach. The climate change-induced catastrophes that Asia faced this summer illustrate why the Asian people – and people around the world – deserve more.

# APPENDICES AND METHODOLOGY

## APPENDIX I. KEY CLIMATE CHANGE MITIGATION TARGETS BY SUBREGION

FIGURE 19 EAST ASIA

	NET ZERO TARGET	EMISSIONS REDUCTION TARGET IN CURRENT NDC	KEY CLEAN ENERGY TARGETS	COAL POWER PHASEOUT TARGETS
<b>China</b>	Carbon neutrality by 2060	Peak CO <sub>2</sub> before 2030, and lower CO <sub>2</sub> emissions per unit of GDP by over 65% from 2005 levels	Increase share of non-fossil fuels in primary energy consumption to around 25% by 2030; bring total installed capacity of wind and solar power to over 1.2 billion kW by 2030	Strictly limit coal consumption during 2021-2025 and phase it down during 2026-2030
<b>Japan</b>	Net zero GHG emissions by 2050	Reduce GHG emissions by 46% compared to 2013 levels	Achieve 36-38% renewable electricity and 20-22% nuclear electricity; collectively achieve 150 GW in offshore wind capacity and over 1 TW of solar capacity by 2030 among G7 member countries	Phase out 100 "inefficient" subcritical coal power plant units by 2030
<b>Mongolia</b>	No target	Reduce GHG emissions by 22.7% compared to BAU by 2030 (excluding LULUCF)	Achieve 30% RE installed capacity by 2030	No specific target set
<b>North Korea</b>	No target	Reduce GHG emissions by 16.4% by 2030 (unconditional); reduce emissions 52% by 2030 (conditional)	Expand RE generation capabilities to 5 million kW by 2044	No specific target set
<b>South Korea</b>	Carbon neutrality by 2050	Reduce GHG emissions by 40% compared to 2018 levels	Scale up RE to 21.6% of electricity generation by 2030	Cut coal capacity from 36% (36,000 MW) of total capacity in 2020 to 15% in 2034 (18,800 MW); no new coal construction; phase out under consideration; signatory of Global Coal to Clean Power Transition Statement
<b>Taiwan</b>	Net zero by 2050	Reduce GHG emissions by 50% compared to 2005 levels (in the GHG Management Act, now under the amendment to the Climate Change Response Act)	Derive 20% of power generation from renewable energy by 2025; derive 60-70% of power generation from RE by 2050	Reduce amount of electricity from coal to 30% (44% in 2020) in generation mix

Source(s): UNFCCC (2023), Climate Watch (2022), Net Zero Tracker (2023), BloombergNEF (2023).

FIGURE 20 SOUTH ASIA

	NET ZERO TARGET	EMISSIONS REDUCTION TARGET IN CURRENT NDC	KEY CLEAN ENERGY TARGETS	COAL POWER PHASEOUT TARGETS
<b>Afghanistan</b>	No target; 2050 proposed / in discussion	Reduce GHG emissions by 13.6% by 2030 compared BAU scenario	Deploy 4500-5000 MW of RE capacity by 2032, which is equivalent of 95% of total energy mix of 5000-6000 MW	No coal plants currently operating
<b>Bangladesh</b>	No target; 2050 proposed / in discussion	Reduce GHG emissions by 27.56 MtCO <sub>2</sub> e (6.73%) below BAU (409.41MT CO <sub>2</sub> e) by 2030 (unconditional); reduce GHG emissions by additional 61.9 MtCO <sub>2</sub> e (15.12%) (by 21.85% total) below BAU by 2030 (conditional)	Generate 40% of electricity from clean energy by 2041; implement RE projects of 911.8 MW by 2030 (unconditional) and 4114.3 MW (conditional)	No specific target set
<b>Bhutan</b>	Remain carbon-neutral	Remain carbon neutral (already net negative 5.6 MtCO <sub>2</sub> e in 2015)	Achieve 71.11 MW of utility-scale solar and wind energy	No coal plants currently operating
<b>India</b>	Net zero by 2070	Reduce carbon intensity of GDP by more than 45% by 2030 and reduce emissions by 1 billion tonnes	Increase RE to 50% of total energy requirements by 2030; increase non-fossil fuel energy capacity to 500 GW by 2030	No specific target set
<b>Iran</b>	No target	Reduce GHG emissions by 4% compared to BAU by 2030 (unconditional); reduce GHG emissions by up to 12% compared to BAU by 2030 (conditional) *	Increase RE and low-carbon electricity sources in total generation by increasing capacity of hydropower to 19,000MW, wind to 6,000MW, and nuclear power plants to 20,000MW	No specific target set
<b>Maldives</b>	2030 (conditional on international support)	Reduce emissions by 26% by 2030 compared to BAU (conditional)	Increase installed RE share to 15% of energy mix, which includes public and private sector	No coal plants currently operating; signatory to Global Coal to Clean Power Transition Statement
<b>Nepal</b>	Net zero by 2045	No overall target; existing measures scenario would reduce CO <sub>2</sub> by 30 MtCO <sub>2</sub> by 2030	Increase clean energy generation to 15,000 MW by 2030 (5,000MW of this is conditional target with international support); ensure 15% of clean energy sources in total energy demand	No coal plants currently operating; signatory to Global Coal to Clean Power Transition Statement



	<b>NET ZERO TARGET</b>	<b>EMISSIONS REDUCTION TARGET IN CURRENT NDC</b>	<b>KEY CLEAN ENERGY TARGETS</b>	<b>COAL POWER PHASEOUT TARGETS</b>
<b>Pakistan</b>	No target; 2050 proposed / in discussion	Reduce emissions by 15% below BAU by 2030 (unconditional); reduce emissions	Achieve at least 20% RE generation by 2025; achieve at least 60% RE generation by 2030 (conditional)	No specific target set; in December 2020 at the Climate Ambition Summit, Pakistani Prime Minister Imran Khan announced that the country has “decided to not have any power based on coal,” but implementation has been unclear
<b>Sri Lanka</b>	Net zero by 2050	Reduce GHG emissions by 4% by 2030 below BAU (unconditional); reduce GHG emissions by additional 10.5% (by 14.5% total) by 2030 below BAU (conditional)	Achieve 70% RE in electricity generation by 2030; achieve carbon neutrality by 2050 in electricity generation	No capacity addition of coal power plants; signatory to Global Coal to Clean Power Transition Statement

Source(s): UNFCCC (2023), Climate Watch (2022), Net Zero Tracker (2023), BloombergNEF (2023).

\* Intended Nationally Determined Contribution (2015). Iran has signed but not yet ratified the Paris Agreement

FIGURE 21 SOUTHEAST ASIA

	NET ZERO TARGET	EMISSIONS REDUCTION TARGET IN CURRENT NDC	KEY CLEAN ENERGY TARGETS	COAL POWER PHASEOUT TARGETS
<b>Brunei</b>	No target; 2050 proposed / in discussion	Reduce GHG emissions by 20% below BAU levels by 2030	Increase total share of RE to at least 30% of total capacity in power generation mix by 2035	Signatory of Global Coal to Clean Power Transition Statement
<b>Cambodia</b>	Net zero by 2050	Reduce GHG emissions by 42 % below BAU levels by 2030	Achieve 25% RE in energy mix by 2030 and 35% by 2050	No new coal generation capacity beyond already committed projects
<b>Indonesia</b>	Net zero by 2060	Reduce emissions 31.89% below BAU by 2030 (unconditional); reduce emissions 43.20% below BAU (conditional)	New and renewable energy at least 34% of all power generation by 2030; peak power sector emissions by 2030 and achieve a net zero power sector by 2050	Full moratorium on new on-grid coal power generation capacity (but currently still planning and constructing); restricting the development of captive coal-fired power plants and phasing out coal plants by the 2040s; partial signatory of Global Coal to Clean Power Transition Statement
<b>Laos</b>	Net zero by 2050	Reduce GHG emissions by 60% compared to baseline scenario, around 62,000 ktCO <sub>2</sub> e in absolute terms by 2030	Achieve 1 GW total installed capacity of solar and wind, 13 GW total hydropower capacity (domestic and export use) , and 300 MW total biomass by 2030	No specific target set
<b>Malaysia</b>	Carbon neutrality by 2050	Reduce economy-wide carbon intensity (against GDP) by 45% by 2030 compared to 2005 levels	Achieve 31% share of RE in energy mix by 2025, 40% by 2035, and 70% by 2050	Reduce coal-fired capacity by 4,200 MW by 2039 (reduce from 41% to 22% in generation mix); no new coal construction
<b>Myanmar</b>	No target; 2050 proposed / in discussion	Reduce 244.52 MtCO <sub>2</sub> e by 2030 (unconditional); 414.75 MtCO <sub>2</sub> e by 2030 (conditional)	Achieve new RE of 11% (2000 MW) by 2030 (unconditional); increase RE to 17% (3070 MW) (conditional)	Decrease share of coal to 20% of electricity generation by 2030, or to 11% with international assistance; government has stated that coal will not increase beyond 2030 and be completely phased out in 2050

	<b>NET ZERO TARGET</b>	<b>EMISSIONS REDUCTION TARGET IN CURRENT NDC</b>	<b>KEY CLEAN ENERGY TARGETS</b>	<b>COAL POWER PHASEOUT TARGETS</b>
<b>Philippines</b>	No target	Reduce GHG emissions by 2.71% (unconditional) and 72.29% (conditional) by 2030 compared to projected BAU cumulative economy-wide emissions by 2030	Increase RE share in power generation mix to 35% by 2030 and 50% by 2040	Moratorium on new coal plants not already in the permitting pipeline since 2020; partial signatory of Global Coal to Clean Power Transition Statement
<b>Singapore</b>	Net zero by 2050	Reduce emissions to around 60 MtCO <sub>2</sub> e in 2030 after peaking emissions earlier	Achieve at least 2 GW-peak for solar by 2030 (around 3% of total electricity demand); "low-carbon" hydrogen to supply up to 50% of energy needs by 2050	Phase out use of unabated coal in its electricity mix by 2050 and restrict direct government finance of unabated coal power internationally; signatory of Global Coal to Clean Power Transition Statement
<b>Thailand</b>	Net zero by 2065	Reduce GHG emissions by 30% from the projected BAU level by 2030 (unconditional); reduce GHG emissions by up to 40% by 2030 (conditional)	Increase RE share in power generation mix to 50% by 2050	No specific target set
<b>Timor-Leste</b>	No target; 2050 proposed / in discussion	No specific emissions reduction target set	Achieve 50% RE use by 2030	No coal plants currently operating
<b>Vietnam</b>	Net zero by 2050	Reduce GHG emissions by 15.8% by 2030 below BAU (unconditional); reduce GHG emissions by 43.5% below BAU (conditional)	Total RE power generation capacity to reach at least 47% by 2030; up to 67.5% by 2050	Phase out coal power generation completely by 2050; cease issuance of new permits and construction of new unabated coal-fired power generation projects (14 GW) signatory of Global Coal to Clean Power Transition Statement

Source(s): UNFCCC (2023), Climate Watch (2022), Net Zero Tracker (2023), BloombergNEF (2023).

FIGURE 22 WEST ASIA

	<b>NET ZERO TARGET</b>	<b>EMISSIONS REDUCTION TARGET IN CURRENT NDC</b>	<b>KEY CLEAN ENERGY TARGETS</b>	<b>COAL POWER PHASEOUT TARGETS</b>
<b>Bahrain</b>	Net zero by 2060	No specific emissions reduction target	RE to comprise 5% of peak capacity by 2025 and 10% by 2035	No coal plants currently operating
<b>Cyprus</b>	Net zero by 2050	At least 55% reduction in GHG emissions by 2030 compared to 1990 [EU-wide target]	Achieve at least 22.9% RE in final energy consumption by 2030	No coal plants currently operating; signatory to Global Coal to Clean Power Transition Statement
<b>Iraq</b>	No target	Reduce emissions by 2% below BAU by 2030; reduce emissions by 15% below BAU (conditional)	Aims to install 12 GW of RE power by 2030	No coal plants currently operating
<b>Jordan</b>	No target	Reduce emissions by 5% compared to BAU by 2030 (unconditional), reduce emissions by up to 31 % below BAU by 2030 (conditional)	RE to contribute 35% of electricity generation by 2030	No coal plants currently operating
<b>Kuwait</b>	Net zero by 2060	Reduce emissions by 7.4% compared to BAU by 2035	RE to contribute 15% of total power output	No coal plants currently operating
<b>Lebanon</b>	No target; 2050 proposed / in discussion	Reduce GHG emissions by 20% below BAU scenario by 2030 (unconditional); reduce emissions by 31% below BAU (conditional)	Generate 18% of power demand and 11% of heat demand (in the building sector) from RE (unconditional); generate 30% of power demand and 16.5% of heat demand from RE (conditional)	No coal plants currently operating
<b>Oman</b>	Net zero by 2050	Reduce emissions by 4% relative to BAU by 2030 (unconditional); reduce emissions by 7% relative to BAU (conditional)	Derive 20% of electricity from RE by 2027; secure at least 2,660 MW of RE over the period 2021-2027	No coal plants currently operating
<b>Qatar</b>	No target	Reduce GHG emissions by 25% relative to BAU the year 2030	RE to contribute 20% of electricity generation by 2030	No coal plants currently operating

	<b>NET ZERO TARGET</b>	<b>EMISSIONS REDUCTION TARGET IN CURRENT NDC</b>	<b>KEY CLEAN ENERGY TARGETS</b>	<b>COAL POWER PHASEOUT TARGETS</b>
<b>Saudi Arabia</b>	Net zero by 2060	Reduce and avoid GHG emissions of 278 MtCO <sub>2</sub> e annually by 2030 compared to 2019 base year	Aim for RE to reach around 50% of energy mix by 2030	No coal plants currently operating
<b>Syria</b>	No target	No specific emissions reduction target	RE to reach 10% of power production by 2030 (conditional)	No coal plants currently operating
<b>United Arab Emirates</b>	Net zero by 2050	Reduce GHG emissions by 19% compared to 2019 levels by 2030, equivalent to 182 MtCO <sub>2</sub> e in 2030	Triple the share of RE by 2030; increase installed clean energy capacity from 14.2 GW to 19.8 GW by 2030; surge the share of installed clean energy (renewable and nuclear) capacity in total energy mix to 30% by 2030; increase contribution of clean energy generation by 2030 to 32%	No coal plants currently operating
<b>Yemen</b>	No target; 2050 proposed / in discussion	Reduce GHG emissions by 1% below BAU by 2030 (unconditional); reduce emissions by up to 14% (unconditional)*	Grid electricity from RE (large scale electricity generation) to make up 15% of generation mix in 2025 (2600 GWh)	No coal plants currently operating

Source(s): UNFCCC (2023), Climate Watch (2022), Net Zero Tracker (2023), BloombergNEF (2023).

\* Intended Nationally Determined Contribution (2015). Yemen has signed but not yet ratified the Paris Agreement.

FIGURE 23 CENTRAL ASIA

	NET ZERO TARGET	EMISSIONS REDUCTION TARGET IN CURRENT NDC	KEY CLEAN ENERGY TARGETS	COAL POWER PHASEOUT TARGETS
<b>Kazakhstan</b>	Net zero by 2060	Reduce GHG emissions by 15% by the end of 2030 relative to 1990 base year (unconditional); reduce emissions by 25% (conditional)	Bring share of RE to 15% by 2030 and 50% by 2050	Stop using coal power to generate heat by 2050
<b>Kyrgyzstan</b>	No target; 2050 proposed/ in discussion.	Reduce GHG emissions by 15.97% compared to BAU by 2030 (unconditional); reduce emissions by 43.62% (conditional)	No specific target set	No specific target set
<b>Tajikistan</b>	No target	Reduce GHG emissions by 30% to 40% under 1990 levels by 2030 (unconditional); reduce emissions by 40% to 50% (conditional)	RE (excluding hydro) to contribute 10% of power generation	No specific target set
<b>Turkmenistan</b>	No target	Reduce GHG emissions by 20% compared to the BAU by 2030	No specific target set	No coal plants currently operating
<b>Uzbekistan</b>	No target	Reduce GHG emissions per unit of GDP by 35% below 2010 levels by 2030	Increase the share of RE-based power generation to least 25% by 2030; construct new RE facilities with a total capacity of 10 GW, including 5 GW of solar, 3 GW of wind and 1.9 GW of hydropower plants	No specific target set

Source(s): UNFCCC (2023), Climate Watch (2022), Net Zero Tracker (2023), BloombergNEF (2023).

FIGURE 24 OCEANIA

	NET ZERO TARGET	EMISSIONS REDUCTION TARGET IN CURRENT NDC	KEY CLEAN ENERGY TARGETS	COAL POWER PHASEOUT TARGETS
<b>Australia</b>	Net zero by 2050	Reduce GHG emissions by 43% below 2005 levels by 2030	RE to contribute to 82% of total electricity system by 2030	No specific target set
<b>Fiji</b>	Net zero by 2050	Reduce CO <sub>2</sub> emissions from energy sector by 10% compared to BAU by 2030 (unconditional); by 30% total compared to BAU (conditional)	Reach close to 100% RE power generation (grid-connected) by 2030	No coal plants currently operating
<b>Kiribati</b>	No target; 2050 proposed / in discussion	Reduce emissions by 8% below BAU by 2030 (unconditional); reduce emissions by 23.8% below BAU (conditional)	Become 100% solar powered country by 2036	No coal plants currently operating
<b>Marshall Islands</b>	Net zero by 2050	Reduce emissions by at least 45% below 2010 levels by 2030	Transition to 100% RE generation by 2050	No coal plants currently operating
<b>Micronesia</b>	Net zero by 2050	Reduce CO <sub>2</sub> emissions from electricity generation by more than 65% below 2000 levels by 2030	Achieve more than 70% RE in electricity generation by 2030	No coal plants currently operating
<b>Nauru</b>	No target; 2050 proposed / in discussion	No specific emissions reduction target	Achieve 50% electricity generation from RE by 2030 (conditional)	No coal plants currently operating
<b>New Zealand</b>	Net zero by 2050	Reduce net GHG emissions to 50% below 2005 levels by 2030, corresponding to 41% when using a multi-year emissions budget	Aspirational goal of 100% electricity from RE by 2035	Phase out coal completely by 2030; signatory to Global Coal to Clean Power Transition Statement
<b>Palau</b>	No target; 2050 proposed / in discussion	Reduce GHG emissions from energy sector by 22% compared to 2005 levels by 2025	Achieve 45% RE by 2025	No coal plants currently operating

Source(s): UNFCCC (2023), Climate Watch (2022), Net Zero Tracker (2023), BloombergNEF (2023).

	<b>NET ZERO TARGET</b>	<b>EMISSIONS REDUCTION TARGET IN CURRENT NDC</b>	<b>KEY CLEAN ENERGY TARGETS</b>	<b>COAL POWER PHASE-OUT TARGETS</b>
<b>Papua New Guinea</b>	Net zero by 2050	Achieve carbon neutrality within the energy sub-sector by 2030 and reduce 10,000 Gg CO <sub>2</sub> eq in annual emission from deforestation and forest degradation compared to 2015 levels by 2030	RE to contribute 78% of installed capacity by 2030	No coal plants currently operating
<b>Samoa</b>	No target; 2050 proposed / in discussion	Reduce overall GHG emissions by 26% in 2030 compared to 2007 levels	100% electricity generation from RE by 2025	No coal plants currently operating
<b>Solomon Islands</b>	No target; 2050 proposed / in discussion	Reduce GHG emissions by 30% below BAU by 2030	Increase access to reliable, affordable and clean sources of electricity through RE resources and technologies to 100% by 2050	No coal plants currently operating
<b>Tonga</b>	No target; 2050 proposed / in discussion	Reduce emissions from energy sector by 13% compared to 2006 levels by 2030	Generate 70% of electricity from RE by 2030	No coal plants currently operating
<b>Tuvalu</b>	Net zero by 2050	Reduce GHG emissions from energy sector to 60% below 2010 levels by 2030	Reduce GHG emissions from power sector by 100% by 2030	No coal plants currently operating
<b>Vanuatu</b>	Net zero by 2050	No specific emissions reduction target	Transition to close to 100% RE in electricity generation sector by 2030	No coal plants currently operating

Source(s): UNFCCC (2023), Climate Watch (2022), Net Zero Tracker (2023), BloombergNEF (2023).



## APPENDIX II. DATA SOURCES AND METHODOLOGY

Data for this report and the Asia Climate Action Map were collected from the following publicly available sources:

- Beyond Oil and Gas Alliance. 2023. Available online at: <https://beyondoilandgasalliance.org/>
- Bloomberg. Bloomberg Global Coal Countdown. 2023. Available online at: <https://bloombergcoalcountdown.com/>
- BloombergNEF. Climatescope 2022. 2022. Available online at: <https://www.global-climatescope.org/results/>
- Climate Analytics and NewClimate Institute. Climate Action Tracker. 2023. Available online at: <https://climateactiontracker.org/>
- Climate Watch. Climate Watch. 2022. Washington, DC: World Resources Institute. Available online at: <https://www.climatewatchdata.org/>
- Climate Transparency. 2023. Available online at: <https://www.climate-transparency.org/>
- Climateworks Centre. Energy Transitions in Vietnam and Indonesia: Building Blocks for Successful Just Energy Transition Partnerships. 2023. Available online at: <https://www.climateworkscentre.org/resource/energy-transitions-in-vietnam-and-indonesia-building-blocks-for-successful-just-energy-transition-partnerships/>
- Ember. 2023. Available online at: <https://ember-climate.org/>
- Energy and Climate Intelligence Unit. Net Zero Scorecard. 2023. Available online at: <https://eciu.net/netzerotracker>
- Fossil Fuel Non-Proliferation Treaty Initiative. 2023. Available online at: <https://fossilfueltreaty.org/>
- Global Energy Monitor. 2023. Available online at: <https://globalenergymonitor.org/>
- Government of the United Kingdom. COP26 Presidency Programme. 2021. Available online at: <https://www.gov.uk/government/news/uk-releases-presidency-programme-for-major-climate-summit-in-glasgow>
- Green Climate Fund. Status of Pledges (IRM and GCF-1). 2023. Available online at: <https://www.greenclimate.fund/document/status-pledges-all-cycles>
- International Institute for Sustainable Development (IISD) and Organisation for Economic Co-operation and Development (OECD). Fossil Fuel Subsidy Tracker. 2022. Available online at: <https://fossilfuelsubsidytracker.org/>
- Net Zero Tracker. 2023. Available online at: <https://zerotracker.net/>
- Powering Past Coal Alliance. 2023. Available online at: <https://poweringpastcoal.org/>
- World Bank. World Bank Open Data. 2023. Available online at: <https://data.worldbank.org/>
- United Nations. Climate Ambition Summit. 2023. Available online at: <https://www.un.org/en/climatechange/climate-ambition-summit>

- United Nations Development Programme. Climate Promise. 2023. Available online at: <https://climatepromise.undp.org/>
- United Nations Framework Convention for Climate Change (UNFCCC). Long-Term Strategies Portal. 2023. Available online at: <https://unfccc.int/process/the-paris-agreement/long-term-strategies>

## ADDITIONAL NOTES

While Iran and Yemen are included in the analysis as members of the UN's Asia-Pacific Group, neither country has yet ratified the Paris Agreement.

**Net Zero:** Data on the legislative status of targets were partially collected from the Net Zero Tracker (<https://zerotracker.net>). According to the tracker, “proposed/under discussion” status means that the country is “considering a target or has joined an international initiative (e.g., the Climate Neutrality Coalition or Climate Ambition Alliance) pledging to set a net zero target, but it has not yet taken steps to operationalize this pledge.”

**Fossil Fuels:** Figure 14, “Asian Members of Key Initiatives on Fossil Fuel Production Phaseout,” represents members of two key international alliances that are working toward fossil fuel phaseouts. Though the alliances are not binding, they have become a powerful medium through which to push for global advocacy on fossil fuel phaseouts.

- The **Fossil Fuel Non-Proliferation Treaty Alliance** is a global effort to foster international cooperation to accelerate the transition to clean energy for everyone; end the expansion of coal, oil, and gas; and equitably phase out existing production, in keeping with what the science shows is needed to address the climate crisis. While some countries have endorsed the Initiative, most of this alliance's support currently comes from subnational governments, cities, and independent elected officials.
- The **Beyond Oil and Gas Alliance** has a tiered membership structure that includes core members, associate members, and friends of BOGA.
  - **Core members** have committed to end new concessions, licensing, or leasing rounds for oil and gas production and exploration and to set a Paris-aligned date for ending oil and gas production and exploration on the territory over which they have jurisdiction.
  - **Associate members** have, in addition to signing the BOGA declaration, taken one or more of the following steps to contribute to the reduction of oil and gas production:
    - Implemented ambitious domestic subsidy reform as part of a plan to end subsidies that support oil and gas within a Paris-aligned time frame;
    - Ended international public financial support for oil and gas exploration and production abroad;
    - Ended public financing for fossil fuel research and development activities;
    - Implemented other significant measures to help reduce the supply of oil and gas on the global market;

- Signaled an interest in developing short- and long-term concrete Paris-aligned commitments for oil and gas production before 2025 (i.e., over the course of the next NDC revision cycle).
- **Friends of BOGA** are members that have signed the BOGA declaration and do not have specific commitments, but they support a socially just and equitable global transition to align oil and gas production with the objectives of the Paris Agreement and have committed to work together to facilitate effective measures to this end in line with the Paris Agreement and national climate neutrality targets.
- Data on fossil fuel subsidies were collected from the Fossil Fuel Subsidy Tracker (<https://fossilfuelsubsidytracker.org>) developed by the OECD and the IISD. The tracker covers coal, end-use electricity, natural gas, and petroleum and tracks subsidies in the form of direct budgetary transfers, induced transfer, and tax. The latest data available on the tracker is for 2021, which is reflected in the analysis.

**Adaptation:** The submission status of National Adaptation Plans was verified through the official UNFCCC NAP Central portal, which reflects updates as of August 15, 2023.

**Finance:** The Green Climate Fund (GCF) is a financial mechanism established under the UNFCCC to assist developing countries in mitigating and adapting to climate change.

- **Initial Resource Mobilization:** The Initial Resource Mobilization was the first phase of fundraising for the GCF, which took place between 2014 and 2018. During this period, the fund secured pledges totaling approximately \$10.3 billion from 43 countries to finance its initial set of projects.
- **First replenishment:** The first replenishment process took place in 2019, aiming to secure additional funding for the period from 2020 to 2023. The replenishment conference held in October 2019 resulted in pledges amounting to about \$9.8 billion from 27 countries.
- **Second replenishment:** The second replenishment process commenced in 2023. South Korea became the first Asian country to announce a contribution in September 2023.

For more information about the  
High-level Policy Commission  
on Getting Asia to Net Zero,  
visit: [AsiaSociety.org/NetZero](https://AsiaSociety.org/NetZero).