

# Asia-Pacific Nationally Determined Contributions 2.0 Ambitions

## About

These factsheets provide an overview of the most updated climate ambitions of 12 Asia-Pacific countries based on their second cycle (up to 2030) of nationally determined contributions (NDCs) under the <u>Paris Agreement</u>. These 12 countries have submitted at least two updates of their NDC 2.0: Australia, Bangladesh, Indonesia, Japan, Pakistan, the Republic of Korea, Singapore, Sri Lanka, Thailand, The Marshall Islands, Vanuatu, and Viet Nam.

The factsheets review the country's NDC commitments for greenhouse gas (GHG) emission reductions by 2030, compared to the required emission reduction trajectories per the IPCC recommended levels within the 1.5-degree global warming pathway. The factsheets also review the gaps in GHG emission reductions for key sectors with the IPCC-recommended trajectories, based on the economic profiles of the 12 countries.

## Background

The urgency of enhancing the climate mitigation ambition in the new cycle of NDCs (NDC 3.0) and better alignment with the recommended of GHG emission reduction trajectories cannot be overstated. The Asia and the Pacific region accounts for approximately 60% of global greenhouse gas (GHG) emissions with an annual growth rate of 2% on average since 2010.

The "2024 Review of Climate Ambition in Asia and the Pacific: From Ambitions to Results: Sectoral Solutions and Integrated Action" report highlights the Asia-Pacific region's critical role in global climate mitigation. Seventeen countries, including China, India, and Japan, account for 97% of regional emissions. Despite a 9.3% increase in renewable energy capacity in key countries like China and India, emissions continue to rise and rapid urbanization, industrialization, and high fossil fuel dependence are driving these increases.

Setting up robust and effective emission reduction targets is an important foundation for the third round of nationally determined contributions (NDC 3.0) updates in 2025. The report underscores the urgency for Asia-Pacific countries to strengthen their 2025 NDCs, aligning with the IPCC's 1.5°C pathway. At present, current NDC commitments fall short, and even full implementation would not halt rising emissions as the scenarios below and following factsheet demonstrate.



- Business as usual (BAU) reduction targets of 22 member States are expected to increase emissions by around 353 MtCO<sub>2</sub>e by 2030.
- Six regional member states have chosen intensity targets that bring modest emission reductions by 2030 (around 769 MtCO<sub>2</sub>e).
- Absolute reduction targets of 16 countries will lead to actual reductions of emission by 1,386 MtCO<sub>2</sub> e (25%) from 5,552 MtCO<sub>2</sub> e in 2019 to 4,170 MtCO<sub>2</sub> e by 2030.

Source: ESCAP, UNEP (2024), available from: <u>https://www.unescap.org/kp/2024/climate-ambition-asia-pacific</u>.





# **"Front-Runner" Country NDC 2.0 Commitments vs. Requirements for a 1.5°C Pathway**

The 12 "front-runner" Asian-Pacific countries\* demonstrate considerable gaps between their NDC 2.0 emissions reduction commitments and the IPCC-recommended emissions trajectories to realizing a 1.5°C pathway global warming pathway. The chart below demonstrates these gaps (all values shown are in MtCO<sub>2</sub> e).

Gaps between the NDC commitments and the required emissions to deliver on a 1.5°C pathway (2030)



\*The 12 **"front-runner"** countries in the Asia-Pacific are those that have made at least two NDC 2.0 updates.









# NDC 2.0 Ambitions: Indonesia



**Country Overview** 

Size: 1,892,410 square km **Subregion:** Southeast Asia **Population: 280 million Gross Domestic Product (GDP):** US\$ 1.371 trillion (2023)









#### Sectoral emissions consistent with recommended 43% reduction target\*



\*To keep within the 1.5°C global warming goal, the IPCC recommends cutting emissions by 43% by 2030 (against a 2019 baseline), reaching a 60% reduction by 2035 compared to 2019 levels.





# NDC 2.0 Ambitions: Pakistan



**Country Overview** 

Size: 796,096 square km **Subregion:** South Asia **Population: 240 million Gross Domestic Product (GDP):** US\$ 338 billion (2023)

## NDC 2.0 Timeline:









Sectoral emissions consistent with recommended 43% reduction target\*



\*To keep within the 1.5°C global warming goal, the IPCC recommends cutting emissions by 43% by 2030 (against a 2019 baseline), reaching a 60% reduction by 2035 compared to 2019 levels.





# NDC 2.0 Ambitions: Japan



## **Country Overview**

Size: 377,969 square km Subregion: East Asia Population: 123 million Gross Domestic Product (GDP): US\$ 4.212 trillion (2023)

### NDC 2.0 Timeline:

2015	2016	2020	2021	Upcoming 2025
•	•			
INDC	1st	2nd	3rd	NDC 3.0
/NDC	update	update	update	submission











NDC 2.0 Ambitions (projected emissions, 2030) Total emissions for a  $1.5^{\circ}$ C pathway: 690.84 MtCO<sub>2</sub>e NDC 2.0 commitment, total emissions: 760.32 MtCO<sub>2</sub>e

9% Gap

Sectoral emissions consistent with recommended 43% reduction target\*









# NDC 2.0 Ambitions: Viet Nam



**Country Overview** 

Size: 331,345 square km Subregion: Southeast Asia Population: 100 million Gross Domestic Product (GDP): US\$ 429 billion (2023)

## NDC 2.0 Timeline:











2			Ч
1990	2000	2010	2020

NDC 2.0 Ambitions (projected emissions, 2030) Total emissions for a  $1.5^{\circ}$  C pathway: 278.01 MtCO<sub>2</sub>e NDC 2.0 commitment, total emissions: 524.26 MtCO<sub>2</sub>e

47% Gap

Sectoral emissions consistent with recommended 43% reduction target\*



\*To keep within the 1.5°C global warming goal, the IPCC recommends cutting emissions by 43% by 2030 (against a 2019 baseline), reaching a 60% reduction by 2035 compared to 2019 levels.







# NDC 2.0 Ambitions: The Republic of Korea



**Country Overview** 

Size: 100,222 square km Subregion: East Asia Population: 52 million Gross Domestic Product (GDP): US\$ 1.712 trillion (2023)

#### NDC 2.0 Timeline: Upcoming 2025 2015 2016 2020 2021 INDC 2nd 3rd NDC 3.0 1st submission update /NDC update update









# NDC 2.0 Ambitions (projected emissions, 2030) Total emissions for a $1.5^{\circ}$ C pathway: 415.16 MtCO<sub>2</sub>e NDC 2.0 commitment, total emissions: 450.87 MtCO<sub>2</sub>e

8% Gap

Sectoral emissions consistent with recommended 43% reduction target\*







# NDC 2.0 Ambitions: Australia



**Country Overview** 

Size: 7,688,126 square km **Subregion:** Pacific **Population: 27 million Gross Domestic Product (GDP):** US\$ 1.723 trillion (2023)

## NDC 2.0 Timeline:









#### Sectoral emissions consistent with recommended 43% reduction target\*









# NDC 2.0 Ambitions: Thailand



## **Country Overview**

Size: 513,140 square km Subregion: Southeast Asia Population: 71 million Gross Domestic Product (GDP): US\$ 514 billion (2023)

### NDC 2.0 Timeline:

2015	2016	2021	2022	Upcoming 2025
INDC	1st	2nd	3rd	NDC 3.0
/NDC	update	update	update	submission









Sectoral emissions consistent with recommended 43% reduction target\*









# NDC 2.0 Ambitions: Bangladesh



## **Country Overview**

Size: 147,570 square km Subregion: South Asia Population: 170 million Gross Domestic Product (GDP): US\$ 437 billion (2023)

### NDC 2.0 Timeline:

2015	2016	2021	2022	2025
•				
INDC	1st	2nd	3rd	NDC 3.0
/NDC	update	update	update	submission











# NDC 2.0 Ambitions (projected emissions, 2030)

Total emissions for a 1.5° C pathway: 120.92 MtCO<sub>2</sub>e

NDC 2.0 commitment, total emissions: 319.95 MtCO<sub>2</sub>e

62% Gap

Sectoral emissions consistent with recommended 43% reduction target\*







# NDC 2.0 Ambitions: Singapore



**Country Overview** 

Size: 735 square km Subregion: Southeast Asia Population: 6 milion Gross Domestic Product (GDP): US\$ 501 billion (2023)

## NDC 2.0 Timeline:

				Upcoming
2015	2016	2021	2022	2025
INDC	1st	2nd	3rd	NDC 3.0
/NDC	update	update	update	submission











NDC 2.0 Ambitions (projected emissions, 2030) Total emissions for a 1.5° C pathway: 40.72 MtCO<sub>2</sub>e NDC 2.0 commitment, total emissions: 60 MtCO<sub>2</sub>e

32% Gap

Sectoral emissions consistent with recommended 43% reduction target\*



\*To keep within the 1.5°C global warming goal, the IPCC recommends cutting emissions by 43% by 2030 (against a 2019 baseline), reaching a 60% reduction by 2035 compared to 2019 levels.







# NDC 2.0 Ambitions: Sri Lanka



## **Country Overview**

Size: 65,610 square km Subregion: South Asia Population: 22 milion Gross Domestic Product (GDP): US\$ 84 billion (2023)

### NDC 2.0 Timeline:

2015	2016	2021	2022	Upcoming 2025
•		•		
INDC	1st	2nd	3rd	NDC 3.0
/NDC	update	update	update	submission













## **NDC 2.0 Ambitions** (projected emissions, 2030) **Total emissions for a 1.5<sup>°</sup>C pathway:** 20.22 MtCO<sub>2</sub>e

NDC 2.0 commitment, total emissions: 37.34 MtCO<sub>2</sub>e

46% Gap

Sectoral emissions consistent with recommended 43% reduction target\*











# NDC 2.0 Ambitions: Vanuatu



## **Country Overview**

Size: 12,281 square km **Subregion:** Pacific **Population: 335,000 Gross Domestic Product (GDP):** US\$ 1.126 billion (2023)

## NDC 2.0 Timeline:

2015	2016	2021	2022	Upcoming 2025
•				
INDC	1st	2nd	3rd	NDC 3.0
/NDC	update	update	update	submission









- Inland water bodies



# **NDC 2.0 Ambitions** (projected emissions, 2030)

**Total emissions for a 1.5°C pathway:** 0.45 MtCO<sub>2</sub>e

NDC 2.0 commitment, total emissions: 0.49 MtCO<sub>2</sub>e

8% Gap

## Sectoral emissions consistent with recommended 43% reduction target\*



\*To keep within the 1.5°C global warming goal, the IPCC recommends cutting emissions by 43% by 2030 (against a 2019 baseline), reaching a 60% reduction by 2035 compared to 2019 levels.





# NDC 2.0 Ambitions: The Marshall Islands



## **Country Overview**

Size: 181 square km Subregion: Pacific Population: 41,000 Gross Domestic Product (GDP): US\$ 284 million (2023)

### NDC 2.0 Timeline:

2015	2016	2021	2022	Upcoming 2025
•				
INDC	1st	2nd	3rd	NDC 3.0
/NDC	update	update	update	submission









-16			
1990	2000	2010	2020

# NDC 2.0 Ambitions (projected emissions, 2030) Total emissions for a $1.5^{\circ}$ C pathway: 0.09MtCO<sub>2</sub> e NDC 2.0 commitment, total emissions: 0.097MtCO<sub>2</sub> e





## **Total greenhouse gas emmissions**

**Left:** Yearly total emissions from 1990-2021 **Below:** Breakdown of total emissions in 2021 by sector

**Source:** Climate Watch Historical GHG Emissions. 2022. Washington, DC: World Resources Institute. Available online at:

https://www.climatewatchdata.org/ghg-emissions

Charts modified by the author

## Sectoral emissions (2021)

	Waste-	Industry-
Ellergy- 0.16 MiCO2e	.03 MtCO2e	.02 MtCO2e







## **Acknowledgements:**

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#### **Sources:**

- Emissions data: provided by Poonperm Vardhanabindu; data for the Marshal Islands sourced separately.
- Country size data: Obtained from Encyclopædia Britannica online, "list of the world's largest countries and dependencies by area," accessed October 2024.
- **Population data:** Obtained from the United Nations Population Division.
- **GDP data:** Obtained from the World Bank Group, "<u>GDP growth (annual %)</u>," accessed October 2024.
- **NDC timeline:** Obtained from the NDC Partnership, "<u>Country Action</u>," accessed November 2024.
- Land cover data: Baseline data obtained from <u>FAOSTAT</u>, using 2019 data from Copernicus Global Land Service (CGLS). This data was compared against additional data from the World Bank Group, Food and Agriculture Organization of the United Nations, CIA World Factbook, and other sources before being subsequently adjusted. \*Note: accurate land cover data is hard to obtain and varies by source, so these estimations are intended to be more indicative rather than precise.

### See more:

For more on climate ambitions in Asia and the Pacific, see the "2024 Review of Climate Ambition in Asia and the Pacific: From Ambitions to Results: Sectoral Solutions and Integrated Action" report by following the link or scanning the QR code below.



Scan to access the report



## CONTACT

Environment and Development Division

**C** +66 2 288 1632

≤ escap-edd@un.org

