Asia-Pacific's Progress Towards SDG7 and Net Zero Emissions Targets

8th Expert Working Group on Universal Access to Modern Energy Services, Renewable Energy, Energy Efficiency and Cleaner Use of Fossil Fuels

30 March 2023, Bangkok, Thailand

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Background to the EWG-SDG 7

- ESCAP Commission also established two expert working groups under the Committee on Energy:
    - Expert Working Group on Energy Connectivity (EWG-EC); and
    - Expert Working Group on Universal Access to Modern Energy Services, Renewable Energy, Energy Efficiency and Cleaner Use of Fossil Fuels (EWG-SDG 7).
- Objective of Working Groups - to provide expert input to the intergovernmental discussions at the Committee on Energy and the Asia Pacific Energy Forum.
- The Working Groups will also review existing knowledge, information and policy research and closely coordinate with relevant international, regional and sub-regional organizations.

Program

Morning Session: TECHNOLOGIES IN FOCUS

- **Part 1 – Renewables and Energy Efficiency 9:20-10:25**

Energy Efficiency; Wind Power; Solar Energy; Hydropower; Bioenergy.

Q&A

- **Part 2 – Low Carbon Energy 10:35-11:00**

Nuclear Energy; Hydrogen

- **Open Discussion - Challenges and opportunities in deploying low carbon technologies 11:00-11:30**
- **Special Presentation – Global Cooling Pledge (UNEP)**

Afternoon Session: NATURAL GAS IN THE SPOTLIGHT (IN COLLABORATION WITH GLOBAL GAS CENTRE)

- **Regional Roundtable on the Role of Natural Gas in the Energy Transition 14:00-14:20**
- **Roundtable Discussion 14:20-15:50**
- **Wrap-up and closing 16:00-16:10**

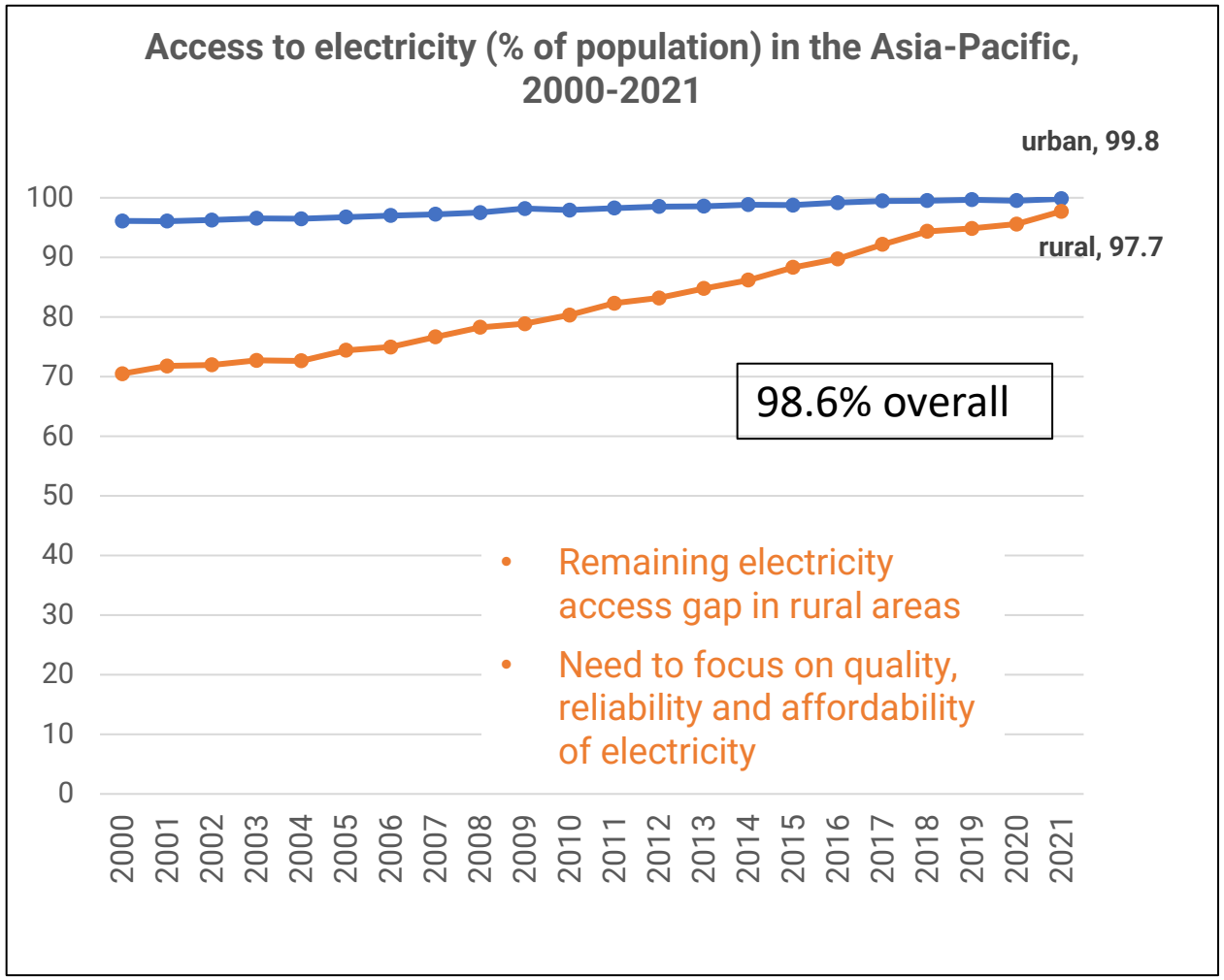
UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

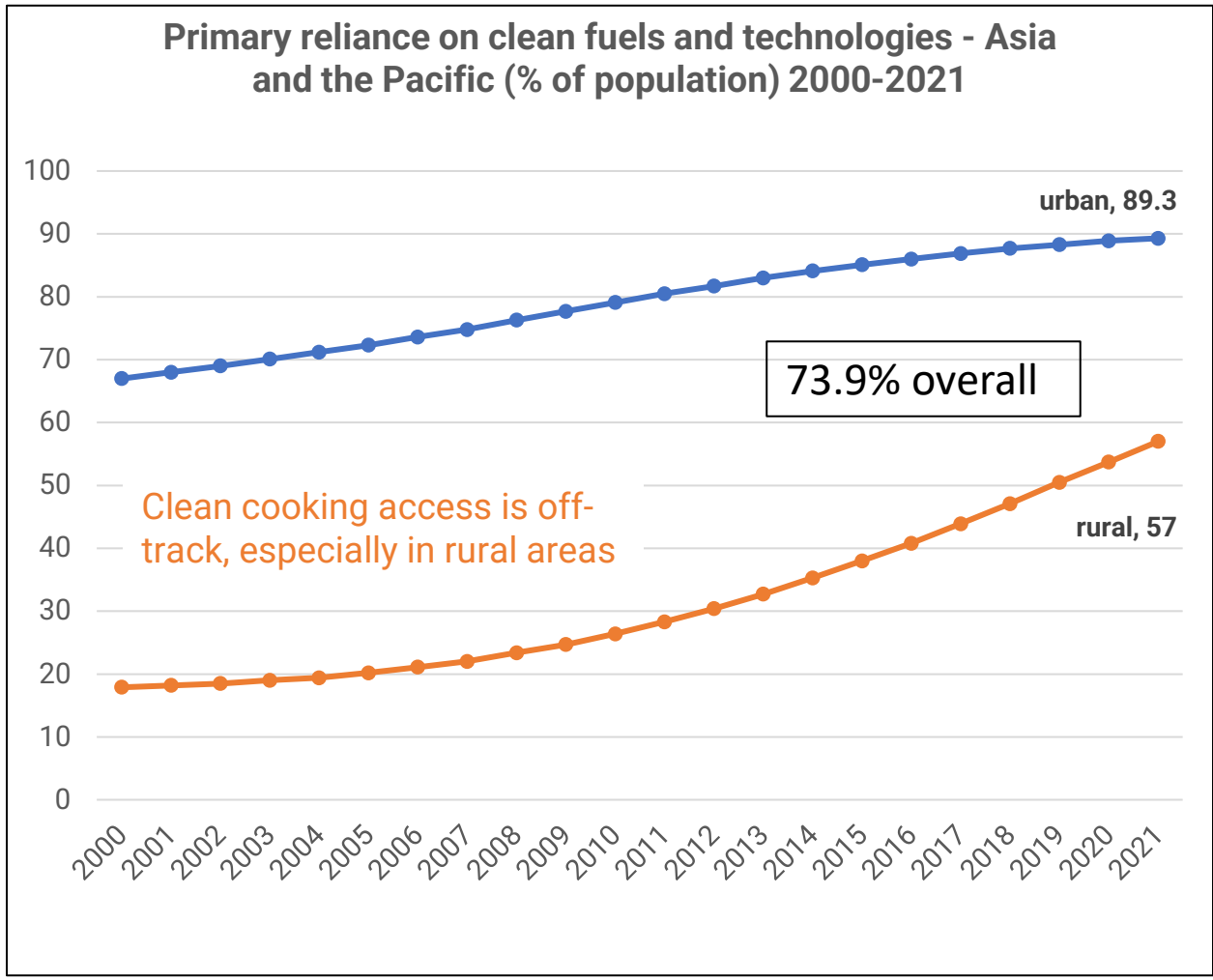
SDG 7 Framework

GOAL	TARGETS	INDICATORS
	7.1 ensure **universal** access to affordable, reliable and modern energy services	Proportion of population with access to **electricity** Proportion of population with primary reliance on **clean fuels** and technology
	7.2 increase **substantially** the share of renewable energy in the global energy mix	Renewable energy share in the total **final energy consumption**
	7.3 **double** the global rate of improvement in energy efficiency	Energy **intensity** measured in terms of **primary energy and GDP**

SDG definition of clean cooking fuel: https://unstats.un.org/sdgs/metadata/files/Metadata-07-01-02.pdf
SDG definition of renewable energy: https://unstats.un.org/sdgs/metadata/files/Metadata-07-02-01.pdf
SDG definition of energy intensity: https://unstats.un.org/sdgs/metadata/files/Metadata-07-03-01.pdf

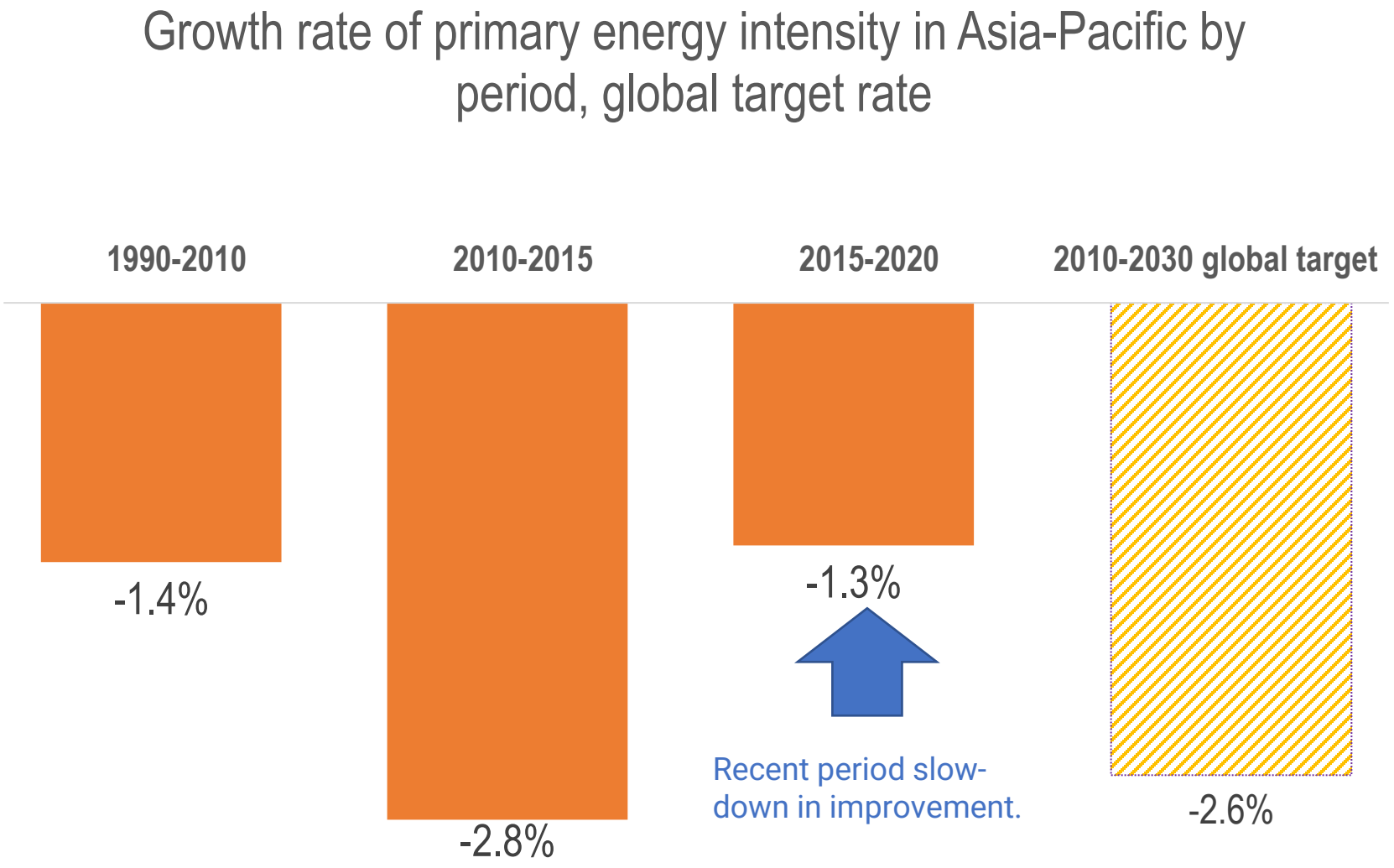
Energy Access – electricity progressing but clean cooking is the greatest SDG 7 challenge





Target 7.1: By 2030, ensure universal access to affordable, reliable and modern energy services

Energy Efficiency – needs cross-sector acceleration



- Pace of energy intensity improvement in the region is not on track to align with the 2010-2030 global target rate of 2.6%. From 2020 to 2030 improvement will need to accelerate to 3.2% improvement rate per annum to meet the SDG 7.3 target.
- To bring the global SDG 7.3 target within reach, energy efficiency policies and investment need to be scaled up significantly.

Target 7.3: By 2030, double the global rate of improvement in energy efficiency

7 AFFORDABLE AND CLEAN ENERGY

Energy Efficiency – needs cross-sector acceleration

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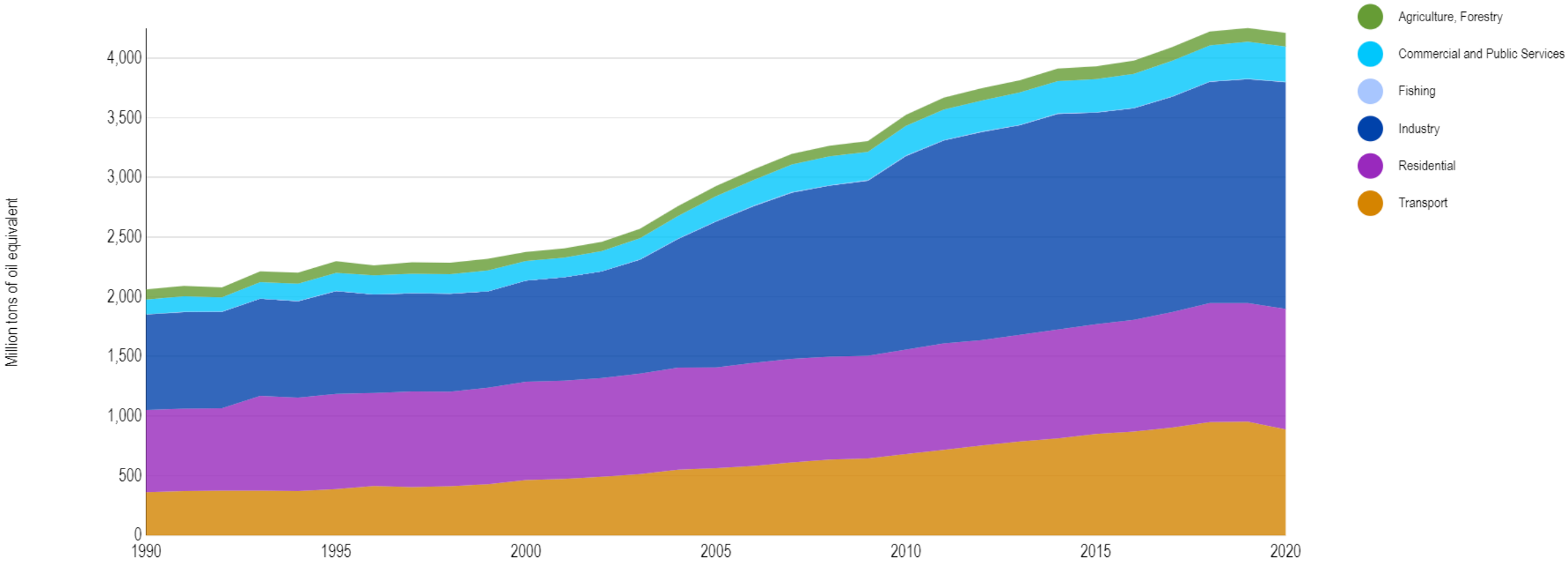
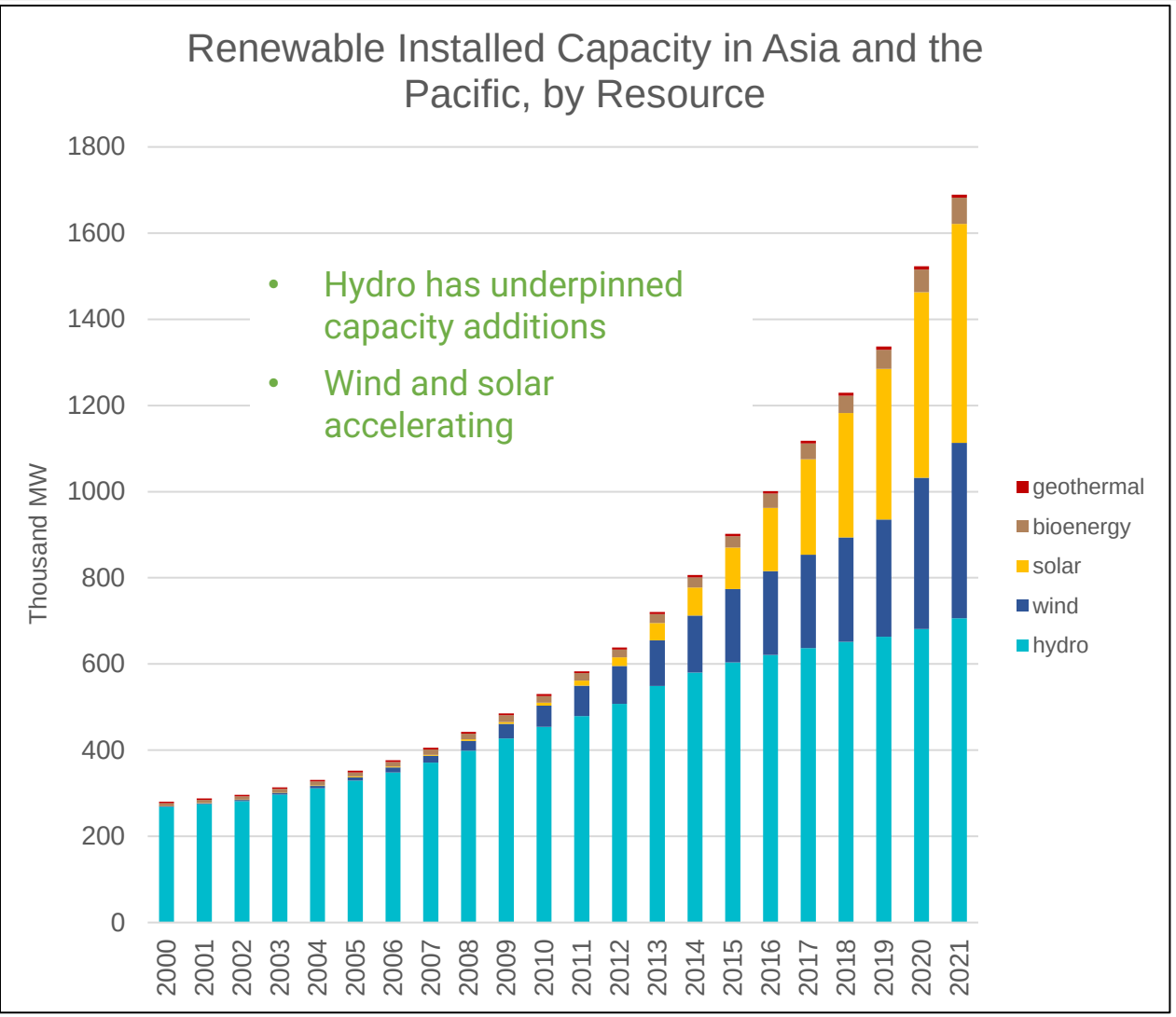
Final Consumption by Sector in Asia and the Pacific, 1990-2020

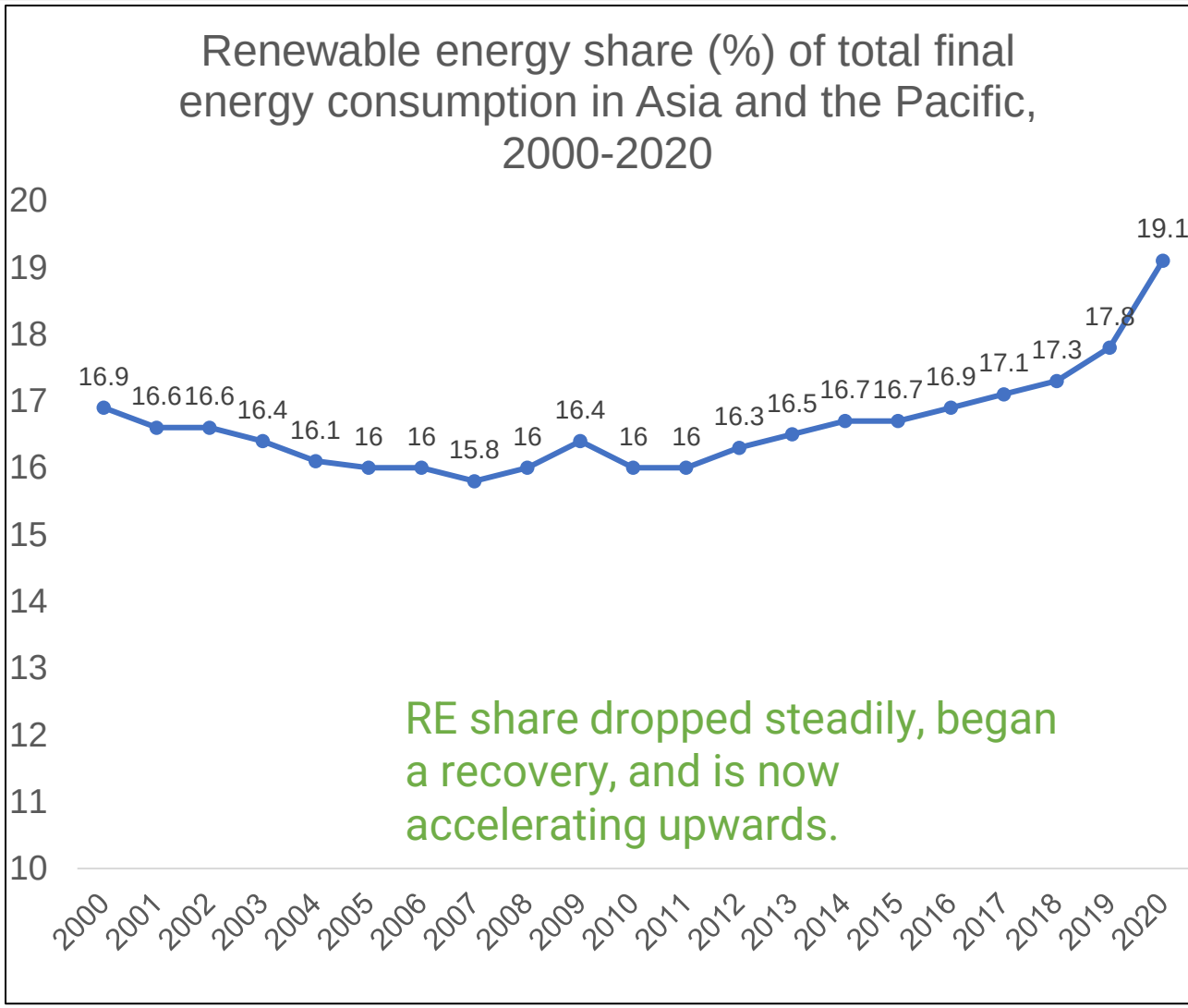


Source: International Energy Agency (IEA), World Energy Statistics and Balances
Chart generated from Asia Pacific Energy Portal (asiapacificenergy.org)

Target 7.3: By 2030, double the global rate of improvement in energy efficiency

Renewable Energy – gaining… but not fast enough





Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix

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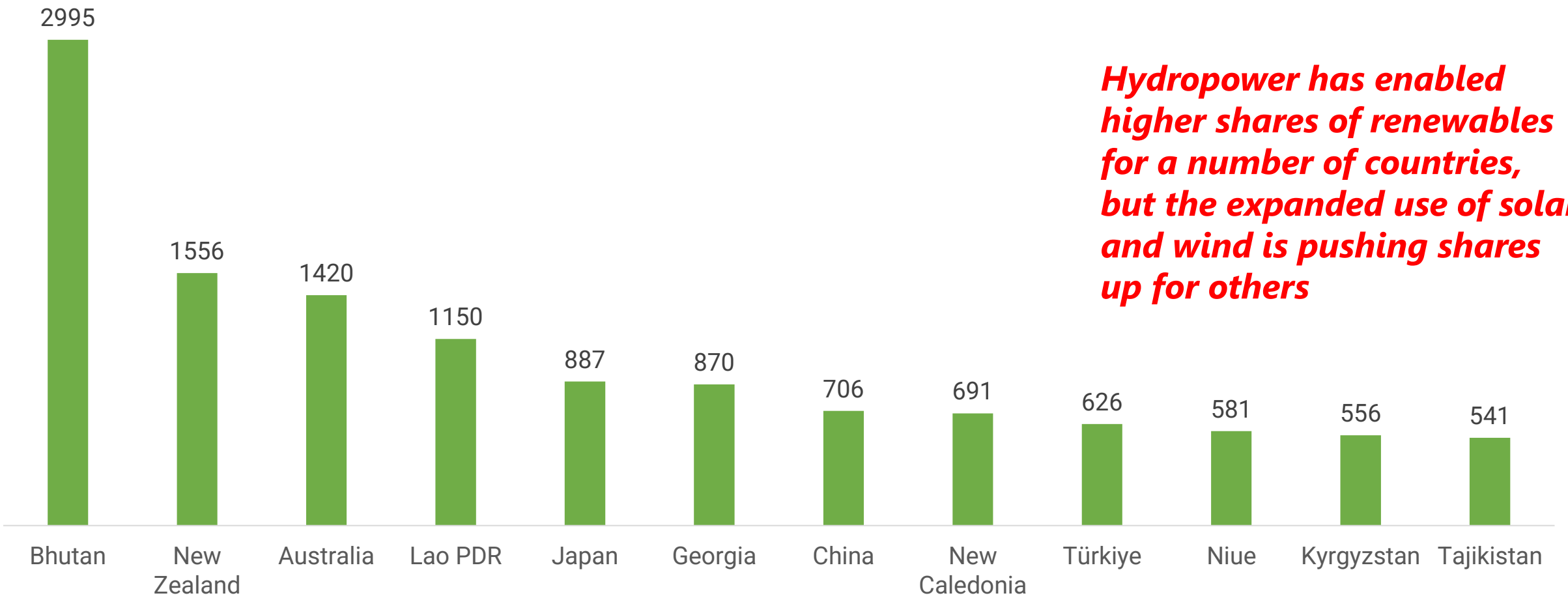
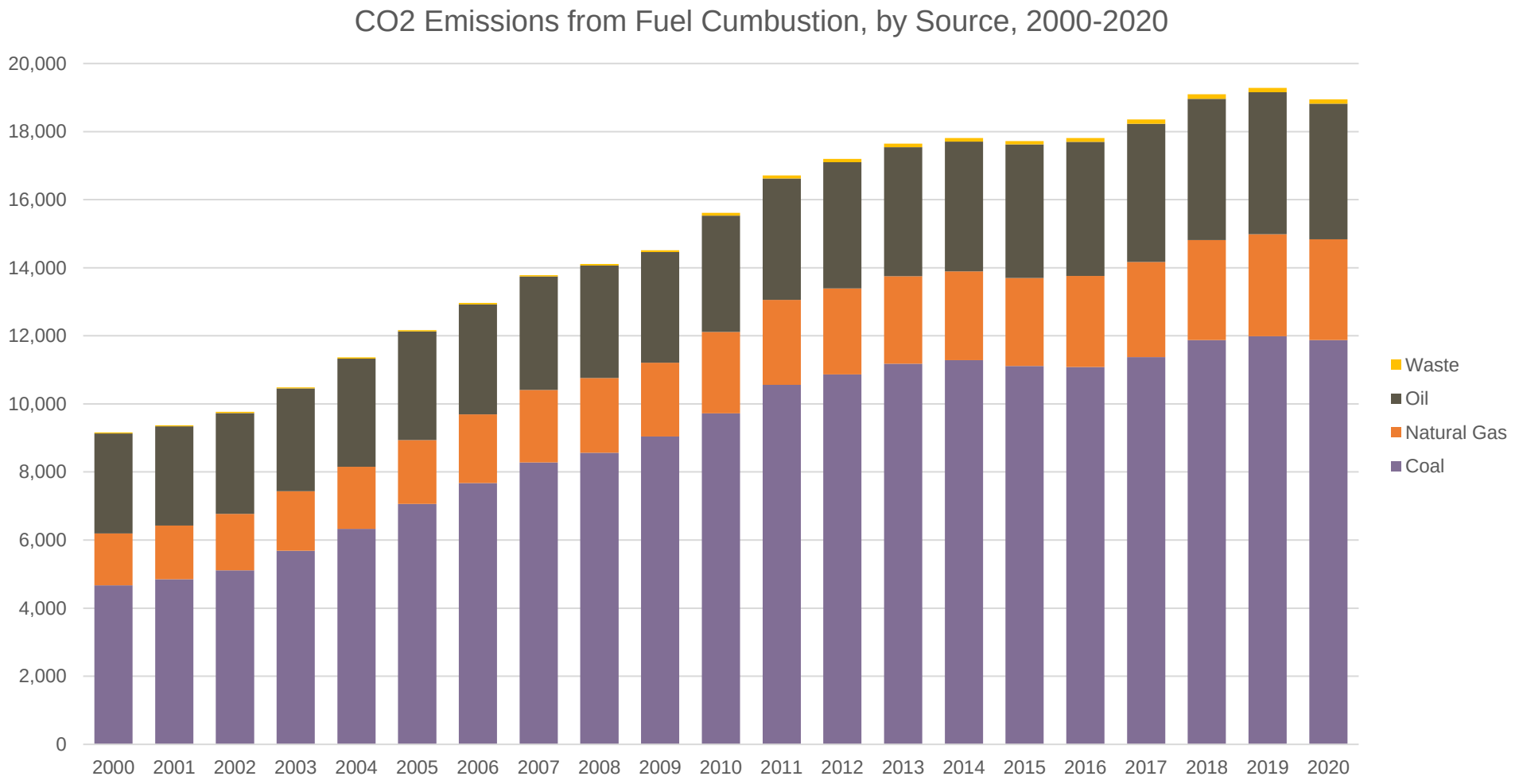
Top 12 Asia-Pacific Countries for Installed Renewable Energy-Generating Capacity per Capita, 2021 (watts)



Hydropower has enabled higher shares of renewables for a number of countries, but the expanded use of solar and wind is pushing shares up for others

Target 7.b: By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all…

Asia- Pacific Regional Energy-Related Emissions Trajectory

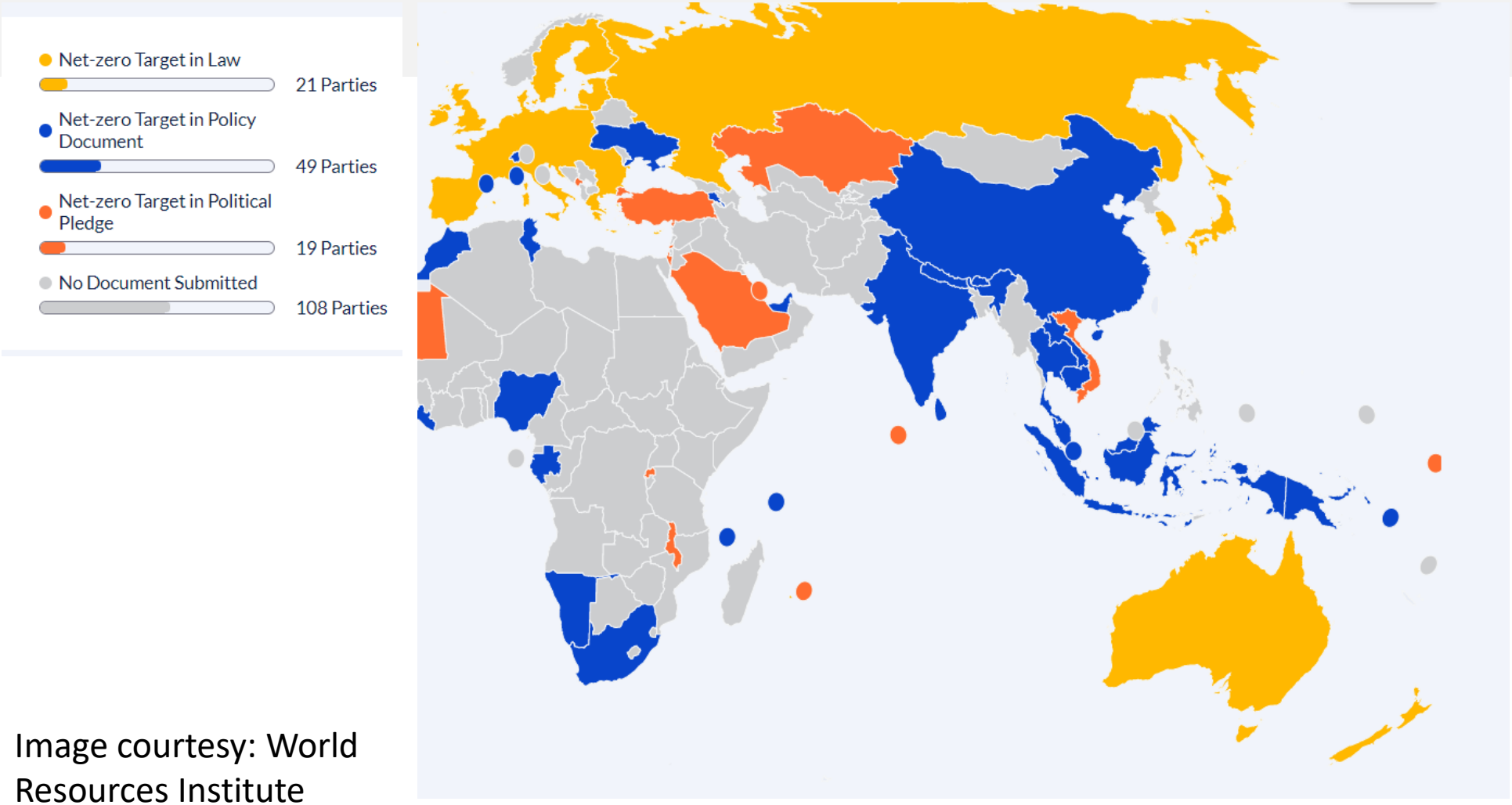


Regional GHG emissions continue to grow….

Source: ESCAP based on IEA

Target 7.2: By 2030, increase substantially the share of renewable energy in the global energy mix

Net Zero Targets Across the Asia-Pacific Region

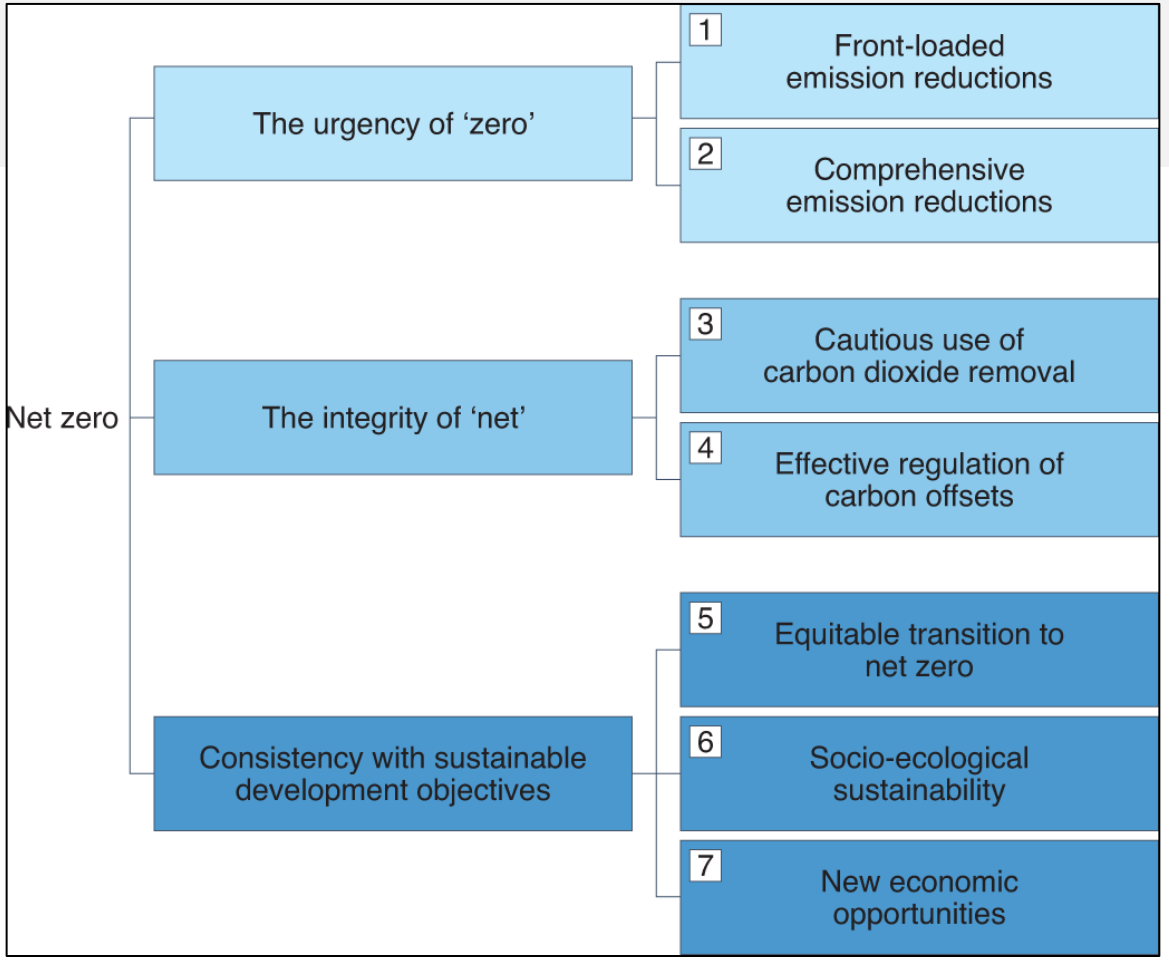


An increasing number of countries are making net zero commitments by mid-century.

Image courtesy: World Resources Institute

Implementation of Net Zero Targets Across the Asia-Pacific Region

- Complex implementation challenge - uncertainties in future technology and costs; tradeoffs; socioeconomic impacts.
- Matrix of technology/policy solutions – zero and low carbon energy, energy efficiency, carbon sequestration.
- Strong link to “just transition” needed.
- Regional cooperation will be key to implementation.



Fankhauser, S., Smith, S.M., Allen, M. *et al.* The meaning of net zero and how to get it right. *Nat. Clim. Chang.* **12**, 15–21 (2022). https://doi.org/10.1038/s41558-021-01245-w

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