Regional Review of Climate Ambition and SDG Implementation in Asia and the Pacific

From Ambitions to Results:

Sectoral Solutions and Integrated Action

Aneta Nikolova,
Environment and Development Division,
ESCAP

2025 Executive Training Course for Policymakers on the 2030 Agenda for Sustainable Development: Accelerating Synergies for Integrated SDG and Climate Action, 18-21 March 2025

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Economic and Social Commission for Asia and the Pacific

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UNITED NATIONS SUSTAINABLE DEVELOPMENT GROUP

ESCAP at a Glance

One of the five regional commissions of the United Nations

53
MEMBER STATES

9
ASSOCIATE MEMBERS

Asia and the Pacific Covers

40%
WORLD LAND AREA

60%
WORLD POPULATION

ESCAP
Economic and Social Commission for Asia and the Pacific

Our Thematic Work

Organized into 8 sectoral subprogrammes, supported by divisions and Regional Institutions

1. Macroeconomic policy, poverty reduction and financing for development

2. Trade, investment and innovation

- Asian and Pacific Centre for Transfer of Technology (APCTT)

3. Transport

4. Environment and Development

- Centre for Sustainable Agricultural Mechanization (CSAM)

5. Information and communications technology and disaster risk reduction and management

- Asian and Pacific Training Centre for Information and Communication Technology for Development (APCICT)
- Asian and Pacific Centre for the Development of Disaster Information Management (APDIM)

6. Social development

7. Statistics

- Statistical Institute for Asia and the Pacific (SIAP)

8. Energy

Areas of support

1. **Low-emission and climate-resilient development**

2. **Air pollution**

3. **Ocean protection**

4. **Sustainable urban development**

5. **Access to information and public participation**

➢ Click on each thematic area to learn more

Contact

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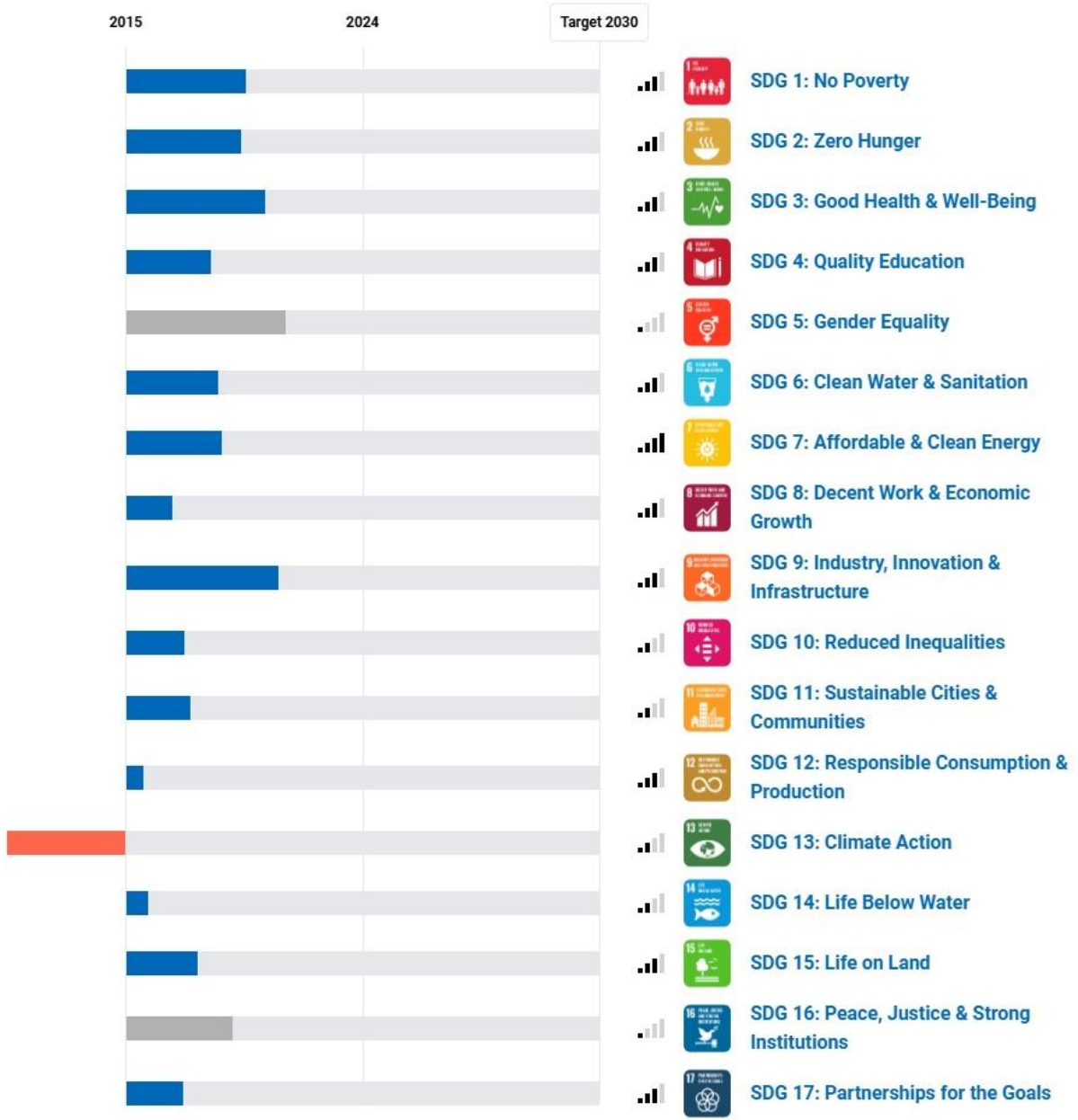
A Snapshot of SDG Implementation in Asia-Pacific, 2025



2024 Review of Climate Action in Asia-Pacific

Note on data use:

- Regional members GHG emission presented in the report included 45 countries out of 53 ESCAP members.
- EDGAR (2024) data used which GHG emissions include CO_2 (fossil only), CH_4, N_2O and F-gases).
- LULUCF macroregional data. Some countries in these microregions are not ESCAP regional members.

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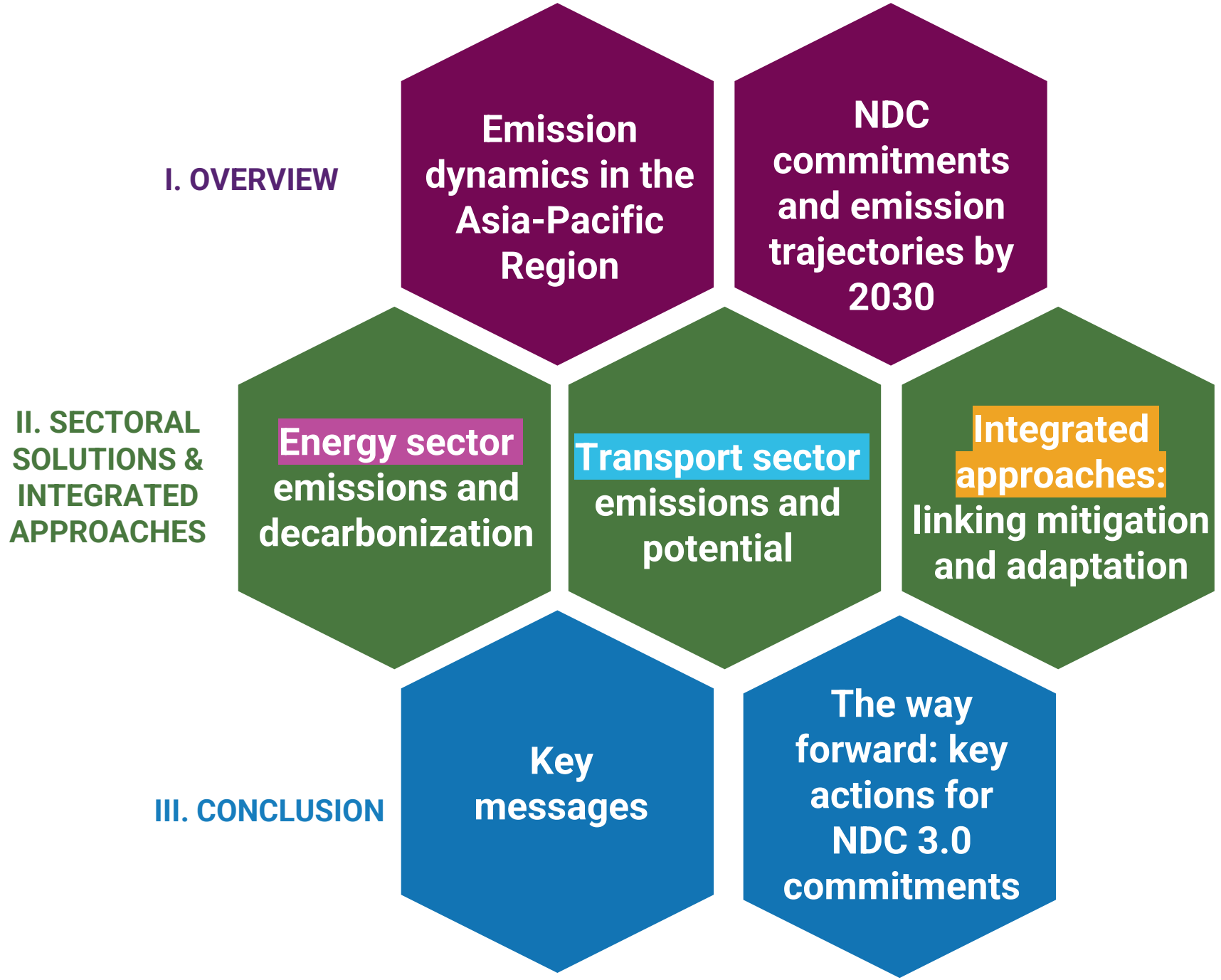
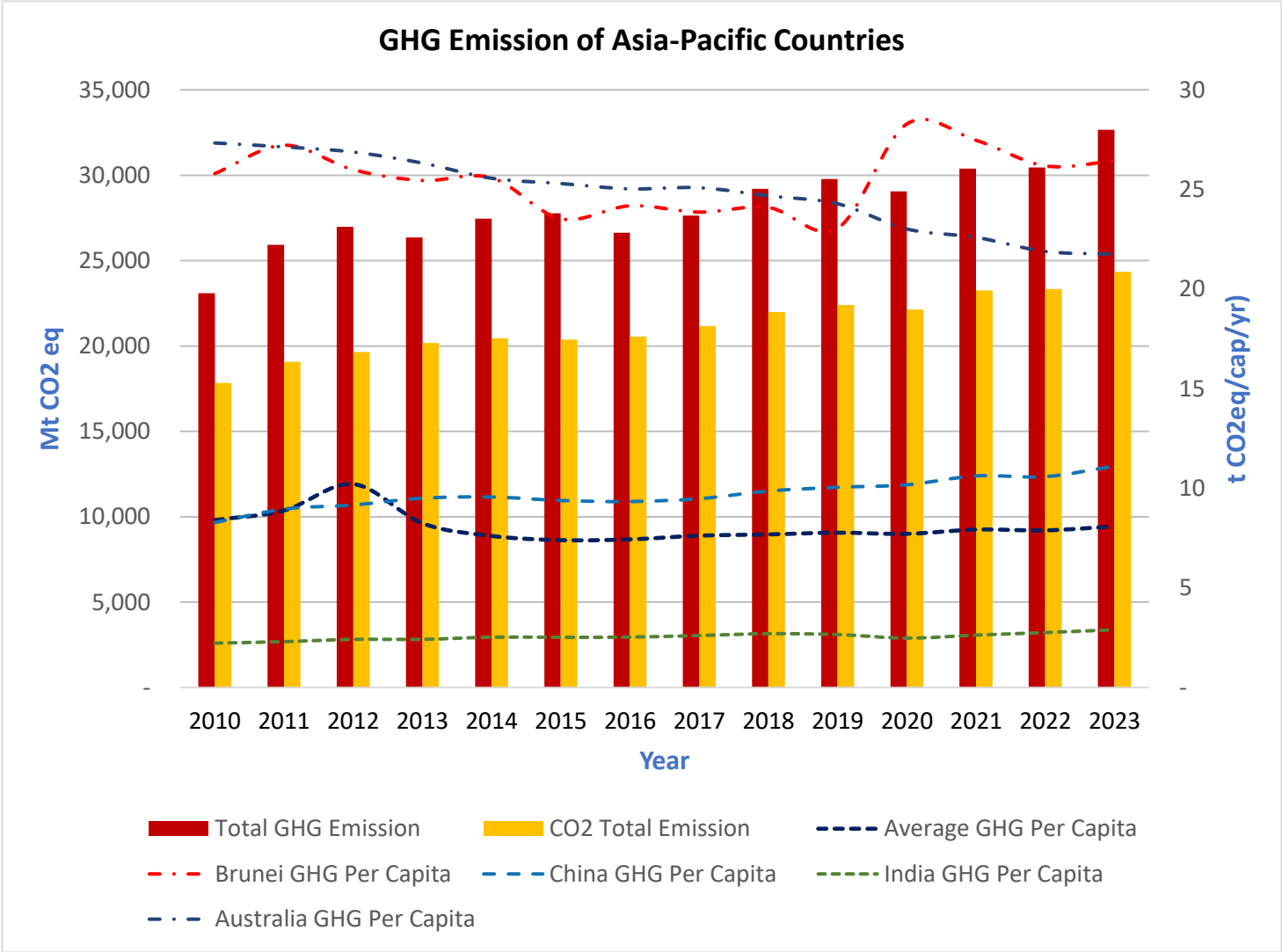


Emissions dynamics in Asia and the Pacific

- In 2023, Asia-Pacific region contributes about **60%** of global GHG emissions of **54.5** Gt CO_2eq – driven by rapid industrialization, urbanization, high dependence on fossil fuel, and deforestation.
- Region accounts for **62.4%** of global fossil fuel CO_2 emissions and **52.2%** of global energy related CO_2 emissions.
- Average per capita GHG dropped in 2015 and showing gradual increase.



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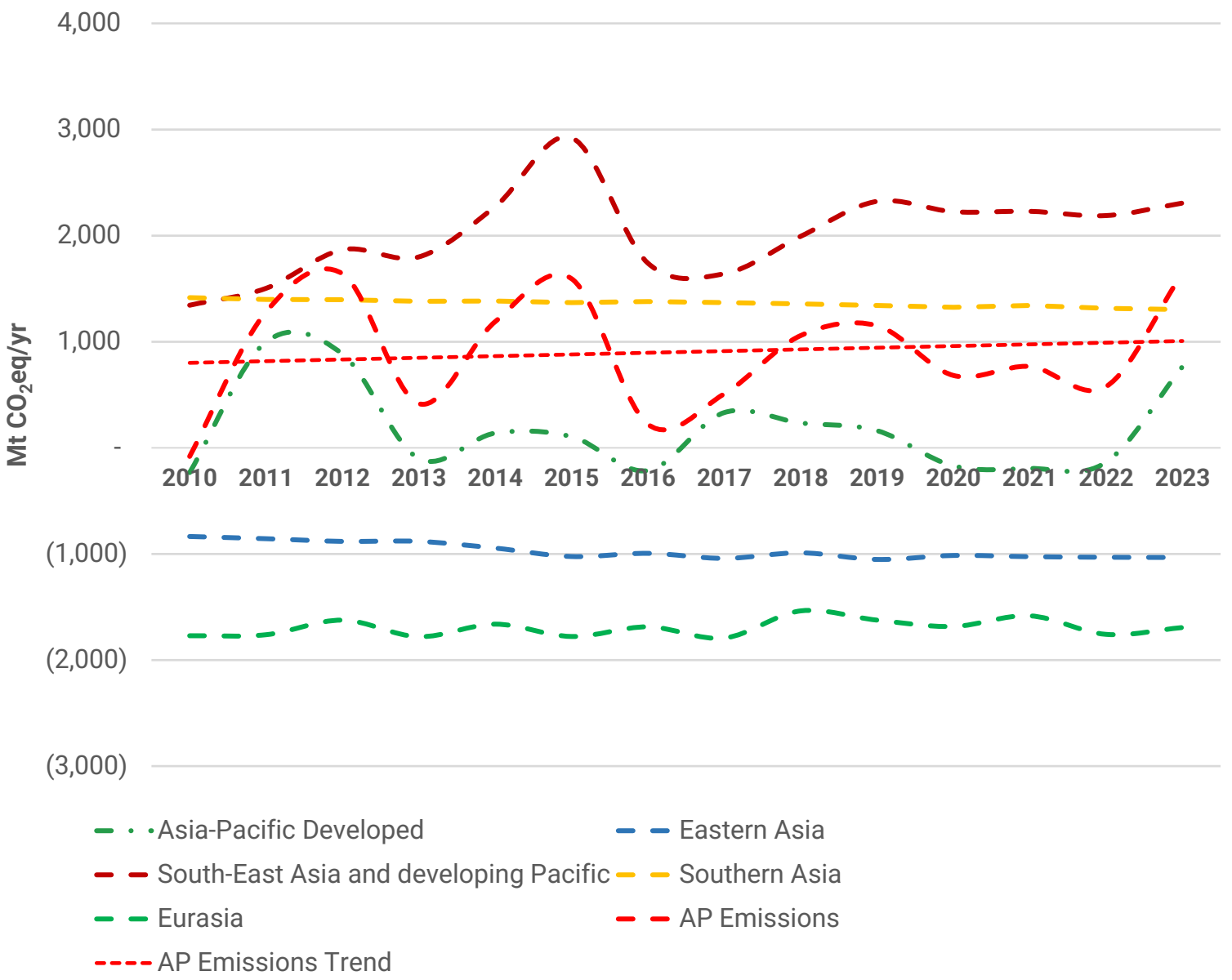
- GHG emissions from LULUCF sector shows increasing trend. In 2023, the net emissions from the sector are about **1.65** Gt CO_2eq.
- East Asia and Eurasia emissions are stable and net negative (as carbon sinks). South-East Asia and South Asia emissions are also stabilising.
- Deforestation and wildfires are important drivers. Forest fires in Australia (2011, 2023) and China (2017) contribute significantly.

*subregions according to EDGAR (2024)



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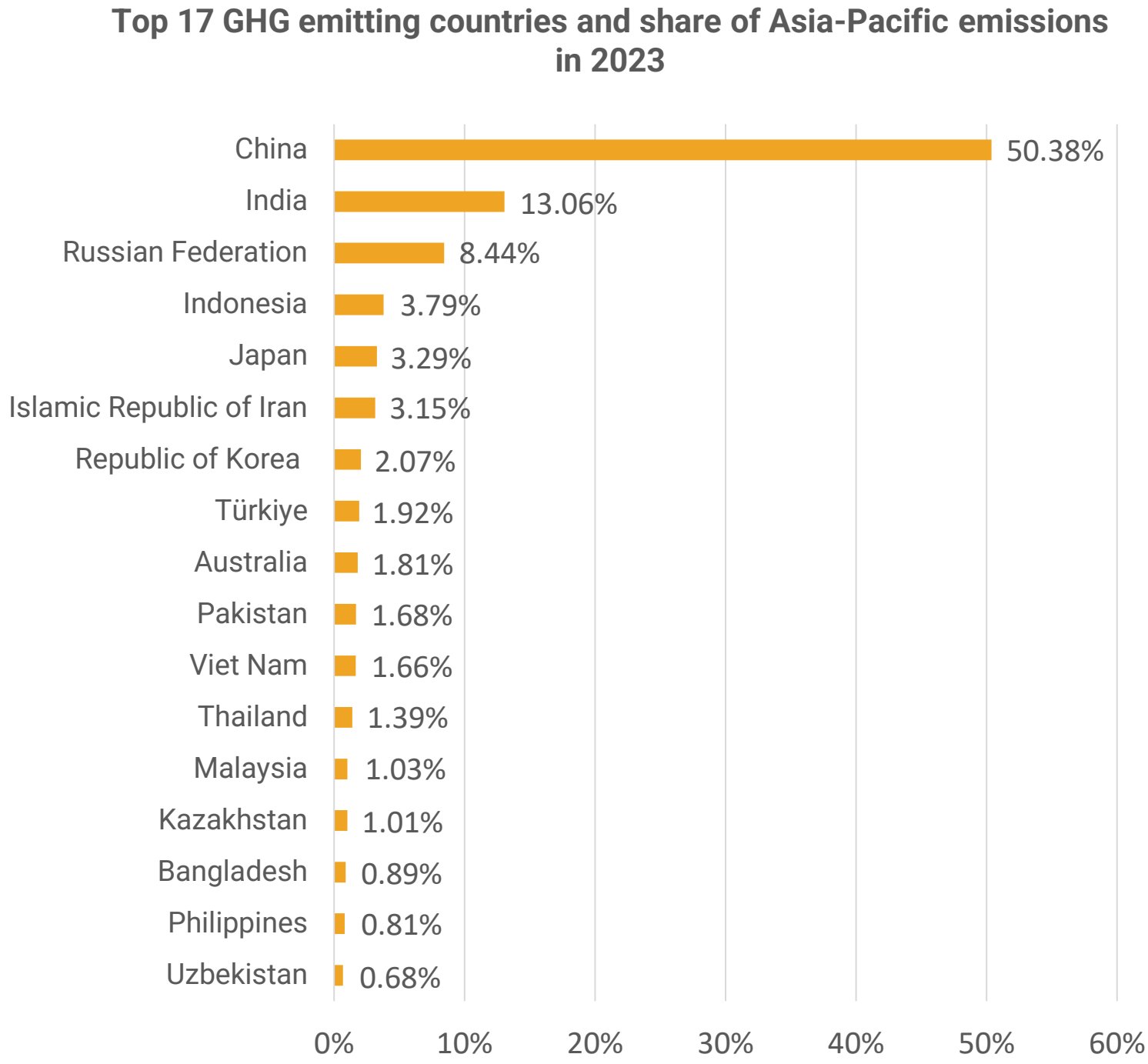
- 17 regional countries generate about **97%** of the regional GHG emissions of **31.65** Gt CO_2eq.
- China, India and Russian Federation account for about **71.88%** of regional GHG emissions.



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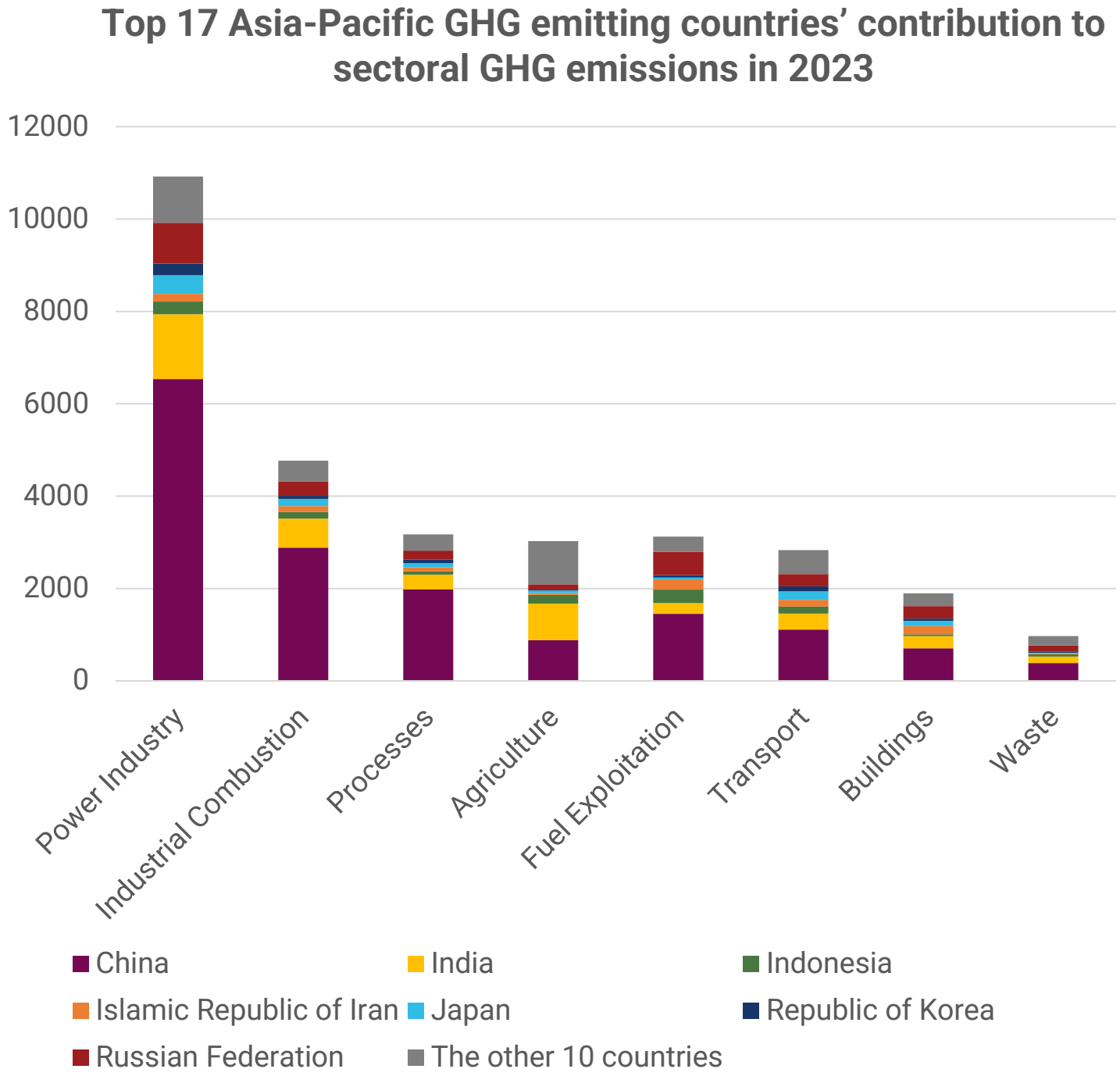
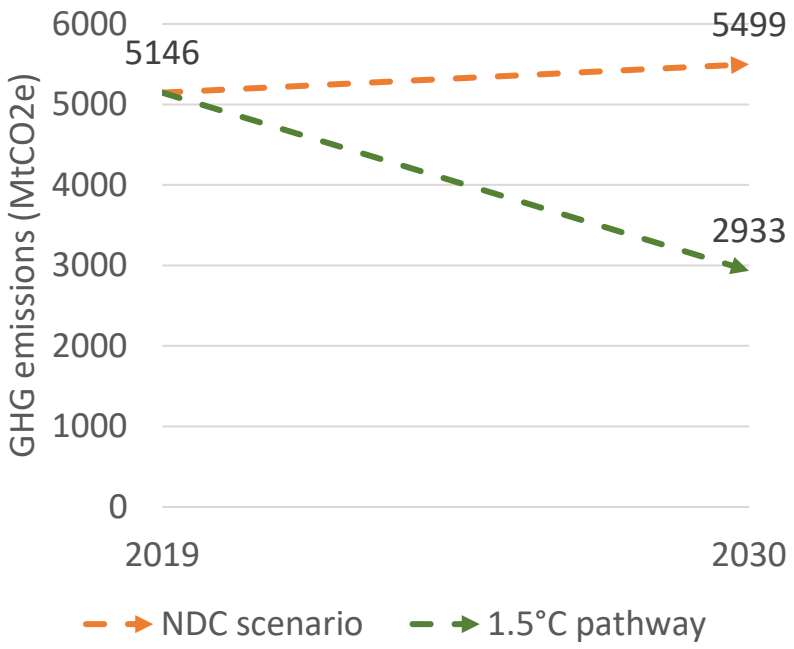
- China, India, Russian Federation, Japan, Indonesia and Republic of Korea emit about **88%** of regional emission of power industry and about **73%** of transport sector.

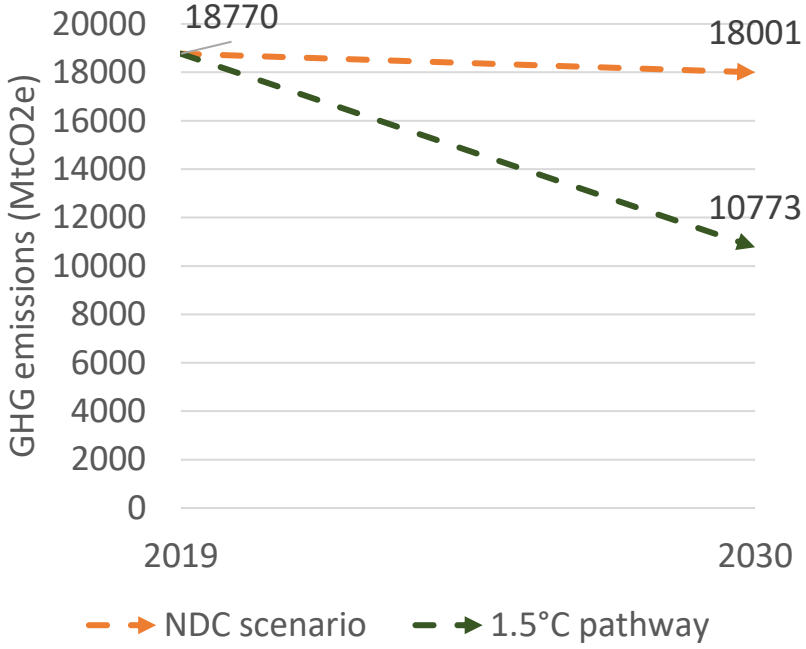


NDC commitments and projected GHG emissions trajectories

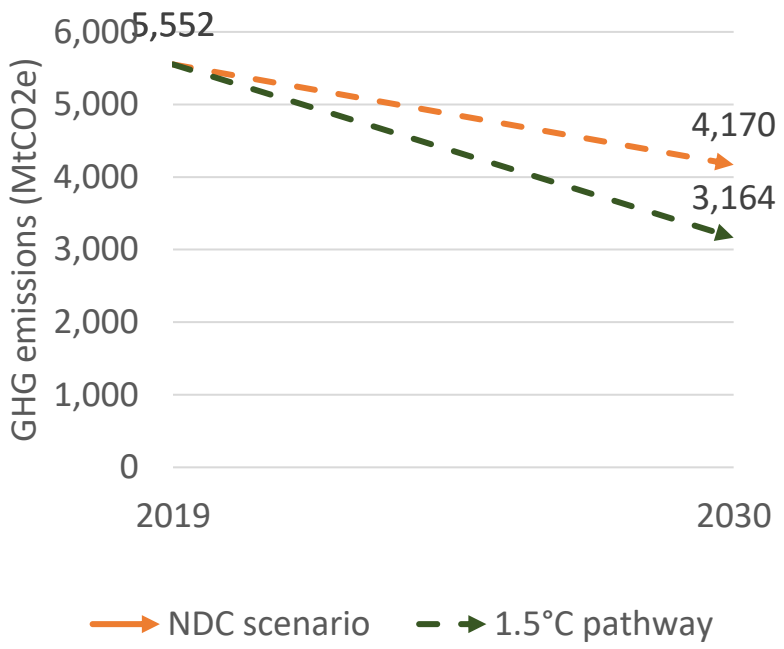
BAU-based targets



Intensity-based targets



Absolute year target



- BAU reduction targets of 22 member states, emissions are expected to increase by around 353 $MtCO_2e$ by 2030.
- Six regional member states have chosen intensity target which result in very modest reduction in emissions by 2030 (around 769 MtCO2e).
- Absolute reduction targets of 16 countries will leads to are projected to result in reductions of emissions by 1,386 MtCO2e (25%) from 5,552 MtCO2e in 2019 to 4,170 MtCO2e by 2030.

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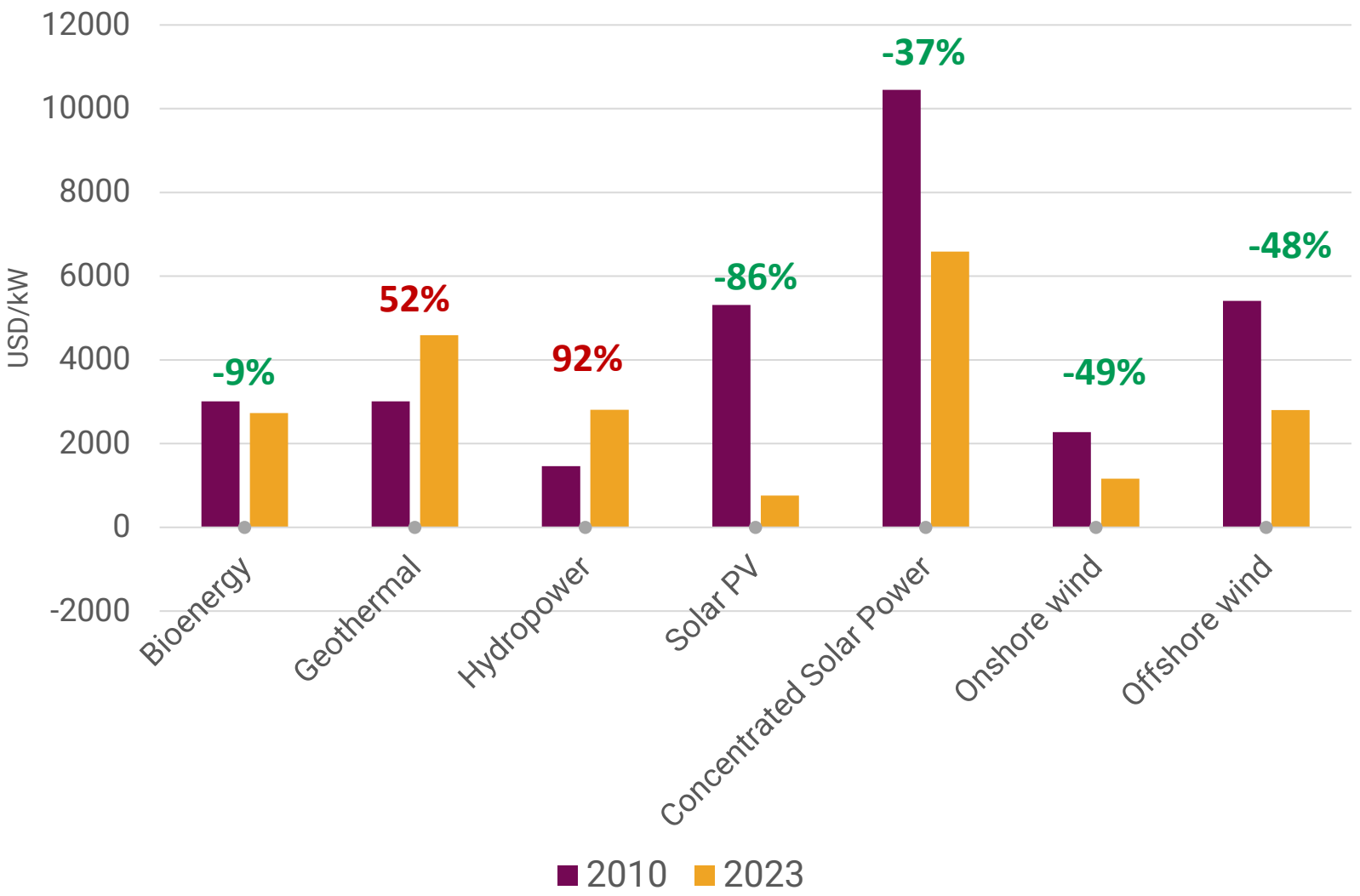
Energy sector emission and decarbonization

- The Asia-Pacific region accounts for **45%** of world energy supply, **43.2%** of total final energy consumption and **50%** of world electricity generation.
- The region accounts for **52.2%** of global energy related CO2 emissions, with a growth rate of **33%** from the 2010 emission levels. In the Stated Policies Scenario (STEPS), the growth rate of the emission is expected to remain around **31%,** reduces to **16%** in the Announced Pledges Scenario (APS).
- Coal accounts for **56%** of electricity generation, with renewables contributing **27.1%** and the rest are from natural gas, nuclear and other sources.
- GHG emissions from combustion of fossil fuels were **19.3** billion tCO_2-e in 2019. This represents an increase at an average annual rate of **4%** between 2000 and 2019.

Technologies in the energy sector drive emission reductions



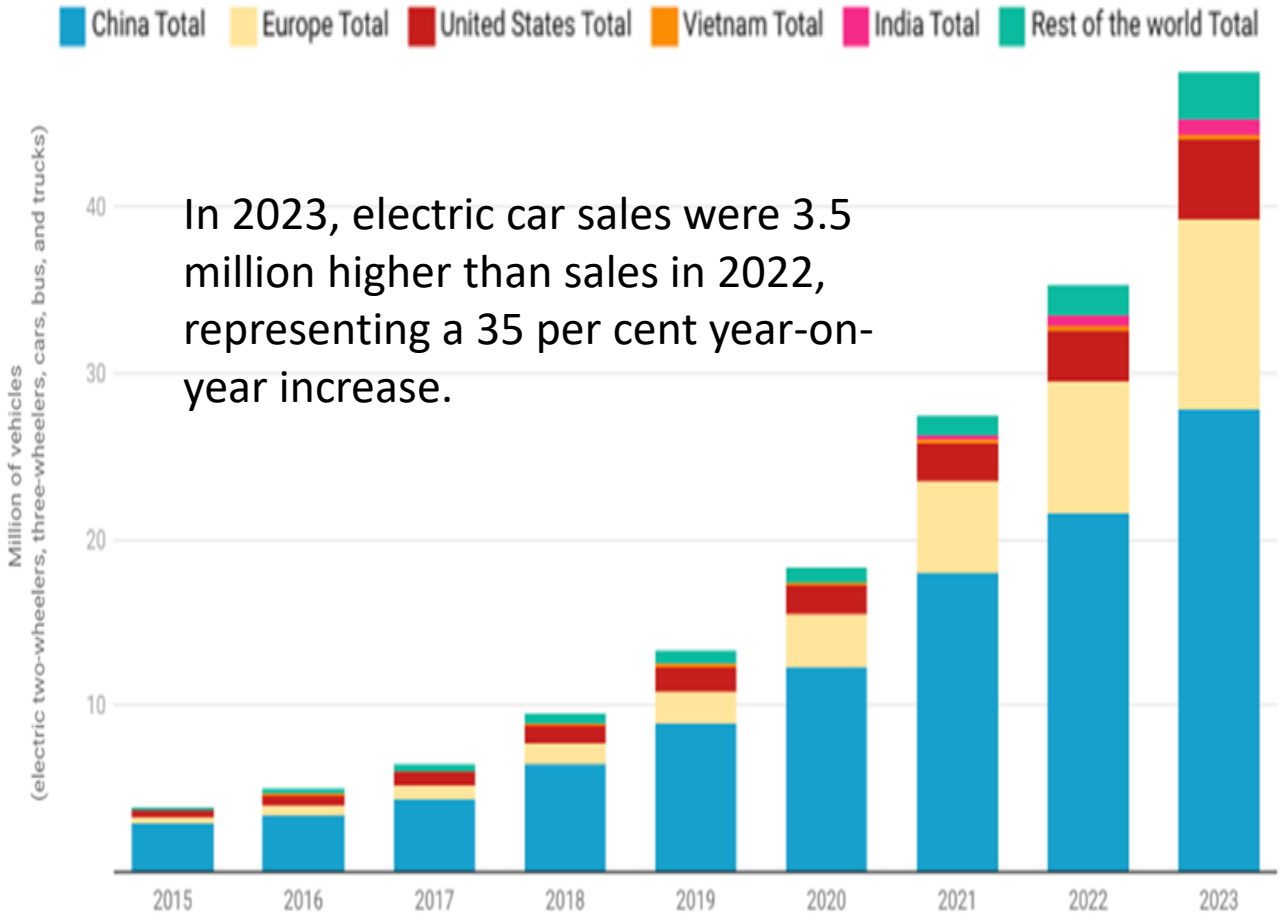
Utility-scale solar PV has dropped by 90% from $0.46/kWh in 2010 to $0.044/ kWh, Onshore wind cost is around $0.033/kWh, and offshore wind costs at approx. $0.075/ kWh.

The price of solar PV has decreased by 86% while the same for hydropower and geothermal has increased by 92% and 52% respectively.

Transport sector growth and CO2 emissions reduction potential

- CO2 emissions are rising 2% annually on average and 18% overall during 2010 to 2019. In 2020, transport CO2 emissions dropped 13% to 2012 levels.
- In 2022, transport sector accounted for 20% of global CO2 emissions, with the Asia-Pacific region responsible for about 31% of that total.
- Both passenger and freight demand are projected to continue to grow significantly between 2019 and 2050 globally, increasing by 79 per cent and almost 100 per cent respectively.

Trends in Global Sales and Registration of EVs (2015-2023)



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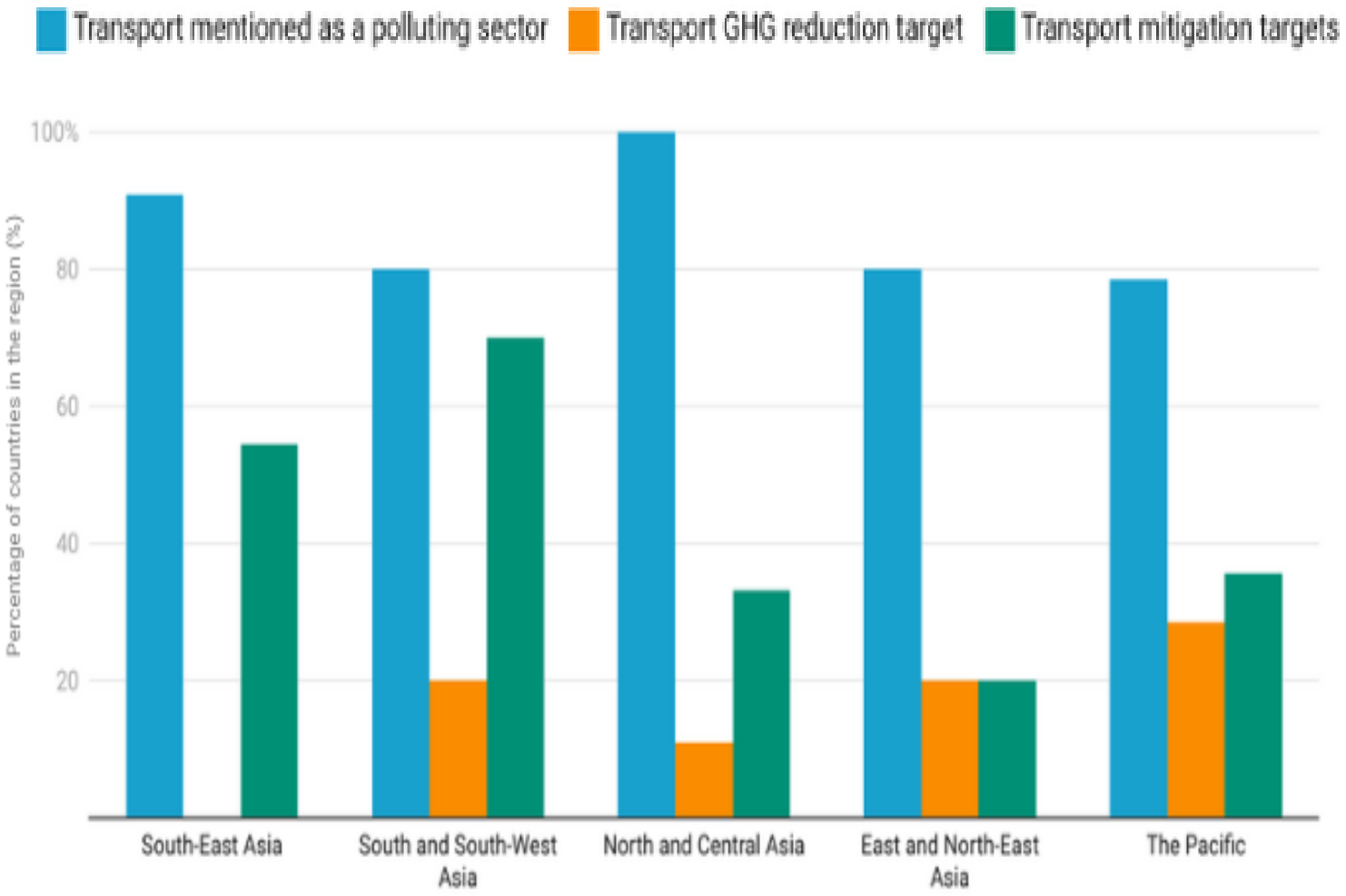
Transport sector targets in the NDC



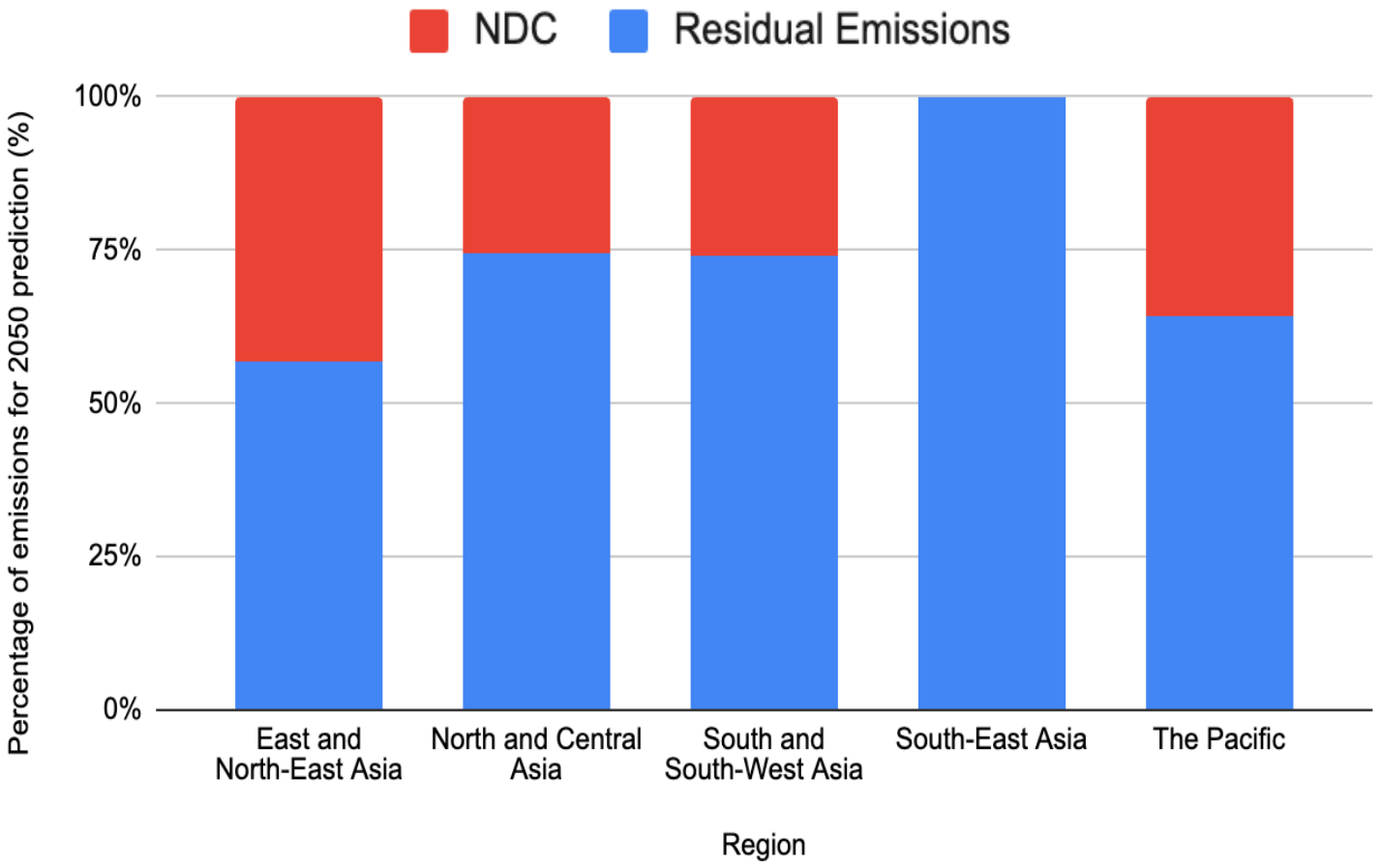
Only eight countries included transport-related GHG emission reduction targets.

22 countries included transport-related climate mitigation measures.

The South and Southwest Asia region has the largest number of countries that included transport mitigation measures in their NDCs.

Passenger transport is more frequently mentioned in the NDCs (58% of countries) than freight transport (35%).

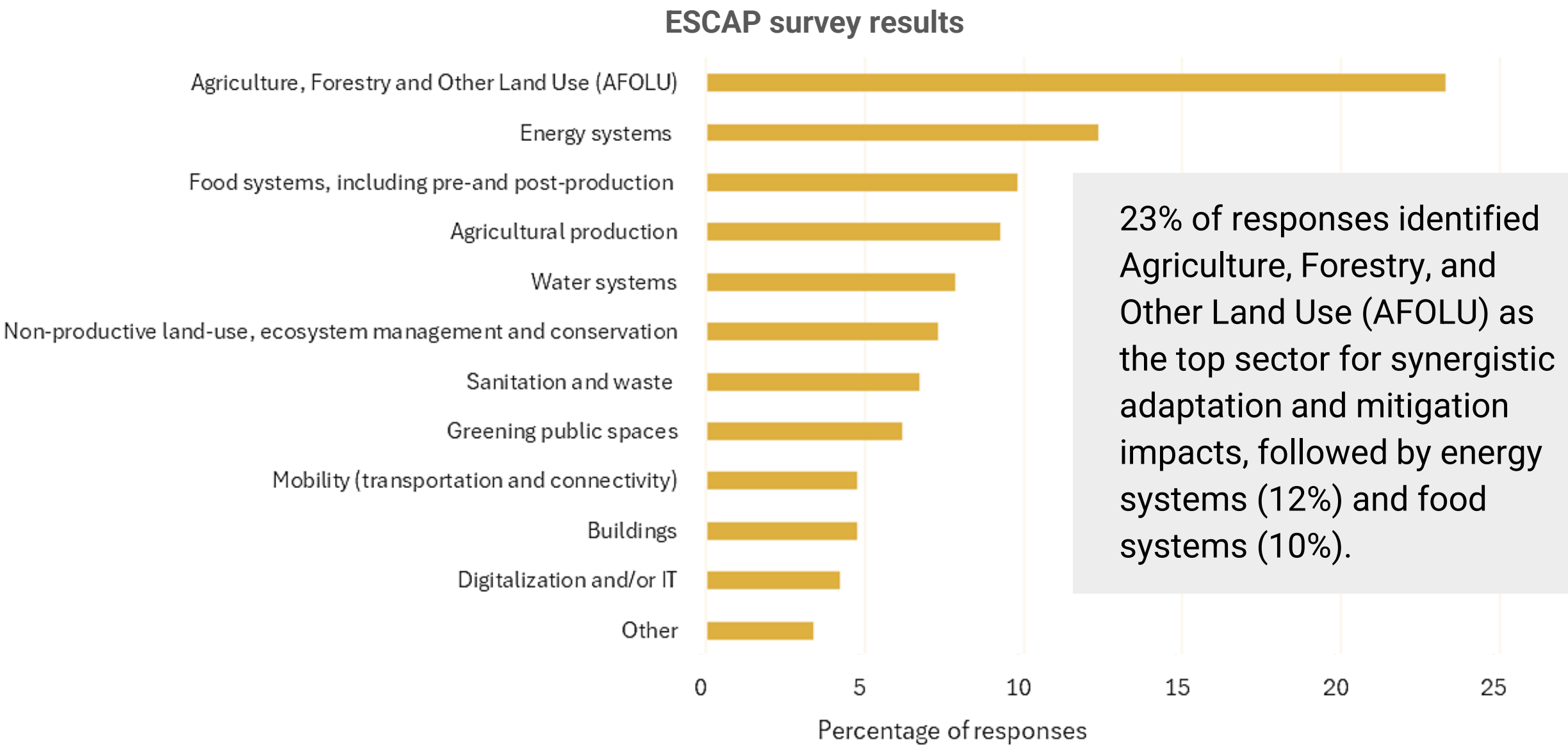
Transport sector reduction potential



Additional transport targets need to be developed and implemented to support higher levels of emission reductions (the International Council on Clean Transportation)

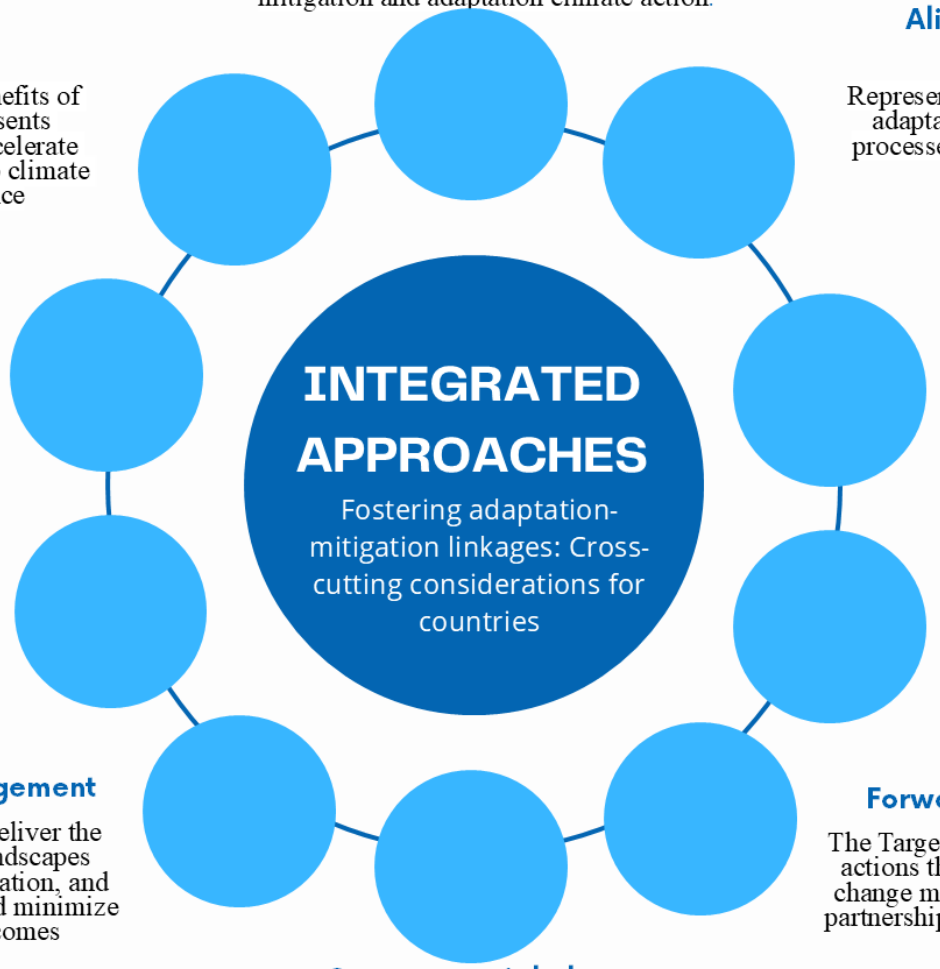
For example, the Southeast Asia, and East and Northeast Asia subregions, a combination of the policies outlined in the ICCT calculations can lead to 58 per cent and 54 per cent reduction in emissions from the baseline projected for 2050 respectively.

Integrated approaches: linking mitigation and adaptation



23% of responses identified Agriculture, Forestry, and Other Land Use (AFOLU) as the top sector for synergistic adaptation and mitigation impacts, followed by energy systems (12%) and food systems (10%).

Areas of work to advance integrated approaches



Climate finance

To help close the adaptation financing gap is to build a good synergy between mitigation and adaptation climate action.

Resilient and low emission agrifood systems

Most cost-effective options to maximize co-benefits of adaptation and mitigation on the ground; presents opportunities to scale up good practices and accelerate climate action to support countries, in relation to climate resilience, adaptation, mitigation and finance

Alignment of NDCs and NAPs

Represents a useful starting point to integrate adaptation and mitigation, as both policy processes are linked to the Paris Agreement; complementary

Urban planning and development

Reduction of carbon emissions and building climate-resilience in cities are becoming important objectives to be achieved in order to ensure sustainable urban development pathways

Climate-health nexus

Actions that stabilize and reduce greenhouse gases, and other processes that drive climate change, will promote positive health outcomes

Nature-based solutions

Conservation, restoration and improved management of ecosystems that increase carbon storage and/or avoid GHG emissions have the potential to deliver up to 37% of cost-effective mitigation by 2030

Just Transition

Promotes the equitable and sustainable transformation of economies and societies towards low-carbon, climate-resilient, and environmentally sustainable development; an integrated, whole-system perspective on justice, transboundary climate risk

Landscape management

Design and implementation aim to deliver the three outcomes of climate-smart landscapes (societal adaptation, ecological adaptation, and climate mitigation); and recognize and minimize the trade-offs between these outcomes

Forward Faster program

The Target 2 of climate action - taking concrete actions that address social impacts of climate change mitigation and adaptation measures, in partnership with actors such as workers, unions, communities and suppliers

Cross-sectorial plans

Enhance synergies with existing development policies, build national capacity for low emission development, and increase efficiency and cost effectiveness in multiple sectors

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Key messages

a) **Next cycle of NDCs 3.0 setting up emission reduction trajectories towards 2035 provide an excellent opportunity** for low-greenhouse gas emission transition and modernization of economies of developing countries in Asia-Pacific.

b) **The region's energy mix is a fundamental challenge.** A heavy reliance on fossil fuels, rapid urbanization, a rising standard of living and expanding mobility needs drive continued increases in energy use.

c) **Urgency for enhanced climate mitigation ambition and better alignment cannot be ignored further:** Asia and the Pacific region accounts for over 50% of global GHG emissions with a growth of average 2 per cent annually since 2010 dominated growth of power industry and transport sectors which is about 3% per annum over the same period.

Key messages

d) **Coal dependency remains a major barrier to region's energy transition:** The region accounts for 45% of global energy supply and 52.2% of CO_2 emissions from energy, with coal comprising 56% of electricity generation.

e) **Renewable energy has greatest potential to raise ambitions and narrow emission gaps and targets:** Asia-Pacific is driving the world renewable energy growth. However, to align with the COP28 goal of tripling renewable capacity to 11,000 GW by 2030, Asia-Pacific countries must increase it to add approximately 7,000 GW in just six years.

f) **Transport sector emissions are on the rise and transition to electric mobility is key and requires large investment:** Asia and the Pacific region accounted for 31% of global transport emissions in 2022, with emissions from this sector increasing faster than any other between 2010 and 2019.

g) **Growing demand for passenger and freight transport necessitates sustainable solutions:** Demand for passenger and freight transport in Asia-Pacific is projected to increase by 79% and nearly 100%, respectively, by 2050.

Key messages

h) **High-risk populations in Asia and the Pacific need urgent adaptation measures:** With 80% of global displacements triggered by climate-induced disasters affecting predominantly women and children, urgent adaptation measures are necessary.

i) **Integrated climate strategies can enhance synergies and minimize trade-offs:** In a recent survey conducted in the Asia-Pacific region, 23% of respondents identified Agriculture, Forestry, and Other Land Use (AFOLU) as the top sector for synergistic adaptation and mitigation impacts, followed by energy systems (12%) and food systems (10%).

j) **Investment gaps hinder emission reduction goals and targets to achieve:** Significant financial resources are required to close the climate finance gap in Asia and the Pacific region. The region needs an estimated $1.5 trillion annually in energy investments to achieve sustainable energy transitions. Innovative financial mechanisms support climate-resilient development.

Way forward: key actions for 2025 NDC 3.0 commitments

Better NDC3.0 targets and strategies

- Align third cycle of Nationally Determined Contributions (NDCs 3.0) with Long-Term Low-Emission Development Strategies and Net Zero Pledges.
- Set up absolute emission reduction targets (2019 baseline year), as recommended by IPCC.
- Develop economy-wide emission reduction strategies.
- Define clear financing and technology gaps to modernize the regional developing economies.

Energy transition

- Develop and implement more ambitious renewable energy targets in line with the global pledge to triple renewable energy production.
- Ensure doubling of annual energy efficiency by 2030.
- Accelerate decarbonization of the power sector.
- Phase out fossil fuel subsidies in the energy sector.
- Strengthen regional cooperation on mitigation efforts.
- Develop regional carbon trading schemes.

Way forward: key actions for 2025 NDC 3.0 commitments

Sustainable transportation

- Set national greenhouse gas emissions targets for transport with clear data collection processes for effective tracking and monitoring.
- Update NDCs to align with national transport policies and targets.
- Strengthen cross-sectoral collaboration between transport and environment ministries.
- Support technological advancements in transport beyond electrification.
- Foster international collaboration to raise funding for transport sector decarbonization and incentivize private sector investment.

Integrated approaches

- Establish a cross-sectoral coordination mechanism to enhance collaboration among ministries.
- Promote nature-based solutions in climate policies to maximize co-benefits for biodiversity and climate resilience.
- Enhance capacity-building and knowledge-sharing platforms for integrated climate action.
- Incorporate a gender responsive and human rights-based approach, with a focus on social protection mechanisms to support vulnerable communities in the transition to low-carbon economies.
- Integrate climate action into national development plans to streamline resource allocation.
- Monitor and evaluate integrated approaches to refine strategies and ensure progress.

Way forward: key actions for 2025 NDC 3.0 commitments

Enable actions by scaling up climate finance

- Create financial incentives for emissions reduction and adopt carbon taxes or emissions trading systems to fund renewable energy and low-carbon projects.
- Build capacity to utilize green bonds, blended finance, and international funds like the Green Climate Fund to support large-scale renewable and resilience projects.

Engage stakeholders and strengthen regional collaboration and South-South Cooperation

- Establish inclusive governance frameworks that involve local communities, indigenous peoples, and vulnerable groups in decision-making processes.
- Enhance collaboration between national and subnational levels to ensure that policies are context-specific and address local needs while aligning with broader climate goals.
- Use existing regional technology-sharing platforms to share knowledge, best practices, and resources among Asia-Pacific countries to enhance collective action.

Way forward: key actions for 2025 NDC 3.0 commitments

Better NDC3.0 targets and strategies

- Align next cycle of Nationally Determined Contributions (NDCs 3.0) with Long-Term Low-Emission Development Strategies and Net Zero Pledges.
- Set up robust emission reduction trajectories based on most recent baseline year (2019), which will allow the development of realistic sectoral low-emission reduction strategies and create opportunities for attracting climate finance and technology transfer to modernize the economies of the Asia and Pacific developing member states.

Energy transition

- Develop and implement more ambitious renewable energy targets in line with the global pledge to triple renewable energy production.
- Ensure doubling annual energy efficiency improvement by 2030
- Accelerate decarbonization of the power sector.
- Phase out fossil fuel subsidies in the energy sector.
- Strengthen regional cooperation on mitigation efforts.
- Develop regional carbon trading schemes.
- Enhance energy efficiency in industry and buildings

Sustainable transportation

Integrated approaches

THANK YOU

Download the report at:
https://www.unescap.org/kp/2024/2024-review-climate-ambition-asia-and-pacific-ambitions-results-sectoral-solutions-and