



2023 Review of Climate Ambition in Asia and the Pacific

Just transition towards regional net-zero climate resilient development



Climate crisis in Asia and the Pacific

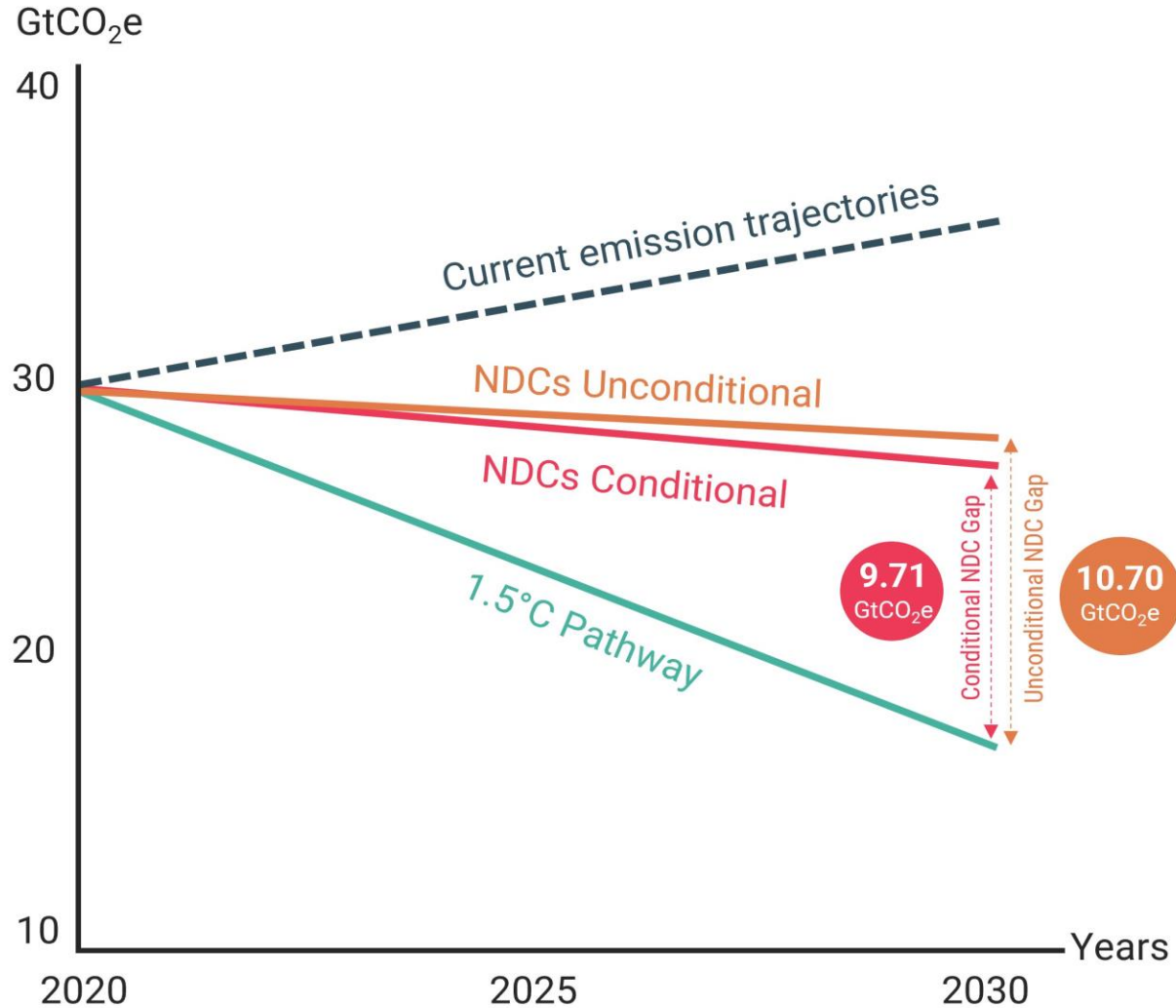
Temperature increase: faster than the global mean

Increasing frequency and intensity of extreme weather events

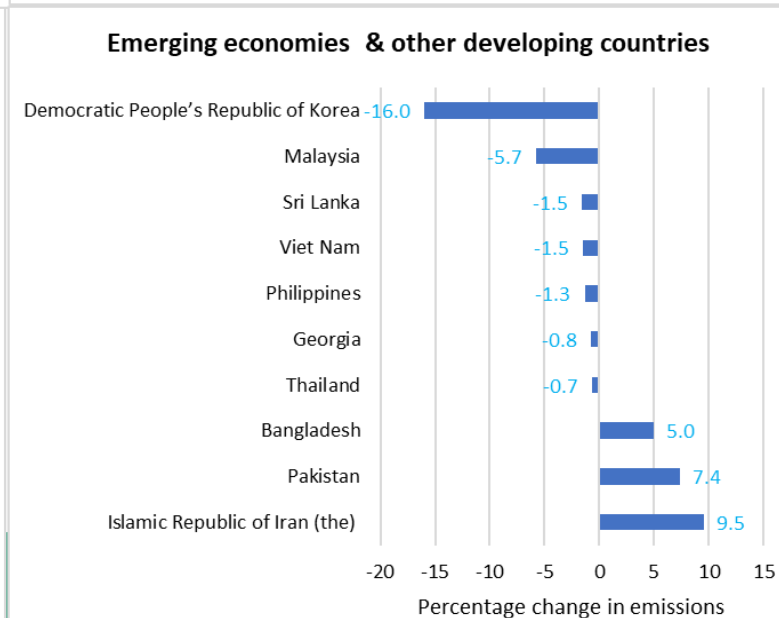
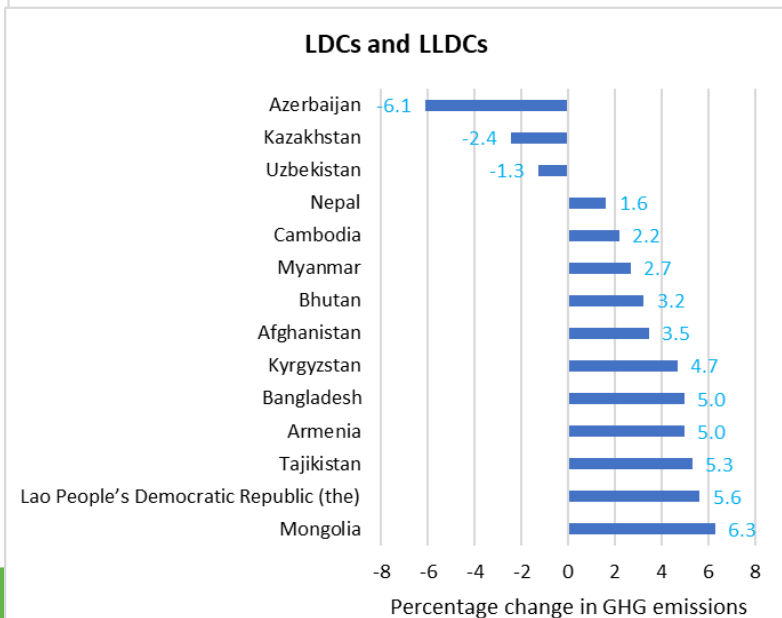
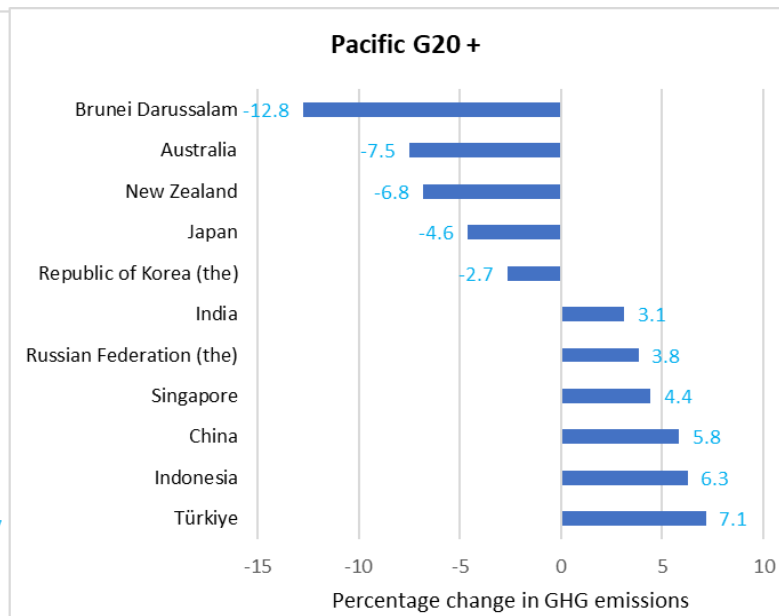
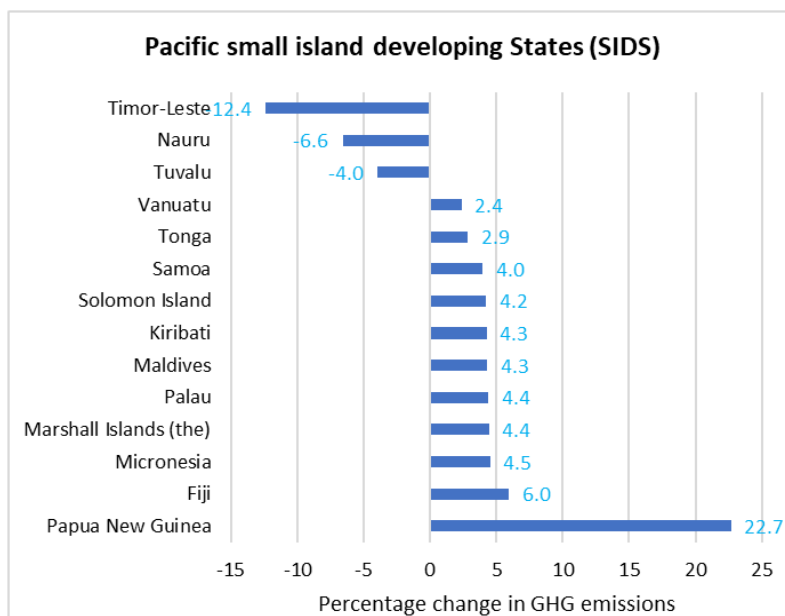
8 of the top 10 countries most affected by climate related disasters



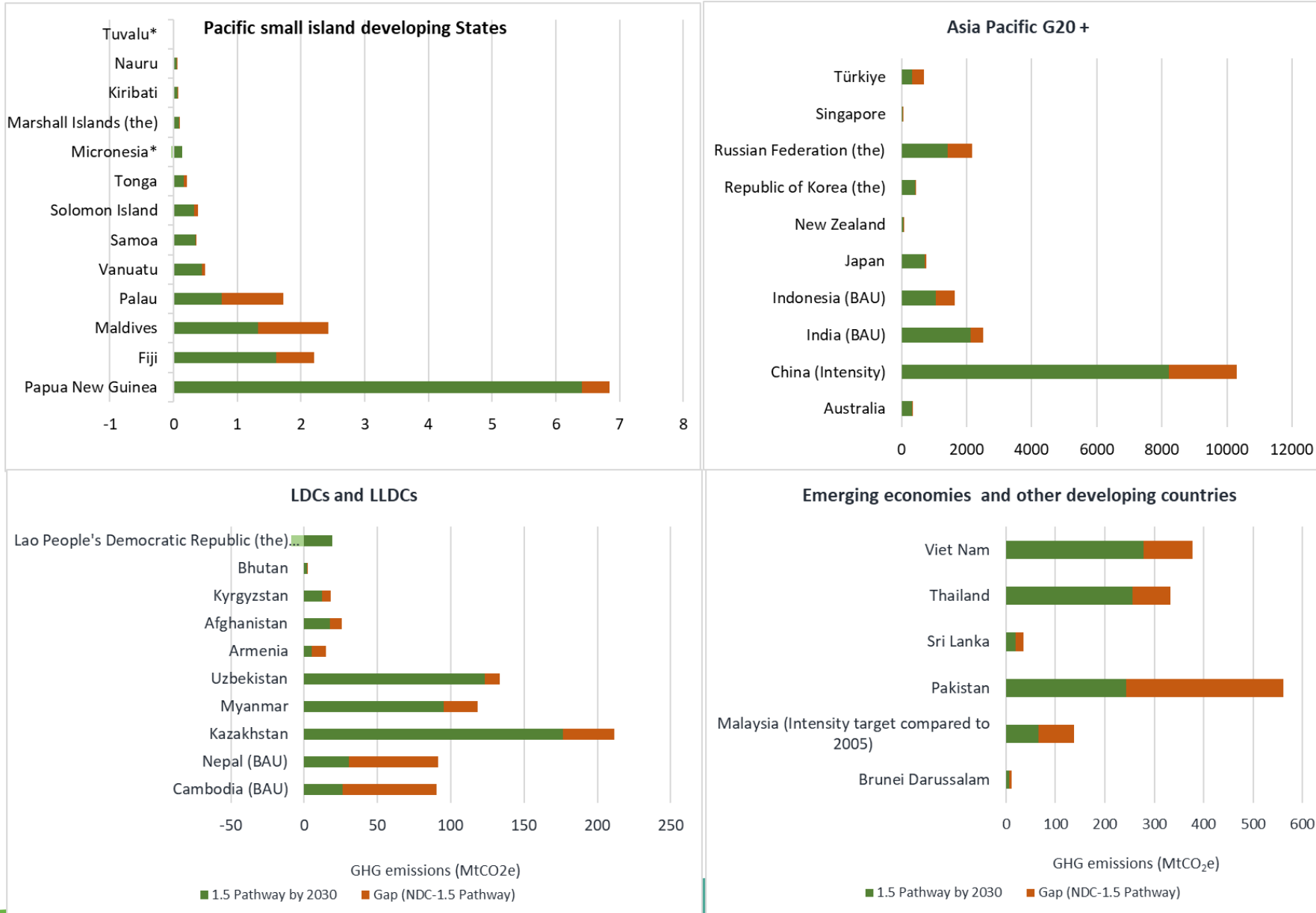
NDC commitments insufficient to deliver on the 1.5°C pathway goal



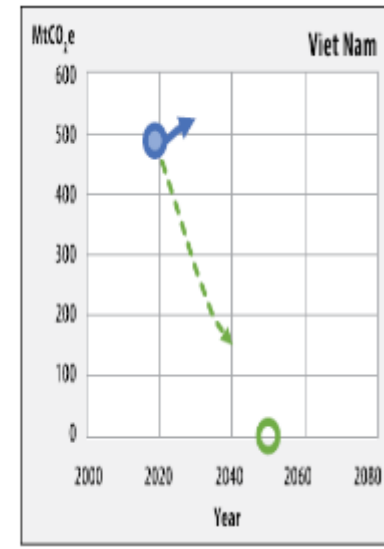
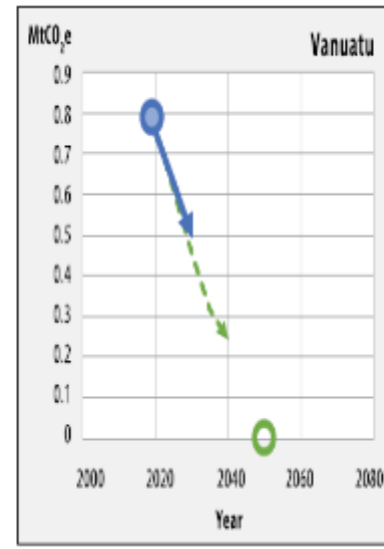
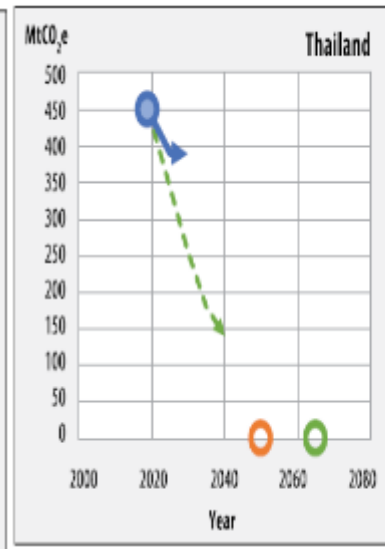
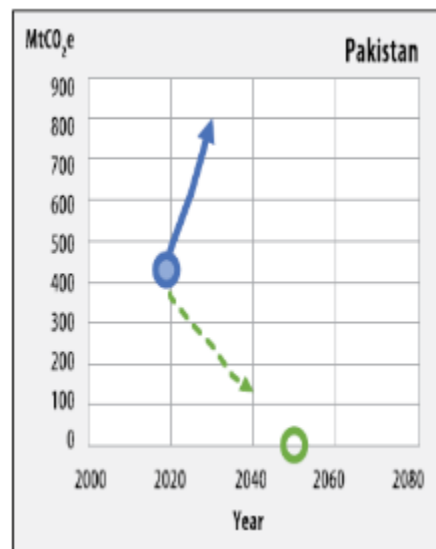
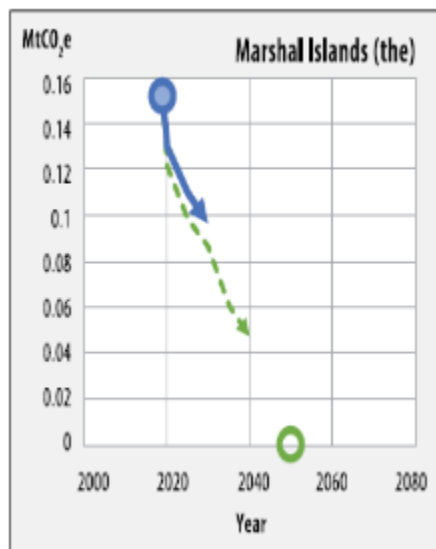
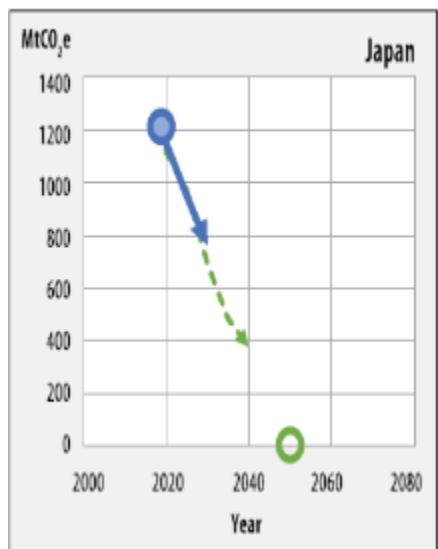
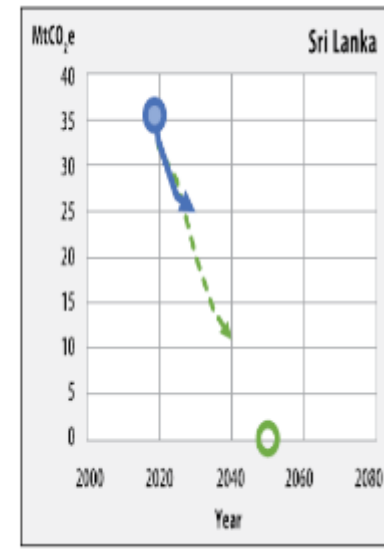
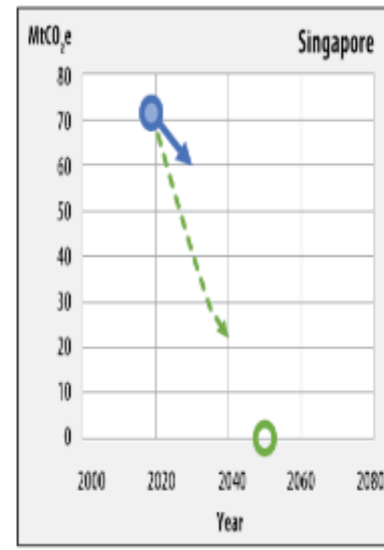
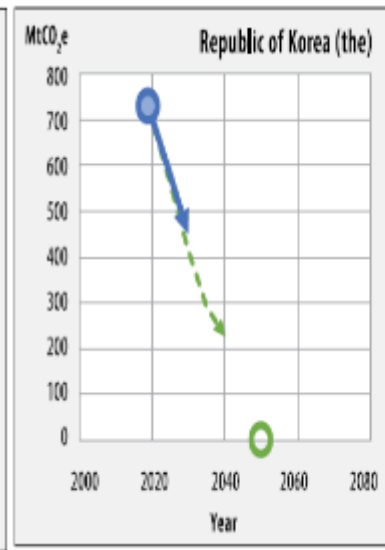
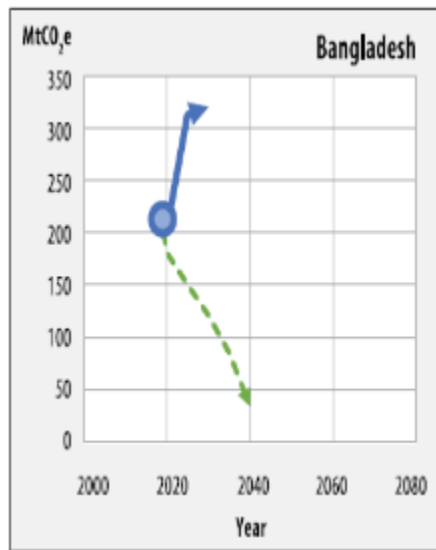
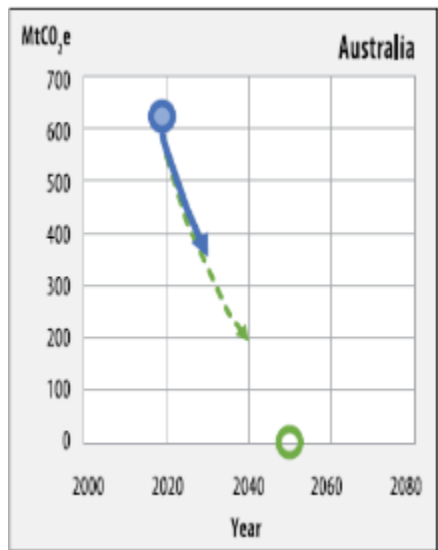
GHG emissions on the rise in the Asia and Pacific region (2019-2021)



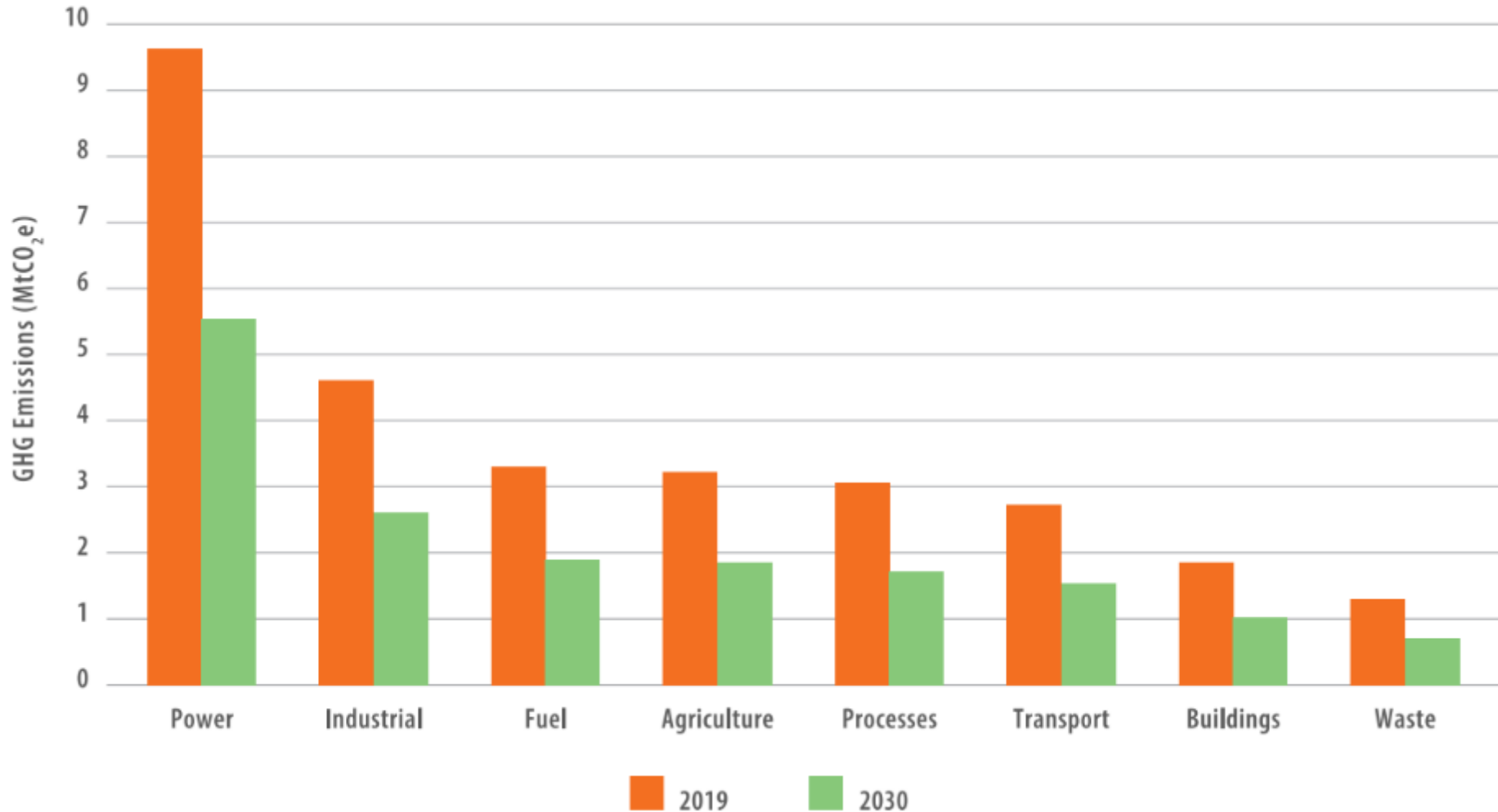
Net zero is not within reach in the Asia and Pacific region



Need to bring mid-term goals closer to the net-zero goals



Net-zero pathways require prioritizing major sectors, particularly, power, that makes direct spillover effects over other sectors

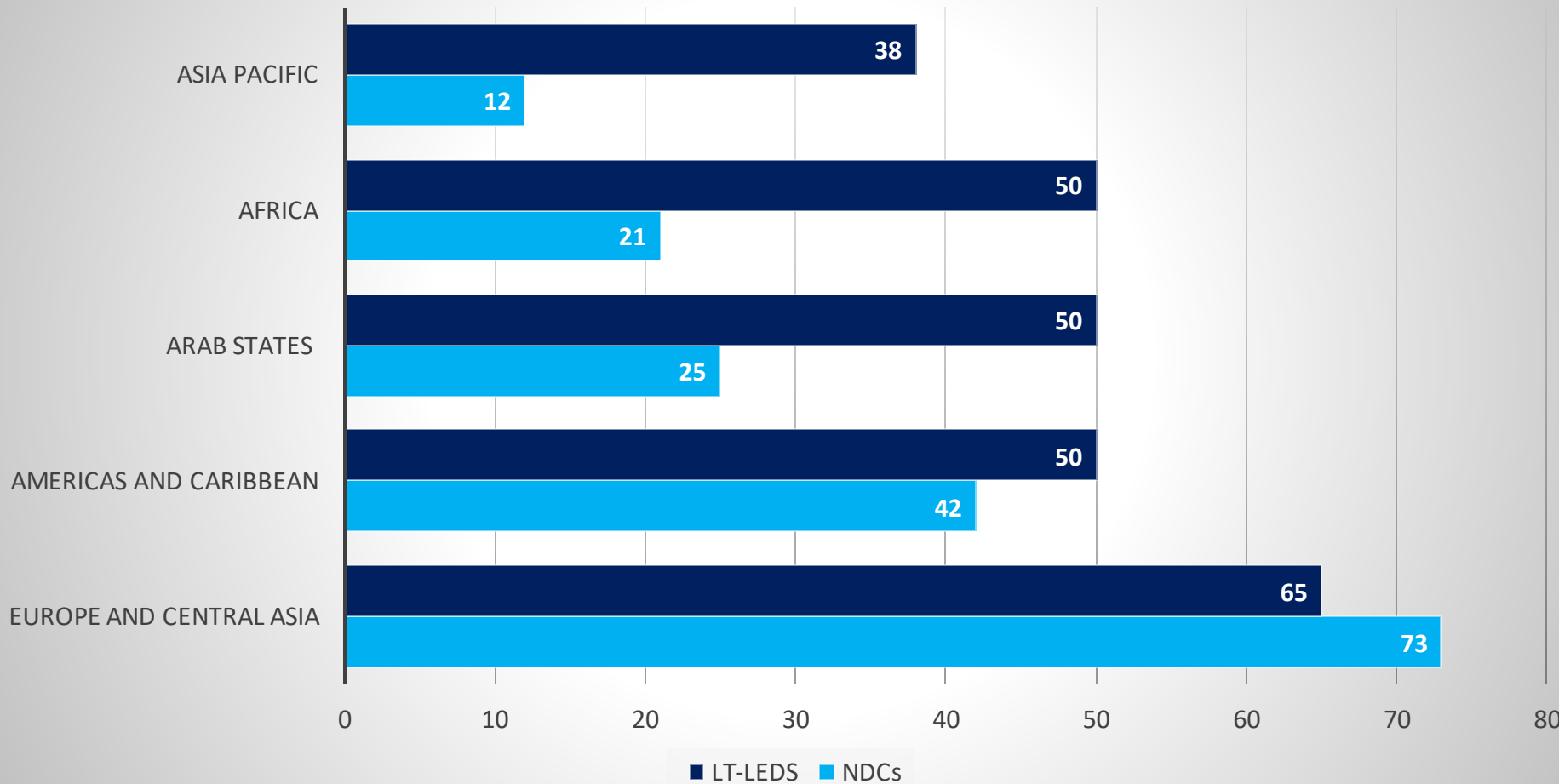


Making just transition possible for Asia and the Pacific



Preparing for just transition as part of NDC and LT-LEDS

Just Transition in NDCs and LT-LEDS (%)



Data: as of Oct 2022, Source: UNDP 2022. How Just Transition Can Help Deliver the Paris Agreement

Just transition in Asia and the Pacific

❖ Common but differentiated conditions

- ✓ Energy, Manufacturing, Textile Industry, Construction, Transportation, Agriculture and Forestry, etc.

❖ Key elements of just transition

- ✓ Worker support and retraining, Community development, Social safety nets, youth and women engagement for innovation and creative solutions , financial support:



Enabling policies on just transition by countries

Republic of Korea: Green New Deal to invest in green technologies

Philippine Green Jobs Act (RA 10771): just transition approach as guide in the creation of green jobs.

Australia: Clean Energy Future Package



Enabling policies on just transition by countries

Marshal Islands: Island Eco Initiative

New Zealand's Just Transition Unit (JTU): manage trade and broker relations in the affected regions.

Indonesia, Kyrgyzstan, the Republic of Korea, Thailand, Australia, and New Zealand, etc.: established **just transition committees** and **task forces**



Nature-based solutions for climate action



Regional Overview

Asia-Pacific and Nature-Based Solutions

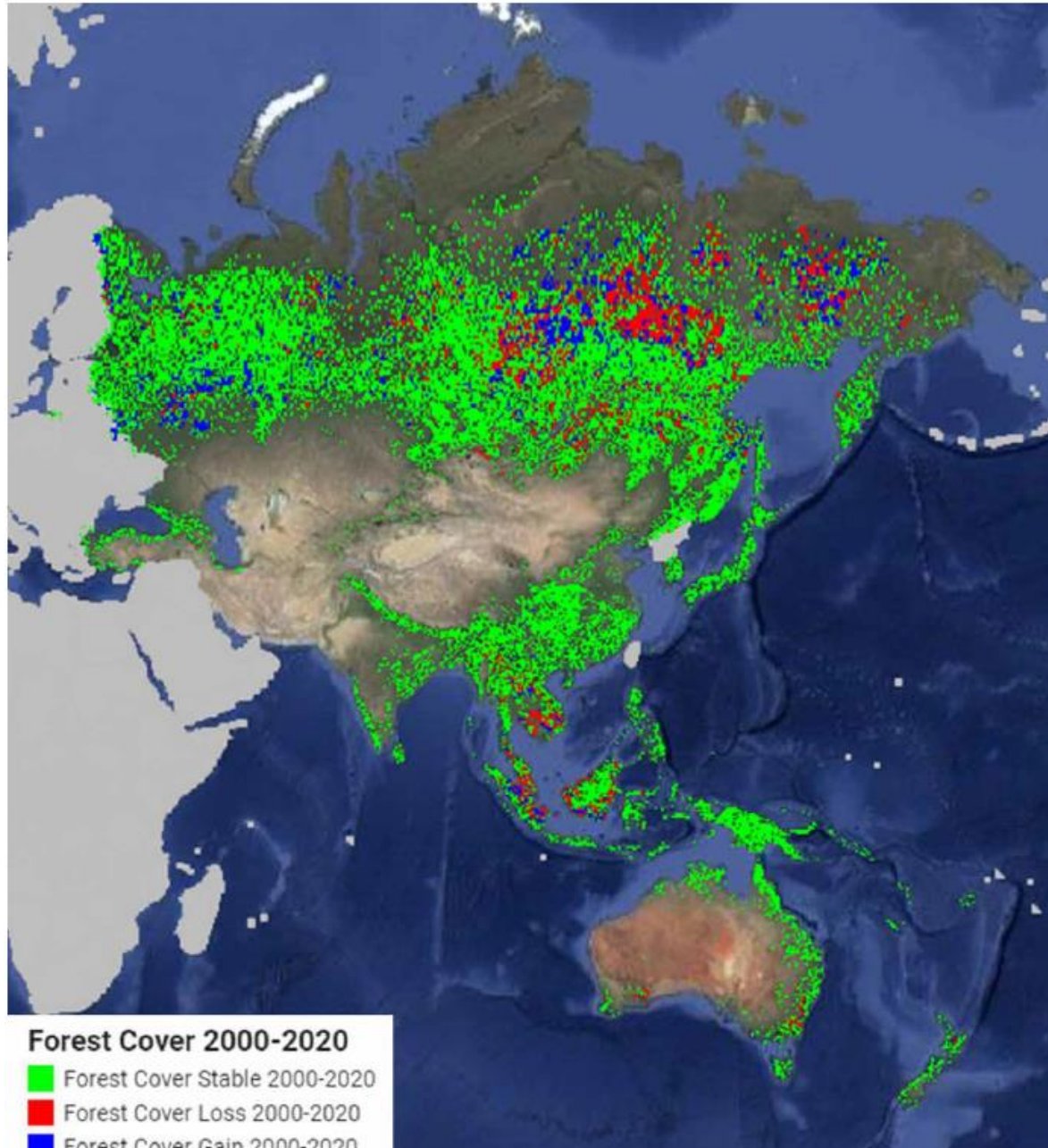
- Asia Pacific has a significant potential for nature-based solutions (NbS)
- Region contributes over 30% of global nature-based credits (85 Mt CO₂ e)

Opportunities for Blue Carbon

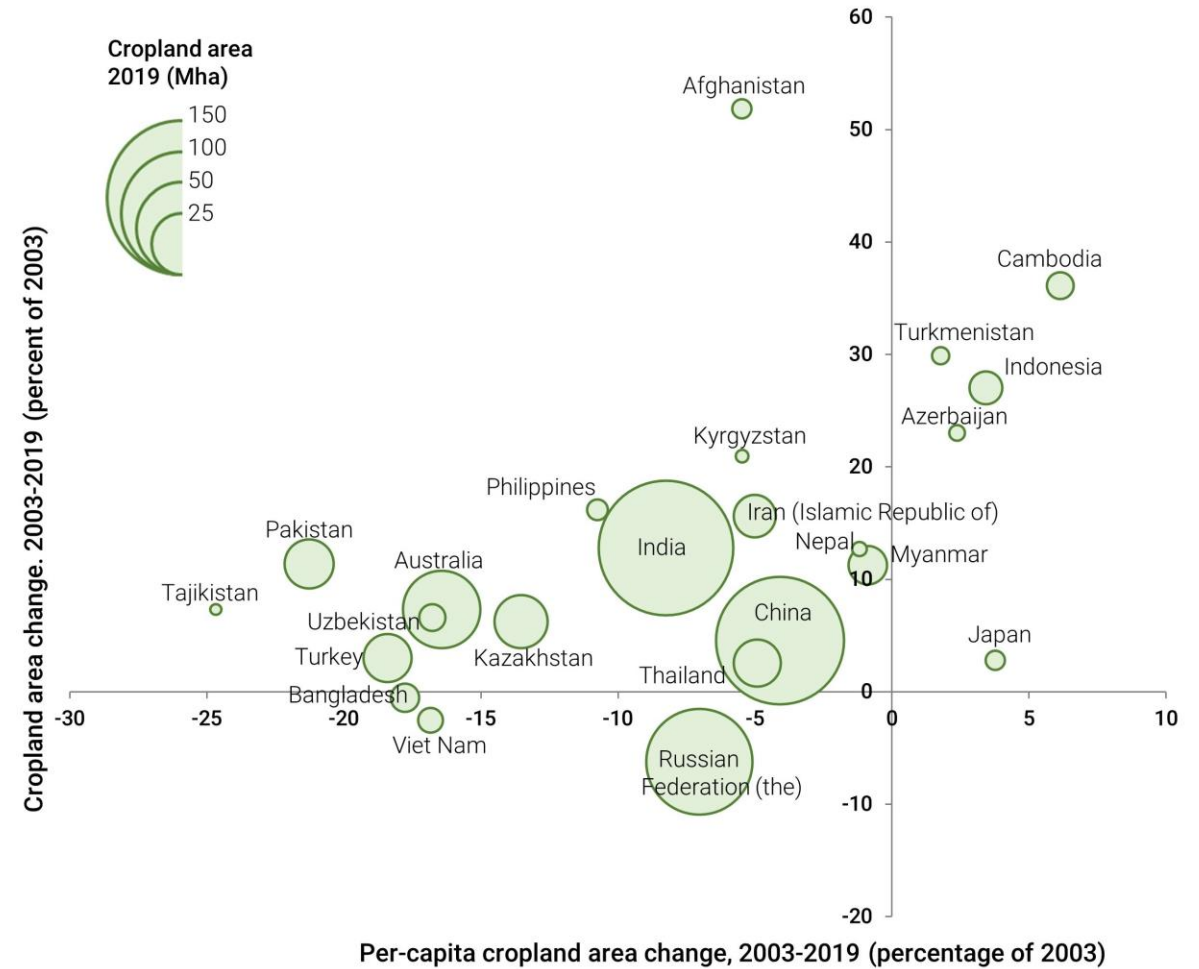
- Role of coastal ecosystems (Blue Carbon) is widely acknowledged for their services in climate regulations, ecosystem, livelihood, etc
- NbS remained restricted with predominant focus on terrestrial ecosystems
- A few countries explicitly included “Blue Carbon” in the NDCs (Nationally Determined Contributions)



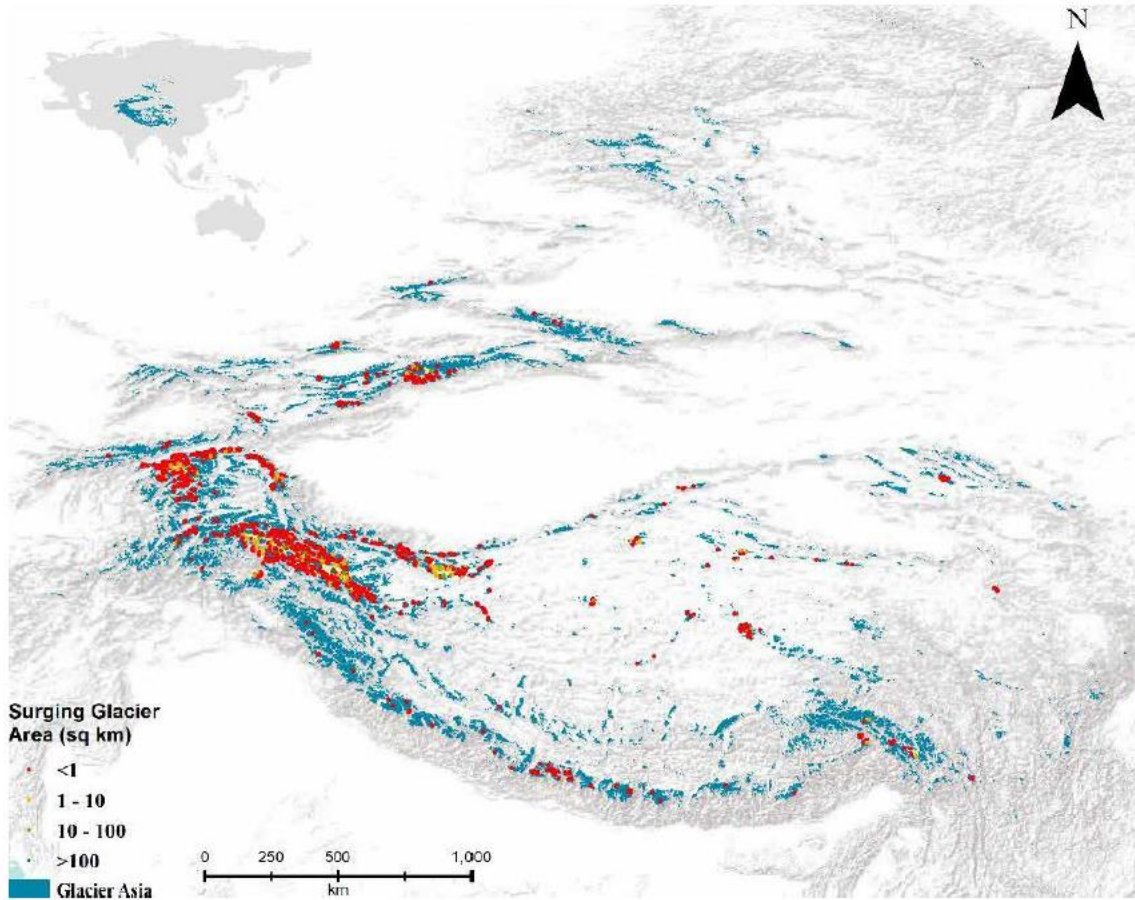
Changes in forest cover and cropland in Asia-Pacific region



Total and per-capita cropland area change, 2003–2019
(ESCAP countries with minimum cropland area of 1Mha)



The “The Third Pole” is thawing rapidly



- ❖ HKH area- a major repository of frozen water outside of the Arctic and Antarctic
- ❖ The glaciers HKH region are experiencing rapid thawing and GLOF
- ❖ are disappearing at an alarming rate, which is 65 per cent faster in 2011-2020 than in the previous decade.

Blue carbon ecosystems

Opportunities and Benefits of Blue Carbon

- Coastal ecosystems are renowned for high carbon storage and sequestration potential
- Globally coastal ecosystems remove 300 to 900 Mt CO₂e yr⁻¹
- Critical ecosystem services to coastal communities and fisheries

Consequences of Overlooking Blue Carbon

- Potential emission of 230 megatons of CO₂e due to 2% mangrove loss in Asia Pacific
- Underestimation of GHG sinks and inaccurate GHG emissions reporting at the national level

Challenges in Integrating Blue Carbon

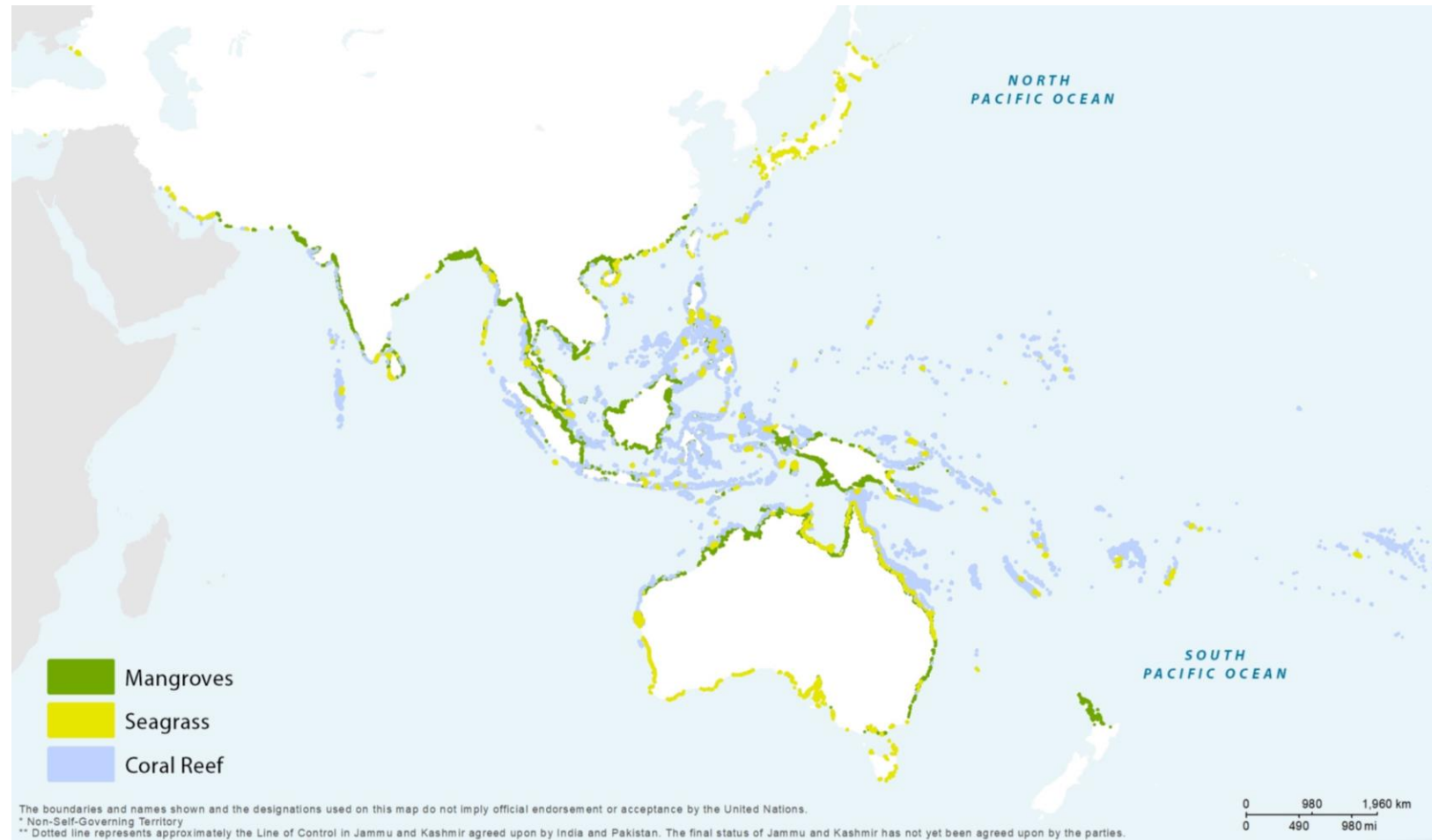
- Data limitations, weak technical capacity, coordination issues, overlapping mandates...



State of key coastal and marine ecosystems

Mangroves, Seagrass, Coral reef

- Powerful allies against climate change
- Supports each other to provide numerous ecosystems services:
 - Sequestering carbon dioxide
 - Fisheries
 - Natural barriers
 - Protecting coastal communities
 - Boosting biodiversity
 - Protecting our coasts
 - Support local livelihoods



Source: Compilations from mangrove cover maps (Bunting et al., 2022), coral reef maps from Ocean Data Viewer (UNEP-WCMC, n.d.) which is based on several data sources including (IMaRS-USF, 2005; IMaRS-USF and IRD, 2005; Spalding et al., 2001; UNEP-WCMC et al., 2021), and mapped area of seagrass (UNEP-WCMC and Short, 2021)



Mangrove forests in the Asia and Pacific region

Mangrove Cover

- Mangroves covered approximately **14.7 million ha globally in 2020**
- **Asia Pacific** support **half of the global mangrove** - **51% (7.5 million ha)**
- **Ecosystem Services:** valued at **US\$1.5 trillion annually**
- **Shrimps:** Asia produces **75% of the world's commercial shrimp**
- **Carbone Storage:** **280 - 1,023 Mg C ha⁻¹.**
- Up to **four times greater** than **other forested** environments



Source: Mangrove Ecosystem Services (Costanza et al., 2014)

Source: *Compilation from the mapped mangrove in 2020* (Bunting et al., 2022)

Source: Shrimps (Hamilton and Casey, 2016)

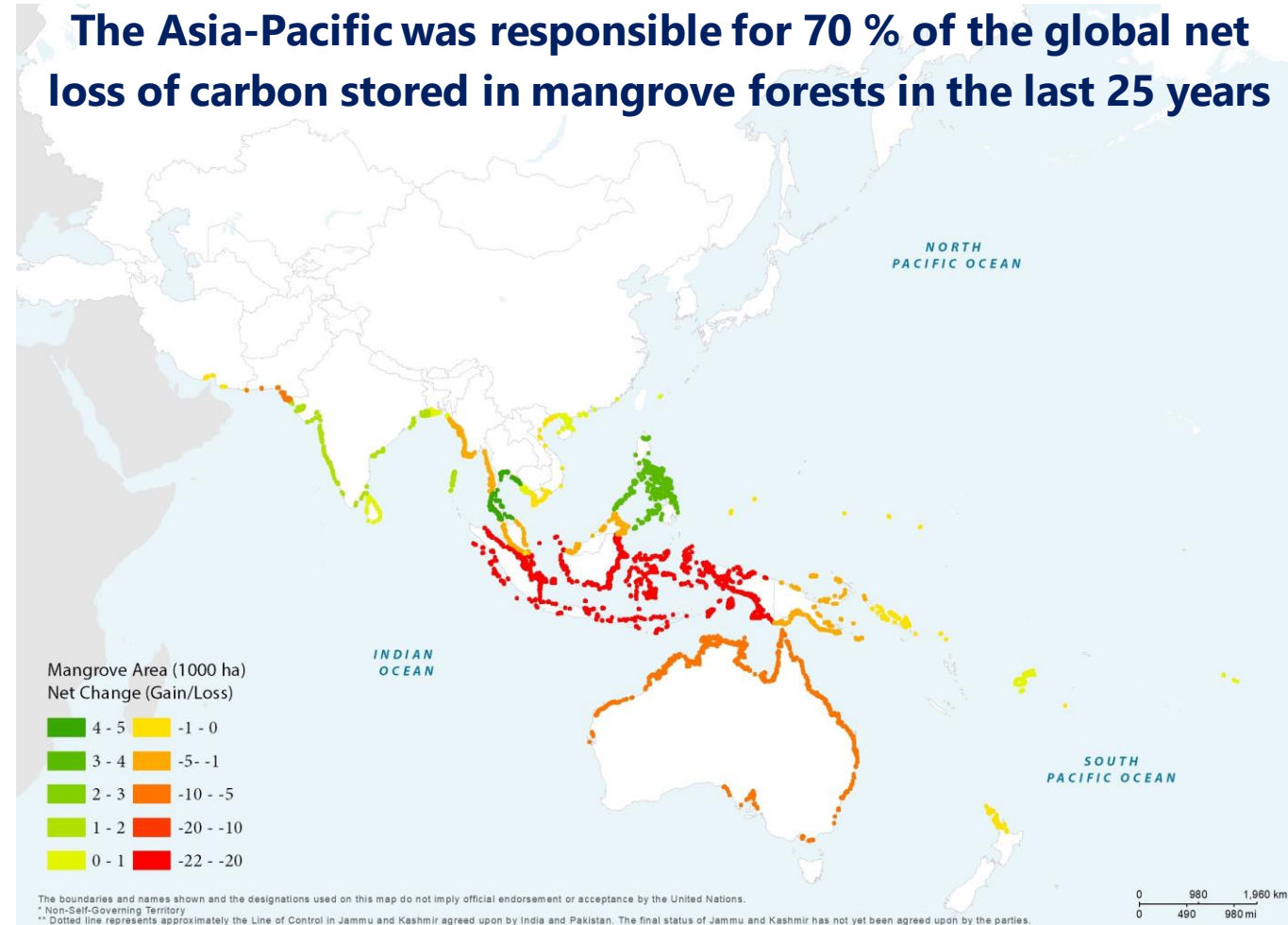
Source: Carbon Storage 280 (Pendleton et al., 2012; Serrano et al., 2021), 1023 (Donato et al., 2011)



Mangrove forests change in the Asia Pacific

Mangrove Cover Change – Carbon Losses

- A net loss of 358 Mt CO₂ e
- Loss 616 Mt CO₂ e, Gained 314 Mt CO₂ e
- **Indonesia** experienced the highest net losses, followed by Australia
- **Bangladesh** in the lead in net gain, followed by Philippines
- **2% of mangroves in Asia Pacific** (1500 km²), could lead to an equivalent loss of 230 megatons of CO₂e



Source: Carbon stocks (Spalding and Leal, 2022, UNEP, 2023, Worthington and Spalding, 2018)



Key takeaways

- Increase investments in restoration and protection of marine and coastal ecosystems in the region.
- Empowering local communities and indigenous peoples as custodians and guardians of ecosystems-based climate solutions





ESCAP

Economic and Social Commission
for Asia and the Pacific

Thank you!

For more information about the report, please visit:

<https://www.unescap.org/kp/2023/2023-review-climate-ambition-asia-and-pacific-just-transition-towards-regional-net-zero>

or

<https://tinyurl.com/3vxwx2hk>

For more information about ESCAP work, please visit

<https://www.unescap.org/our-work/environment-development>

and contact us at: ESCAP-EDD-EDPS@un.org