Decarbonizing Transport in Asia The experience from the Asian Development Bank

10 February 2023

Pamela Chiang, Senior Transport Specialist, ADB



ADB High Level Climate Change Commitments

President's Vision Statement and Commitments

- Full alignment of ADB's new sovereign operations with the goals of the Paris Agreement by 1 July 2023, and 85% of our non-sovereign operations fully aligned by 1 July 2023 and 100% of non-sovereign operations fully aligned by 1 July 2025;
- **Doubling our annual average climate adaptation finance** (compared with 2015–2018), which will result in cumulative financing of \$9 billion from 2019 to 2024.
- Increasing Total Climate Finance Ambition to \$100 billion by 2030

The Climate Change Action Plan (CCAP)

The aim of the Action Plan is to enable ADB to deliver on our commitment to being Asia and the Pacific's climate bank, thereby strengthening Asia and the Pacific's capacity to become resilient to, and a driver in the prevention of, climate change.

In accordance with our vision, Asia and the Pacific should be characterized by prosperity, provided through significant and sustainable economic development by 2030 that is solidly on **a path toward alignment with achieving the goals of the Paris agreement**.

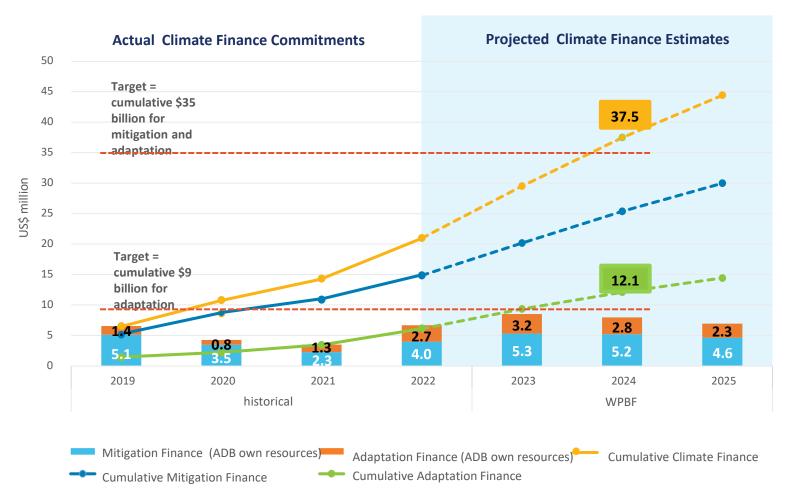
Scaling-Up Climate Action – Upstream, Midstream & Downstream Engagement

UPSTREAM	MIDSTREAM	DOWNSTREAM
DMC Country Engagement	NDC – nationally determined contribution	ADB's Indicative Country Pipeline
Rigorous Multi-Sector Country Climate Diagnostic	LTS - 2050 long-term low GHG emissions development strategies	Projects designed to be climate smart
Country Partnership Strategy (CPS)	NAP- National Adaptation Plan (NAP) Investment Plans	Technical Assistance - support to project development
Climate Change Policy Based Lending (PBL)	Multi-hazard climate and disaster risk	Supporting Countries to be Paris Aligned
	analysis Sector Plans	
	Country Climate Change Plans	

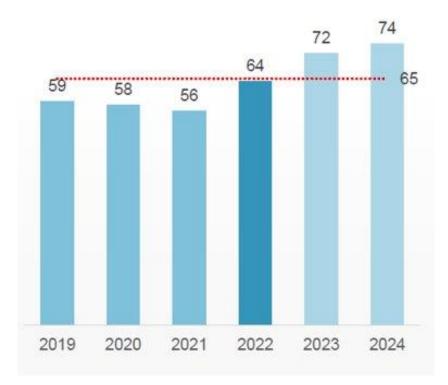
ADB's Climate Finance Targets

\$100 billion by 2030

ADB Climate Adaptation and Mitigation Financing, 2018–2025 (\$ billions)



Climate finance (Corporate Results Framework)



Note: Based on 3-year rolling average. Commitments include sovereign and nonsovereign projects but exclude private sector programs.

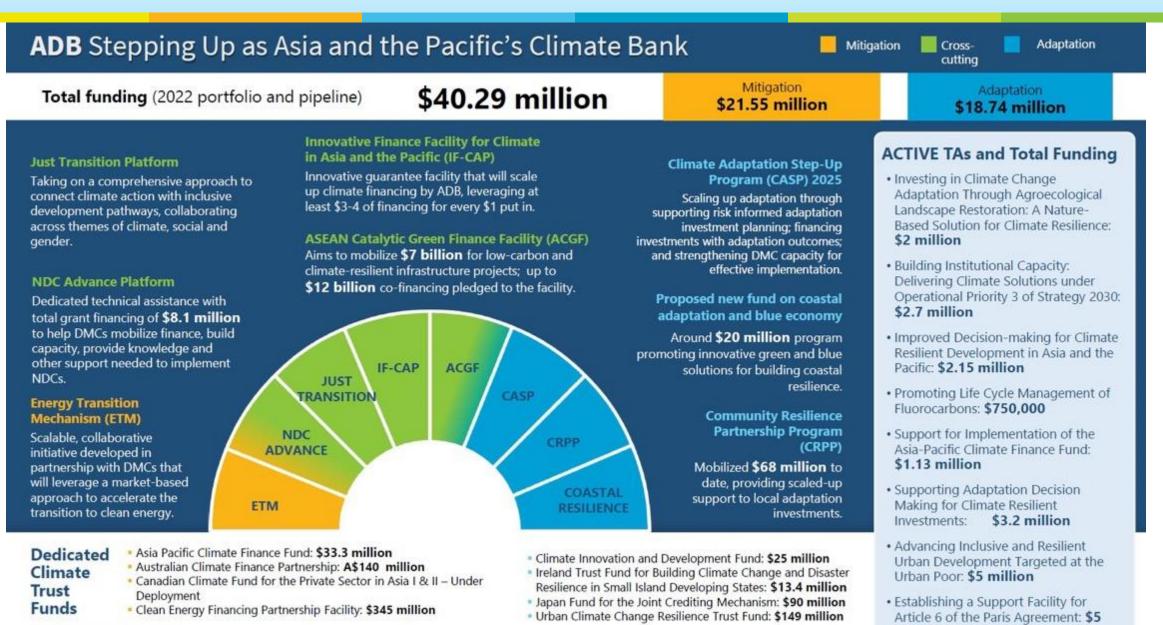
Actions to Reach Climate Finance Ambition

Raising the 2019-2030 climate finance ambition to \$100 billion.

\$20 billion is added to provide support for the climate agenda in five main areas:

- 1. new avenues for climate mitigation;
- 2. a scale-up of transformative adaptation projects;
- 3. increase in climate finance in ADB's private sector operations;
- 4. support to advance reforms in DMCs.

Scaling up technical support and access to finance



million

DMC=Developing member country.

Notes: Amounts are cumulative commitments as of March 2022.

Mitigation: How can transport systems become carbon neutral?

- E-bus technology available.
- charging systems
- Overall quality of public transport service
- Business models: own or lease?

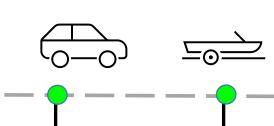
- Electric trains technology available.
- Grid connection required
- Hydrogen powered trains in early stages.

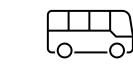
0

- Green hydrogen, ammonia still under development
- Enabling infrastructure
- Business models

.

.







- PHEV and BEV available.
- Charging infrastructure
- Policies and targets
- Battery electric boat technology available
- Battery swapping

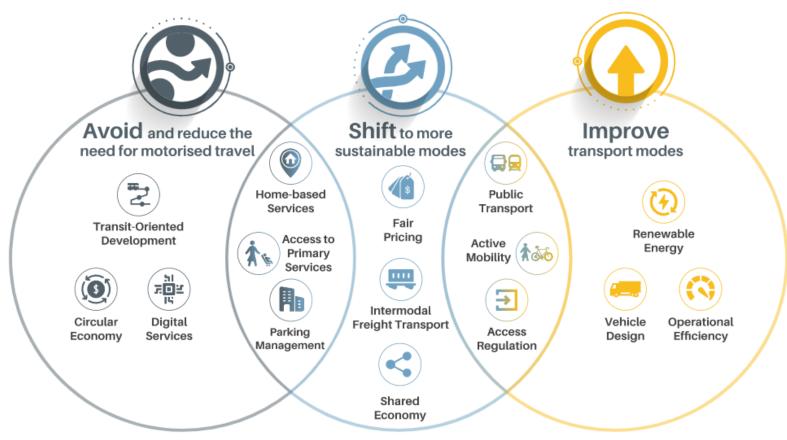
- E motorcycle technology available
- Battery swapping
- Urban logistics
- Cultural challenges

- E-trucks technology available, but charging infra needed
- Grid connection
- FCEV under development; relies on hydrogen production
- Business models

- Battery electric and hydrogen planes still in early development stages
- Synthetic aviation fuels needs scale-up

Low-carbon technologies for mobility are evolving rapidly... we need to design transport infrastructure for tomorrow's mobility.

Mitigation: How can transport systems become carbon neutral?



*The A-S-I diagramme presents a non-exhausive list of measures for illustrative purposes only.

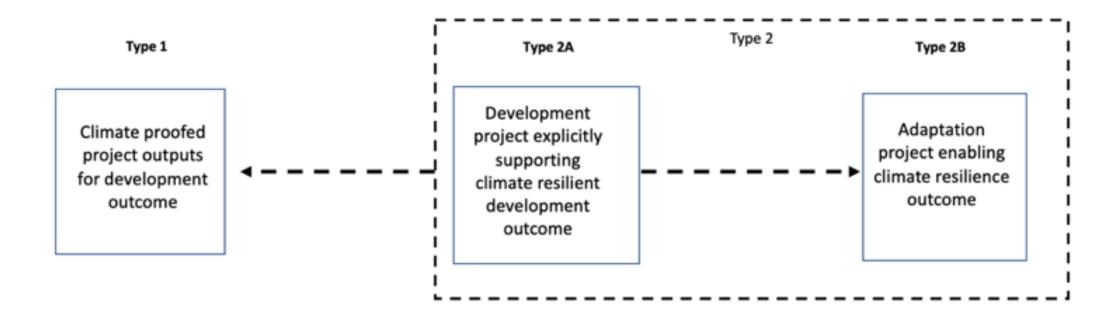
Source: SLOCAT

- + Planning
 + Policies
 + Regulations
 + Targets
 + Cross Sector
 collaboration
- + Muti stakeholder implementation
- + Financing

Adaptation: From climate proofing to enabling resilience

New Approach for Shifting Towards Type 2 Projects:

- Projects where transport can be an **explicit enabler** to steer settlement patterns over time to reduce vulnerability (Type 2A)
- Project or project component that has a primary objective of building resilience (Type 2B)



Adaptation: From climate proofing to enabling resilience

Principles to Guide Formulation of Type 2 Projects

- Principle 1: Informed by country adaptation priorities
- Principle 2: Based on system-level climate risk assessment
- Principle 3: Outputs support transformational adaptation
- Principle 4: DMF includes outcome/output indicators on resilience
- Principle 5: Aligned with j-MDB methodology on climate finance

Operationalizing new approach

- Country Programming
 - Climate-informed sector diagnostic to assess sector-wide impacts of climate change, identify hotspots and effective adaptation solution
- Project Inception
 - Undertake initial climate risk assessment of wider
 system to explore opportunities of Type 2A and
 Type 2B project and estimation of adaptation finance
- Project Preparation

.

 Undertake detailed climate risk assessment and economic appraisal of adaptation options to inform design



Thank you.