



ADB

Climate Change

October 2022

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Climate Change and Disasters in Asia and the Pacific

Vulnerability and Climate Footprint

Impacts from Disasters in Asia and the Pacific (2015-2022)



807.3 million
People affected



39,925
Fatalities



397.3 billion
Direct physical loss

	2015	2016	2017	2018	2019	2020	2021	2022
	PHILIPPINES Typhoon Chan-hom (Jul) \$1.7 billion (5 deaths)	PRC Flood (Jun-Jul) \$24.8 billion (289 deaths; 60 million affected)	PRC Flood (Jun-Jul) \$6.6 billion (78 deaths)	INDIA Flood (Aug) \$3.1 billion (504 deaths)	INDIA Flood (Jul-Sep) \$10.6 billion (1,900 deaths)	PRC Flood (May-Jul) \$17.8 billion (280 deaths)	PRC Flood (Cyclone Cempaka) (Jun-Aug) \$16.5 billion (352 deaths)	PRC Drought (Jul-Aug) \$5 billion (6.1 million affected)
	VIET NAM Drought (Dec-Feb 2017) \$7.7 billion (1.8 million affected)		PRC Typhoon Hato (Aug) \$3.9 billion (8 deaths)			INDIA Cyclone Amphan (May) \$14.1 billion (90 deaths)		INDIA Flood (May-Sep) Economic loss: TBD (2,035 deaths; 1.3 million affected)
	PRC Typhoon Mujigae (Oct) \$4.8 billion (20 deaths; 78,300 affected)	SRI LANKA Flood (May) \$1.4 billion (203 deaths)		PRC Tropical storm Rumbia (Aug) \$5.8 billion (53 deaths)	PRC Cyclone Hanna (Jul-Sep) \$10.6 billion (72 deaths)	INDIA Floods and Landslides (June) \$7.9 billion (1,922 deaths)	PRC Drought (Jan-Dec) \$3.1 billion	PAKISTAN Flood (Jun-Sep) Economic loss: TBD (1,696 deaths; 33 million affected)
		INDIA Cyclone Vardah (Dec) \$1.1 billion (24 deaths)	THAILAND Flood (Jan) \$1.1 billion (96 deaths)	PRC Flood (May-Jul) \$1.9 billion (112 deaths)	INDONESIA Flood (Dec) \$1.3 billion (66 deaths)	PAKISTAN Flood (Aug-Sep) \$1.6 billion (410 deaths)	INDIA Cyclone Yaas (May) \$3 billion (19 deaths)	
	\$50.6 billion Total losses	\$59.2 billion Total losses	\$35.9 billion Total losses	\$54.2 billion Total losses	\$65.8 billion Total losses	\$70.7 billion Total losses	\$42.4 billion Total losses	\$18.3 billion Total losses (available data to date)

Note: 1. The amounts refer to the monetary amount of damage to property, crops and livestock at the year of the event. (Center for Research on the Epidemiology of Disasters)

Photos: CTTO

ADB High Level Climate Change Commitments

1

Cumulative climate finance target (\$2030)

- a) \$35 billion during 2019-2024 (CRF).
- b) \$80 billion during 2019-2030, with elevated ambition of \$100B
- Status: \$14.3 billion as of end-2021.

2

Cumulative climate finance for adaptation and resilience (\$2030 and President's Vision July 2021)

- a) \$9 billion during 2019-2024
- b) \$34 billion during 2019-2030

3

Private sector climate finance (\$) announced October 2021

- a) \$12 billion during 2019-2030
- b) Anticipate crowding in of an additional \$18B-30B

4

Projects supporting climate action (%; 3-year rolling average) (\$2030)

- a) 65% by 2024 (CRF).
- b) 75% by 2030

5

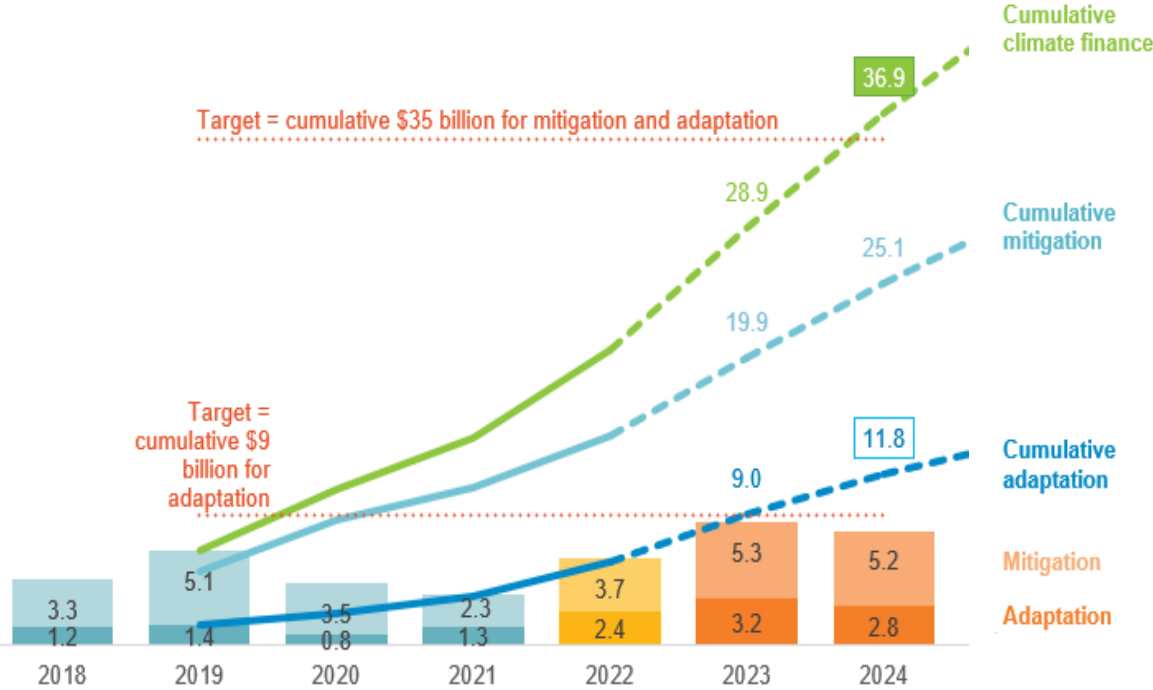
Paris Agreement (%) (President's Vision July 2021)

- a) Full Paris alignment of all sovereign operations by 1 July 2023
- b) At least 85% of NSO aligned by 1 July 2023 and 100% by 1 July 2025

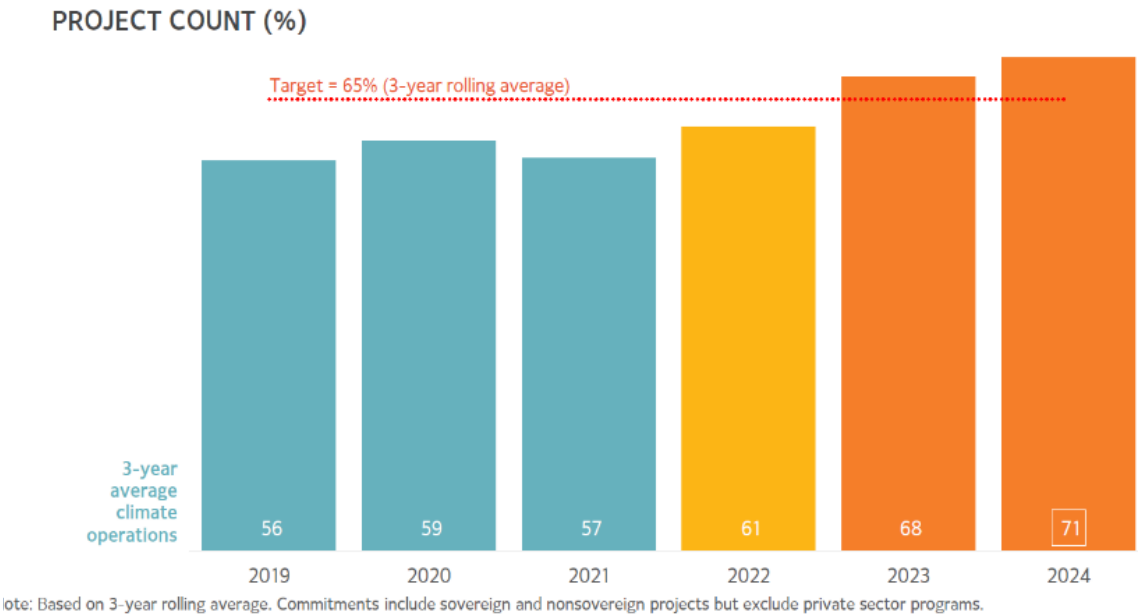
Progress Towards Climate Finance Targets to 2024

\$100 billion by 2030

ADB Climate Adaptation and Mitigation Financing,
2018–2024 (\$ billions)



Climate finance
(Corporate Results Framework)



1 Alignment with mitigation goals

Keep consistent operations with national low-emissions development pathways and compatible with objectives of PA.

4 Strategy, Engagement and Policy Development

Develop new services to support clients put in place long-term strategies for low-emissions and climate-resilient development while ensuring consistency with SDGs.

2 Adaptation and climate-resilient operations

Align operations with climate-resilient development pathways and consistent with the objectives of PA.

5 Reporting

Develop tools and methods for characterizing, monitoring and reporting on Paris-aligned activities.

3 Accelerated contribution to the transition through climate finance

Scale up climate finance, operationalize new approaches to support NDCs. Accelerate realization of ambitions agreed under UNFCCC and in line with science-based evidence identified by IPCC.

6 Align internal activities

Progressively ensure internal operations, including facilities and other internal policies, with PA.

Finance: Deploying Concessional Resources from Multilateral Funds



Established in 2008 represents one of the first global efforts to invest in a dedicated climate finance vehicle.

Total CIF FUNDING for ADB DMCs

\$2.86 billion

\$1.39 billion

48.75%

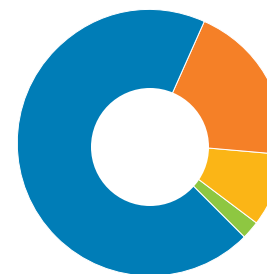
Total CIF FUNDING administered by ADB

For ADB-administered Project

70%

Total CTF net commitment

\$965.33 million



30%

Total SCF net commitment

\$426.41 million

20% SCF PPCR

9% SCF SREP

2% SCF FIP

85.5%

Total public sector projects

\$1.19 billion



14.5%

Total private sector projects

\$202.22 million

CTF=Clean Technology Fund, SCF=Strategic Climate Fund. FIP=Forest Investment Program, PPCR=Pilot Program for Climate Resilience, SREP=Scaling Up Renewable Energy in Low Income Countries Program



GREEN CLIMATE FUND

Established in 2010 to channel climate finance, with pledges of **\$10.3 billion** from **49 state governments**

ADB's total GCF Funding to date: **\$946 million**

Green Climate Fund (GCF)

has so far committed

\$10 billion to

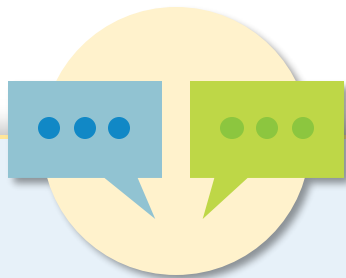


190 projects globally

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

UPSTREAM

- DMC Country Engagement
- Rigorous Multi-Sector Country Climate Diagnostic
- Country Partnership Strategy (CPS)
- Climate Change Policy Based Lending (PBL)



MIDSTREAM

- NDC – nationally determined contribution
- LTS - 2050 long-term low GHG emissions development strategies
- NAP- National Adaptation Plan (NAP) Investment Plans
- Multi-hazard climate and disaster risk analysis
- Sector Plans
- Country Climate Change Plans

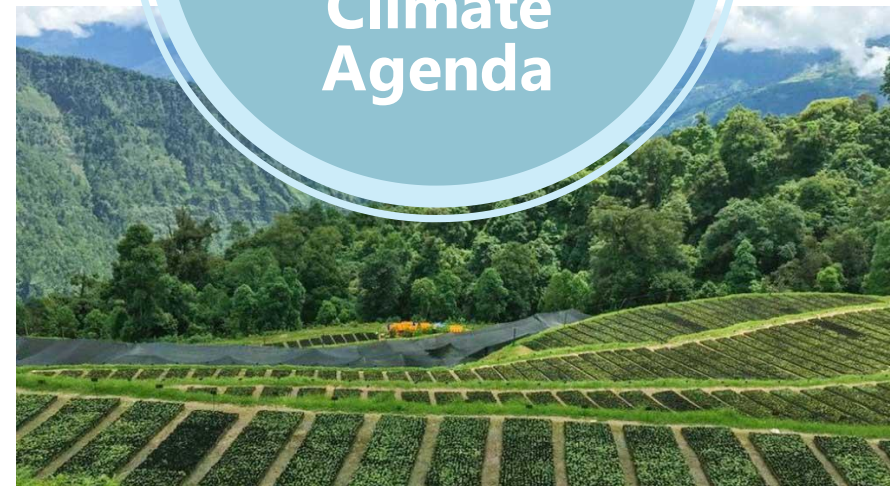


DOWNSTREAM

- ADB's Indicative Country Pipeline
- Projects designed to be climate smart
- Technical Assistance - support to project development
- Supporting Countries to be Paris Aligned



Sectors and Themes



Sectors &
Themes
delivering
ADB's
Climate
Agenda

BAN: Urban Project 2022

Adaptation project under development to respond to priorities of National Delta Plan 2100 by focusing on infrastructure, livelihoods and institutional strengthening for climate resilience in 22 coastal towns.



Examples of Scaling up Adaptation

1. Example: Multi-hazard risk assessment to inform investment pipeline, Tongatapu, Tonga



PILOTING

Longer term focus on setting parameters for resilient development and adaptation strategies and supportive investments

Integrating CC projections methodically into analysis of inundation hazards

Covering geophysical and weather-related hazards

2. Example: Development of Type 2 Coastal Towns Climate Resilience Project, Bangladesh

Adaptation project under development to respond to priorities of National Delta Plan 2100 by focusing on infrastructure, livelihoods and institutional strengthening for climate resilience in 22 coastal towns.



Sl. No.	Province	District	Population (2011)	Population growth rate (%)	Population density (per sq km)	Distance from coast (km)	Climate Hazard	Extreme Heat	Extreme Moist	Extreme Wind	Extreme Flood	Urban Flood	Water Scarcity	Land Subsidence
1	Dhaka	Dhaka	47,27,000	1.5	1,243	23	High	High	High	High	Low	Medium	Very Low	Very Low
2	Barisal	Barisal	21,88,000	1.5	714	13	High	High	High	High	Low	Medium	Very Low	Very Low
3	Moulvibazar	Barisal	2,08,761	1.5	114	17	High	High	High	High	Low	Medium	Very Low	Very Low
4	Moulvibazar	Barisal	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
5	Pokharia	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
6	Kalenga	Barisal	2,72,104	1.5	100	11	High	High	High	High	Low	Medium	Very Low	Very Low
7	Pokharia	Barisal	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
8	Uttaraditya	Barisal	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
9	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
10	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
11	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
12	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
13	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
14	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
15	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
16	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
17	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
18	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
19	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
20	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
21	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low
22	Chakrabarti	Moulvibazar	1,02,247	1.5	140	19	High	High	High	High	Low	Medium	Very Low	Very Low

3. Example: Establishing Community Resilience Partnership Program to scale up adaptation in non-infrastructure sectors

Community Resilience Partnership Program

Supporting investments that reach scale while ensuring no one is left behind

What is the Community Resilience Partnership Program?

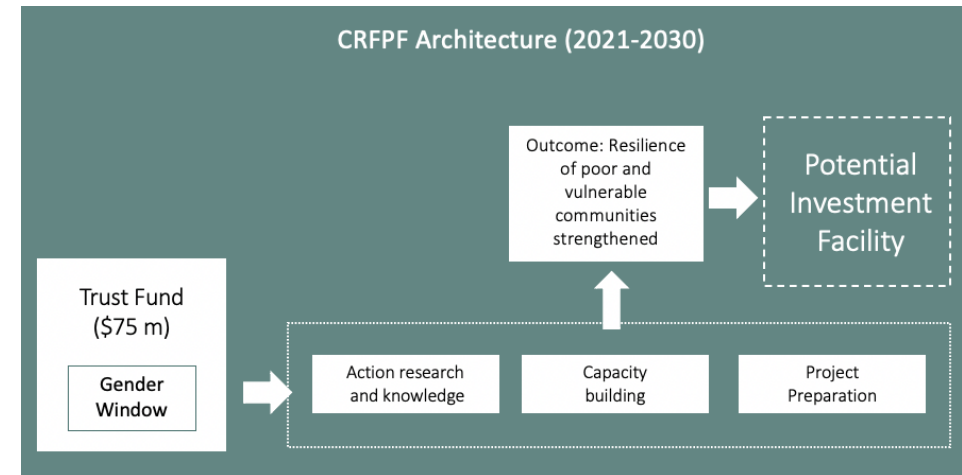
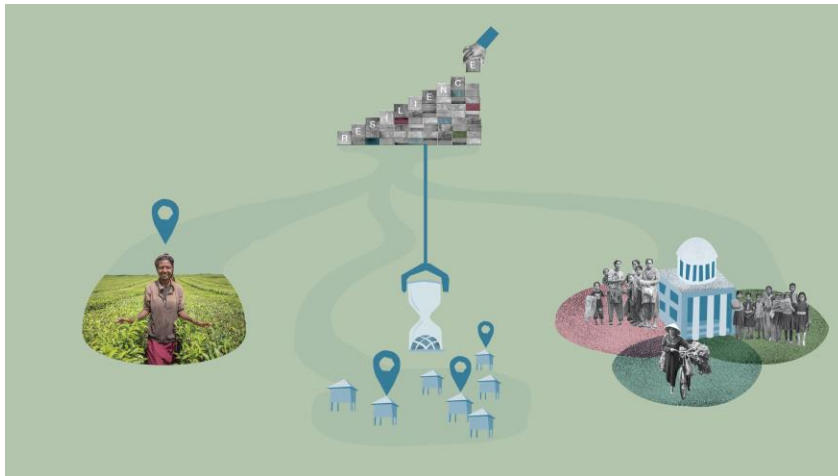
The Community Resilience Partnership Program (CRPP) is intended to help countries and communities in Asia and the Pacific scale up investments in climate adaptation, especially investments at the community level, that explicitly target the nexus between climate change, poverty, and gender. In doing so, the CRPP aims to support countries to meet their commitments to the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, and the Sustainable Development Goals.

The CRPP in support of Global Calls on Adaptation and Resilience

- The CRPP responds to the COP26 goal of scaling up adaptation to protect communities and natural habitats, and mobilizing finance for climate adaptation measures that meet the needs of the poor and vulnerable communities.
- The CRPP is aligned with the priorities of the Global Commission on Adaptation and its principles for locally-led adaptation.

Community Resilience Financing Partnership Facility (2021-2030)

1. Support DMCs scale up resilience investments that explicitly tackles the nexus between poverty, gender climate risk
2. Support three types of projects that :
 - Strengthen resilience through poverty reduction programs (e.g., resilient community-driven development programs);
 - Allow climate finance to reach the hands of the poor (e.g., adaptive social assistance programs); and
 - Strengthen capacity of local government and communities to participate in decision-making processes on resilience (e.g., climate risk-informed decentralization programs).
3. To include a Trust Fund and proposed Investment Facility
4. Program to support implementation of OP3 through OP1, OP2, OP4, OP5 and OP6
5. Funding raising on –going



Deploying concessional resources

Internally managed resources (ADB donor trust funds and special funds)

- **Climate Change Fund (CCF)**
- Clean Energy Financing Partnership Facility (CEFPF)
- Urban Climate Change Resilience Trust Fund (UCCRTF)
- **Asia-Pacific Climate Finance Fund (ACLIFF)**
- High Level Technology Fund (HLTF)
- **Others with bilaterals**
 - » Ireland Trust Fund for Building Climate Change and Disaster Resilience in Small Island Developing States

Multilateral funds

- **Climate Investment Funds (CIF)**
- Global Environment Facility (GEF)
- **Green Climate Fund (GCF)**

Maximizing market mechanisms

- **Upfront carbon finance**
 - » **Future Carbon Fund**
 - » **Japan Fund for the Joint Crediting Mechanism**
- **Article 6 Support Facility**
 - » Carbon Pricing / Carbon Markets
 - » Article 6 of the Paris Agreement
- **Carbon Market Technical Support Facility**
 - » Joint Crediting Mechanism
 - » domestic emissions trading Systems
 - » Lifecycle Management of Fluorocarbons
- **Green, Blue and Climate Bonds**
- ASEAN Catalytic Green Finance Facility

Catalyzing private capital

- **Direct project finance** (lending, guarantees, syndications), and equity investment
- **Public private partnerships:** (PPPs) working with client DMCs across stages of PPPs

Facilities for private sector

- Canadian Climate Fund for the Private Sector in Asia (I and II)
- Australian Climate Finance Partnership
- ADB Ventures Financing Partnership Facility

ADB's Carbon Market Program

Mobilizing carbon finance for incentivizing investments in low-carbon technologies

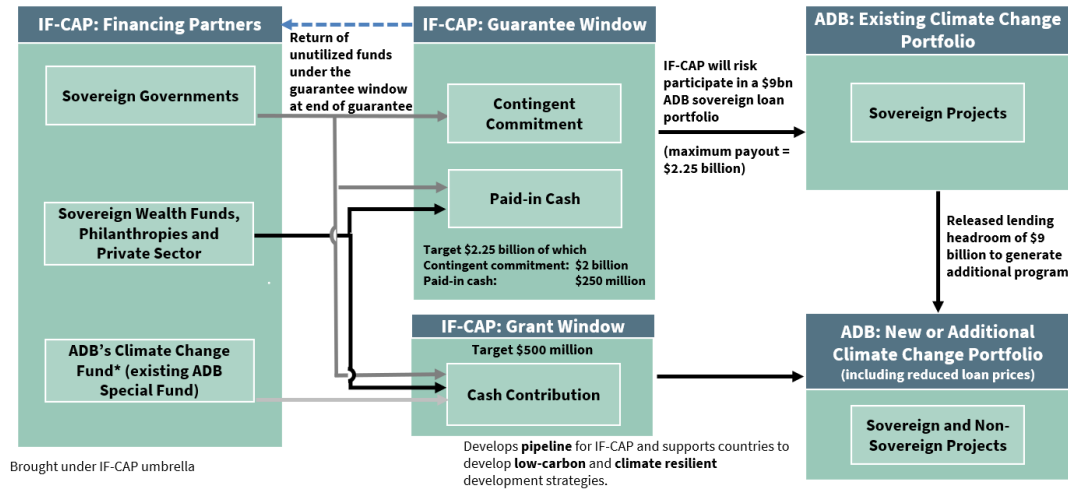


Future Carbon Fund	Japan Fund for the Joint Crediting Mechanism	Article 6 Support Facility	Technical Support Facility
<ul style="list-style-type: none"> Commenced in 2009 Provides financial and technical support for CDM projects by purchasing post-2012 CERs \$115 million contributed by 4 governments and 2 private sector entities from Europe and Asia Contracted 8.68 million CERs with an investment of \$53.0 million Supports 33 CDM projects in 10 DMCs Provides carbon finance support to 1.1 GW renewable energy projects 	<ul style="list-style-type: none"> Commenced in June 2014 Provides grants for advanced low-carbon technologies in ADB-financed and administered projects utilizing the Joint Crediting Mechanism initiated by Japan \$88.46 million contributed by the Government of Japan Supports six mitigation activities in Maldives, Cambodia, Bangladesh and Mongolia allocating \$ 41.48 million 	<ul style="list-style-type: none"> Established in 2018 Provides technical, capacity building, and policy development support to enhance DMC's preparedness to participate in new carbon markets under the framework of Article 6 \$5 million facility funded by ADB and the governments of Germany and Sweden Supports Bhutan, Indonesia, Mongolia, Pakistan, Philippines, Thailand and Viet Nam. 	<ul style="list-style-type: none"> Established in 2006 Implemented through a series of 6 Technical Assistance projects, with a total amount of \$13.25 million Provides technical and capacity building support for enhancing mitigation actions through carbon markets TA on Promoting Life Cycle Management of Fluorocarbons to support DMCs in promoting proper management of fluorocarbons. \$0.75 million.

CDM: Clean Development Mechanism; CER: certified emission reduction; ETS: Emission Trading Systems

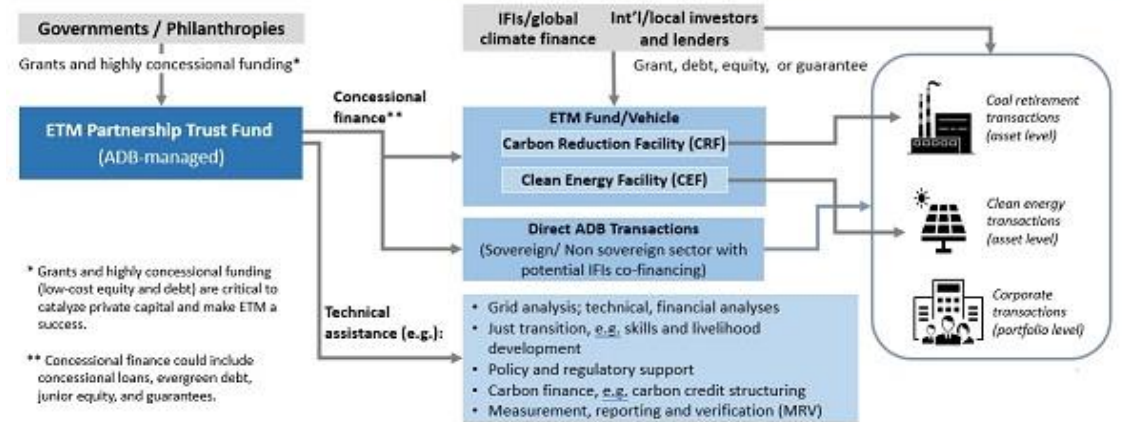
Mobilizing Finance for Climate Change Operations

1. Innovative Finance Facility for Climate in Asia and the Pacific (IF-CAP)

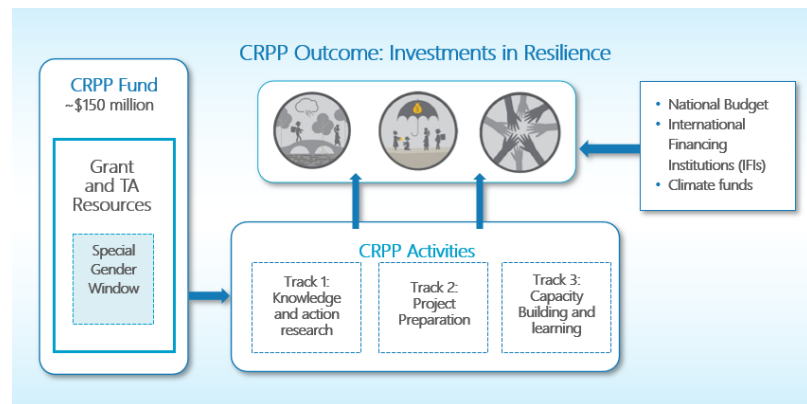


2. Energy Transition Mechanism (ETM)

- (i) Accelerates the retirement or repurposing of coal-fired plants using public and private finance through refinancing, acquisition or sustainability linked corporate loans; and (ii) scales up investment in clean energy and energy storage.
- Aims to achieve just and affordable transition addressing impacts to people and communities from coal retirement.



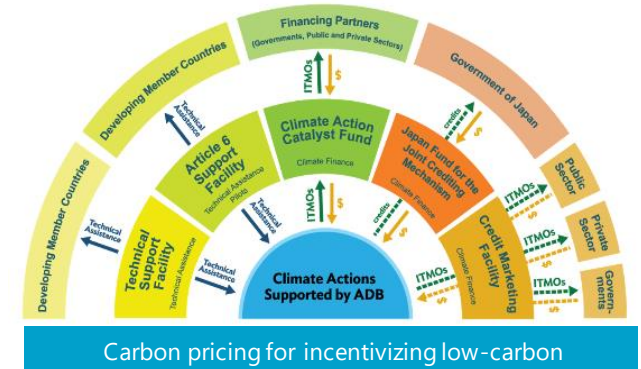
3. Community Resilience Partnership Program (CRPP)



4. ASEAN Catalytic Green Finance Facility (ACGF)

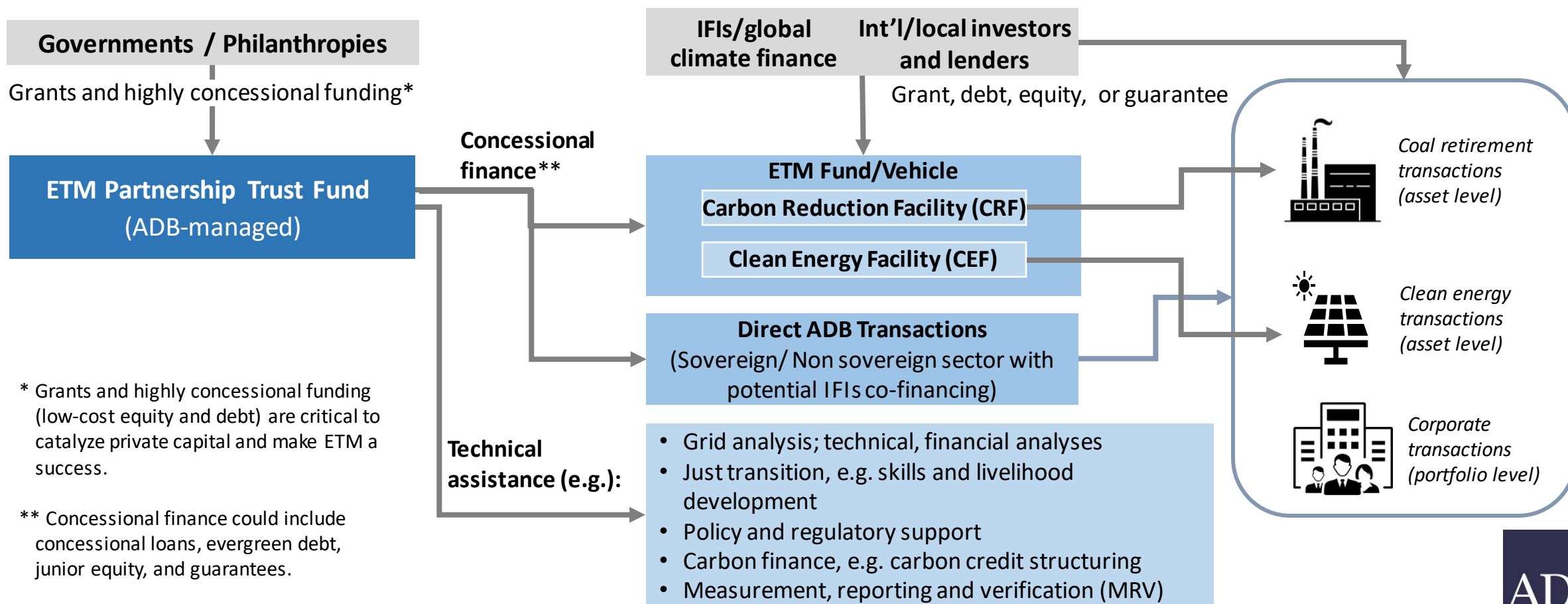


5. Carbon Market Program



The ETM program in a nutshell

- (i) **Accelerates the retirement or repurposing** of coal-fired plants using public and private finance through refinancing, acquisition or sustainability linked corporate loans; and (ii) **scales up investment** in clean energy and energy storage.
- Aims to achieve **just and affordable transition** addressing impacts to people and communities from coal retirement.



Ambition to massively scale up climate finance –
\$12b of ADB's own resources, and \$18-30b of private sector finance mobilized

Climate finance for infrastructure

- 144 MW Windfarm in Viet Nam increases Viet Nam's wind power capacity by 30%
- capacity building in climate-smart cocoa and coffee farming best practices and financial literacy in Indonesia and PNG

Climate funds

- Climate Innovation and Development Fund, together with the Bloomberg Family Foundation Inc. and the Goldman Sachs Charitable Gift Fund support climate mitigation and adaptation projects in India and Viet Nam

Climate finance for financial intermediaries

- Develop affordable and sustainable residential housing developments in Georgia

Through loans and other debt instruments, equity investments, guarantees, loan syndication and technical assistance

ADB Ventures

Invests in seed and early stages of a companies developing innovative climate solutions, and partner with them across rounds

39%
of private sector
operations



CO₂ emissions
reduced
36.3 million tCO₂e

Climate Bonds INITIATIVE

First Climate Bond Initiative
Certified bonds and loans in
Asia-Pacific, Philippines,
Thailand and Vietnam

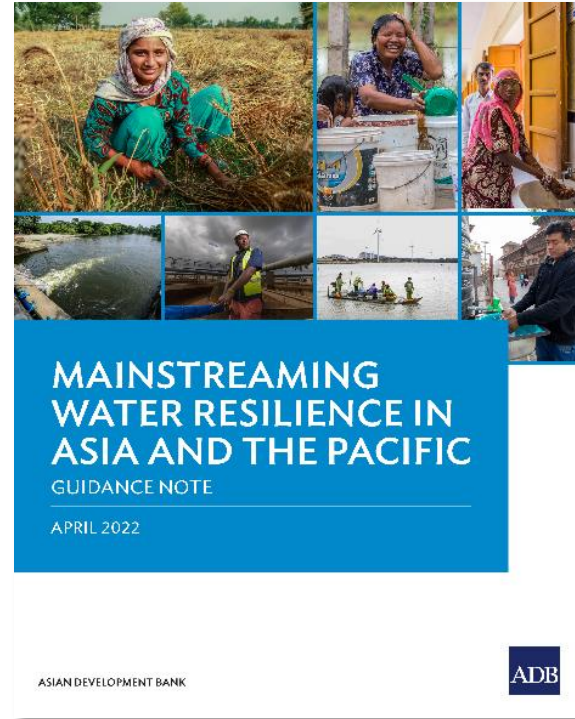
ADB's Recent Initiatives to Support Water Resilience in Asia and the Pacific



Latest IPCC report: Over 60% of adaptation interventions must come from the water sector.

ADB water sector group's latest initiatives on building resilience of water entities:


- **RUWR: aRe yoU Water Resilient** (Introductory video: [RUWR](#))
- **Guidance Note on Mainstreaming Water Resilience in Asia and the Pacific**
- **Water Resilience Hub for Asia and the Pacific**



Putting **climate adaptation as the driver** and at the core of projects and policies

Building resources and capacities of water entities on the ground for climate action and **green, inclusive, and resilient post-pandemic recovery of Asia and the Pacific**

3 Projects – Identified

Project	Project Officer	Project details
1. Ahmedabad Peri-urban Livability Improvement Project – India (project number 54426-001) 	Sanjay Divakar Joshi, SAUW	Concept paper approved May 2022. Fact finding mission scheduled in August 2022. Target approval Dec 2022. IND Ahmedabad Peri-urban Livability Improvement Project 01 Concept Paper CLEAN-PAG MAP.pdf
2. Climate Resilient Livelihood Improvement and Watershed Management in Chittagong Hill Tracts Sector Project – Bangladesh (project number 54047-001)	Sanath Ranawana, SAER	Concept paper approved in Aug 2020. Fact finding mission completed in June 2022. Draft RRP for interdept review planned for next week. Target approval Nov 2022. BAN Climate Resilient Livelihood Improvement and Watershed Management in Chittagong Hill Tracts Sector Project CP.pdf
3. Energy Transition Sector Development Program – Cambodia (project number 54430-001)	Pradeep J. Tharakan, SEEN	Concept paper approved in Oct 2021. Fact finding mission completed in July 2022. Target approval by Nov 2022. CAM Energy Transition Sector Development Program concept paper_DG approved (clean).pdf



ADB's inaugural TCFD brings the following benefits:

- Supports ADB's climate commitments
- Serves risk management purposes
- Increases transparency on climate change related risks and opportunities

TCFD Reporting focuses on four thematic pillars:

Governance:

Oversight of climate-related issues by the Board and management, including climate-related policies and frameworks in place.

Strategy:

Climate considerations embedded within ADB's organizational strategies and operational approaches.

Risk Management:

Processes for assessing and managing climate risks at the operations and at the organization levels.

Metrics & Targets:

ADB's internal GHG emissions; climate finance targets; climate sensitivity heat map; exposure to sovereign climate-related risk.