



ADB

Climate Change and Disaster Risk Management

2021 Asia-Pacific Forum on Green and Low-Carbon Development

21 October 2021

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- Holistic Approach to Enhance Resilience
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Operational Priority 3
**Tackling climate change,
building climate and
disaster resilience, and
enhancing environmental
sustainability**

- Integrated approach in CPS/COBP
- Deploy approaches for capturing co-benefits in coordination with other OPs
- Promote innovative clean technology
- Expand private sector operations
- Build partnerships with think tanks, NGOs, academe, and private sector
- Access to finance: use of concessional finance in a targeted and catalytic way – maximizing delivery of outcome

Targets: At least 75% of the number of its committed operations (on a 3-year rolling average, including sovereign and nonsovereign operations) will be supporting climate change mitigation and adaptation by 2030. Climate finance from ADB's own resources will reach \$80 billion for the period 2019-2030

Strategic Operational Priorities

**1 Mitigation of
climate change
increased**

**2 Climate
and disaster
resilience built**

**3 Environmental
sustainability
enhanced**

Operational Approaches

Clean energy



Green business and jobs

Sustainable transport
and urban development



Clean air and water, waste management

Climate smart-agriculture and
sustainable land use



Climate and
disaster resilience



*Physical (climate-proof), eco-based,
financial, social and institutional*

Water-food-energy
security nexus



**Air and water
pollution management**

Natural capital and healthy oceans

Environmental Governance

Results Framework Indicators: Sub pillars

- Access to climate finance increased
- Developing member countries' capacity to implement climate actions enhanced
- Low-carbon infrastructure improved
- Renewable energy capacity increased
- Low-carbon development solutions implemented
- Integrated flood risk management measures supported
- Resilience building initiatives implemented
- Financial preparedness for post-disaster response enhanced
- Planning for climate change adaptation and disaster risk management improved
- Infrastructure assets made more resilient
- Pollution control infrastructure assets implemented
- Pollution control and resource efficiency solutions promoted and implemented
- Conservation, restoration and enhancement of terrestrial, coastal and marine areas implemented
- Solutions to conserve, restore, and/or enhance terrestrial, coastal, and marine areas promoted and implemented
- Water-food-energy security nexus addressed



ADB will prioritize three key operational directions. These include:

A. Balancing COVID-19 Response with Support for a Green, Resilient, and Inclusive Recovery

1. Targeted COVID-19 response measures.
2. Flexibility and agility under an 'alternative' scenario.
3. **Supporting a green, resilient and inclusive recovery.**

ADB will mainstream climate and disaster resilience into its support for sectors and themes that have suffered in the current pandemic.

A green, resilient, and inclusive recovery will support development that is nature-positive, socially inclusive, builds long-term resilience and is aligned with the Paris Agreement, the Sendai Framework for Disaster Risk Reduction, the Sustainable Development Goals and the Convention on Biological Diversity.

B. Strengthening Project Quality and Readiness

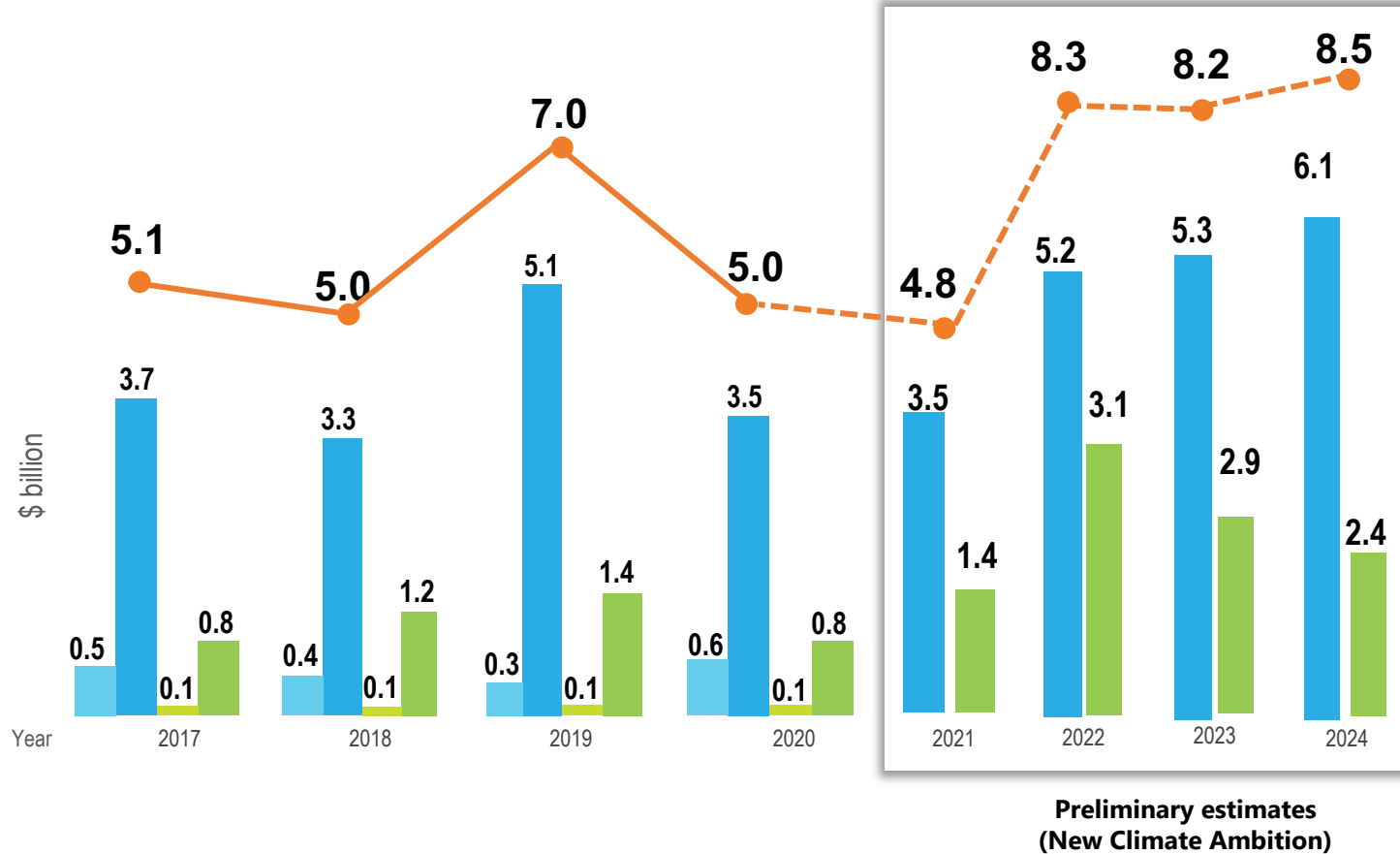
C. Improving the Allocation and Effectiveness of Technical Assistance

President's Vision Statement

Full alignment of ADB's sovereign operations with the goals of the Paris Agreement by 1 July 2023, and our nonsovereign operations to 85% by 1 July 2023 and fully 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.



Climate Finance Commitments (2017–2020) and Projections (2021-2024)



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

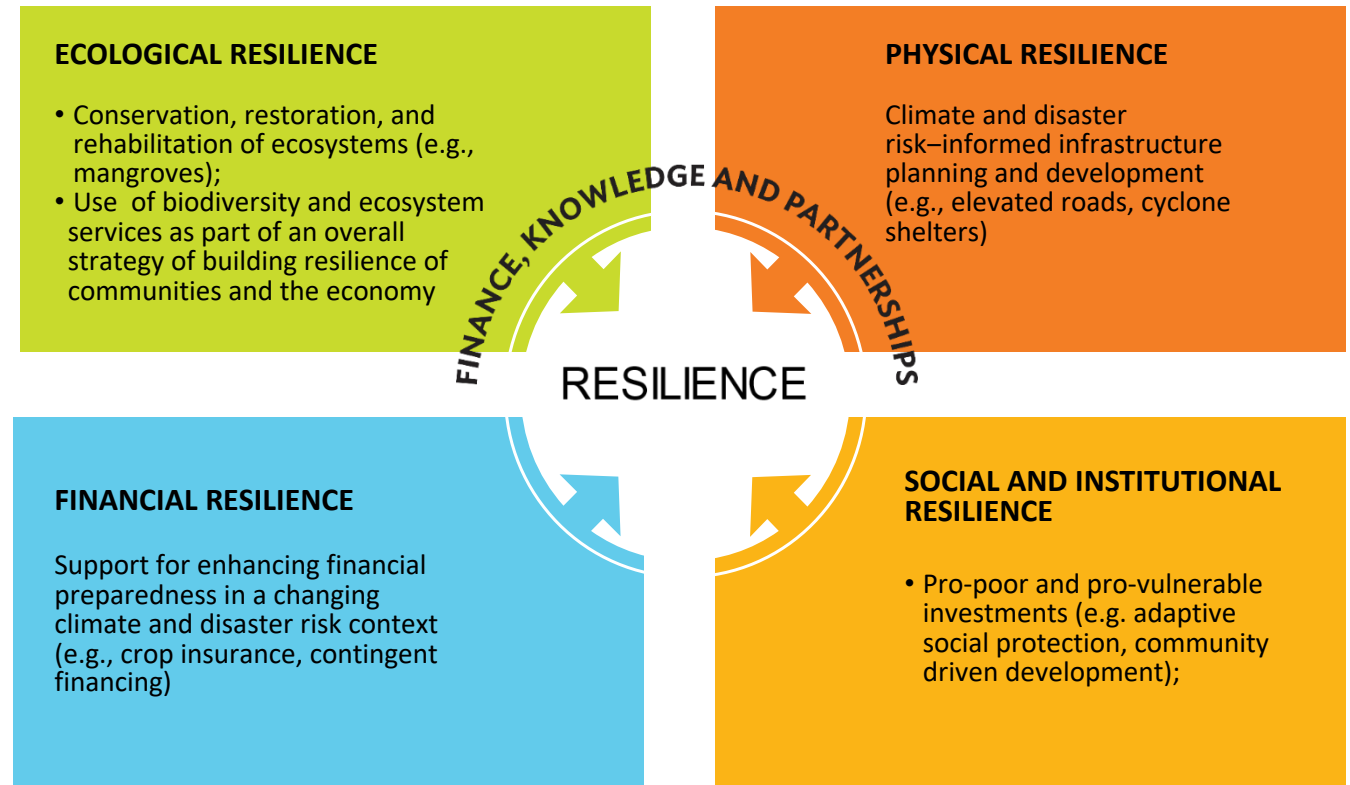
- \$20 billion is added to provide support for the climate agenda in five main areas:
 - new avenues for climate mitigation;
 - a scale-up of transformative adaptation projects;
 - increase in climate finance in ADB's private sector operations;
 - support for a green, resilient, and inclusive recovery from COVID-19;
 - support to advance reforms in DMCs.

Notes: 2015 target to double climate finance approvals from own resources to \$6 billion by 2020, achieved in 2019.

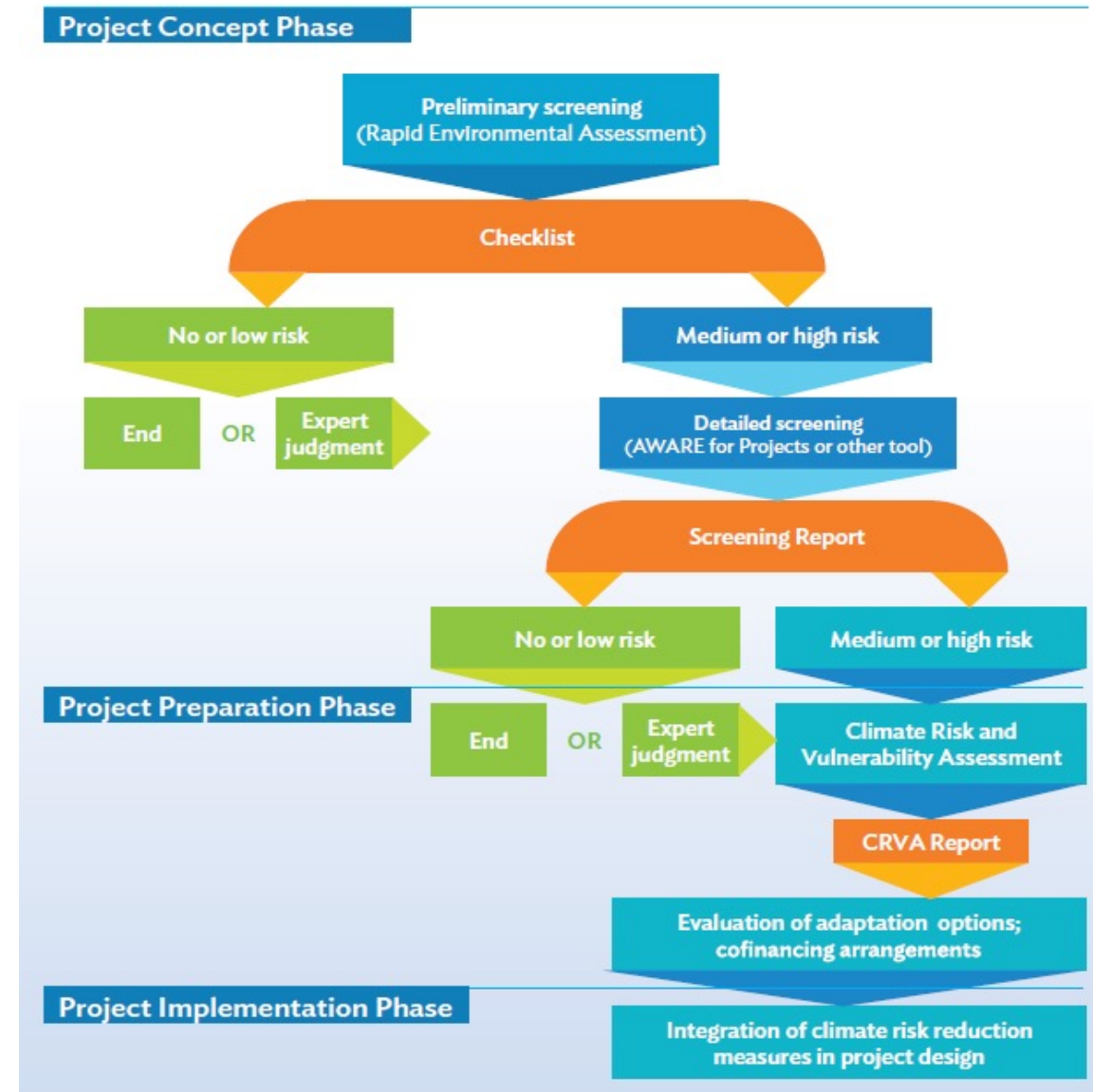
2021 to 2024 amounts are estimates from WPBF 2022–2024, and totals to not include external resources.

2021 figures could reach over \$6 billion pending on the final signature date of a railway project.

- Advance different aspect of resilience through **cross-sectoral investments** – beyond infrastructure in social, environmental and financial sectors.
- Build **system-wide resilience** through projects that recognize the independency of critical infrastructure.
- Investments that bring **transformational change** through resilience - e.g. risk-informed land use planning to inform selection of infrastructure projects.



- Since 2014, ADB has institutionalized the **Climate Risk Management (CRM)** framework to assess climate risk of projects at early stage of development.
- Every project goes through **Climate Risk Screening** process.
- Projects that are screened as “Medium” or “High” risk, have to undertake **Climate Risk and Adaptation Assessment** during project preparation to inform project design.
- Results of the screening and assessment forms the basis for **RRP linked document on Climate Change Assessment** and for estimating climate adaptation finance.
- Tools and guidance developed, and annual trainings are conducted to support project officers in undertaking screening and assessment.



Three Key Strategies for Achieving Adaptation Finance Targets

▶ **1 Strengthen upstream engagement on adaptation**

- Support DMCs in National Adaptation Planning Processes.
- Move beyond mainstreaming at project level to CPS and country programming; and at portfolio level (e.g. ORM led initiative on TCFD)
- Support DMCs in undertaking area-wide and/or sector wide climate risk assessments to inform the development of pipeline.

▶ **2 Scale up support for climate adaptation (type 2) projects in high-risk sectors**

- Develop and finance adaptation projects in high-risk sectors – ANR and WUS
- Scale up adaptation-related reforms through PBLs and RBLs
- Increase emphasis on non-traditional investments, such as in early warning systems

▶ **3 Expand adaptation in non-infrastructure sectors**

- Identify opportunities for adaptation in social protection, TVET and health programs.
- Scale up adaptation solutions through agri-business and financial intermediaries in private sector

ADF 13 Thematic Pool: Disaster Risk Reduction and Climate Change Adaptation



- Purpose is to scale up support in group A and B DMCs for disaster risk reduction (DRR) and climate change adaptation (CCA)
- An indicative 40% share (~\$260-280 million) of the thematic set-aside will be made available for this purpose.

Project eligibility criteria

Group A countries

- Stand-alone projects with DRR and CCA as primary objective
- Discrete project output on DRR and CCA
- Incremental cost of strengthening resilience for geophysical hazards

Group B countries

- Similar criteria as group A countries plus additional criteria
- Projects targeted at poorest population and introduce innovative solutions and/or leverage additional finance, including from the private sector

ADB Commitments: Aligning Operations to the Paris Agreement

1

Alignment with mitigation goals

Operations consistent with national low-emissions development pathways and compatible with objectives of the Paris Agreement.

2

Adaptation and climate-resilient operations

Operations are aligned with climate-resilient development pathways and consistent with the objectives of the Paris Agreement

3

Accelerated contribution to the transition through climate finance

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

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.

5

Reporting

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

6

Align internal activities

Progressively ensure that internal operations, including facilities and other internal policies, are in line with the Paris Agreement.



Integration of climate change in Country Partnership Strategies



Climate finance targets



Target to peak emissions - by 2030 at the latest



Social cost of carbon a part of economic evaluation of projects



Climate and disaster risk screening mainstreamed



Exclusion lists - oil/gas exploration, fossil fuel extraction, commercial logging in primary forests



NDC Advance Platform

Elements of the MDB methodology will
rely and build on and be integrated with
ADB processes and tools

NDC Advance Platform

- ADB's dedicated technical assistance platform supports DMCs to translate NDC commitments into implementation plans, mobilize finance to support NDC implementation, and develop Monitoring, Reporting and Verification (MRV) systems to track and report achievements.
- Also supports DMCs to build capacity and provides knowledge for future revisions of NDCs.

Long-Term Strategy (LTS) support

- LTS promote whole-of-economy transformations towards net zero, resilient economies while also considering broader sustainability and socio-economic goals.
- LTS will be essential to align and scale up ADB's climate support as a cornerstone of Paris Alignment. It will also facilitate ambition raising in DMCs.
- In the Asia and Pacific region, twenty-five DMCs have committed to net zero by 2050, but **only three** DMCs have submitted their LTS (Fiji, Indonesia and Republic of the Marshall Islands).

Just Transition

- Recognizing the importance of the impact on people that large-scale transitions required to address climate change may entail— environmental sustainability, as well as decent work, social inclusion, and poverty eradication.
- MDBs have jointly developed Common Principles for Just Transition and are collaborating on approaches.
- Framework and approach for ADB to be developed building on existing practices.
- DMCs need support to develop transparent and inclusive planning and policies for a Just Transition.

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 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

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%

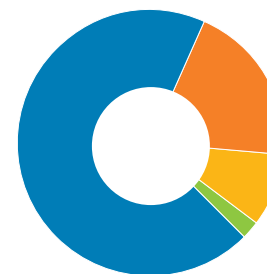
Total CIF FUNDING administered by ADB

For ADB-administered Projects

70%

Total CTF net commitment

\$965.33 million



30%

Total SCF net commitment

\$426.41 million

20% SCF PPCR

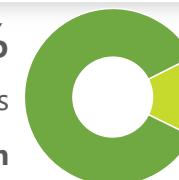
9% SCF SREP

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



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

ADB's total GCF Funding to date: **\$473 million**

Green Climate Fund (GCF)

has so far committed

\$10 billion to



190 projects globally



Innovative Financing

TOTAL FINANCING: \$ 200 million (w/o cofinancing)

- \$100 million (OCR)
- \$100 million
Green Climate Fund (concessional loan)
- \$ 84.53 million
Agence Francaise de Developpement
(Not ADB Administered)
- \$113.69 million
KfW Bankengruppe
(Not ADB Administered)

DATE APPROVED 25 September 2019

TOTAL CLIMATE FINANCE: \$200 million

TOTAL ADAPTATION FINANCE

\$25 million (OCR)
\$25 million (GCF)

TOTAL MITIGATION FINANCE

\$75 million (OCR)
\$75 million (GCF)

East Asia Department

CONTEXT

PRC plays a pivotal role in managing the climate change challenge in Asia and the Pacific. Given the country's current level of greenhouse gas emissions and climate vulnerability, there is a vast need for climate-related investments going beyond business as usual to underpin its development targets. With high reliance on coal power and heavy industry, Shandong Province is initiating systemic interventions to build climate resilience and decarbonize its economy.

DESCRIPTION

The project will create a "fund" to catalyze private, institutional and commercial (PIC) capital for the development of climate positive infrastructure and business in Shandong Province and will support a portfolio of mitigation and adaptation subprojects assessed against both climate and financial eligibility criteria. It will also enhance knowledge and skills of local governments, civil society, and private sector to prepare climate-positive subprojects.

UNIQUE FEATURE

The project will have a leveraging effect with SGDF financing and will be time bound and targeted. It will incentivize subprojects to adopt green procurement standards, as greening a subproject's supply chain such that it shifts from "good practices" to "advanced benefits" will enable access to better financing terms and conditions from the SGDF. The project will also adopt SOURCE, a multilateral digital platform to fast-track the delivery of quality infrastructure projects.

ADB's Carbon Market Program

Mobilizing carbon finance for incentivizing investments in low-carbon technologies

Future Carbon Fund

- 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

Japan Fund for the Joint Crediting Mechanism

- 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

Article 6 Support Facility

- 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.**

Technical Support Facility

- 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

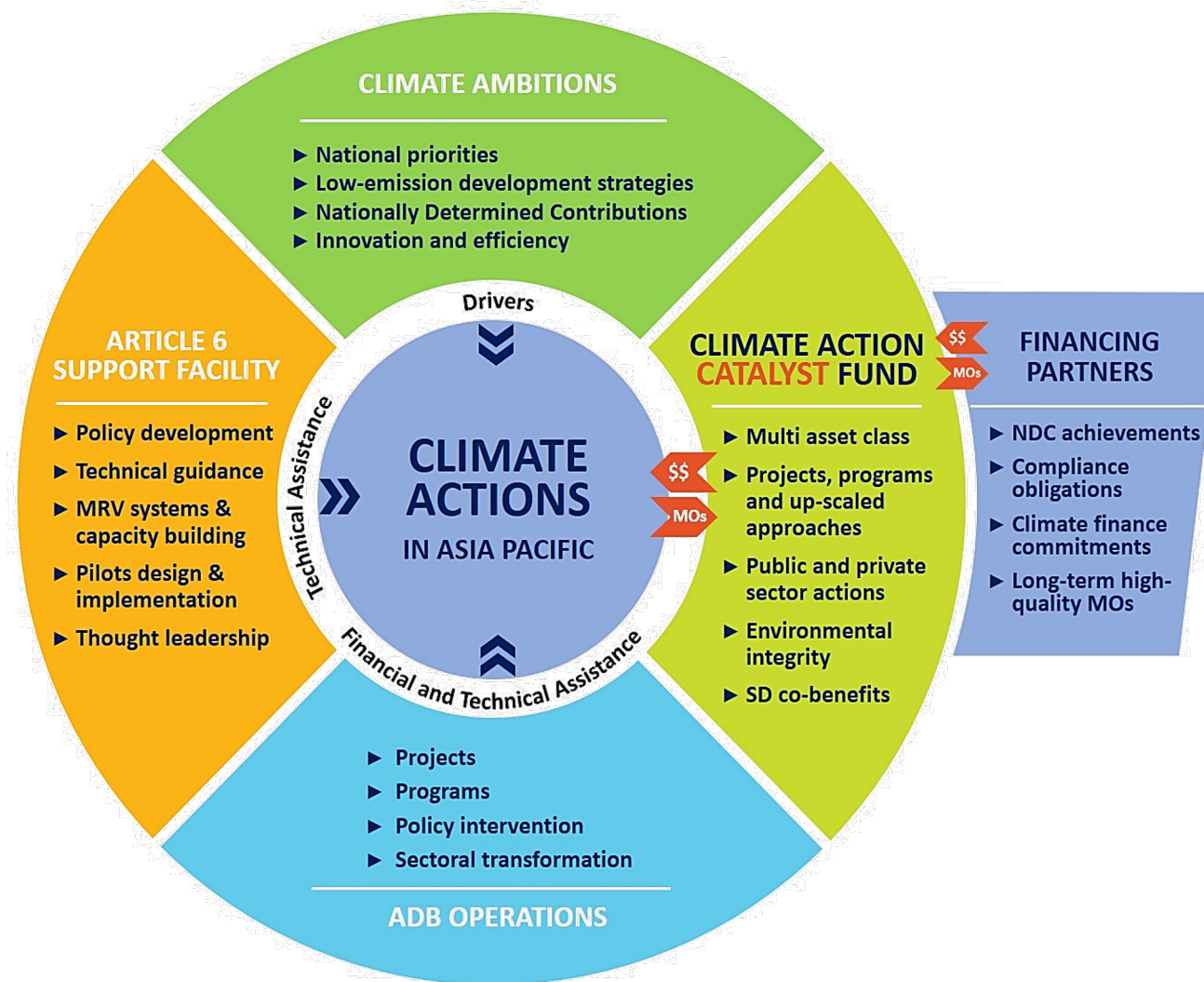
Fund Size: \$100 - \$150 million

Financing Partners: National / Sub-national Governments / Agencies, Public or private sector entities in ADB member countries.

Fund Life: 2022 – 2035

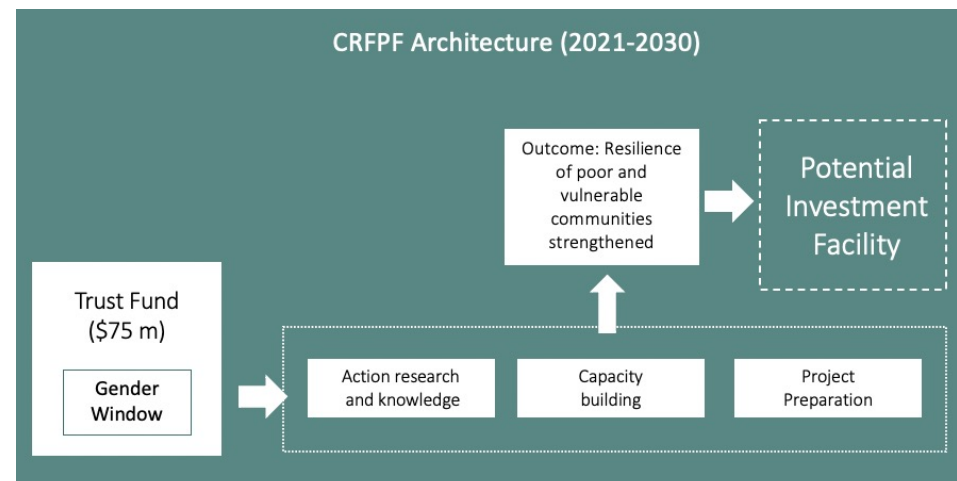
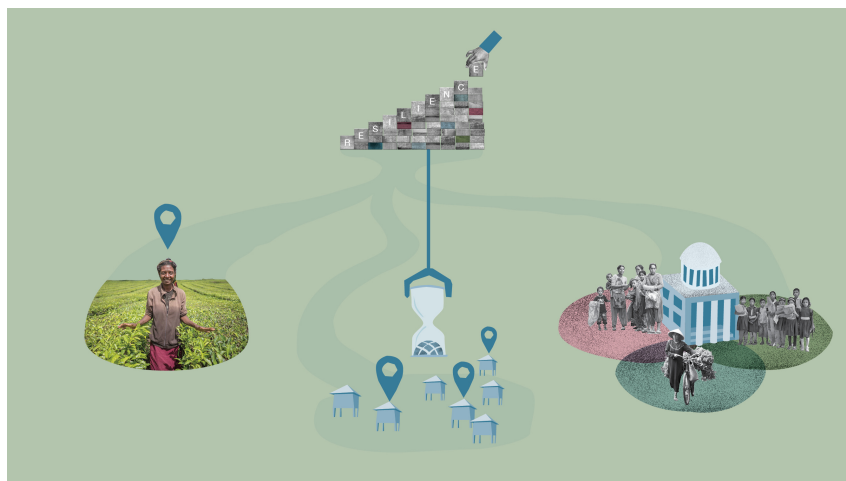
Fund Objectives:

- Support DMCs in using cooperative approaches under Article 6 for achieving their nationally determined contributions (NDCs) and raising ambition over time;
- Incentivize the design, development, and/or implantation of Mitigation Actions by providing carbon finance through transactions to purchase Carbon Credits;
- Provide carbon finance to promote and scale up the deployment of innovative low-carbon technologies in order to accelerate transition to low-carbon development pathways.



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 from Nordic Development Fund (Euro 6 million), UK (GBP 45 million – tbc) and AFD (Euro 2 million- tbc)





Thank you

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For further information:

<https://www.adb.org/what-we-do/themes/climate-change-disaster-risk-management/main>

<https://data.adb.org/dashboard/climate-change-financing-adb>

TOTAL FINANCING: \$400 million

- \$200 million OCR loan
- \$100 million equity (counterpart)
- \$100 million commercial banks

DATE APPROVED 25 August 2020

TOTAL CLIMATE FINANCE: \$40 million

TOTAL ADAPTATION FINANCE
\$40 million (OCR)Private Sector Operations Department
and
East Asia Department

CONTEXT

The PRC is one of the world's most water-stressed countries. By 2030, the country will need up to 20 percent more in total water supply than it did in 2014, with a rapid increase in urban water demand. Water scarcity is exacerbated by climate change and surface water and groundwater pollution. Enhancing resilience to extreme weather events associated with climate change in an emerging priority for cities in the PRC.

DESCRIPTION

The loan will finance multiple urban water subprojects that support sponge city development to enhance climate resilience or apply smart water technology to improve efficiency in the water value chain from the supply end to wastewater treatment. Subprojects will be identified during the project implementation period between 2020 and 2023.

The majority of the loan proceeds will be used in third- and fourth-tier cities, while the rest will be used in Shenzhen. All subprojects should meet climate-resilient and smart water technique and technology requirements and minimum return on equity or internal rate of return.

UNIQUE FEATURES

The project was originated and structured through a strong "One ADB" approach and is the first joint nonsovereign operation undertaken by East Asia Department and Private Sector Operations Department in the PRC. In addition, the Water Sector Group of the Sustainable Development and Climate Change Department provided advice on climate-resilient and smart water techniques and technologies.

The project will apply sponge city and smart water technology applications:

- A "sponge city" is a city with a water infrastructure system that is capable of absorbing, harvesting, storing, filtering, purifying, and slowly releasing or reusing urban runoff—in effect acting like a sponge. A sponge city is designed to soak up heavy rainfall and flooding and, when needed, release stored water to make it available for beneficial use. In these ways, a sponge city helps to ensure safe urban drainage, avoid flooding, reuse rainwater, and protect the environment.
- Smart water solutions utilize technological innovation to improve water quality and supply, reduce leakages, enhance wastewater treatment and reuse, support monitoring and evaluation, improve customer services, and reduce energy consumption.

Hunan Xiangjiang River Watershed Existing Solid Waste Comprehensive Treatment Project

TOTAL FINANCING: \$ 258 million
• \$150 million (OCR loan)

DATE APPROVED 26 September 2018

TOTAL CLIMATE FINANCE:
\$140 million

TOTAL ADAPTATION FINANCE
\$62 million (OCR)

TOTAL MITIGATION FINANCE
\$78 million (OCR)

East Asia Department

CONTEXT

The Xiangjiang River plays a pivotal role in the water quality of the Yangtze River and in the general maintenance of healthy rivers and waterways. Therefore, the Xiangjiang River is a key water resource in the overall strategic planning for water security in the Yangtze River, and its ecological improvement in turn promotes ecosystem restoration, environmental protection, and water resources management of the Yangtze River Economic Belt and its watersheds. The Xiangjiang River watershed has a total area of about 94,660 square kilometers, with approximately 90% of it located in Hunan and the remaining 10% located in the Guangxi Province.

DESCRIPTION

The project will address urgent environmental and infrastructure needs associated with municipal solid waste (MSW) management in 10 counties and county-level cities in the Xiangjiang River watershed of Hunan Province. It is a milestone for the Asian Development Bank (ADB) because it will be the first in the PRC to focus solely on MSW management. It will also complement the government's efforts to align MSW services with sustainable development. It will support overall strategies to reduce the discharge of long-term pollutants in the Xiangjiang River watershed and has significant potential for wide replication.

UNIQUE FEATURE

The project is ADB's first MSW investment in Hunan and the only one in the PRC that focuses entirely on MSW management. The project will adopt lessons learned from over 20 years of ADB experience in national dialogue with the government on MSW policies and practices. This dialogue has contributed to an enabling environment that has facilitated policy, regulatory, and operational improvements. The project supports Hunan Provincial Government's approach to urban-rural integrated MSW management, which seeks to address the entire cycle of MSW starting in households with collecting, separating, and recycling; and continuing in counties and cities with transferring and treating the remaining wastes.

TOTAL FINANCING: \$260 million

- **\$130 million** OCR loan
- **\$130 million** equity (counterpart)

DATE APPROVED 04 December 2019

TOTAL CLIMATE FINANCE:
\$106 million

TOTAL ADAPTATION FINANCE
\$68 million (OCR)

TOTAL MITIGATION FINANCE
\$38 million (OCR)

East Asia Department

CONTEXT

The project is located in Yanji city, which suffers from inadequate urban infrastructure and provision of basic services that cause inconvenience and disruptions to daily life, especially for women. This includes inefficient public transport, traffic congestion and poor parking management, urban and river flooding, and inefficient water supply and wastewater management.

DESCRIPTION

The project will provide multiple cross-benefits from an integrated solution provided to improve the urban livability of a medium-sized city, which is timely and essential to lessen the migration to the coastal mega-urban regions and to provide a demonstration project for replication in the PRC. It will contribute to (i) regional public goods of health and improved air and water quality, and (ii) revitalizing the economically challenged northeast area of the PRC. Its outputs include: (i) low-carbon bus rapid transit line integrated with nonmotorized transport infrastructure constructed; (ii) climate-resilient flood risk management and sponge city green infrastructure constructed (iii) water supply system improved; and (iv) capacity in low-carbon, climate-resilient, healthy city planning, and infrastructure management, developed.

UNIQUE FEATURES

Approach and Project design: Integrated solution to make Yanji city more livable and promote healthier lifestyles through improved public and non-motorized transport, green open space network designed as sponge city green infrastructure improving flood resilience; and reducing non-revenue water and improve wastewater management. Sponge cities are designed to reduce water related climate risks and manage water resources, capture and detain stormwater, promote natural infiltration, reduce flood risk and reuse stormwater for landscape irrigation and industrial use.

Impact and Value addition: (i) low-carbon, climate-resilient, healthy city planning, and infrastructure investment optimizing cobenefits across sectors; (ii) best practice BRT and transport management planning; (iii) detailed digital hydraulic model integrates under-ground drainage pipe network with at-grade sponge city infrastructure.

Climate Finance for PRC Projects 2019–2021 (\$ million)

Year	Adaptation	Mitigation	Total
2019	269	753	1,022
2020	194	596	790
2021	99	356	454

Notes:

1. Climate finance amount are for investments, and from ADB resources based on commitments.
2. 2021 amounts are based on pipelines as of 30 September 2021.
3. The table above reports no climate finance from ADB-administered external funds. If the \$100 million Green Climate Fund loan for Shandong Green Development Fund Project (Additional Financing) will be approved and signed in 2021, this would yield an adaptation finance = \$25 million and mitigation finance = \$75 million.