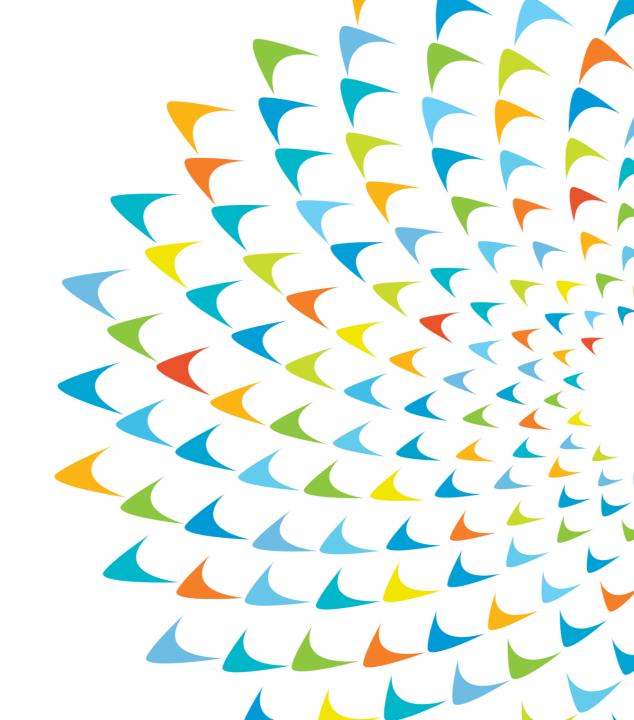


ADB Support for Carbon Markets and the Japan Fund for the Joint Crediting Mechanism



23 September 2025



# **Leveraging Carbon Markets for**

Accelerating Climate
The Challenge
Action
Gent need for significantly more

finance to support climate action—Developing Member Countries need an estimated \$1.7 trillion annually through 2030 to take needed climate actions.

#### The Role of Carbon Markets

Carbon markets create incentives for investments in climate mitigation actions by providing additional source of financial stream to overcome financial, regulatory, and technical barriers.

#### **Growing Momentum**

The finalization of Article 6 rules at COP29 in Baku in November 2024 marks a major milestone in international carbon market development. There is growing global momentum to use carbon markets as a cost-effective tool for reducing

**ADB's Carbon Market Program** 

Driving Climate
Mitigation
through Innovative

Carbon Finance

ADB has a long-standing engagement with carbon markets through its Carbon Market Program, which facilitates innovative carbon finance to stimulate climate mitigation activities across its Developing Member Countries.

ADB adopts a holistic two-pronged approach - **Carbon Market Development** by providing technical assistance and capacity-building support and **Mobilizing Carbon Finance** for incentivizing investments in low-carbon technologies and solutions.

The Carbon Market Program has been mainstreamed as a bank-wide initiative,

reinforcing ADB's commitment to climate action and sustainable development.

# ADB Support on Carbon Markets Technical and Capacity Building Carbon Finance Knowledge Creation and Management

#### **Examples - Carbon Finance Supported Projects**

- Transmission lines with high-temperature lowsag conductors in **Bangladesh**
- Advanced battery and energy-management systems with renewables in **Mongolia**
- · Clean energy for local businesses in Palau

Joint Crediting
Mechanism

Carbon finance to
incentivize
deployment of
advance low-carbon

technologies

Japan Fund for the

Technical and Capacity
Building Support to
enhance carbon
market readiness and
projects

Carbon finance to support transformative mitigation actions

**Climate Action** 

Catalyst

Fund

- Provides financial incentive for the deployment of advanced lowcarbon technologies in ADB-financed projects, under the Joint Crediting Mechanism, aligned with Article 6.2 of the Paris Agreement.
- Upfront finance
- Demand signal

 Upstream: National Strategies, Frameworks, Institutional Infrastructure for carbon markets

**Article 6** 

**Support** 

**Facility** 

- Midstream: Pipeline of projects for carbon credits
- Downstream:
   Support development of carbon market projects to generate carbon credits
- Pre-purchase of carbon credits from ADB financed projects generating carbon credits under Article 6 of the Paris Agreement
- Long term fixed price contracts and upfront payments
- Price signal

**US\$ 137 Million** 

US\$ 8.8 Million

**US\$ 77 Million** 



#### in partnership with

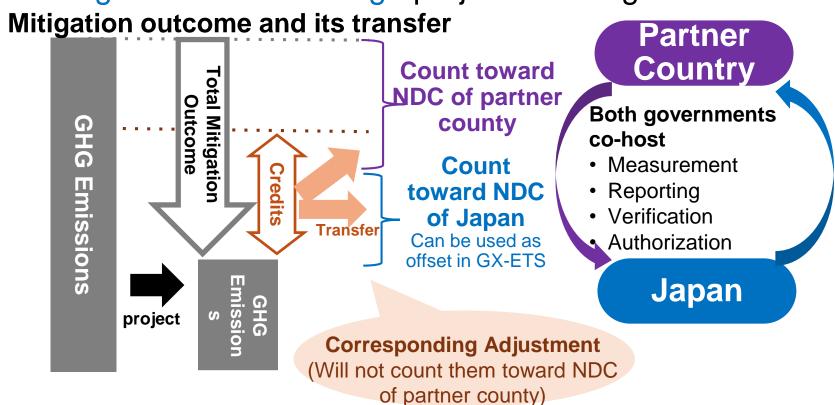
- Ministry of the Environment, Japan
- Swedish Energy Agency
- Ministry of Foreign Affairs and Trade. New Zealand
- Federal Ministry for Economic Cooperation and Development, Germany
- Norwegian Ministry of Climate and Environment



## Japan Fund for the Joint Crediting Mechanism

ADB

- Established in June 2014 as one of ADB's trust funds
- Contribution by Government of Japan: \$137.30M (2014-2024)
- Provides financial incentives for the adoption of advanced low-carbon technologies in ADB-financed projects that use the JCM
- Both sovereign and non-sovereign projects are eligible

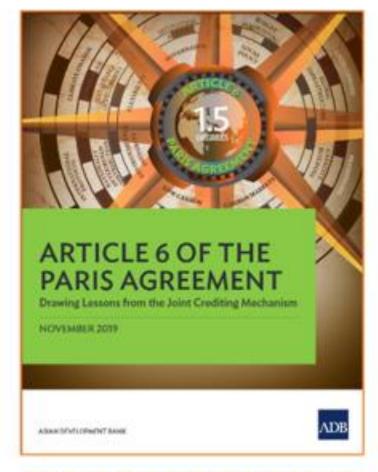




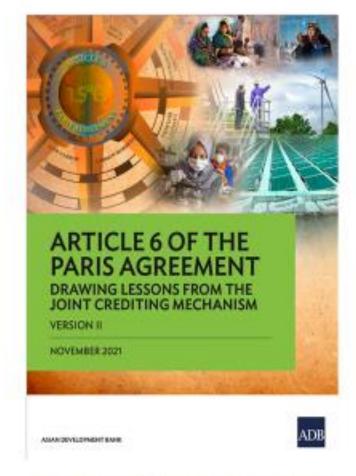
## **Knowledge Products**



ADB publications on promoting the JCM as a forerunner of Article 6.2 mechanisms.



https://www.adb.org/publications/article-6-parisagreement-lessons-jcm



https://www.adb.org/publications/article-6paris-agreement-lessons-jcm-v2



## **JFJCM Eligibility Criteria**



## Eligible Countries

- All ADB developing member countries that have signed bilateral agreements on the JCM with the Government of Japan (19 out of 31 JCM partner countries).
- Azerbaijan, Bangladesh, Cambodia, Georgia, India, Indonesia, Kazakhstan, Kyrgyz Republic, Laos, Maldives, Mongolia, Myanmar, Palau, Papua New Guinea, Philippines, Sri Lanka, Thailand, Uzbekistan, and Viet Nam (as of August 2025).

## Eligible Projects

- Investment project financed by ADB or ADB administered funds.
- ADB technical assistance for developing JFJCM pipeline projects.

## Eligible Technologies

- Advanced low carbon technologies that reduce greenhouse gas (GHG) emissions.
- The technologies must have a proven track record but must be "advanced" in the host country context.

<sup>\*</sup> Can be used for additional financing to ongoing ADB project.



## Case Study: Advanced Micro-Grid Technology in Maldives



Project	Preparing Outer Islands for Sustainable Energy Development Project (POISED)				
JFJCM Support	\$5 million (total project cost: \$129 million)				
Technology Deployed	Advanced battery energy storage system and energy management system				
Description	Installed on top of 1.6 MW solar PV, the JFJCM supported battery energy storage system and energy management system enable:  ✓ Smoothening variable power from solar PV  ✓ Optimizing diesel generator operation  ✓ Integrating renewable energy into the grid				
Location	Addu, Maldives				
GHG Reductions	Appx. 1,300 tCO <sub>2</sub> /year				





Training local staff for EMS operation



# **JFJCM Project Portfolio**



S.No.	Project Portfolio	Host Countries	JFJCM Support	Technologies  Deployed
1	Preparing Outer Islands for Sustainable Energy Development Project (POISED)	Maldives	\$5.00 Mn	Advanced battery and energy management system
2	Southwest Transmission Grid Expansion Project	Bangladesh	\$7.00 Mn	Energy efficient transmission lines
3	Upscaling Renewable Energy Sector Project	Mongolia	\$6.00 Mn	Solar PV with advanced battery system and EMS
4	Improving Access to Health Services for Disadvantaged Groups Investment Program	Mongolia	\$3.48 Mn	Energy efficient HVAC, high insulation window, rooftop solar PV and ground source heat pump
5	Greater Male Waste to Energy Project	Maldives	10.00	Waste-to-energy plant (incineration)
6	Geothermal Power Generation Project (Phase 1)	Indonesia	\$10.00 Mn	Geothermal power plant with advanced designs
7	Accelerating Sustainable System Development Using Renewable Energy Project (ASSURE)	Maldives	\$6.20 Mn	Advanced flow battery system Ocean renewable energy pilot
8	Disaster Resilient Clean Energy Financing Project (DRCEF)	Palau	\$5.00 Mn	Financial intermediation to support investment in low-carbon technologies
9	Bishkek Low-carbon Municipal Building Upgrading Pilot	Kyrgyz Republic	\$5.00 Mn	Energy efficient heat pumps, ventilation system with heat recovery, and building energy management systems
		Total	57.68	



#### **Virender Kumar Duggal**

Unit Head, Carbon Markets
Climate Change, Resilience, and Environment Cluster
Climate Change and Sustainable Development Department
vkduggal@adb.org

#### **Shohei Okano**

Environment and Carbon Market Specialist

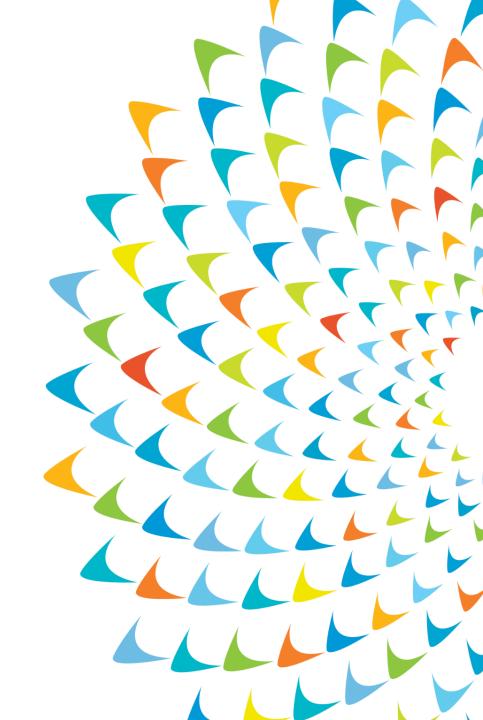
JFJCM Fund Manager

Climate Change, Resilience, and Environment Cluster

Climate Change and Sustainable Development Department

sokano@adb.org

# Thank you







## **ADB's Carbon Market Program**

#### **Climate Action Catalyst Fund**

- Commenced Operations in Jan 2024.
- Financial Commitment: A total of \$ 77
  million from the Swedish Energy
  Agency and the Norwegian Ministry of
  Climate and Environment.
- Mobilize carbon finance to catalyze investments for the deployment of lowcarbon technologies and solutions including through the private sector.
- Incentivize transformative Mitigation
   Actions in ADB DMCs by purchasing
   ITMOs and MOs under Article 6 of the
   Paris Agreement on behalf of the
   Financing Partners.
- Support a diverse range of Mitigation Actions and facilitate the delivery of sustainable development impacts in ADB's DMCs.

#### **Article 6 Support Facility**

- Commenced Operations in Jan 2019.
- Funded under TA 9695 (US\$ 8.8M) by ADB's TASF, Govt of Germany, Swedish Energy Agency and Govt of New Zealand.
- Enhance Carbon Market Readiness
  - Upstream: Policy, Regulatory & institutional infrastructure
  - Midstream: Identify potential sector and develop pipeline
  - Downstream: Technical support for project preparation for carbon markets
- Collaboration with Other Development Partners for the co-creation of high integrity carbon markets.
- Knowledge Products & capacity building
- Global Public Goods
  - Attribution
  - SD Impact Assessment
  - MOPA/Term Sheet Templates

# Japan Fund for the Joint Crediting Mechanism

- Commenced Operation in June 2014.
- Financial Contribution: \$137.30 million by the Ministry of Environment Japan, Government of Japan.
- Provide financial incentives (grant) for the deployment of advanced low-carbon technologies and solutions.
- Support GHG mitigation actions through the Joint Crediting Mechanism, a bilateral carbon market mechanism between Japan and the DMCs, aligned with Article 6.2 of the Paris Agreement.
- Provide co-financing support to ADBfinanced projects including investment projects financed by ADB or ADB administered funds, and ADB TAs for developing JFJCM pipeline projects.



## Japan Fund for the Joint Crediting Mechanism (JFJCM) - Snapshot



- ➤ Established in June 2014 as a ADB Trust Fund with financial commitment by the Government of Japan
- > Contribution by the Government of Japan: \$137.30M (2014-2024)
- ➤ Provides financial incentives (grant) for adoption of advanced low-carbon technologies in ADB-financed projects that use the Joint Crediting Mechanism (JCM)\*

project

> Both sovereign and non-sovereign projects are eligible

\*Joint Crediting Mechanism (JCM)

- Project-based bilateral offset crediting mechanism managed by Japan and partner countries
- Facilitates the diffusion of low-carbon technologies that lead to GHG emission reductions that are measurable, reportable & verifiable
- A forerunner to cooperative approaches under Article 6 of the Paris Agreement.
- Carbon credits from JCM projects will be shared among the countries and used to achieve their emission reduction targets while ensuring the avoidance of double counting through corresponding adjustment.

Mitigation outcome and its transfer

Count toward NDC of partner county

Count toward NDC of Japan

Can be used as offset in GX-ETS

of partner Both governments co-host

CountMeasurementReporting

Japan • Verification

Authorization

Japan

**Partner** 

(Will not count them toward NDC of partner county)

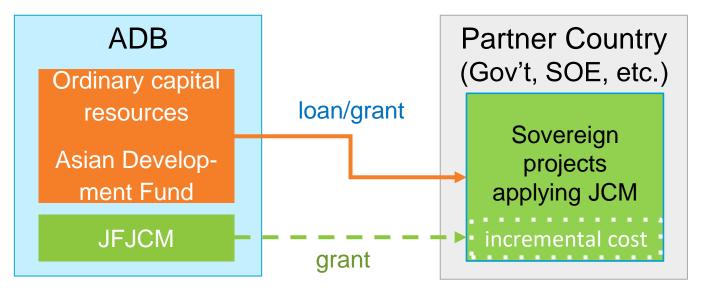


## **JFJCM Support Schemes**

# ADB

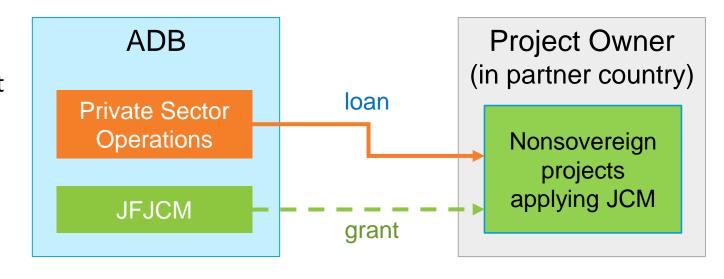
## **For Sovereign Project**

- > JFJCM provides grant for incremental cost of advanced low-carbon technologies
- ➤ Maximum amount of grant:
  - i. 10% of total project cost (capped to \$10 million)
  - ii. \$5 million if the project cost < \$50 million



### For Nonsovereign Project

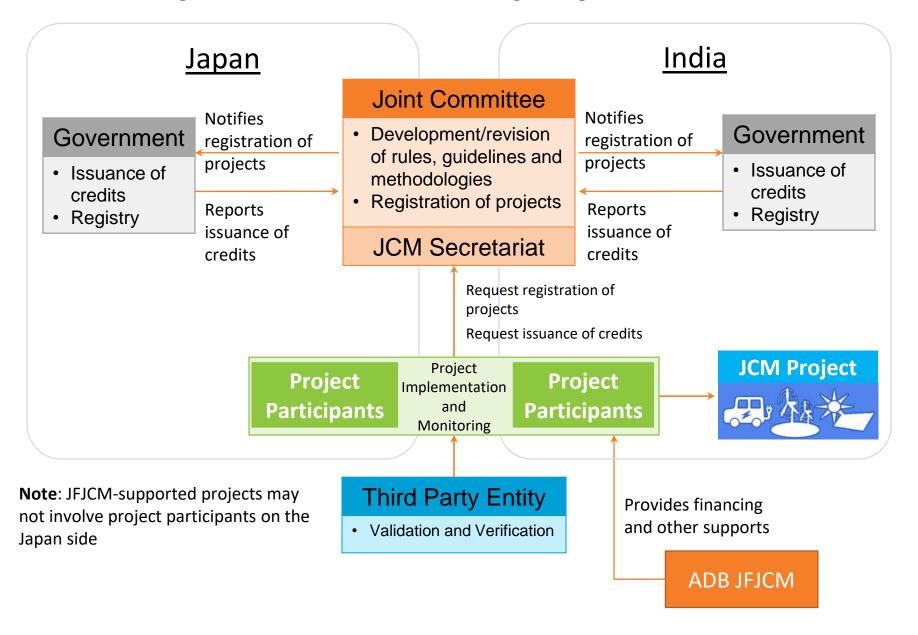
- ➤ On top of the ADB loan, JFJCM provides grant by milestones to support deployment of advanced low-carbon technologies
- ➤ Maximum amount of grant: 10% of total project cost (capped to \$10 million)





## Roles of key entities in JCM projects

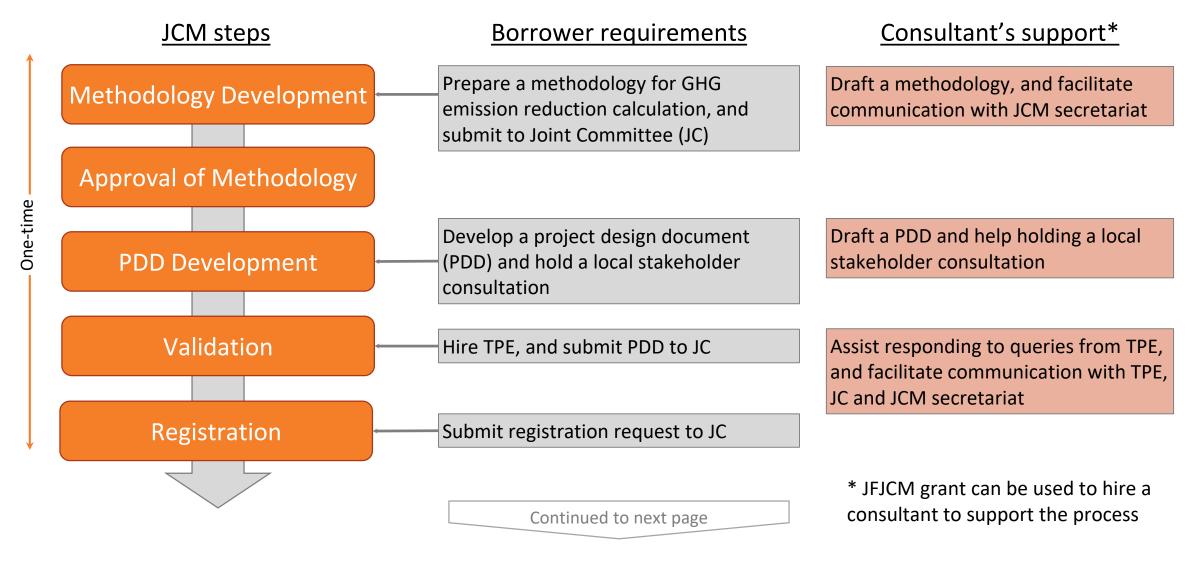






# JCM project cycle and requirements (1)

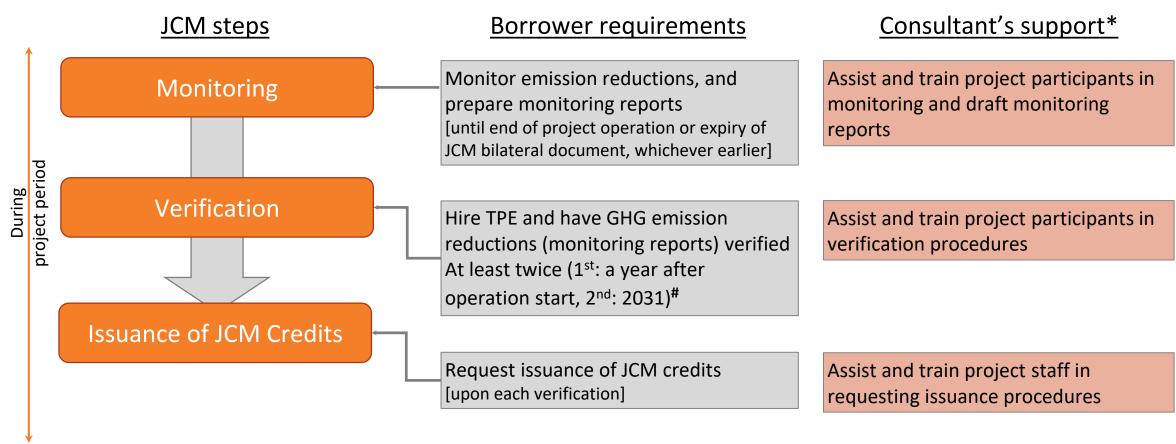






# JCM project cycle and requirements (2)





<sup>\*</sup> Cost for hiring TPE will be borne by Borrower for the verification to be done if the timing is after the ADB project implementation period.

<sup>\*</sup> JFJCM grant can be used to hire a consultant to support the process