



# Introduction to Japan Fund for Joint-Crediting Mechanism and JCM

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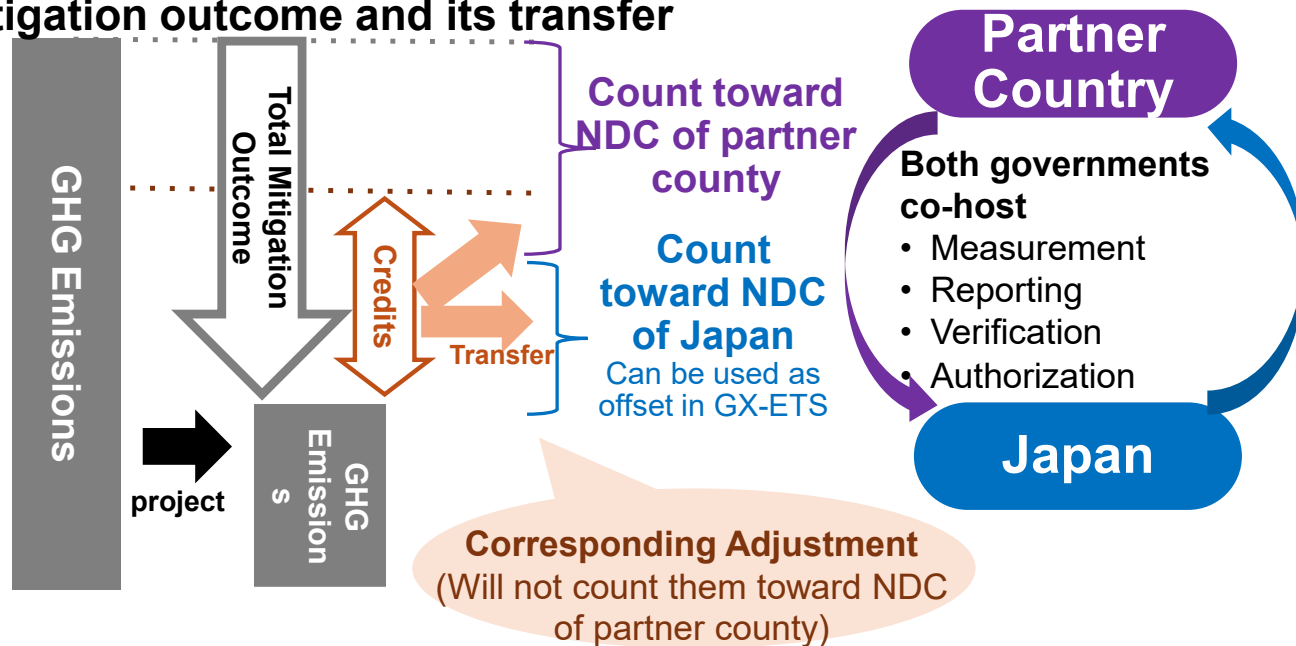


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# Japan Fund for the Joint Crediting Mechanism

- ❖ 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

## Mitigation outcome and its transfer



## 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.

## Eligible Projects

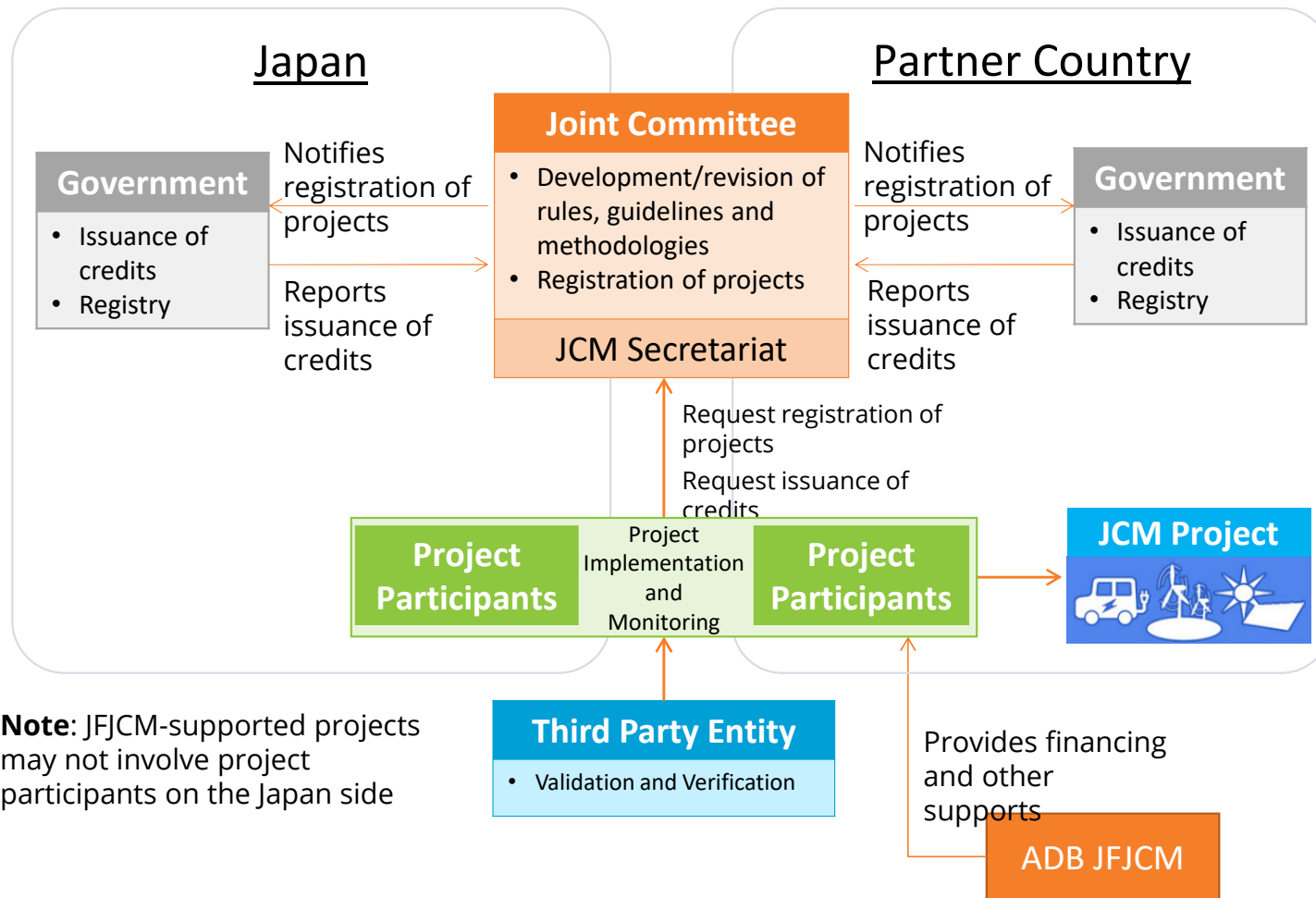
- ❖ Investment project [financed by ADB](#) or ADB administered funds.
- ❖ ADB technical assistance for developing JFJCM pipeline projects.

\* Can be used for additional financing to ongoing ADB project.

## Eligible Technologies

- ❖ [Advanced low-carbon technologies](#) that reduce greenhouse gas (GHG) emissions from energy source.
- ❖ The technologies must have a [proven track record](#) but must be "advanced" in the partner country context.

# Roles of key entities in JCM projects



# MRV requirements of the JCM (after approval)

- After the approval of the JFJCM funding, a borrower (recipient) is required to meet the MRV requirements of the JCM as follows.

## MRV requirements of the JCM

- Preparation and approval of **JCM Methodology**
- Preparation of **Project Design Documents (PDD)**
- **Validation** by Third Party Entities (TPEs), and **registration** of the project
- **Monitoring, reporting and verification** of GHG emission reductions
- **Issuance** of the JCM credits and delivery to government(s)

**Borrower needs to engage consultant  
by using the JFJCM financial support (grant)  
JFJCM secretariat may help the process**

Reference: [Handbook for Developing JCM Projects](#)

# JFJCM Project Portfolio



#	Project	Country	JFJCM support (\$ mn)	Total project cost (\$ mn)*	ADB Approval	Technologies supported
1	Preparing Outer Islands for Sustainable Energy Development Project (POISED)	Maldives	5.00	129.00	2015	Advanced battery and energy management system (EMS)
2	Southwest Transmission Grid Expansion Project	Bangladesh	7.00	532.00	2018	Energy efficient transmission lines
3	Upscaling Renewable Energy Sector Project	Mongolia	6.00	66.22	2018	Solar PV with advanced battery system and EMS
4	Improving Access to Health Services for Disadvantaged Groups Investment Program	Mongolia	3.48	80.44	2019	Energy efficient HVAC, high insulation window, rooftop solar PV and ground source heat pump
5	Greater Male Waste to Energy Project	Maldives	10.00	151.13	2020	Waste-to-energy plant (incineration)
6	Geothermal Power Generation Project	Indonesia	10.00	479.20	2023	Geothermal power plant with advanced designs
7	Accelerating Sustainable System Development Using Renewable Energy Project (ASSURE)	Maldives	6.20	100.47	2023	Advanced flow battery system and ocean renewable energy pilot
8	Disaster Resilient Clean Energy Financing Project (DRCEF)	Palau	5.00	9.00	2023	Financial intermediation to support investment in low-carbon technologies
9	Bishkek Low-carbon Municipal Building Upgrading Pilot	Kyrgyz Republic	5.00	8.00	-	Energy efficient heat pumps, ventilation system with heat recovery, and building energy management systems (BEMS)
10	Sustainable Energy Sector Development Program – Subprogram 1	Papua New Guinea	10.00	110.00	2025	Energy efficient transmission lines
11	Accelerating Expansion and Sustainability of Health Services for Universal Health Care (ACCESS-UHC) Project	Philippines	3.5	514.00	-	Energy-efficient HVAC, rooftop solar PV and building-integrated PV (BIPV)
		<b>Total</b>	<b>71.18</b>	-		<i>*Source: Project Administration Manual of each project or other published documents at ADB website under <a href="https://www.adb.org/projects">https://www.adb.org/projects</a></i>



# Case study 1: Advanced micro-grid technology in Maldives

Project name	Preparing Outer Islands for Sustainable Energy Development Project (POISED)
JFJCM / Total project cost	\$5 million / \$129 million
Technology supported	Advanced battery energy storage system (BESS) and energy management system (EMS)
Description	<p>On top of 1.6 MW of solar PV installed under the POISED project, <b>the advanced BESS and EMS</b> are supported by JFJCM. The systems enable:</p> <ul style="list-style-type: none"><li>➤ Smoothing out the fluctuation of variable solar PV generation</li><li>➤ Optimizing diesel generator operation</li><li>➤ Integrating large amounts of renewable energy to the grid</li></ul> <p>The BESS and EMS have started operation since August 2021.</p>
Location	Addu, Maldives
Emission reductions	1.3 thousand tCO <sub>2</sub> e/year (estimate)



Training local staff for EMS operation

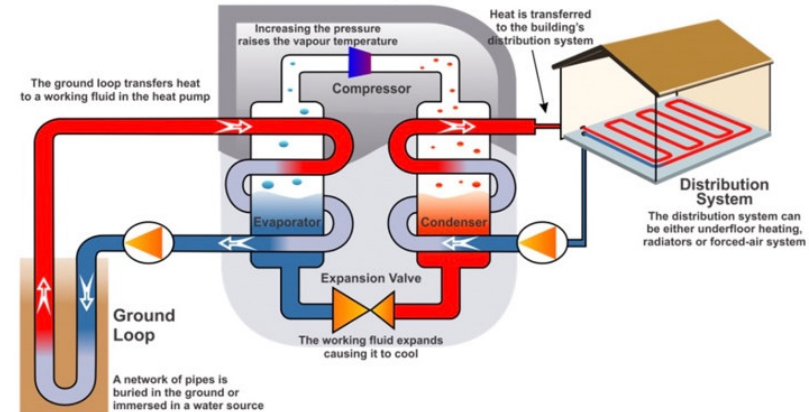


Solar PV at the project site



# Case study 9: Low-carbon Heating in the Kyrgyz Republic

Project name	Bishkek Low-carbon Municipal Building Upgrading Pilot under the Multisector Activities Support Facility 2025–2030
JFICM / Total project cost	\$5 million / \$8 million
Technology supported	(i) Heat pumps (closed-loop ground-source, air-to-water, and wastewater types) (ii) Heat recovery ventilation (iii) Building energy management systems
Description	The project will introduce low-carbon and energy-efficient technologies in five schools and one preschool in Bishkek. It will combine conventional measures (mainly building envelope insulation) with <b>advanced technologies such as energy-efficient space conditioning using heat pumps, heat recovery ventilation, and building energy management systems</b> . These upgrades will replace coal-fired heating, reducing GHG emissions and energy costs, and improving indoor and outdoor air quality. The project will also build local expertise and demonstrate scalable, replicable energy-efficient building solutions in the country and the region.
Location	five schools and one preschool in Bishkek, Kyrgyz Republic
Emission reductions	6.4 thousand tCO <sub>2</sub> e/year (estimate)



Source: Niessink, R.J.M. 2019. Ground-source Heat Pump (GSHP) – Households. Energy.nl

How closed-loop ground-source heat pumps work



Existing coal-fired boilers in a targeted school