Ministry of the Environment

The Joint Crediting Mechanism (JCM)

February 26, 2021

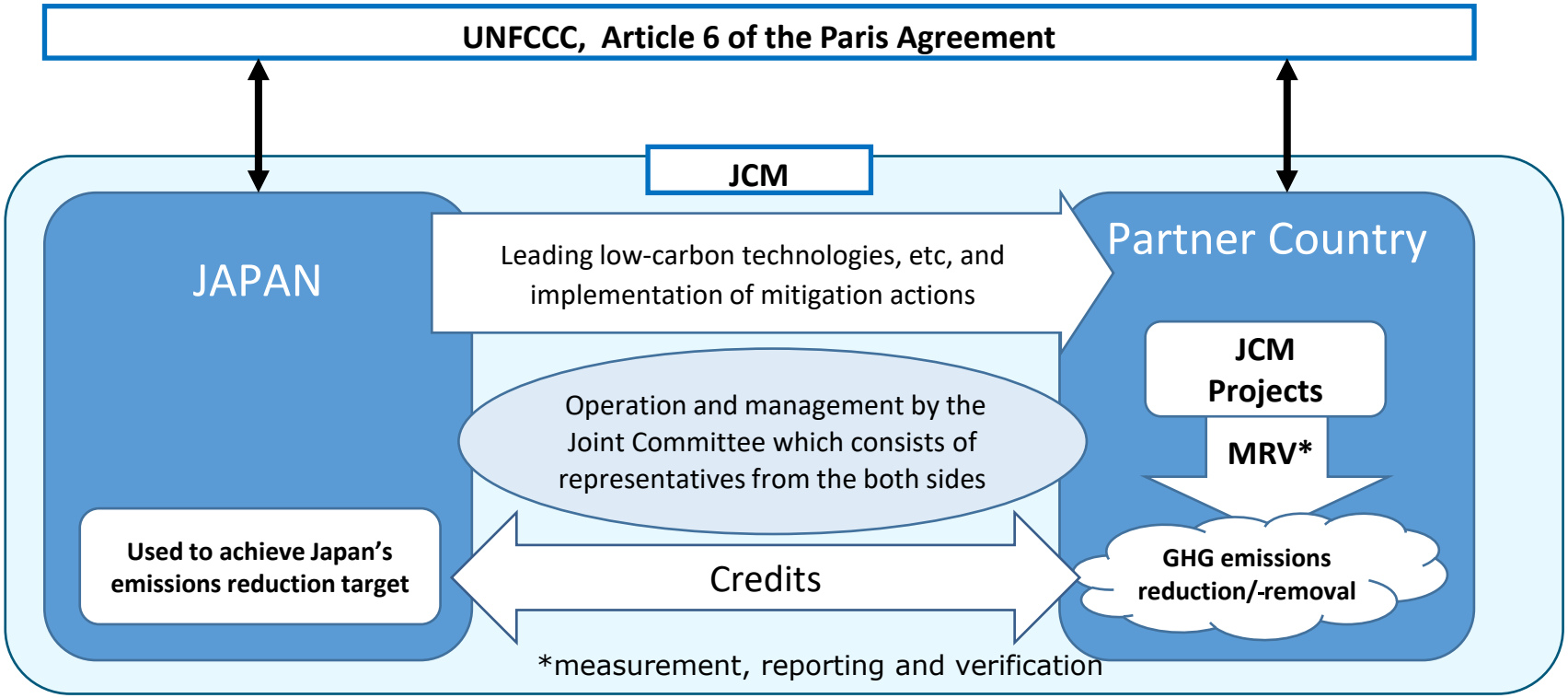
Ministry of the Environment ,Japan

1. Concept of the JCM

2. Financial support scheme

Basic Concept of the Joint Crediting Mechanism (JCM)

- Facilitating diffusion of leading low-carbon or decarbonizing technologies ,etc and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of partner countries.
- Appropriately evaluating contributions from Japan to GHG emission reductions or removals in a quantitative manner and use them to achieve Nationally Determined Contribution(NDC) of each country.
- Contributing to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reductions or removals.



Contributions from Japan

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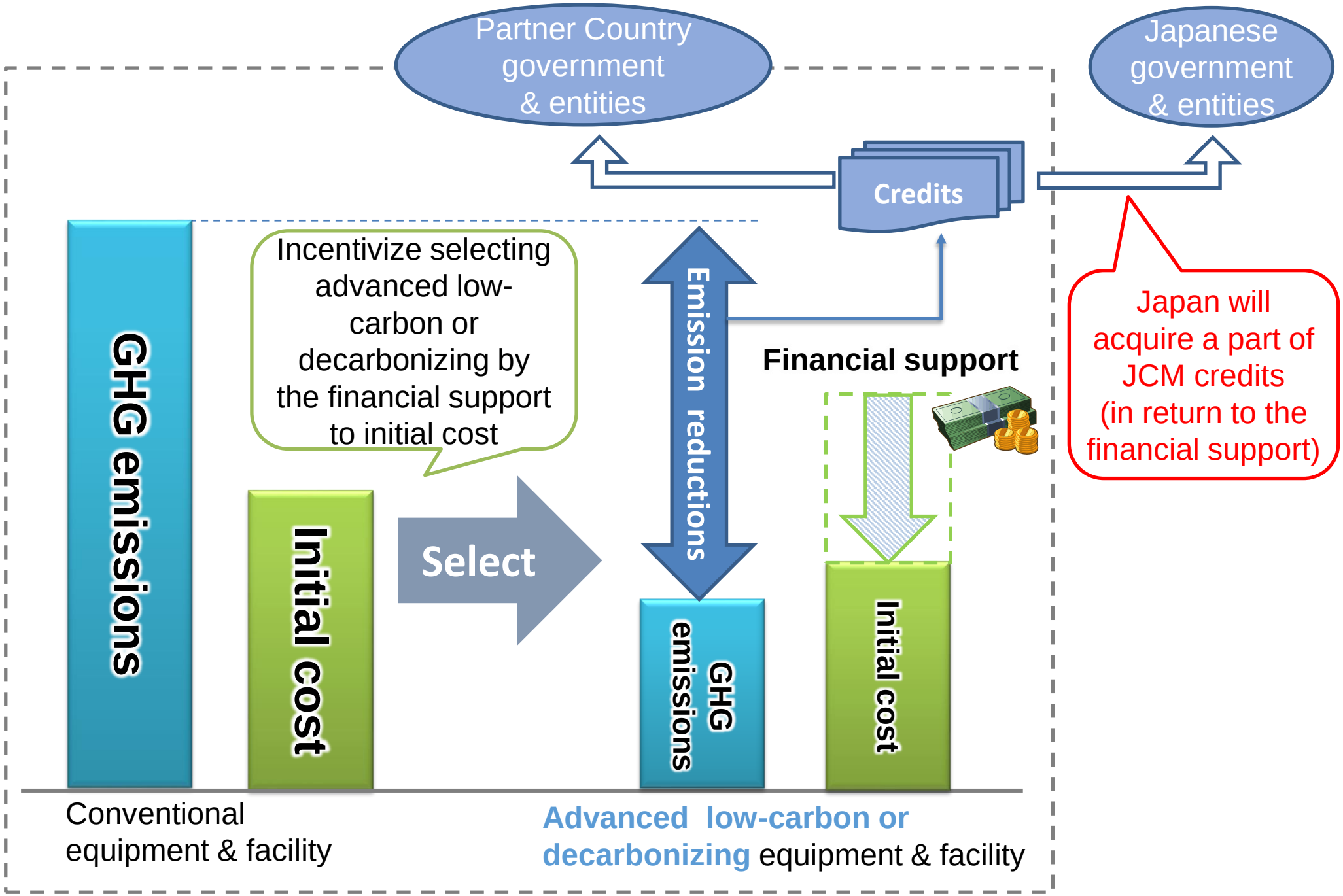
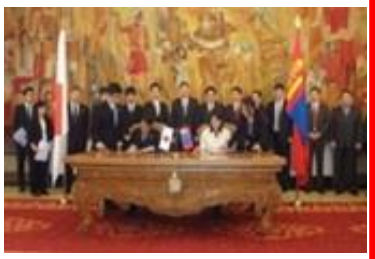


JCM Partner Countries

Ministry of the Environment



Mongolia
Jan. 8, 2013
（Ulaanbaatar）

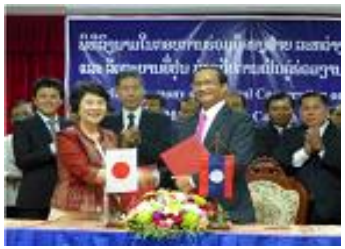
Bangladesh
Mar. 19, 2013
(Dhaka)

Ethiopia
May 27, 2013
(Addis Ababa)

Kenya
Jun. 12,2013
(Nairobi)

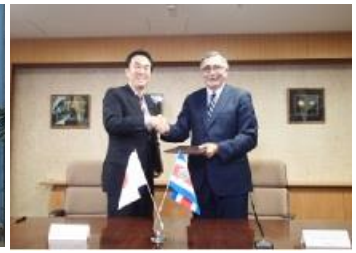
Maldives
Jun. 29, 2013
(Okinawa)

Viet Nam
Jul. 2, 2013
(Hanoi)



Lao PDR
Aug. 7, 2013
(Vientiane)

Indonesia
Aug. 26, 2013
(Jakarta)



Costa Rica
Dec. 9, 2013
(Tokyo)

Palau
Jan. 13, 2014
(Ngerulmud)

Cambodia
Apr. 11, 2014
(Phnom Penh)

Mexico
Jul. 25, 2014
(Mexico City)

Saudi Arabia
May 13, 2015

Chile
May 26, 2015
(Santiago)

Myanmar
Sep. 16, 2015
(Nay Pyi Taw)

Thailand
Nov. 19, 2015
(Tokyo)

the Philippines
Jan. 12, 2017
(Manila)

Progress of the JCM in Mongolia

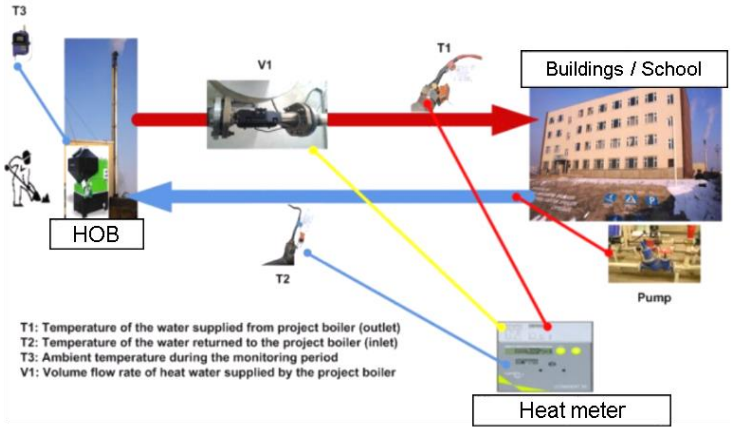
Mongolia:9 projects (■JFJCM project)

- ●**Heat Only Boiler (HOB)****
- ●10MW Solar PV*
- ●15MW Solar PV
- ■Upscaling Renewable Energy Sector (ADB)
- ● **Fuel Conversion by Introduction of LPG Boilers**
- ■ Improving Access to Health Services (ADB)
- ●2.1MW Solar PV in Farm*
- ●8.3MW Solar PV in Farm
- ●21MW Solar PV

Upgrading and Installation of Centralized Control System of High-Efficiency HOB

LPG boilers are introduced for the purpose of mitigation of greenhouse gas (GHG) emissions as well as air pollution in Ulaanbaatar City. By introducing the most efficient and newest model of LPG once-through boilers and vacuum type water heaters, the efficiency of the system is improved with less fuel consumption.

Fuel Conversion by Introduction of LPG Boilers to Beverage Factory



1) Installation of heat only boilers (HOBs) as well as pipe laying work, electrical construction and boiler building construction. The project will alter the current heat supply system in Bornuur sum of individual building-based heating. The centralized control system of high efficiency HOBs will be installed.
2) The replacement of low-efficiency old-type boilers with high-efficiency latest model boilers at a school in Ulaanbaatar city..

1. Concept of the JCM

2. Financial support scheme

FY2021 JCM Finance Scheme proposed by MOEJ

Government of Japan

Finance part of an investment cost (**less than half**)

Conduct MRV and expected to deliver about half of JCM credits issued

International consortiums
(which include Japanese entities)

Specify relevant SDGS goals in projects of Ministry of the Environment, Japan

Proposed budget for projects starting from FY 2021 is about 10 billion JPY (approx. USD 100 million) * in total by FY2023

(1 USD = 100 JPY)

*including

- Financing Program to Demonstrate Decarbonization Technology for Realizing Co-Innovation
- Cooperation with Third Countries for Hydrogen Production and Utilization

Fuel Cell Bus

Self-supporting hydrogen energy supply system
(for Business Continuity Plan)

Overview of Call for Proposals for JCM Model Projects in FY2020

Ministry of the Environment
Government of Japan

- **The schedule of the call is below**

  ○Deadline for Submission of Proposals：30th October 2020

  ※Application may close before the deadline due to the availability of remaining budget.

- **The model project shall prioritize the following countries that have already established the JCM**.

  Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Vietnam, Laos, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia, Chile, Myanmar, Thailand and Philippines

- **Maximum percentage of financial support is bellow**

Number of already selected project(s) using a similar technology in each partner country	None (0)	Up to 3 (1 - 3)	More than 3 (>3)
Percentage of financial support	Up to 50%	Up to 40%	Up to 30％

※ Please refer to Annex 1 of the guidelines for submitting proposals, “Categorization by applied technology type, Number of JCM model project by each country” for actual number of already selected projects.

※ A fixed percentage (10%) is applied to calculate the amount of financial support for the JCM Eco Lease Scheme.

Guidelines for Submitting Proposals call for JCM Model Projects in FY2020

Ministry of the Environment
Government of Japan

- **In the evaluation of proposal, cost-effectiveness※1 and payback period※2 are assessed.**

※1 Amount of financial support (JPY) / Total emission reductions of GHGs (tCO2eq)
= Financial support necessary to reduce 1 ton of GHG emissions

※2 (Total project cost－Amount of financial support)÷Annual operating cost reduction or
(Total project cost－Amount of financial support)÷(Annual income－Annual operating cost reduction)
annual costs based on legal durable years of the facilities/equipment as stipulated by the Japanese law

- **Cost-effectiveness of GHG emission reductions should be 4,000 JPY/tCO2eq or lower. However, if the number of similar technology projects in a partner country is more than 5 (solar power in Mongolia, Palau, Philippines; small hydro in Indonesia), its cost-effectiveness is expected to be 3,000 JPY/tCO2eq or lower. Also, if the number of similar technology projects in a partner country is more than 10 (solar power in Thailand), its cost-effectiveness is expected to be 2,500 JPY/tCO2eq or lower.**

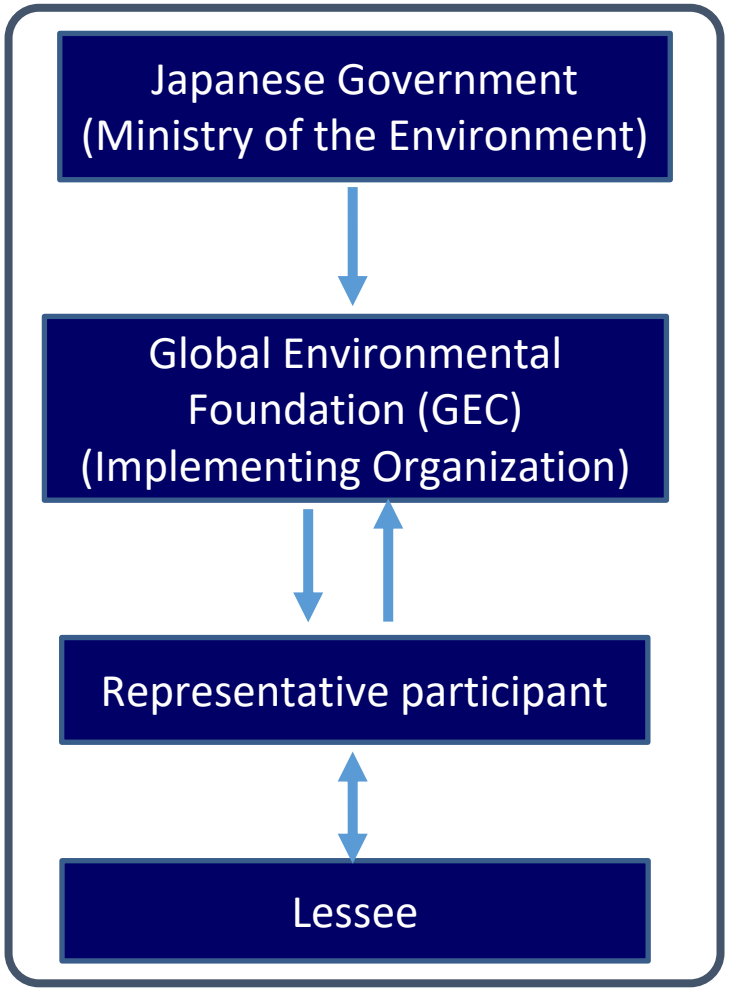
- **The payback period is preferred to be 3 years or longer with the financial support.**
  - The payback period is not an absolute standard, because it depends on the calculation and may be impacted by actual conditions which vary from assumptions at the planning stage.

JCM Model Projects (JCM ECO Lease Scheme)

Ministry of the Environment
Government of Japan

- "JCM Eco Lease" scheme is financial support for leasing businesses.
- Financial support is uniformly 10% of total leasing charge including leasing interest.
- Leasing period is at least 5 years.

Chart of JCM ECO Lease Scheme



＜Merit＞

- Shorter MRV period
  - ・Equivalent to leasing period（At least 5years）
- Simplified process
  - ・Less documents for application
  - ・No need to develop new methodology
    （Only applicable to approved methodology）

＜Examples of eligible facilities/equipment＞

PV

High Efficiency equipment

ADB Trust Fund: Japan Fund for Joint Crediting Mechanism (JFJCM)

Ministry of the Environment
Government of Japan

Budget for FY2021:

JPY 1 billion (approx. USD 10 million)

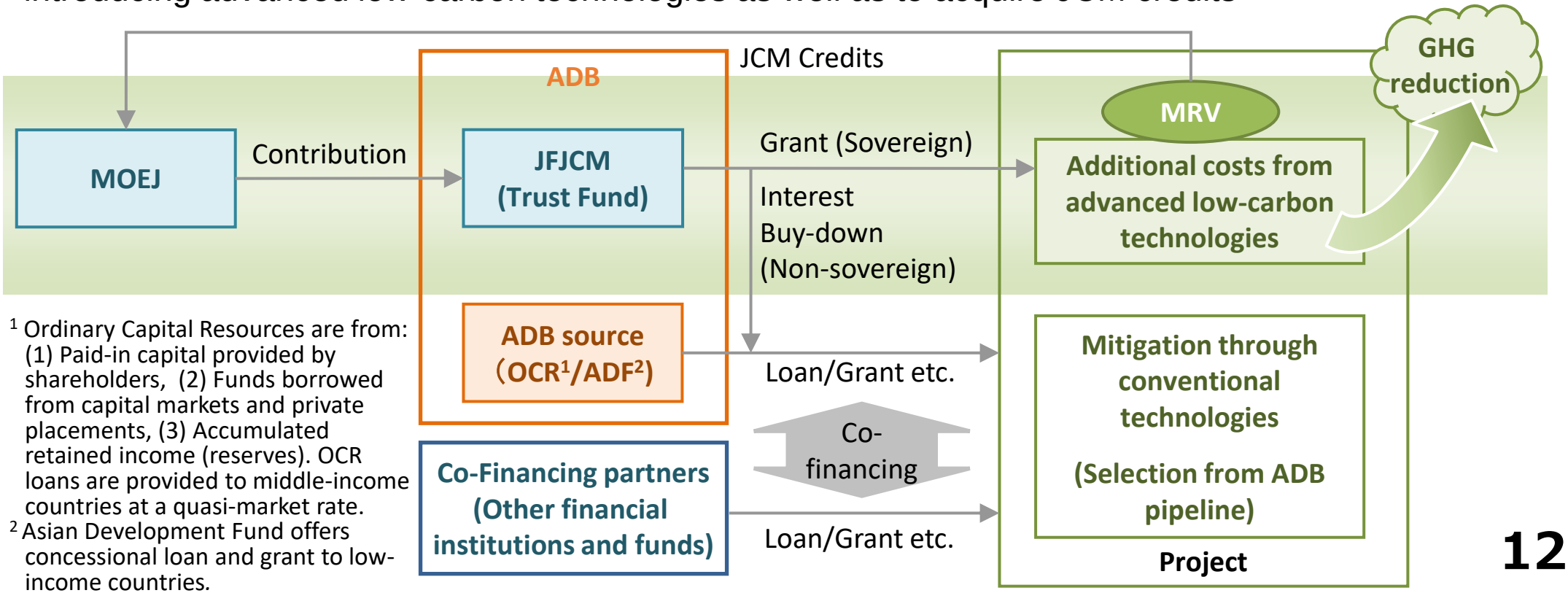
Scheme:

To provide the financial incentives for the adoption of advanced low-carbon technologies which are superior in GHG emission reduction but expensive in ADB(Asian Development Bank)-financed projects

Maldives, POISED PJ

Purpose:

To develop ADB projects with sustainable and low-carbon transition perspective by introducing advanced low-carbon technologies as well as to acquire JCM credits



[1] Ordinary Capital Resources are from: (1) Paid-in capital provided by shareholders, (2) Funds borrowed from capital markets and private placements, (3) Accumulated retained income (reserves). OCR loans are provided to middle-income countries at a quasi-market rate.

[2] Asian Development Fund offers concessional loan and grant to low-income countries.

Financing Program to Demonstrate Decarbonization Technology for Realizing Co-Innovation

Objectives and Characteristics

- Facilitating improvement and demonstration of seeds of advanced decarbonizing technologies in Japan to meet sustainable development needs in developing countries.
- Systematizing and packaging technologies, and facilitating collaboration (Co-Innovation) between Japanese entities and partners in developing countries.
- Serving as “potential JCM projects” and a trigger for the City-to-City Collaboration Programs.

Requirements and other information

- Participants of the model project shall be representative entity of an international consortium that consists of a Japanese entity and a foreign entity(ies) ,etc.
- Financial support is applied to a part of initial cost (A range of 1/3 – 2/3 of the total project cost)