



Ministry of the Environment

Recent Development of the JCM (Joint Crediting Mechanism)

22nd September, 2021

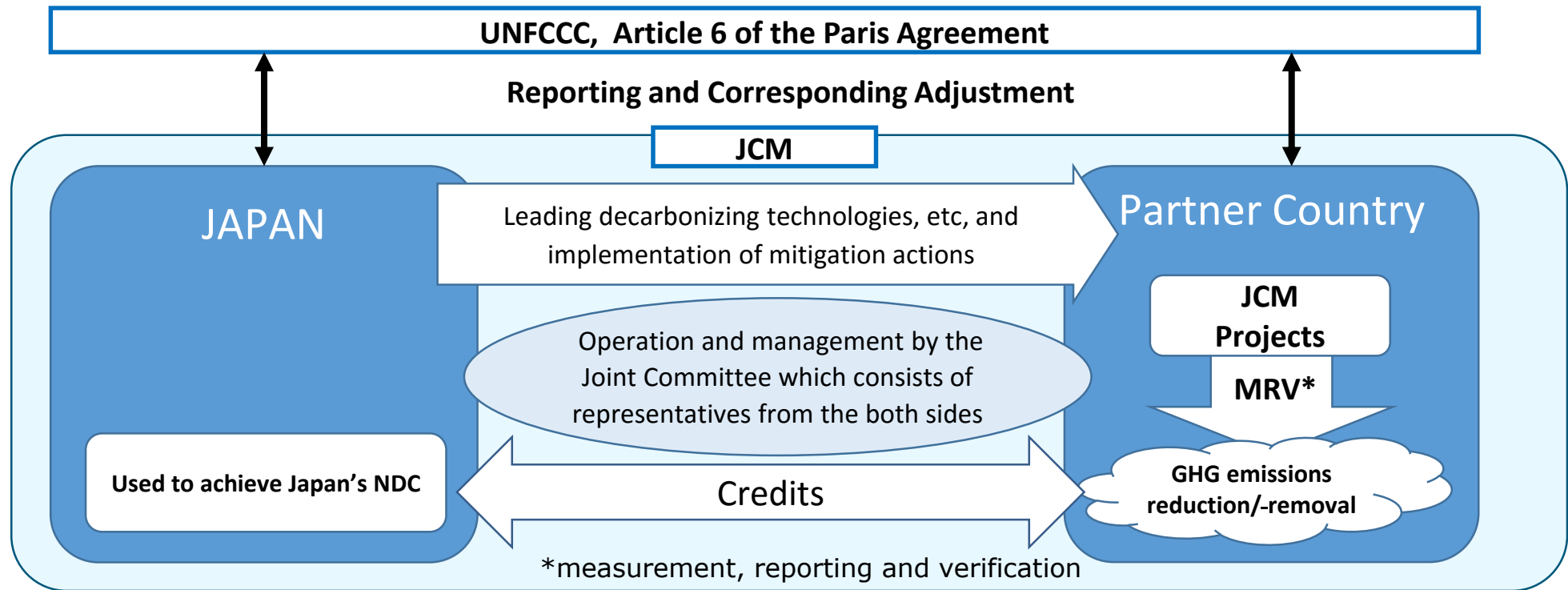
Shogo MASUDA

Office of the Market Mechanism

Ministry of the Environment ,Japan



Basic concept of the JCM and contribution to carbon neutrality

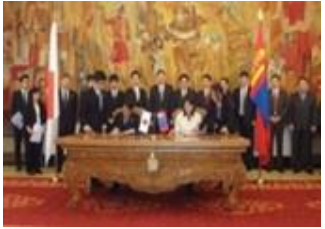


• Cooperation towards achieving carbon neutrality,

- With the expected agreement on the rules of Article 6 of the Paris Agreement at COP26 in this year, market mechanisms under the Article 6, including the JCM, will benefit not only for GHG emission reductions, but also for the sustainable development of the partner countries.
- Growing expectation for the JCM, allowing GHG emission reductions to be realized in partner countries and contributing to the achievement of both Japan and partner country's NDC.
- MoE Japan is strengthening key public-private partnerships to promote the development of "environmental infrastructures" overseas through JCM.

JCM Partner Countries

- Japan has held consultations for the JCM with developing countries since 2011 and has established the JCM with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia, Chile, Myanmar, Thailand and the Philippines.



Mongolia
Jan. 8, 2013



Bangladesh
Mar. 19, 2013
(Dhaka)



Ethiopia
May 27, 2013
(Addis Ababa)



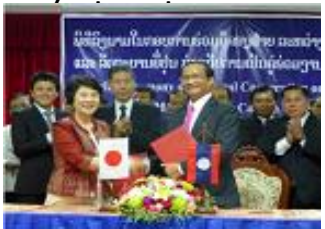
Kenya
Jun. 12, 2013
(Nairobi)



Maldives
Jun. 29, 2013
(Okinawa)



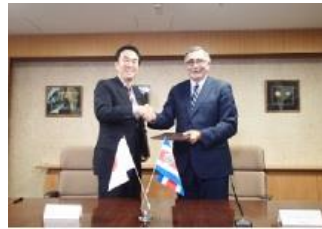
Viet Nam
Jul. 2, 2013
(Hanoi)



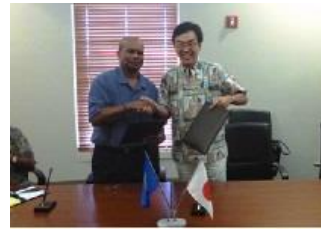
Lao PDR
Aug. 7, 2013
(Vientiane)



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)



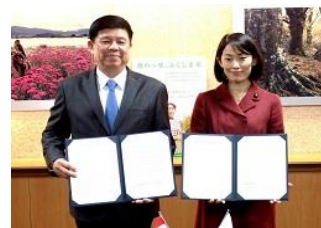
Saudi Arabia
May 13, 2015



Chile
May 26, 2015
(Santiago)



Myanmar
Sep. 16, 2015
(Nay Pyi Taw)



Thailand
Nov. 19, 2015
(Tokyo)



Philippines
Jan. 12, 2017
(Manila)

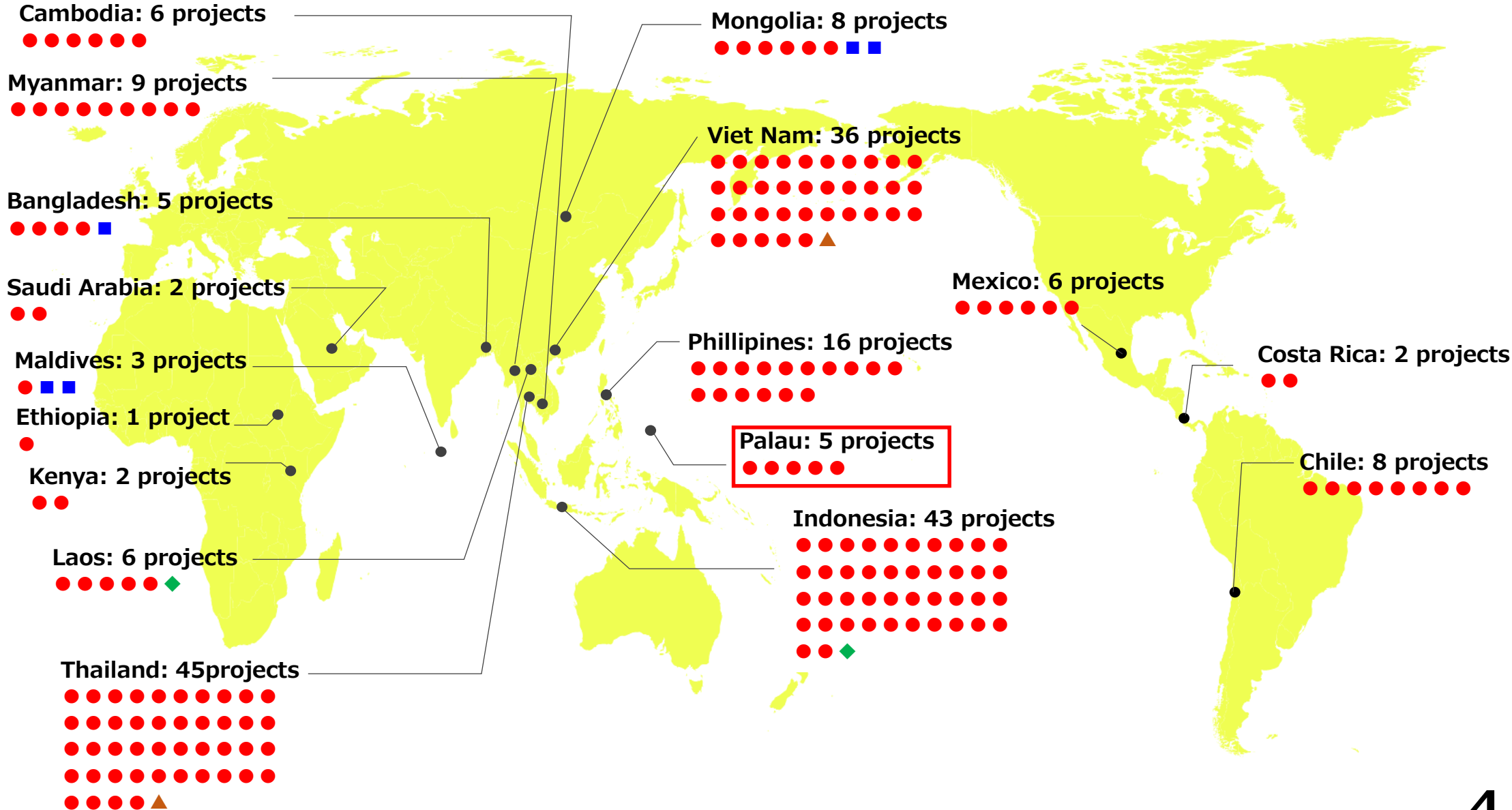
JCM Financing Programmes by MOEJ (FY2013~2021) (September, 2021)

Total 203 projects (17 partner countries)

(● Model Project: 194 projects (including Eco Lease: 3 project), ■ ADB: 5 projects, ◆ REDD+: 2 projects, ▲ F-gas: 2 projects) Other 1 project in Malaysia

118 projects have been started operation.

58 projects with have been registered as JCM projects.



Examples of the JCM Model Projects

- Facilitating decarbonizing technologies through contributions from Japan
- Evaluating GHG emissions reduction in quantitative manner to issue the credit shared by the partner country and Japan



Floating Solar PV, TSB Co., Ltd., Thai



CNG-Diesel Hybrid Public Bus, Hokusan Co., Ltd., Indonesia



Energy saving at convenience stores, Panasonic, Indonesia



High-efficiency refrigerator, Mayekawa MFG, Indonesia



LED street lighting system with wireless network control, MinebeaMitsumi, Cambodia



Upgrading air-saving loom at textile factory, TORAY etc., Indonesia, Thai, Bangladesh



Co-generation system at factory, Toyota, Nippon Steel Engineering, Indonesia, Thai



High-efficiency air-conditioning system, Hitachi, Daikin, Vietnam



Hydro Power Plant, Chodai Co., Ltd., Philippines



Power Generation with Methane Gas Recovery System, NTT DATA, Mexico



Solar Power System and High Efficiency Refrigerator, Kanematsu KGK Corp., Thai



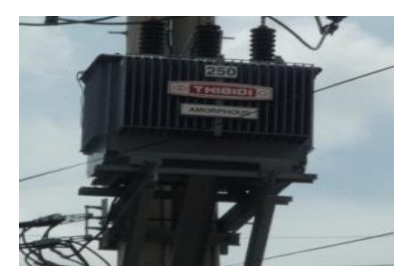
Waste to Energy Plant, JFE engineering, Myanmar



Waste heat recovery in Cement Industry, JFE engineering, Indonesia



Regenerative Burners in industries, Toyotsu Machinery, Indonesia



Amorphous transformers in power distribution, Hitachi Materials, Vietnam

Technologies Transferred through the JCM (FY2013-2021)

- Total of 203 JCM Model Projects being selected by MOEJ's Finance Programme in 17 partner countries
- 51% for renewable energy, 40% for energy efficiency, 9% for Effective use of Energy, Transport, Waste to energy, F-gas Recovery and Destruction and REDD+ project

Waste (4) 2%

- Waste to Energy
- Power Generation with Methane Gas

Transport (3) 1%

- Digital Tachographs
- Modal Shift
- CNG-Diesel Hybrid

REDD+ (2) 1%

- Controlling slush and burn

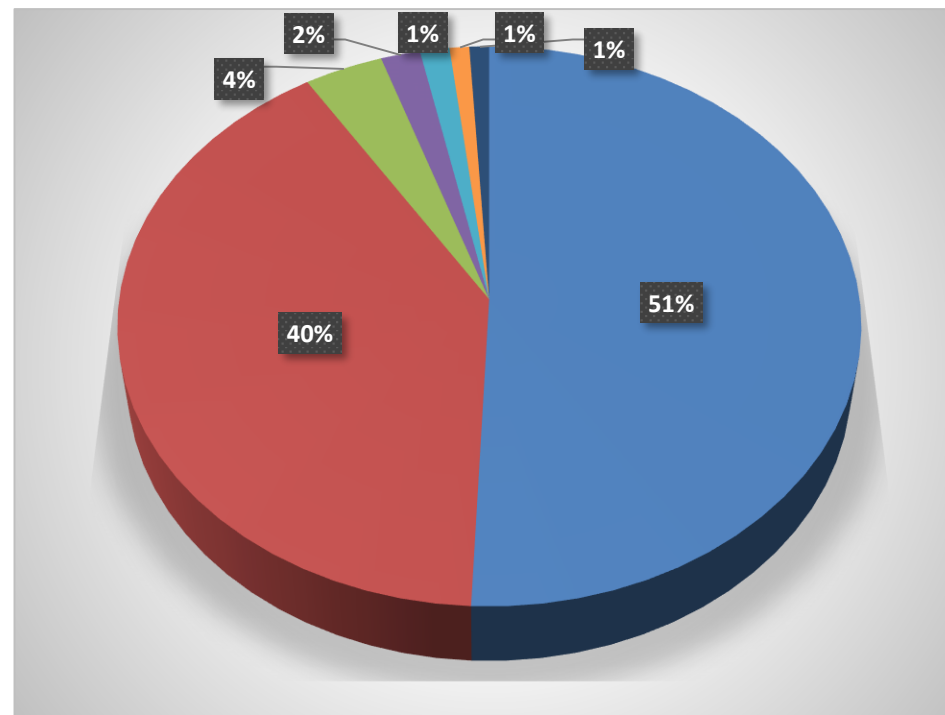
September, 2021

Effective Use of Energy (8) 4%

- Waste Heat Recovery
- Gas Co-generation

Energy efficiency (86) 40%

- Boiler
- Air Conditioning
- Refrigerating/Chiller
- Looms
- Transformer
- LED Lighting



F-gas (2) 1%

- Recovery & Destruction

Renewable energy (108) 51%

- Solar(&Storage battery)
- Micro hydro
- Wind
- Biomass
- Geothermal

Facilitating global expansion of Environmental Infrastructure through the JCM

<FY2030 Target >

- **Aiming for a cumulative GHG emission reduction of about 100 million tons of CO2 from JCM projects through public-private partnerships**

(maximum project size of about 1 trillion Japanese Yen (approx. ten billion USD) through public-private partnerships with a diversification of funds accelerating the implementation of projects).

- The project will also be used for Japan's emission reduction goal.

⇒To realize above, MOEJ will proceed condition arrangement for JCM expansion

1. Renewable Energies

(Solar Power, Wind Power, Hydro Power, Geothermal Energy, Biomass Energy, Green Hydrogen, and so forth)



Solar Power



Wind Power

2. Green Logistics (Including Cold Chain)

(Non-Fluorocarbon Cooling System, Modal Shift, Airports, Ports and Harbors, and so forth)



High-Efficient Freezer



Modal Shift

3. Waste management Infrastructure

(Waste to Energy, Recycling system, Landfill and so forth)



Waste to Energy



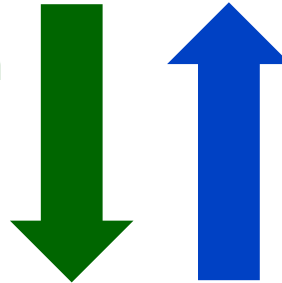
Improvement of landfill
(Fukuoka method)

※ Further including energy efficient facilities, effective use of energies, CCUS, fluorocarbons recovery and destruction, Johkasou, and REDD+, in addition to the above

FY2021 JCM Financing Programme by MOEJ

Government of Japan

Finance part of an investment cost (less than half)



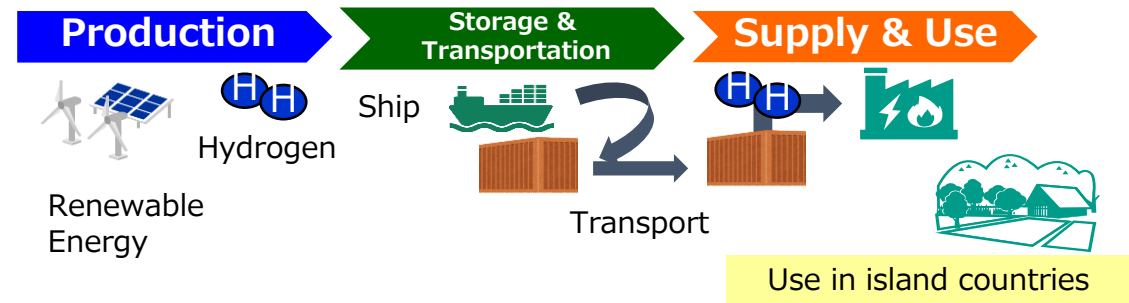
Conduct MRV and expected to deliver JCM credits issued

International consortiums
(which include Japanese entities)

Budget for projects starting from FY 2021 is about 8.8 billion JPY (approx. USD 88 million) * in total by FY2023

*including

- Financing Program to Demonstrate Decarbonization Technology for Realizing Co-Innovation
- Pilot project for comprehensive support throughout the whole hydrogen supply chain abroad



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

Budget for FY2021:

JPY 1 billion (approx. USD 10 million)

Scheme:

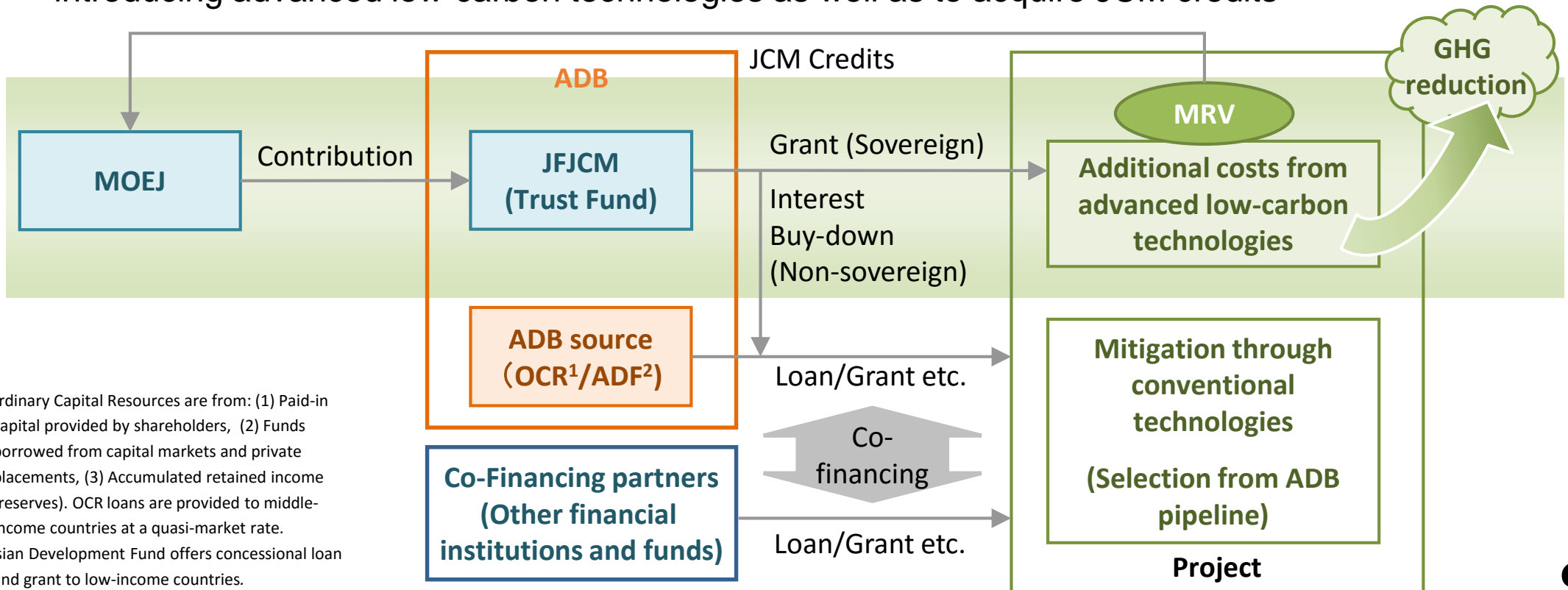
To provide the financial incentives for the adoption of advanced low-carbon technologies which are superior in GHG emission reduction but expensive in ADB (Asian Development Bank)-financed projects

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



Maldives, POISED PJ



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.

Thank you for your kind attention



Ministry of the Environment