



Ministry of the Environment

Japan's Policy for Carbon Neutrality and the Role of JCM (Joint Crediting Mechanism)

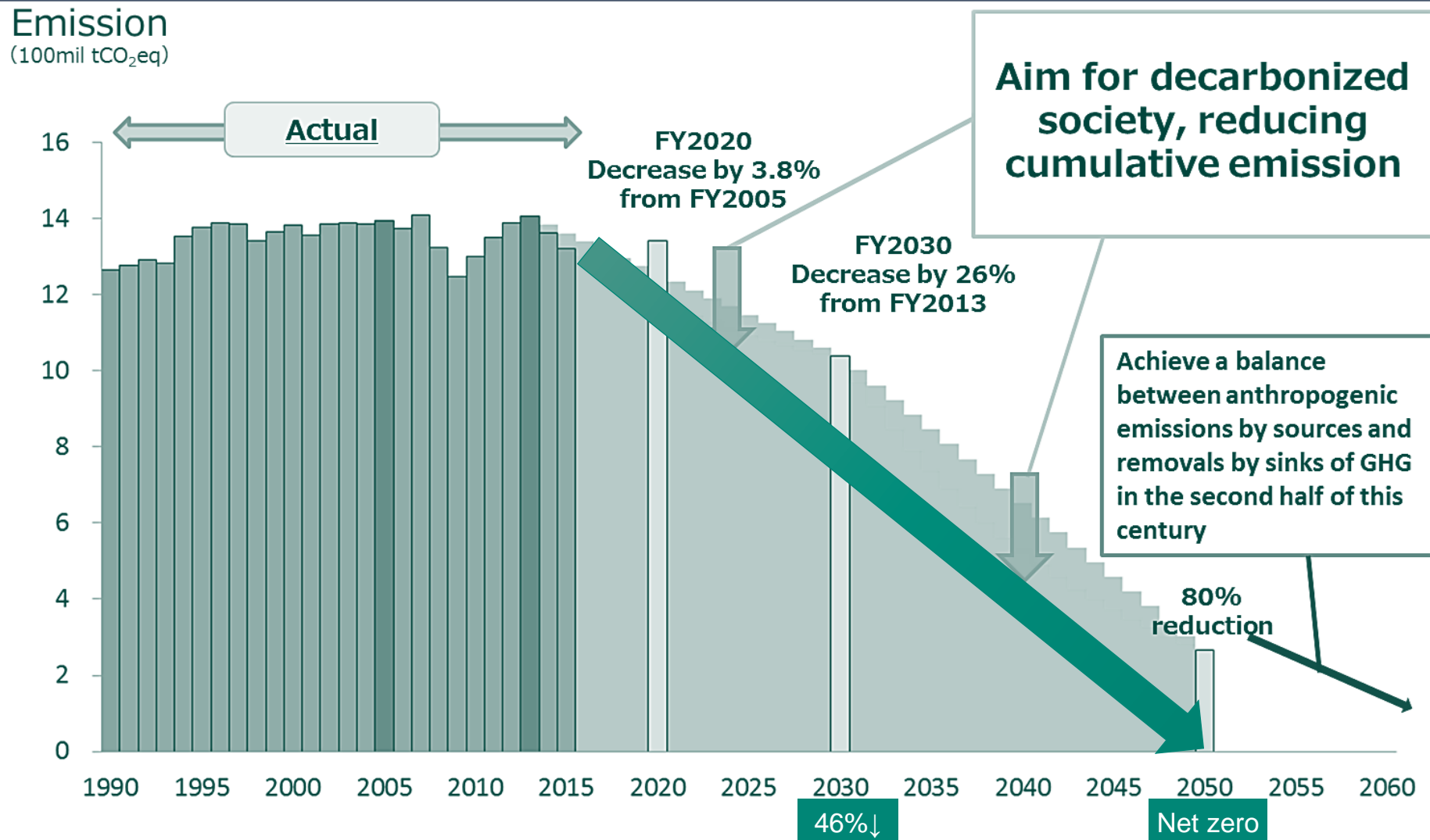
July 26, 2022

Ministry of the Environment ,Japan



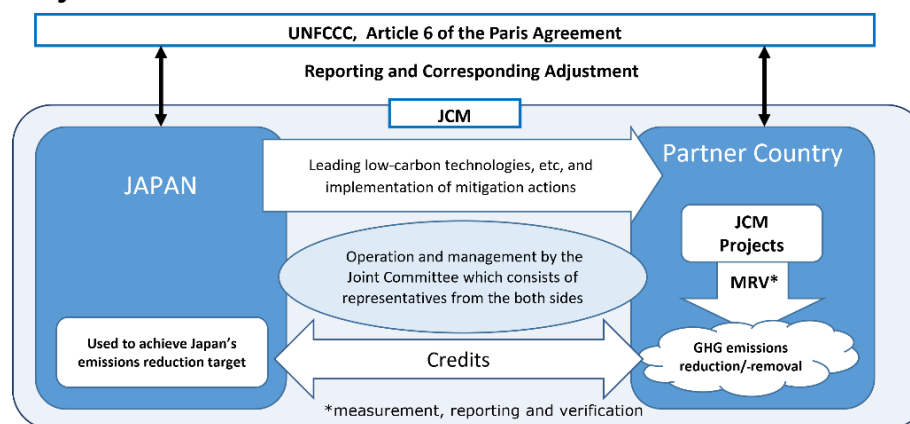
GHG emissions and target in Japan

- ❑ **Long-term goal:** **Net zero emissions by 2050** compared to 2013
- ❑ **Mid-term target:** **46% emission reduction by 2030** compared to 2013
- ❑ GHG emissions in 2020: 1,149 mil ton of CO₂ eq. (5.0% reduction to 2019, 18.4% reduction to 2013)
- ❑ **JCM target:** cumulative GHG emission reduction for 100 mil tons of CO₂ eq. by 2030



The Joint Crediting Mechanism (JCM)

- Since 2013, Japan has established the JCM with **17** partner countries and over **200** projects have been selected.
- Under the JCM scheme, Japan is facilitating diffusion of leading decarbonizing technologies and infrastructure, etc. as well as implementation of mitigation actions in partner countries. The JCM contribute to the achievement of both countries' NDCs while ensuring the avoidance of double counting through corresponding adjustments.

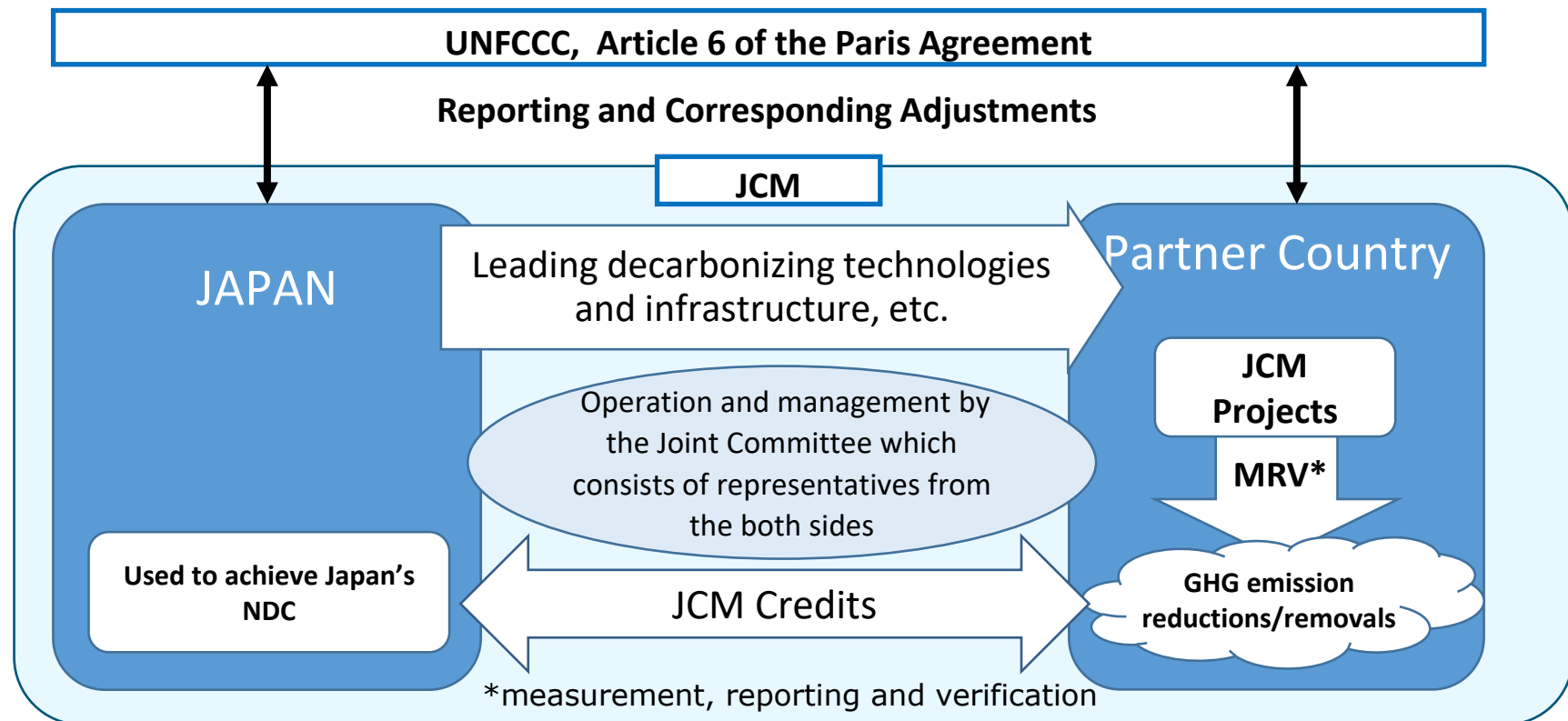


JCM targets

- Aiming to contribute to international emission reductions and removals at the level of **a cumulative total of approximately 100 million t-CO₂ by fiscal year 2030** through public-private collaborations. (October 2021, Cabinet Decision)
- As the implementation rules for Article 6 (market mechanisms) of the Paris Agreement was concluded at COP26, **utilization of the JCM will be further explored**.
- For achieving the target of the JCM, accelerating consultations to expand partner countries up to approximately **30 countries worldwide by around 2025 from the current 17 countries**. (June 2022, Cabinet Decision)

Basic concept of JCM

- Facilitate diffusion of leading decarbonizing technologies and infrastructure, etc., thereby contributing to GHG emission reductions or removals and sustainable development in partner countries.
- Contribute to the achievement of both countries' NDCs while ensuring the avoidance of double counting through corresponding adjustments.
- Implement the JCM consistent with the guidance on cooperative approaches, referred to in Article 6, paragraph 2 of the Paris Agreement.



Total 214 projects (17 partner countries)

(● Model Project: 205 projects(including Eco Lease: 5project), ■ ADB: 5 projects, ◆ REDD+: 2 projects, ▲ F-gas: 4 projects) Other 1 project in Malaysia

124 projects have been started operation.

64 projects with have been registered as JCM projects.



Indonesia
Aug. 26, 2013
(Jakarta)

Costa Rica:2 projects

- Chile:8 projects

Renewable energy	:16 projects (Solar(&Storage battery):5	Micro hydro : 10	Biomass : 1)
Energy efficiency	:24 projects (High-efficiency refrigerator, Energy saving at convenience stores,...)		
Effective Use of Energy	: 2 projects (Gas Co-generation System, Power Generation by Waste Heat Recovery)		
Transportation	: 1 project (CNG-Diesel Hybrid Public Bus)		
REDD+	: 1 project (controlling slash-and-burn)		

Examples of the JCM Financing Programmes in Indonesia

JCM Model Project (2016)
[have been started operation]
10MW Mini Hydro Power Plant Project in North Sumatra



JCM Model Project (2013)
[have been started operation]
Energy Savings at Convenience Stores around Jakarta



JCM Model Project (2018)
[have been started operation]
Introduction of CNG-Diesel Hybrid Equipment to Public Bus in Semarang



JCM Model Project (2013)
[have been started operation]
Energy Efficient Refrigerants to Cold Chain Industry in Bekasi



JCM Model Project (2014)
[have been started operation]
Power Generation by Waste Heat Recovery in Cement Industry in Tuban



Examples of the JCM Financing Programmes

Renewable Energy



Solar power, FARMLAND Co., Ltd., Chile



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



Hydro Power Plant, Toyo Energy Farm Co., Ltd., Indonesia



Biomass Co-Generation System, Fuji-Foods Coporation, Thailand



Binary Power Generation Project at Geothermal Power Plant, MHI, Ltd., Philippines

Energy efficiency [Consumer sector]



High-efficiency refrigerator, Mayekawa MFG, Indonesia

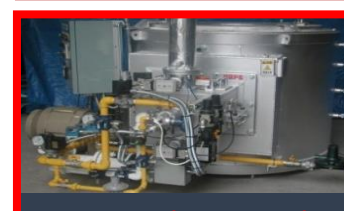


Energy saving at convenience stores, Panasonic, Indonesia

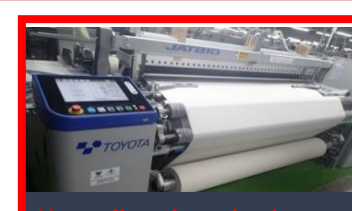


High-efficiency air-conditioning system, Hitachi, Daikin, Vietnam

Energy efficiency [Industrial sector]



Regenerative Burners in industries, Toyotsu Machinery, Indonesia



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

Energy efficiency [Urban sector]



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



Amorphous transformers in power distribution, Hitachi Materials, Vietnam

Waste



Power Generation with Methane Gas Recovery System, NTTDATA, Mexico



Waste to Energy Plant, JFE engineering, Myanmar

Transport



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

Technologies Transferred through JCM (FY2013-2022)

- Total of 214JCM Projects being developed in 17 partner countries (July, 2022)
- 38% for energy efficiency, 52% for renewable energy, 5% for Effective use of Energy, Transport, Waste to energy, F-gas Recovery and Destruction and REDD+ project shares

Waste (3) 1%

- 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

July,2022

Effective Use of Energy (10) 5%

- Waste Heat Recovery
- Gas Co-generation

Energy efficiency (83) 38%

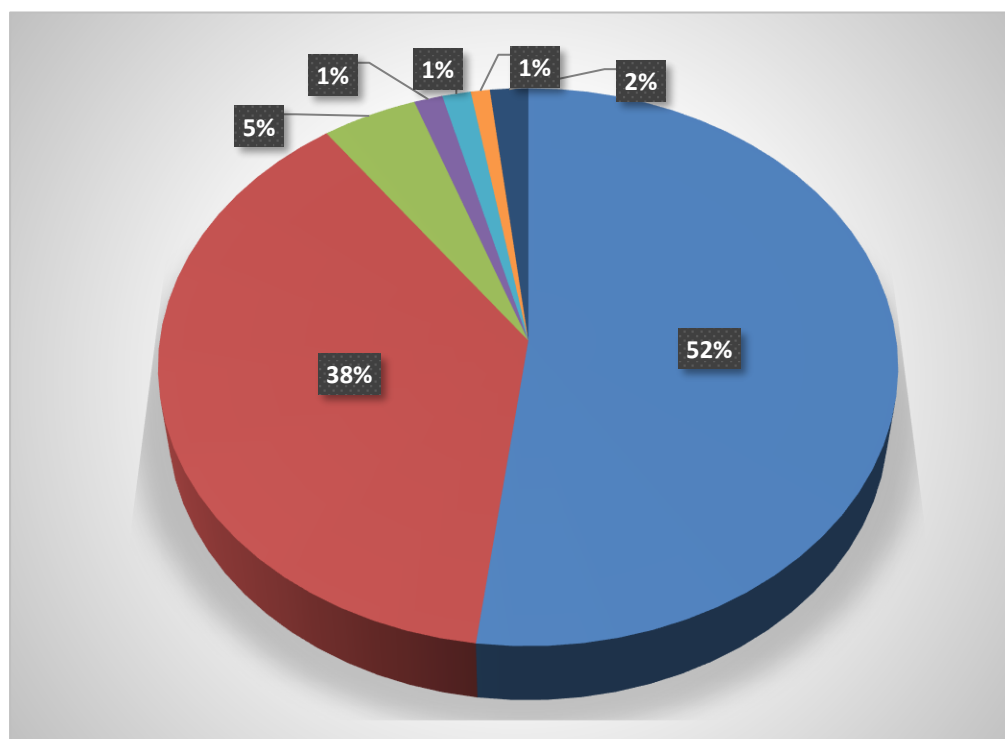
- Boiler
- Air Conditioning
- Refrigerating/Chiller
- Looms
- Transformer
- LED Lighting

F-gas (4) 2%

- Recovery & Destruction

Renewable energy (114) 52%

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



FY2022 JCM Finance Scheme proposed by MOEJ

Budget for projects starting from FY 2022 is approx. 17.1 billion JPY (approx. USD 171 million) in total by FY2024 (1 USD = 100 JPY)

Finance part of an investment cost (less than half)

Government of Japan

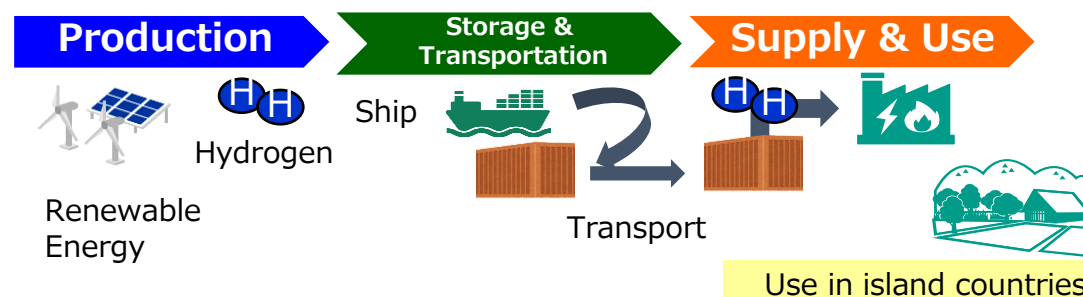
*Includes collaboration with projects supported by JICA and other governmental-affiliated financial institute.

Conduct MRV and expected to deliver JCM credits issued

International consortiums
(which include Japanese entities)

*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 FY2022:

JPY 1 billion (approx. USD 10 million)

Scheme:

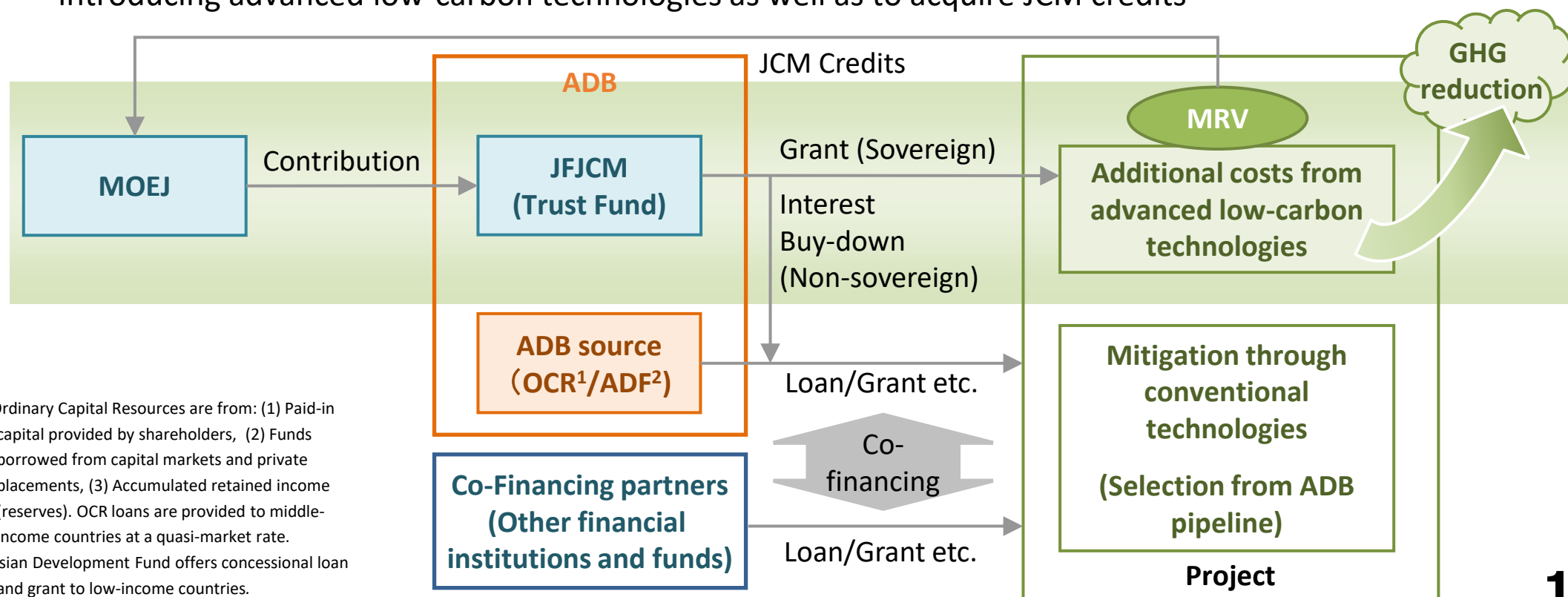
To provide the financial incentives for the adoption of advanced low-carbon technologies which are superior in GHG emission reduction but expensive in ADB(Asian Development Bank)-financed projects



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.

Thank you for your kind attention



Ministry of the Environment