Ministry of the Environment

JCM THE JOINT CREDITING MECHANISM

# Recent development of the JCM (Joint Crediting Mechanism)

## 2nd Webinar on

## Introduction of Japanese Environmental Technologies in India

February 8, 2022
Ministry of the Environment, Japan

SUSTAINABLE DEVELOPMENT GOALS

Re-Style

COOL CHOICE

つなげよう、支えよう 森里川海

Plastics Smart

# Role of Article 6 （Market mechanisms）

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- At COP26, the Rulebook for the Article 6 (market mechanism) of the Paris Agreement was concluded, paving the way for utilizing market mechanisms to reduce global emissions.

## Role of Article 6

**【Additional emission reductions】**

・Article 6 will enable efficient and additional emission reductions and could reduce additional 9 billion tons of CO2 emission worldwide annually in 2030. （＝roughly to 30% of global CO2 emissions in 2018）

（※）J. Edmonds et al. (2021). How much could article 6 enhance nationally determined contribution ambition toward Paris Agreement goals through economic efficiency?. Climate Change Economics, (2021) 2150007 (18 pages)

**【More investments on decarbonization】**

・Article 6 could stimulate global decarbonization markets and private investments. Contributing economy growth with emissions reduction worldwide.

（※）According to World Bank reports （State and Trends of Carbon Pricing 2017,2017）and treatises, the financial size of the virtual carbon market is estimated to be ranging from **160 to 220 billion USD in 2030.**

**【Formation of global carbon market 】**

・Article 6 rulebook will facilate global carbon market, including international aviation. Japan's Joint Crediting Mechanism (JCM) articulated under Article 6.2 will lead the improvement of reliability of the Article 6 market mechanisms.

# Basic Concept of the JCM

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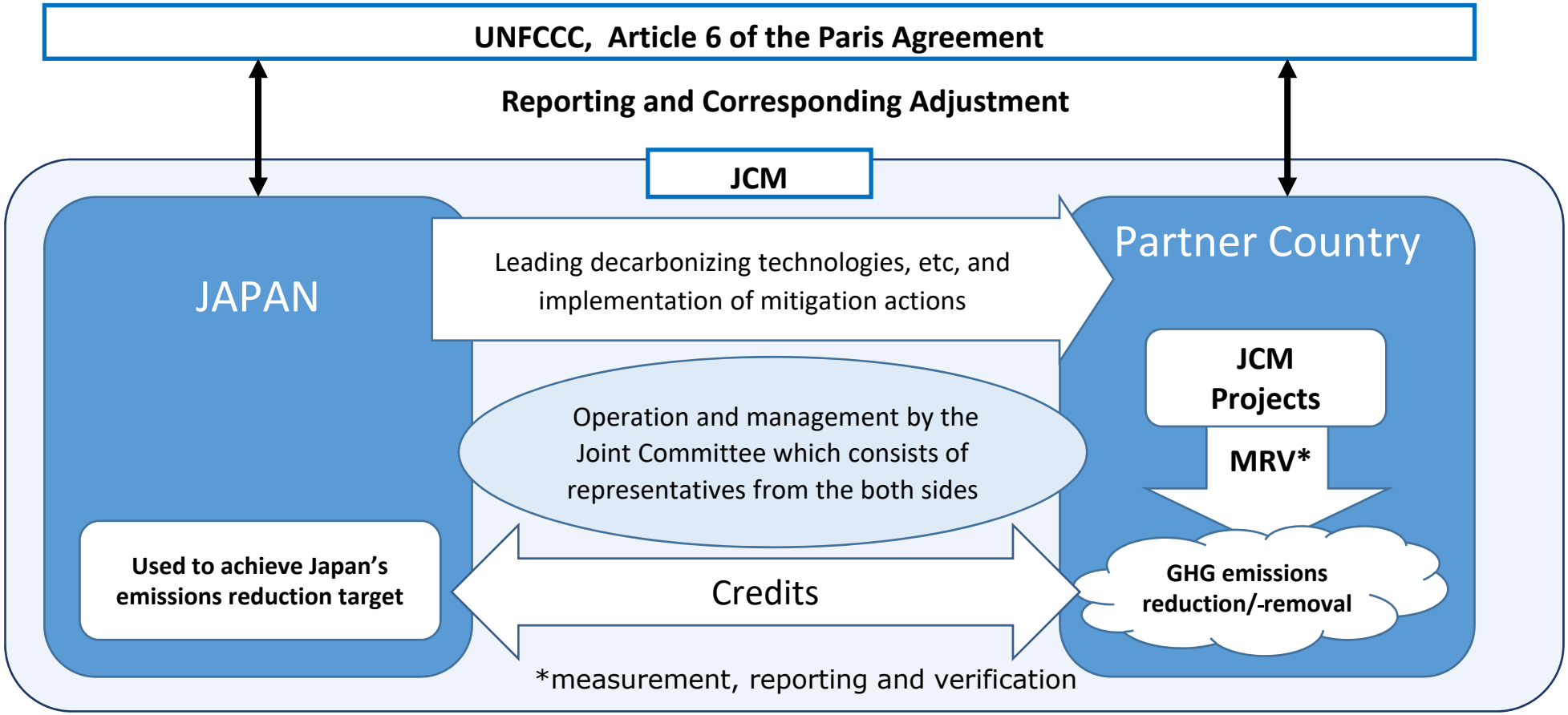
- Facilitating diffusion of leading decarbonizing technologies, etc. and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of developing countries.
- Appropriately evaluating contributions from Japan to GHG emissions reduction or removal in a quantitative manner and use them to achieve Japan and partner countries' emissions reduction target.
- Contributing to the ultimate objective of the UNFCCC and use of market mechanisms, including the JCM, is articulated under Article 6.



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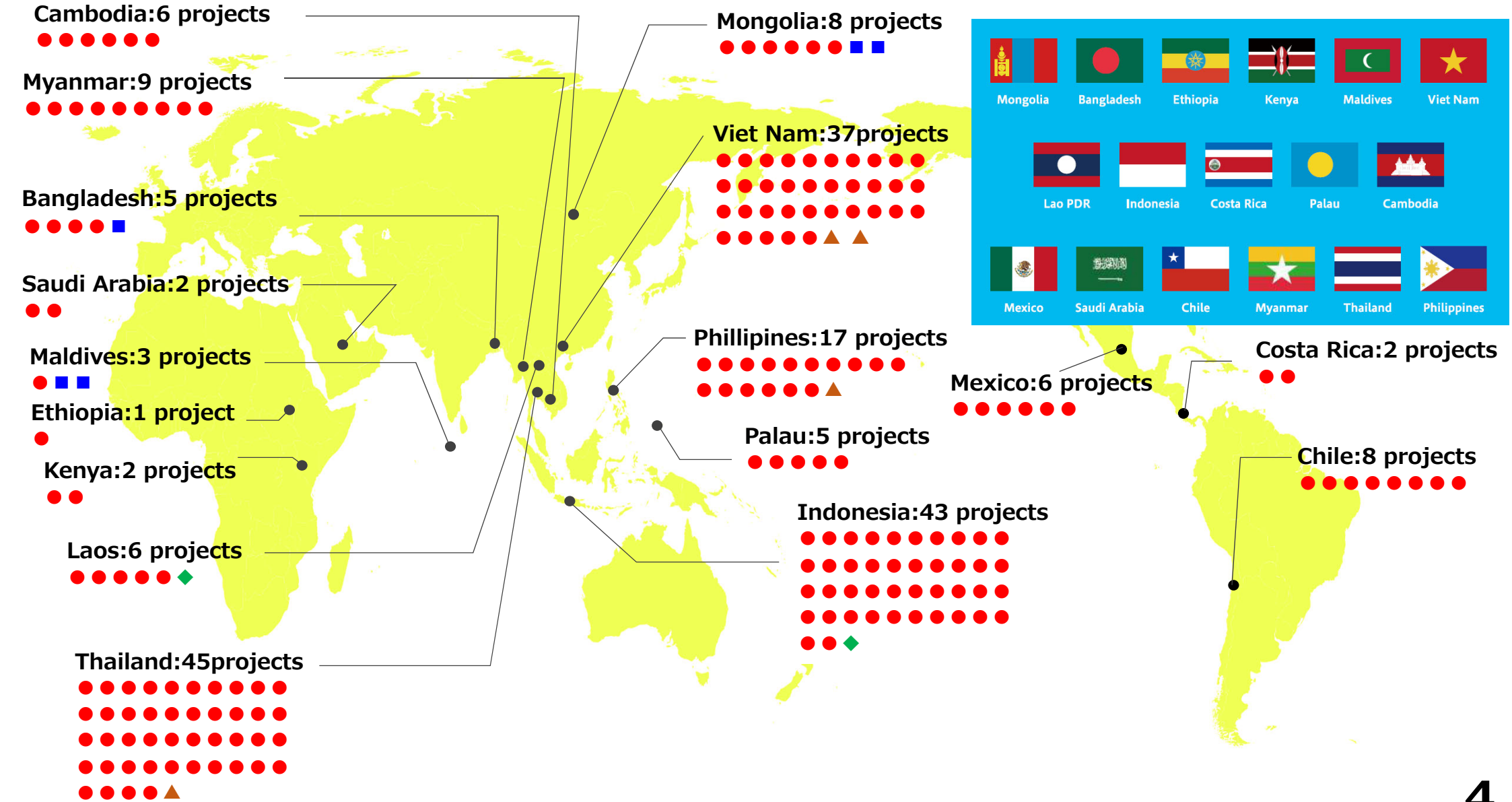
# JCM Financing Programmes by MOEJ (FY2013～2021) (February, 2022)

**Total 205projects (17 partner countries)**

(●Model Project: 194 projects(including Eco Lease: 3project), ■ADB: 5 projects, ◆ REDD+: 2 projects, ▲F-gas: 4 projects) Other 1 project in Malaysia

**118 projects** have been started operation. **58 projects with** have been registered as JCM projects.



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# Examples of JCM Model Projects

## Renewable Energy

Solar power, FARMLAND Co., Ltd.,Chile

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

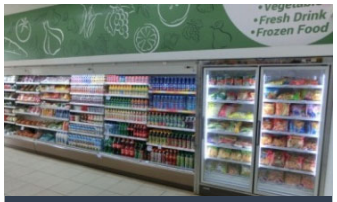
Hydro Power Plant, Toyo Energy Farm Co., Ltd., Indonesia

Biomass Co-Generation System, Fuji-Foods Cooporation, , 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

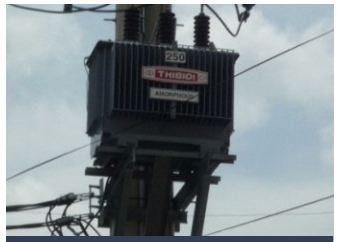
## Energy efficiency [Industrial sector]

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

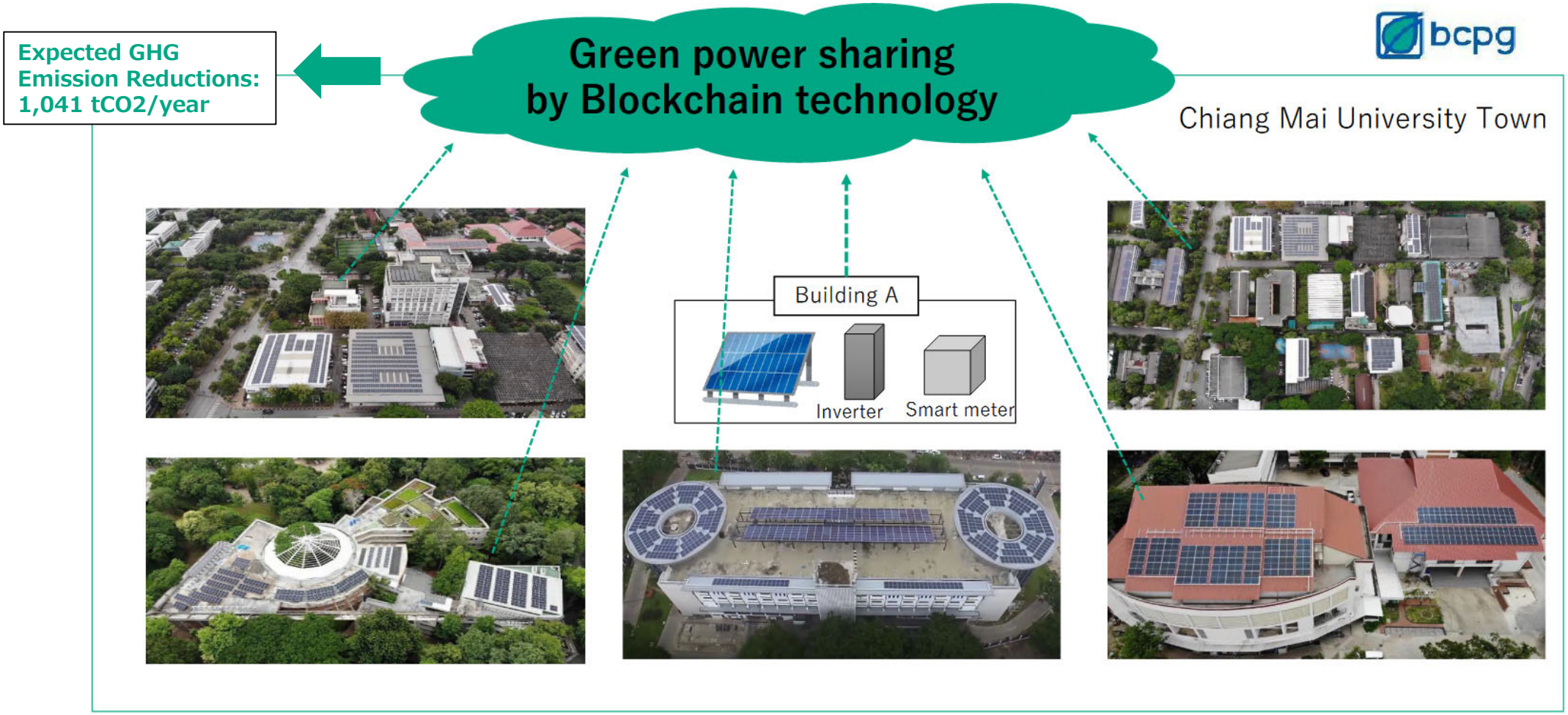
Waste to Energy Plant, JFE engineering, Myanmar

## Transport

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

# JCM Model Project example utilizing Japanese technology

**Project title :**
**2.5MW Solar Power Project with Blockchain Technology in Chiang Mai University Town Community**
**PP (Japan): Inabata & Co.,Ltd , PP (Thailand): Thai Digital Energy Development Co.Ltd**




Reference https://gec.jp/jcm/jp/event/2021Thailand/S3-1_Inabata.pdf

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# Technologies Transferred through the JCM (FY2013-2021)

- Total of 205 JCM Model Projects being selected by MOEJ's Finance Programme in 17 partner countries
- 50% for renewable energy, 40% for energy efficiency, 10% for Effective use of Energy, Transport, Waste to energy, F-gas Recovery and Destruction and REDD+ project

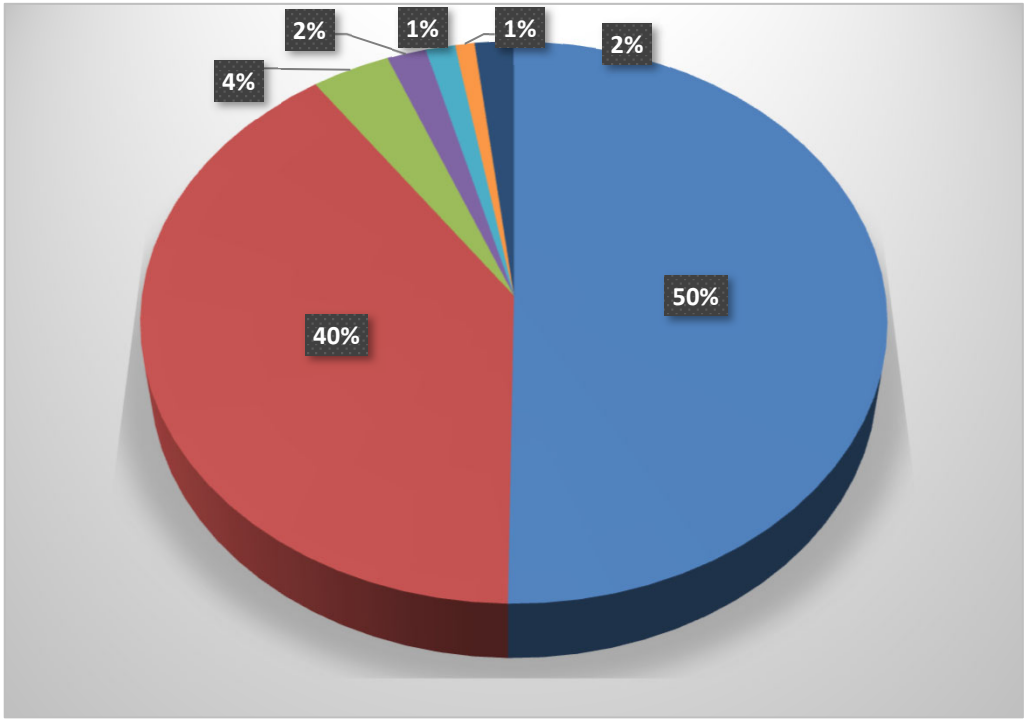
**Waste (4) 2%**
- Waste to Energy
- Power Generation with Methane Gas

**Transport (3) 1%**
- Digital Tachographs
- Modal Shift
- CNG-Diesel Hybrid

**REDD+ (2) 1%**
- Controlling slush and burn

February,2022

**Effective Use of Energy (8) 4%**
- Waste Heat Recovery
- Gas Co-generation




**F-gas (4) 2%**
- Recovery & Destruction

**Energy efficiency (86) 40%**
- Boiler
- Air Conditioning
- Refrigerating/Chiller
- Looms
- Transformer
- LED Lighting

**Renewable energy (108) 50%**
- Solar(&Storage battery)
- Micro hydro
- Wind
- Biomass
- Geothermal

# JCM Model Projects by MOEJ

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**Draft budget for projects starting from FY 2022 is approx. 17.1billion JPY (approx. USD 171million) in total by FY2024**

**(1 USD = 100 JPY)**

More than double this fiscal year!

**Government of Japan**

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

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

Conduct MRV and expected to deliver JCM credits issued

**International consortiums**
**(which include Japanese entities)**

- Scope of the financing: facilities, equipment, vehicles, etc. which reduce $CO_2$ from fossil fuel combustion as well as construction cost for installing those facilities, etc.
- Eligible Projects: starting installation after financing is awarded and finishing installation within three years.

# Thank you for your kind attention

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