



Ministry of the Environment

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## Recent development of the JCM (Joint Crediting Mechanism)

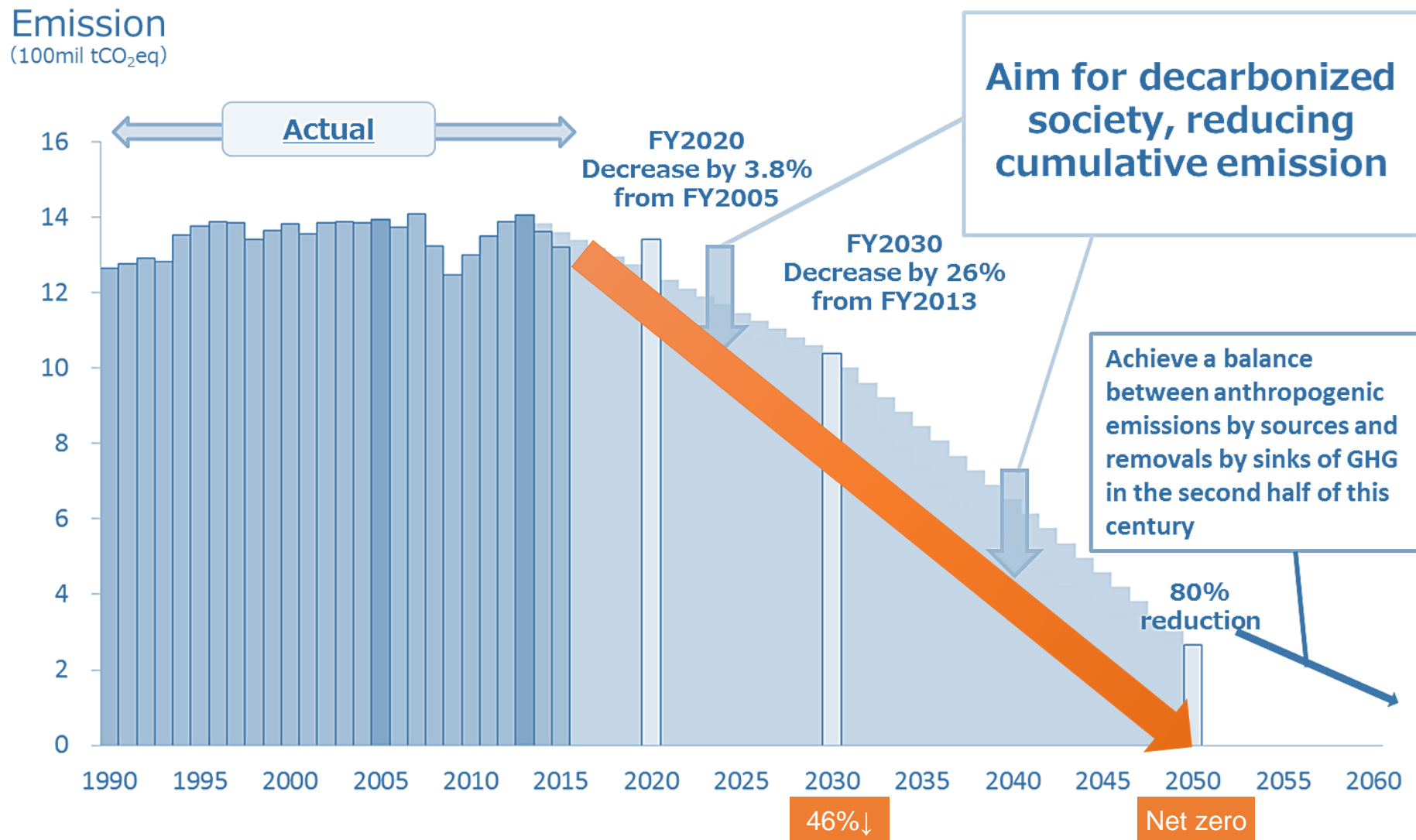
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Webinar on the JCM Implementation in Viet Nam  
- Innovation for Carbon Neutrality through the JCM -

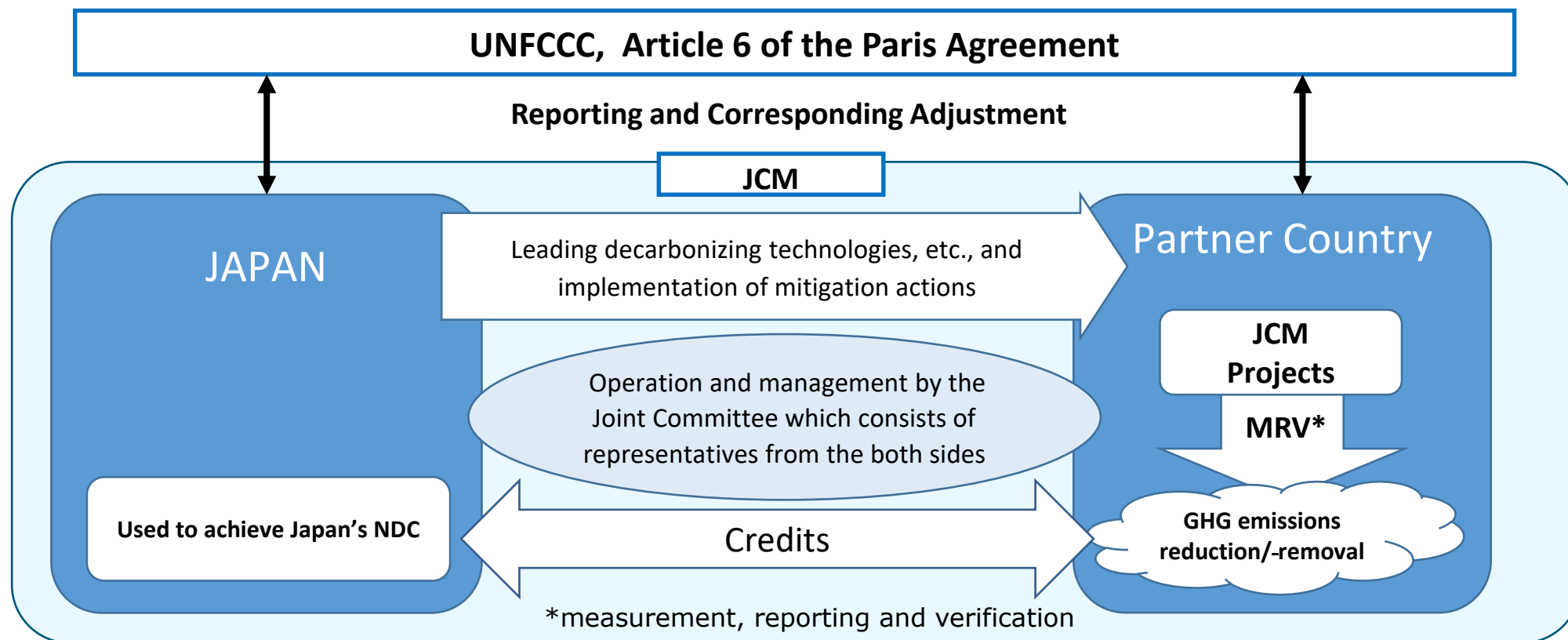
December 17, 2021  
Ministry of the Environment, Japan



- ❑ **Long-term goal: Net zero emissions by FY2050** compared to FY2013
- ❑ **Mid-term target: 46% emission reduction by FY2030** compared to FY2013



# Basic concept of the JCM and contribution to carbon neutrality

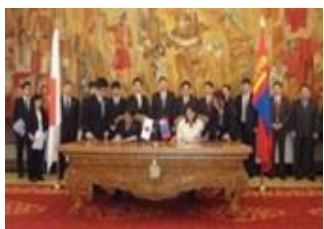


## Cooperation towards achieving carbon neutrality

With the successful conclusion of the Rulebook for Article 6 of the Paris Agreement at COP26, carbon markets will further expand. The JCM, as a pioneering mechanism under the Article 6, will benefit not only for GHG emission reductions, but also for the sustainable development of the partner countries.

# 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)



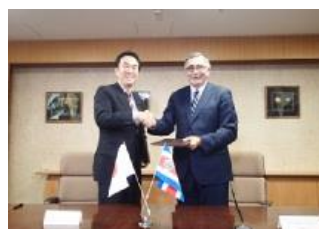
Viet Nam  
Jul. 2, 2013  
Oct.14, 2021 (Hanoi)



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)



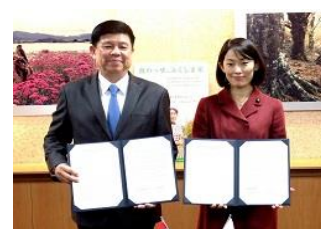
Saudi Arabia  
May 13, 2015



Chile  
May 26, 2015  
(Santiago)



Myanmar  
Sep. 16, 2015  
(Nay Pyi Taw)



Thailand  
Nov. 19, 2015  
(Tokyo)



Philippines  
Jan. 12, 2017  
(Manila)

	JCM Model Projects (including ECO Lease scheme)	ADB Trust Fund: Japan Fund for JCM (JFJCM)	JCM F-gas Recovery and Destruction Model Project
Overview	Support projects which reduce GHG emissions by utilizing leading decarbonizing technologies in developing countries.	Provide the financial incentives for the adoption of advanced low-carbon technologies which are superior in GHG emission reduction but expensive in ADB-financed projects	Support projects that recover and destroy of F-gas (GHG except for energy-related CO2, etc.) from used equipment instead of releasing to air, and reduce emissions
FY2021 Budget (USD)	approx. 83 million in total by FY2023	approx. 10 million	approx. 0.60 million
Type of support	Subsidy	Grant (Sovereign) / Interest Buy-down (Non-sovereign)	Subsidy
More info	<ul style="list-style-type: none"> <li><a href="https://gec.jp/jcm/kobo/">https://gec.jp/jcm/kobo/</a></li> <li><a href="https://www.carbon-markets.go.jp/eng/jcmgp/index.html">https://www.carbon-markets.go.jp/eng/jcmgp/index.html</a></li> </ul>	<a href="https://www.adb.org/what-we-do/funds/japan-fund-for-joint-crediting-mechanism">https://www.adb.org/what-we-do/funds/japan-fund-for-joint-crediting-mechanism</a>	Please contact us.

Need business partners? **JCM Global Match**: <https://gec.jp/jcm/globalmatch/>





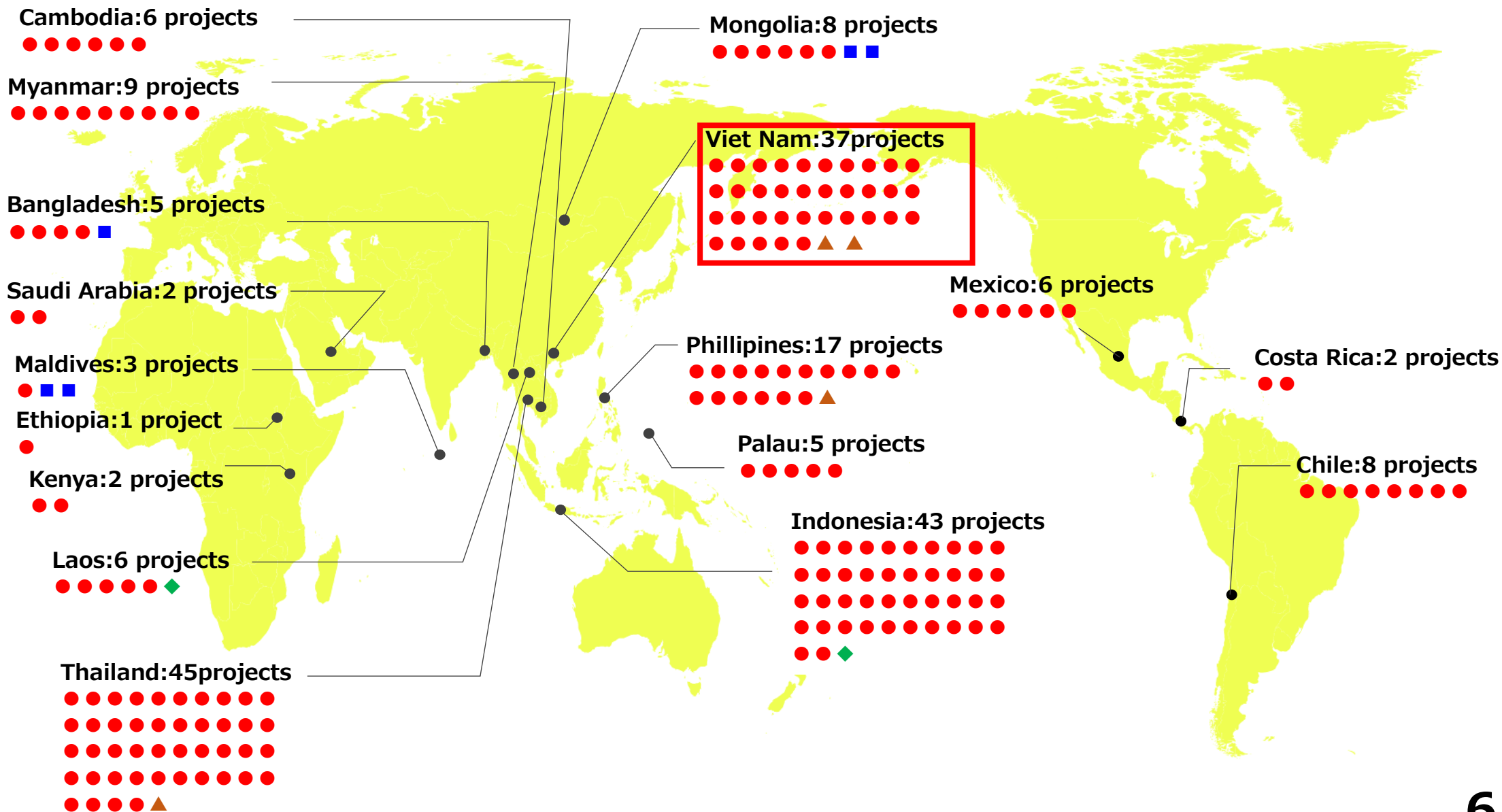
## JCM Financing Programmes by MOEJ (FY2013~2021) (December, 2021)

**Total 205 projects (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.



# Examples of the JCM Model Projects



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



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



**57MW Solar Power Project in An Giang Province**  
**Kanematsu KGK Corp., Viet Nam**



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



Regenerative Burners in industries, Toyotsu Machinery, Indonesia



Waste heat recovery in Cement Industry, JFE engineering, Indonesia



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



**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



Energy saving at convenience stores, Panasonic, Indonesia



Waste to Energy Plant, JFE engineering, Myanmar



High-efficiency refrigerator, Mayekawa MFG, Indonesia



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



**Amorphous transformers in power distribution, Hitachi Materials, Vietnam**

# 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

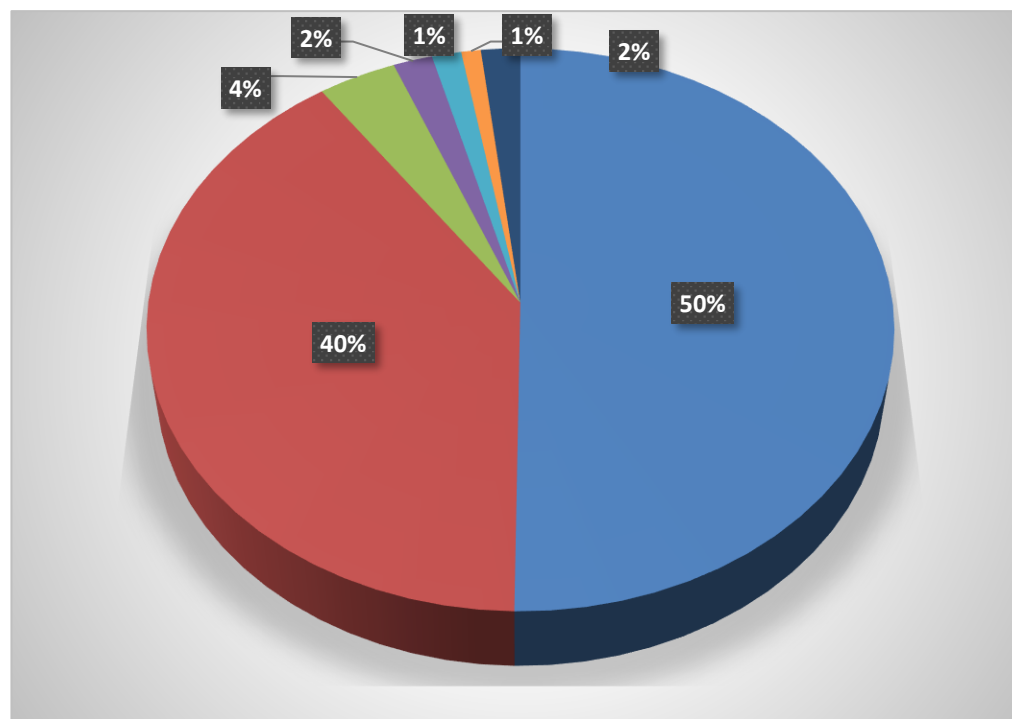
December, 2021

## 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 (4) 2%

- Recovery & Destruction

## Renewable energy (108) 50%

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



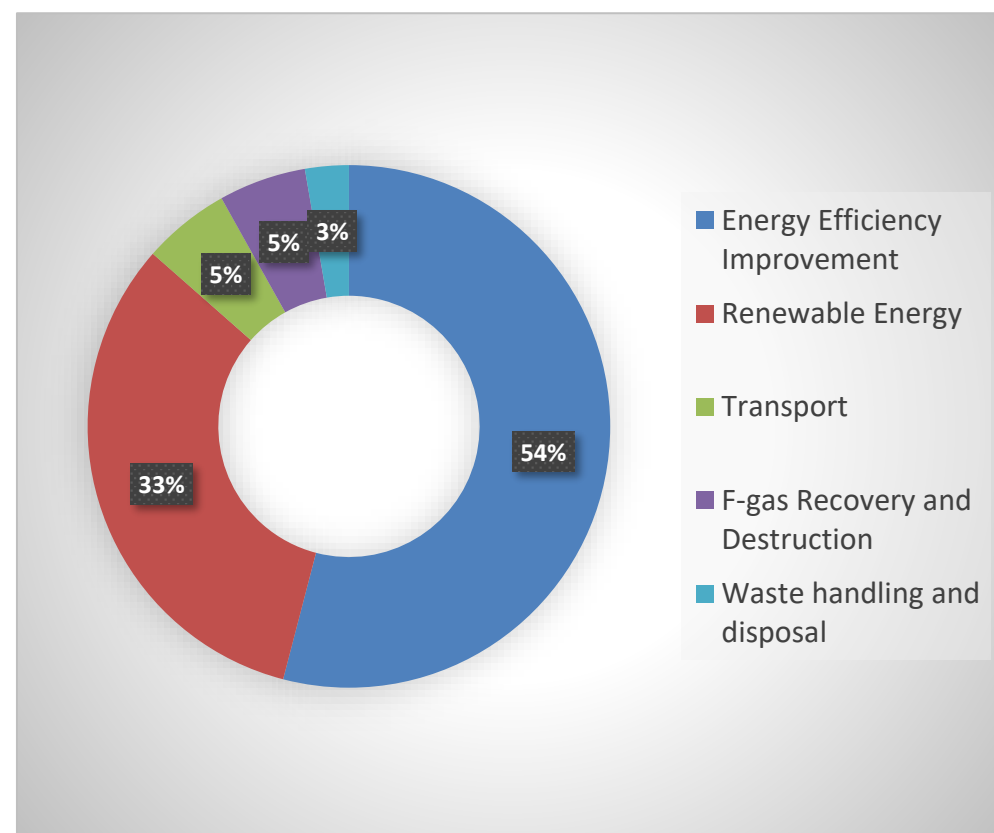
# Recent development of the JCM in Vietnam



- 8 JCM Model Projects and 1 JCM F-gas Project were newly selected in FY2021.
- Energy Efficiency Improvement projects account for the largest proportion, followed by Renewable Energy projects.

Project Title	Sector
Waste to Energy Project in Bac Ninh Province	Waste handling and disposal
Introduction of 9MW Rooftop Solar Power System to Factories	Renewable Energy
Introduction of High Efficiency LED Lighting with Dimming and Tunable Function to Office Building in Ho Chi Minh City	Energy Efficiency Improvement
Introduction of 12MW Rooftop Solar Power System to Commercial	Renewable Energy
Introduction of 9.8MW Rooftop Solar Power System in Industrial Park	Renewable Energy
Introduction of 5.8MW Rooftop Solar Power System to Beverage Factory	Renewable Energy
Introduction of 2.5MW Rooftop Solar Power System to Food Factory and Garment Factory	Renewable Energy
Introduction of High Efficiency Chiller and High Efficiency LED Lighting with Dimming Function to Shopping Center	Energy Efficiency Improvement
Development of Fluorocarbons collection scheme and installation of mixed combustion decomposition facility in Vietnam	F-gas Recovery and Destruction

Percentage of JCM Financing Programmes in Vietnam



## MOEJ - Implementation of Article 6 following COP26

- 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.
- Leading Article 6 negotiations and being a frontrunner with the experience of the Joint Crediting Mechanism (JCM), Japan will take the following three actions to contribute to global decarbonization.



### < 3 Actions >

- 1. Expand JCM partner countries and strengthen project development and implementation in collaboration with international organizations;**
- 2. Scale up the JCM by mobilizing further private finance; and**
- 3. Contribute to the global operationalization of market mechanisms.**

Thank you for your kind attention



**Ministry of the Environment**