

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

Webinar on the Joint Crediting Mechanism (JCM) Implementation in Chile - Accelerating the Transition towards Decarbonization through JCM -

October 28th, 2022

Ministry of the Environment ,Japan







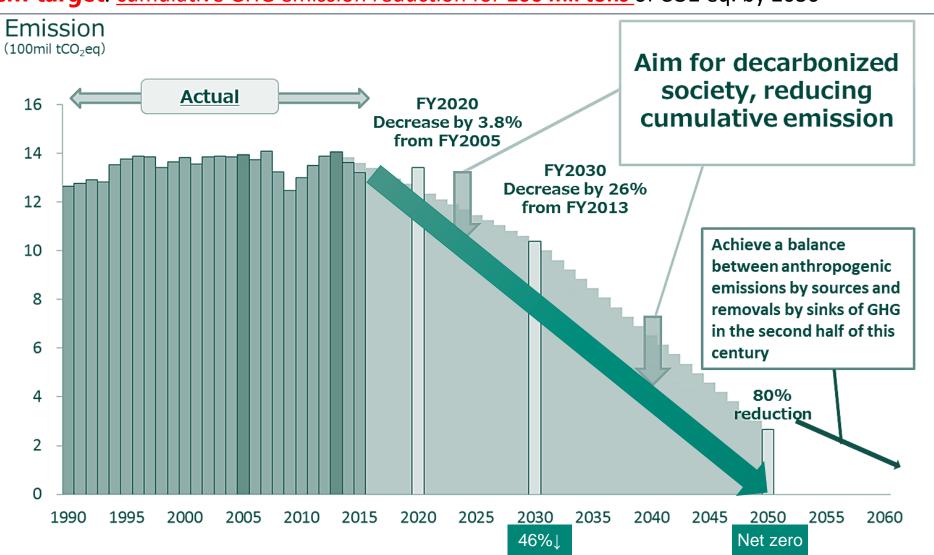






GHG emissions and target in Japan

- ☐ 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 CO_2 eq. (5.0% reduction to 2019, 18.4% reduction to 2013)
- ☐ **JCM target**: <u>cumulative GHG emission reduction for **100 mil tons** of CO2 eq. by 2030</u>





The Joint Crediting Mechanism (JCM)

- Since 2013, Japan has established the JCM with **24** 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.







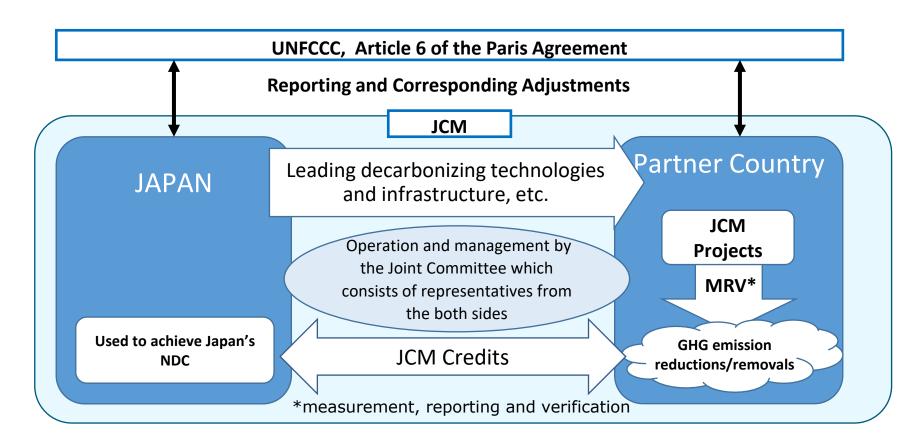
JCM targets

- Aiming to contribute to international emission reductions and removals at the level of <u>a cumulative</u> total of <u>approximately 100 million t-CO2 by fiscal year 2030</u> 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.





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, Philippines, Senegal, Tunisia, Azerbaijan, Moldova, Georgia, Sri Lanka and Uzbekistan.



Mongolia Jan. 8, 2013 (Ulaanbaatar)



Bangladesh Mar. 19, 2013 (Dhaka)



Ethiopia May. 27, 2013 (Addis Ababa)



Kenya Jun. 12, 2013 (Nairobi)



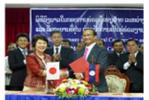
Maldives Jun. 29, 2013 (Okinawa)



Viet Nam
Jul. 2, 2013

(Hanoi)

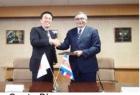
*The photo at the time of extension in Oct 2021.



<u>Lao PDR</u> Aug. 7, 2013 (Vientiane)



Indonesia Aug. 26, 2013 (Jakarta)



Costa Rica Dec. 9, 2013 (Tokyo)



Palau Jan. 13, 2014 (Ngerulmud)



<u>Cambodia</u> Apr. 11, 2014 (Phnom Penh)



Mexico Jul. 25, 2014 (Mexico City)



Saudi Arabia May. 13, 2015



Chile May. 26, 2015 (Santiago)



<u>Myanmar</u> Sep. 16, 2015 (Nay Pyi Taw)



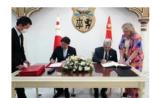
Thailand Nov. 19, 2015 (Tokyo)



Philippines Jan. 12, 2017 (Manila)



Senegal Aug. 25, 2022 (Dakar)



Tunisia Aug. 26, 2022 (Tunis)



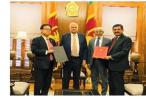
Azerbaijan Sept. 5, 2022 (Baku)



Moldova Sept. 6, 2022 (Chisinau)



Georgia Sept. 13, 2022 (Tbilisi)



Sri Lanka Oct. 10, 2022 (Colombo)



<u>Uzbekistan</u> Oct. 25, 2022 (Tashkent)



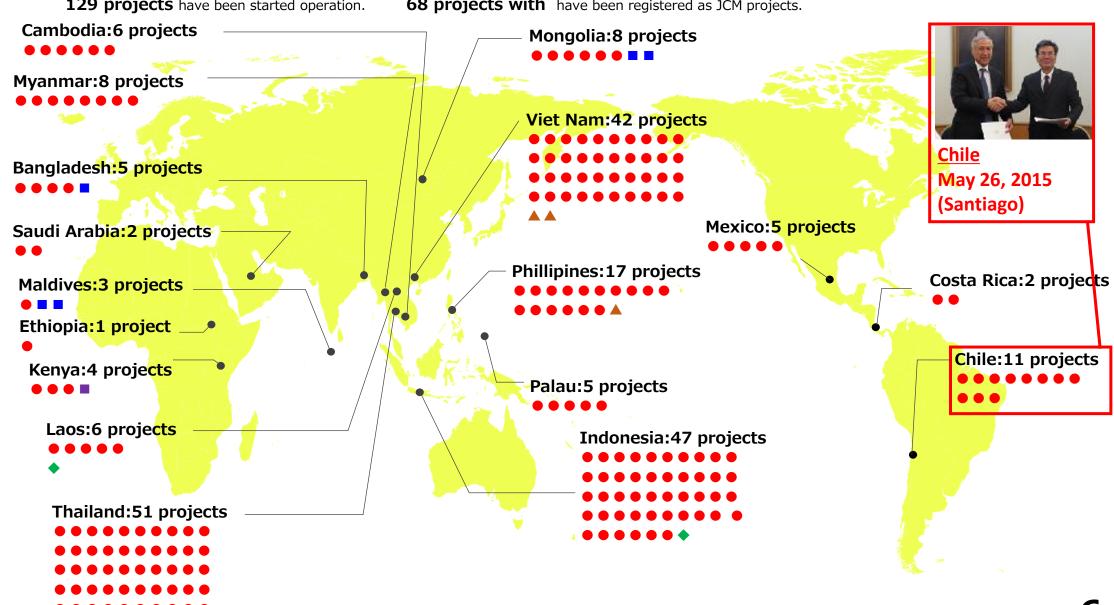
JCM Financing Programmes distribution (FY2013~2022) (July, 2022)

Total 223projects (24partner countries)

(●Model Project: 211 projects(including Eco Lease: 5project), ■ADB: 5 projects, ■UNIDO 1 project, ◆ REDD+: 2 projects, ▲F-gas: 4 projects)

129 projects have been started operation.

68 projects with have been registered as JCM projects.





Examples of the JCM Financing Programmes

Renewable Energy





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 airconditioning system, Hitachi, Daikin, Vietnam

Energy efficiency [Industrial sector]



Regenerative Burners in industries, Toyotsu Machinery, Indonesia

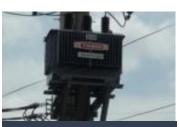


Upgrading air-saving loom at textile factory, TORAY etc., Indonesia, Thai, Bangladesh

Energy efficiency [Urban sector]



LED street lighting system with wireless network control, power distribution, Hitachi Minebea Mitsumi, Cambodia



Amorphous transformers in Materials, Vietnam

Waste



Power Generation with Methane Gas Recovery System, NTTDATA, Mexico



Waste to Energy Plant, JFE engineering, Myanmar

Transport





Technologies Transferred through JCM (FY2013-2022)

- Total of 223 JCM Projects being developed in 24 partner countries (October, 2022)
- 37% for energy efficiency, 53% for renewable energy, 4% for Effective use of Energy, Transport, Waste to energy, F-gas Recovery and Destruction and REDD+ project shares

Waste (4) 2%

- Waste to Energy
- Power Generation with Methane Gas

Transport (3) 1%

- Digital Tachographs
- Modal Shift
- CNG-Diesel Hybrid

REDD+ (2) 1%

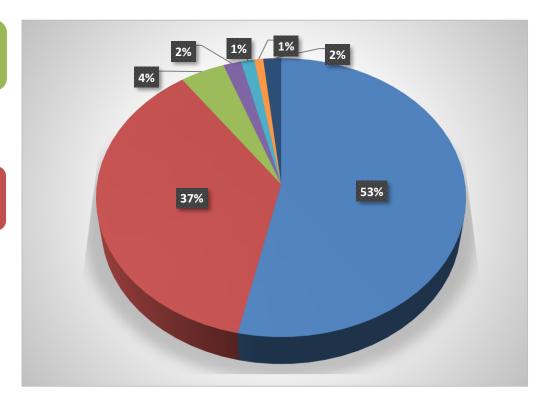
 Controlling slush and burn September,2022

Effective Use of Energy (10) 4%

- Waste Heat Recovery
- Gas Co-generation

Energy efficiency (86) 37%

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



F-gas (4) 2%

• Recovery & Destruction

Renewable energy (125) 53%

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



FY2022 JCM Finance Scheme proposed by MOEJ

Budget for projects starting from FY 2022 is approx. <u>17.1 billion JPY</u> (approx. <u>USD 158 million</u>) in total by FY2024 (1 USD = 108 JPY)

Finance part of an investment cost (less than half)

Government of Japan



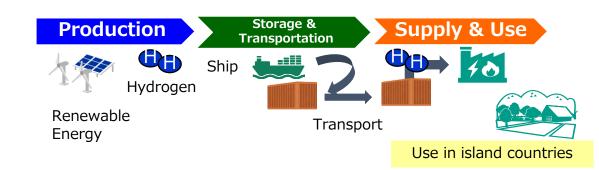
*Includes collaboration with projects supported by JICA and other governmental-affiliated financial institute.

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

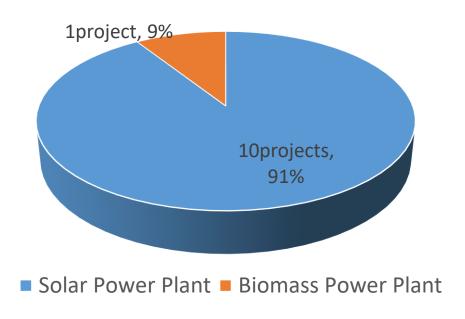


Recent development of the JCM in Chile

- Ministry of the Environment
- 3 JCM Model Projects were newly selected in FY2022.
- Solar power projects account for the largest proportion. MOEJ also would like to support other renewable energy projects.

Project Titl	е	Sector
9MW Second Solar Power Project in Yungay, Biobio Region		Renewable Energy
9MW Solar Power Project in Teno, Maule Region		Renewable Energy
6MW Solar Power Project Utilizing Farmland in Maule and		Renewable Energy
Nuble Region	New projects from FY2022	

Percentage by technologies of JCM Financing Programmes in Chile



Activities related to the JCM by Government of Japan





Capacity building

- Article 6/ETF
- Secretariat work for the JCM
- Partnership for Market Implementation Facility [World Bank]
- City-to-city cooperation
- Training for TPEs



Project development

- Seminars/workshops
- JCM Global Match (biz matching website)
- Consultation with project developers/consultants
- City-to-city cooperation
- JCM Feasibility Study



Project implementation

- JCM Model Projects
- Japan Fund for the JCM [ADB]
- F-gas Recovery and Destruction Model Project
- Financial support for projects [UNIDO]
- JCM Demonstration Projects



Monitoring/evaluation

- Support for MRV (development of methodology and project design document, validation and verification by TPEs)
- Secretariat of the Joint Committee
- Support for establishment of a registry

Thank you for your kind attention

