



Ministry of the Environment

Recent Development of the Joint Crediting Mechanism (JCM)

January 19, 2021

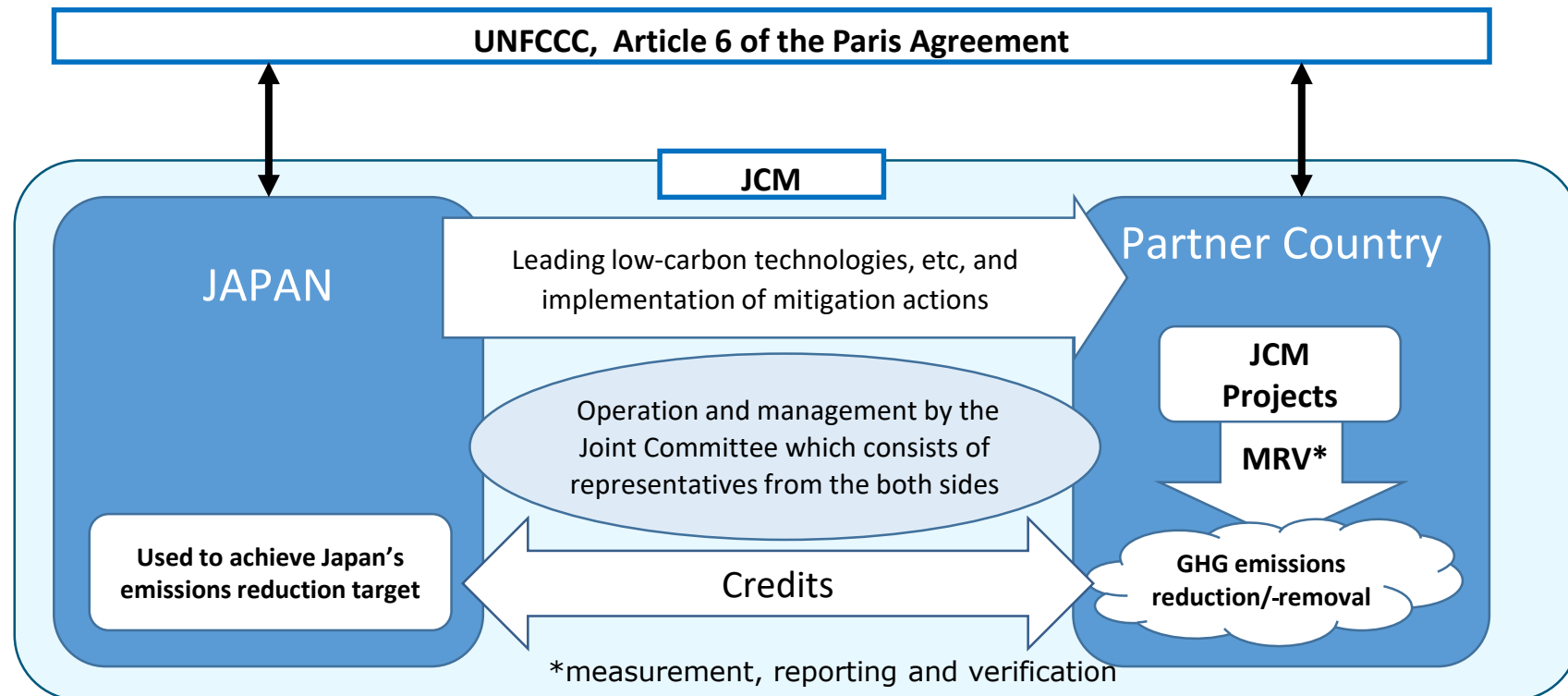
Ministry of the Environment ,Japan



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- 1. Overview of the JCM**
 2. Financial support scheme
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Basic Concept of the Joint Crediting Mechanism (JCM)

- Facilitating diffusion of leading low-carbon or decarbonizing technologies ,etc and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of partner countries.
- Appropriately evaluating contributions from Japan to GHG emission reductions or removals in a quantitative manner and use them to achieve Nationally Determined Contribution(NDC) of each country.
- Contributing to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reductions or removals.



Technologies Transferred through JCM by MOEJ(FY2013-2020)

- ◆ Total of 177 JCM Projects being developed in 17 partner countries
- ◆ 43% are energy efficiency and 47% are renewable energy
- ◆ Effective use of Energy, Transport, Waste to energy, F-gas Recovery and Destruction and REDD+ project shares 10%

Waste 2%

- Waste to Energy

Transport 2%

- Digital Tachographs
- Modal Shift
- CNG-Diesel Hybrid

REDD+ 1%

- Controlling slush and burn

F-gas counter measure 1%

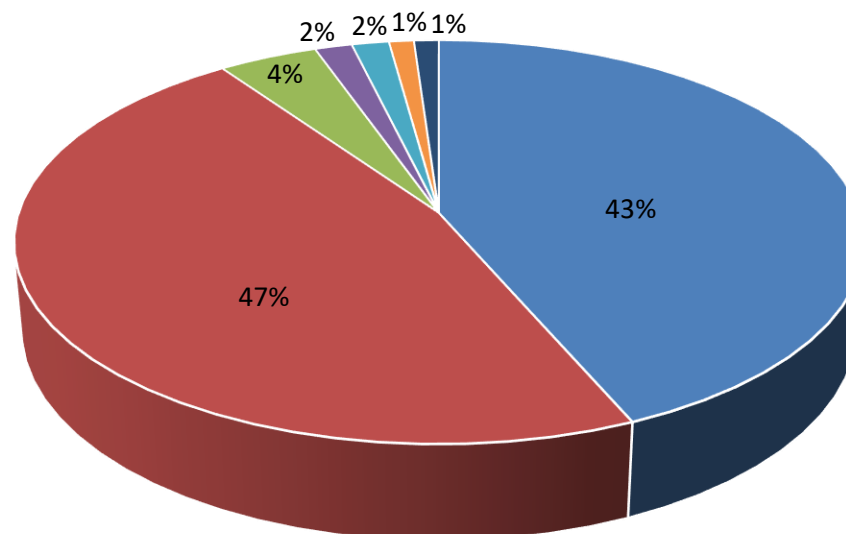
- Recovery & Destruction

Effective Use of Energy 4%

- Waste Heat Recovery
- Gas Co-generation

Renewable energy 47%

- Solar
- Micro hydro
- Wind
- Biomass
- Geothermal



Energy efficiency 43%

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

Future target of JCM

Japan's strengths and issues in the fields of renewable energy and energy saving

Energy-saving infrastructure

Carbon capture and storage (CCS)



Solar power generation



Wind power generation



Hydrogen



Use of ammonia fuel

Waste power generation



Geothermal power generation



Hydropower generation

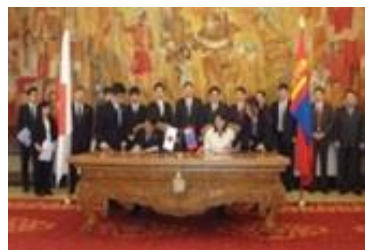


Storage battery and system management



MOEJ wants to support not only existing technologies, but also advanced technologies such as hydrogen and CCS etc. as described above.

JCM Partner Countries



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)



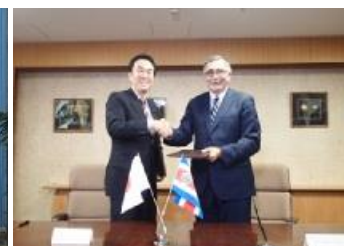
Viet Nam
Jul. 2, 2013
(Hanoi)



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)



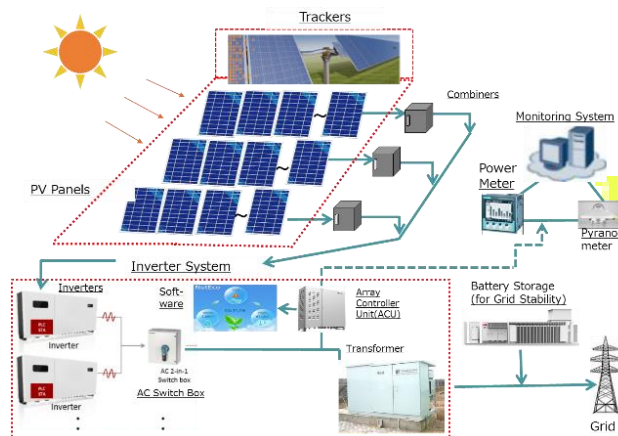
Thailand
Nov. 19, 2015
(Tokyo)



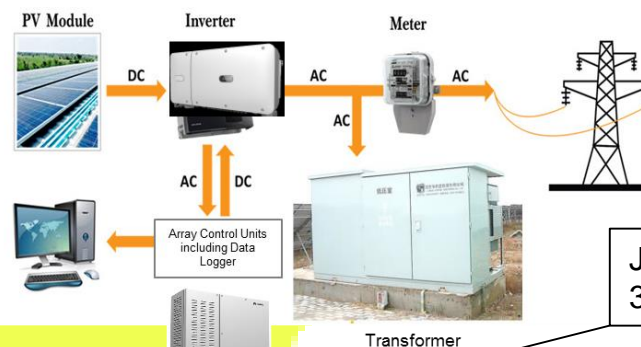
the Philippines
Jan. 12, 2017
(Manila)

JCM Model Projects in Mexico

JCM Model Project (2019)
30MW Solar Power Project in La Paz city



JCM Model Project (2017)
20MW Solar Power Project in Guanajuato



JCM Model Project (2018)
30MW Solar Park Project in Guanajuato



JCM Model Project (2016) [have been started operation]
Introduction of Once-through Boiler and Fuel Switching to
Tequila Plant



JCM Model Project (2018) [have been started operation]
Introduction of Energy Efficient Distillation System to
Tequila Plant



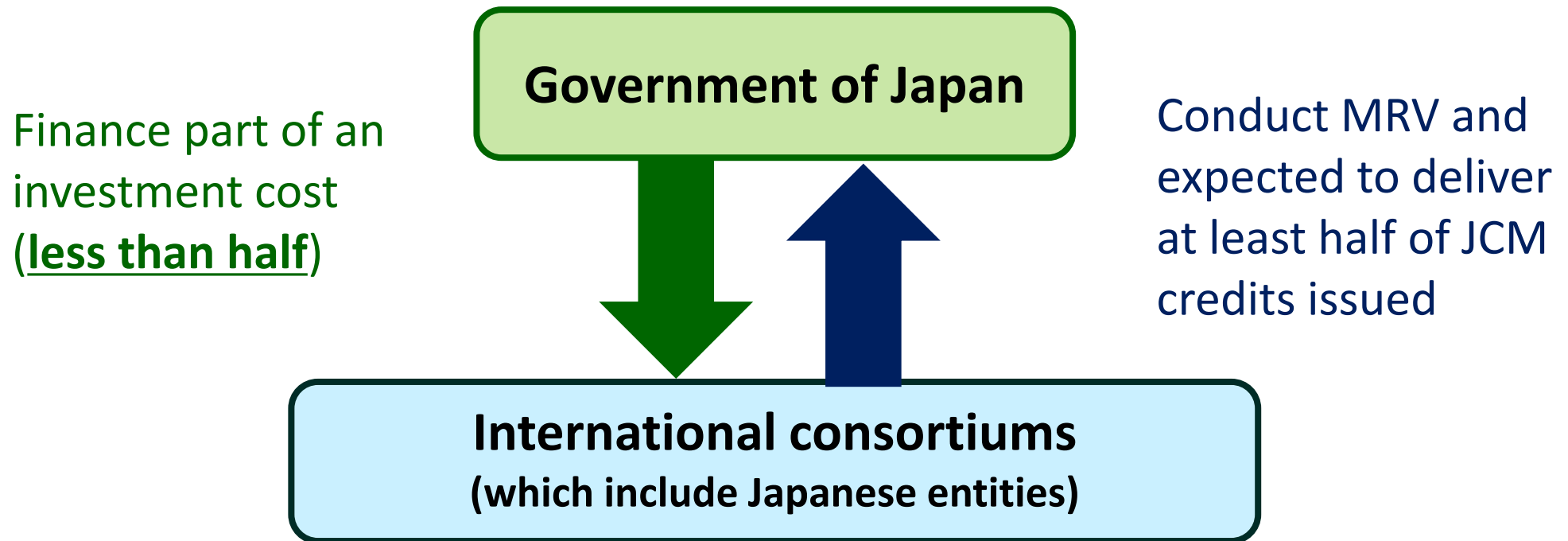
JCM Model Project (2016) [have been started operation]
Introduction of 1.2MW Power Generation with Methane
Gas Recovery System



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JCM Model Projects by MOEJ

Budget for projects starting from FY 2020 is 9 billion JPY
(approx. USD 90 million) in total by FY2022 (1 USD = 100 JPY)



JCM F-gas Recovery and Destruction Model Project by MOE

【Budget for FY 2020】

61 million JPY (approx. 0.61 million USD) (1 USD = 100 JPY)

Finance part of the cost in flat-rate
(up to 40 million JPY/year)

Government of Japan

Conduct MRV to estimate GHG emission reductions.

At least half or ratio of financial support to project cost (larger ratio will be applied) of JCM credits issued are expected to be delivered to the government of Japan

International consortiums (which include Japanese entities)

Manufacturers
of equipment
which uses F-gas

Users of
equipment
which uses F-gas

Entities for recovery and
transportation of used F-gas
(recycling or scrap entities)

Entities for destruction of
used F-gas (may use existing
facility for destruction)

Purpose

To recover and destroy F-gas (GHG except for energy-related CO₂, etc) from used equipment instead of releasing to air, and reduce emissions

Scope of Financing

- Establish scheme for recovery and destruction
- Install facilities/equipment for recovery/destruction
- Implementation of recovery, transportation, destruction and monitoring

Project Period

Three years in maximum (Ex. 1st year for scheme, 2nd year for facilities, 3rd year for recovery/destruction)

Eligible Projects

- After the adoption of financing, start implementation of recovery/destruction within three years
- Aim for the registration as JCM project and issuance credits

Memorandum of Cooperation between World Bank Group and MOEJ

- Cooperate to identify suitable WBG programs where the MOEJ could potentially participate through appropriate identified means and jointly develop mitigation outcomes from the projects using the JCM methodology
- Explore the possibility to scale up the JCM projects under the PMR and PMR Successor Program
- In consultation with the relevant Bank counterparts in client countries and subject to the Bank's Access to Information Policy, the Bank will share information on identified candidate programs with the Ministry to explore and examine potential arrangements of the pilot projects with the JCM including utilization of Measurement, Reporting and Verification ("MRV") methodologies under the JCM and potential replication and scaling up of JCM projects under the programs.



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Recent Development: SDGs, Gender Guideline and CORSIA

JOINT CREDITING MECHANISM CONTRIBUTIONS TO SUSTAINABLE DEVELOPMENT GOALS

- The first publication to analyze the interlinkage between the JCM and SDGs. It aims to clarify how the JCM contributes to SDGs.
- Accelerate further contribution towards SDGs through the JCM project implementation.



Guideline on Gender Equality for the Joint Crediting Mechanism (JCM)

- MOEJ developed the “Guideline on Gender Equality for the Joint Crediting Mechanism (JCM)” with the aim of encouraging mainly representative participants and partner participants of the JCM Model Projects to take action toward gender equality.
- This guideline shows recommended actions to be taken at all the stages of the project cycle (planning, implementation, and monitoring) to realize gender equality.

Application for Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)

- The JCM between Mongolia and Japan applied for the assessment of CORSIA eligible emission units.
- Applications is based on mutual understanding and submitted by Japan and each partner country.

Collaboration with International Organizations

- **World Bank:** Memorandum of Cooperation for scaling-up of the Joint Crediting Mechanism.
- **ADB:** Cooperation on Japan Fund for the JCM and Article 6 of PA and SDGs
- **UNIDO:** Signed Joint Declaration on Environmental Cooperation in order to support the JCM.

Contributions to “SDGs” through JCM Model Projects

JCM Model Projects are contributing to the SDGs including improving gender equality in partner countries.

Employment/Food/Energy Access

- ◆ Installation of 12.7 MW Solar Power Plant for Power Supply In Ulaanbaatar Suburb
- ◆ Reduction of air pollution and stable power supply
- ◆ Improving farm management by utilizing solar power sales income



Health/Energy Access

- ◆ Introduction of Waste to Energy Plant in Yangon City
- ◆ Since there is no need for landfill disposal, methane emissions are reduced and contribute to improving air pollution
- ◆ High-efficiency stalker incinerator recovers exhaust gas to maximize heat recovery rate



Education/Clean water

- ◆ Introduction of High Efficiency Water Pumps in Da Nang City
- ◆ By providing technical training on pump operation and maintenance, we have achieved stable operation of the water purification plant equipment and achieved high quality water supply.

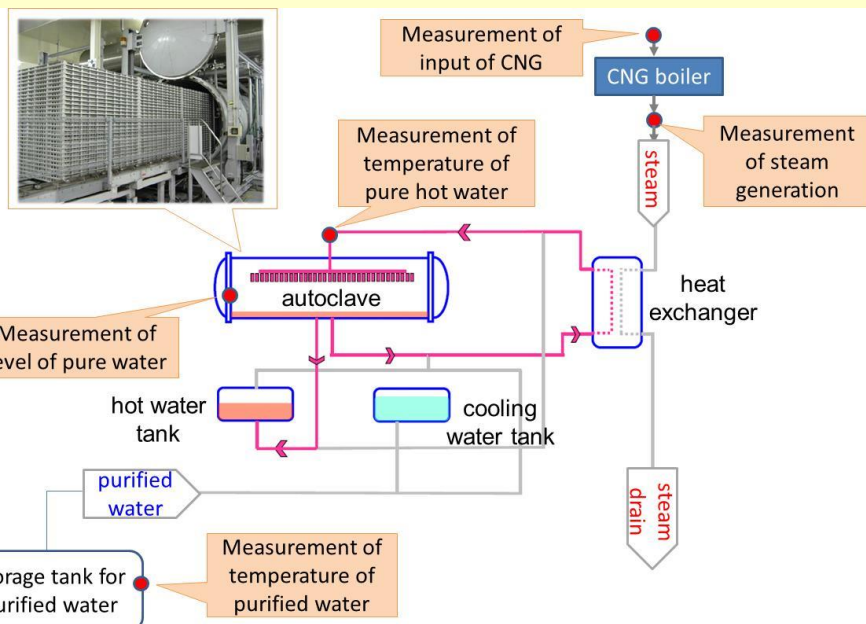


Addressing to COVID-19 through JCM Model Projects

- Damage caused by COVID-19 is serious in many countries with weak social infrastructure.
- JCM Model projects, which support local corporate activities, support the social infrastructure of countries and play an important role in “Sustainable and Resilient Recovery”.

Contribution to the medical supply chain

- ◆ Energy Saving by Introducing High Efficiency Autoclave to Infusion Manufacturing Factory
- ◆ Under the influence of COVID-19, it supported by expanding productivity while ensuring product safety in the sterilization process.



Contribution to the medical supply chain

- ◆ Introduction of High Efficiency Injection Molding Machine to Plastic Parts Factory
- ◆ Demand for plastic caps for bottles of chemicals such as alcohol increased sharply, but it responded to an unexpected increase in demand.



Contribution to reducing infection risk

- ◆ Introduction of High Efficiency LED Lighting Utilizing Wireless Network
- ◆ Since it was possible to remotely control from Japan, there was no need to directly turn on/off the light, which contributed to the spread of infection.



Conclusion

JCM Model Projects can contribute to:

- Greenhouse gas emission reductions
- Recovery from COVID-19
- Achievement of the SDGs

MOEJ will continue to promote the JCM as a pillar of decarbonization policy while deepening cooperation with partner countries.

