# Recent Development of The Joint Crediting Mechanism (JCM)

February 2016
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# **Examples of JCM Projects and Model Projects**



Waste heat recovery in Cement Industry, JFE engineering, Indonesia



Eco-driving with Digital Tachographs, NITTSU, Vietnam



Geothermal power generation, Mitsubishi Hitachi Power Systems, Mexico



Amorphous transformers in power distribution, Hitachi Materials, Vietnam



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



Solar power plant for commercial facilities, Kyocera, Palau



High efficiency air-conditioning and process cooling, Ebara refrigeration equipment & systems, Indonesia



Energy saving at convenience stores, Panasonic, Indonesia



Waste to Energy Plant, JFE engineering, Myanmar



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



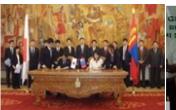
Co-generation system at factory, Toyota, Nippon Steel & Sumikin Engineering, Indonesia, Thai



High efficient refrigerator, Mayekawa MFG, Indonesia

### **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 and Thailand.



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)



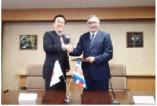
<u>Viet Nam</u> Jul. 2, 2013 (Hanoi)



Lao PDR Aug. 7, 2013 (Vientiane)



Indonesia Aug. 26, 2013 (Jakarta)



Costa Rica Dec. 9, 2013 (Tokyo)



<u>Palau</u> 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)



Myanmar Sep. 16, 2015 (Nay Pyi Taw)



Thailand Nov. 19, 2015 (Tokyo)

In addition, the Philippines and Japan signed an aide memoire with intent to establish the JCM.

# Statement by Prime Minister Shinzo Abe at the COP21 (Excerpt)





The second component of Japan's new set of contribution is innovation. The key to acting against climate change without sacrificing economic growth is the development of innovative technologies. To illustrate, there are technologies to produce, store and transport hydrogen towards realizing CO2–free societies, and a next-generation battery to enable an electric car to run 5 times longer than the current level. By next spring Japan will formulate the "Energy and Environment Innovation Strategy." Prospective focused areas will be identified and research and development on them will be strengthened. (snip)

In addition, many of the advanced low-carbon technologies do not generally promise investment-return to developing countries. Japan will, while lowering burdens of those countries, promote diffusion of advanced low carbon technologies particularly through implementation of the JCM.

# "3rd JCM Partner Countries' High-level Meeting" in COP21

- Ministers and Representatives from 16 JCM partner countries and Japan have participated the "3rd JCM Partner Countries' High-level Meeting" held in 8 December, 2015 at Japan Pavilion in COP21 (Paris) as a side event.
- The Ministers and Representatives welcomed the progress in the JCM and shared their continuous will to further implement the JCM through mutual cooperation.



# The JCM related Articles in the Paris Agreement

# **Article 6 of the Agreement**

- 2. Parties shall, where engaging on a voluntary basis in cooperative approaches that involve the use of internationally transferred mitigation outcomes towards nationally determined contributions, promote sustainable development and ensure environmental integrity and transparency, including in governance, and shall apply robust accounting to ensure, inter alia, the avoidance of double counting, consistent with guidance adopted by the Conference of the Parties serving as the meeting of the Parties to the Paris Agreement.
- 3. The use of internationally transferred mitigation outcomes to achieve nationally determined contributions under this Agreement shall be voluntary and authorized by participating Parties.
- Use of market mechanisms, including the JCM, is articulated under Article 6 which prescribes for the use of emission reductions realized oversees towards national emission reduction targets.
- The amount of emission reductions and removals acquired by Japan under the JCM will be appropriately counted as Japan's reduction in accordance with the Paris Agreement.
- Japan is going to contribute to the development of the guidance for robust accounting including for avoidance of double counting to be adopted by the CPA\*.

# Japan's INDC (Excerpt)

#### Japan's INDC

O Japan's INDC towards post-2020 GHG emission reductions is at the level of a reduction of 26.0% by fiscal year (FY) 2030 compared to FY 2013 (25.4% reduction compared to FY 2005) (approximately 1.042 billion t-CO2eq. as 2030 emissions), ensuring consistency with its energy mix, set as a feasible reduction target by bottom-up calculation with concrete policies, measures and individual technologies taking into adequate consideration, *inter alia*, technological and cost constraints, and set based on the amount of domestic emission reductions and removals assumed to be obtained.

#### Information to facilitate clarity, transparency and understanding

O The JCM is not included as a basis of the bottom-up calculation of Japan's emission reduction target, but the amount of emission reductions and removals acquired by Japan under the JCM will be appropriately counted as Japan's reduction.

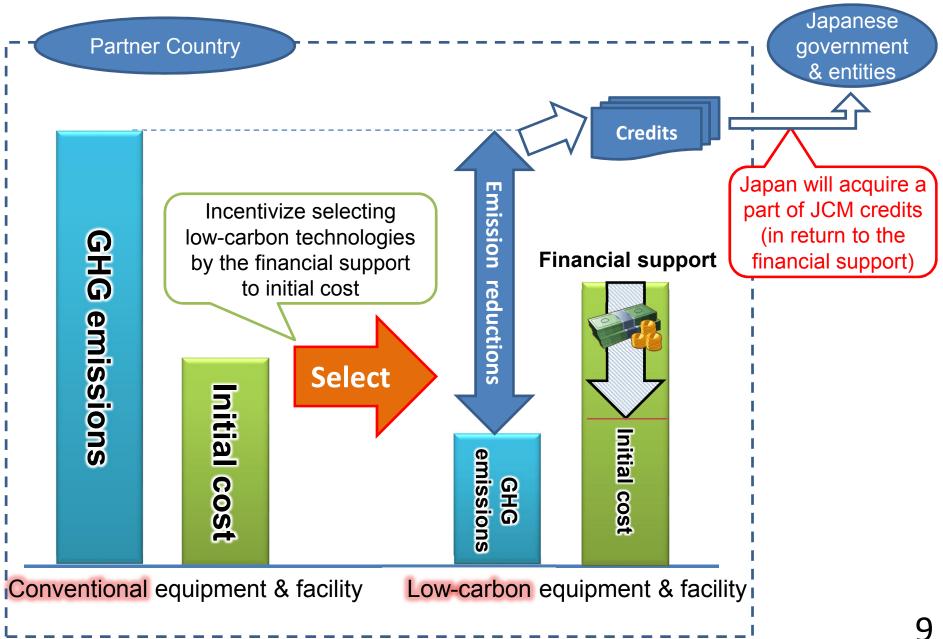
# Reference information GHG emissions and removals JCM and other international contributions

- O Japan establishes and implements the JCM in order both to appropriately evaluate contributions from Japan to GHG emission reductions or removals in a quantitative manner achieved through the diffusion of low carbon technologies, products, systems, services, and infrastructure as well as implementation of mitigation actions in developing countries, and to use them to achieve Japan's emission reduction target.
- O Apart from contributions achieved through private-sector based projects, accumulated emission reductions or removals by FY 2030 through governmental JCM programs to be undertaken within the government's annual budget are estimated to be ranging from 50 to 100 million t-CO<sub>2-7</sub>

# Progress of the JCM in each partner country As of February 2016

	Partner countries	Singing	Number of JC meeting	Number of registered JCM project	Number of approved JCM methodology	Number of JCM model & demonstration project (H25-27)
ſ	Mongolia	Jan. 2013	3	2	2	4
В	angladesh	Mar. 2013	2			5
	Ethiopia	May 2013	2			1
	Kenya	Jun. 2013	2		1	3
	Maldives	Jun. 2013	2		1	2
\	Viet Nam	Jul. 2013	4	2	5	15
	Lao PDR	Aug. 2013	1			2
ı	ndonesia	Aug. 2013	5	3	10	22
C	Costa Rica	Dec. 2013	1			
	Palau	Jan. 2014	3	1	1	3
C	Cambodia	Apr. 2014	1			2
	Mexico	Jul. 2014	1			
Sa	udi Arabia	May 2015	1			1
	Chile	May 2015	Not yet			
0	Myanmar	Sep. 2015	Not yet			1
	Thailand	Nov. 2015	1	6 0000000000000000000000000000000000000		7
	Total	16 countries	29	8	20	68

# Merits for Partner Country by the JCM Financing Program by MOEJ



# JCM Model Projects by MOE

The draft budget for projects starting from FY 2016 is 6.7 billion JPY (approx. USD 56 million) in total by FY2018

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 at least half of JCM credits issued

International consortiums (which include Japanese entities)







- > Scope of the financing: facilities, equipment, vehicles, etc. which reduce CO2 from fossil fuel combustion as well as construction cost for installing those facilities, etc.
- ➤ Eligible Projects: starting installation after the adoption of the financing and finishing installation within three years.

# ADB Trust Fund: Japan Fund for Joint Crediting Mechanism (JFJCM)

### **Draft Budget for FY2016**

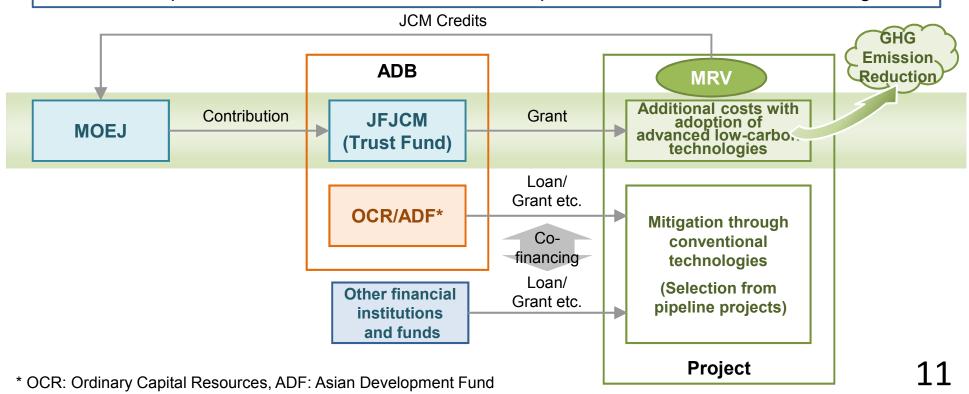
1.2 billion JPY (approx. USD 10 million)

#### **Scheme**

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

#### **Purpose**

To develop ADB projects as the "Leapfrog" developments by the advanced technologies and to seek to acquire JCM credits for achievement of Japan's GHG emission reduction target.



## JCM REDD+ Model Projects by MOE



#### [Background]

- Deforestation and forest degradation in developing countries
- 17 demonstration feasibility studies from 2011 to 2014

#### **[**Expected outcome ]

- Participatory monitoring of illegal logging, disaster prevention, and forest restoration
- Provision of alternative livelihoods



#### 《 Projects outline》

The draft budget for FY 2016 80 million JPY (approx. USD 0.67 million)

Government of Japan

Finance part
of the cost

Deliver JCM
credits issued \*

International consortiums (which include Japanese entities)

- \*At least half or ratio of financial support to project cost of JCM credits issued are expected to be delivered to the government of Japan except the amount which is allocated to the partner country based on its legislation.
- ☆These projects may be implemented in cooperation with other organizations such as JICA

\*REDD+ (Reducing Emissions from Deforestation and Forest Degradation in developing countries; and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries)

#### Purpose

Implement activities for REDD+ and seek to acquire JCM credits for achievement of Japan's GHG emission reduction target

#### Project budget and implementation term

Up to 40 million JPY/year (fixed)

#### Eligible Companies

Japanese corporation(the representative of international consortiums)