# Update on the Joint Crediting Mechanism and Financing Program

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### **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.



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)

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The JCM has the following objectives:

- To facilitate diffusion of leading low carbon technologies, products, systems, services, and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of the Host Country
- To appropriately evaluate contributions to GHG emission reductions or removals from Japan in a quantitative manner, through mitigation actions implemented in the Host Country and use those emission reductions or removals to achieve emission reduction targets of the countries involved
- To contribute to the ultimate objective of the UNFCCC by facilitating global actions for emission reductions or removals.

# Benefits of the JCM to the Host Country

Participation in the JCM is voluntary and offers the following benefits:

- Access to investment in climate change mitigation projects
- Transfer or diffusion of low carbon technologies
- Support the sustainable development goals of the host country
- Help achieve the National Determined Contribution (NDC) of the host country

## JCM Framework



### **Contributions from Japan**



### Japan's emission reduction target and the JCM

- ➢ Japan will achieve the target of 26% reduction through domestic emission reductions and removals without using international credits while the amount of credits acquired by Japan under the JCM will be appropriately counted as Japan's reduction.
- > 10 million tCO2 is expected to be realized by 2030 from the pipeline projects.
- Implementation of JCM projects is to be scaled-up through further mobilization of private sector finance.



"Plan for Global Warming Countermeasures (Cabinet Decision, May 2016)"

- Apart from contributions achieved through privatesector 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-CO2.
- The JCM is not included as a basis of the bottomup 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.

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JCM's Contribution to National Determined Contribution

- JCM's conservative emission reduction calculation (reference emissions below BaU emissions) will ensure a net decrease and/or avoidance of GHG emissions.
- This part of emission reductions will automatically contribute to the achievement of National Determined Contribution (NDC) of the host country.



Progress of the JCM in each partner country as of 2 October 2019								
Partner countries	Start from	No. of JC	No. of registered projects	No. of approved methodologies	Pipeline (JCM Financing Programme & Demonstration Projects in FY 2013-2019)			
Mongolia	Jan 2013	6	5	3	10			
Bangladesh	Mar 2013	4	3	3	6			
Ethiopia	May 2013	3		3				
Kenya	Jun 2013	3		3	3			
Maldives	Jun 2013	4	1	1	2			
Viet Nam	Jul 2013	8	14	15	26			
Lao PDR	Aug 2013	4	1	3	5			
Indonesia	Aug 2013	8	19	19	34			
Costa Rica	Dec 2013	2		3	2			
Palau	Apr 2014	5	3	1	5			
Cambodia	Apr 2014	4	1	2	5			
Mexico	Jul 2014	2		1	7			
Saudi Arabia	May 2015	2	1	1	1			
Chile	May 2015	2		1	2			
Myanmar	Sep 2015	2		1	7			
Thailand	Nov 2015	4	6	9	32			
Philippines	Jan 2017	1			11			
Total	17	64	54	69	158			

### Issuance of JCM credit in Vietnam

- Total of 6 projects issued credits under the JCM
- Total amount of credits issued are1,910 t-CO<sub>2</sub>

(as of 1st October)

Name of project	Notification	Amounts of credits issued (tCO <sub>2</sub> )			
	date	Total	Japanese side	Vietnam side	
Energy saving and work efficiency improvement by introducing a new chip-on-board LED system in Vietnam	19 July 2019	143	128	15	
Introduction of High Efficiency Air- conditioning in Hotel	28 May 2019	189	133	56	
Introduction of amorphous high efficiency transformers in power distribution systems in the southern part of Viet Nam	14 Aug 2018	261	181	80	
Promotion of green hospitals by improving efficiency / environment in national hospitals in Vietnam	14 Aug 2018	878	685	193	
Introduction of amorphous high efficiency transformers in power distribution systems in the southern part of Viet Nam	10 Oct 2017	151	76	75	
Eco-Driving by Utilizing Digital Tachograph System	10 Oct 2017	288	230	<b>58</b> g	

### JCM Financing Programme by MOEJ (FY2013~2019) as of Aug 2, 2019

<u> </u>			
Thailand:31 projects	Mongolia:9 projects		
<u>OEnergy Saving at Convenience Store</u> <u>O1MW Solar PV on Factory Re</u>	Solftop*         OHeat Only Boiler (HOB)**         Olimony Solar PV in Farm*         Olimony Solar PV           0.8.2MW Solar PV in Solar PV         0.3.2MW Solar PV         0.3.2MW Solar PV         0.3.2MW Solar PV		
Upgrading Air-saving Loom* Ucentrifugal Chiller & Compr	essor*		
Ocercenting of the second seco	CFuel Conversion by Introduction of LPG Boilers		
OIon Exchange Membrane Electrolyzer OChilled Water Supply System			
OLED Lighting to Sales Stores O12MW Waste Heat Recovery	in Cement Plant Viet Nam: 22 projects		
OCo-generation System ORefrigerator and Evaporator	Obigital Tachographs* OAmorphous transformers1*		
<u>O2MW Solar PV</u> <u>O3.4MW Solar PV*</u>	Continent Formation Excility* CAIr-conditioning in Lens Factory*		
OHeat Recovery Heat Pump O5MW Floating Solar PV	Container Formation Factory Control System     Air-conditioning Control System		
OSUMW Solar PV <u>OBOILER System In Rubber Bel</u>	CElectricity Kiln OHigh Efficiency Water Pumps1*		
OF Strange Saving Equipment in Port OCo-generation in Fiber Factory O25MW S	Olar PV in Industrial Park		
○3.4MW Solar PV ○Biomass Boiler ○0.8MW Solar PV and Centrifug	al Chiller		
▲ Introduction of Scheme for F-gas Recovery and Destruction	OEnergy Saving Equipment in Brewery Factory OHigh Efficiency Chiller		
O37MW Solar PV and Melting Furnace OHeat Exchanger in Fiber Factor	y Modal shift with Reefer Container Oliverters for Raw Water Intake Pumps		
	Collection Scheme and Deducated System of regas — Waster to Energy Plant     Chief Efficiency Water Plumps2 — Biomass Boiler to Chemical Factory		
Bangladesh:6 projects	Ungit Enlactery Match angos Solici to Chemical Pattery		
Ocentrifugal Chiller OLoom at Weaving Factory*	Mexico:7 projects		
OSUMW Solar PV Power Plant	O2.4MW Power Generation with Methane Gas Recovery System		
	Laos:4 projects		
Saudi Arabia 1 project Kenva 2 projects	Octave Solution Controlling Slush-and-burn     Octave Solution     Octave Solutio		
OFlectorolyzer in Chlorine	Other Stransformers		
Production Plant O38MW Solar PV			
	Phillipines:11 projects		
Myanmar: 7 projects	015MW Hydro Power Plant 04MW Hydro Power Plant 01.53MW Rooftop Solar PV		
O700kW Waste to Energy Plant	<b>1.2MW Rooftop Solar PV 1.2MW Rooftop Solar PV 2.5MW Rice Husk Power Generation</b>		
OBrewing Systems to Brewery Factory	○0.16MW Micro Hydro Power Plant ○4MW Solar PV ○19MW Hydro Power Plant		
Once-through Boller in Instant Noodle Factory	Image:		
ORefrigeration System in Logistics Center	Costa Rica 2 projects		
O8.8MW Waste Heat Recovery in Cement Plant	Palau: 5 projects		
OBrewing Systems and Biogas Boiler to Brewery Factory	Chiller and Heat Recovery System		
	0155kW Solar PV for School*		
Camboula: 5 projects	<u>○445kW Solar PV for Commercial Facilities I *</u> Chile:2 projects		
Solar PV & Centrifugal Chiller Onverters for Distribution Pumps	O.4MW Solar PV for Supermarket     O1MW Rooftop Solar PV		
Battambang Wastewater Treatment Project	O1MW Solar PV for Supermarket O2MW Solar PV and 4MWh Storage Battery		
Maldives:2 projects	Indonesia: 31 projects		
<u>O186kW Solar Power on School Rooftop*</u> ■Smart Micro-Grid System	<u>Centrifugal Chiller at Textile Factory*</u> <u>Centrifugarente to Cold Chain Inductory*</u> <u>Centrifugarente to Cold Chain Inductory*</u> <u>Centrifugarente to Cold Chain Inductory*</u>		
Madel Dreiest in EV 2012 (7 presidents in 2 countries)	Centrigerants to Cold Chain Industry** Counter Bundle-type Heat Pump* Contributed Childre at Taytile Sectory 2* Contributed Childre at Taytile Sectory 2* Contributed Childre at Control of the Control o		
<ul> <li>Model Project in FY 2013 (7 projects in 3 countries)</li> <li>Model Project in EV 2014 (12 projects in 5 countries)</li> </ul>	Softwidger Childer at Texture Factory 2: Softwidger Burners     Softwidger Burners     Softwidger Burners		
■ ADB Project in FY 2014 (1 project in 1 country)	Ocentrifugal Chiller at Textile Factory 3*		
<ul> <li>Model Project in FY 2015 (31 projects in 9 countries)</li> </ul>	OUpgrading to Air-saving Loom* OCentrifugal Chiller in Shopping Mall*		
<ul> <li>Model Project in FY 2016 (35 projects in 9 countries)</li> </ul>	<u>Smart LED Street Lighting System</u> <u>Once-through Boiler System in Film Factory</u>		
• REDD+ Model Project (2 projects in 2 countries)	OGas Co-generation System* OOnce-through Boiler in Golf Ball Factory		
O Model Project in FY 2017 (19 projects in 7 countries)  ADB Project in FY 2017 (1 project in 1 countries)	ULOMWY SOLAR PV IN JAKADARING SPORT LITY*  OLOOMS in Weaving Mill OLED Lighting to Salas Stores		
■ ADD MUJELLIII FT 2017 (1 project IN 1 country) ∩ Model Project in EV2018 (24 projects in 11 countries)	Control try to the second		
ADB Project in FY 2018 (2 projects in 2 country)	Absorption Chiller OldWW Hydro Power Plant		
▲ F-gas Project in FY 2018 (2 projects in 2 country)	OHigh Efficiency Autoclave OCNG-Diesel Hybrid Public Bus ORehabilitation of Hydro Power Plant		
O Model Project in FY 2019 (11 projects in 5 countries)	O12MW Biomass Power Plant OInjection Molding Machine		
Other 1 project in Malaysia	Underlined projects have started operation (01 projects)		
Total 147 projects	Projects with * have been registered as JCM projects (42 projects)		

### Technologies Transferred through JCM by MOEJ(FY2013-2019)

- Total of 147 JCM Projects being developed in 17 partner countries
- 48% are energy efficiency and 43% are renewable energy
- Effective use of Energy, Transport, Waste to energy, F-gas Recovery and Destruction and REDD+ project shares 9%



## JCM Financing: JCM Model Projects by MOE



### International consortiums (including Japanese entities)



#### Scope of Financing

Facilities, equipment, vehicles which reduce CO<sub>2</sub> 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 3 years.

# JCM Financing: JCM F-gas Recovery and Destruction Model Project



#### Scope of Financing

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

#### **Eligible Projects**

- •After the adoption of financing, start implementation of recovery/destruction within 3 years
- •Aim for the registration as JCM project and issuance credits

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

#### **Budget for FY2019**

JPY 1 billion (approx. USD 10 million) (1 USD = 100 JPY)

#### Scheme

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

#### Purpose

To develop ADB projects with sustainable and low-carbon transition perspective by introducing advanced low-carbon technologies as well as to acquire JCM credits



# Thank you

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