## The Recent Development of the Joint Crediting Mechanism and Views on Article 6.2

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### The Joint Crediting Mechanism

Facilitating diffusion of leading low carbon technologies through contributions from Japan and <u>evaluating realized GHG emission reductions or removals in a</u> <u>quantitative manner to use them for achieving Japan's emission reduction target</u>.
Japan will address the high cost barrier of introducing advanced low-carbon technologies in developing countries through the JCM (GoJ implements several supporting schemes)



Progress of the JCM in each partner country as of Oct 14th 2016						
Partner countries	Start from	No. of JC	No. of registered projects	No. of approved methodologies	Pipeline (JCM Financing Programme & Demonstration Projects in FY 2013-2016)	
Mongolia	Jan 2013	4	2	4	5	
Bangladesh	Mar 2013	3		1	6	
Ethiopia	May 2013	2		1	2	
Kenya	Jun 2013	2		1	4	
Maldives	Jun 2013	2		1	2	
Viet Nam	Jul 2013	4	4	5	19	
Lao PDR	Aug 2013	2		1	2	
Indonesia	Aug 2013	5	6	10	27	
Costa Rica	Dec 2013	1			2	
Palau	Apr 2014	4	3	1	3	
Cambodia	Apr 2014	2		1	4	
Mexico	Jul 2014	1			1	
Saudi Arabia	May 2015	1			1	
Chile	May 2015	1				
Myanmar	Sep 2015	1			3	
Thailand	Nov 2015	1			16	
Total	16	36	15	27	97	

### Approved JCM methodologies

### 27 approved methodologies (as of 14 October 2016)

Partner country	No.
Indonesia	10
Viet Nam	5
Mongolia	3
Thailand	2
Palau	1
Maldives	1
Kenya	1
Bangladesh	1
Cambodia	1
Ethiopia	1
Lao PDR	1
11 countries	27

<u>Countries</u>



### JCM Financing programme by MOEJ (FY2013~2016) as of July 15, 2016



### JCM Demonstration Projects by NEDO in FY2016

#### Mongolia:

• High efficiency and low loss power transmission and distribution system (Hitachi) <u>\*since FY2013</u>

Reduction of transmission loss by introduction of LL-ACSR/SA (Low Electrical Power Loss Aluminum Conductors, Aluminum-Clad Steel Reinforced).

#### Kenya, Ethiopia:

• Rural Electrification Project for Communities by Micro Hydro Power in Ethiopia and Kenya (NTT Data Institute of Management consulting, Inc.) <u>\*since FY2012</u>

Introduction of "micro hydro power systems" which can generate electricity at ultra low head in off grid community.

Ximplemented by UNIDO (covering Kenya and Ethiopia)

#### Lao PDR:

#### • Lao PDR Energy efficient date center(LEED) (Toyota Tsusho Corporation, Internet Initiative Japan)

#### **X**since 2014

Utilizing high energy efficient container-type data centers, related technologies will be demonstrated under Lao PDR environment, such as unstable power supply, hot and humid atmosphere etc.

> Total: <u>12 projects</u> (6 countries) Underlined Project in Vietnam is registered as a JCM project.

#### Vietnam:

- Energy saving by inverter air conditioner optimum operation at National Hospital (Mitsubishi Electric) <u>%since FY2013</u>
- Installing inverter room air conditioners (RACs) and Energy Management System (EMS) to optimize operation of multiple inverter RACs in national hospitals.
- Energy saving by BEMS optimum operation at Hotel (Hibiya Engineering) <u>\*since FY2013</u>

Integrating highly-proven energy saving technologies for hot water supply and lighting combined with energy management system to optimize these technologies.

- Energy saving paper making process(Marubeni) **%**since FY2014 Introduction of high efficient and environment friendly machines to alter old papermaking process in paper production line.
- Energy Saving and Work Efficiency Improvement Project by special LED Equipment with new technology, COB(Stanley Electric) **Since** FY2015 Introducing the special LED lighting equipment with new technology, COB module as a source of light into the fishing vessels currently

equipped with the metal halide light and incandescent lamps.



#### Indonesia:

• Energy saving by optimum operation at Oil factory (Yokogawa Electric) <u>Since FY2013</u>

Multivariable model predictive control (MMPC), a kind of advanced optimization control at oil refinery plants, is added on existing DCS (Distributed Control System) and realizes the automatic operation control for the optimum production. • Utility facility operation optimization technology into Oil factory (Yokogawa)

#### **%since FY2013**

The project achieves energy conservation in boilers, through operation optimization by applying Utility Facility Operation Optimization Technology.

• Thin-Film solar power plant (Sharp) % since FY2013

Installing Thin-film PV and verifying its GHG emission reduction effect by the remote auto-monitoring system which complement the monitoring lacking data, with the minimum equipment composition.

• The low carbonization of mobile communication's BTS (Base Transceiver Station) by the Introduction of "TRIBRID system" (KDDI) <u>Since FY2015</u> Energy management system for BTS "TRIBRID system" will be installed at 22 locations in Off-grid and Poor-grid area.

## The First Issuance of JCM Credits on May 13<sup>th</sup>, 2016

The JCM credits were issued for the first time in May 13<sup>th</sup>, under the JCM between Indonesia and Japan

Energy Efficient Refrigerants to Cold Chain Industry MAYEKAWA MFG / PT Adib Global Food Supplier



## The Second Issuance of JCM Credits on Sep. 30<sup>th</sup> 2016

# The JCM credits were issued for the second time, under the JCM between Mongolia and Japan

Centralization of heat supply system by installation of high-efficiency Heat Only Boilers in Bornuur soum Project (ANU-SERVICE CO.,LTD./SUURI-KEIKAKU CO.,LTD.)



Installation of high-efficiency Heat Only Boilers in 118th School of Ulaanbaatar City Project (ANU-SERVICE CO., LTD./SUURI-KEIKAKU CO., LTD.)







Issued credit amount



for 9 months

## Article on Market Mechanisms in the PA (Article 6)

### cooperative approaches

- 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 (CMA).
- 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.
- 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 CMA<sup>9</sup>

### 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, <u>accumulated emission</u> 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-CQ2