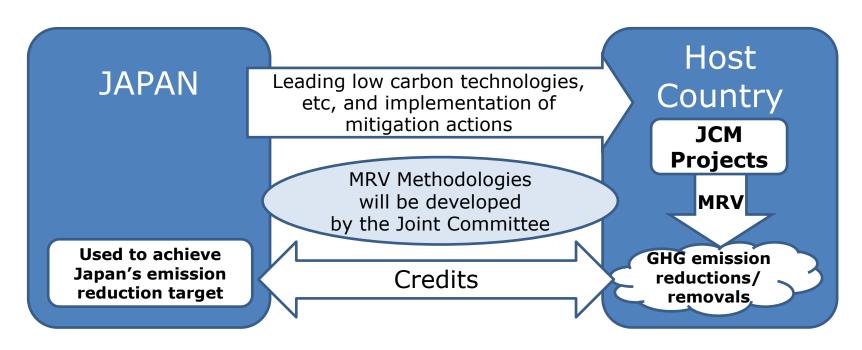
# Recent Development of The Joint Crediting Mechanism (JCM)

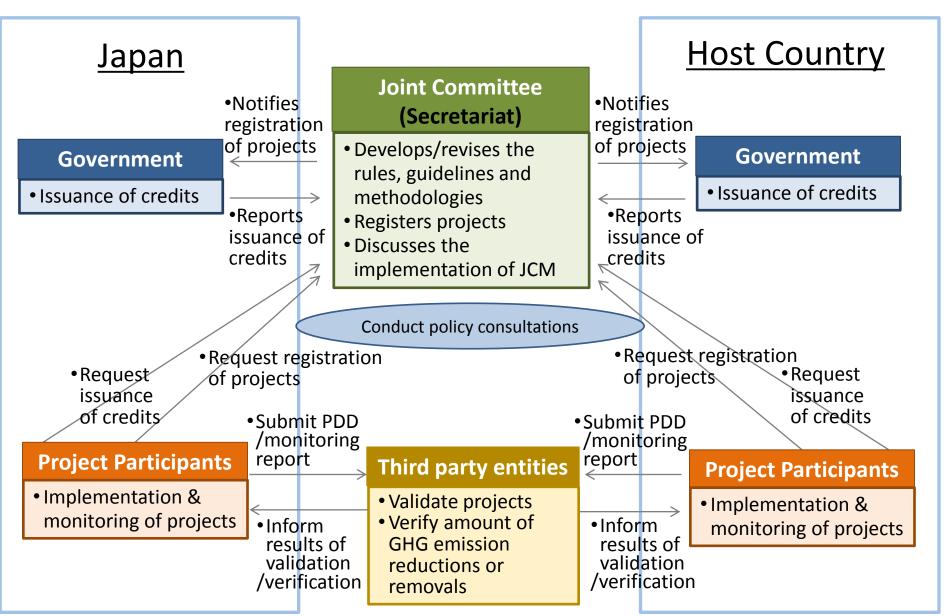
22th October 2013 Government of Japan

# Basic Concept of the JCM

- Facilitating diffusion of leading low carbon technologies, products, systems, services, and infrastructure as well as implementation of mitigation actions, and contributing to sustainable development of developing countries.
- Appropriately evaluating contributions to GHG emission reductions or removals from Japan in a quantitative manner, by applying measurement, reporting and verification (MRV) methodologies, and use them to achieve Japan's emission reduction target.
- Contributing to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reductions or removals, complementing the CDM.



## Scheme of the JCM



# Approaches of the JCM

- The JCM should be designed and implemented, taking into account the followings:
  - (1) Ensuring the robust methodologies, transparency and the environmental integrity;
  - (2) Maintaining simplicity and practicality based on the rules and guidelines;
  - (3) Promoting concrete actions for global GHG emission reductions or removals;
  - (4) Preventing uses of any mitigation projects registered under the JCM for the purpose of any other international climate mitigation mechanisms to avoid double counting on GHG emission reductions or removals.

## Features of the JCM

- (1) The JCM starts its operation as the non-tradable credit type mechanism.
- (2) Both Governments continue consultation for the transition to the tradable credit type mechanism and reach a conclusion at the earliest possible timing, taking account of implementation of the JCM.
- (3) The JCM aims for concrete contributions to assisting adaptation efforts of developing countries after the JCM is converted to the tradable credit type mechanism.
- (4) The JCM covers the period until a possible coming into effect of a new international framework under the UNFCCC.

# Project Cycle of the JCM and the CDM

JCM <Main actors at each process> Submission of Project Participant / Each Government **Proposed** Joint Committee Methodology **Approval of** Joint Committee **Proposed** Methodology **Development Project Participant** of PDD Third Party Entities **Validation** Registration Joint Committee **Monitoring Project Participant** Verification Third Party Entities Joint Committee decides the amount Issuance Each Government issues the credit of credits

**Project Participant** 

CDM

**CDM Executive Board** 

Project Participant

Designated Operational Entities (DOEs)

**CDM Executive Board** 

**Project Participant** 

DOEs

CDM Executive Board

by the same TPE

conducted conducted

be be

simultaneously

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# Roadmap for the JCM

JFY2011 JFY2012 **JFY2013 Governmental Consultation** Signing JCM Operation Establishment of the JC **Bilateral** Development of rules and guidelines **Document Feasibility Studies** Explore potential JCM projects/activities
Study feasibilities
Develop MRV methodologies MRV Demonstration Projects

Apply proposed MRV methodologies to projects in operation Improve MRV methodologies by using them Finalize MRV methodologies JCM Demonstration Projects
Further improve the institutional design of the JCM, while starting JCM operation **Capacity Building UNFCCC** negotiations on Framework for Various Approaches

/

## Countries with which Japan has signed on bilateral documents

➤ Japan has held consultations for the JCM with developing countries since 2011 and signed the bilateral document for the JCM with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR and Indonesia.



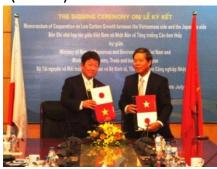
Mongolia
On January 8, 2013
(Ulaanbaatar)



Maldives
On June 29, 2013
(Okinawa)



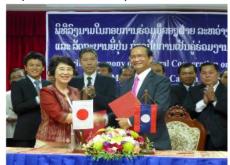
Bangladesh On March 19, 2013 (Dhaka)



<u>Viet Nam</u> On July 2, 2013 (Hanoi)



Ethiopia
On May 27, 2013
(Addis Ababa)



Lao PDR
On August 7, 2013
(Vientiane)



<u>Kenya</u> On June 12,2013 (Nairobi)



Indonesia
On August 26, 2013
(Jakarta)

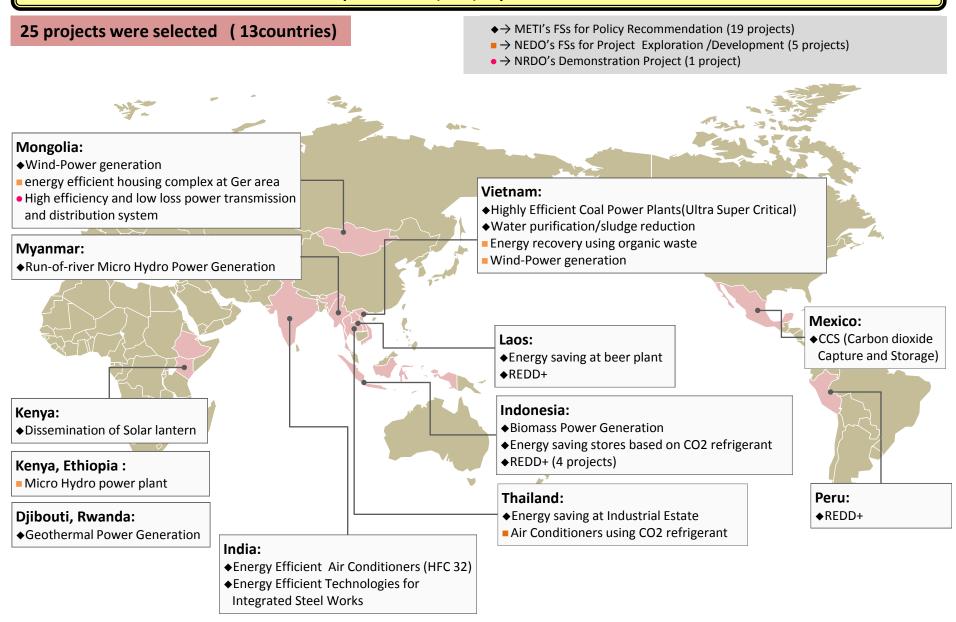
➤ Japan held the 1st Joint Committee with Mongolia, Bangladesh, Ethiopia, Kenya, Viet Nam and Indonesia respectively.

# Necessary documents for the JCM

(Subject to further consideration and discussion with host countries)

			Rules and Guidelines
Overall		<b>✓</b>	Rules of Implementation
		<b>✓</b>	Project Cycle Procedure
		<b>✓</b>	Glossary of Terms
		<b>✓</b>	Guidelines for Designation as a Third-Party
			Entity (TPE guidelines)
Joint Committee		<b>✓</b>	Rules of Procedures for the Joint
			Committee (JC rules)
Methodology		<b>✓</b>	Guidelines for Developing Proposed
			Methodology (methodology guidelines)
Project Procedures	Developing	<b>√</b> (	Guidelines for Developing Project Design
	a PDD		Document and Monitoring Report (PDD
	Monitoring		and monitoring guidelines)
	Validation	<b>√</b>	Guidelines for Validation and Verification
	Verification		(VV guidelines)

### JCM Feasibility Studies (FSs) by METI & NEDO in FY2013



# JCM Model Projects in 2013 by MOEJ

#### Mongolia:

 Upgrading and Installation of Centralized Control System of High-Efficiency Heat Only Boiler (HOB)

The high-efficiency Heat Only Boilers (HOBs) will replace outdated low-efficiency HOBs, to supply heated water for winter indoor heating. The project will also introduce centralized control system for the integrated heat supply in collective buildings.

#### Bangladesh:

 Brick Production based on Non-Firing Solidification Technology

In place of the existing brick production with the firing process with the combustion of coal, the new brick production with the non-firing solidification technology will be introduced.

#### Cambodia:

◆ Small-scale Biomass Power Generation by Using Stirling Engines
The introduction of small-scale biomass power generation
systems with stirling engines will replace diesel-based power
generation at rice mills. The stirling engine, external-combustion
engine, is suitable for the utilisation of biomass such as rice husk.

#### Viet Nam:

 Integrated Energy Efficiency Improvement at Beer Factory

A set of high performance equipment for energy efficiency improvement and renewable energy generation will be introduced in beer factories. Before the installation, the potential of energy saving and possible high potential points in the beer production process will be identified by using the energy structure analysis simulation technology.

#### Indonesia:

◆ Energy Saving for Air-Conditioning and Process Cooling at Textile Factory

At the textile industry where air conditioning is necessary for the product quality control, the high performance refrigerating machine with efficient compressor and economizer cycle will be introduced.

Energy Savings at Convenience Stores

The latest high-efficiency chillers with natural refrigerant (CO<sub>2</sub> refrigerant), inverter-controlled air-conditioners, and LED lighting will be introduced in convenience stores. Rooftop photovoltaic power generation systems will also be introduced.

Energy Efficient Refrigerants to Cold Chain Industry

The advanced energy efficient non-fluorocarbon cooling system using NH<sup>3</sup> and CO<sup>2</sup> will be introduced in the food industry and logistics industry. A screw compressor and an IPM (interior permanent magnet synchronous) motor are adopted and operated integrally, to achieve high efficient operation of the cooling facility.

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## Overview of JCM Planning/Demonstration/Feasibility Studies in 2013 by MOEJ

## Mongolia: ◆10MW-Scale Solar Power Plant and Rooftop Solar Power **System** ■ Centralization of Heat Supply System by Installation of High **Efficiency Heat only Boiler (HOB)** △10MW-Scale Solar Power Generation for Stable Power Supply **△Energy Conservation at Cement Plant** △Improvement of Thermal Installation and Water Cleaning/Air **Purge at Power Plants** Bangladesh: △High-Efficiency Rice Husk Based Cogeneration △Solar Power Generation with Long-Life **Storage Battery in Non-Electrified** Regions Kenya: **△Expansion of Geothermal Project** Myanmar: △Geothermal Binary Power Generation Myanmar (and Indonesia): △Solar–Diesel Hybrid Power Generation Sri Lanka:

△Sustainable Biomass-Based Power Generation

- -- JCM Project Planning Study (PS)
- -- JCM Demonstration Study (DS)
- △-- JCM Feasibility Study (FS)

#### Lao PDR:

Promotion of Use of Electric Vehicles (EVs)

#### Thailand:

- Dissemination of High-Efficiency Inverter Air Conditioners
- △Heat Recovery to Generate Both Cooling and Heating Energy

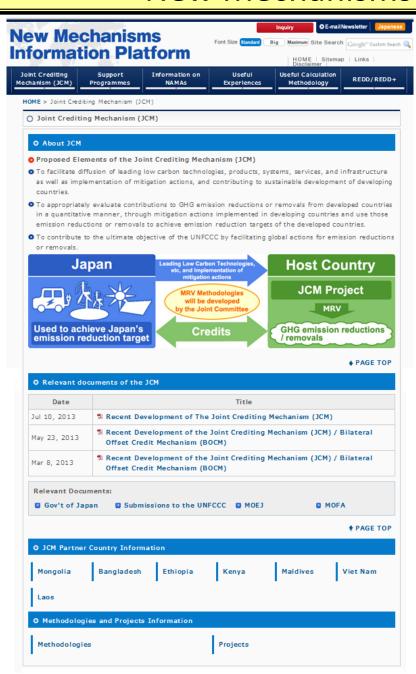
#### Viet Nam:

- **♦** Anaerobic Digestion of Organic Waste for Cogeneration at Market
- ◆Integrated Energy Efficiency Improvement at Beer Factories
- Energy Efficiency Improvement of Glass Furnace
- △Promotion of Public Transport Use by Park-&-Ride System
- △Energy Saving Glass Windows for Buildings
- △REDD+ with Livelihood Development and Biomass-based Power Generation

#### Indonesia:

- Energy Saving by High-Efficiency Centrifugal Chiller
- ◆ Power Generation by Waste Heat Recovery in Cement Industry
- **◆**Regenerative Burners for Aluminum Melting Furnaces
- △Anaerobic Treatment for Wastewater from Rubber Plants
- △Solar Power System at Off-Grid Cell Towers
- △Improvement of REDD+ Implementation Using IC Technology
- Indonesia (and Myanmar):
- △Solar–Diesel Hybrid Power Generation

## New Mechanisms Information Platform



- New Mechanisms Information
   Platform website was established to provide the latest movements and information on the JCM.
- Help Desk also accepts and answers inquiries regarding the JCM.
- Another dedicated website for the JCM will be launched. In the meantime, all the documents regarding the JCM development (e.g. outcome of the JC, decisions, methodologies, and projects) are uploaded on this website.
- URL: http://www.mmechanisms.org/e/initiat ives/index.html