# JCM Financing Programme and Study Programme

UNFCCC COP20 & CMP10 Side Event in Lima, Peru

"Actions for low carbon development in developing countries through the Joint Crediting Mechanism"

15:00 – 16:30, Monday 8 December, 2014. Room Maranga

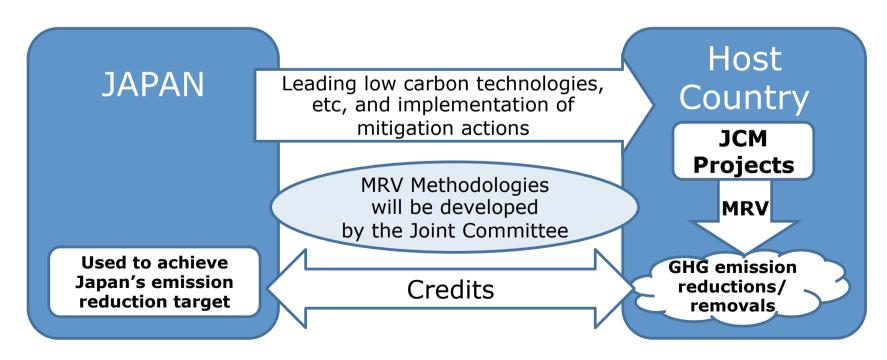
## Yuji Kimura

Executive Director, Tokyo Office
Global Environment Centre Foundation (GEC)



## 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 from Japan to GHG emission reductions or removals 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.



### 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, Indonesia, Costa Rica, Palau, Cambodia and Mexico.



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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)

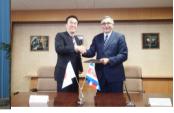
Viet Nam Jul. 2, 2013 (Hanoi)



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)

➤ Japan held Joint Committee meetings with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia and Palau respectively.



## **Financing Programme and Study Programme** for JCM Project (FY 2014)

Project Name	JCM Study Programme	JCM Financing Programme
Project Details	The following studies are carried out to assess the feasibility of implementing projects in developing countries to reduce CO <sub>2</sub> emissions using advanced technologies.  I. JCM Project Planning Studies (PS)  II. JCM Feasibility Studies (FS)  III. REDD+ Demonstration Studies	Up to 50% of initial investment costs is offered to international consortiums that carry out projects to introduce equipment or facilities in order to reduce CO <sub>2</sub> emissions from energy sources in both current and future JCM partner countries.

Project Seeds Finding

Feasibility Study

JCM Model Project

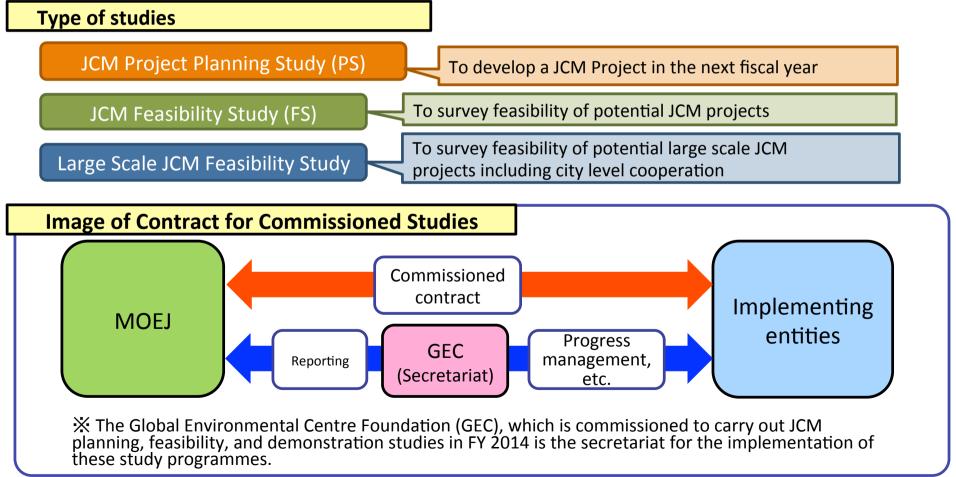






#### **Objective**

Elaborating investment plan on JCM projects, developing MRV methodologies and investigating feasibility on potential JCM projects.



### Overview of JCM Planning/Feasibility/REDD+ Studies in 2014 by MOEJ

#### Mongolia:

- ◆10MW-scale Solar Power Generation for Stable Power Supply
- ◆Efficiency Improvement of Combined Heat and Power Plant by Thermal Insulation

#### Bangladesh:

**♦**Waste Heat Recovery and Utilization in Textile and Garment Factories

#### Sri Lanka:

**♦10MW-scale Biomass** based Power Generation

#### Maldives:

◆Installation of Solar PV and Storage Battery with Energy Management System (EMS)

#### Ethiopia:

◆20MW-scale
Geothermal Power
Generation

#### Kenya:

**◆Energy Saving by Micro Flush Toilet** 

#### Myanmar:

- ◆Introduction of Waste to Energy Plant in Yangon City
- ◆Environment Improvement through Utilization of Biogas from POME Fermentation System

- ◆-- JCM Project Planning Study (PS)
- **◆-- JCM Feasibility Study (FS)**
- ◇-- REDD+ Demonstration Study (REDD+)

#### Lao PDR:

**♦**Biomass Utilization in Cement Kiln **♦**REDD+ in Luang Prabang Province

#### Cambodia:

- ◆Energy Saving by Efficiency Improvement of Water Treatment Plants of Phnom Penh Water Supply Authority
- ♦ REDD+ in Prey Long Area and Seima Area

#### Palau:

**♦**Solar Power Generation System

#### Costa Rica:

**♦**Promotion of Electric Vehicle for Taxi Usage

#### Vietnam:

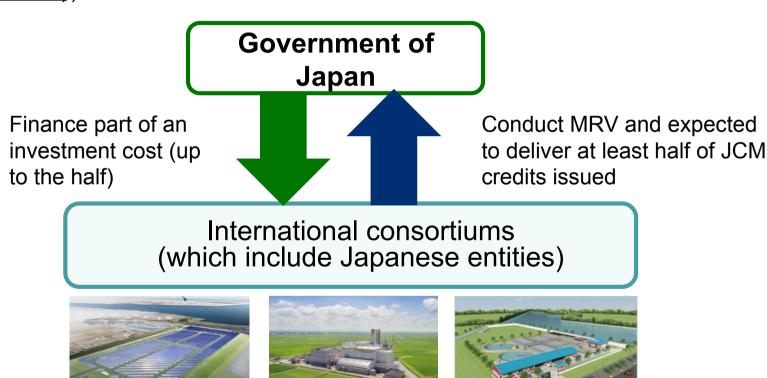
- ◆Introduction of Energy-from-Waste Project in Ho Chi Minh City
- **◆**Energy Saving for Irrigation Facility by Introducing Highericiency Pumps
- **♦40MW-scale Hydro Power Generation in Lao Cai Province**
- ◆Recovery and Utilization of Biogas from Mixed-treatment of Waste and Septage
- ◆Introduction of Co-generation System Using Bagasse in Sugar Factory

#### Indonesia:

- ♦Installation of Combined Heat and Power System in Hotel
- **♦** Waste Heat Recovery and Electricity Generation in Flat Glass Production Plant
- ♦ Introduction of High Efficient Old Corrugated Cartons Process at Paper Factory
- **♦3.7MW Run-of-river Hydro Power Generation in Sulawesi**
- **♦** Improvement of REDD+ Implementation Using IC Technology

## Financing Programme for JCM Model Projects by MOEJ

<u>The budget for FY 2013:</u> 1.2 billion JPY (approx. <u>USD13million</u>) per year <u>The budget for FY 2014:</u> 1.2 billion JPY (approx. <u>USD12million</u>) per year by FY2016 (total <u>3.6 billion JPY</u>))



- > 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.

## JCM Model Projects in 2013 and 2014 by MOEJ

**Viet Nam:** 

**Utilization at Market** 

#### Mongolia:

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

#### Palau:

Small-Scale Solar Power Plant for Commercial Facilities in Island States Project

◆Anaerobic Digestion of Organic Waste for Biogas

**◆**Eco-driving by Utilizing Digital Tachograph Systems

#### Indonesia:

- Energy Saving for Air-Conditioning and Process Cooling at Textile Factory (in Batang city)
- Energy Savings at Convenience Stores
- Energy Efficient Refrigerants to Cold Chain Industry
- Energy Saving by Double Bundle-Type Heat Pump at Beverage Plant
- Energy Saving for Air-Conditioning and Process Cooling at Textile Factory (in West Java province & Banteng province)
- **♦**Power Generation by Waste Heat Recovery in Cement Industry
- **♦Palm Waste Biomass Power Generation Project**
- ◆Solar Power Hybrid System Installation to Existing Base Transceiver Stations in Off-grid Area
- ◆Energy Saving through Introduction of Regenerative Burners to the Aluminum Holding Furnace of the Automotive Components Manufacturer
- ◆Energy Saving for Textile Factory Facility Cooling by High Efficiency Centrifugal Chiller

#### Cambodia:

- Small-scale Biomass Power Generation by Using Stirling Engines
  - JFY 2013 (4 countries, 8 projects)
  - **♦JFY 2014 (2 countries, 7 projects)**

## Approved Methodologies and Registered Project under the JCM (as of Nov. 17 2014)

Country	ID	Title of approved methodologies	Note
Mongolia	MN_AM001	Installation of energy-saving transmission lines in the Mongolian Grid	
Indonesia	ID_AM001	Power Generation by Waste Heat Recovery in Cement Industry	*
	ID_AM002	Energy Saving by Introduction of High Efficiency Centrifugal Chiller	*
	ID_AM003	Installation of Energy-efficient Refrigerators Using Natural Refrigerant at Food Industry Cold Storage and Frozen Food Processing Plant	*
	ID_AM004	Installation of Inverter-Type Air Conditioning System for Cooling for Grocery Store	*

Country	ID	Title of registered project	Note
Indonesia	ID001	Energy Saving for Air-Conditioning and Process Cooling by Introducing High-efficiency Centrifugal Chiller	*

※ Developed by the Financing Programme and Study Programme under MOEJ



## Registered project



## **Energy Saving for Air-conditioning and Process Cooling at Textile Factory (Host country: Indonesia)**

- 1st registered JCM project (31 Oct. 2014)
- Expected GHG emission reduction: 117 tCO<sub>2</sub>/year





### Other projects to be registered







Indonesia

Mongolia

Palau

## Reference:

- Outlines of each JCM Model Project and feasibility study are summarized in the booklet and GEC website on JCM <a href="http://gec.jp/jcm/">http://gec.jp/jcm/</a>>.
- > For further information, please visit GEC and OECC joint exhibit booth.







GEC website on JCM

## Thank you!

## Global Environment Centre Foundation (GEC)

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