



“Transfer of Low Carbon Technologies through  
the Joint Crediting Mechanism (JCM) ”

13 November 2013, Warsaw

## **OECC's activities supporting technology transfer**

**OECC, Researcher  
Yushin Nakao**

# Contents

**1. OECC activities supporting technology transfer**

**2. Successful cases in technology transfer through the JCM**



# **1. OECC activities supporting technology transfer**

# 1-1. About OECC

## Corporate profile



**Overseas Environmental Cooperation  
Center, Japan (OECC)**

Non-governmental and non-profit  
organization, conducting;

- Research on Environmental Issues in the World
- Transfer of Environmental Management/Technologies based on Japan's Experience
- Supporting Mitigation and Adaptation Planning on Climate Change

## Focus activities

- To build human and institutional capacities for NAMAs development
- To support JCM project formulation

## Partner countries

Cambodia, Lao PDR, Mongolia, Vietnam



# 1-2. OECC activities supporting technology transfer

## Technology owners



Technology Transfer

## Local enterprises and communities



### 1. Sourcing

Listing appropriate low-carbon technologies



### 2. Connecting

Hosting matchmaking workshops



### 3. Sustaining

Providing training opportunities



Source: Promaterial Inc. and OECC



## **2. Successful cases in technology transfer through the JCM**

## 2-1. JCM model projects and studies for FY 2013

### Mongolia:

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

### Lao PDR:

- ◆ Promotion of use of electric vehicles (EVs)

### Cambodia:

- ◆ **Small-scale Biomass Power Generation by Using Stirling Engines**

- ◆ -- JCM Model Project
- ◆ -- JCM Project Planning Study (PS)
- ◆ -- JCM Demonstration Study (DS)
- ◇ -- JCM Feasibility Study (FS)

### JCM model projects and studies in Cambodia, Lao PDR, Mongolia, Vietnam



### Viet Nam

- ◆ ◆ Integrated Energy Efficiency Improvement at Beer Factories
- ◆ Anaerobic digestion of organic waste for cogeneration at market
- ◆ 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

## 2-2. Case of technology transfer through the JCM

### Case 1: Improvement of thermal installation and water cleaning/air purge at power plants in Mongolia

Technology owners  
(Water & energy saving device)



Local enterprises  
(Combined Heat & Power Plant)



#### Technology specification

- Reducing water and energy consumption for cleaning condensers in half
- Requiring no skills
- Improving work efficiency

#### Technology needs

- The CHP plant cleans condensers by using groundwater pumped up and transmitted over 20 km, which spends much energy

## 2-2. Case of technology transfer through the JCM

### Case 1: Improvement of thermal installation and water cleaning/air purge at power plants in Mongolia

#### -Successful case in sourcing technologies-

- The technology owner, in cooperation with the OECC, conducted a study on appropriate technologies in Mongolia
- The study identified that the technology could contribute to energy and water saving, and GHG reduction in CHP plants



Source: OECC

## 2-2. Case of technology transfer through the JCM

### Case 2: Small-scale biomass power generation by using stirling engine in Cambodia

#### Technology owners (Stirling engine)



#### Local enterprises (Rice mills)



#### Technology Specification

- Easily installing, operating and maintaining
- Reducing fossil fuel consumption and GHG emission

#### Technology needs

- There are 30,000 rice mills, mostly using diesel
- Rice mills can use rice husks as fuel by installing biomass power generation systems

## 2-2. Case of technology transfer through the JCM

### Case 2: Small-scale biomass power generation by using stirling engine in Cambodia

#### -Successful case in connecting technologies-

- The technology owner, in cooperation with the OECC, conducted a matchmaking workshop in Cambodia
- The workshop led to the partnership between the technology owner and local rice mills/engineers



Source: Promaterial Inc. and OECC

## 2-3. Toward sustaining the technology use



**Supporting consideration of appropriate technologies** in the NAMA development and implementation



**Providing training opportunities** for building capacities for selection, installation, operation and maintenance



**Promoting city-to-city cooperation** and knowledge sharing between cities on the application of policies/regulations

## 2-4. Summary

- **OECC is supporting low-carbon technology transfer at the 3 stages: sourcing, connecting and sustaining**
- **Mutual understanding between technology owners and local enterprises is a key to success in the Cambodia and Mongolia cases**
- **Policies, regulations and human/institutional capacities should be further developed for a sustainable use of technologies**



# Thank you for listening!

Feel free to make comments and questions.

[nakao@oecc.or.jp](mailto:nakao@oecc.or.jp)