



Projects finding cooperation for the JCM

Makoto Kato
Principal Researcher
Overseas Environmental Cooperation
Center, Japan (OECC)

Transfer of low carbon technologies and Project seeds finding for the JCM under the MOEJ Programme



- Study on applying low carbon technologies in developing countries
(In-country need assessment, proposing improved specification, quantification of GHG emission reduction potentials and results, elaboration of MRV methodologies etc.)
- Diagnosis by low carbon technology experts for assessing potentials
(For example; Improvement of Combined Heat and Power Plant (CHP) for EE, GHG and air pollution reduction)
- Environmental technology mission, match-making of private-private business, and workshop for mutual learning *(With a view to developing JCM projects)*
- *In JFY2014, Cambodia, Lao PDR, Mongolia, Bangladesh, and Vietnam are included.*



Photos by OECC

Overview of JCM Project Finding Cooperation Programme in Cambodia



Objective To study appropriate Japanese low carbon technologies and search local potential project owners for the JCM project to respond Cambodian needs

JCM Projects in the pipeline

Solar power at SEZ



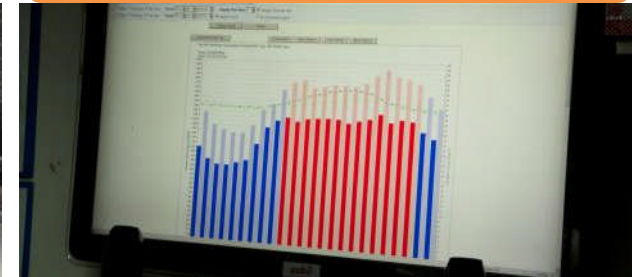
Development of 1 MW solar power generation systems at Special Economic Zone (SEZ) in Poi Pet

High-efficient rice milling



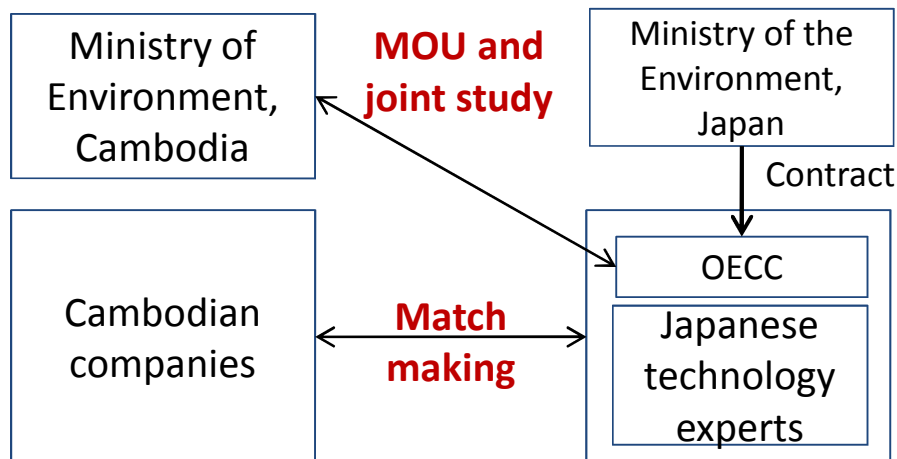
Installation of high-efficient and qualified rice polisher and whitener systems at rice mills in Batambang

Hotel energy management



Introduction of high-efficient facilities and energy management systems at 5 star hotels in Phnom Penh

Implementation organizations



Schedule

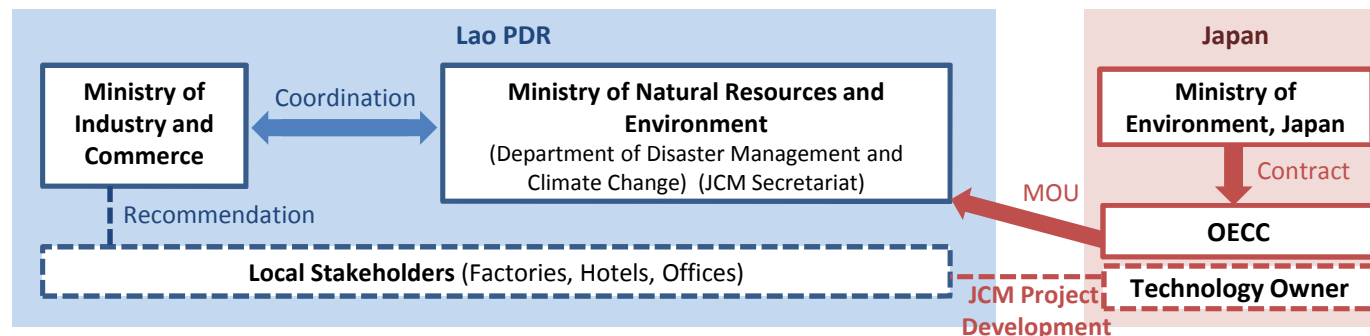
Year	2015	2016		
Month	Dec	Jan	Feb	Mar
Activity	Field survey and data collection, including energy audit		Business plan development and discussion	
			Study tour	Report results

JCM Projects Development /NAMAs Capacity Building Activity in the Lao PDR

JCM Projects Development

Outline: The Overseas Environmental Cooperation Center, Japan (OECC) is currently conducting the JCM projects development activity in order to promote concrete implementation of mitigation actions in the Lao PDR.

Implementation Structure:



List of Potential Projects (as of 27th Nov. 2014):

Counterpart	GHG Mitigation Method	Progress Situation
Lao Cement	Utilization of Rice Husk at Cement Plant	Feasibility Study is being conducted by Taiheiyo Engineering
Lao Beer	Energy efficiency/Heat recovery at beer factory	Implementation structure and financial scheme is under consideration
Lao Plaza Hotel	Improvement of Air-conditioning system at hotel	On-site energy audit to be conducted in December 2014
Lao Tobacco	Energy efficiency/Heat recovery at tobacco factory	On-site energy audit to be conducted in December 2014
Dao Heuang	Energy efficiency/Heat recovery at instant coffee factory	On-site energy audit to be conducted in December 2014
KPN Tapioca	Anaerobic digestion of organic waste for cogeneration at tapioca factory	On-site energy audit to be conducted in December 2014
Indochina Tapioca	Anaerobic digestion of organic waste for cogeneration at tapioca factory	On-site energy audit to be conducted in December 2014

Schedule:

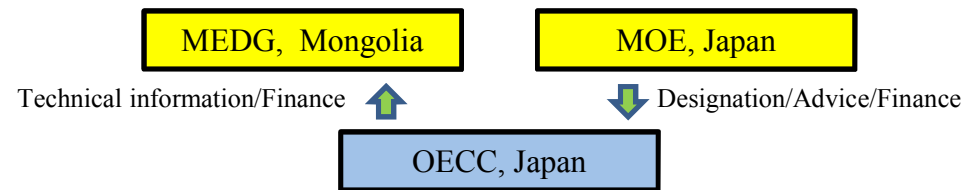
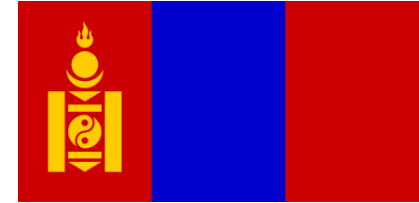
2014 Aug	Sep	Oct	Nov	Dec	2015 Jan	Feb	Mar
On-site survey (1)	On-site survey (2)	Technology research in Japan	Technology research in Japan	On-site survey (3)	Development of implementation structure/ business plan	On-site survey (4) Low Carbon Technology WS Study Tour in Japan	Submission of the report

NAMAs Capacity Building Activity

Outline: Capacity building activity for NAMAs development has been conducted since 2012 in the Lao PDR. The focus activity for FY 2014 is mitigation actions in the industry sector and quantification of its impacts in the MRV manner.

Schedule: The NAMAs Working Group meeting, which consists of the member of the Technical Working Group on Climate Change, is planned to be organized in December 2014 and February 2015, in order to share the knowledge and experience of Japanese energy efficiency and environmental regulation activities.

Mongolia - Japan JCM Projects Finding Cooperation



Mongolia NAMA WG

Local Experts

1. Studies on Potential JCM projects in the prioritized sector

This programme will study appropriate Japanese low carbon technologies and search local potential project owners based on the discussion that the Mongolia Working Group on NAMAs, which consists of related ministries and relevant institutes for focused sector.

2. Match making between local stakeholders and Japanese project partners

- (1) Demonstration workshop in Mongolia in which Japanese companies make a presentation on their cutting-edge low carbon technologies
- (2) Study tour in Japan in order to observe some JCM potential technology candidates (state of the art facilities) which are listed up based on Studies of potential JCM projects in the prioritized sector, such as energy production transmission,



EE in factory
(Heat Pump Technology)

EE in factory
(Heat Furnaces for Metal Production)

EE in factory
(food and Beverage production)

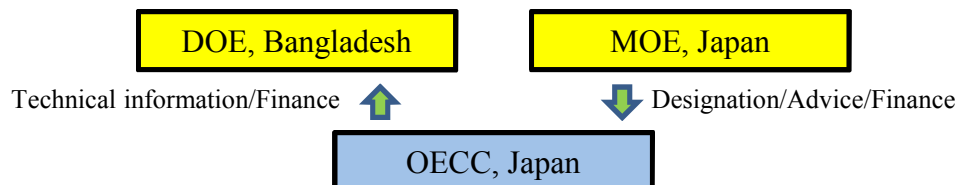
EE in Power Plant



Bangladesh - Japan JCM Projects Finding Cooperation



The Joint Crediting Mechanisms (JCM) Projects Finding Programme is conducted between the Department of Environment, the Ministry of Environment and Forests (DOE) and the Ministry of the Environment, Japan (MOEJ) through an implementing organization, Overseas Environmental Cooperation Center, Japan (OECC).



1. Studies on Potential JCM projects in the prioritized sector

This programme will study appropriate low carbon technologies and search local potential project owners for the JCM project in accordance with Bangladesh's needs (e.g., Technology Needs Assessment of Bangladesh). In order to make sure the project development, an in-depth study on financial scheme options, expected cost and financial requirements for the project will be conducted.

Power supply	Category	Technology	Scale	Availability
Power generation	Gas-based	Advanced combustion turbine	Large	Short term
		Natural gas combined cycle	Large	Already in use; up-scaling needed
		Advanced natural gas combined cycle	Large	Short to medium term
	Coal-based	Single Unit APC	Large	Short to medium term
		Double Unit APC	Large	Short to medium term
		Single unit IGCC	Large	Medium term
		Double unit IGCC	Large	Medium term
	Solar	Solar Home PV	Small	Already in use
Power use	Domestic Lighting	Linear fluorescent lamp (LF)	Large	Already in use
		Compact fluorescent lamp (CFL)	Large scale	Already in use

+ DOE needs →

Category	JCM potential menu
Power supply	Electricity generation by Circulating fluidized bed (CFB) with coal and other waste fuel (biomass)
	Cutting-edge solar generation system
	NAS battery for the electricity grid or facilities to smoothen fluctuation of the electricity and to reduce the black out.
Power use	LED with battery to stand the black out
	Additional equipment for car battery to be able to reduce the GHG emission from cars
	High spec super computer super computer

Technology Needs Assessment (Bangladesh 2012)

Bangladesh needs

JCM potential candidates (tentative)

2. Match making between local stakeholders and Japanese project partners

- (1) Demonstration workshop in Bangladesh in which Japanese companies make a presentation on their cutting-edge low carbon technologies
- (2) Study tour in Japan in order to observe some JCM potential technology candidates (state of the art facilities) which are listed up based on Studies of potential JCM projects in the prioritized sector.



Demonstration workshop



Study tour in Japan



Vietnam - Japan JCM Projects Finding Cooperation

The Joint Crediting Mechanisms (JCM) Projects Finding Programme is conducted between the Ministry of Environment and Natural Resources (MONRE/DHMCC) and the Ministry of the Environment, Japan (MOEJ) through an implementing organization, Institute for the IMHEN and the OECC.

Additional support to activities
under the Joint Committee

- ✓ Integrate JCM rules into domestic legal system
- ✓ Disseminate rules of procedure locally



MONRE/DHMCC

Technical information/Finance ↑

MOE, Japan

↓ Designation/Advice/Finance

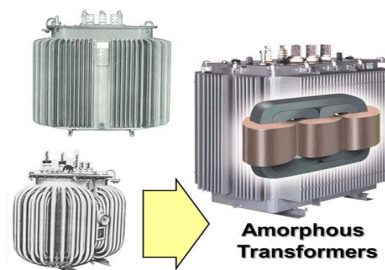
IMHEN, Vietnam

OECC, Japan

EE in Energy Distribution
(with standard improvement)

CH₄ emission reduction in
(Waste and Agricultural Sector)

EE in hotel industries



Thank you!

kato@oecc.or.jp

<http://www.mmechanisms.org/e/index.html>