Joint Crediting Mechanism (JCM)
Promotion Scheme

11 November 2015
Alexis R. Rocamora, Policy Researcher
Climate and Energy Area
Institute for Global Environmental Strategies(IGES)

Overview of the JCM Promotion Scheme

Feasibility Studies & Capacity Building

- JCM Feasibility Study (FS)
- JCM Project Planning Study (PS)
- Large Scale JCM Feasibility Study
- Consultations, workshops
- Training courses, study tours

Financial Support for Projects

- JCM Model Projects
- Collaborative Financing Programme
- ADB Trust Fund

Technical support

- JCM Methodology
- PDD for project registration
- Monitoring report for credit issuance
- Validation and verification by TPE

Capacity Building Programmes & Feasibility Studies

Capacity Building Programmes

Activities

Consultations, workshops, seminars, training courses and study tours for government officials, private sector, candidates for validation and verification entities




Scope

Facilitating understanding on the JCM rules and guidelines, enhancing capacities for implementing MRV

Feasibility Studies

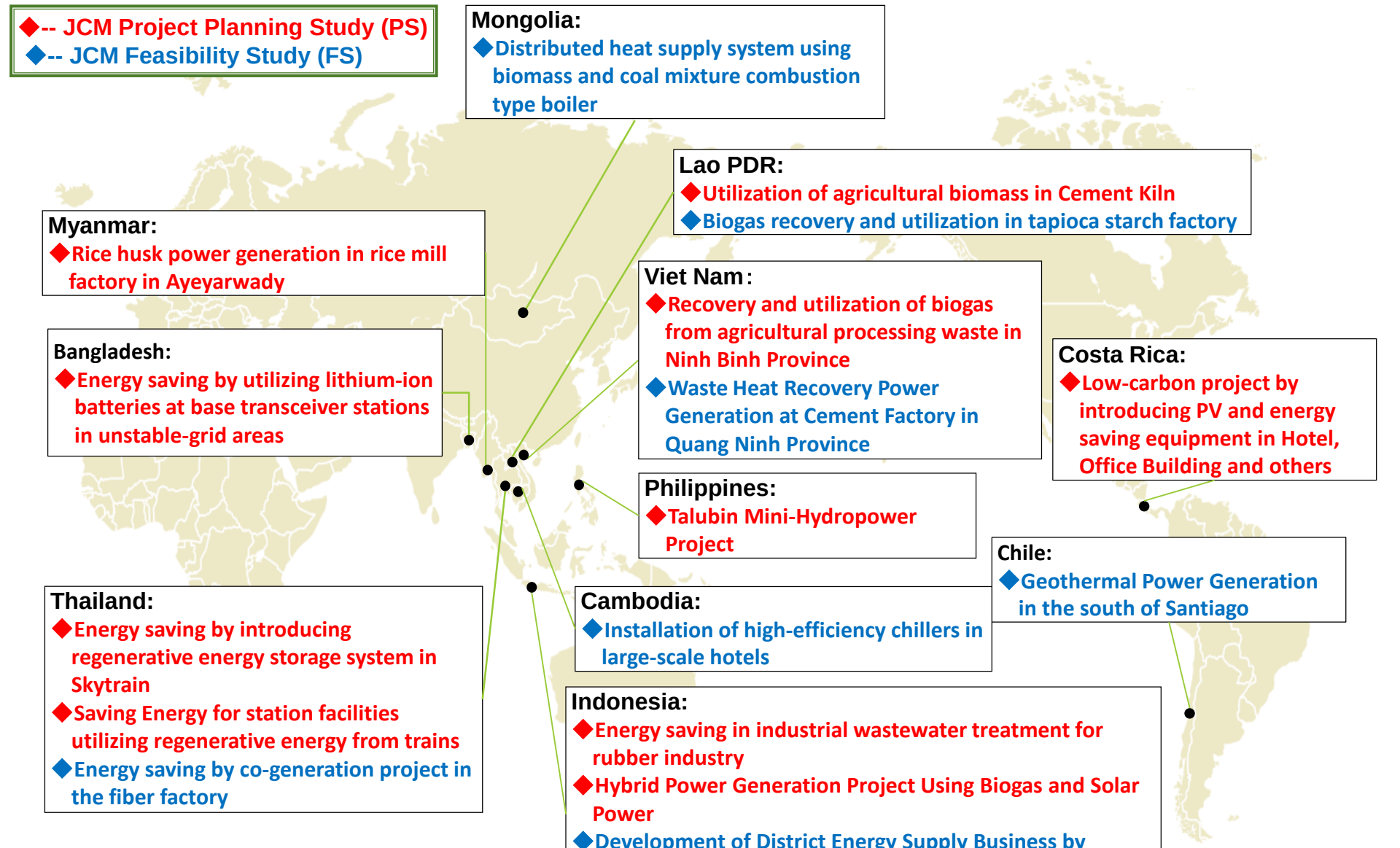
JCM Feasibility Study (FS)	To survey feasibility of potential JCM projects
JCM Project Planning Study (PS)	To develop a JCM Project in the following fiscal year
Large Scale JCM Feasibility Study	To survey feasibility of potential large scale JCM projects including city level cooperation

Outreach

New Mechanisms Information Platform http://www.mmechanisms.org/e/index.html
GEC (Global Environment Centre Foundation) http://gec.jp

Overview of JCM Planning/Feasibility Studies in 2015

◆-- JCM Project Planning Study (PS)
◆-- JCM Feasibility Study (FS)



Mongolia:
◆Distributed heat supply system using biomass and coal mixture combustion type boiler

Lao PDR:
◆Utilization of agricultural biomass in Cement Kiln
◆Biogas recovery and utilization in tapioca starch factory

Myanmar:
◆Rice husk power generation in rice mill factory in Ayeyarwady

Viet Nam:
◆Recovery and utilization of biogas from agricultural processing waste in Ninh Binh Province
◆Waste Heat Recovery Power Generation at Cement Factory in Quang Ninh Province

Bangladesh:
◆Energy saving by utilizing lithium-ion batteries at base transceiver stations in unstable-grid areas

Costa Rica:
◆Low-carbon project by introducing PV and energy saving equipment in Hotel, Office Building and others

Philippines:
◆Talubin Mini-Hydropower Project

Chile:
◆Geothermal Power Generation in the south of Santiago

Thailand:
◆Energy saving by introducing regenerative energy storage system in Skytrain
◆Saving Energy for station facilities utilizing regenerative energy from trains
◆Energy saving by co-generation project in the fiber factory

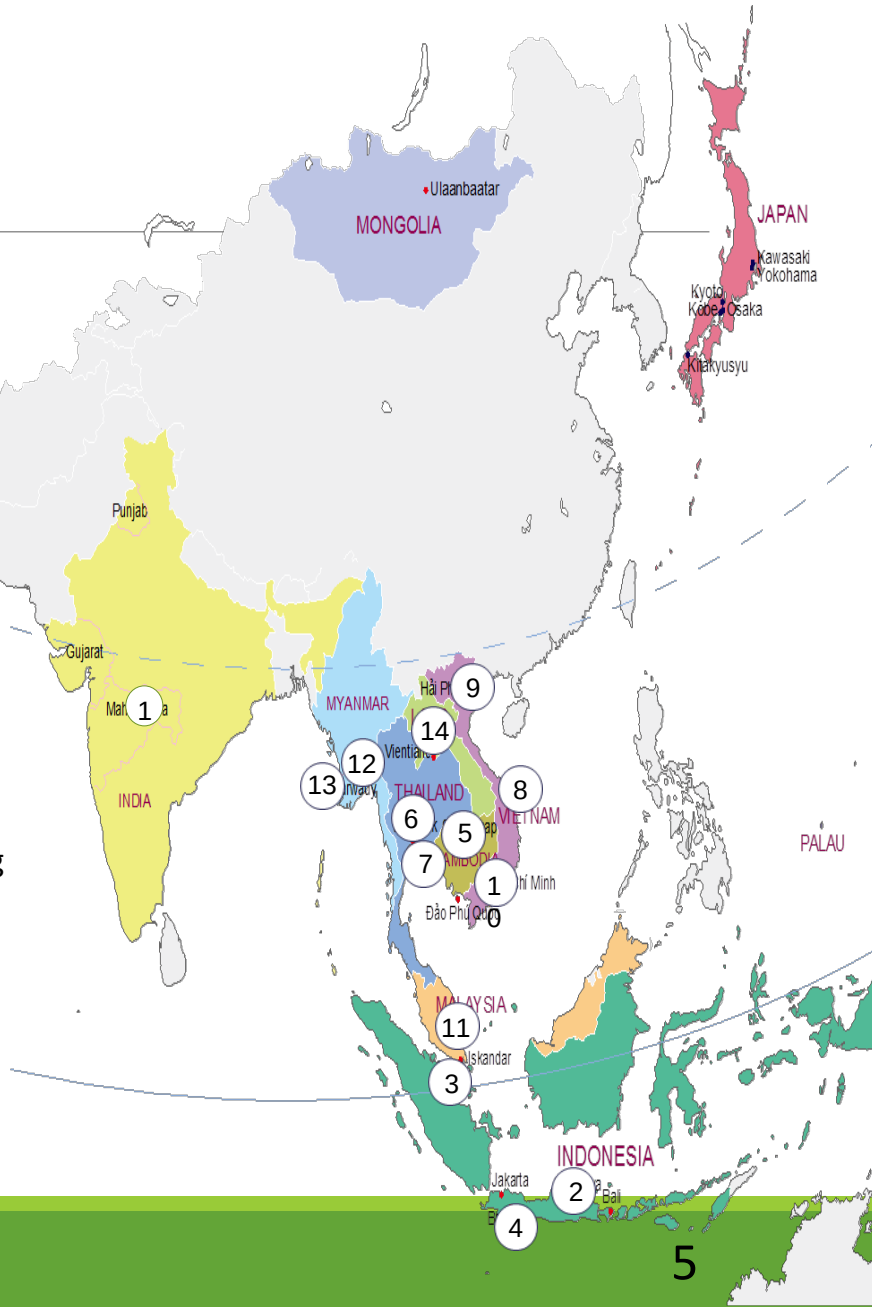
Cambodia:
◆Installation of high-efficiency chillers in large-scale hotels

Indonesia:
◆Energy saving in industrial wastewater treatment for rubber industry
◆Hybrid Power Generation Project Using Biogas and Solar Power
◆Development of District Energy Supply Business by introducing co-generation
◆Introduction of co-generation and solar power generation systems in large shopping malls

FY2015 Feasibility studies for large scale project development

Project List

1. Promotion of low carbon city by properly developing material recycling systems in Bengaluru City（Bangalore City）
2. Establishment of Base for Low-Carbon Project Expansion in Surabaya(Surabaya)
3. Project for Developing JCM projects under city-to-city collaboration between Yokohama city and Batam city(Batam)
4. Project for Low Carbon Society Development under Collaboration between Bandung City and City of Kawasaki(Bandung City)
5. Project for Developing Low-carbon Tourism Cities through the Joint Crediting Mechanism in Siem Reap (Siem Reap)
6. JCM projects development (energy efficiency, and waste and waste water) under the Bangkok Master Plan on Climate Change, and study on financial and other facilitation schemes for introducing low carbon technologies (Bangkok)
7. Promotion of Decarbonizing of Municipal Waste Management and Ecological Industrial Town in Rayong Prefecture (Rayong Pref.)
8. JCM Feasibility Study in Da Nang through "Technical Cooperation for Sustainable Urban Development" with Yokohama City (Da Nang)
9. The whole city low carbonization in Hai Phong City (Hai Phong)
10. Ho Chi Minh City – Osaka City Cooperation Programme for Developing Low Carbon City(Ho Chi Minh)
11. Establishment of Base for Low-Carbon Project Expansion in Iskandar (Iskandar)
12. Study for building a sustainable low carbon city around the industrial zone in Pathein city, Ayeyarwady Division, Myanmar(Pathein)
13. JCM Project Formulation Study through City-to-City Collaboration in Yangon(Yangon)
14. Programme for the Establishment of Low-Carbon Historic City in Vientiane, based on City-to-City Cooperation between Vientiane Capital and Kyoto City(Vientiane Capital)



JCM Model Projects

The budget for FY 2015
*2.4 billion JPY (approx. **USD24 million**) per year by FY2017*
(total 7.2 billion JPY)

Government of Japan

Finances part of investment costs (up to the half)

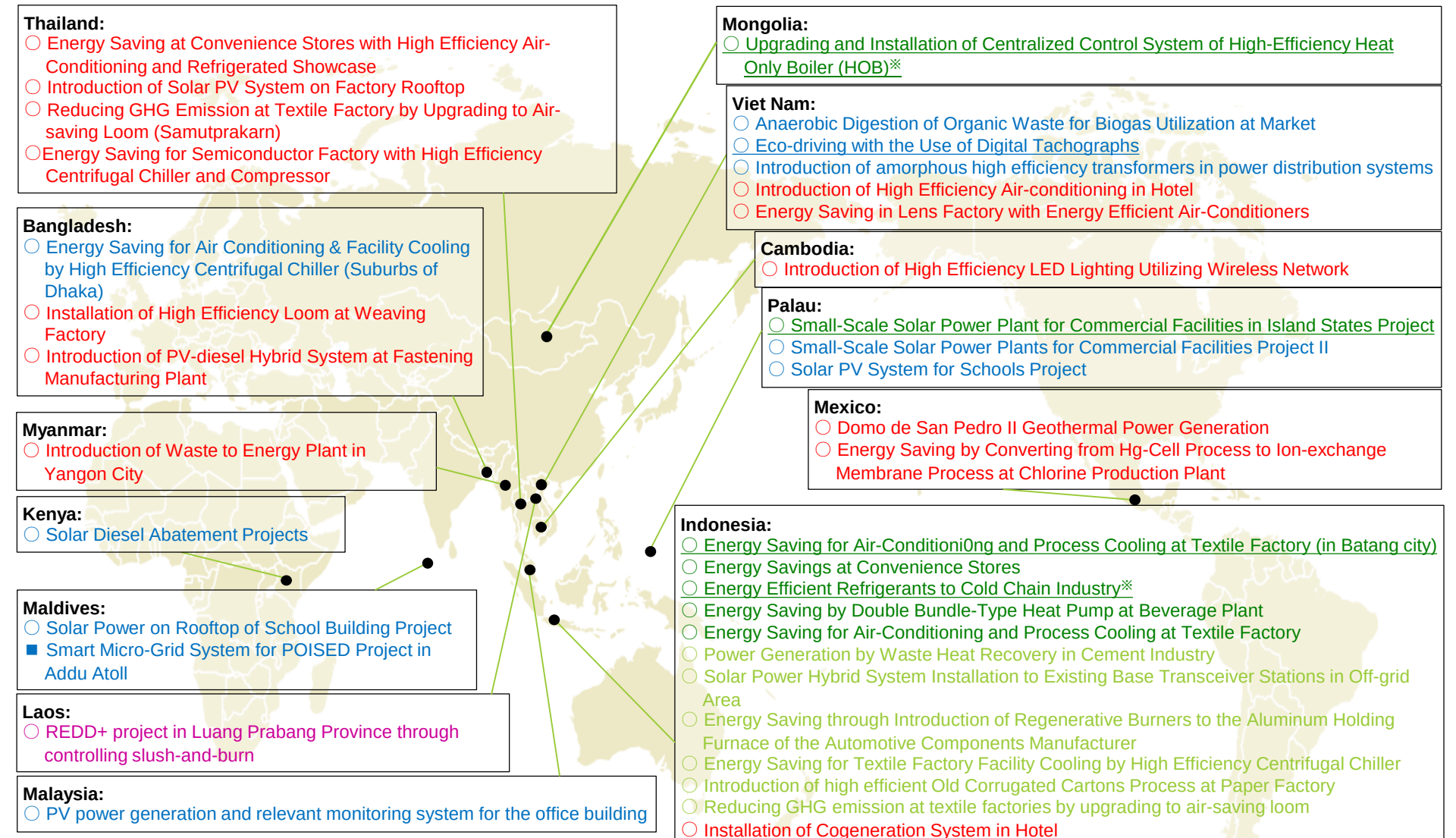
Conducts MRV and delivers at least half of JCM credits to the Japanese government

International consortiums
(Japanese and host country entities)



- Financing scope: facilities, equipment, vehicles, that reduce CO_2 from fossil fuel combustion, and construction cost for installing those facilities.
- Projects completion : installation starts after the adoption of the funding and must be completed within three years.

JCM Financing programs FY2013/2014/2015）



Thailand:
- ○ Energy Saving at Convenience Stores with High Efficiency Air-Conditioning and Refrigerated Showcase
- ○ Introduction of Solar PV System on Factory Rooftop
- ○ Reducing GHG Emission at Textile Factory by Upgrading to Air-saving Loom (Samutprakarn)
- ○ Energy Saving for Semiconductor Factory with High Efficiency Centrifugal Chiller and Compressor

Bangladesh:
- ○ Energy Saving for Air Conditioning & Facility Cooling by High Efficiency Centrifugal Chiller (Suburbs of Dhaka)
- ○ Installation of High Efficiency Loom at Weaving Factory
- ○ Introduction of PV-diesel Hybrid System at Fastening Manufacturing Plant

Myanmar:
- ○ Introduction of Waste to Energy Plant in Yangon City

Kenya:
- ○ Solar Diesel Abatement Projects

Maldives:
- ○ Solar Power on Rooftop of School Building Project
- ■ Smart Micro-Grid System for POISED Project in Addu Atoll

Laos:
- ○ REDD+ project in Luang Prabang Province through controlling slush-and-burn

Malaysia:
- ○ PV power generation and relevant monitoring system for the office building

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

Viet Nam:
- ○ Anaerobic Digestion of Organic Waste for Biogas Utilization at Market
- ○ Eco-driving with the Use of Digital Tachographs
- ○ Introduction of amorphous high efficiency transformers in power distribution systems
- ○ Introduction of High Efficiency Air-conditioning in Hotel
- ○ Energy Saving in Lens Factory with Energy Efficient Air-Conditioners

Cambodia:
- ○ Introduction of High Efficiency LED Lighting Utilizing Wireless Network

Palau:
- ○ Small-Scale Solar Power Plant for Commercial Facilities in Island States Project
- ○ Small-Scale Solar Power Plants for Commercial Facilities Project II
- ○ Solar PV System for Schools Project

Mexico:
- ○ Domo de San Pedro II Geothermal Power Generation
- ○ Energy Saving by Converting from Hg-Cell Process to Ion-exchange Membrane Process at Chlorine Production Plant

Indonesia:
- ○ Energy Saving for Air-Conditioni0ng 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
- ○ Power Generation by Waste Heat Recovery in Cement Industry
- ○ 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
- ○ Introduction of high efficient Old Corrugated Cartons Process at Paper Factory
- ○ Reducing GHG emission at textile factories by upgrading to air-saving loom
- ○ Installation of Cogeneration System in Hotel
- ○ Energy Saving by Utilizing Waste Heat at Hotel
- ○ Energy Saving for Air-Conditioning at Shopping Mall with High Efficiency Centrifugal Chiller
- ○ Energy Saving for Industrial Park with Smart LED Street Lighting System
- ○ Energy Saving for Office Building with High Efficiency Water Cooled Air-Conditioning Unit
- ○ Introduction of High Efficiency Once-through Boiler System in Film Factory
- ● REDD+ project in Boalemo District

○ Model project in FY 2013 (3 countries, 7 projects)
○ Model project in FY 2014 (7 countries, 15 projects)
■ ADB project in FY 2014 (1 country, 1 project)
○ Model project in FY 2015 (7 countries, 18 projects)
● REDD+ Model Project in FY 2015 (2 countries, 2 projects)

Total 13 countries, 43 projects

- The underlined projects have been registered as the JCM projects (7 projects) ※these projects account for 2 registered JCM projects respectively, as they're operating in different sites

Support Program Enabling "Leapfrog" Development

Collaborative Financing Programme

Budget for FY 2015

1.8 billion JPY (approx. USD18 million) per year by FY2018

Scheme

To finance projects that provide additional GHG emission reduction to projects supported by JICA and other financial institutions.

Purpose

To expand superior and advanced low-carbon technologies for building a low-carbon society.

ADB Trust Fund

Budget for FY 2015

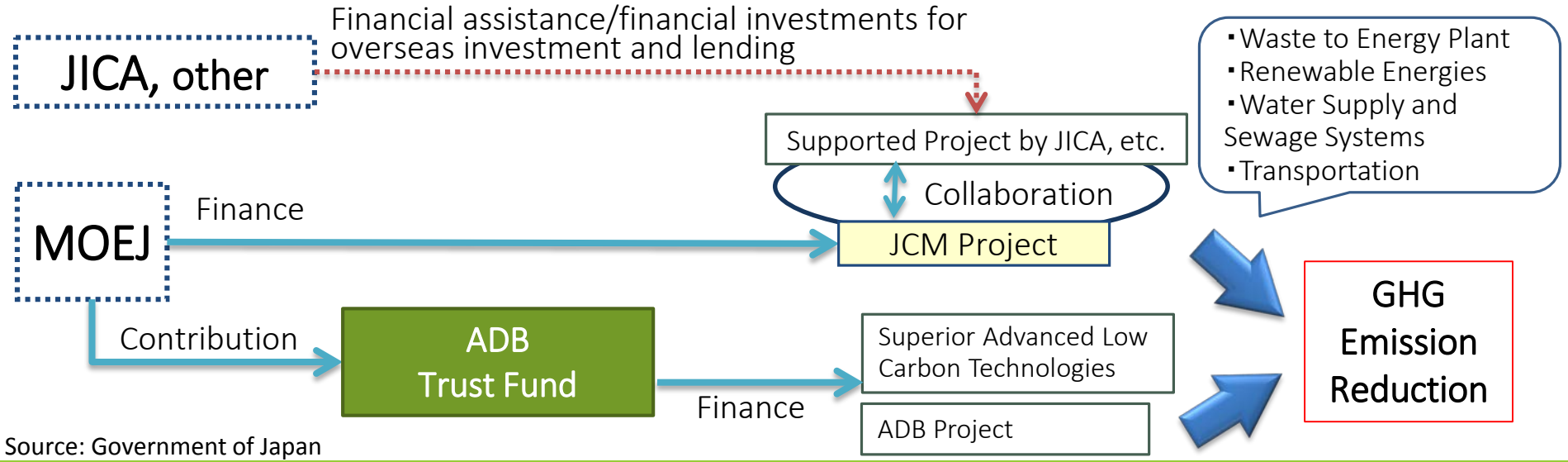
1.8 billion JPY (approx. USD18 million) ***per year***

Scheme

To provide the financial incentives for the adoption of the advanced low-carbon technologies that are superior in GHG emission reduction but expensive in ADB- financed projects.

Purpose

To develop ADB projects as the "Leapfrog" developments by the advanced technologies.



Source: Government of Japan

Technical Support Provided by MOEJ

- **JCM Methodology development**
- **Project Design Document (PDD) for project registration**
- **Support for monitoring report for credit issuance (only first time)**
- **Validation and Verification by Third Party Entity (TPE)**

IGES provides the technical support (Methodology Development, PDD development and Preparation of monitoring Report)

Source: Government of Japan

List of projects and studies held in Myanmar

Host Country	Type	Year	Entity	Title	Sector	
Indonesia & Myanmar	FS	2013	Mizuho Bank, Ltd.	Solar-diesel hybrid system to stabilise solar power generation	Renewable Energy	
Myanmar	JCM Model Project	2015	JFE Engineering Corporation	Introduction of Waste to Energy Plant in Yangon City	Waste Management /Biomass Utilisation	
Myanmar	PS	2015	Fujita Corporation	Rice husk power generation in rice mill factory in Ayeyarwady	Waste Management /Biomass Utilisation	
Myanmar	FS	2014	Nikken Sekkei Civil Engineering Ltd.	Environment Improvement through Utilization of Biogas from POME Fermentation System	Waste Management /Biomass Utilisation	
Myanmar	FS	2014	JFE Engineering Corporation	Introduction of Waste to Energy Plant in Yangon City	Waste Management /Biomass Utilisation	
Myanmar	FS	2013	Nippon Koei Co., Ltd.	Geothermal binary power generation	Renewable Energy	

Source: http://gec.jp/jcm/projects/index.html