

Introduction to the JCM, Current development and Support programme

Ulaanbaatar, 10 November 2015

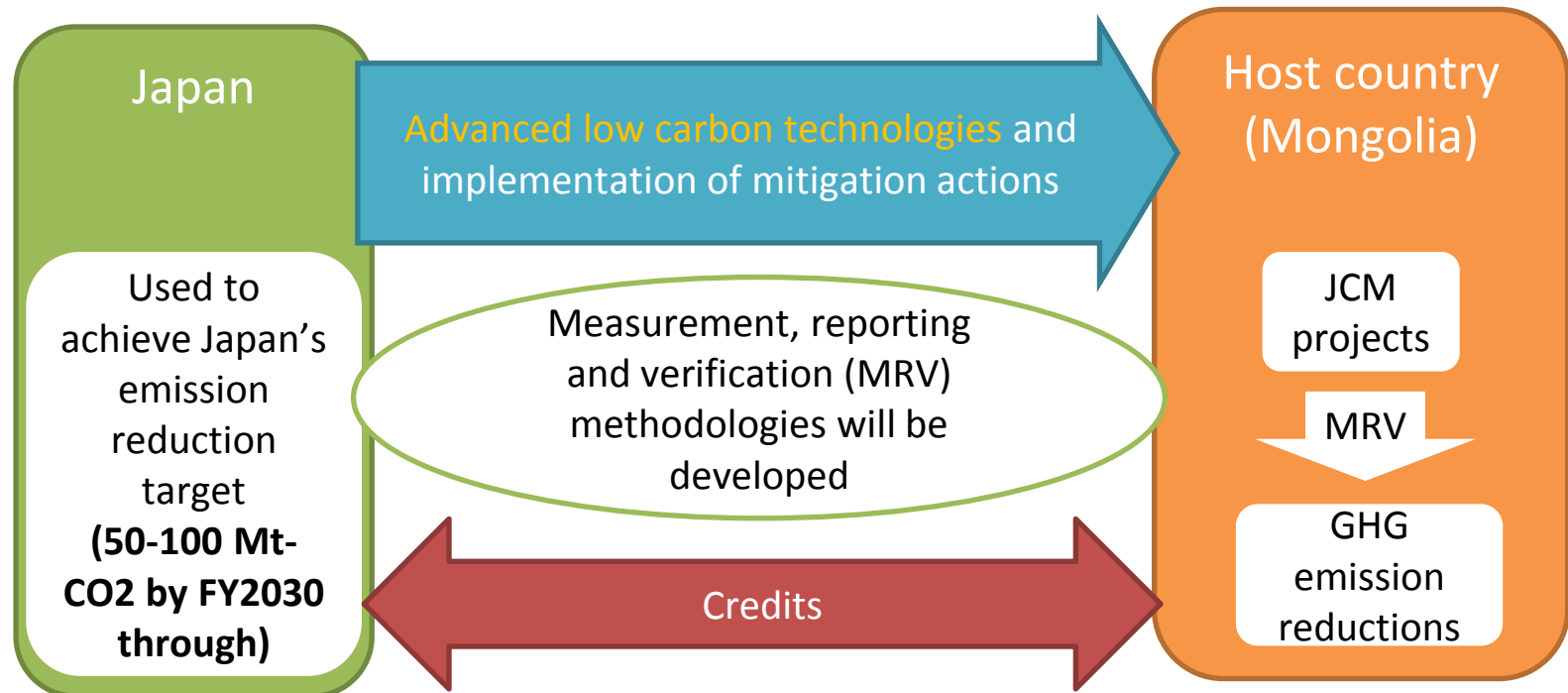
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Climate and Energy Area

IGES Institute for Global
Environmental Strategies

The Joint Crediting Mechanism (JCM)

- Implemented jointly by two countries, Japanese and Mongolia government started the JCM cooperation in January 2013
- Promote advanced low carbon technologies and products through JCM projects
- Require measurement, reporting and verification (MRV) and methodologies for GHG emission reduction activities
- Produce non-tradable credits that can be used as a part of Japan and Mongolian internationally pledged greenhouse gases mitigation efforts.



JCM Progress to date

JCM Partner Countries (**15** Countries as of Oct. 20, 2015)

- **Mongolia**, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia, Chile and Myanmar

19 Approved Methodologies

- Energy efficiency (16), Renewable energy (1), Transport (1), Waste to energy (1)
- Indonesia (10), Mongolia (2) , Palau (1) , Maldives (1), Vietnam (5)

7 Registered Projects

- Energy efficiency (5), Renewable energy (1), Transport (1)
- Indonesia (3), Mongolia (2), Palau (1), and Viet Nam (1)

Establishment of JCM website (FY2014)

- <https://www.jcm.go.jp/>

7 Registered projects (1/2) (As of Oct 20, 2015)

Project Type	Project Title	ERs (t-CO2/y)	Registration Date	Country
Energy Efficiency	Energy Saving for Air-Conditioning and Process Cooling by Introducing High-efficiency Centrifugal Chiller	114	31-Oct-14	Indonesia
Energy Efficiency	Project of Introducing High Efficiency Refrigerator to a Frozen Food Processing Plant in Indonesia	120	29-Mar-15	Indonesia
Energy Efficiency	Project of Introducing High Efficiency Refrigerator to a Food Industry Cold Storage in Indonesia	21	29-Mar-15	Indonesia



7 Registered projects (2/2) (As of Oct 20, 2015)

Project Type	Project Title	ERs (t-CO ₂ /y)	Registration Date	Country
Energy Efficiency	Centralization of heat supply system by installation of high-efficiency Heat Only Boilers in Bornuur soum Project	92	30-Jun-15	Mongolia
Energy Efficiency	Installation of high-efficiency Heat Only Boilers in 118th School of Ulaanbaatar City Project	206	30-Jun-15	Mongolia
Renewable energy	Small scale solar power plants for commercial facilities in island states	227	21-Apr-15	Palau
Transport	Eco-Driving by Utilizing Digital Tachograph System	296	4-Aug-15	Vietnam



JCM support programmes covers all stages of project development

Technical/Financial support for JCM procedure

Project-finance support

- Financing Programme for JCM Model Projects
- JCM REDD+ Model Project
- Support Program Enabling “Leapfrog” Development
 - ✓ Collaborative Financing Programme (JICA, etc.)
 - ✓ JF-JCM (ADB Trust Fund)
- JCM Demonstration Projects

F/S support

- Feasibility Study (FS) MOE/ METI
- Project Planning Study (PS) (MOE)
- Project Development under City-to-City cooperation (MOE)

Outreach

Capacity building

Capacity Building & FS support (MOEJ)

Capacity Building Programmes

Region

Asia, Africa, Latin America, and Small Island countries

Scope

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

Activities

Consultations, workshops, seminars, training courses and study tours, etc.

Target

Government officials, private sectors, candidate for validation & verification entities, local institutes and NGOs



Feasibility Studies

Objective

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

Type of studies

JCM Project Planning Study (PS)

To develop a JCM Project in the next fiscal year

JCM Feasibility Study (FS)

To survey feasibility of potential JCM projects

Large Scale JCM Feasibility Study

To survey feasibility of potential large scale JCM projects including city level cooperation



Reports

Available at GEC (Global Environment Centre Foundation) website <URL: <http://gec.jp> >

Outreach

New Mechanisms Information Platform website provides the latest information on the JCM <URL: <http://www.mmechanisms.org/e/index.html>>



Overview of JCM **PS/FS** in 2015 (MOEJ)

- ◆-- 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

Bangladesh:

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

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

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 power generation and 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:

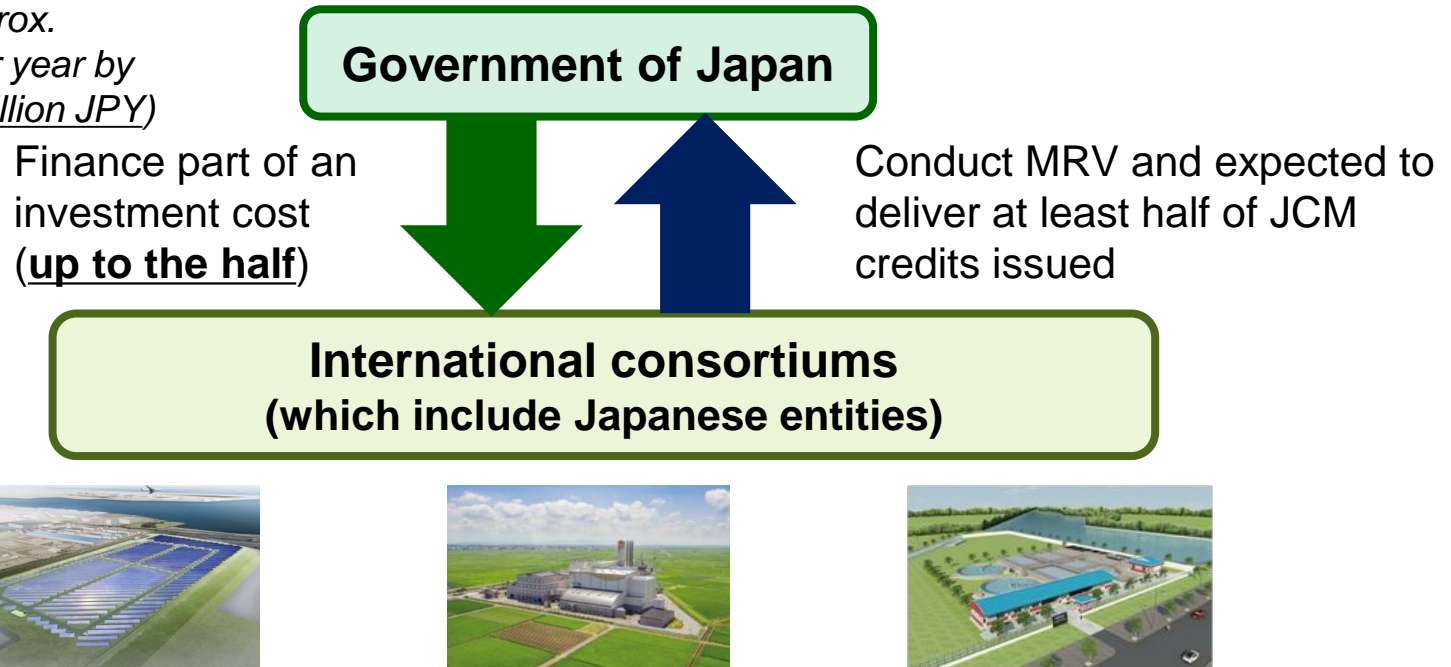
- ◆ Installation of high-efficiency chillers in large-scale hotels

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

JCM **Financing** Programme for Model Projects (MOEJ)

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



- 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.

Source: Government of Japan, Sept 2015

→ Call for proposals and necessary documents are announced on Global Environment Centre Foundation (GEC) website: <http://gec.jp/jcm/kobo/index.html>

JCM **Financing** Programme for REDD+ Model Projects (MOEJ)

The budget for FY 2015:

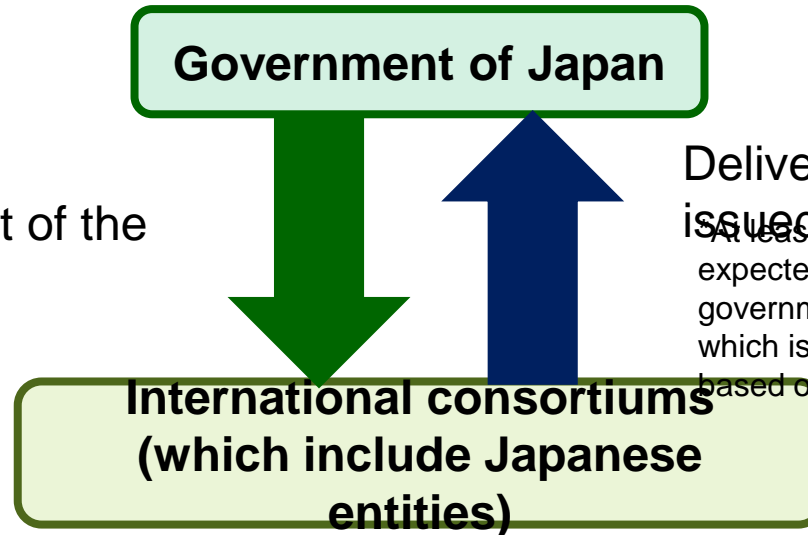
80 million JPY

(approx.

USD700,000)

Finance part of the cost

These projects may be implemented in cooperation with other organizations such as JICA



Deliver JCM credits issued*

*At least half of JCM credits issued are expected to be delivered to the government of Japan except the amount of which is allocated to the partner country based on its legislation.

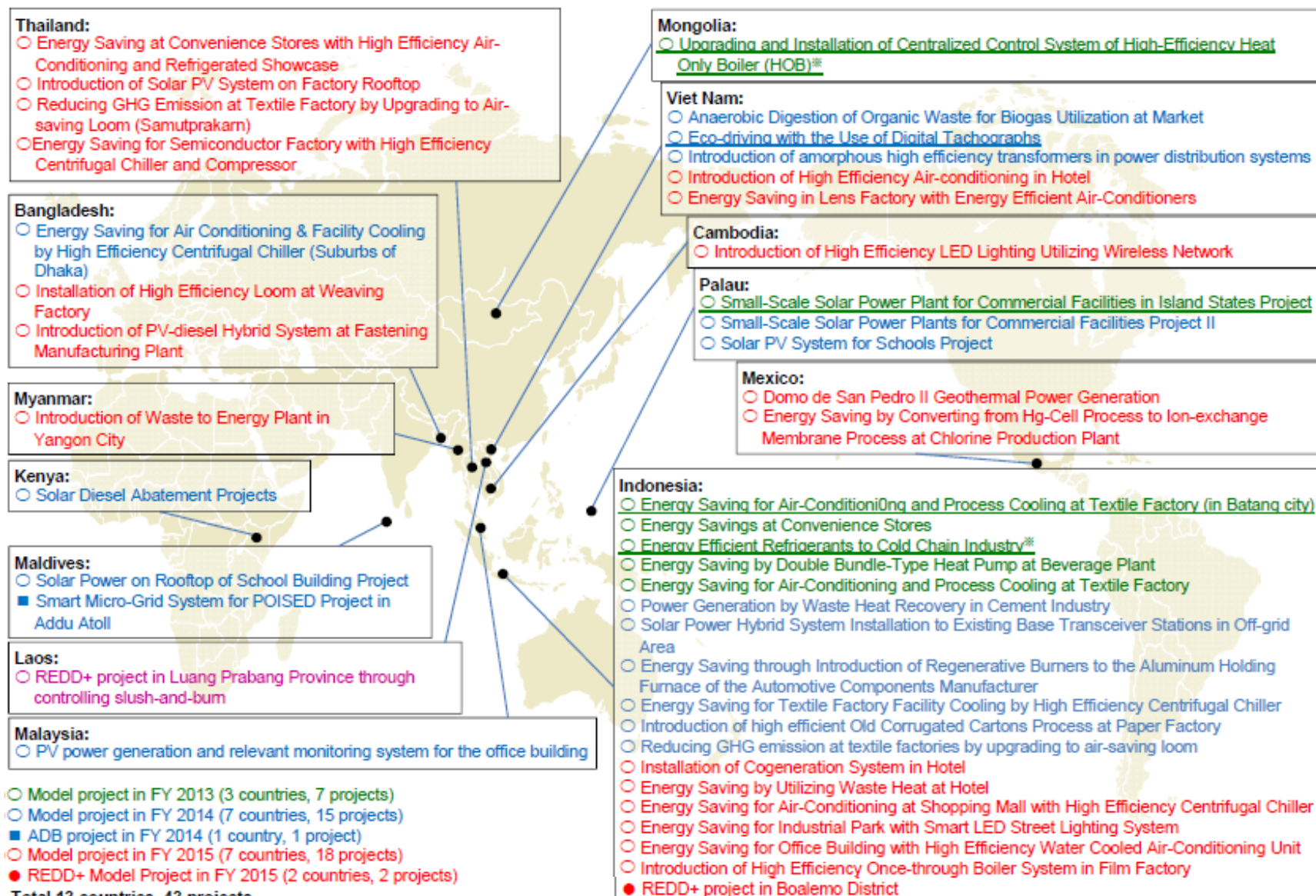
Expected outcome

- Participatory monitoring of illegal logging, disaster prevention, and forest restoration
- Provision of alternative livelihoods

Source: Government of Japan, Sept 2015

→ Call for proposals and necessary documents are announced on Global Environment Centre Foundation (GEC) website: <http://gec.jp/jcm/kobo/index.html>

JCM **Financing** programs (MOEJ) (FY2013/2014/2015)



Financing Program Enabling “Leapfrog” Development by MOEJ

Collaborative Financing Programme

Budget for FY 2015 (Budget for FY2014)

1.8 billion JPY (approx. USD18 million) per year by FY2018 (total 7.2 billion JPY) (4.2 billion JPY)

Scheme

To finance the projects which have the better efficiency of reducing GHG emission in collaboration with other projects supported by JICA and other governmental-affiliated financial institute.

Purpose

To expand superior and advanced low-carbon technologies for building the low carbon society as the whole city wise and area wise in the wider fields, and to acquire credits by the JCM.

ADB Trust Fund (JF JCM)

Budget for FY 2015 (Budget for FY2014)

1.8 billion JPY (approx. USD18 million)(1.8 billion JPY)

Scheme

To provide the financial incentives for the adoption of the advanced low-carbon technologies which 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 and to show the effectiveness of the JCM scheme by the acquisition of credits of the JCM.

JICA, other

MOE

Finance

Contribution

**ADB
Trust Fund**

Finance

Superior Advanced
Low Carbon
Technologies
ADB Project

Supported Project by JICA, etc.

JCM Project

Collaboration

- Waste to Energy Plant
- Renewable Energies
- Water Supply and Sewage Systems
- Transportation

**GHG
Emission
Reduction**

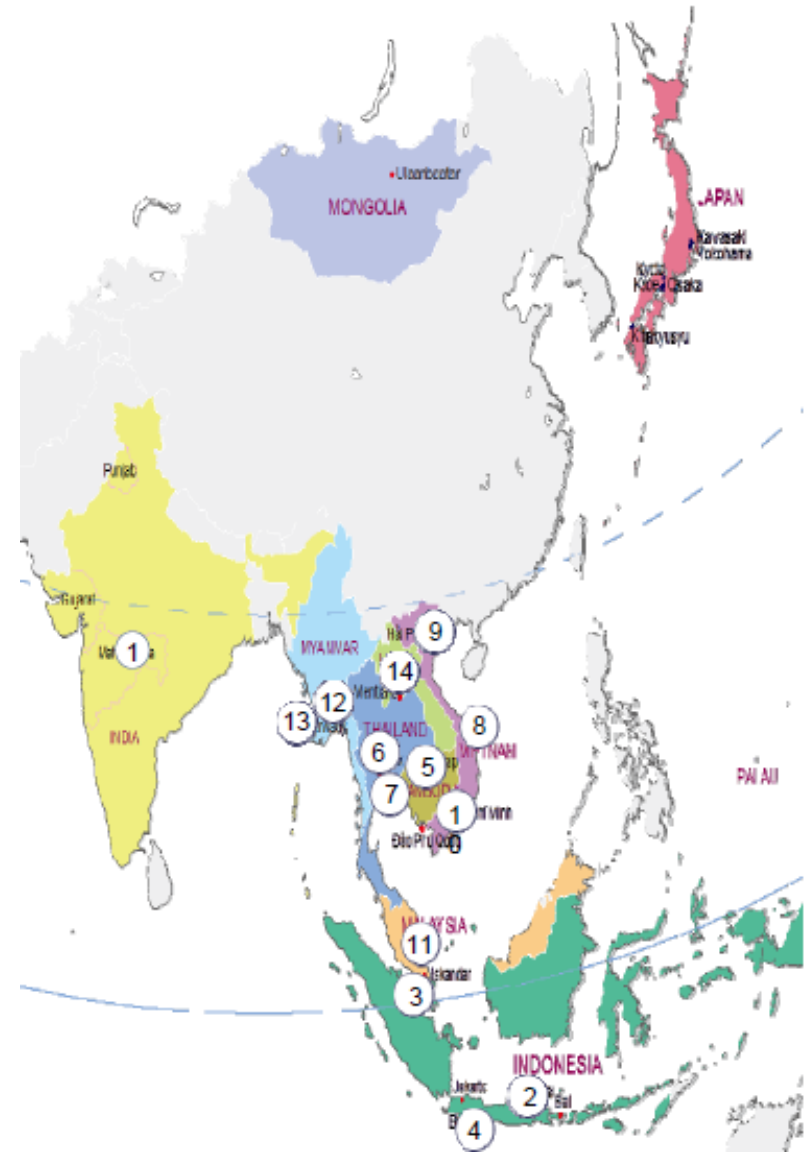
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Source: Government of Japan, Sept 2015

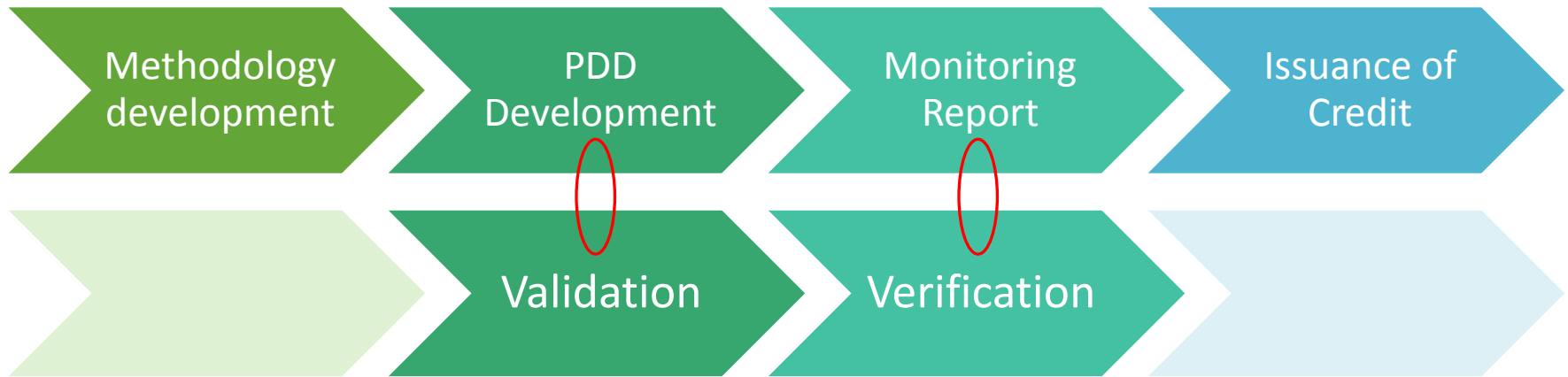
FY2015 Project development (FS) under City-to-city (MOEJ)

Project List

1. Promotion of low carbon city by properly developing material recycling systems in Bengaluru City (Bengaluru 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 Patheingyi city, Ayeyarwady Division, Myanmar (Patheingyi)
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)



Technical/Financial Support for JCM procedure (MOE)



Applicable for project participants using Financing Programme for JCM Model Projects and Financial support for JF-JCM projects (ADB trust fund).

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

Benefits of the JCM from project developers' perspective

- Installation of advanced Japanese low-carbon technologies at **lower cost**, for "Leapfrog" development
- Dissemination of **specialized know-how** and contribution to effective **technology transfer**
- Property of the project facility is thoroughly **owned** and managed by host country partner

Source: Joint Crediting Mechanism (JCM) City to City Collaboration Workshop, Yokohama, October 2015

Website for JCM information

The JCM rules and guidelines

<https://www.jcm.go.jp/>

JCM HOME

JCM Projects data (CSV) | Home

■ News

■ About The Mechanism

■ Third Party Entity

■ Project Cycle Search

- Project Cycle Search
- Request for registration
- Registered project
- Issuance of credits
- Request for post-registration changes

■ Mongolia - Japan Page

■ Bangladesh - Japan Page(BOCM)

■ Ethiopia - Japan Page

■ Kenya - Japan Page

■ Maldives - Japan Page

■ Viet Nam - Japan Page

■ Laos - Japan Page

■ Indonesia - Japan Page

■ Costa Rica - Japan Page

■ Palau - Japan Page


■ Cambodia - Japan Page

■ Mexico - Japan Page

■ Contact us

■ Link

The Joint Crediting Mechanism (JCM)



About the Mechanism

Basic Concept of the JCM [more »](#)

News

- 25 Jul 14 [The Bilateral Document Signed by Mexico and Japan](#)
- 11 Apr 14 [The Bilateral Document Signed by Cambodia and Japan](#)
- 13 Jan 14 [The Bilateral Document Signed by Palau and Japan](#)
- 09 Dec 13 [The Bilateral Document Signed by Costa Rica and Japan](#)
- 26 Aug 13 [The Bilateral Document Signed by Indonesia and Japan](#)
- 07 Aug 13 [The Bilateral Document Signed by Laos and Japan](#)
- 02 Jul 13 [The Bilateral Document Signed by Viet Nam and Japan](#)
- 29 Jun 13 [The Bilateral Document Signed by Maldives and Japan](#)
- 12 Jun 13 [The Bilateral Document Signed by Kenya and Japan](#)
- 27 May 13 [The Bilateral Document Signed by Ethiopia and Japan](#)

News(each country)

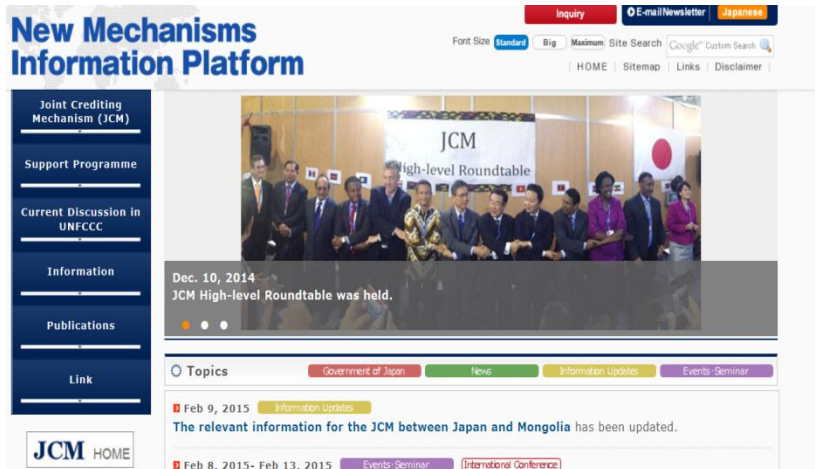
Website for JCM information

New Mechanisms Information Platform

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

Financial and project development support scheme

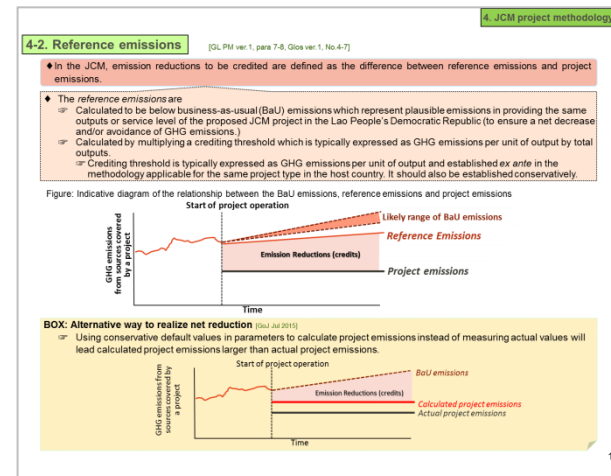
<http://gef.jp/jcm/index.html>



For your reference:

JCM in CHARTS for Mongolia, ver1.0 (Nov 2015)

- Comprehensive description of the JCM rules, procedures and the roles of each stakeholders for the JCM implementation in Mongolia, in Mongolian language
- Available on [MEGDT](#) and [IGES](#) website
- Contact: Aryanie Amellina: amellina@iges.or.jp
Kenji Asakawa: asakawa@iges.or.jp



JCM booklet summarizes the JCM Model Project,
PS/FS <http://gec.jp/jcm/publications/index.html>

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