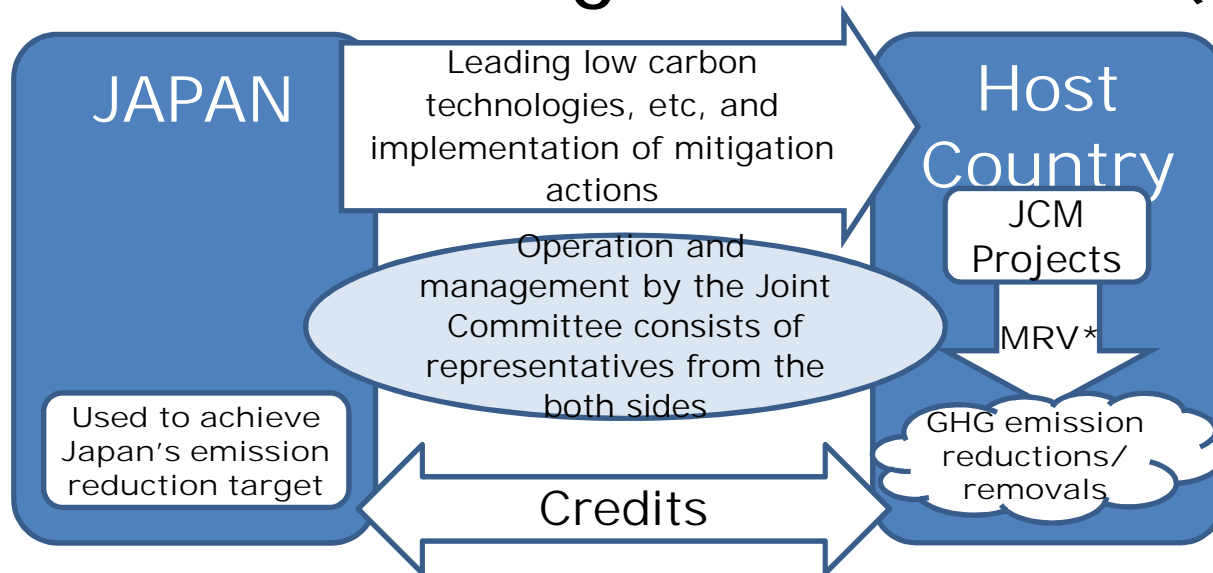


Recent Development of The Joint Crediting Mechanism (JCM)



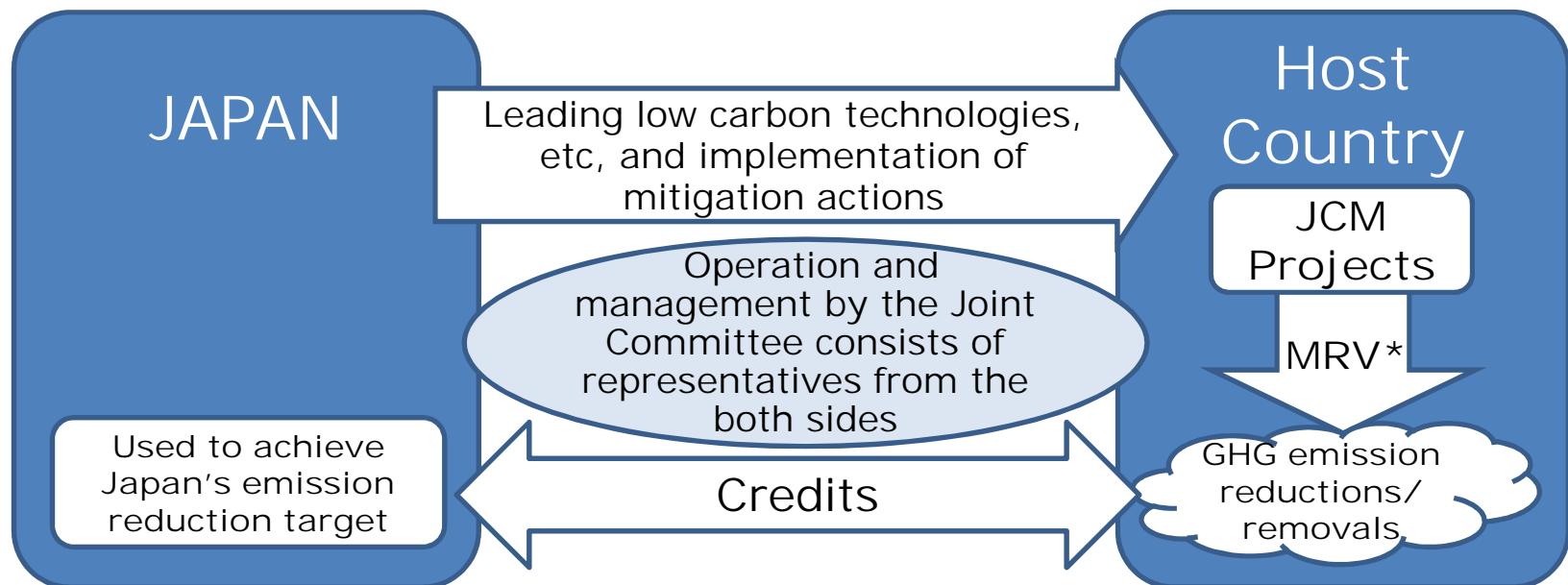
29th September, 2015

Akiko URAKAMI (Ms)

Ministry of the Environment, Japan

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 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.



*measurement, reporting and verification 2

Statement by Prime Minister Shinzo Abe at the Plenary Session of the UN Climate Summit 2014

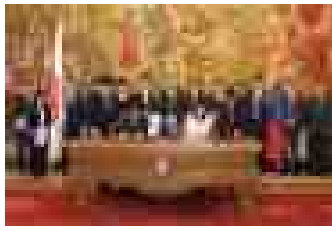


Innovation is the key to our goal of a 50% reduction of global GHG emissions by 2050. Japan will further promote technological innovation that has brought our country's energy efficiency to the highest level in the world (snip)

In addition, **Japan will contribute to the reduction of global GHG emissions** by establishing an energy efficiency facilitating hub for global action in Tokyo, as well as **by diffusing leading technologies to the international community through steady implementation of the Joint Crediting Mechanism for which 12 countries have already signed bilateral documents.**

JCM Partner Countries

➤ Japan has held consultations for the JCM with developing countries since 2011 and has established the JCM with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia, Costa Rica, Palau, Cambodia, Mexico, Saudi Arabia and Chile.



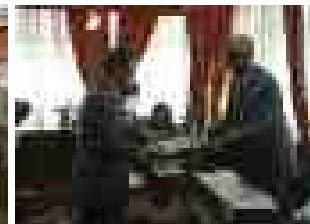
Mongolia
Jan. 8, 2013
(Ulaanbaatar)



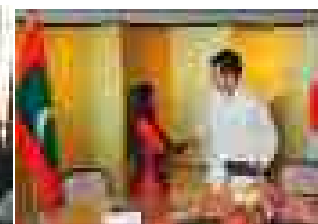
Bangladesh
Mar. 19, 2013
(Dhaka)



Ethiopia
May 27, 2013
(Addis Ababa)



Kenya
Jun. 12, 2013
(Nairobi)



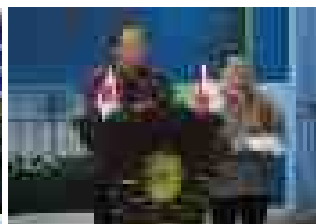
Maldives
Jun. 29, 2013
(Okinawa)



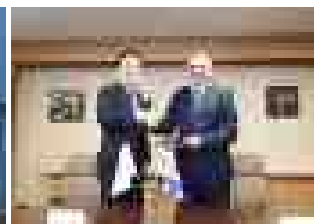
Viet Nam
Jul. 2, 2013
(Hanoi)



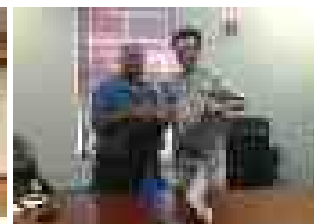
Lao PDR
Aug. 7, 2013
(Vientiane)



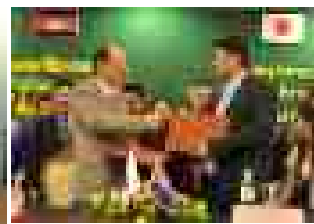
Indonesia
Aug. 26, 2013
(Jakarta)



Costa Rica
Dec. 9, 2013
(Tokyo)



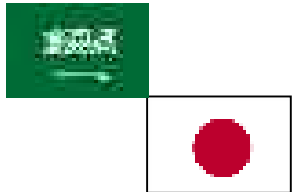
Palau
Jan. 13, 2014
(Ngerulmud)



Cambodia
Apr. 11, 2014
(Phnom Penh)



Mexico
Jul. 25, 2014
(Mexico City)



Saudi Arabia
May 13, 2015



Chile
May 26, 2015
(Santiago)

➤ Three (3) JCM projects have been registered between Indonesia and Japan, one (1) JCM project has been registered between Palau and Japan and two (2) projects have been registered between Mongolia and Japan.

JCM in Japan's INDC (Excerpt)

Information to facilitate clarity, transparency and understanding

The JCM is **not included as a basis of the bottom-up calculation** of Japan's emission reduction target (*1.042 Billion t-CO₂ in FY 2030 = = 26% reduction from FT2013 and 25.4% reduction from FY2005*), but the amount of emission reductions and removals acquired by Japan under the JCM **will be appropriately counted as Japan's reduction**.

Reference information: GHG emissions and removals JCM and other international contributions

- Japan establishes and implements the JCM in order **both** to appropriately evaluate **contributions from Japan to GHG emission reductions or removals** in a quantitative manner achieved through the diffusion of low carbon technologies, products, systems, services, and infrastructure **as well as implementation of mitigation actions in developing countries**, and to use them to achieve Japan's emission reduction target.
- Apart from contributions achieved through private-sector based projects, accumulated emission reductions or removals **by FY 2030**, through governmental JCM programs to be undertaken within the government's annual budget are estimated to be **ranging from 50 to 100 million t-CO₂**.

Scheme of the JCM

Japan

Government

- Issuance of credits

Project Participants

- Implementation & monitoring of projects

Joint Committee (Secretariat)

- Development/revision of the rules, guidelines and methodologies
- Registration of projects
- Discusses the implementation of JCM

Conduct policy consultations

Third party entities

- Validation of projects
- Verification of amount of GHG emission reductions or removals

Host Country

Government

- Issuance of credits

Project Participants

- Implementation & monitoring of projects

• Notifies registration of projects

• Reports issuance of credits

• Request registration of projects

• Submit PDD / monitoring report

• Inform results of validation / verification

• Notifies registration of projects

• Reports issuance of credits

• Request registration of projects

• Submit PDD / monitoring report

• Inform results of validation / verification

• Request issuance of credits

Progress in JCM by partner countries

Partner Country	Number of Joint Committee meetings	Number of Designated TPEs	Number of Approved Methodologies	Number of registered projects	Number of selected projects in JCM Financing Programmes and JCM Demonstration Projects (2013-2015)	Number of selected PS, FS and Large-scale FS (2014-2015)
Mongolia	3	11	2	2	2	6
Bangladesh	2				3	3
Ethiopia	1	3				4
Kenya	1	6			1	4
Maldives	2	6	1		2	2
Viet nam	4	8	4	1	7	18
Laos	1	4			1	7
Indonesia	4	9	10	3	21	27
Costa Rica						3
Palau	3	6	1	1	3	3
Cambodia	1				1	7
Mexico	1	3			2	4
Saudi Arabia						1
Chiles						3
total	23	12	18	7	43	92

Capacity Building Programmes & Feasibility Studies by MOE

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

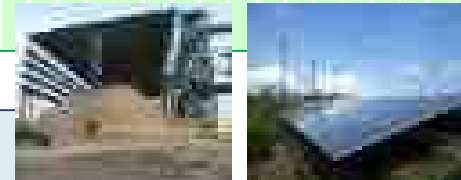
To survey feasibility of potential large scale JCM projects including city level cooperation

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 Planning/Feasibility Studies in 2015 by 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

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 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

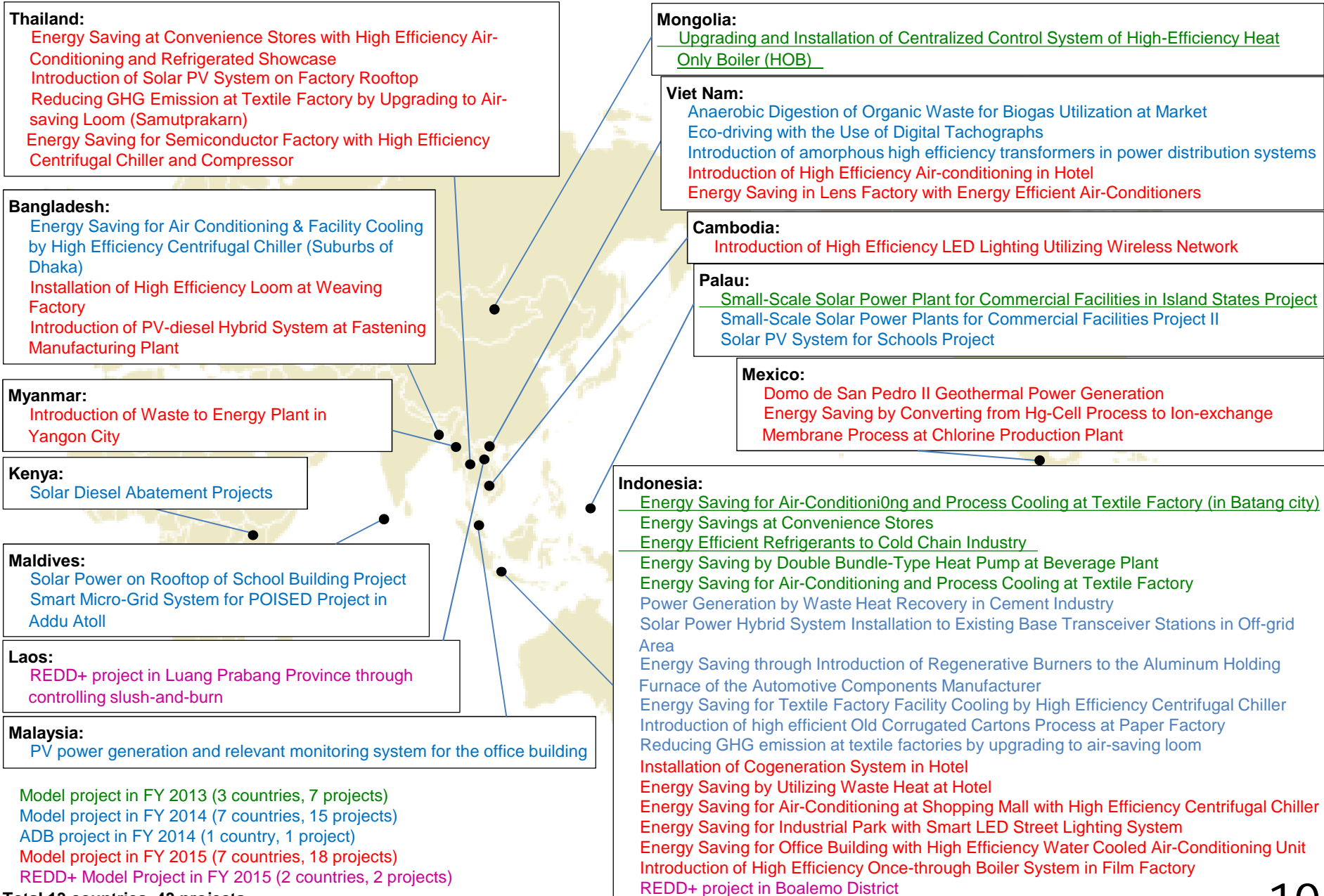
Cambodia:

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 programs by MOEJ (FY2013/2014/2015)



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 (6 projects)

these projects account for 2 registered JCM projects respectively, as they're operating in different sites

FY2015 Feasibility studies for large scale project development by MOEJ

Project List

1. Establishment of Base for Low-Carbon Project Expansion in Surabaya(Surabaya)
2. Project for Developing JCM projects under city-to-city collaboration between Yokohama city and Batam city(Batam)
3. Project for Developing Low-carbon Tourism Cities through the Joint Crediting Mechanism in Siem Reap (Siem Reap)
4. 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)
5. Promotion of Decarbonizing of Municipal Waste Management and Ecological Industrial Town in Rayong Prefecture (Rayong Pref.)
6. The whole city low carbonization in Hai Phong City (Hai Phong)
7. Ho Chi Minh City – Osaka City Cooperation Programme for Developing Low Carbon City(Ho Chi Minh)
8. Establishment of Base for Low-Carbon Project Expansion in Iskandar (Iskandar)
9. 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 by MOE

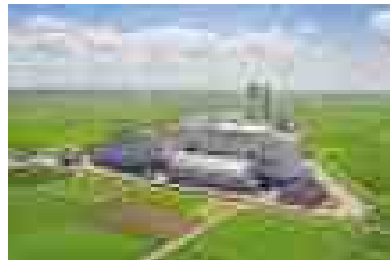
The budget for FY 2015
2.4 billion JPY (approx. USD24 million) per year by FY2017
(total 7.2 billion JPY)

Finance part of an investment cost
(up to the half)

Government of
Japan

Conduct MRV and expected
to deliver at least half of JCM
credits issued

International consortiums
(which include Japanese entities)



- 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.

Support Program Enabling "Leapfrog" Development (Finance/ADB) by MOE

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

Financial assistance/Financial investments for overseas investment and lending

Supported Project by JICA, etc.

Collaboration

JCM Project

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

MOEJ

Finance

Contribution

ADB Trust Fund

Finance

Superior Advanced Low Carbon Technologies
ADB Project

GHG Emission Reduction

Registered JCM Projects

No.	Country	Project Title	General description of project
ID001	Indonesia	Energy Saving for Air-Conditioning and Process Cooling by Introducing High-efficiency Centrifugal Chiller	Improving energy saving for air-conditioning and process cooling by introducing high-efficiency centrifugal chiller equipped with high-performance economizer cycle, and super-cooling refrigerant cycle in a textile factory.
ID002	Indonesia	Project of Introducing High Efficiency Refrigerator to a Food Industry Cold Storage in Indonesia	Introducing advanced energy efficient cooling system using natural refrigerant in the food industry cold storage.
ID003	Indonesia	Project of Introducing High Efficiency Refrigerator to a Frozen Food Processing Plant in Indonesia	Introducing advanced energy efficient cooling system using natural refrigerant in the frozen food processing plant.
PW001	Palau	Small Scale Solar Power Plants for Commercial Facilities in Island States	Installing high quality solar cell modules with high conversion efficiency with a monitoring system which realizes appropriate operation and management.
MN001	Mongolia	Installation of High-Efficiency Heat Only Boilers in 118th School of Ulaanbaatar City Project	Introducing high-efficiency HOBs to fulfill the demand of new heat facilities for the school buildings. Optimizing boiler operation through the implementation of operation management and technical guidance.
MN002	Mongolia	Centralization of Heat Supply System by Installation of High-Efficiency Heat Only Boilers in Bornuur soum Project	Introducing high-efficiency HOBs to fulfill the demand for heat supply system in the public buildings. Optimizing boiler operation through the implementation of operation management and technical guidance.
VN001	Viet Nam	Eco-Driving by Utilizing Digital Tachograph System	Improving transportation fuel efficiency by installing digital tachographs, in which the quantity of fuel consumption and running distance are continuously analyzed and provide feedbacks and advices to the drivers based on the analyzed data.

Thank you for your attention