



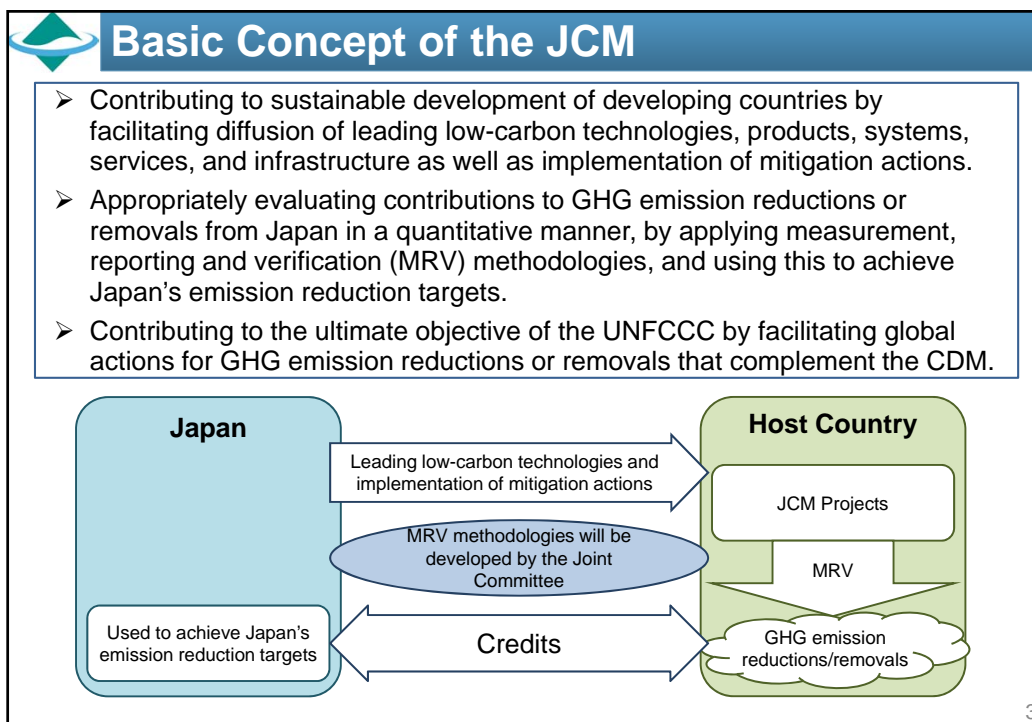
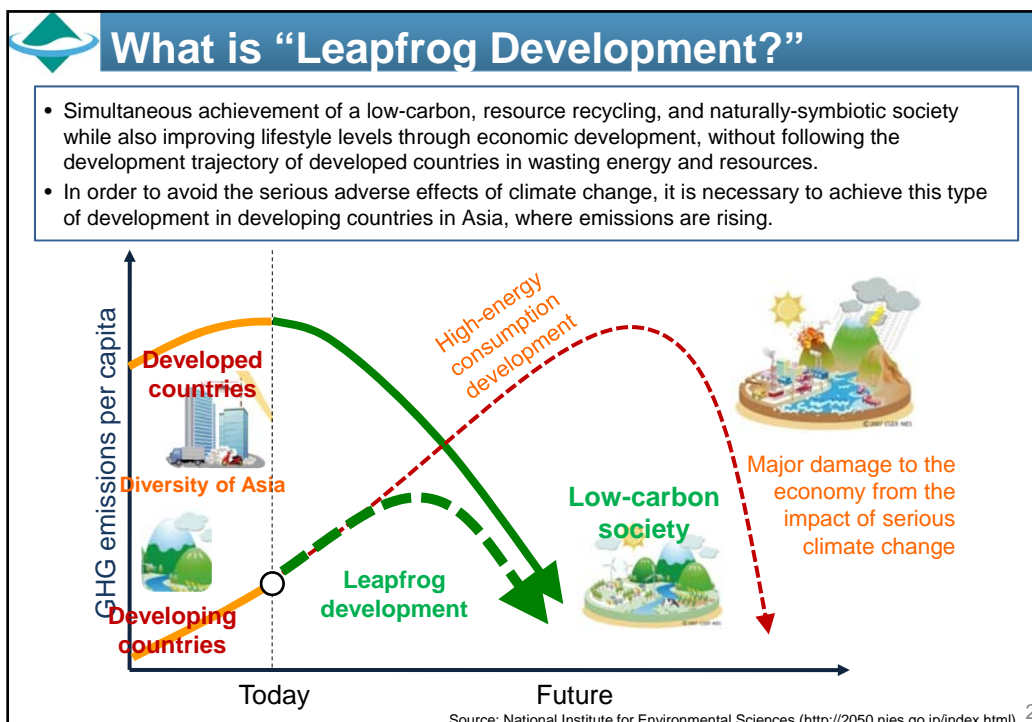
## Introduction of JCM Projects that Support Low-Carbon Measures at the City Level

July 24, 2014

Nobuhiro Kino

Director, International Cooperation Office  
International Strategy Division, Global Environment  
Bureau Ministry of the Environment, Japan

### 1. Overview of Leapfrog Development & the Joint Crediting Mechanism (JCM)



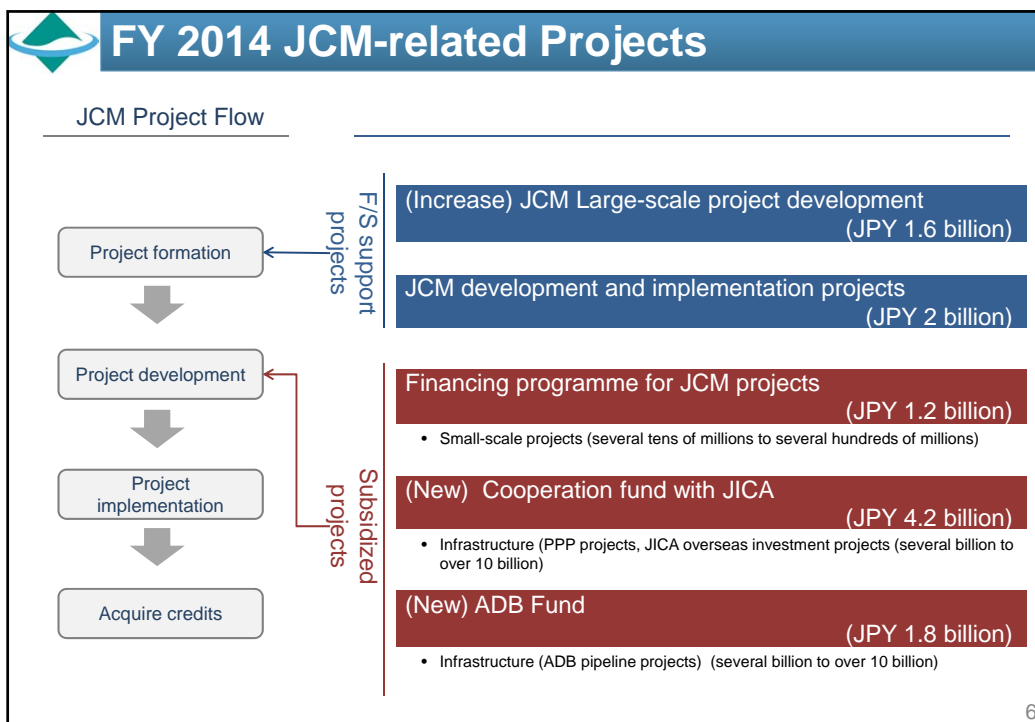
 **Countries with which Japan has signed bilateral agreements**

- Japan has held consultations on the JCM with developing countries since 2011 and signed bilateral agreements on the JCM with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia, Costa Rica, Palau and Cambodia.
- Japan held the Joint Committee meetings with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Indonesia and Palau, respectively.

					
<b>【Mongolia】</b> On Jan. 8, 2013 (Ulaanbaatar)	<b>【Bangladesh】</b> On Mar. 19, 2013 (Dhaka)	<b>【Ethiopia】</b> On May 27, 2013 (Addis Ababa)	<b>【Kenya】</b> On Jun 12, 2013 (Nairobi)	<b>【Maldives】</b> On Jun 29, 2013 (Okinawa)	
					
<b>【Viet Nam】</b> On Jul 2, 2013 (Hanoi)	<b>【Lao PRD】</b> On Aug 7, 2013 (Vientiane)	<b>【Indonesia】</b> On Aug 26, 2013 (Jakarta)	<b>【Costa Rica】</b> On Dec 19, 2013 (Tokyo)	<b>【Palau】</b> On Jan 13, 2014 (Ngerulmud)	<b>【Cambodia】</b> On Apr 11, 2014 (Phnom Penh)

4

## 2. Feasibility Surveys and Financial Support Measures for Development of JCM Large-scale Projects



[New] Supporting Program for JCM Projects  
Enabling "Leapfrog" Development (Fund)

FY 2014 budget:  
JPY 4.2 billion

**Fund established April 22, 2014. Call for proposals from April 25, 2014.**

**Background & Purpose**

By utilizing the country's superior and advanced low-carbon technologies, Japan assists developing countries to enable to "leapfrog" development and help developing countries achieve the "Society harmonized with Nature, Low Carbon and Sound Material Cycle" as the new paradigm suit to 21th century in the Asia-Pacific region.

**Project Overview**

Establishment of a fund to finance projects reduce GHG emissions in collaboration with other projects supported by JICA and other national organizations. Through this finance scheme, the expansion of superior and advanced low-carbon technologies can be achieved because even if the initial costs for projects are high, its emissions reduction effects are also high. The project aims to acquire credit using JCM by creating a low-carbon society in entire cities and regional areas in a broader range of fields.

**Illustration**

**[New] Supporting Program for JCM Projects**  
Enabling "Leapfrog" Development (ADB Fund)

FY 2014 budget:  
JPY 1.8 billion

**Conclusion of MoU between MOEJ and ADB on June 25, 2014.**

**Background & Purpose**

By utilizing the country's superior and advanced low-carbon technologies, Japan assists developing countries to enable "leapfrog" development and help developing countries achieve the "Society harmonized with Nature, Low Carbon and Sound Material Cycle" as the new paradigm suit to 21th century in the Asia-Pacific region.

**Project Overview**

Superior and advanced low-carbon technologies that are too expensive can be adopted, as the cost is covered by funding from Japan. Through this finance scheme, the assistance to developing countries from ADB will lead to "leapfrog" development, and allow Japan to acquire credit using JCM.

**Illustration**

Additional costs are reduced as the cost is covered by funding from Japan. This financing scheme enables high-cost, advanced technologies to be adopted.

8

**Financing Programme for JCM Projects**

FY 2014 budget:  
JPY 1.2 billion (JPY 3.6 billion over 3 years)

**Japanese Government**

↓

↕

↑

**International Consortium  
(includes private entities from Japan)**

Finance part of investment costs (up to 1/2)

Measure GHG emissions through MRV. Delivery of JCM credits (partial or fully) to Japanese government after issue.

**Target group**  
International consortiums (including private entities from Japan)

**Project implementation period**  
Three years maximum

**Scope of financing**  
Projects which introduce facilities and equipment to reduce CO2 emissions from energy sources (includes costs for construction, installation, administration, etc.)

**Eligible projects**  
Those projects starting construction after decision reached on financing, and which will finish construction within that year, and which will be registered and issued credit as a JCM project.

9

## 2014 Feasibility Studies for Large-scale Project Development

### List of Selected Projects

1. Feasibility study on financing scheme development project for promoting energy efficiency equipment installation in Indonesia(Jakarta, Bali etc.)
2. Low Carbon City Planning Project in Surabaya, Indonesia (Surabaya City: **Kitakyushu City**)
3. Feasibility Study on Eco-Lease Scheme for Low Carbon Vehicle towards Joint Crediting Mechanism Projects Expansion (Indonesia National Level)
4. Collaboration on Project for Developing a Low Carbon Society under collaboration between Bandung city and Kawasaki City in Bandung, Indonesia (Bandung: **Kawasaki City**)
5. Study for Developing Environmentally and Culturally Sustainable Cities through the Joint Crediting Mechanism in Siem Reap (Angkor Park and Siem Reap city: **Kamakura City**)
6. Study on the Accelerating Implementation of Bangkok Master Plan on Climate Change through the JCM (Bangkok: **Yokohama City**)
7. Strategic Promotion of Recovery and Destruction of Fluorocarbons (Bangkok/Johor Bahru)
8. Demonstration Project on Installing an Evacuation Shelter with Renewable Energy as a "Low-Carbon/Resilient Model for Small Island Countries" (Palau, etc.)
9. Feasibility study on comprehensive resource circulation system for low carbon society in Republic of Palau (Palau)
10. The feasibility study toward eco-island in cooperation between Kien Giang Province and Kobe City (Kien Giang Province: **Kobe City**)
11. Hai Phong Green Growth Action Plan Development in Association with Kitakyushu City (Haiphong City: **Kitakyushu City**)
12. Ho Chi Minh City – Osaka City Cooperation Project for Developing Low Carbon City (Ho Chi Minh City: **Osaka City**)
13. Feasibility Study on a Large-Scale GHG Emissions-Reduction Project Development in the Iskandar Development Region, Malaysia(Iskandar Development Region: **Kitakyushu City**)
14. Study for the development of JCM projects for comprehensive improvements in the power generation, transmission and distribution systems in Ulaanbaatar City and on the possibility of nationwide horizontal application of the same improvement model in Mongolia (Ulaanbaatar)
15. Feasibility study on a programme-type finance scheme for the JCM in Mongolia (Ulaanbaatar)

## JCM Development & Implementation Project

FY 2014 budget JPY 2.061 billion

<h4 style="text-align: center;">Background &amp; Purpose</h4> <p>Japan is developing and implementing JCM to quantitatively evaluate the country's contribution to the reduction of GHG emissions in developing countries through the implementation of measures and diffusion of Japan's superior GHG reduction technologies, and to utilize this to achieve that country's reduction targets.</p>	<h4 style="text-align: center;">Project Overview</h4> <p>Supports measures towards the full-scale application of JCM, to foster international understanding and expand the scope of countries that implement the JCM. Supports the formation and implementation of emissions reductions projects in developing countries in Asia, Africa, and Central and South America.</p>	
<h4 style="text-align: center;">Project Scheme</h4> <p>Projects commissioned to private companies, etc.</p>	<h4 style="text-align: center;">Expected impacts</h4> <p>Develop and implement JCM in a large number of countries, transfer and expand the usage of Japan's superior technologies, and contribute to the development of global, low-carbon societies.</p>	

### Illustration

#### Measures related to the design and application of the JCM

- 【JCM design & application】
  - Development of rules and guidelines, MRV methodologies, and management of joint committees, etc.
- 【Information dissemination】
  - Provision of the latest information on the JCM, acceptance of consultation requests from businesses, etc.
- 【Development & application of registry】
  - Development and application of system for registration and management of emissions reductions

#### Scheme of the JCM

※MRV: Measurement, Reporting, Verification

#### Measures towards project development

- 【Studies on project formation】
  - Implementation of studies to develop detailed plans and methodologies for JCM project development, and identify promising/potential projects
    - Project formation survey
    - Demonstration survey on MRV methodologies
    - Feasibility studies

#### Support from national governments and businesses in developing countries

- 【Support development of human resources in developing countries】
  - Organization of workshops for development of local human resources, and project identification and development in order to implement the JCM
- 【Support development of review and MRV system】
  - Support the promotion and development of verification organizations that conduct MRV in developing countries
  - Implementation of training programmes for local human resources and experts that will conduct reviews of local businesses

## Points to Note in JCM Project Development

**Issue** How can we utilize subsidies effectively and develop feasibility studies for JCM projects?

**Aim** Clarify criteria and promote the development of appropriate project schemes.

JCM project flow

```

graph TD
    A[Project formation (F/S support projects)] --> B[Project formation (Subsidized projects)]
    B --> C[Project implementation]
    C --> D[Acquire credits]
  
```

Criteria for project selection

- ✓ Is the project ready for implementation? (partner companies in the host country, government cooperation)
- ✓ Is there a financial goal? (Total amount must be prepared by businesses in advance for financing programme for equipment and facilities.)
- ✓ High cost effectiveness
- ✓ Existence of co-benefits
- ✓ Global competitiveness of Japanese technologies
- ✓ Potential to develop MRV methodologies

12

## Development of 3 Support Platforms

**Development of Low-Carbon Society in Asia**

Large-scale project formation

Improve environment in order to facilitate the diffusion of low-carbon technologies

**Local Government Platform**

- Promote cooperation between environmentally-advanced local governments
- Support overseas expansion of advanced technologies as well as related systems through intercity cooperation with developing countries

**Business Platform**

- Offer one-stop services to support overseas development of businesses
- Provide information required by businesses (local environmental regulations, needs, list of support measures of governmental organizations)
- Promote strategic cooperation and support for businesses

**Research Platform**

- Promote exchange and cooperation between researchers and policymakers
- Support the development of low-carbon plans in each country/city
- Promote collaborative research

13