JCM Support Programmes in Indonesia by the Japanese government

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Overview of the support programmes by the Japanese government

Finance support

- Financing Programme for JCM Model Projects
- Support Program Enabling "Leapfrog" Development
 - ✓ Financial support for expansion of low-carbon technologies
 - ✓ ADB Trust Fund
- JCM demonstration Projects
- JCM Special Financing Scheme(JSF)

Feasibility studies

- JCM Project Planning Study(PS)
- JCM Feasibility Study(FS)
- Large Scale JCM Feasibility Study

Technical support

Capacity building

Outreach

Financing Programme for JCM Model Projects By Ministry of Environment (MOE)

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

Government of Japan ★Budget will be fixed after approval by the Parliament

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



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.

 Source: Government of Japan

JCM Model Projects in 2013 and 2014 by MOE

Mongolia:

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

Bangladesh:

 Energy Saving for Air Conditioning & Facility Cooling by High Efficiency Centrifugal Chiller (Suburbs of Dhaka)

Kenya:

◆Solar Diesel
Abatement Projects

Maldives:

◆Solar Power on Rooftop of School Building Project

Malaysia:

- ◆PV power generation and relevant monitoring system for the office building
- JFY 2013 (3 countries, 7 projects)
- ◆JFY 2014 (7 countries, 15 projects)

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

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

Indonesia:

- Energy Saving for Air-Conditioning 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

2. Support Program Enabling "Leapfrog" Development by MOE

Financial support for expansion of low-carbon technologies

ADB Trust Fund

Draft 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.

Draft Budget for FY 2015(Budget for FY2014)

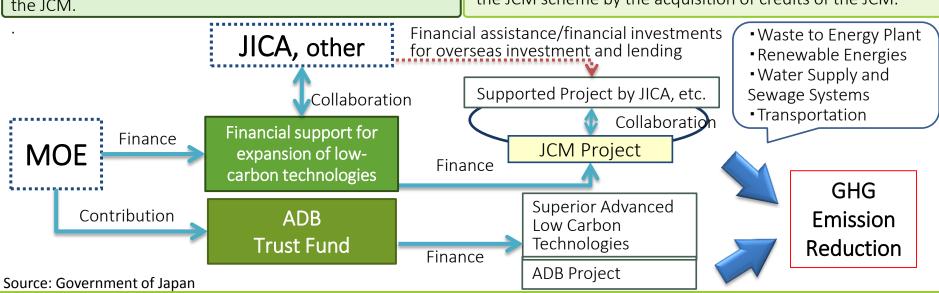
1.8 billion JPY (approx. USD18 million)(1.8 billion JPY)

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.



JCM Demonstration Projects by Ministry of Economic Trading and Industries (METI)

JCM Demonstration Projects

- JCM Demonstration Projects are implemented by NEDO (New Energy and Industrial Technology Development Organization), which supports the project costs necessary to verify the amount of GHG emission reduction in line with JCM rules and guidelines.
- The budget for FY 2015: 3billion JPY (approximately \$30million) ※
- Coverage of project cost: Cost of the JCM Demonstration Projects necessary for MRV e.g. Cost of design, machines, materials, labor, travel, etc.
- Eligibility for the JCM Demonstration Projects:
 - Concrete Projects to demonstrate the effectiveness of leading Japanese technologies and/or products installed and operated in the projects, and the amount of their GHG emission reduction with MRV methodology by actual operation
 - Project Participants consist of entities from both countries, only the Japanese entities can apply for the JCM Demonstration projects. The projects shall be completed within 3 years.

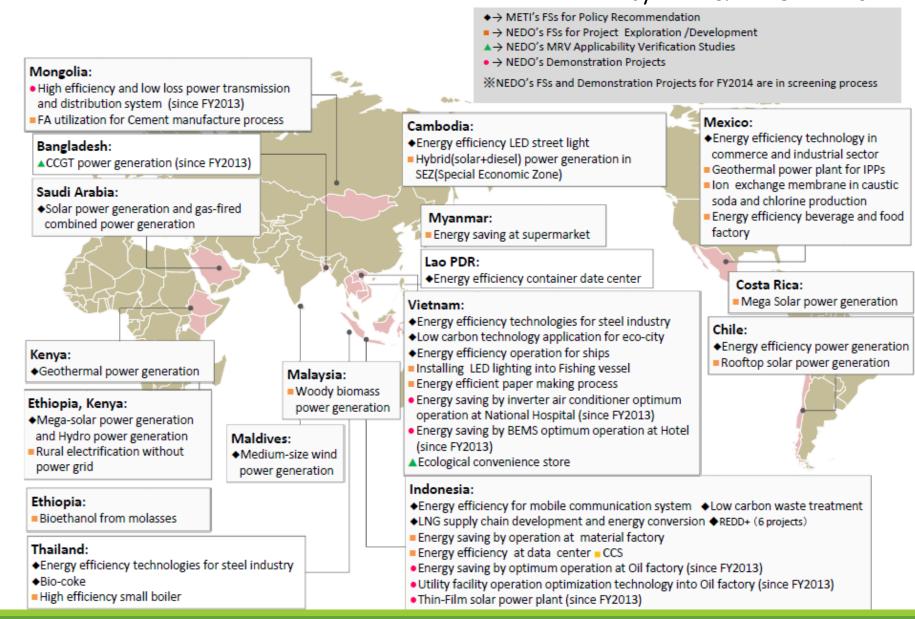
JCM Feasibility Study (FS)

The study to promote potential JCM projects and to survey their feasibility as well as to check the practicality of the MRV methodology.

Capacity Building Programmes

Variety of capacity building activities to increase technical experts

JCM Feasibility Studies, MRV Applicability Verification Studies and Demonstration Projects by METI & NEDO in FY2014



JCM Special Financing Scheme(JSF)

JBIC (Japan Bank for International Cooperation)

- Overseas Investment Loans: Case for Japanese company investing to the projects
- Export Loans: Case for Japanese company exporting products or service
- United loans: Case of projects without Japanese company

Source: JBIC website

NEXI (Nippon Export and Investment Insurance)

Covering insurance rate of country risk for JCM projects in which Japanese companies involve or export products: 100%

Source: NEXI website

Technical support by MOE

- Methodology development
- Making PDD for a project registration
- Making a monitoring report for credit issuance (only first time)
- Validation and Verification by The Third Party Entity (TPE)

This support service is applicable for project participants using Financing Programme for JCM Model Projects, Financial support for expansion of low-carbon technologies and ADB trust fund

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>



JCM Planning/Feasibility/REDD+ Studies in 2014 by MOE

Mongolia:

- ◆10MW-scale Solar Power Generation for Stable Power Supply
- ◆Efficiency Improvement of Combined Heat and Power Plant by Thermal Insulation

◆-- JCM Project Planning Study (PS)

- ◆-- JCM Feasibility Study (FS)
- ◇-- REDD+ Demonstration Study (REDD+)

Bangladesh:

- Saving Energy through the installation of High efficiency Air Jet Loom in weaving field
- ◆Waste Heat Recovery and Utilization in Textile and Garment Factories

Sri Lanka:

◆10MW-scale Biomass based Power Generation

Maldives:

◆Installation of Solar PV and Storage Battery with Energy Management System (EMS)

Ethiopia:

◆20MW-scale Geothermal Power Generation

Kenya:

◆Energy Saving by Micro Flush Toilet

Myanmar:

- ◆Introduction of Waste to Energy Plant in Yangon City
- ◆Environment Improvement through Utilization of Biogas from POME Fermentation System

Source: Government of Japan

Lao PDR:

◆Biomass Utilization in Cement Kiln ◇REDD+ in Luang Prabang Province

Cambodia:

- Energy Saving by Efficiency Improvement of Water Treatment Plants of Phnom Penh Water Supply Authority

Palau:

◆Solar Power Generation System

Costa Rica:

◆Promotion of Electric Vehicle for Taxi Usage

Vietnam:

- ◆Introduction of Energy-from-Waste Project in Ho Chi Minh City
- ◆Saving Energy by introducing optimum pumps in water purification plant
- ◆Energy Saving for Irrigation Facility by Introducing High-efficiency Pumps
- ◆40MW-scale Hydro Power Generation in Lao Cai Province
- ◆Recovery and Utilization of Biogas from Mixed-treatment of Waste and Septage
- ◆Introduction of Co-generation System Using Bagasse in Sugar Factory

Indonesia:

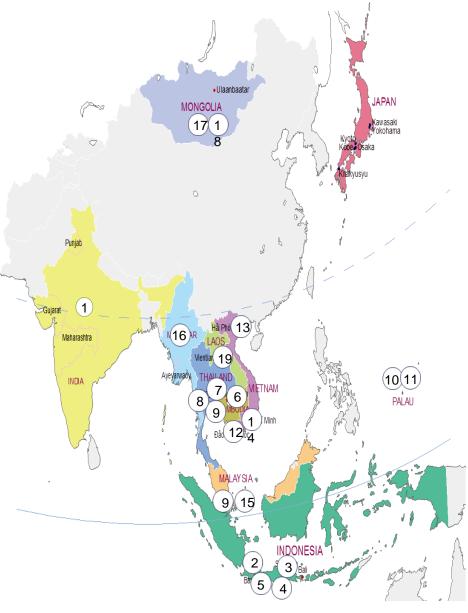
- ◆Installation of Combined Heat and Power System in Hotel
- ◆Waste Heat Recovery and Electricity Generation in Flat Glass Production Plant
- ◆Introduction of High Efficient Old Corrugated Cartons Process at Paper Factory
- ♦3.7MW Run-of-river Hydro Power Generation in Sulawesi
- ♦ Improvement of REDD+ Implementation Using IC Technology

Large Scale JCM Feasibility Study in 2014 by MOE

Selected Studies

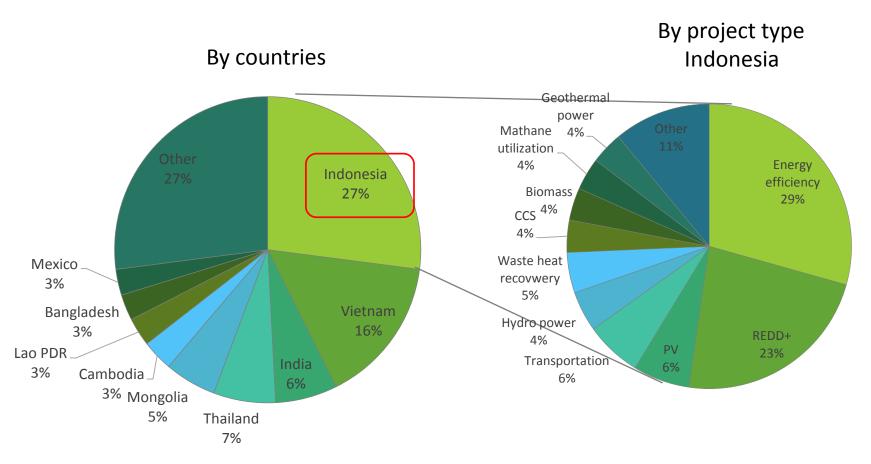
- 1. The feasibility study to promote Low Carbon Technology application in India(Gujarat, Maharashtra, Pumjab)
- 2. Feasibility study on financing scheme development project for promoting energy efficiency equipment installation in Indonesia(Jakarta, Bali etc.)
- 3. Low Carbon City Planning Project in Surabaya, Indonesia(Surabaya City)
- 4. Feasibility Study on Eco-Lease Scheme for Low Carbon Vehicle towards Joint Crediting Mechanism Projects Expansion (Indonesia National Level)
- 5. Collaboration on Project for Developing a Low Carbon Society under collaboration between Bandung city and Kawasaki cityin Bandung, Indonesia(Bandung)
- 6. Study for Developing Environmentally and Culturally Sustainable Cities through the Joint Crediting Mechanism in Siem Reap(Angkor Park and Siem Reap city)
- 7. Study on the Accelerating Implementation of Bangkok Master Plan on Climate Change through the JCM(Bangkok)
- 8. Introduction of a recycling system for cars and parts in Thailand(Bangkok)
- 9. Strategic Promotion of Recovery and Destruction of Fluorocarbons (Bangkok/Johor Bahru)
- 10. Demonstration Project on Installing an Evacuation Shelter with Renewable Energy as a "Low-Carbon/Resilient Model for Small Island Countries" (Palau etc.)
- 11. Feasibility study on comprehensive resource circulation system for low carbon society in Republic of Palau(Palau)
- 12. The feasibility study toward eco-island in cooperation between Kien Giang Province and Kobe City(Kien Giang Province)
- 13. Hai Phong Green Growth Action Plan Development in Association with Kitakyushu City (Hai Phong City)
- 14. Ho Chi Minh City Osaka City Cooperation Project for Developing Low Carbon City (Ho Chi Minh City)
- 15. Feasibility Study on a Large-Scale GHG Emissions-Reduction Project Development in the Iskandar Development Region, Malaysia(Iskandar Development Region)
- 16. Feasibility Study on Rice Husk Power Generation System for Low-carbon Communities in Ayeyarwady Region, Myanmar(Ayeyarwady)
- 17. 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)
- Mongolia(Ulaanbaatar)
- 19.JCM Feasibility Studies of GHG Mitigation Projects Contributing to Low Carbon

18. Feasibility study on a programme-type finance scheme for the JCM in Old Capital based on City-to-City Cooperation between Vientiane and Kyoto("Vientiane)



Source: Government of Japan

Projects and studies supported by Japanese government



Cases implemented form 2010-2014

Source: New market mechanism information platform website