

Workshop on Joint Crediting Mechanism in Mongolia: rules, validation and verification 03 September, 2014

Latest development of JCM in Mongolia: key challenges and opportunities

E.Sanaa

CDM National Bureau

Climate Change Coordination Office

Ministry of Environment and Green Development

Current status of JCM in Mongolia

- 3 July 2012 Governmental consultation (Ulaanbaatar)
- > 1 November 2012 Governmental consultation (Tokyo)
- > 30 November 2012 Governmental consultation (Doha)
- ➤ 6 December 2012 Joint Statement (Doha)







8 January 2013 Signing of the "Low Carbon Development Partnership" (bilateral document for the JCM)

Countries with which Japan has signed on bilateral documents

Japan has held consultations for the JCM with developing countries since 2011 and signed the bilateral document for the JCM with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR, Indonesia, Costa Rica, Palau, Cambodia and Mexico.



Mongolia
Jan. 8, 2013

Bangladesh
Mar. 19, 2013



Ethiopia May 27, 2013 (Addis Ababa)



Kenya Jun. 12,2013 (Nairobi)



Maldives
Jun. 29, 2013
(Okinawa)



Viet Nam Jul. 2, 2013 (Hanoi)



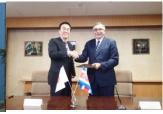
(Ulaanbaatar)

Lao PDR Aug. 7, 2013 (Vientiane)



Indonesia Aug. 26, 2013 (Jakarta)

(Dhaka)



Costa Rica Dec. 9, 2013 (Tokyo)



Palau Jan. 13, 2014 (Ngerulmud)



Cambodia
Apr. 11, 2014
(Phnom Penh)

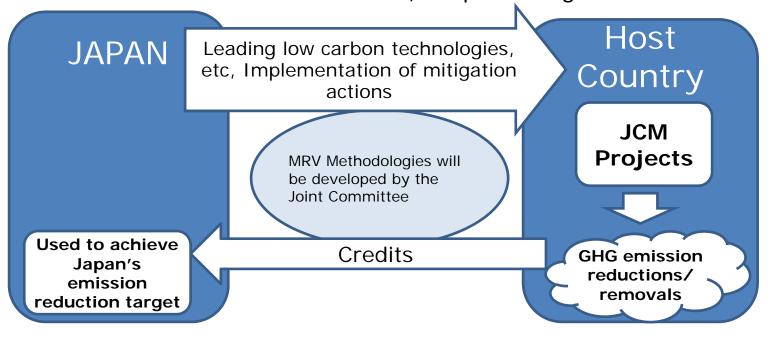


Mexico Jul. 25, 2014 (Mexico City)

➤ Japan held the Joint Committee with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Indonesia and Palau respectively.

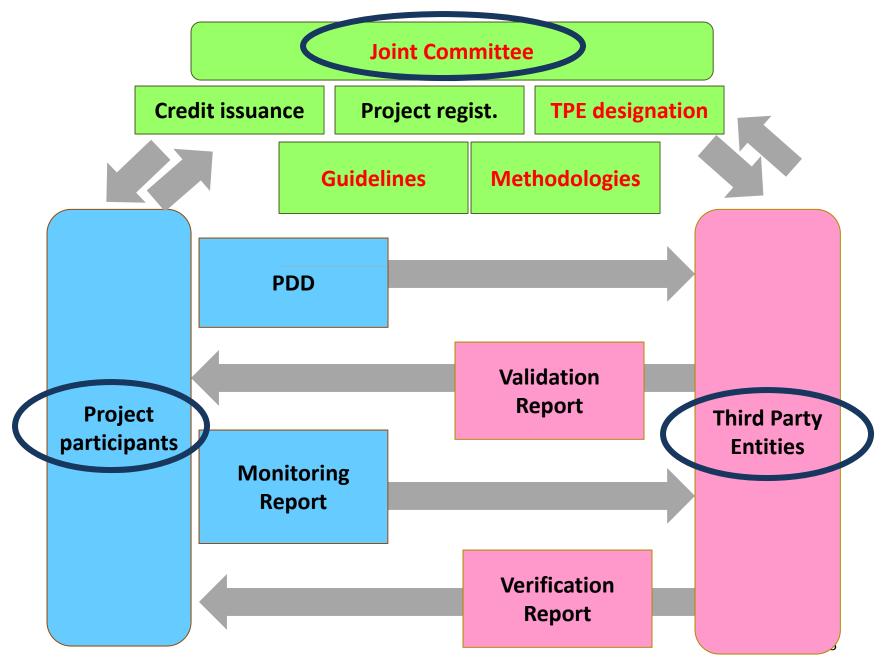
Basic Concept of the JCM

- ◆ 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 to GHG emission reductions or removals from developed countries in a quantitative manner, through mitigation actions implemented in developing countries and use those emission reductions or removals to achieve emission reduction targets of the developed countries.
- ◆ Contributing to the ultimate objective of the UNFCCC by facilitating global actions for GHG emission reductions or removals, complementing the CDM



Source: Ministry of the Environment Japan

JCM stakeholders





Joint Committee



Mongolia

Co-Chair (MEGD)

Members (7 Ministries and UB City Authority)

Secretariat (MEGD)

Observers (Clean Air Fund and National Renewable Energy Center) Japan

Co-Chair (MoFA)

Members (2 Ministries and Japanese Embassy in Mongolia)

> Secretariat (Mitsubishi UFJ Research and Consulting

Observers (IGES, OECC, GEC, NEDO and JICA)



Joint Committee (JC) of Mongolia

	Organization	JC member	Alternate JC member	Co-Chair	JCM focal point	JCM secretariat
	Ministry of Environment and Green Development			D.Dagvadorj	Ts.Gerelt- Od	E.Sanaa
						Kh.Undarm aa
1	Ministry of Foreign Affairs	G.Ganbold	B.Gereltsetseg			
2	Ministry of Industry and Agriculture	B.Altantsetseg	I.Bold			
3	Ministry of Mining	B.Batkhuu	D.Otgonlkhagva			
4	Ministry of Road and Transport	N.Battulga	Ts.Bayarjargal			
5	Ministry of Construction and Urban Development	D.Gantulga	Yu.Dorjpagma			
6	Ministry of Economic Development	S.Bekhbat	B.Chimegee			
7	Ministry of Energy	B.Tovuudorj	M.Tumenjargal			
8	UB City authority	Kh.Galimbek	N.Nasanjargal			

Joint Committee decisions since 2013



JCM Methodology

Approved Methodology – MN_AM001 (20 Feb, 2014)

Installation of energy-saving transmission lines in the Mongolian Grid"

Preparing Methodology to propose

Replacement and Installation of High-Efficient Heat Only Boilers (HOBs) for Hot Water Supply Systems

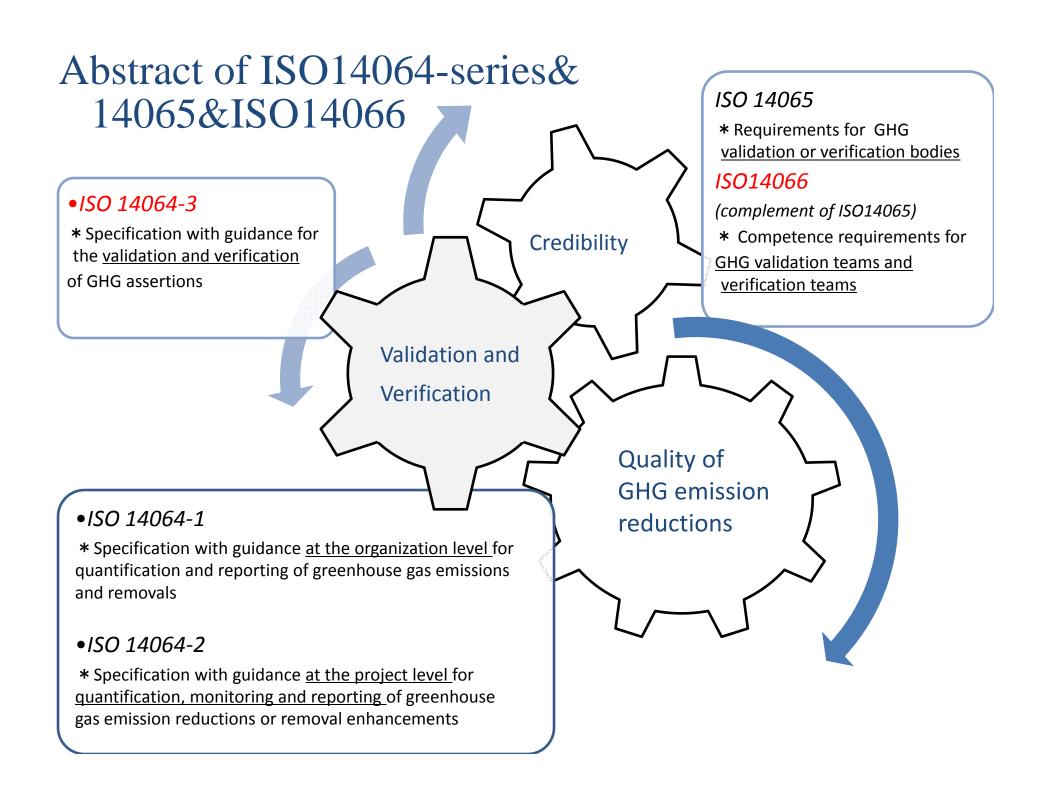
Third Party Entity (TPE)

Number	Name	Sectoral scopes for validation	Sectoral scopes for verification	Designate d date	
<u>TPE-MN-010</u>	KBS Certification Services Pvt. Ltd.	1, 3, 4, 5, 7, 12, 13, 15	1, 3, 4, 5, 7, 12, 13, 15	15 Jan 14	
<u>TPE-MN-009</u>	SGS United Kingdom Limited	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15	15 Jan 14	
<u>TPE-MN-008</u>	TÜV SÜD South Asia Private Limited	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15	24 Dec 13	
<u>TPE-MN-007</u>	Lloyd's Register Quality Assurance Limited	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13	05 Dec 13	
<u>TPE-MN-006</u>	Deloitte Tohmatsu Evaluation and Certification Organization Co., Ltd	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 15	05 Dec 13	
<u>TPE-MN-005</u>	JACO CDM., LTD	1, 3, 13, 14	1, 3, 13, 14	16 Oct 13	
<u>TPE-MN-004</u>	Japan Management Association	1, 2, 3, 4, 6, 8, 9, 14	1, 2, 3, 4, 6, 8, 9, 14	24 Sep 13	
<u>TPE-MN-003</u>	Japan Quality Assurance Organization	1, 3, 4, 5, 11, 13, 14	1, 3, 4, 5, 11, 13, 14	24 Sep 13	
<u>TPE-MN-002</u>	Japan Consulting Institute	1,2,4,5,9,10,13	1,2,4,5,9,10,13	24 Sep 13	withdrawn
<u>TPE-MN-001</u>	URS Verification Private Limited	1, 13	1, 13	24 Sep 13	

To become a TPE ...

To be eligible to become a TPE under the JCM, the candidate entity is either:

- An entity accredited under ISO 14065 by an accreditation body that is a member of the International Accreditation Forum (hereinafter referred to as "IAF") based on ISO 14064-2; or
- A Designated Operational Entity (hereinafter referred to as "DOE") of the Clean Development Mechanism (hereinafter referred to as "CDM")



JCM Feasibility Studies, MRV Applicability Verification Study and Demonstration Projects by METI & NEDO in FY2013

- ♦→ METI's FSs for Policy Recommendation
- → NEDO's FSs for Project Exploration/Development
- ▲→ NEDO's MRV Applicability Verification Study
- → NEDO's Demonstration Projects

Mongolia:

- ♦Wind-Power generation
- energy efficient housing complex at Ger area
- High efficiency and low loss power transmission and distribution system

Myanmar:

◆Run-of-river Micro Hydro Power Generation

Bangladesh:

▲CCGT power generation

Kenya:

◆Dissemination of Solar lantern

Kenya, Ethiopia:

Micro Hydro power plant

Djibouti, Rwanda:

◆Geothermal Power Generation

Vietnam:

- ◆Highly Efficient Coal Power Plants(Ultra Super Critical)
- ◆Water purification/sludge reduction
- Energy recovery using organic waste
- Wind-Power generation
- Energy saving by inverter air conditioner optimum operation at National Hospital
- Energy saving by BEMS optimum operation at Hotel

Lao PDR:

- ◆Energy saving at beer plant
- ◆REDD+

Indonesia:

- ◆Biomass Power Generation
- ◆Energy saving stores based on CO2 refrigerant
- ◆REDD+ (4 projects)
- Energy saving by optimum operation at Oil factory
- Utility facility operation optimization technology into Oil factory
- •Thin-Film solar power plant

Thailand:

- ◆Energy saving at Industrial Estate
- Air Conditioners using CO2 refrigerant

Mexico:

◆CCS (Carbon dioxide Capture and Storage)



Peru:

◆REDD+



- ◆Energy Efficient Air Conditioners (HFC 32)
- ◆Energy Efficient Technologies for Integrated Steel Works

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

- ♦→ METI's FSs for Policy Recommendation
- ▲ → NEDO's MRV Applicability Verification Studies
- → NEDO's Demonstration Projects

NEDO's FSs / MRV Applicability Verification Studies / Demonstration Projects
for FY2014 are in public offering process

Mongolia:

 High efficiency and low loss power transmission and distribution system (since FY2013)

Bangladesh:

▲CCGT power generation (since FY2013)

Saudi Arabia:

◆Solar power generation and gas-fired combined power generation

Mexico:

 Energy efficiency technology in commerce and industrial sector

Lao PDR:

◆Energy efficiency container date center

Chile:

◆Energy efficiency power generation

Kenya:

◆Geothermal power generation

Ethiopia, Kenya:

 Mega-solar power generation and Hydro power generation

Maldives:

 Medium-size wind power generation

Thailand:

- ◆Energy efficiency technologies for steel industry
- ◆Bio-coke

Cambodia:

◆Energy efficiency LED street light

Vietnam:

- ◆Energy efficiency technologies for steel industry
- ◆Low carbon technology application for eco-city
- ◆Energy efficiency operation for ships
- Energy saving by inverter air conditioner optimum operation at National Hospital (since FY2013)
- Energy saving by BEMS optimum operation at Hotel (since FY2013)

Indonesia:

- ◆Energy efficiency for mobile communication system
- ◆Low carbon waste treatment
- ◆LNG supply chain development and energy conversion
- ◆REDD+ (6 projects)
- Energy saving by optimum operation at Oil factory (since FY2013)
- Utility facility operation optimization technology into Oil factory (since FY2013)
- Thin-Film solar power plant (since FY2013)

JCM Model Projects in 2013 by MOEJ

Mongolia:

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

The high-efficiency Heat Only Boilers (HOBs) will replace outdated low-efficiency HOBs, to supply heated water for winter indoor heating. The project will also introduce centralized control system for the integrated heat supply in collective buildings.

Bangladesh:

 Brick Production based on Non-Firing Solidification Technology

In place of the existing brick production with the firing process with the combustion of coal, the new brick production with the non-firing solidification technology will be introduced.

Viet Nam:

 Integrated Energy Efficiency Improvement at Beer Factory

A set of high performance equipment for energy efficiency improvement and renewable energy generation will be introduced in beer factories. Before the installation, the potential of energy saving and possible high potential points in the beer production process will be identified by using the energy structure analysis simulation technology.

 Energy Efficient NH3 Heat Pumps to Marine Products Processing Industry

The high efficient heat pump using ammonia (NH3) as a refrigerant will be introduced to save their energy consumptions.

Cambodia:

◆ Small-scale Biomass Power Generation by Using Stirling Engines

The introduction of small-scale biomass power generation systems with stirling engines will replace diesel-based power generation at rice mills. The stirling engine, external-combustion engine, is suitable for the utilisation of biomass such as rice husk.

Indonesia:

 Energy Saving for Air-Conditioning and Process Cooling at Textile Factory (in Batang city)

The high performance refrigerating machine with efficient compressor and economizer cycle will be introduced for factory air-conditioning.

Energy Savings at Convenience Stores

The latest high-efficiency chillers with natural refrigerant (CO2 refrigerant), inverter-controlled air-conditioners, and LED lighting will be introduced in convenience stores. Rooftop photovoltaic power generation systems will also be introduced.

◆ Energy Efficient Refrigerants to Cold Chain Industry

The advanced energy efficient non-fluorocarbon cooling system using NH3 and CO2 will be introduced in the food industry and logistics industry. A screw compressor and an IPM (interior permanent magnet synchronous) motor are adopted and operated integrally, to achieve high efficient operation of the cooling facility.

- Energy Saving by Double Bundle-Type Heat Pump at Beverage Plant
 A double bundle-type heat pump, generating both heating and cooling energy, will be installed to reduce energy consumption.
- Energy Saving for Air-Conditioning and Process Cooling at Textile Factory (in West Java province & Banteng province)

The high performance refrigerating machine with efficient compressor and economizer cycle will be introduced for factory air-conditioning.

JCM Model Projects in 2014 by MOEJ

Viet Nam:

 Anaerobic Digestion of Organic Waste for Biogas Utilization at Market

Organic waste discharged from a market is used to generate biogas in a methane fermentation system. The biogas is then supplied to a seafood processing factory.

Eco-driving by Utilizing Digital Tachograph System
 Trucks are fitted with eco-drive improving system using digital tachographs, realizing CO2 emission reduction and safe-driving.



Indonesia:

- ◆Power Generation by Waste Heat Recovery in Cement Industry
 Waste heat recovery system with suspension preheater boiler and
 air quenching cooler boiler is installed in cement production process
 and generates electricity (28 MW) to be used in the cement plant.
- ◆Palm Waste Biomass Power Generation Project
 Fluidized bed furnace is installed in a biomass power generation
 plant (6.2 MW) utilizing EFB (Empty Fruit Bunch) as a fuel.
- ◆Solar Power Hybrid System Installation to Existing Base
 Transceiver Stations in Off-grid Area
 Solar power (900 kW) and lithium ion batteries are installed to replace inefficient diesel generators at mobile base stations.
- ◆Energy Saving through Introduction of Regenerative Burners to the Aluminum Holding Furnace of the Automotive Components Manufacturer

Regenerative burners which recover heat from exhaust gas efficiently are installed in a casting process.

• Energy Saving for Textile Factory Facility Cooling by High
Efficiency Centrifugal Chiller

Chiller with a high efficiency compressor and economizer cycle are installed.

Overview of JCM Project Planning/Feasibility/REDD+ Studies in 2014 by MOEJ

Mongolia:

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

Bangladesh:

◆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

- -- JCM Project Planning Study (PS)
- ◆-- JCM Feasibility Study (FS)
- ♦-- REDD+ Demonstration Study (REDD+)

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
- ♦ REDD+ in Prey Long Area and Seima Area

Palau:

◆Solar Power Generation System

Costa Rica:

◆Promotion of Electric Vehicle for Taxi Usage

Viet Nam:

- ♦Introduction of Energy-from-Waste Project in Ho Chi Minh City
- Energy Saving for Irrigation Facility by Introducing Highefficiency 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

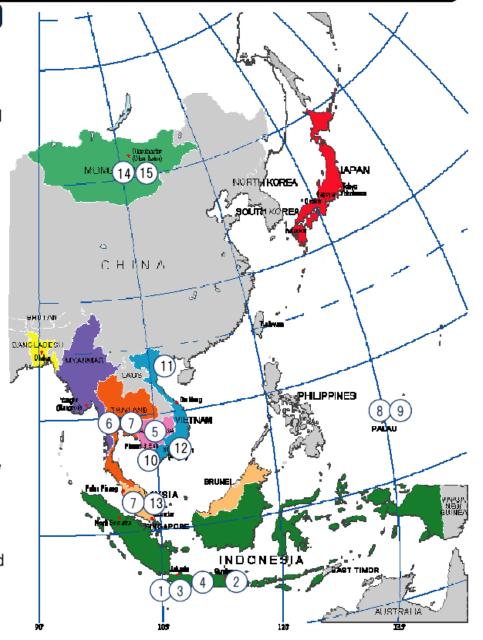
Indonesia:

- ♦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 MOEJ

Selected Studies

- Financing Scheme Development for Promoting Energy Efficiency Equipment Installation in Indonesia (Jakarta, Bali etc.)
- Low Carbon City Planning in Surabaya, Indonesia(Surabaya)
- Eco-Lease Scheme for Low Carbon Vehicle (Indonesia National Level)
- Developing a Low Carbon Society under Collaboration between Bandung City and Kawasaki City (Bandung)
- Developing Environmentally and Culturally Sustainable in Angkor Park (Siem Reap)
- Accelerating Implementation of Bangkok Master Plan on Climate Change (Bangkok)
- Strategic Promotion of Recovery and Destruction of Fluorocarbons (Bangkok/Johor Bahru)
- Installing an Evacuation Shelter with Renewable Energy as a "Low-Carbon/Resilient Model for Small Island Countries" (Palau etc.)
- Comprehensive Resource Circulation System for Low Carbon Society (Palau)
- Eco-island in Cooperation between Kien Giang Province and Kobe City (Phu Quoc island)
- 11. Hai Phong Green Growth Action Plan Development in Association with Kitakyushu City (Hai Phong City)
- 12. Ho Chi Minh City Osaka City Cooperation for Developing Low Carbon City (Ho Chi Minh City)
- 13. Large-Scale GHG Emissions-Reduction Project Development in the Iskandar Development Region, Malaysia (Iskandar)
- 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 (Ulaanbaatar)
- 15. Programme-type Finance Scheme for the JCM (Ulaanbaatar)

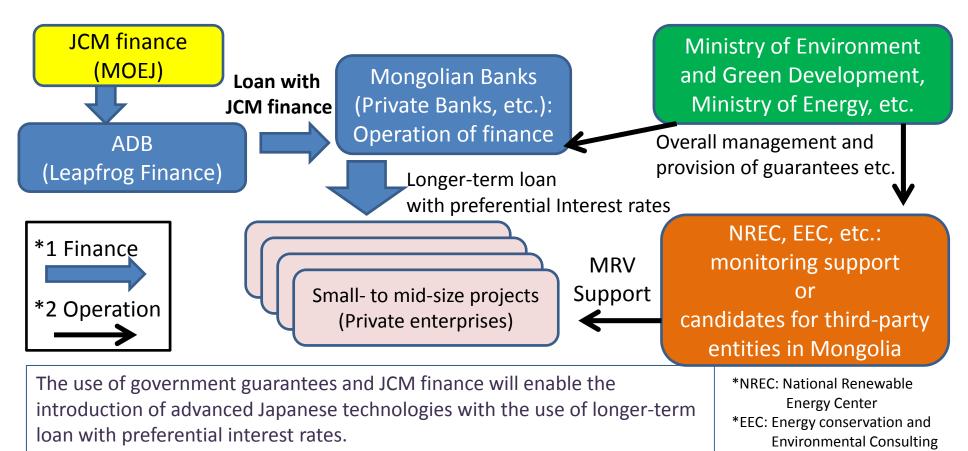


Feasibility study on a programme-type finance scheme for the JCM in Mongolia

1. Project Outline

The proposed study will be carried out in order to design a programme-type finance scheme for the JCM with the use of the JCM leap-frog finance and in partnership with local banks that will facilitate the implementation of small- to middle-scale JCM projects

OECC



Advantages to the proposed finance scheme:

- * It will enable the introduction of Japanese technologies tailored to the needs of Mongolia.
- * Local entities will effectively manage a number of small- to middle-scale projects.

FOR ADDITIONAL INFORMATION

gec.jp



Challenges related to implementing JCM

- Technical barriers (e.g. methodology development, monitoring, validation and verification)
- Institutional barriers (e.g. lack of information, inter-ministerial coordination etc)
- Financial barriers (e.g. upfront investment)
- Finding appropriate partners is challenging (Japanese and Mongolian)

Thank you very much for your kind attention

www.mne.gov.mn www.climatechange.gov.mn www.cdm-mongolia.com

New Support Program Enabling Leapfrog Development (ADB)

Background and Purpose

By utilizing the superior and advanced low-carbon technologies, Japan assists the developing countries to enable to "Leapfrog" development and let the developing countries achieve the "Harmony with Nature, Low Carbon and Sound Material Cycle" Society" as the new paradigm suit to 21th Century in Asia Pacific Area

Scheme

Fund to ADB

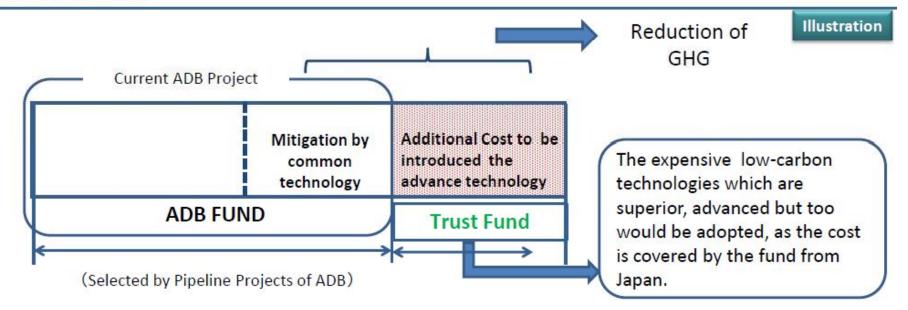
Project Period: 2014 to 2020

Description

The low-carbon technologies which are superior, advanced but too expensive would be adopted, as the cost is covered by the fund from Japan. Due to this finance scheme, the assistances to developing countries by ADB lead to the "Leapfrog" developments and Japan acquires Credit by JCM.

Effectiveness

- Contribution to acquire the Credit by JCM as well as reducing the GHG in the developing countries.
- Expanding the superior and advanced low-carbon technologies in Japan to Asia and Pacific.



Feasibility study on a programme-type finance scheme for the JCM in Mongolia

2. Contents of study

- (1) Establishment of a programme-type JCM finance scheme
- (2) Identification of appropriate Japanese technologies for the scheme
- (3) Establishment of Institutional Arrangements for MRV of JCM projects

3. Target Site



Solar Power Systems

Technologies to be introduced

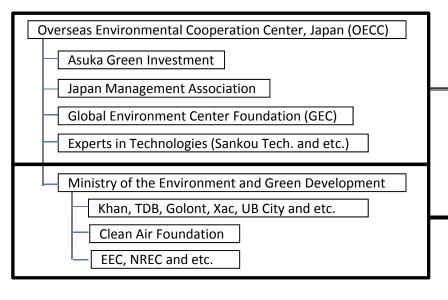
OECC



3-level inverter system



4. Organizational structure for study



Asian Development Bank (ADB)

Mongolian Government

Ministry of Finance

Ministry of Economic Development

Ministry of Energy

Amorphous Core Transformers



High-efficiency heat only boiler

Current status of Mongolia under the UNFCCC

The Mongolian government's response to address the issue of climate change has been positive

- Ratification of the UNFCCC (1993)
- Ratification of the Kyoto Protocol (1999)

Undertaken steps to implement UNFCCC's goal

- Initial national communication (1st November 2001)
- Submission on NAMAs (28th January 2010)
- Second national communication (10th December 2010)
- National Action Program on Climate Change (6th January 2011)
- Technology Needs Assessment (2013)

Upcoming steps to implement UNFCCC's goal

- Preparation of first Biennial Update Report (BUR)
- Preparation of Third National Communication (TNC)



POLICY TO MITIGATE GHG EMISSIONS

Actions to address climate change challenges must be ultimately linked to the government strategies on sustainable development and economic growth, and fall across a variety of sectors, including energy, industry, transport, agriculture, forest, grassland management and waste management sectors.

Government Policy goals and targets for Low Carbon Development

Main document

NATIONAL ACTION PROGRAM ON CLIMATE CHANGE

(2011-2016; 2017-2021)

1.Establish the legal environment, structures, institutions and regulatory frame-work supporting the activities directed to solve the issues due to climate change.

2. Ensure environmental sustainability and reduce socio-economic vulnerabilities and risks through strengthening national capacity to adapt to climate change.

5

strategic objectives

3. Mitigate greenhouse gas emissions and establish a low carbon economy through the introduction of environmentally-friendly technologies and improvement of efficiency and productivity in production and consumption.

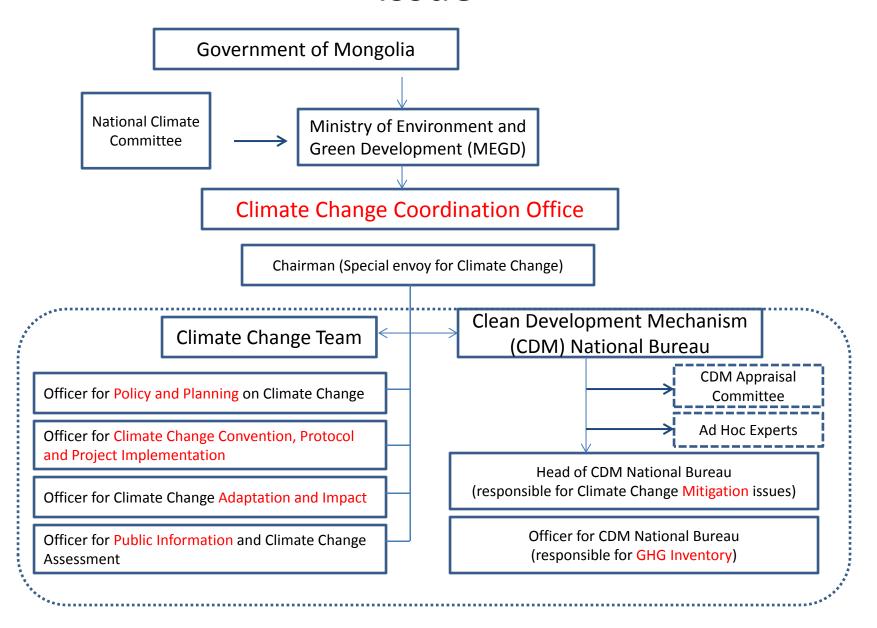
4. Expand national climate observation network, research and assessment works, reform technologies and strengthen the capacity of human resources.

5.Conduct public awareness raising activities and support citizen and communities in participating climate change mitigation and adaptation actions.

Supporting documents

- LAW ON AIR REVISED (2012, 2010, 1995)
- LAW ON ENVIRONMENTAL PROTECTION (1995, 2007)
- LAW ON DISASTER PREVENTION, 2003
- NATIONAL SECURITY PRIORITIES
- THE MONGOLIA ACTION PROGRAMME FOR THE 21ST CENTURY (MAP21)
- THE MDG-BASED COMPREHENSIVE NATIONAL DEVELOPMENT STRATEGY OF MONGOLIA (2008)
- ► NATIONAL RENEWABLE ENERGY PROGRAM (2005-2020)
- ➤ NEW RECONSTRUCTION MIDTERM DEVELOPMENT PROGRAM (2010-2016)
- ➤ CONCEPT NOTE AND MIDTERM PROGRAM FOR GREEN DEVELOPMENT (2013-2032; DRAFT)

Institutional arrangement for climate change issue



Capacity Building: Bilateral cooperation with Ministry of Environment, Japan



MEGD and IGES jointly organized workshops (FY2013)

1. JCM and Validation & Verification Bodies, 25 June 2013

Objectives: To enhance participants' understanding on JCM and greenhouse gas management standards under the ISO To identify relevant activities and institutions ongoing in Mongolia

To identify potential third party entities to perform validation and verification processes under JCM

2. Market mechanisms (CDM&JCM): updates and latest development, 25 June 2013

Objectives: To provide general information on market mechanisms to interested stakeholders

To update participant about recent developments concerning Clean Development Mechanism (CDM) and Joint Offset Credit Mechanism (JCM)

To discuss opportunities for Mongolia in implementing projects under these mechanisms and identify capacity building needs

3. JCM business opportunities on validation and verification, 28 October 2013

Objectives: To enhance participants' understanding on JCM and opportunities to support JCM Third Party Entities (TPE) for their validation and verification activities

4. Market mechanisms (CDM&JCM): updates and latest development, 29 October 2013

Objectives: To provide general information on market mechanisms to interested stakeholders

To update participant about recent developments concerning Clean Development Mechanism (CDM) and Joint Offset Credit Mechanism (JCM)

To discuss opportunities for Mongolia in implementing projects under these mechanisms and identify capacity building needs

5. Training on Validation for Joint Crediting Mechanism, 22 January 2014

Objectives: To familiarize participants to the preparation or monitoring plan, and validation, thereby assisting them to be involved in upcoming JCM projects in Mongolia

Issue certificates to assist participants join JCM project formulation

Current financing scheme of JCM

- Global Environment Centre Foundation (GEC)
 - Finance up to 50% of the initial investment cost
 - Budgetary scale- 1.2 billion JPY (FY2013)



- New Energy Development Organization (NEDO)
 - Almost full finance, but the installed facilities need to be purchased by the consortiums at a discounted price later



- 3.1 billion JPY (FY2013)
- 50 million-1000 million per project

MoEJ and METI

Selected projects for FY2013 (MOEJ's Subsidy)

Туре	Project title	Estimated GHG Reductions
JCM Model project	Upgrading and Installation of Centralized Control System of High- Efficiency Heat Only Boiler	750 tCO2/year
JCM Project Planning Study (PS)	10MW-scale Solar Power Plant and Rooftop Solar Power Generation System	(i) 16,500 tCO2/year(ii) 4 tCO2/year/project
JCM Methodology Demonstration Study (DS)	Centralization of Heat Supply System by Installation of High- Efficiency Heat Only Boiler	750 tCO2/year
JCM Feasibility	Improvement of Thermal Insulation and Water Cleaning/Air Purge at Power Plant	3,000 tCO2/year
Study	10MW-scale Solar Power Generation for Stable Power Supply	17,537 tCO2/year
	Energy conservation at cement plant	78,000 tCO2/year

Selected projects for FY2013 (NEDO&METI)

Туре	Project title	Estimated GHG Reductions		
NEDO's Feasibility Studies with the Aim of Developing the JCM				
Feasibility Study	GHG emission reduction by introducing an energy-efficient complex in Ger area of Ulaanbaatar			
NEDO's Dissemination and Promotion of Global Warming Countermeasure Technology Program Country: Mongolia				
Demonstration and verification project	and verification transmission and distribution system in			
Ministry of Economics, Trade and Industry (METI)				
Feasibility Study	Research on developing projects on wind power generation	-		