



MINISTRY OF ENVIRONMENT,
GREEN DEVELOPMENT AND TOURISM



NATURE CONSERVATION FUND

Current state of Joint Crediting Mechanism development in Mongolia

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Ulaanbaatar, Mongolia
28th July, 2016

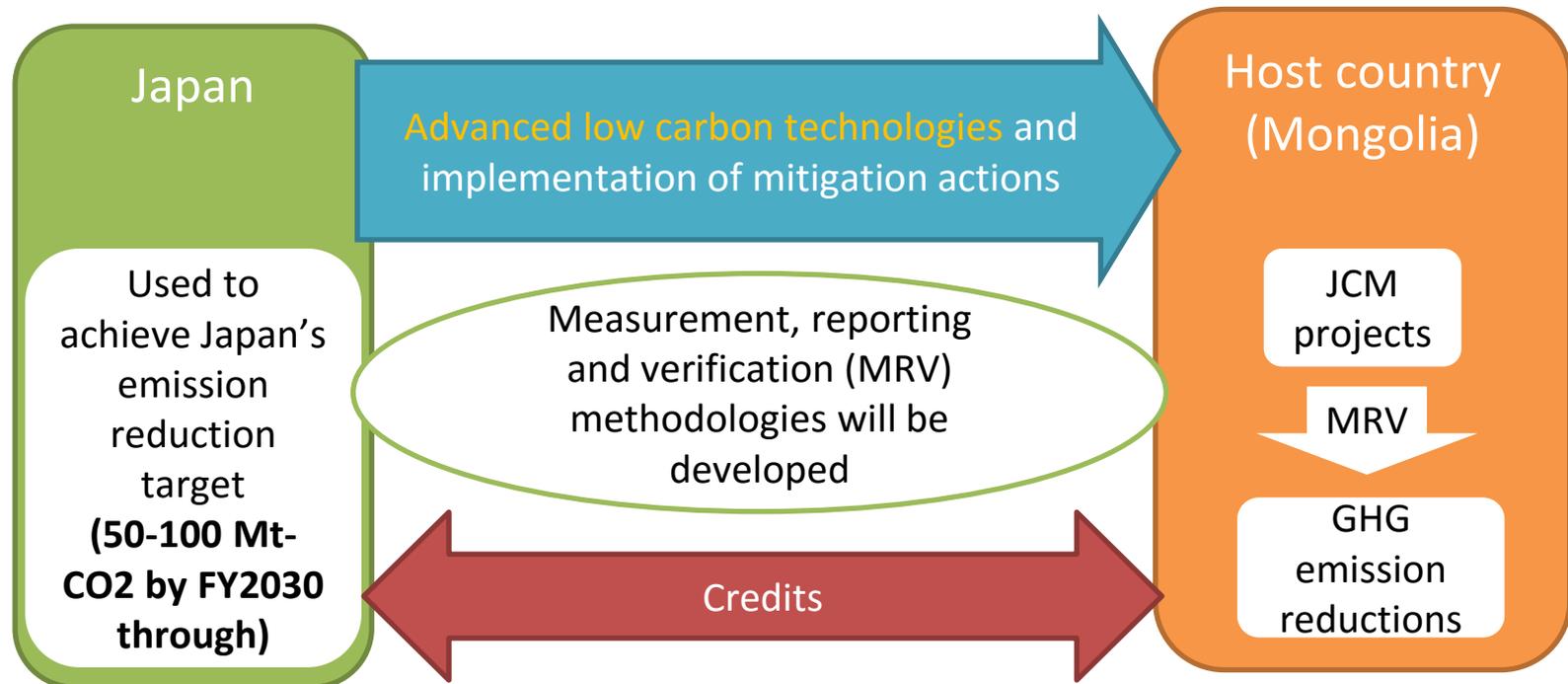
A photograph of a dam with a red wooden building on top. The dam is a concrete structure with a spillway where water is cascading down. The background features a rocky mountain under a blue sky with white clouds. The foreground shows some rocks and grass.

Contents

- Low carbon development partnership
- Joint committee
- JCM projects
- TPEs
- JCM secretariat
- Financing; Institutional framework to implement small and medium sized projects
- Upcoming activities

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.



Road to LCDP

Governmental consultation
(Ulaanbaatar -3 July 2012)

Governmental consultation
(Tokyo -1 November 2012)

Governmental consultation
(Doha -30 November 2012)

Joint Statement
(Doha -6 December 2012)

**Signing of the “Low Carbon Development Partnership”
(bilateral document for the JCM)
(Ulaanbaatar- 8 January 2013)**

Start of “JCM”

JCM **first** Joint Committee meeting
(Ulaanbaatar - 11 April 2013)

JCM **second** Joint Committee meeting
(Ulaanbaatar - 20 February 2014)

JCM **third** Joint Committee meeting
(Ulaanbaatar - 30 June 2015)

Joint Committee

Mongolia

Co-Chair

Members (7
Ministries and UB
City Authority)

Secretariat

Japan

Co-Chair

Members
(2 Ministries and
Japanese Embassy
in Mongolia)

Secretariat



JCM PROJECTS in MONGOLIA (2013-2014)

| Project type | Project title | Sector scope | Support |
|--|--|--------------|-----------|
| Model project | Upgrading and Installation of Centralized Control System of High-Efficiency Heat Only Boiler | Energy (EE) | MoEJ/GEC |
| Project Planning Study (PS) | 10MW-scale Solar Power Plant and Rooftop Solar Power Generation System | Energy (RE) | MoEJ/GEC |
| Feasibility Study (FS) | Improvement of Thermal Insulation and Water Cleaning/Air Purge at Power Plant | Energy (EE) | MoEJ/GEC |
| | 10MW-scale Solar Power Generation for Stable Power Supply | Energy (RE) | MoEJ/GEC |
| | Energy conservation at cement plant | Energy (EE) | MoEJ/GEC |
| | GHG emission reduction by introducing an energy-efficient complex in Ger area of Ulaanbaatar | Energy (EE) | METI/NEDO |
| | Research on developing projects on wind power generation | Energy (RE) | METI/NEDO |
| Demonstration and verification project | High efficiency and low loss power transmission and distribution system in Mongolia | Energy (EE) | METI/NEDO |

JCM PROJECTS in MONGOLIA (2014-2015)

| Project type | Project title | Sector scope | Supporter |
|-----------------------------------|---|-----------------------------|--|
| JCM Project Planning Study (PS) | 10MW-scale Solar Power Generation for Stable Power Supply - Taishir | Energy (RE) | MoEJ/GEC |
| Large Scale JCM Feasibility Study | 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 | Energy (EE) | MoEJ/GEC |
| | Feasibility study on a programme-type finance scheme for the JCM in Mongolia | - | MoEJ/IGES |
| JCM Feasibility Study (FS) | Efficiency Improvement of Combined Heat and Power Plant by Thermal Insulation | Energy (EE) | MoEJ/GEC |
| | Reduction of CO2 emission by utilizing fly ash as cement substitute in Mongol | Waste handling and disposal | METI/NEDO |
| | GHG reduction by methane fermentation of sewage sludge and food waste in Ulaanbaatar | Waste handling and disposal | MoEJ/Waste management and recycling department |
| FS and Demo project | Co-benefit project for Heat Only Boiler | Energy (EE) | MoEJ/International Cooperation Office/OECC |

JCM PROJECTS in MONGOLIA (2015-2016)

| Project type | Project title | Sector scope | Support |
|------------------------|--|---------------------------------------|----------|
| Model project | 10MW Solar Power Project in Darkhan City | Energy (EE) | MoEJ/GEC |
| Model project | Installation of 2.1MW Solar Power Plant for Power Supply in Ulaanbaatar Suburb | Energy (RE) | MoEJ/GEC |
| Feasibility Study (FS) | Distributed heat supply system using biomass and coal mixture combustion type boiler | Waste Management /Biomass Utilisation | MoEJ/GEC |



Approved documents for the JCM by JC

Rules and Guidelines

| | | |
|-------------------|------------------|---|
| Overall | | <ul style="list-style-type: none">•Rules of Implementation•Project Cycle Procedure•Glossary of Terms•Guidelines for Designation as a Third Party Entity (TPE guidelines) |
| Joint Committee | | <ul style="list-style-type: none">•Rules of Procedures for Joint Committee (JC rules) |
| Methodology | | <ul style="list-style-type: none">•Guidelines for Developing Proposed Methodology (methodology guidelines) |
| Project procedure | Developing a PDD | <ul style="list-style-type: none">•Guidelines for Developing Project Design Document and Monitoring Report (PDD and monitoring guidelines) |
| | Monitoring | |
| | Validation | <ul style="list-style-type: none">•Guidelines for Validation and Verification (VV guidelines) |
| | Verification | |

Approved templates for the JCM by JC

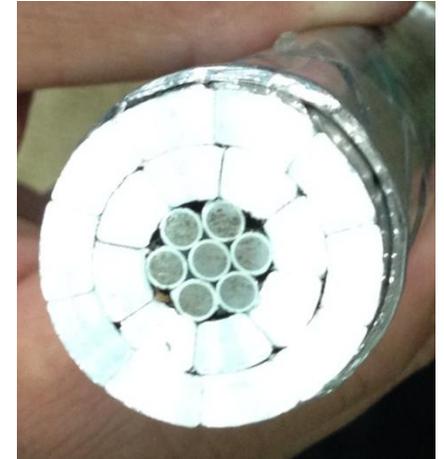
Templates

| | |
|------------------------|---|
| Methodology | <ul style="list-style-type: none">•Proposed Methodology Form•Approved Methodology Revision Request Form |
| Project Planning | <ul style="list-style-type: none">•Project Design Document Form•Project Registration Request Form•Proposed Methodology Spreadsheet Form•Modalities of Communication Statement Form |
| Project Implementation | <ul style="list-style-type: none">•Post-Registration Changes Request Form•Registration Request Withdrawal Form•Project Withdrawal Request Form•Credits Issuance Request Form•Issuance Request Withdrawal Form |
| TPE | <ul style="list-style-type: none">•Application Form for Designation as a Third Party Entity•Validation Report Form•Verification Report Form |

Approved Methodology

MN_AM001 (20 Feb, 2014)

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



MN_AM002 (30 Jan, 2015)

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



Registered projects

MN001 (30 Jun, 2015)

Installation of high-efficiency Heat Only Boilers in 118th School of Ulaanbaatar City Project

MN002 (30 Jun, 2015)

Centralization of heat supply system by installation of high-efficiency Heat Only Boilers in Bornuur soum Project



Designated Third Party Entities (TPEs)

| Number | Name | Sectoral scopes for validation | Sectoral scopes for verification | Designated date | Comments |
|------------|--|---|---|-----------------|------------------|
| TPE-MN-014 | ERM Certification and Verification Services Limited | 1, 2, 3, 4, 5, 8, 9, 10, 13, 15 | 1, 2, 3, 4, 5, 8, 9, 10, 13, 15 | 26 Sep 15 | |
| TPE-MN-013 | National Renewable Energy Center | 1, 2, 3 | 1, 2, 3 | 27 Apr 15 | |
| TPE-MN-012 | EPIC Sustainability Services Private Limited (EPIC) | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15 | 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 13, 14, 15 | 05 Apr 15 | |
| TPE-MN-011 | TUV Rheinland (China) Ltd | 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 | 09 Sep 14 | |
| TPE-MN-010 | KBS Certification Services Pvt. Ltd. | 1, 3, 4, 5, 7, 12, 13, 15 | 1, 3, 4, 5, 7, 12, 13, 15 | 15 Jan 14 | |
| TPE-MN-009 | 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 | |
| TPE-MN-008 | 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 | |
| TPE-MN-007 | 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 | |
| TPE-MN-006 | 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 | |
| TPE-MN-005 | JACO CDM., LTD | 1, 3, 13, 14 | 1, 3, 13, 14 | 16 Oct 13 | withdrawn |
| TPE-MN-004 | Japan Management Association | 1, 2, 3, 4, 6, 8, 9, 14 | 1, 2, 3, 4, 6, 8, 9, 14 | 24 Sep 13 | |
| TPE-MN-003 | Japan Quality Assurance Organization | 1, 3, 4, 5, 11, 13, 14 | 1, 3, 4, 5, 11, 13, 14 | 24 Sep 13 | |
| TPE-MN-002 | Japan Consulting Institute | 1,2,4,5,9,10,13 | 1,2,4,5,9,10,13 | 24 Sep 13 | withdrawn |
| TPE-MN-001 | URS Verification Private Limited | 1, 13 | 1, 13 | 24 Sep 13 | |

National TPE development

Capacity buildings are organized by MEGDT and IGES for potential TPE candidates in Mongolia

| Instructor | Title | Date |
|--------------------------|--|----------------|
| Shigenari Yamamoto (JQA) | Seminar on “Required competences for self-implementation of JCM Validation/verification activities by Mongolian people “ | 28 Oct 2013 |
| Kenta Usui (IGES) | Training on “Validation for JCM “ | 22 Jan 2014 |
| Tsuyoshi Nakao (ERM) | Training on “Validation/verification for JCM” | 3-5 Mar 2015 |
| Tsuyoshi Nakao (ERM) | Training on “Validation/verification for JCM” | 10-11 Nov 2015 |

Initial result

National Renewable Energy Center is accredited under ISO 14065 by an accreditation body (MASM) based on ISO14064-2. Accredited sector scopes are energy industries, energy distribution and energy demand.

Advantages

Cost, time, local circumstances knowledge etc.,

Cooperation with National Accreditation Body

*Mongolian Agency for Standardization and Metrology (MASM) is accreditation body of Mongolia.

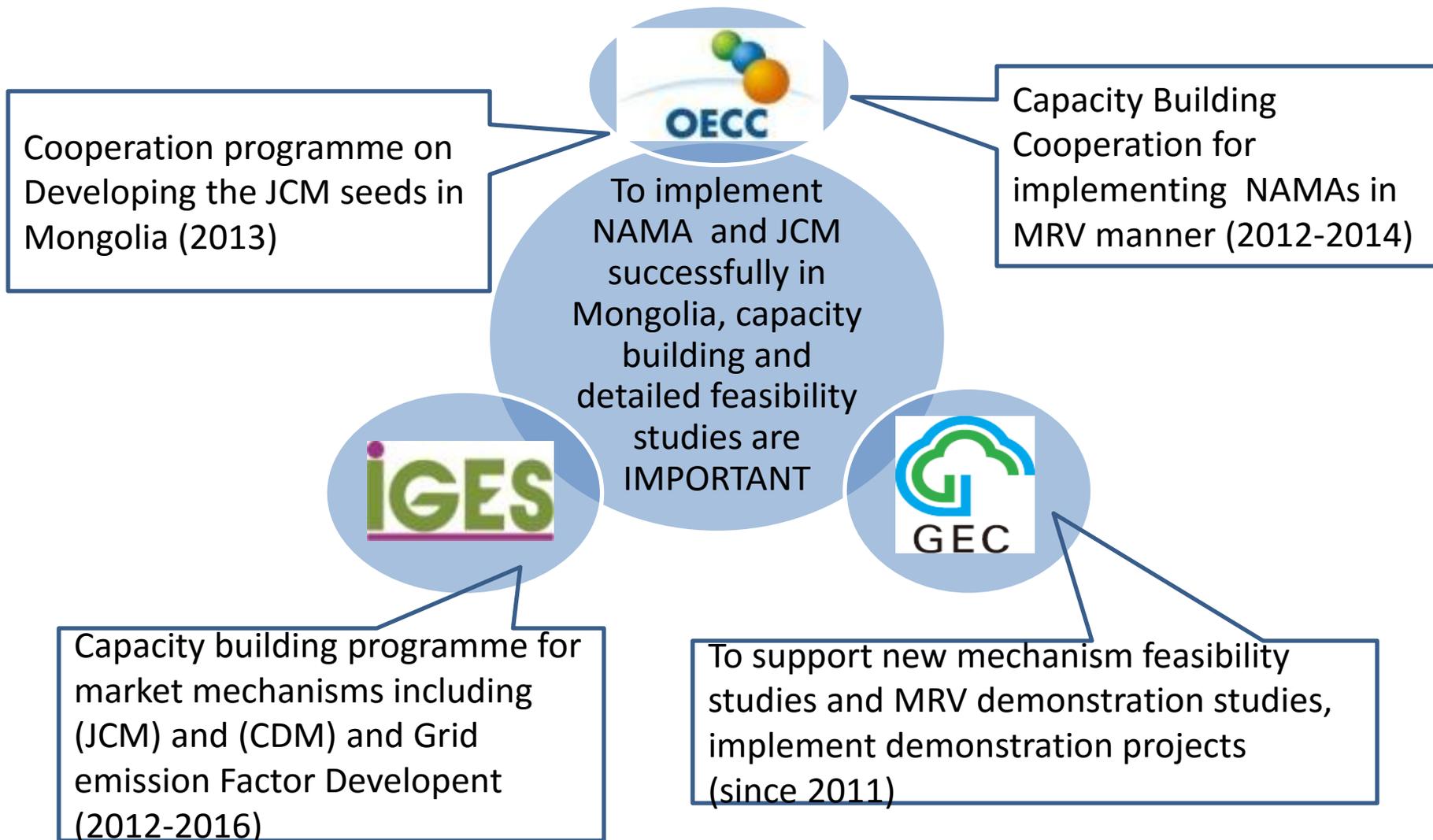
1. Approval of GHG standards into Mongolian standard

| Standard code | Standard title | Standard code of Mongolia |
|---|---|--|
| <i>ISO 14064-1 :2006</i> | Specification with guidance at the organization level for quantification and reporting of greenhouse gas emissions and removals | MNS: ISO 14064-1: 2015 (translation revised) |
| <i>ISO 14064-2:2006</i> | Specification with guidance at the project level for quantification, monitoring and reporting of greenhouse gas emission reductions or removal enhancements | MNS: ISO 14064-2: 2015 (translation revised) |
| • <i>ISO 14064-3:2006</i> | Specification with guidance for the validation and verification of GHG assertions | MNS: ISO 14064-3: 2015 |
| <i>ISO 14065:2013</i> <i>(second edition)</i> | Requirements for GHG validation or verification bodies | MNS : ISO 14065:2013 |
| <i>ISO14066:2011</i> <i>(complement of ISO14065)</i> | Competence requirements for GHG validation teams and verification teams | MNS: ISO 14066: 2015 |

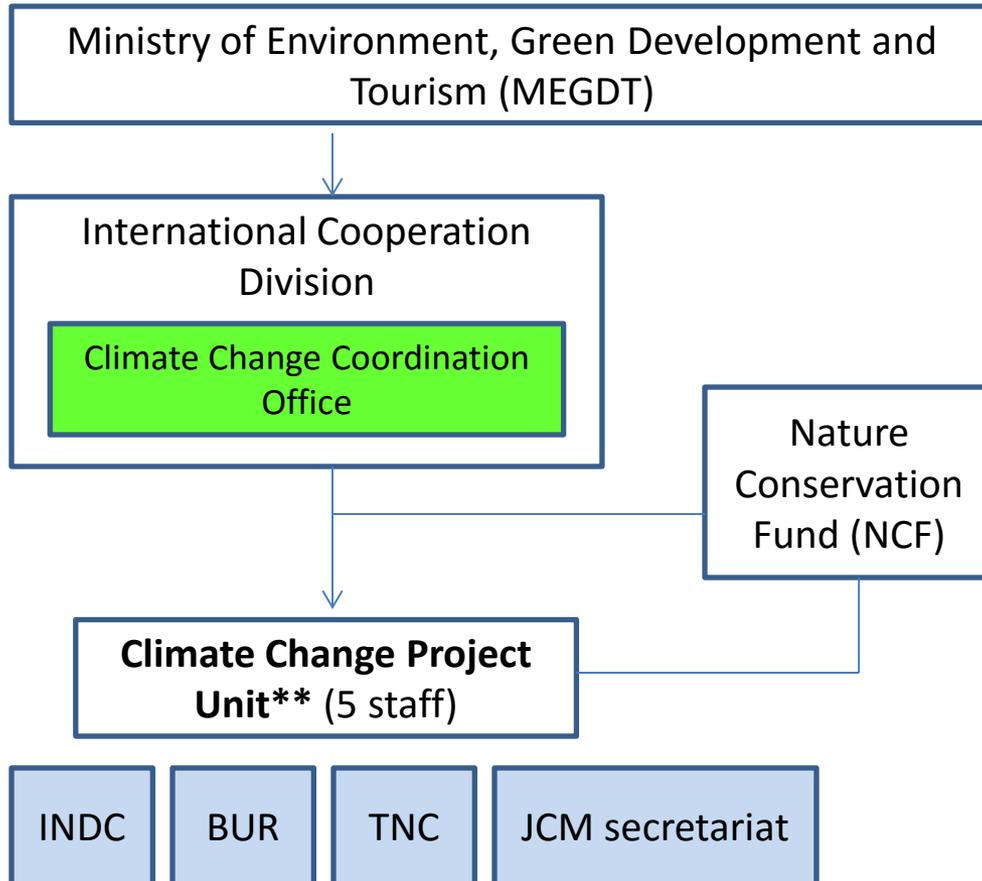
2. GHG training program for ISO14065 IGES Capacity building activities on MASM (Sep 2014; with Japan Accreditation Board –JAB)

3. First national entity is accredited under ISO 14065 by an accreditation body (MASM) based on ISO14064-2

Capacity Building : Bilateral cooperation with Ministry of Environment, Japan



JCM secretariat



JCM secretariat daily tasks

- ✓ Working closely with Japanese JCM secretariat on the all JCM related issues
- ✓ Support the Mongolian Joint Committee and JCM related stakeholders
- ✓ Organize seminars and workshops
- ✓ Provide information and cooperate with JCM project developers of Mongolia and Japan
- ✓ Implement joint studies

Financing

JCM Model Projects by MOE

The draft budget for projects starting from FY 2016 is **6.7 billion JPY (approx. USD 56 million)** in total by FY2018

※Budget will be fixed after approval by the Parliament

Finance part of an investment cost (**less than half**)

Government of Japan

※Includes collaboration with projects supported by JICA and other governmental-affiliated financial institute.

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.

Financing

ADB Trust Fund: Japan Fund for Joint Crediting Mechanism (JFJCM)

Draft Budget for FY2016

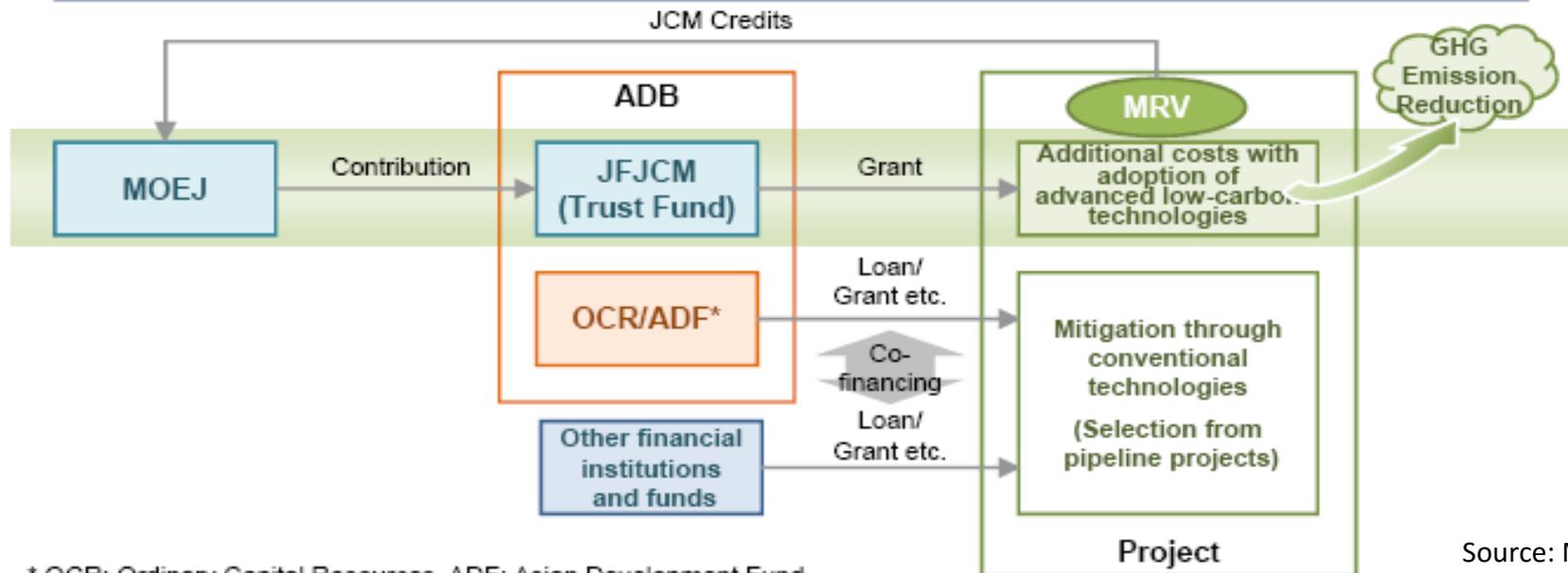
1.2 billion JPY (approx. USD 10 million)

Scheme

To provide the financial incentives for the adoption of advanced low-carbon technologies which are superior in GHG emission reduction but expensive in Asian Development Bank (ADB)-financed projects.

Purpose

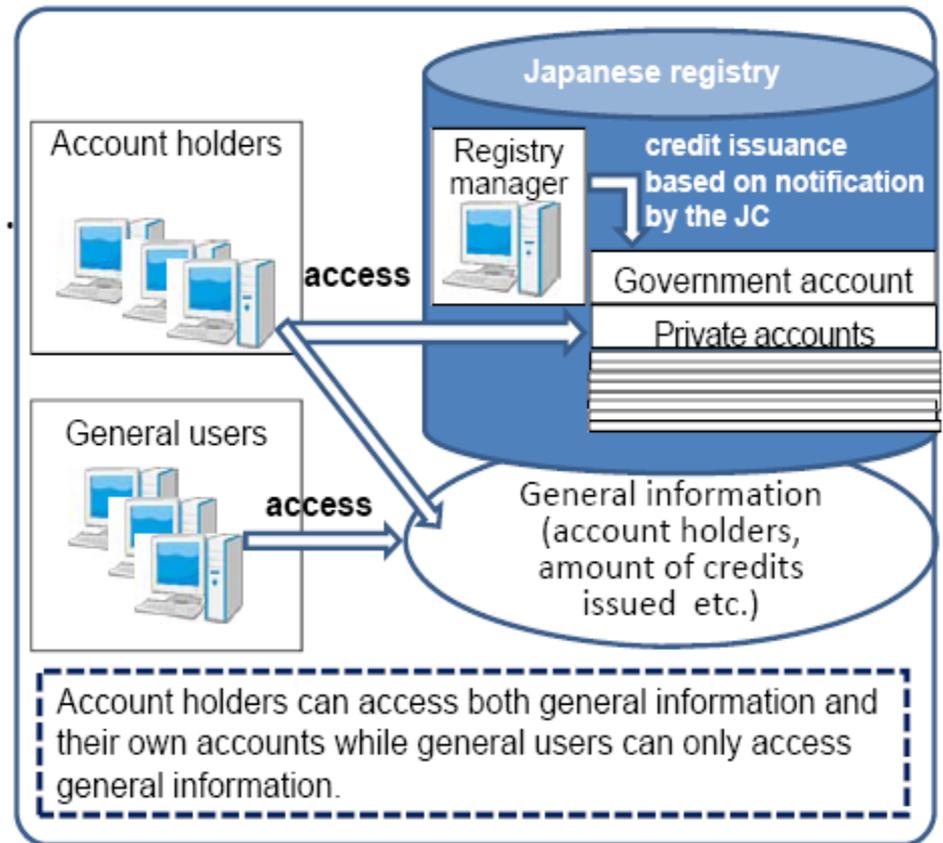
To develop ADB projects as the "Leapfrog" developments by the advanced technologies and to show the effectiveness of the JCM scheme by the acquisition of credits of the JCM.



* OCR: Ordinary Capital Resources, ADF: Asian Development Fund

Upcoming activities

- Preparation of the verification stage of 2 registered projects under the JCM
- Japan has established its registry and started operation in Nov. 2015.
- Establishment of JCM registry system in Mongolia is under the process. (link between JCM registry and national accounting, avoidance of doublecounting)
- Credit issuance to the projects
- Allocation of the credits (possible contribution to achieve expected mitigation reduction amount (14% by 2030) within NDC?)



Source: Ministry of Environment of Japan

Currently Japan Government proposed registry system regarding the credit issuance for the registered projects under the JCM. As shown above.

Thank you for your
attention!

