

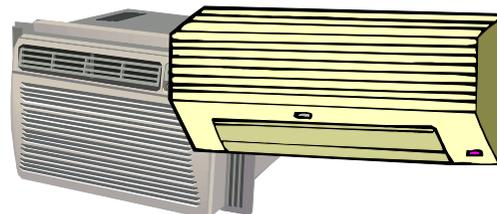
Recent Development of
The Joint Crediting Mechanism (JCM)/
Bilateral Offset Credit Mechanism (BOCM)

March 2013
Government of Japan

All ideas are subject to further consideration and discussion with host countries

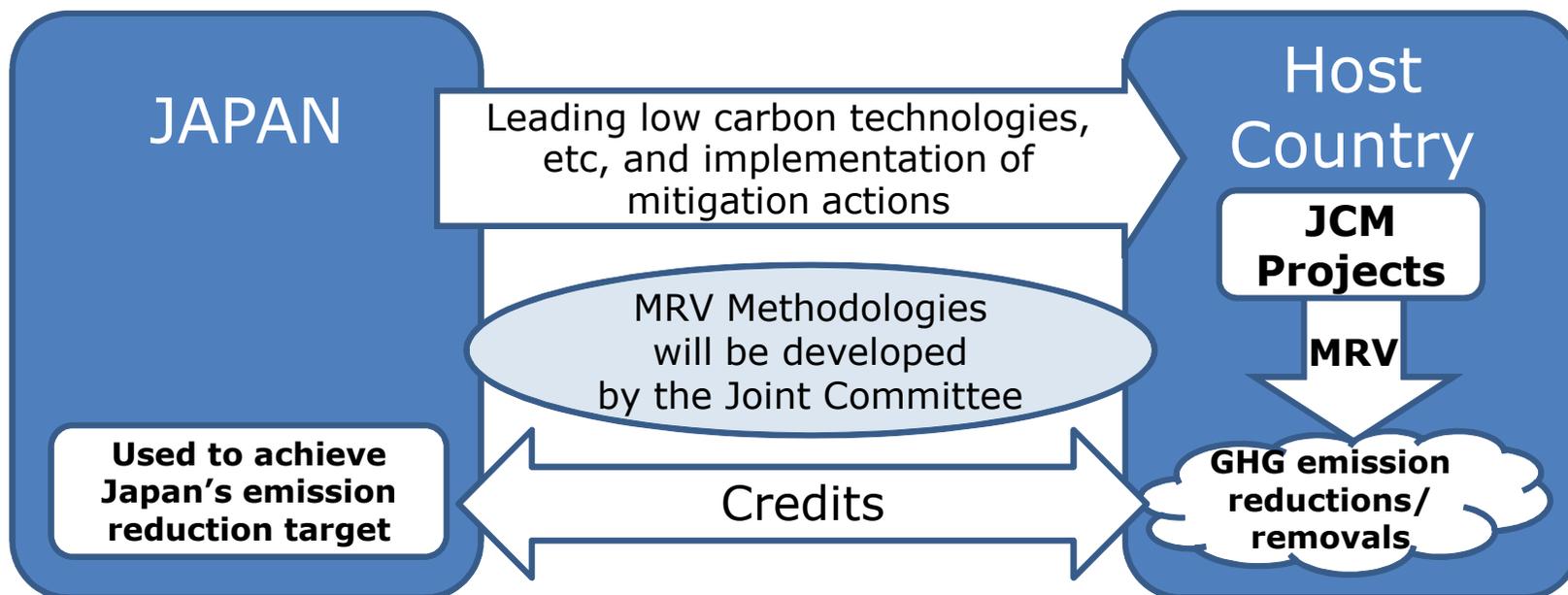
Low-Carbon Growth

- ◆ In order to effectively address the issue of climate change, it is necessary for both developed and developing countries to achieve low-carbon growth all around the world by fully mobilizing technology, markets and finance.
- ◆ Widespread use of advanced low-carbon technologies and products in various fields including renewable energy, highly efficient power generation, home electronics, low-emission vehicles, and energy-savings in factories must be accelerated.
- ◆ Realizing a low carbon society by combining these technologies and products with appropriate systems, services, and infrastructure is also crucial.

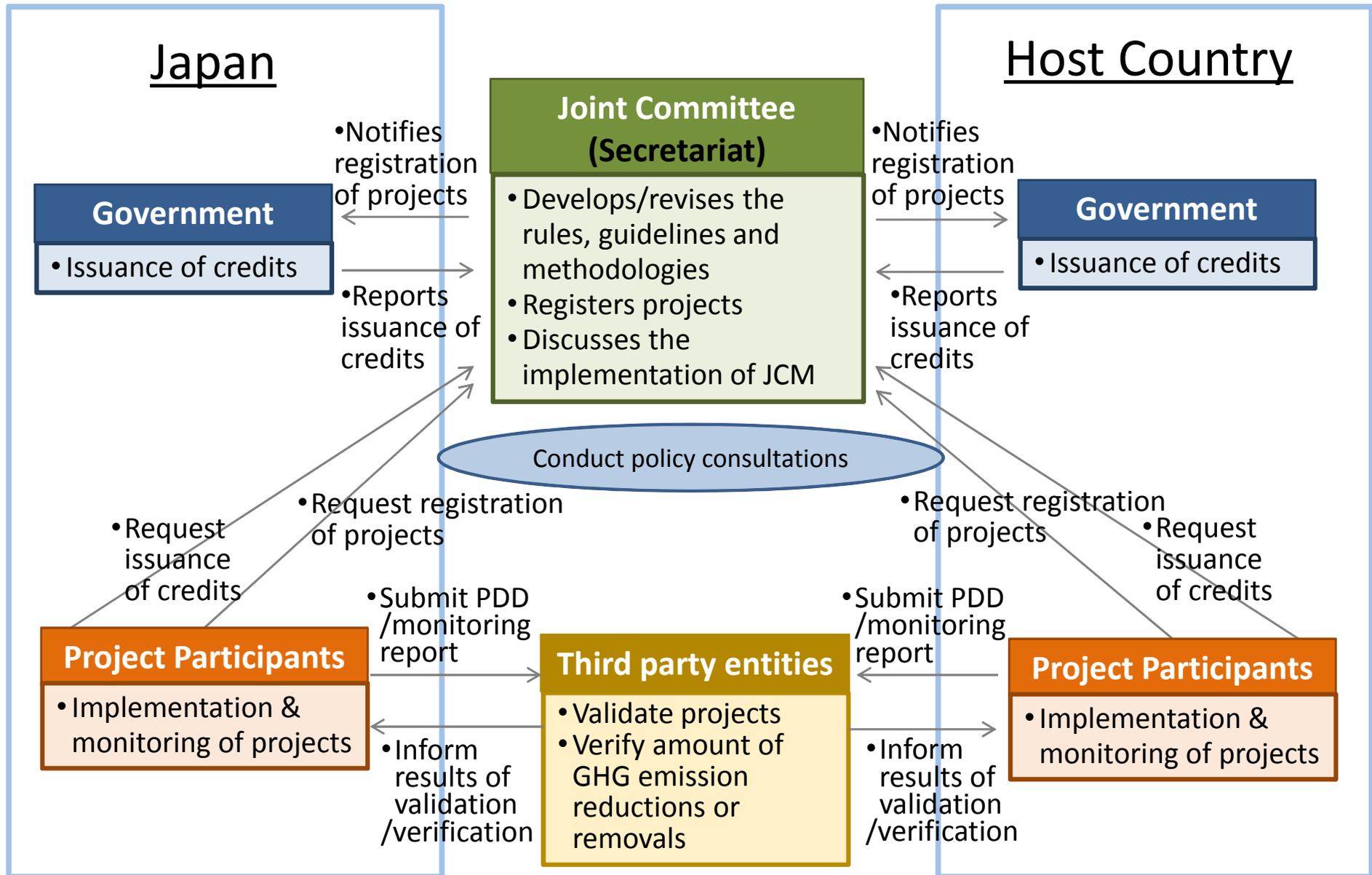


Basic Concept of the JCM

- 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 Japan in a quantitative manner, by applying measurement, reporting and verification (MRV) methodologies, 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, complementing the CDM.



Scheme of the JCM



The role of the Joint Committee and each Government

- The Joint Committee (JC) consists of representatives from both Governments.
- The JC develops rules and guidelines necessary for the implementation of the JCM.
- The JC determines either to approve or reject the proposed methodologies, as well as develops JCM methodologies.
- The JC designates the third-party entities (TPEs).
- The JC decides on whether to register JCM projects which have been validated by the TPEs.
- Each Government establishes and maintains a registry.
- On the basis of notification for issuance of credits by the JC, each Government issues the notified amount of credits to its registry.

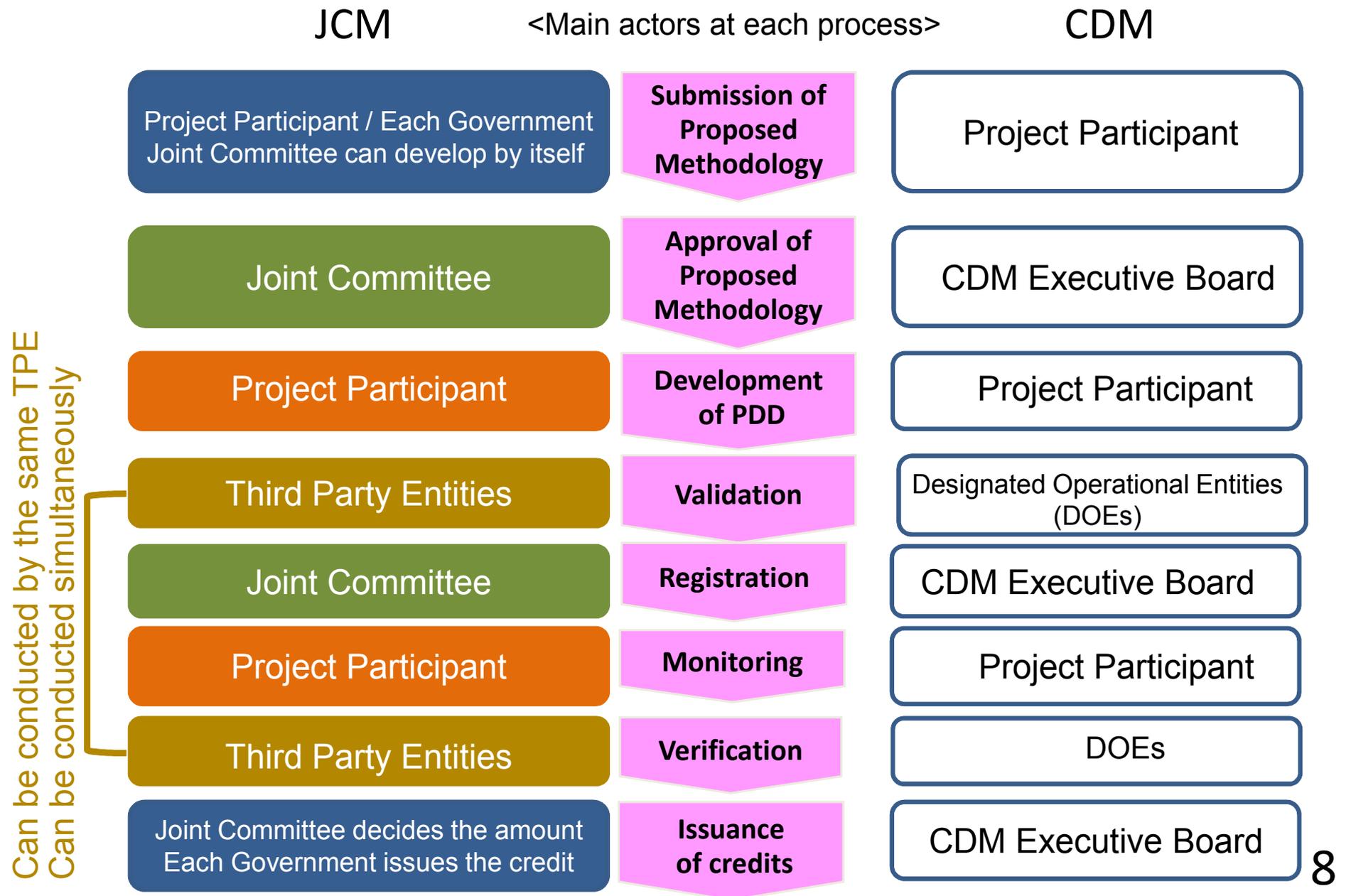
Approaches of the JCM

- The JCM should be designed and implemented, taking into account the followings:
 - (1) Ensuring the robust methodologies, transparency and the environmental integrity;
 - (2) Maintaining simplicity and practicality;
 - (3) Promoting concrete actions for global GHG emission reductions or removals;
 - (4) Preventing uses of any mitigation projects registered under the JCM for the purpose of any other international climate mitigation mechanisms to avoid double counting on GHG emission reductions or removals.

Features of the JCM

- (1) The JCM starts its operation as the non-tradable credit type mechanism.
- (2) Both Governments continue consultation for the transition to the tradable credit type mechanism and reach a conclusion at the earliest possible timing, taking account of implementation of the JCM.
- (3) The JCM aims for concrete contributions to assisting adaptation efforts of developing countries after the JCM is converted to the tradable credit type mechanism.
- (4) The JCM covers the period until a possible coming into effect of a new international framework under the UNFCCC.

Project Cycle of the JCM and the CDM

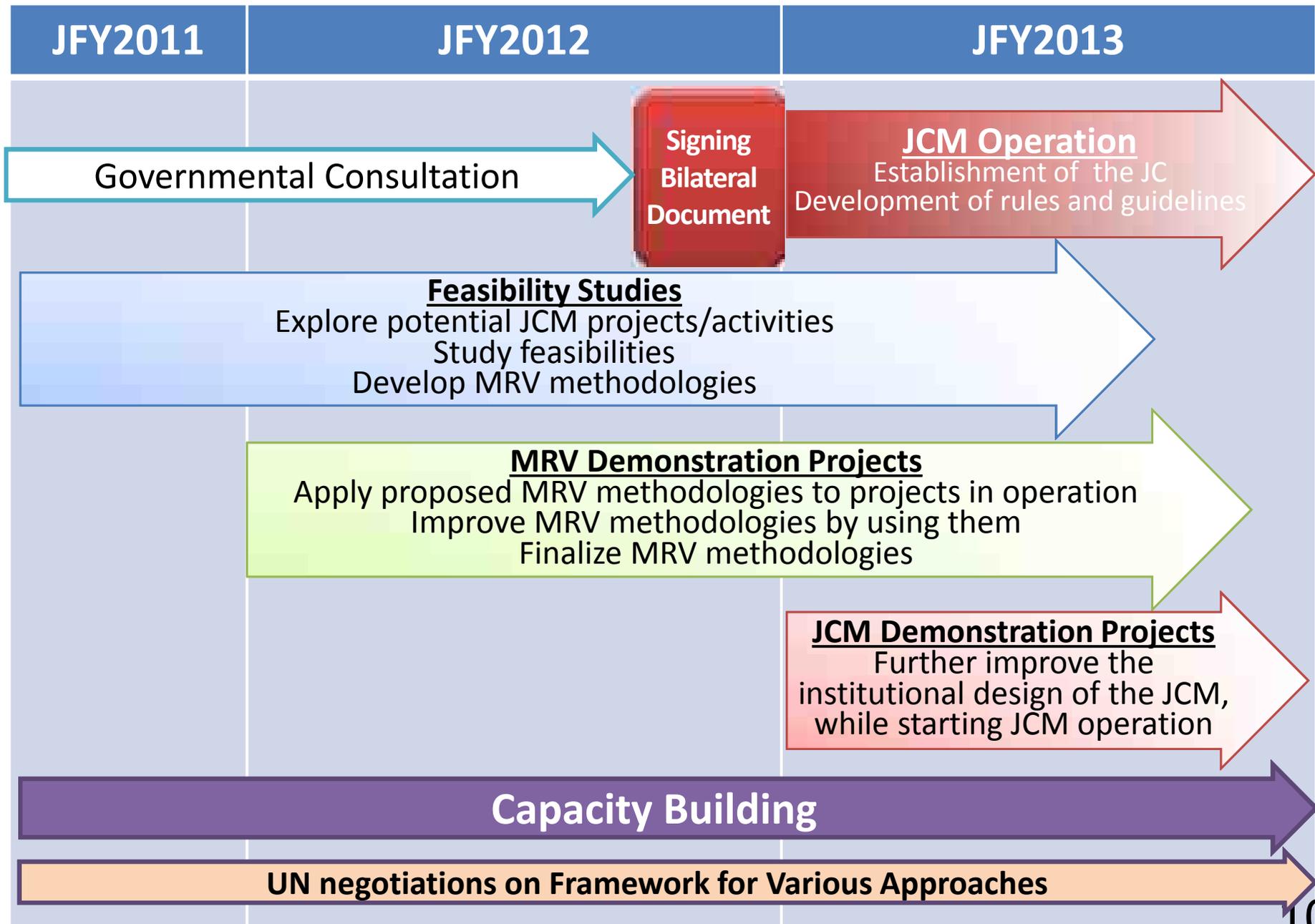


Key features of the JCM in comparison with the CDM

(Subject to further consideration and discussion with host countries)

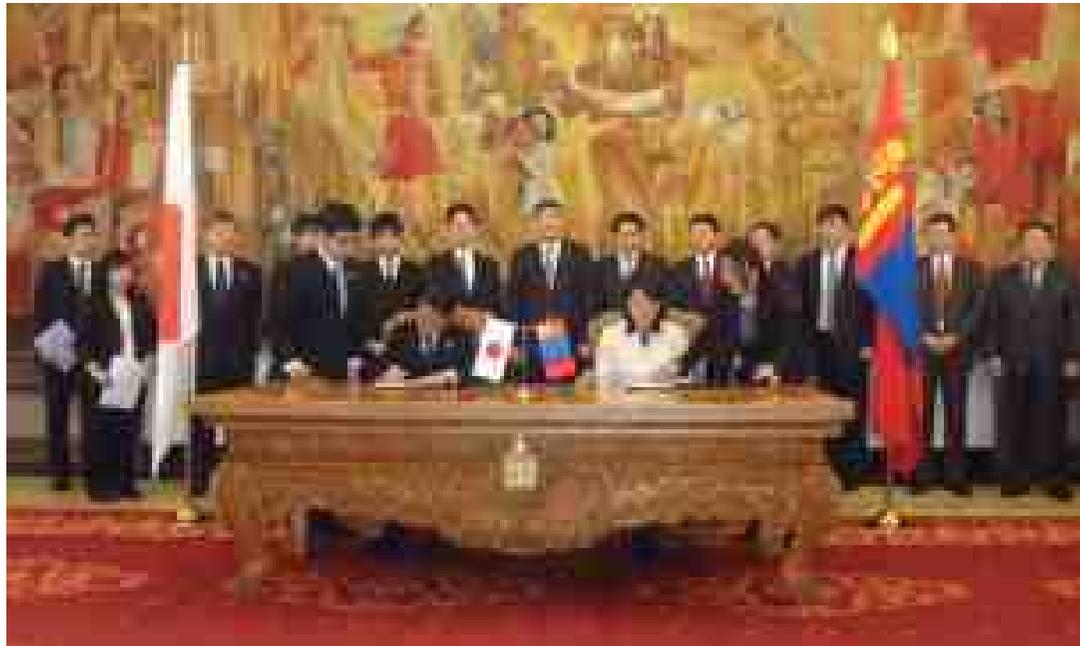
	JCM	CDM
Governance	- “de-centralized” structure (Each Government, Joint Committee)	- “centralized” structure (CMP, CDM Executive Board)
Sector/project Coverage	- Broader coverage	- Specific projects are difficult to implement in practice (e.g. USC coal-fired power generation)
Validation of projects	- In addition to DOEs, ISO14065 certification bodies can conduct - Checking whether a proposed project fits eligibility criteria which can be examined objectively	- Only DOEs can conduct - Assessment of additionality of each proposed project against hypothetical scenarios
Calculation of Emission Reductions	- Spreadsheet are provided - Default values can be used in conservative manner when monitored parameters are limited.	- Various formulas are listed - Strict requirements for measurement of parameters
Verification of projects	- The entity which validated the project can conduct verification - Validation & verification can be conducted simultaneously	- In principle, the entity which validated the project can not conduct verification - Validation & verification must be conducted separately

Roadmap for the JCM



Governmental Consultations

- Japan has held consultations for the JCM with developing countries (e.g. Mongolia, Bangladesh, Indonesia, Vietnam) since 2011 and made similar briefing to interested countries as well. Japan will continue consultations/briefing with any countries which are interested in the JCM.
- Japan and Mongolia signed the bilateral Document for the JCM. (first case of signature of the bilateral document for the JCM)



On January 8, 2013, H.E, Mr. Takenori Shimizu, Ambassador Extraordinary and Plenipotentiary of Japan to Mongolia and H.E, Ms. Sanjaasuren Oyun, Minister for Environment and Green Development of Mongolia signed the bilateral document for the JCM in Ulaanbaatar.

Technical Details Currently Considered for the JCM

(Subject to further consideration and discussion with host countries)

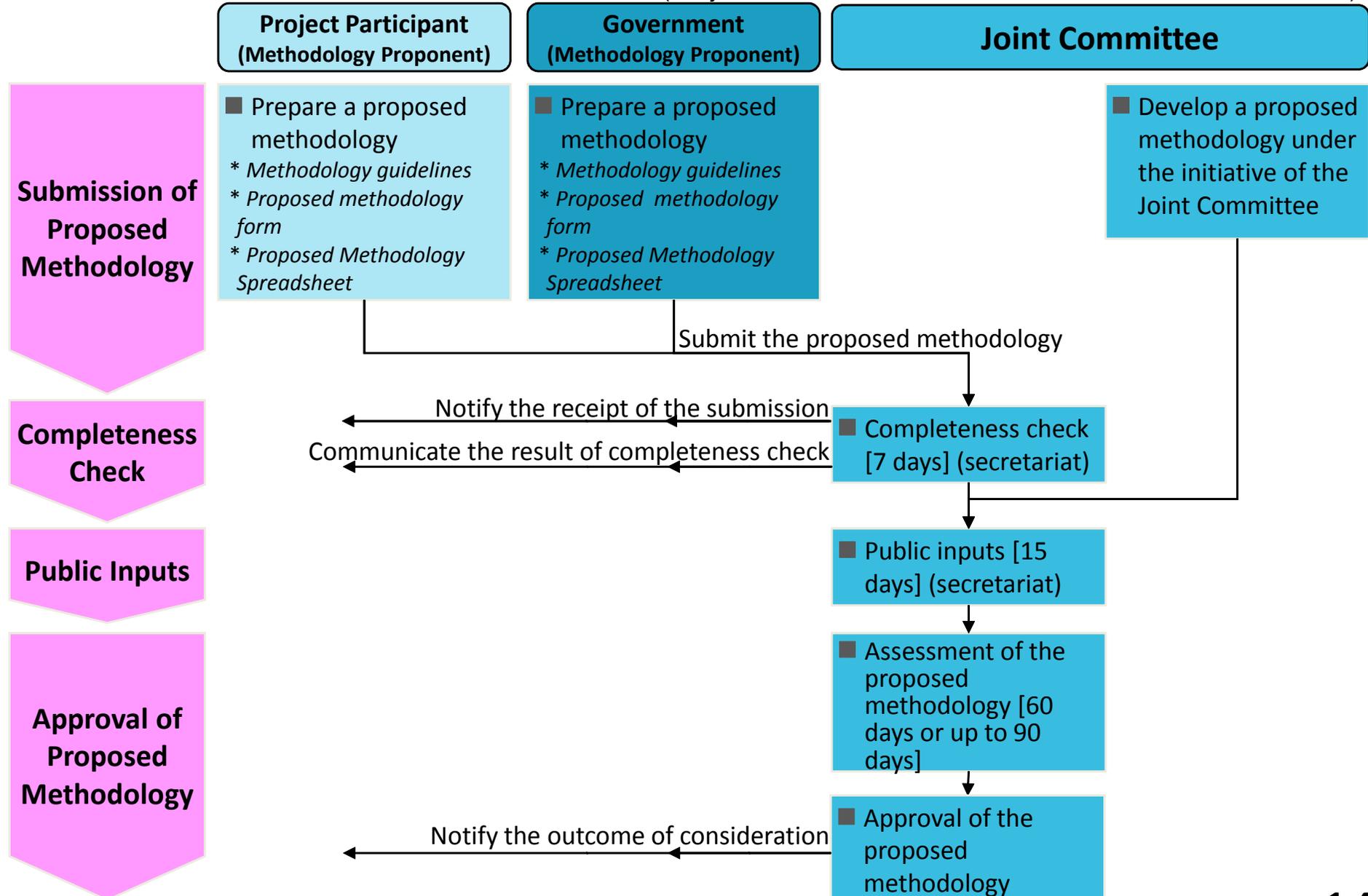
Necessary documents for the JCM

(Subject to further consideration and discussion with host countries)

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

Methodology Development Procedure of the JCM

(Subject to further consideration and discussion with host countries)



Note: Asterisk (*) indicates documentation relevant for each step of the procedure

Project Cycle Procedure of the JCM (1/2)

(Subject to further consideration and discussion with host countries)

Project Participant

Third-Party Entity

Joint Committee

Government

Development of PDD

- Complete a PDD and develop a monitoring plan
 - * PDD form and Approved Methodology Spreadsheet
 - * PDD and monitoring guidelines
- Complete an MoC
 - * Form for the "Modalities of communication statement"

Submit the PDD and MoC, and request for validation and public inputs

Validation

Validation and verification can be conducted simultaneously or separately.

Notify the receipt of the submission

- Validate a project
- Prepare a validation report
 - * Validation and verification guidelines
 - * Validation report form

- Public inputs [30 days] (secretariat)

Submit the validation report, and the validated PDD and MoC

Registration

- Complete a registration request form
 - * Registration request form

Request for registration

Notify the receipt of the request

Notify the conclusion

Notify the registration

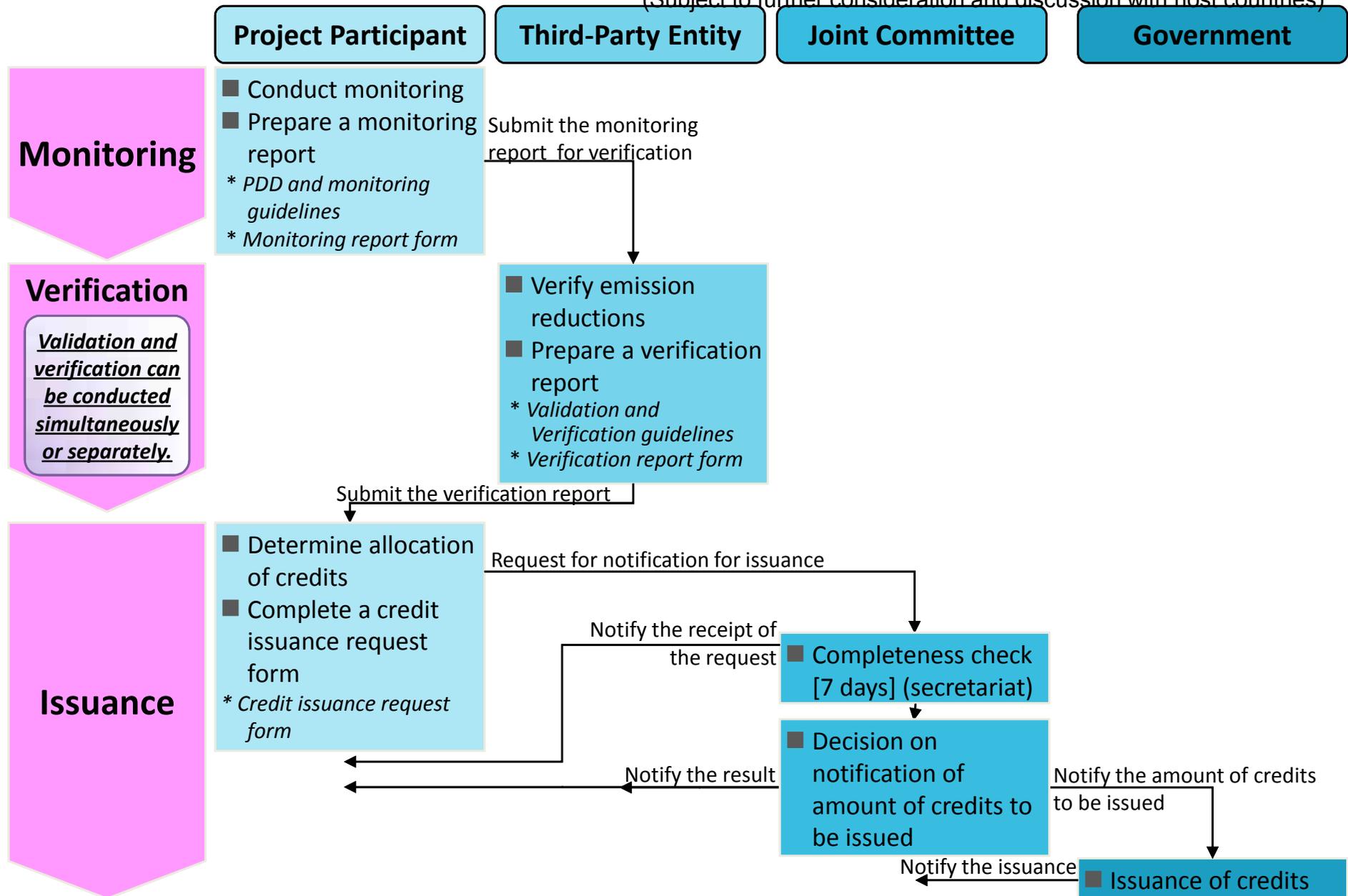
- Completeness check [7 days] (secretariat)

- Registration

Notify the registration

Project Cycle Procedure of the JCM (2/2)

(Subject to further consideration and discussion with host countries)



Rules of Procedures for the Joint Committee

(Subject to further consideration and discussion with host countries)

Members

- The Joint Committee (JC) consists of representatives from both Governments.
- Each Government designates members, which may not exceed [10].
- The JC elects its two Co-chairs annually, one from the host country and the other from Japan. Each Co-Chair can designate an alternate from members of the JC.

Decision making in the JC

- The JC meets no less than once a year and decision by the JC is adopted by consensus.
- The JC can adopt decisions by electronic means in the following procedure:
 - (a) The proposed decisions are distributed by the Co-Chairs to all members of the JC.
 - (b) The proposed decision is deemed as adopted when,
 - i) no member of the JC has provided negative assertion within [20] calendar days after the distribution and both Co-Chairs have made affirmative assertion, or
 - ii) all members of the JC have made affirmative assertion.
- If a negative assertion is made by at least one of the JC members, the Co-Chairs take into account the opinions of JC members and take appropriate actions.
- The JC may hold conference calls to assist making decisions by electronic means.

External assistance

- The JC can establish panels and appoint external experts to assist part of its work.

Languages: English **Secretariat:** The secretariat shall service the JC.

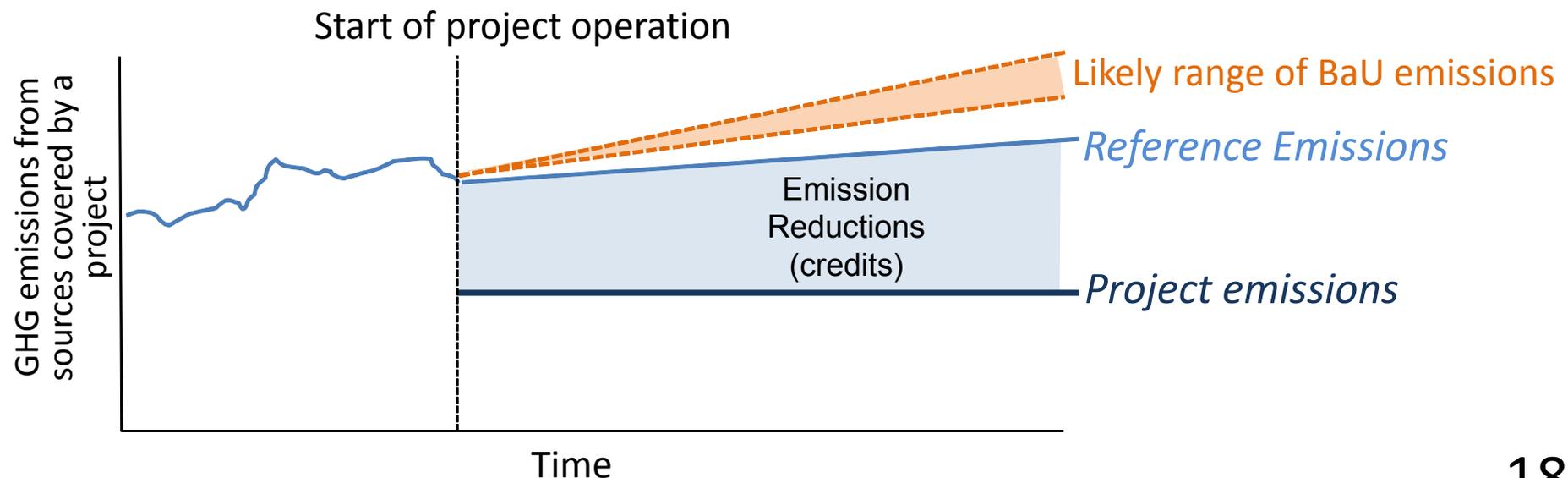
Confidentiality: Members of the JC, Secretariat, etc. respect confidentiality.

Record of the meeting: All decisions of the JC will be made publicly available.

Basic Concept for Crediting under the JCM

(Subject to further consideration and discussion with host countries)

- In the JCM, emission reductions to be credited are defined as the difference between “reference emissions” and project emissions.
- The reference emissions are calculated below business-as-usual (BaU) emissions which represent plausible emissions in providing the same outputs or service level of the proposed JCM project in the host country.
- This approach will ensure a net decrease and/or avoidance of GHG emissions.



Crediting Threshold

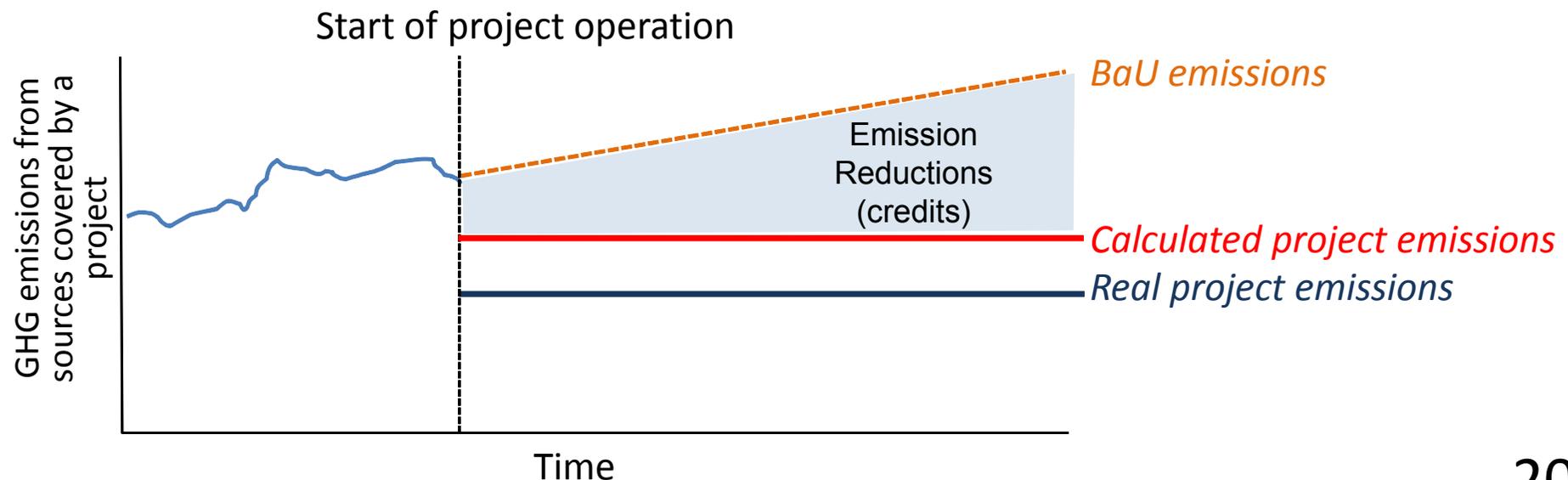
(Subject to further consideration and discussion with host countries)

- Reference emissions are calculated by multiplying a “crediting threshold” which is typically expressed as GHG emissions per unit of output by total outputs.
- A crediting threshold should be established *ex ante* in the methodology applicable for the same project type in the host country. It should also be established conservatively in order to calculate reference emissions below BaU emissions.
- This standardized approach will greatly reduce the burden of analyzing many hypothetical scenarios for demonstrating additionality of the proposed project such as under the CDM, whereas increase transparency for calculating GHG emission reductions.

Addendum: ways to realize net reduction

(Subject to further consideration and discussion with host countries)

- A net decrease and/or avoidance of GHG emissions can be realized in alternative way, instead of calculating the reference emissions below BaU emissions.
- Using conservative default values in parameters to calculate project emissions instead of monitoring real values, will lead calculated project emissions larger than real project emissions.
- This approach will also ensure a net decrease and/or avoidance of GHG emissions, as well as reduce burdens of monitoring.



JCM Methodology

■ Key Features of the JCM methodology

- The JCM methodologies are designed in such a way that project participants can use them easily and verifiers can verify the data easily.
- In order to reduce monitoring burden, default values are widely used in a conservative manner.
- Eligibility criteria clearly defined in the methodology can reduce the risks of rejection of the projects proposed by project participants.

Eligibility criteria	<ul style="list-style-type: none"> • A “check list” will allow easy determination of eligibility of a proposed project under the JCM and applicability of JCM methodologies to the project.
Data (parameter)	<ul style="list-style-type: none"> • List of parameters will inform project participants of what data is necessary to calculate GHG emission reductions/removals with JCM methodologies. • Default values for specific country and sector are provided beforehand.
Calculation	<ul style="list-style-type: none"> • Premade spreadsheets will help calculate GHG emission reductions/removals automatically by inputting relevant values for parameters, in accordance with methodologies.

Basic concept of Eligibility criteria in JCM methodology

(Subject to further consideration and discussion with host countries)

The eligibility criteria in each JCM methodology should be established, in order to reduce emissions by:

- accelerating the deployment of low carbon technologies, products and services, which will contribute to achieving net emission reductions;
- facilitating the nationally appropriate mitigation actions (NAMAs) in host countries.



1. Both Governments determine what technologies, products, etc should be included in the eligibility criteria through the approval process of the JCM methodologies by the Joint Committee.
2. Project participants can use the list of approved JCM methodologies, similar to positive list, when applying for the JCM project registration.

Eligibility Criteria of the JCM

(Subject to further consideration and discussion with host countries)

- Eligibility criteria in JCM methodologies shall contain the following:
 1. The requirements for the project in order to be registered as a JCM project. *<Basis for the assessment of validation and registration of a proposed project>*
 2. The requirements for the project to be able to apply the JCM methodology. *<same as “applicability condition of the methodology” under the CDM>*
- Examples of eligibility criteria 1.
 - Introduction of xx (products/technologies) whose design efficiency is above xx (e.g. output/kWh) *<Benchmark Approach>*
 - Introduction of xx (specific high efficient products/technologies, such as air conditioner with inverter, electric vehicles, or PV combined with battery) *<Positive List Approach>*
- Examples of eligibility criteria 2.
 - Existence of historical data for x year(s)
 - Electricity generation by xx (e.g. PV, wind turbine) connected to the grid
 - Retrofit of the existing boiler

Image of Eligibility criteria

- Simple check list is provided for project participants to determine the eligibility of a proposed project under the JCM and applicability of the methodology.
- All the criteria have to be met in order to apply a methodology.

Example: Building energy management system

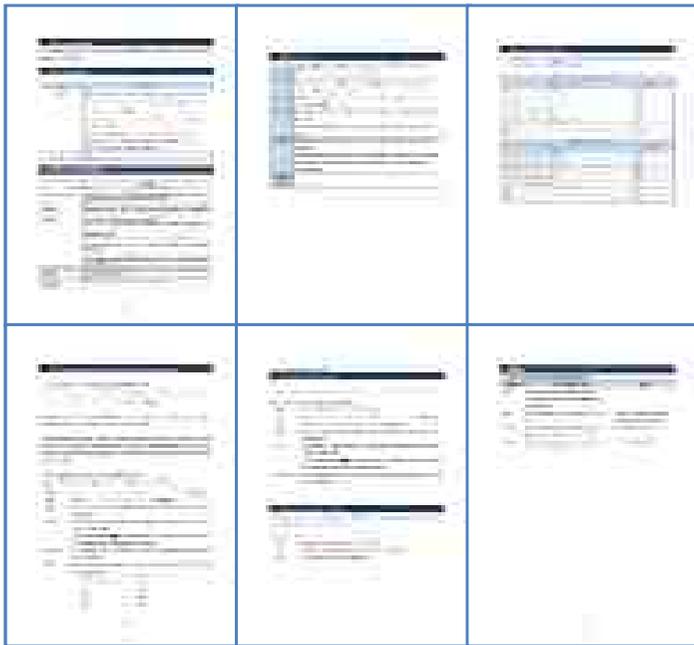
	Eligibility	Check
Criteria 1	<ul style="list-style-type: none"> • Electronically controlled building energy management system is installed in the planned project. 	<input checked="" type="checkbox"/>
Criteria 2	<ul style="list-style-type: none"> • Building energy management system installed in the planned project is designed for optimal operational control of facilities and equipments to reduce energy consumption by taking interior conditions into account. 	<input checked="" type="checkbox"/>
Criteria 3	<ul style="list-style-type: none"> • Regularly scheduled feed back (at least once in 6 months) to enhance system outcome is provided by the system provider based on a contract with its beneficiary. 	<input checked="" type="checkbox"/>
Criteria 4	<ul style="list-style-type: none"> • Buildings in which building energy management system is installed are in existence of longer than 5 years at the time of system installation. 	<input checked="" type="checkbox"/>

Overview of JCM Methodology, Monitoring Plan and Monitoring Report

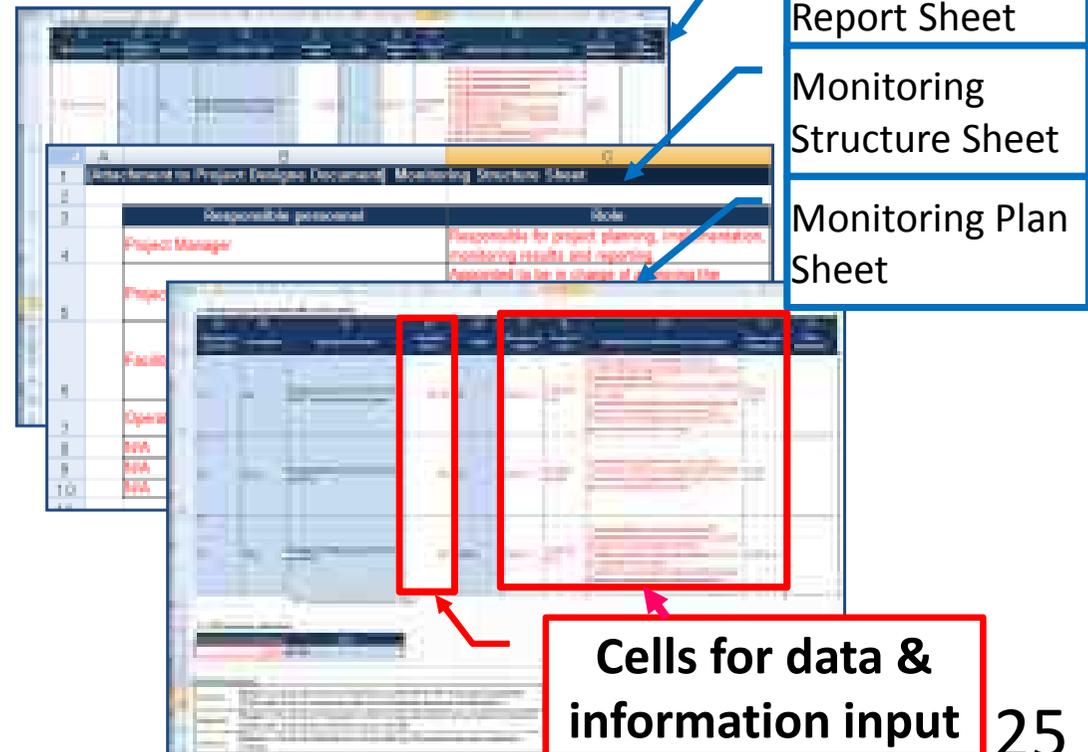
(Subject to further consideration and discussion with host countries)

- JCM methodology consists of the followings.
 - Approved Methodology Document
 - Approved Methodology Spreadsheet
 - Monitoring Plan Sheet (including Input Sheet & Calculation Process Sheet)
 - Monitoring Structure Sheet
 - Monitoring Report Sheet (including Input Sheet & Calculation Process Sheet)

Approved Methodology Document



Approved Methodology Spreadsheet



Monitoring Report Sheet

Monitoring Structure Sheet

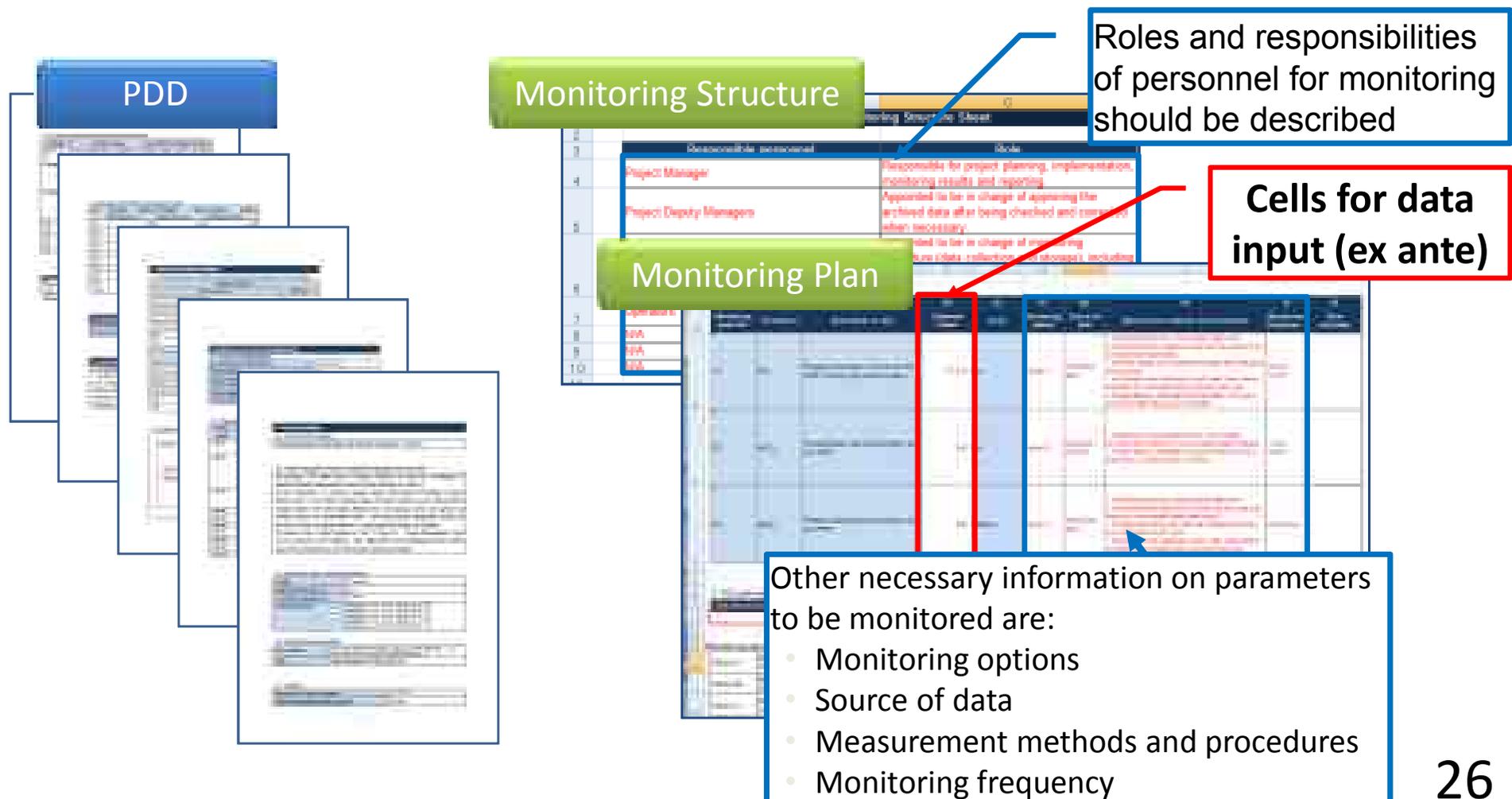
Monitoring Plan Sheet

Cells for data & information input

PDD and Monitoring Plan

(Subject to further consideration and discussion with host countries)

- Developing a Project Design Document (PDD) and a Monitoring Plan
 - A PDD form should be filled in with information of the proposed project.
 - A Monitoring Plan consists of Monitoring Plan Sheet and Monitoring Structure Sheet, and it should be filled in as well.



Monitoring Report

(Subject to further consideration and discussion with host countries)

■ Making a Monitoring Report

- A Monitoring Report should be made by filling cells for data input (ex post) in the Monitoring Report Sheet with monitored values.
- Project participants prepare supporting documents which include evidence for stated values in the cells for data input.

The image shows a screenshot of a 'Monitoring Report' sheet. A green header bar at the top left contains the text 'Monitoring Report'. The main area is a grid with several columns and rows. A red box on the left side highlights a vertical column, with an arrow pointing to it from a red-bordered box containing the text 'Monitoring period'. A red box at the top right highlights a specific cell in the grid, with an arrow pointing to it from a red-bordered box containing the text 'Cells for data input (ex post)'. A blue box at the bottom right highlights a large section of the grid, with an arrow pointing to it from a blue-bordered box containing the text 'Other necessary information on monitored parameters are to be filled in:'. Below this text is a bulleted list: 'Monitoring options', 'Source of data', 'Measurement methods and procedures', and 'Monitoring frequency'. The grid itself contains various data points, some of which are highlighted in red and blue.

Monitoring Report

Monitoring period

Cells for data input (ex post)

Other necessary information on monitored parameters are to be filled in:

- Monitoring options
- Source of data
- Measurement methods and procedures
- Monitoring frequency

Possible Contents of the JCM PDD

(Subject to further consideration and discussion with host countries)

A. Project description

- A.1. Title of the JCM project
- A.2. General description of project and applied technologies and/or measures
- A.3. Location of project, including coordinates
- A.4. Name of project participants
- A.5. Duration

B. Application of an approved JCM methodology(ies)

- B.1. Selection of JCM methodology(ies)
- B.2. Explanation of how the project meets eligibility criteria of the approved methodology

C. Calculation of emission reductions

- C.1. All emission sources and their associated greenhouse gases relevant to the JCM project
- C.2. Figure of all emission sources relevant to the JCM project
- C.3. Estimated emissions reductions in each year

D. Environmental impact assessment

E. Local Stakeholder consultation

F. References

Annex

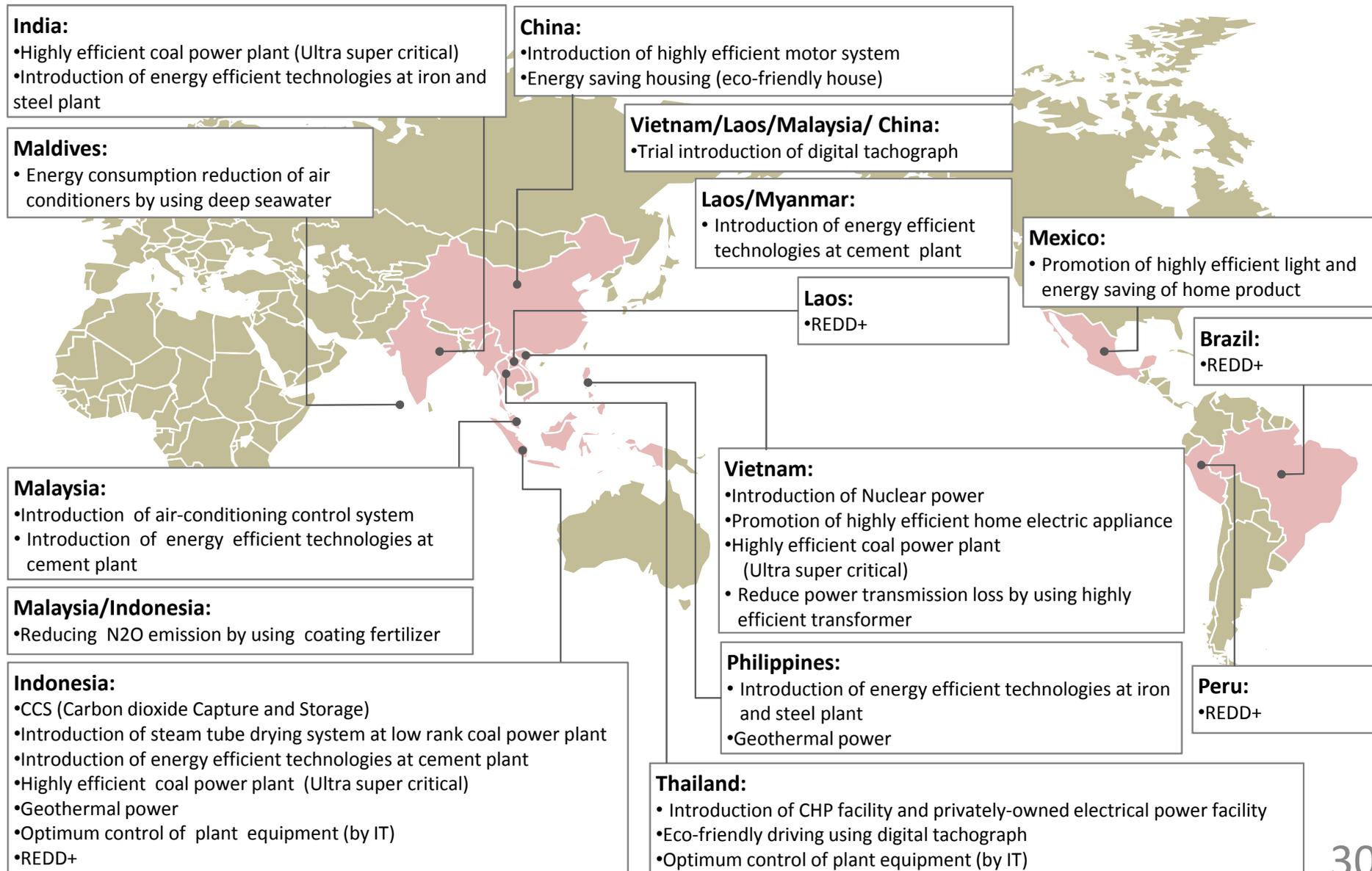
Approved Methodology Spreadsheet consists of Monitoring Plan Sheet, Monitoring Structure Sheet and Monitoring Report Sheet, and it shall be attached to the PDD.

References

- ◆ Feasibility Studies
- ◆ Capacity Building

JCM Feasibility Studies (FSs) by METI in FY2010

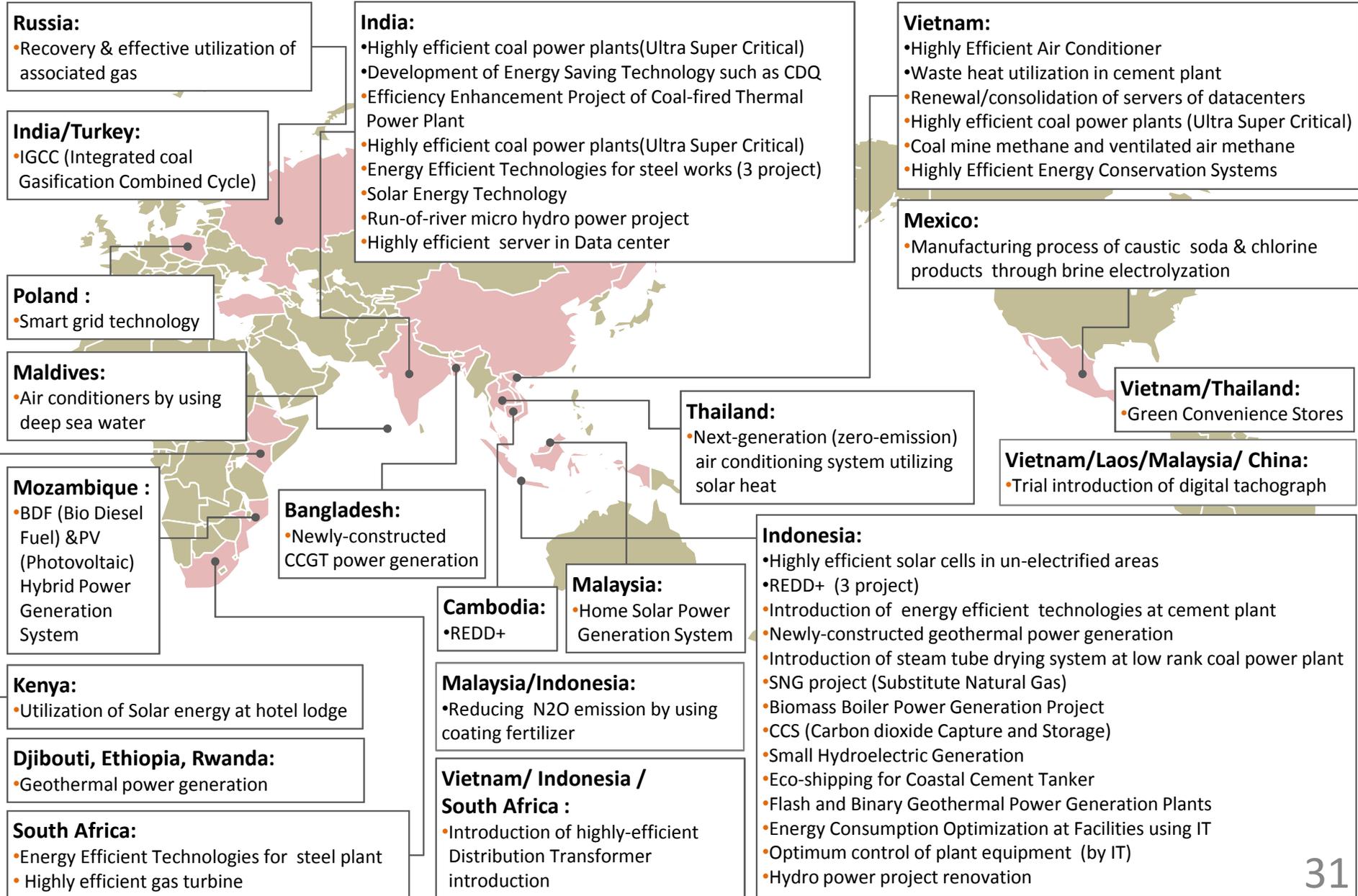
30 projects were selected (13 countries)



JCM Feasibility Studies (FSs) by METI & NEDO in FY2011

50 projects were selected (18 countries)

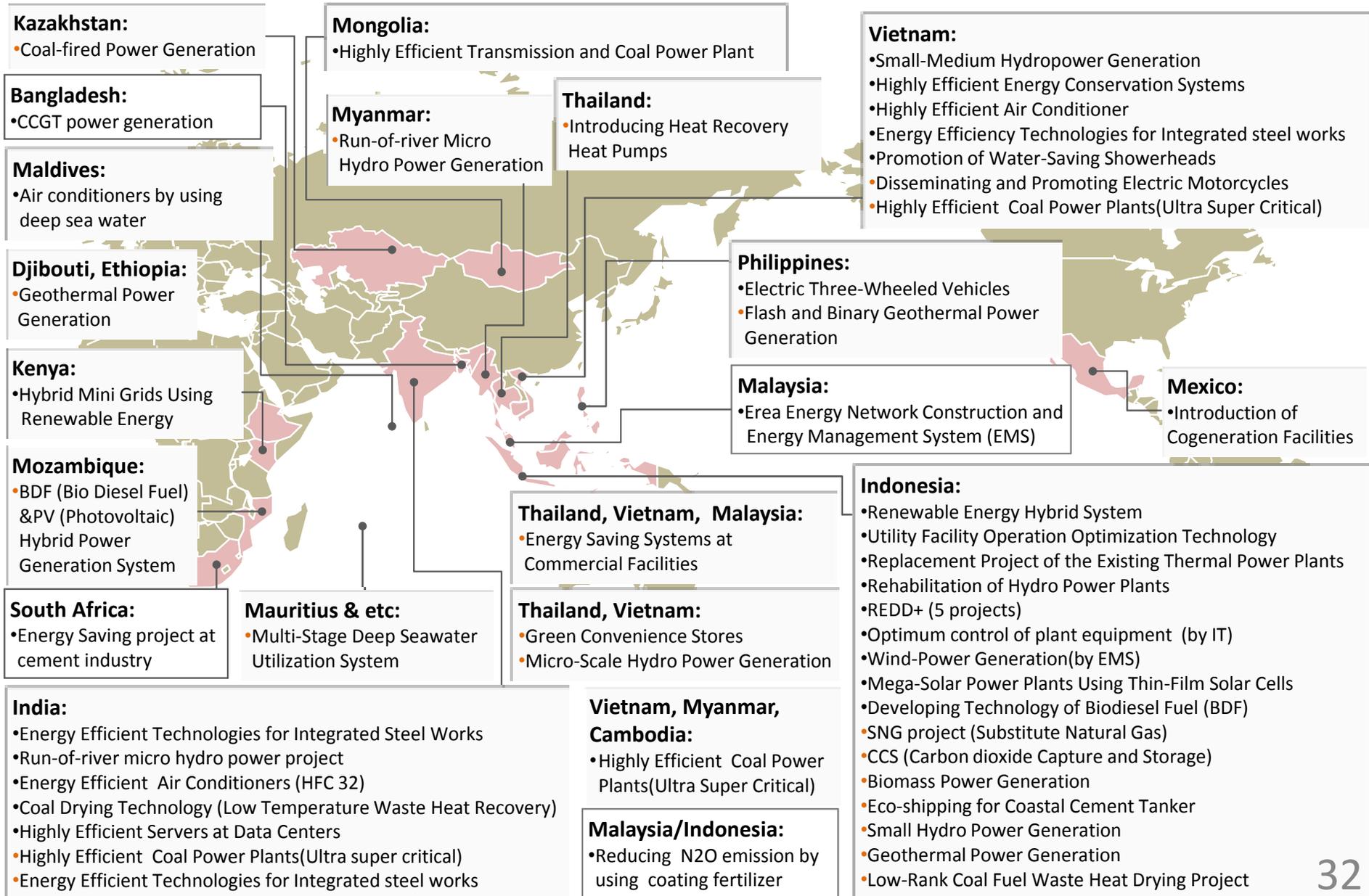
- (Black) → METI's FSs for Policy Recommendation (10 projects)
- (Yellow) → NEDO's FSs for Project Exploration /Development(40 projects)



JCM Feasibility Studies (FSs) by METI & NEDO in FY2012

54 projects were selected (19 countries)

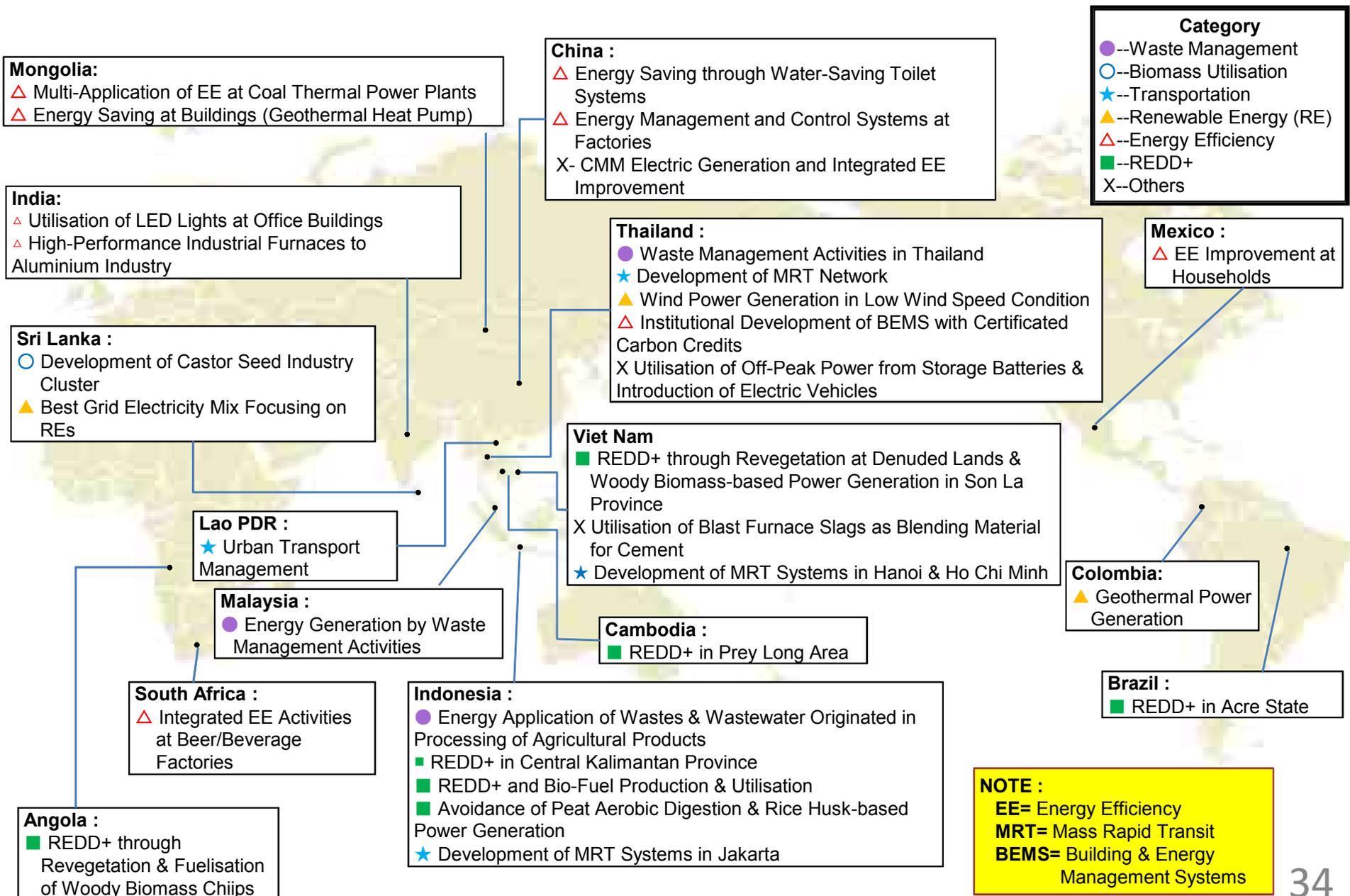
- (Black) → METI's FSs for Policy Recommendation (33 projects)
- (Yellow) → NEDO's FSs for Project Exploration/Development (21 projects)



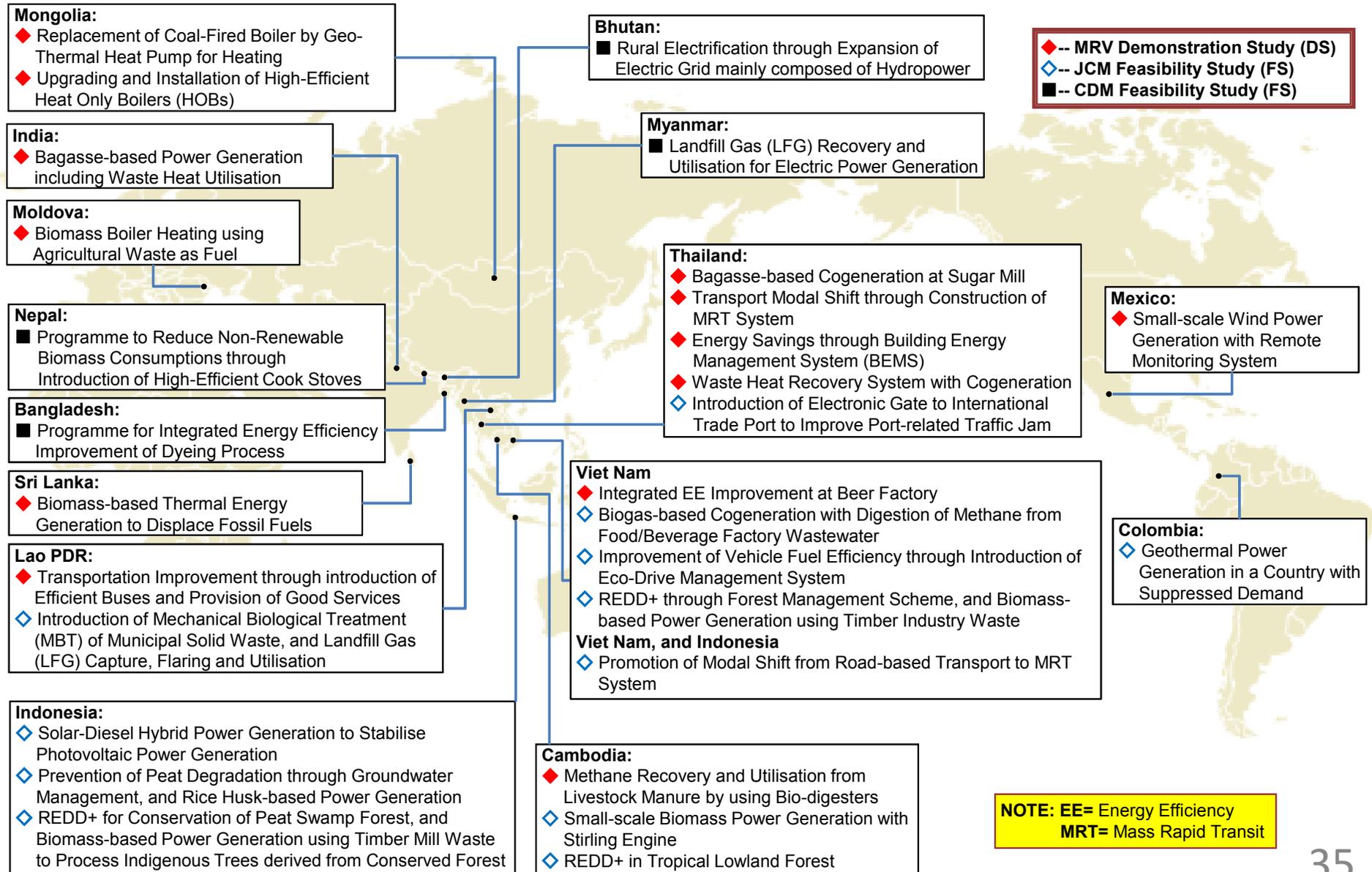
MRV Model Projects & Feasibility Studies for JCM by MOEJ

- **Global Environment Centre Foundation (GEC)** is serving as a secretariat for the MRV Demonstration Studies using Model Projects & Feasibility Studies.
- 25 projects were selected for FY2012.
 - Among those, there are 13 MRV Demonstration Studies using Model Projects which are to develop MRV methodologies, by applying them to the projects under operation. Based upon knowledge and experience gained through these MRV model projects, applicable MRV methodologies will be finalized.
 - 4 potential CDM projects were also selected, to contribute developing new methodologies, standardized baselines and equitable geographical distribution of the CDM.
 - All the relevant information are available at GEC website(<http://gec.jp/>).
- **Taskforces** composed of experts for MRV has been set up and the selected MRV model projects / JCM FSs are being conducted under the guidance of the taskforces.
- **Host country committees**, have been organized for some countries, in order to share mutual perspectives on the JCM, through the discussions in those countries.

JCM Feasibility Studies by MOEJ in FY2011



MRV Model Projects and Feasibility Studies by MOEJ in FY2012



Capacity building

- ◆ Capacity building is an important component of JCM.
- ◆ Capacity building for JCM will be useful not just for JCM alone, but also for improving CDM, and developing NAMAs.

(Example)

Indonesia

- Support for establishing the MRV agency by JICA

Zambia/Bhutan

- Support for simplified CDM methodologies for Rural Electrification by JICA



Mekong countries

- Policy dialogue and enhanced briefing on JCM for government officials in charge of climate change of five Mekong countries (Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam)

Capacity Building Activities by METI

METI engages in a variety of capacity building activities, such as seminars, expert dispatches, technical experts invitations, joint researches on MRV methodologies, and government-private sector dialogues:

(Purposes)

- ✧ To provide technical know-how necessary to implement GHG emissions reduction projects under the JCM
- ✧ To establish MRV methodologies for the JCM
- ✧ To train experts on MRV methodologies for the JCM
- ✧ To train entities to act as third-party verifiers for the JCM
- ✧ To deepen understanding on the institutional and technical aspects of the JCM both at government and private sectors.

■ Capacity building activities by METI in FY2012

METI

Highly Efficient Transmission and Coal Power Plant (Mongolia)

Eco-friendly driving using digital tachograph (Vietnam)

Reduce power transmission loss by using highly efficient transformer (Vietnam)

Highly efficient coal power plant (Ultra super critical) (Vietnam)

Energy saving project at cement industry (South Africa)

Highly efficient servers at Data Centers (India)

Energy efficient technologies at Steel plant (India)

HIDA (The Overseas Human Resources and Industry Development Association)

High Efficiency Ion-Exchange Membrane Electrolysis Technology (Brazil)

Capacity Building Activities by MOEJ (1/2)

- Starting from 2003, MOEJ has been implementing **CDM capacity building programme** in Asian countries to develop institutional arrangements for the CDM.
 - **Institute for Global Environmental Strategies (IGES)** has been collaborating with Asian countries for capacity building.
- Building on the existing CDM capacity building activities, MOEJ launched capacity building for **MRV for the JCM**.
 - Such capacity building will be conducted in Asia, Latin America and Africa respectively, to reflect specific circumstances and capacities of those countries for implementing MRV.
- **New Mechanisms Information Platform** website was established by **Overseas Environmental Cooperation Center (OECC)** to provide the latest movements and information on the JCM.
 - URL is <http://www.mmechanisms.org/e/index.html>

Capacity Building Activities by MOEJ (2/2)

New Mechanisms Information Platform

Japan's Initiatives | Support Programmes | World Experiences | Policy Coordination Methodology | JCOE/BOCP

The 3rd CO2EJ between JCOE and BOCP

- Proposed Elements of the JCOE/BOCP
- Selected Documents
- Gov't of Japan
- JCOE
- BOCP

Topic of Japan

- Apr 6, 2012: Japan and Mongolia signed the first JCOE agreement
- Mar 29, 2012: Face-2-face Q&A Action on Energy and Climate Change (MOFA)
- Apr 16, 2012: East Asia Low Carbon Growth Partnership Dialogue (MOFA)
- Apr 15, 2012: Submission by Japan: Future framework and work plan of the Ad Hoc Working Group on the Durban Platform for Enhanced Action (MOFA)

Publications

- The New Mechanisms Expected to Be Launched from November 2012

Information

- Reports of COP18/CMP8