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

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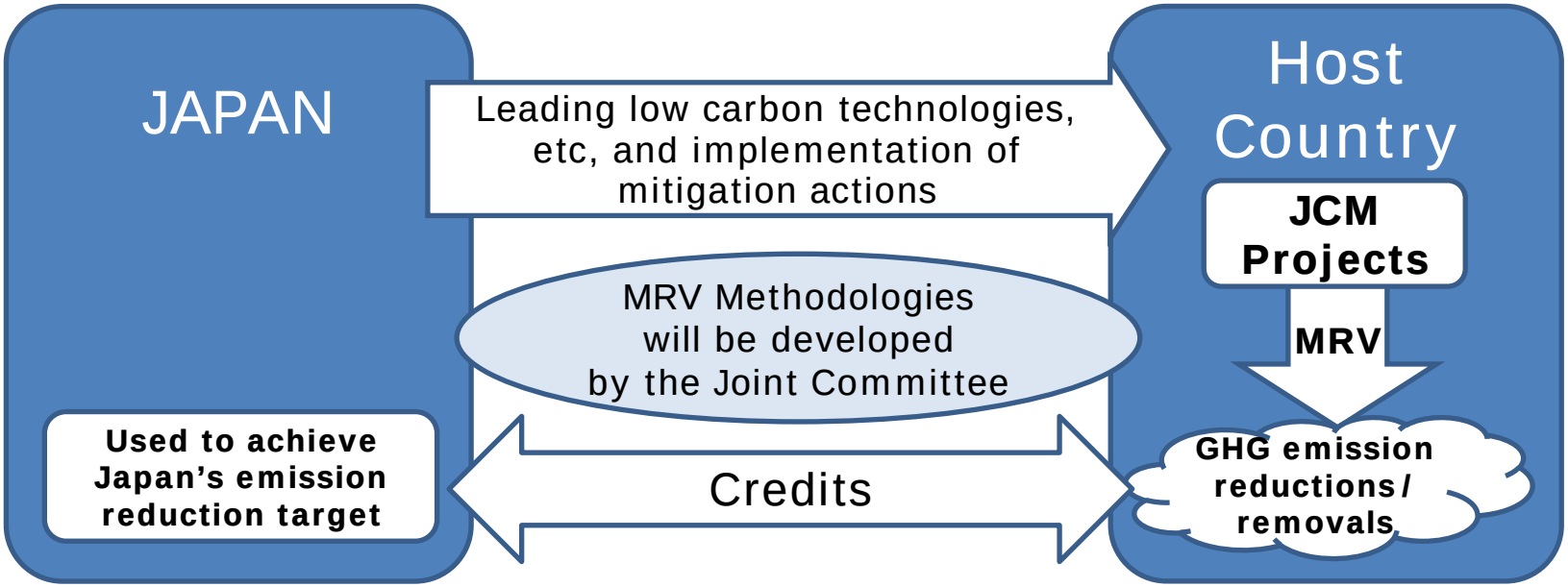
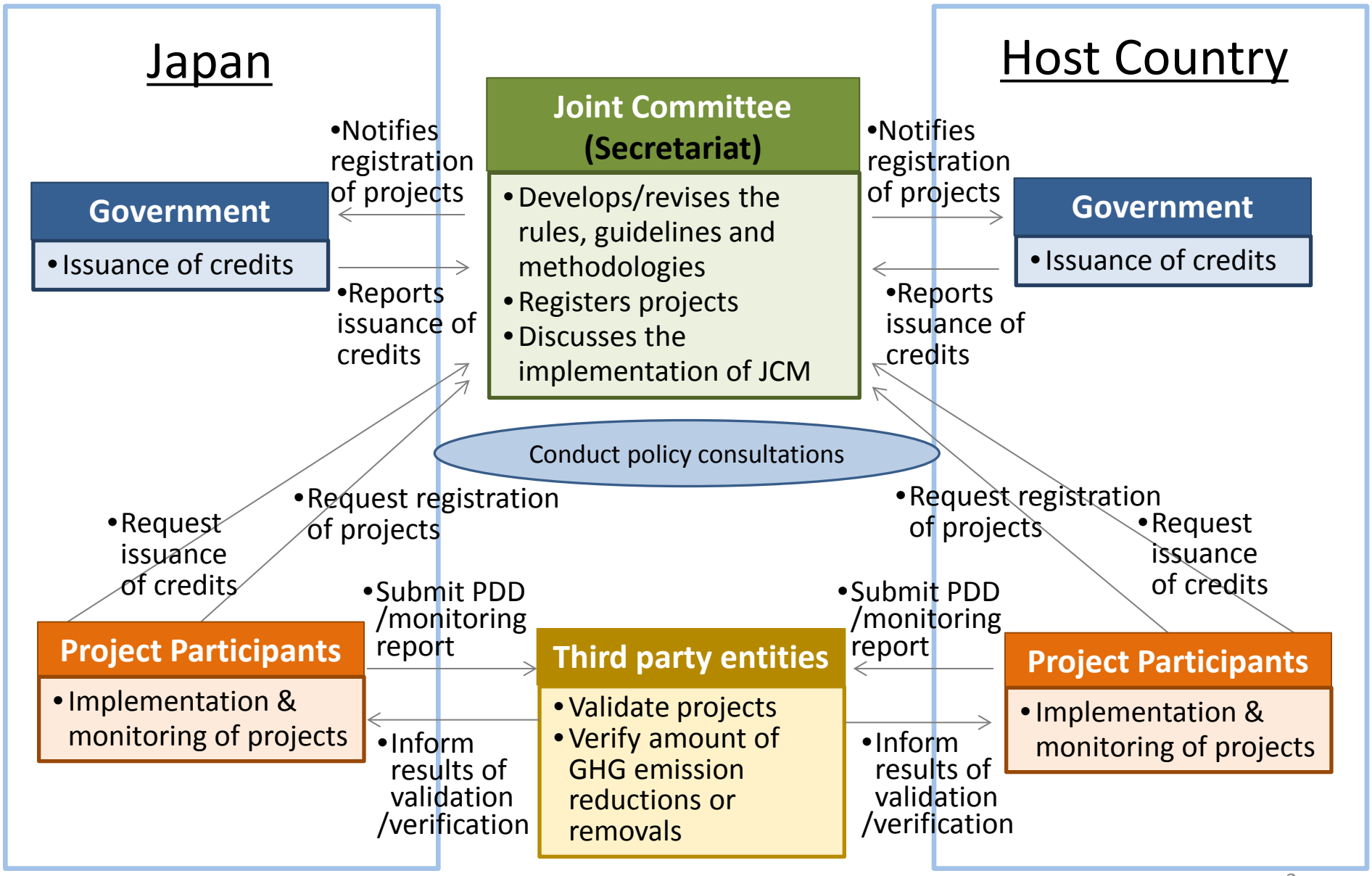
*All ideas are subject to further consideration and discussion with host countries*

# 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

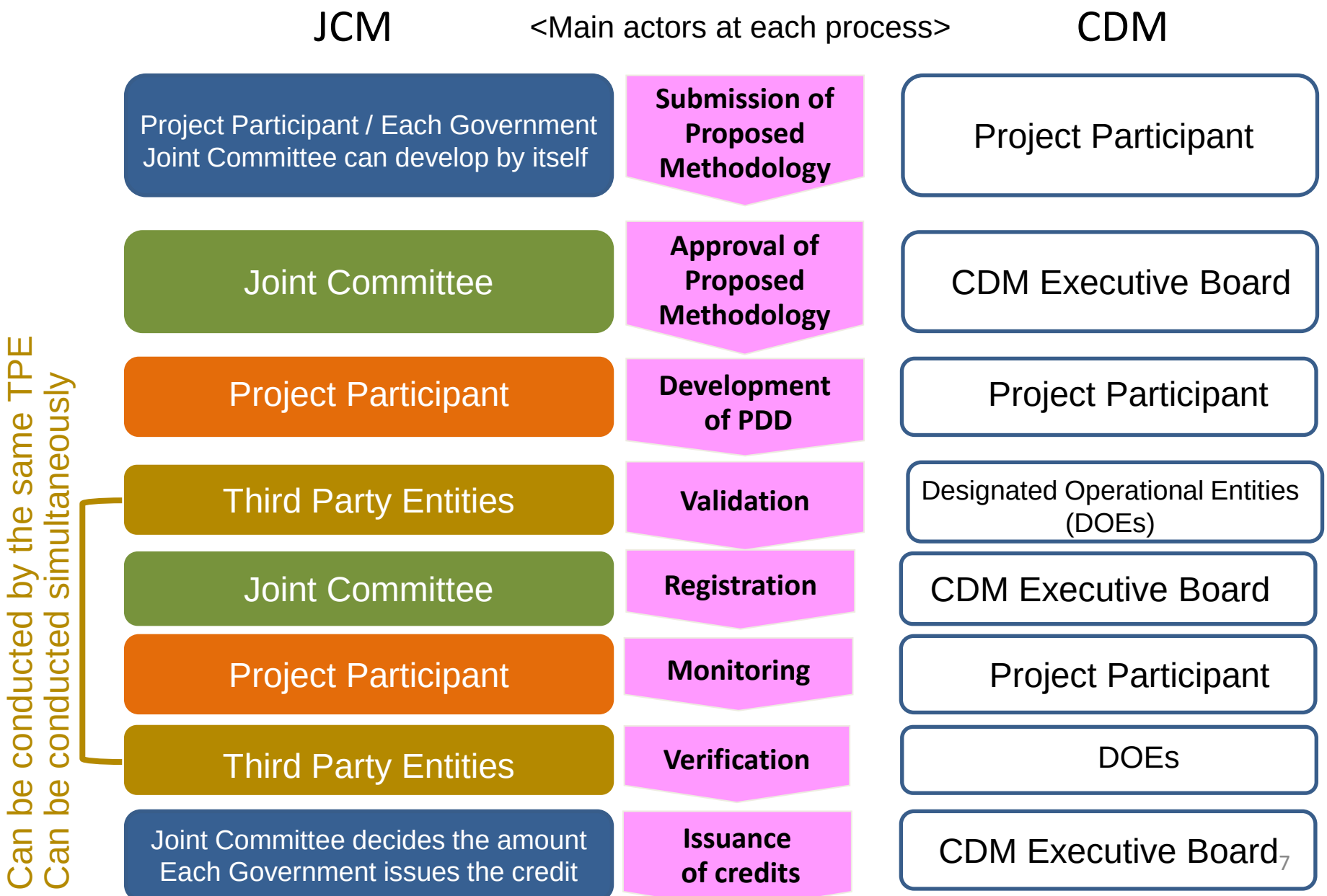
(1) The JCM starts its operation as the non-tradable credit type mechanism.

(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

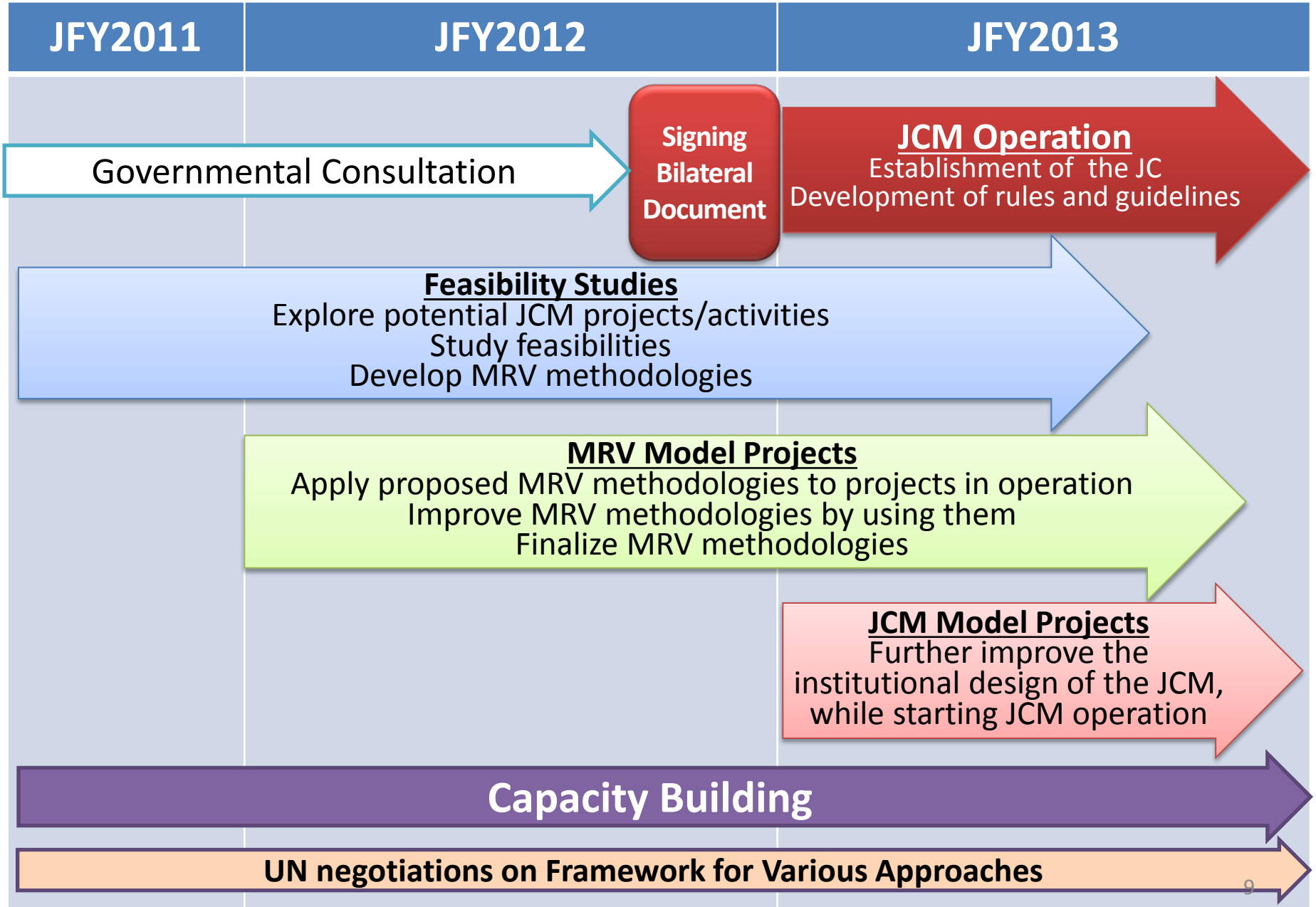


# Key features of the JCM in comparison with the CDM

(Subject to further consideration and discussion with host countries)

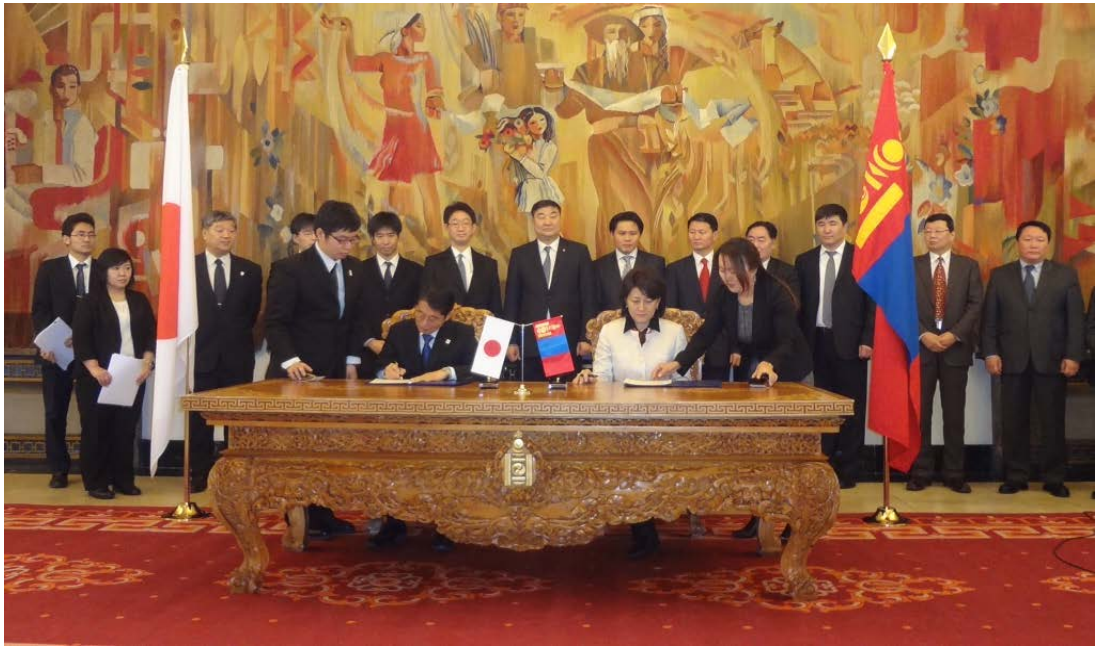
| | JCM | CDM |
|---|---|---|
| Governance | - "de-centralized" structure (Each Government, Joint Committee) | - "centralized" structure (CMP, CDM Executive Board) |
| Sector/project Coverage | - Broader coverage | - Specific projects are difficult to implement in practice (e.g. USC coal-fired power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

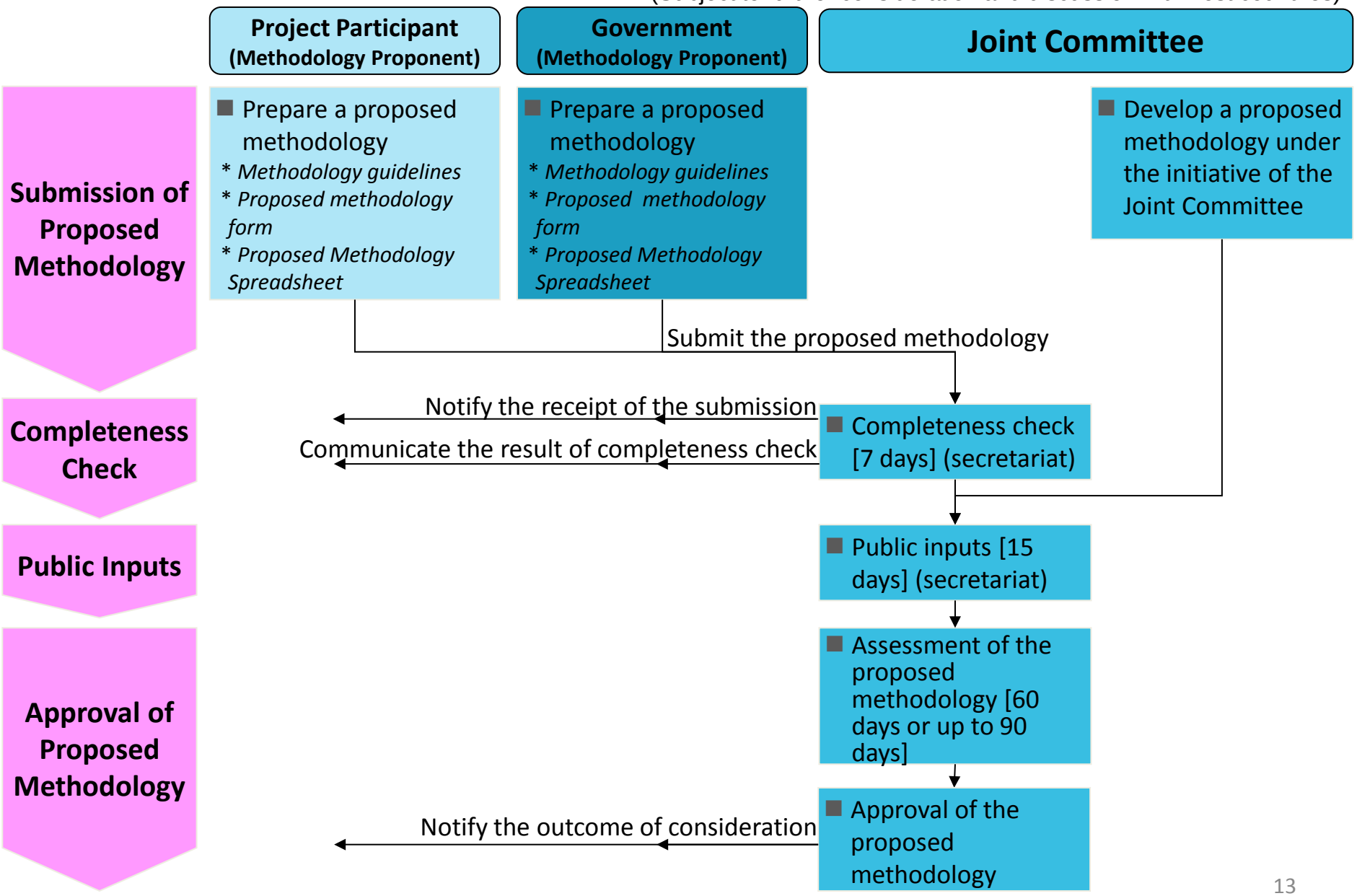
# Necessary documents for the JCM

(Subject to further consideration and discussion with host countries)

| | | Rules and Guidelines |
|---|---|---|
| **Overall** | | ✓ Rules of Implementation<br>✓ Project Cycle Procedure<br>✓ Glossary of JCM terms<br>✓ Guidelines for designation as a Third-Party Entity (TPE guidelines) |
| **Joint Committee** | | ✓ Rules of Procedures for the Joint Committee (JC rules) |
| **Methodology** | | ✓ Guidelines for Developing JCM Proposed Methodology (methodology guidelines) |
| **Project Procedures** | **Developing a PDD** | ✓ Guidelines for Developing the JCM Project Design Document and Monitoring Report (PDD and monitoring guidelines) |
| | **Monitoring** | |
| | **Validation** | ✓ Validation and Verification Guidelines (VV guidelines) |
| | **Verification** | |

# Methodology Development Procedure of the JCM

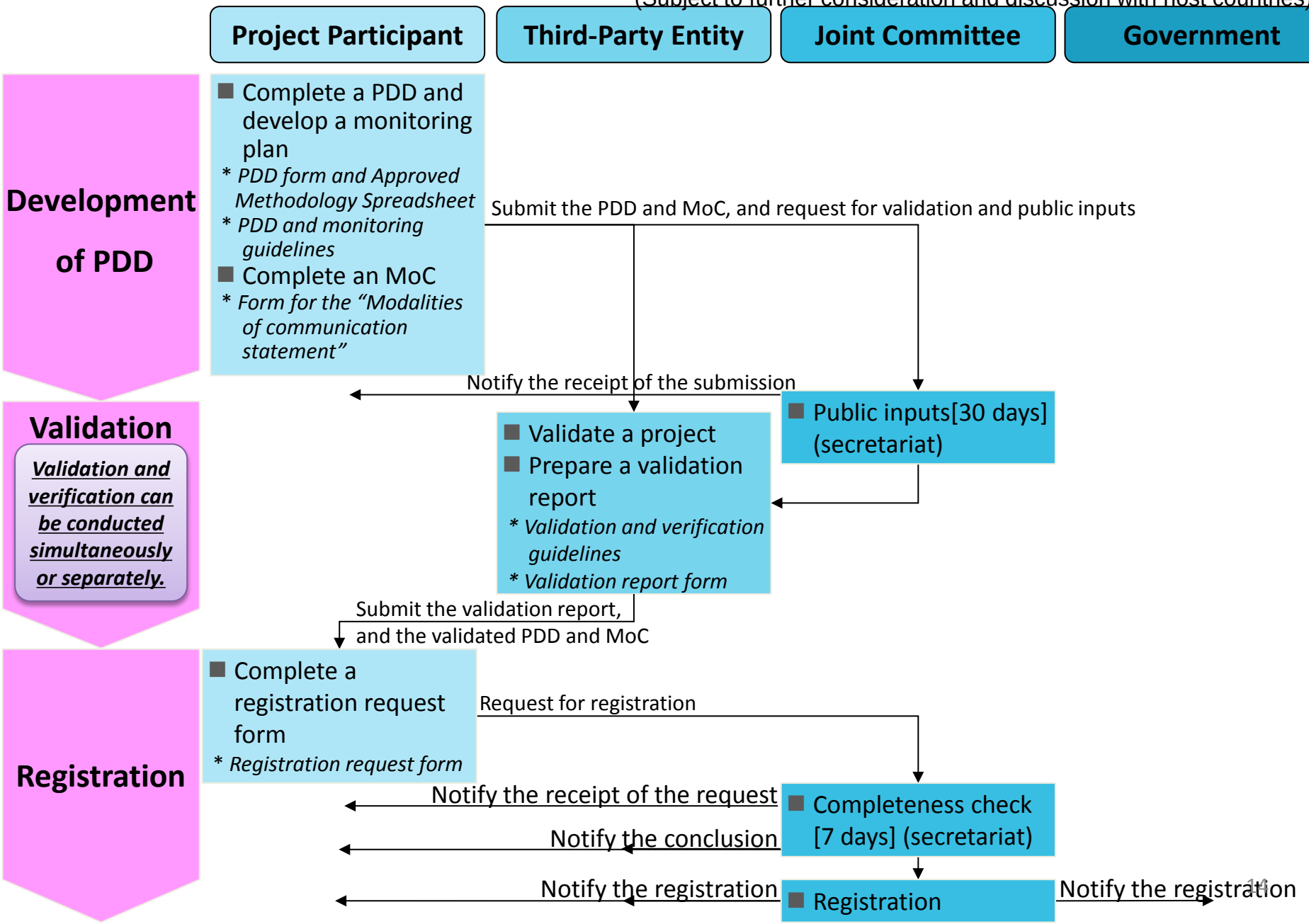
(Subject to further consideration and discussion with host countries)




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

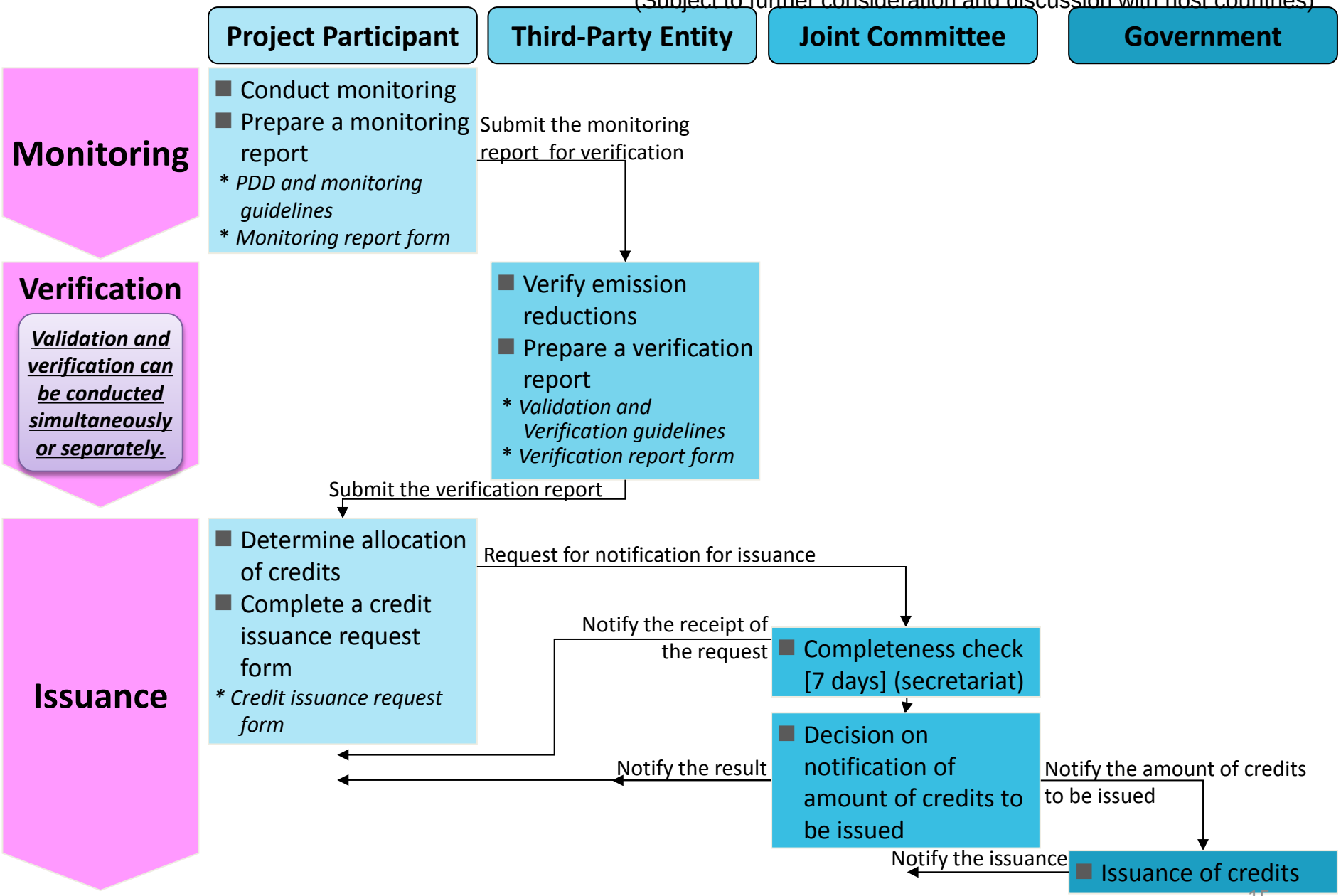
# Project Cycle Procedure of the JCM (1/2)

(Subject to further consideration and discussion with host countries)



# Project 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

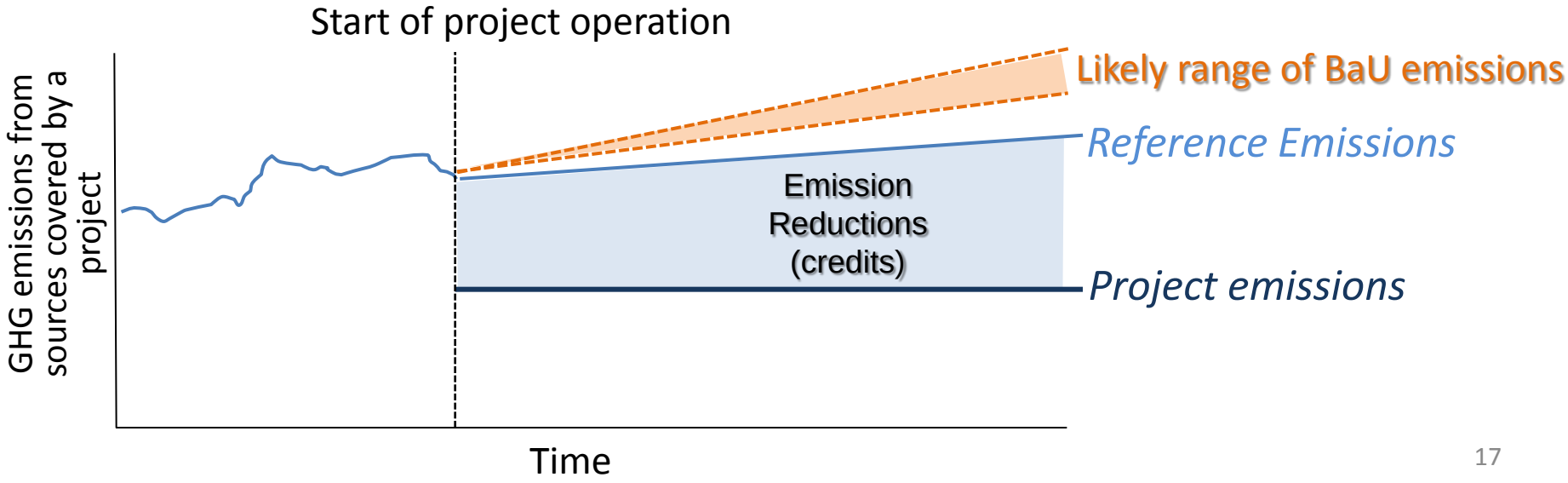
- The JC can establish panels and appoint external experts to assist part of its work.

**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

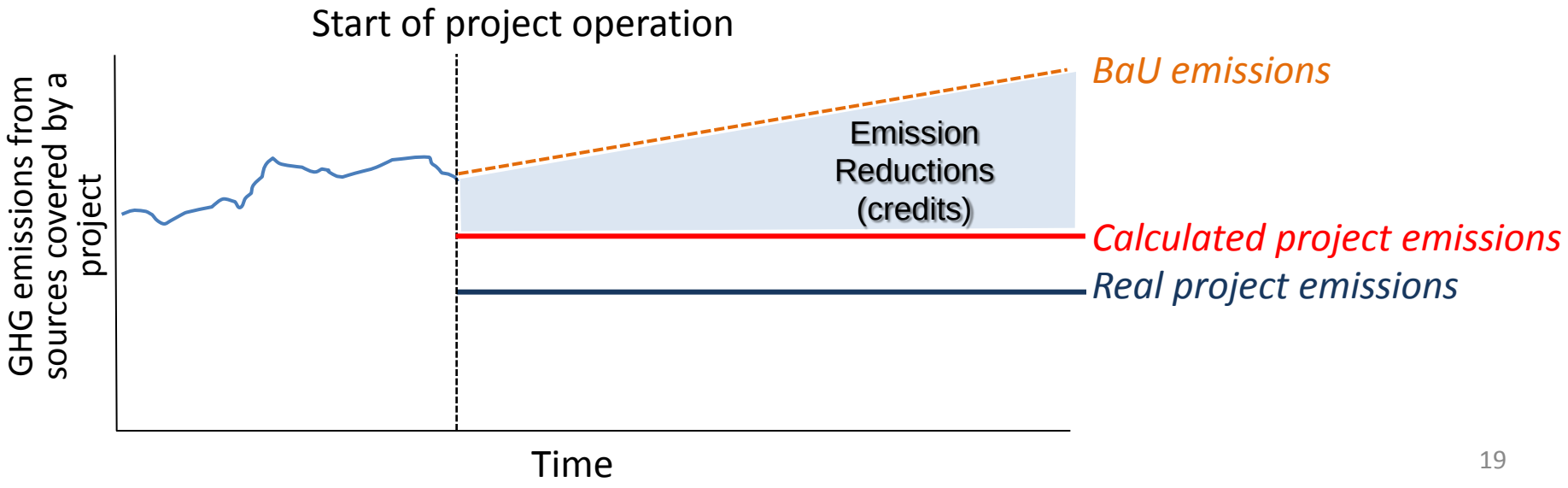
(Subject to further consideration and discussion with host countries)

- 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 | • 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) | • List of parameters will inform project participants of what data is necessary to calculate GHG emission reductions/removals with JCM methodologies.<br>• Default values for specific country and sector are provided beforehand. |
| Calculation | • 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***

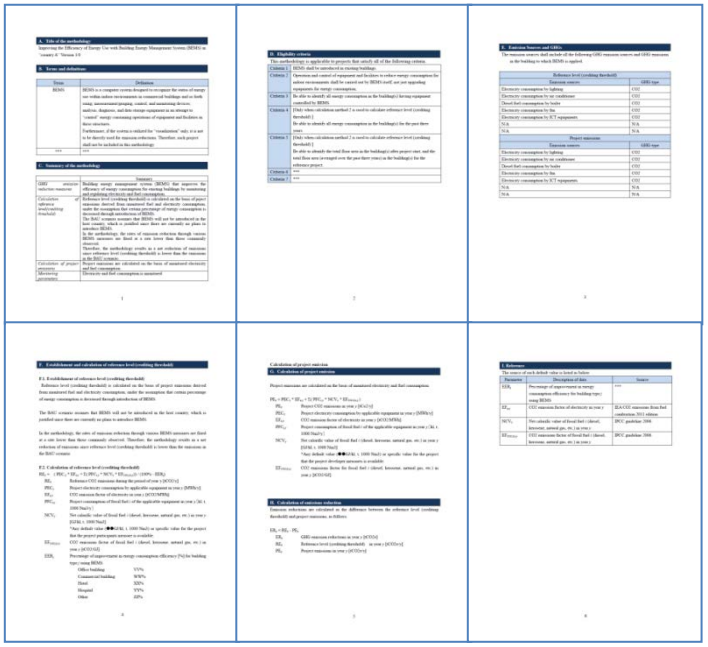
| | Eligibility | Check |
|---|---|---|
| Criteria 1 | • Electronically controlled building energy management system is installed in the planned project. | ✓ |
| Criteria 2 | • Building energy management system installed in the planned project is designed for optimal operational control of facilities and equipments to reduce energy consumption by taking interior conditions into account. | ✓ |
| Criteria 3 | • 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. | ✓ |
| Criteria 4 | • Buildings in which building energy management system is installed are in existence of longer than 5 years at the time of system installation. | ✓ |

# Overview of JCM Methodology, Monitoring Plan and Monitoring Report

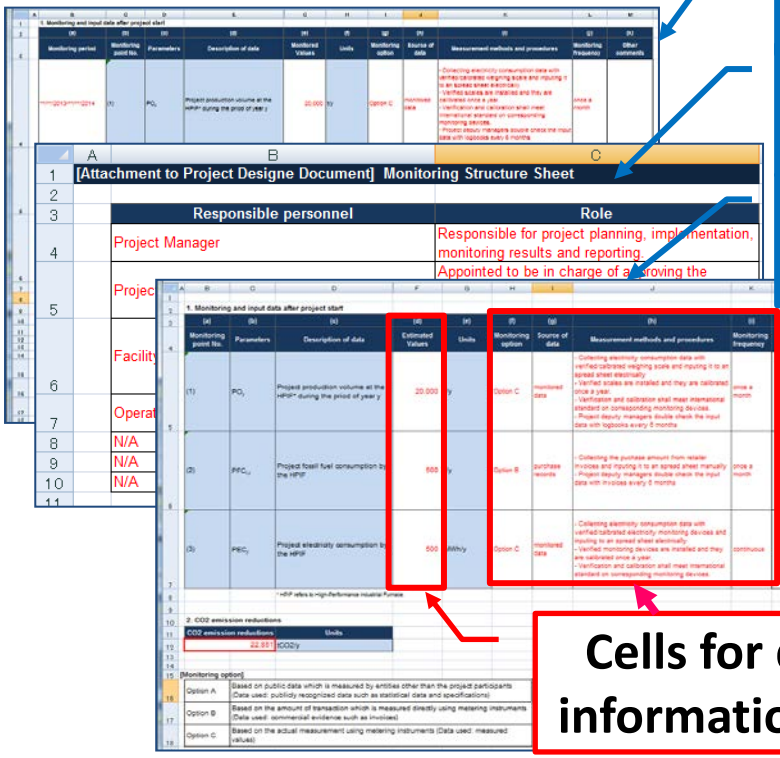
(Subject to further consideration and discussion with host countries)

- 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*

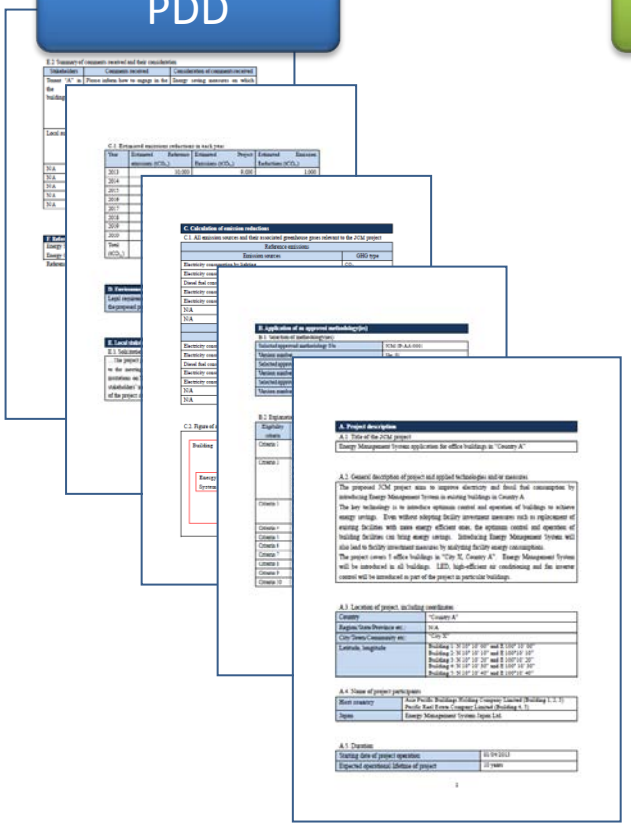


# PDD and Monitoring Plan

(Subject to further consideration and discussion with host countries)

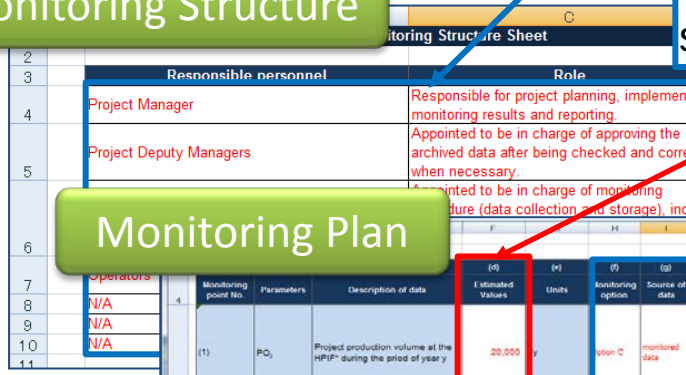
- Developing a Project Design Document (PDD) and a Monitoring Plan
  - ➢A PDD form should be filled in with information of the proposed project.
  - ➢A Monitoring Plan consists of Monitoring Plan Sheet and Monitoring Structure Sheet, and it should be filled in as well.

PDD



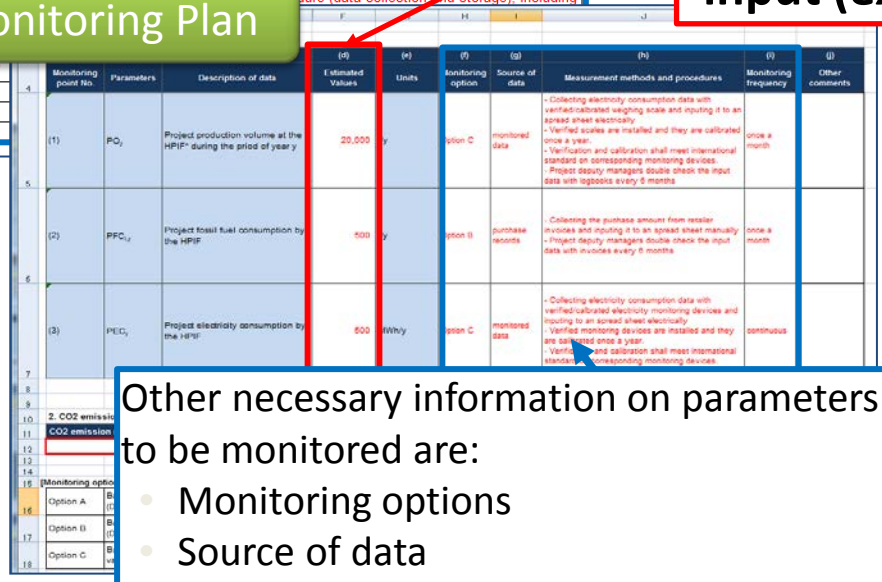
Monitoring Structure

Roles and responsibilities of personnel for monitoring should be described




Monitoring Plan

**Cells for data input (ex ante)**




Other necessary information on parameters to be monitored are:

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

# 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.

Monitoring Report

**Cells for data input (ex post)**

**Monitoring period**

| (a) Monitoring period | (b) Monitoring point No. | (c) Parameters | (d) Description of data | (e) Monitored Values | (f) Units | (g) Monitoring option | (h) Source of data | (i) Measurement methods and procedures | (j) Monitoring frequency | (k) Other comments |
|---|---|---|---|---|---|---|---|---|---|---|
| **/**/2013-**/**/2014 | (1) | $PO_y$ | Project production volume at the HPIF* during the priod of year y | 20,000 | t/y | Option C | monitored data | - Collecting electricity consumption data with verified/calibrated weighing scale and inputing it to an spread sheet electrically<br>- Verified scales are installed and they are calibrated once a year.<br>- Verification and calibration shall meet international standard on corresponding monitoring devices.<br>- Project deputy managers double check the input data with logbooks every 6 months | once a month | |
| **/**/2013-**/**/2014 | (2) | $PFO_y$ | Project fossil fuel consumption by the HPIF | 500 | t/y | Option B | purchase records | - Collecting the puchase amount from retailer invoices and inputing it to an spread sheet manually<br>- Project deputy managers double check the input data with invoices every 6 months | once a month | |
| N/A | (3) | $PEC_y$ | Project electricity consumption by the HPIF | 500 | MWh/y | Option C | monitored data | - Collecting electricity consumption data with verified/calibrated electricity monitoring devices and inputing to an spread sheet electrically<br>- Verified monitoring devices are installed and they are calibrated once a year.<br>- Verification and calibration shall meet international standard on corresponding monitoring devices. | continuous | |

* HPIF refers to High-Performance Industrial Furnace.

2. CO2 emission reductions

| CO2 emission reductions | Units |
|---|---|
| 22,851 | tCO2/y |

[Monitoring option]

| | |
|---|---|
| Option A | Based on public data which is measured by entities other than the proj... used: publicly recognized data such as statistical data and specificatio... |
| Option B | Based on the amount of transaction which is measured directly using m... used: commercial evidence such as invoices) |
| Option C | Based on the actual measurement using metering instruments (Data us... |

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.