

JCM Project Development Cycle

May 21-22, 2015

Crowne Plaze Hotel
Jakarta, Indonesia

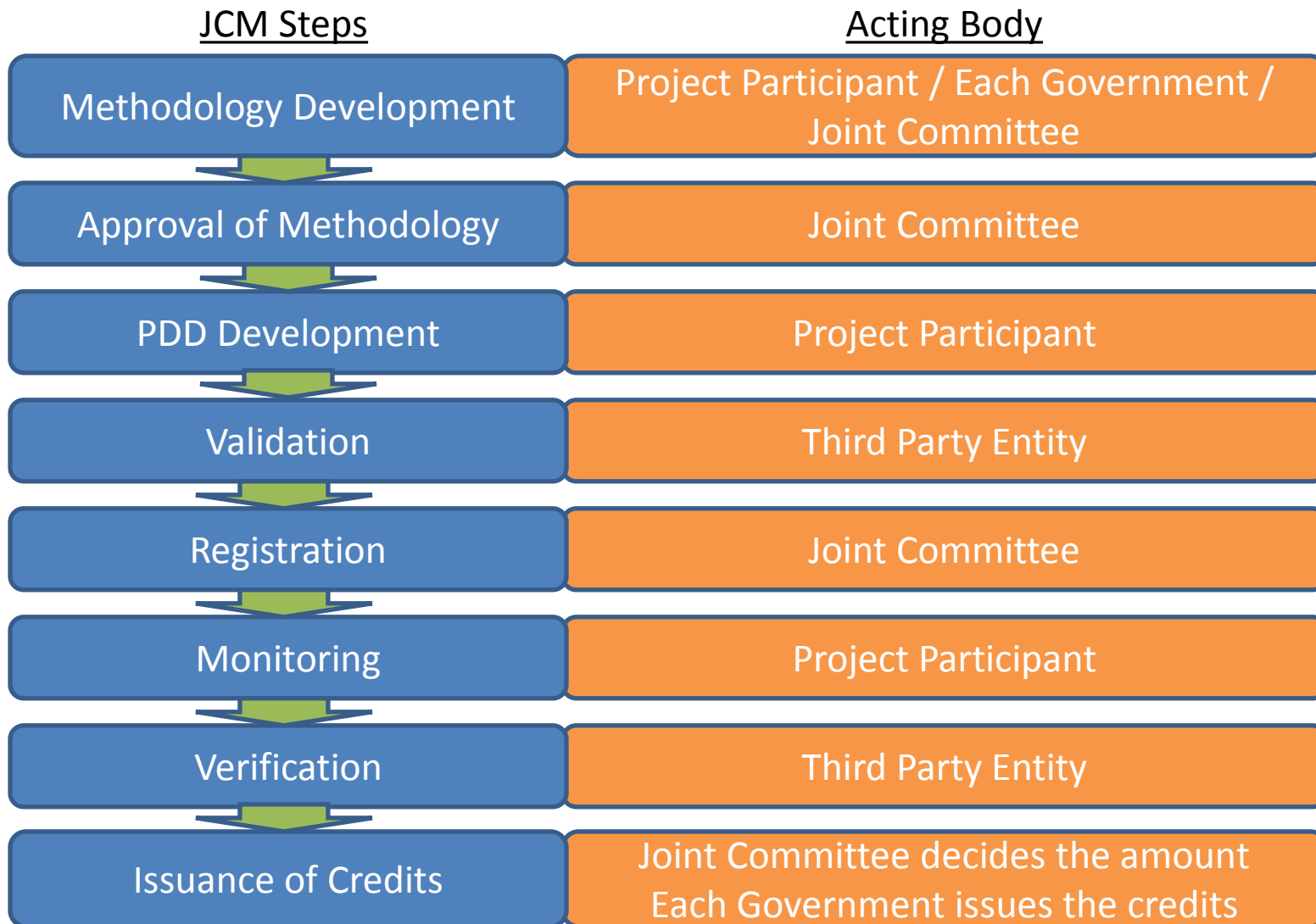
Basic Concept of JCM

Implemented between Japan and a host country (Indonesia) through signed bilateral documents



Source: Government of Japan

JCM Project Cycle



Can be conducted by the same TPE
Can be conducted simultaneously

Methodology

Is there an Approved Methodology applicable to your Project?

YES

NO

Proceed to develop the Project Design Document (PDD) and Monitoring Plan using the applicable Approved Methodology

Develop a proposed methodology

Submit the proposed methodology to the Joint Committee

Approval of the proposed methodology

Proceed to develop the PDD and Monitoring Plan using the Approved Methodology

Developing the Project Design Document (PDD)

PDD Form and Guidelines

PDD form as well as detailed guidelines on how to fill up the form is available through the official **JCM Indonesia – Japan** website

All other JCM related documentation

In fact, most, if not all, documentation necessary for the JCM project development cycle is available through the official website

- News
- About The Mechanism
- Joint Committee
 - JC Members
 - JC Decision
- Rules and Guidelines
- Third Party Entity
- Methodologies
 - Proposed methodologies
 - Approved methodologies
 - Methodologies under put on hold
- Project Cycle Search
 - Project Cycle Search
 - Request for registration
 - Registered project
 - Issuance of credits
 - Request for post-registration changes
- Contact us
- Link
- Annual transactions

Rules and Guidelines

Category	Guidelines	Forms
General	Bilateral Document histories	
	Rules of Implementation ver01.0 histories	
	Glossary of Terms ver02.0 histories	
Project Cycle		Modalities of Communication Statement Form ver01.0 [PDF] histories ver01.0 [WORD] histories
		Project Registration Request Form ver01.0 [PDF] histories ver01.0 [WORD] histories
		Credits Issuance Request Form ver01.0 [PDF] histories ver01.0 [WORD] histories
		Approved Methodology Revision Request Form ver01.0 [PDF] histories ver01.0 [WORD] histories
	Project Cycle Procedure ver02.0 histories	Post-Registration Change Request Form ver01.0 [PDF] histories ver01.0 [WORD] histories
		Registration Request Withdrawal Form ver01.0 [PDF] histories ver01.0 [WORD] histories
		Project Withdrawal Request Form

www.jcm.go.jp/id-jp

Project Cycle

[ver01.0 \[WORD\]](#) [histories](#)

Project Withdrawal Request Form

[ver01.0 \[PDF\]](#) [histories](#)

[ver01.0 \[WORD\]](#) [histories](#)

Issuance Request Withdrawal Form

[ver01.0 \[PDF\]](#) [histories](#)

[ver01.0 \[WORD\]](#) [histories](#)

[Guidelines for Developing Proposed](#)

[Methodology ver01.0](#)

[histories](#)

Proposed Methodology Form

[ver01.0 \[PDF\]](#) [histories](#)

[ver01.0 \[WORD\]](#) [histories](#)

Proposed Methodology Spreadsheet

[ver01.0 \[PDF\]](#) [histories](#)

[ver01.0 \[EXCEL\]](#) [histories](#)

[Guidelines for Developing Project Design](#)

[Document and Monitoring Report ver02.0](#)

[histories](#)

Project Design Document Form

[ver01.0 \[PDF\]](#) [histories](#)

[ver01.0 \[WORD\]](#) [histories](#)

[Guidelines for Designation as a Third-Party Entity](#)

[ver03.0](#)

[histories](#)

Application Form for Designation as a Third-Party Entity

[ver02.0 \[PDF\]](#) [histories](#)

[ver02.0 \[WORD\]](#) [histories](#)

Third-Party Entity (TPE)

[Guidelines for Validation and Verification ver01.0](#)

[histories](#)

Validation Report Form

[ver01.0 \[PDF\]](#) [histories](#)

[ver01.0 \[WORD\]](#) [histories](#)

Verification Report Form

[ver01.0 \[PDF\]](#) [histories](#)

[ver01.0 \[WORD\]](#) [histories](#)

Joint Committee (JC)

[Rules of Procedures for the Joint Committee](#)

[ver02.0](#)

[histories](#)

Main Structure of the PDD

Section	Content
A	Project description
B	Application of an approved methodology(ies)
C	Calculation of emission reductions
D	Environmental impact assessment
E	Local stakeholder consultation
F	References
	Annex
Attachment to PDD	Monitoring Plan Sheet
	Monitoring Structure Sheet
	Monitoring Report Sheet

Guidelines for Developing the PDD

- Example of a completed PDD and Monitoring Spreadsheet is provided
- *Instructions are in italic*
- Example inputs are in red

A. Project description

A.1. Title of the JCM project

Energy Management System application for office buildings in the Republic of Indonesia

Please indicate technology(ies) applied as well as sector that the project is implemented.

A.2. General description of project and applied technologies and/or measures

The proposed JCM project aims to improve electricity and fossil fuel consumption by introducing Energy Management System in existing buildings in the Republic of Indonesia.

The key technology is to introduce optimum control and operation of buildings to achieve energy savings. Even without adopting facility investment measures such as replacement of existing facilities with more energy efficient ones, the optimum control and operation of building facilities can bring energy savings. Introducing Energy Management System will also lead to facility investment measures by analyzing facility energy consumptions.

The project covers 5 office buildings in "City X", the Republic of Indonesia. Energy Management System will be introduced in all buildings. LED, high-efficient air conditioning and fan inverter control will be introduced as part of the project in particular buildings.

Please include in the description:

- The purpose of the project;
- Explanation of how the proposed project reduces greenhouse gas emissions (i.e. what type of technology is being employed, what measures are conducted as part of the project, etc).

A.3. Location of project, including coordinates

Country	The Republic of Indonesia
Region/State/Province etc.:	N/A
City/Town/Community etc:	"City X"
Latitude, longitude	Building 1: N 10° 10' 00" and E 100° 10' 00"

Guidelines for Developing the PDD (cont.)

<Example of a Monitoring Structure Sheet>

JCM_ID_GL_PDD_MR_ver02.0

Monitoring Spreadsheet: JCM-JP-ID-001 Ver.1.0

Monitoring Structure Sheet [Attachment to Project Design Document]

Responsible personnel	Role
Project Manager	Responsible for project planning, implementation, monitoring results and reporting.
Project Deputy Managers	Appointed to be in charge of approving the archived data after being checked and corrected when necessary.
Facility Managers	Appointed to be in charge of monitoring procedure (data collection and storage), including monitoring equipments and calibrations, and training of monitoring personnel.
Operators	Appointed to be in charge of checking the archived data for irregularity and lack.

<Example of a Monitoring Plan Sheet (Input Sheet)>

Monitoring Spreadsheet: JCM-JP-ID-001 Ver.1.0

Monitoring Plan Sheet (input sheet) [Attachment to Project Design Document]

Table 1: Parameters to be monitored ex post

(a) Monitoring point No.	(b) Parameters	(c) Description of data	(d) Estimated Values	(e) Units	(f) Monitoring option	(g) Source of data	(h) Measurement methods and procedures	(i) Monitoring frequency	(j) Other comments
(1)	PFC _{LV}	Project diesel fuel consumption during the period of year y	5,000	kg/y	Option B	purchase records	- Collecting purchase amount from retailer invoices and inputting to a spreadsheet manually - Project deputy managers double check the input data with invoices every 6 months	once a month	
(2)	PEC _y	Project electricity consumption during the period of year y	10,000	MWh/y	Option C	monitored data	- Collecting electricity consumption data with validate/calibrated electricity monitoring devices and inputting to a spreadsheet electronically - Verified monitoring devices are installed and they are calibrated once a year - Verification and calibration shall meet international standard on corresponding monitoring devices.	continuous	
(3)	PFC _{LPG}	Project LPG consumption during the period of year y	0	kg/y	N/A	N/A	N/A	N/A	N/A
(4)	PFC _{NG}	Project natural gas consumption during the period of year y	0	1000Nm ³ /y	N/A	N/A	N/A	N/A	N/A
(5)	PFC _K	Project kerosene consumption during the period of year y	0	kg/y	N/A	N/A	N/A	N/A	N/A

Table 2: Project-specific parameters to be fixed ex ante

(a) Parameters	(b) Description of data	(c) Estimated Values	(d) Units	(e) Source of data	(f) Other comments
EER _{office}	Percentage of improvement in energy consumption efficiency for [Office Building] using BEMS	22	%	Past records of 30 similar size office buildings for the period of 2008-2012 measured by the project participant, BEMS provider. Data set of each building has the data of before and after BEMS implementation at least for one year respectively.	

Table 3: Ex-ante estimation of CO₂ emission reductions

CO ₂ emission reductions	Units
1,945	1000tCO ₂ /y

[Monitoring option]

Option A	Based on public data which is measured by entities other than the project participants (Data used: publicly recognized data such as statistical data and specifications)
Option B	Based on the amount of transaction which is measured directly using measuring equipments (Data used: commercial evidence such as invoices)
Option C	Based on the actual measurement using measuring equipments (Data used: measured values)

4.2. Developing a Monitoring Plan

- Project participants develop before validation a monitoring plan using Monitoring Plan Sheet and Monitoring Structure Sheet in the corresponding Monitoring Spreadsheet of the methodology applied.
- Project participants input estimated values for each parameter in the Monitoring Plan Sheet including those fixed ex ante for parameters not to be monitored.
- Project participants also describe the following items for each parameter specified in the Monitoring Plan Sheet in line with the applied methodology(ies). Project participants may add detailed information specific to the proposed project to the contents given in the applied methodology.

- Estimated values: Provide the estimated values of the parameter for the purpose of calculating emission reductions *ex ante*;
- Monitoring option: Select an option from below;
 - Option A: Based on public data which is measured by entities other than the project participants (Data used: publicly recognized data such as statistical data and specifications);
 - Option B: Based on the amount of transaction which is measured directly using measuring equipments (Data used: commercial evidence such as invoices);
 - Option C: Based on the actual measurement using measuring equipments (Data used: measured values).
- Source of data: Provide the source of data used or to be used. Clearly indicate the type of data source (e.g. logbooks, daily records, surveys, etc.) and spatial level of data (e.g. local, regional, national, international), if applicable;
- Measurement methods and procedures: Describe how the parameters are to be measured/calculated including Quality Assurance/Quality Control (hereinafter

Simplified PDD Development

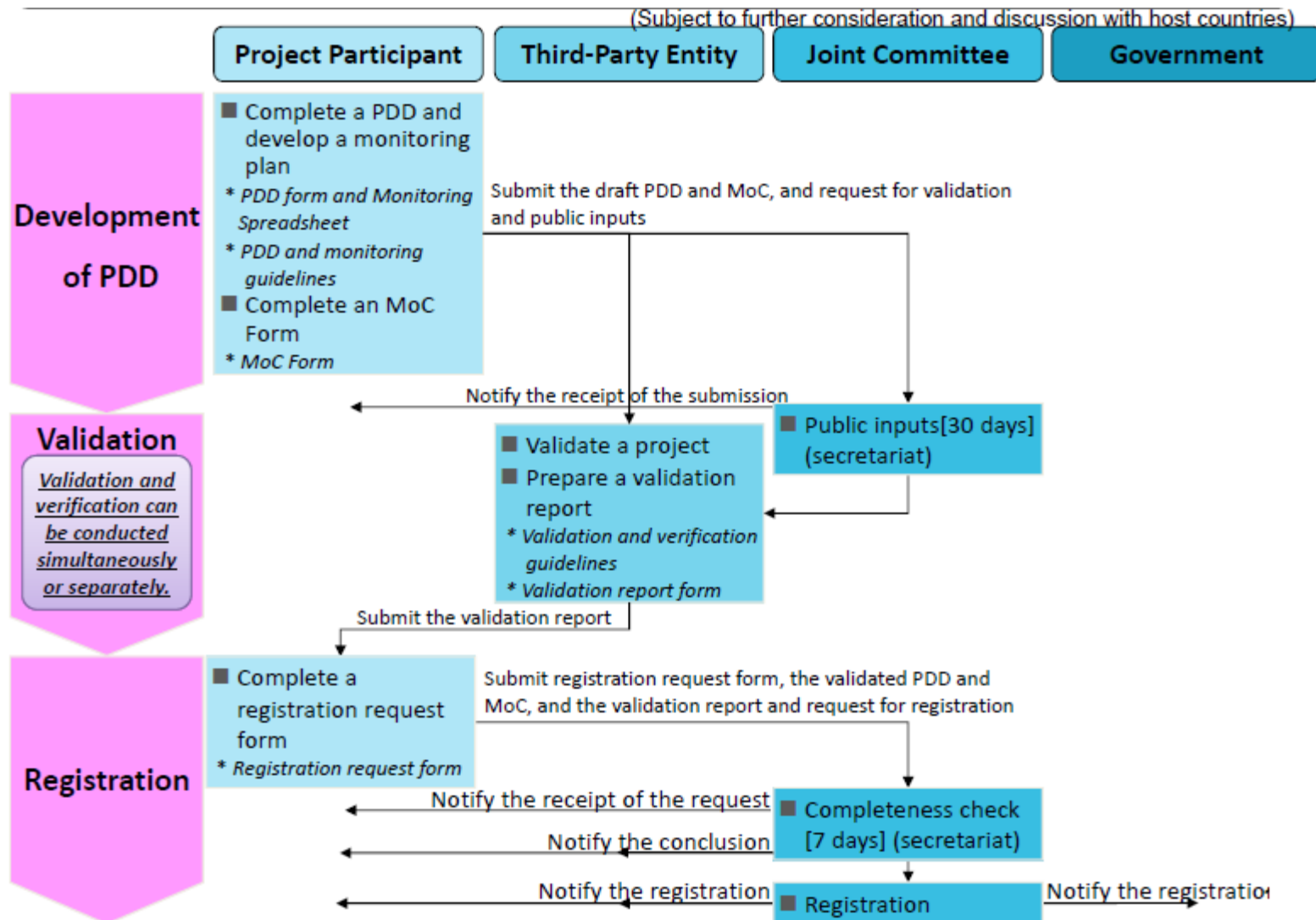
Calculation of emission reduction

- Spreadsheets are provided
- Default values can be used if monitored parameters are limited

Baseline and Additionality

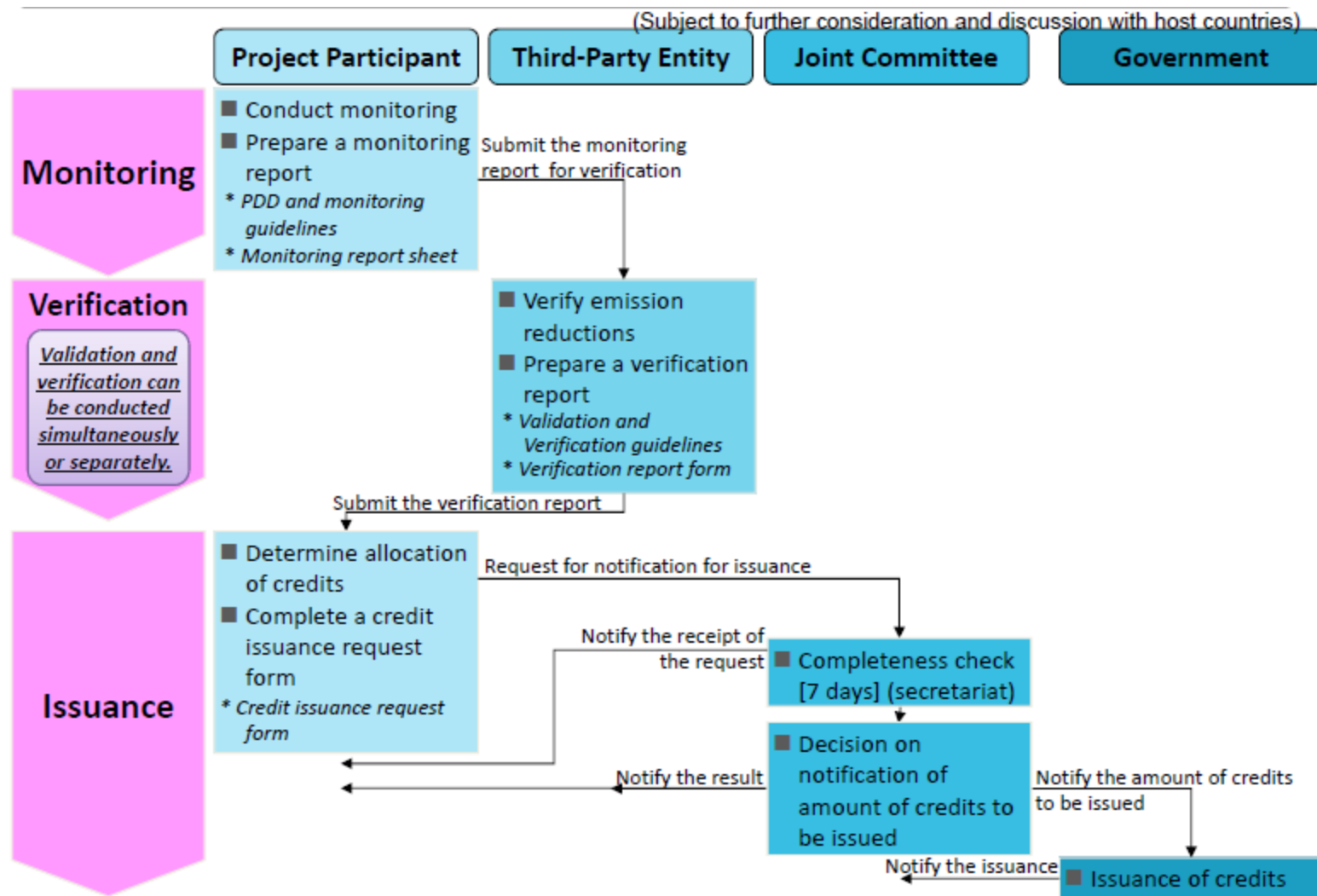
- Does not need to be demonstrated in the PDD
- Addressed under the Approved Methodology

Registration and Issuance Procedure



Source: Government of Japan

Registration and Issuance Procedure (cont.)



Source: Government of Japan

Thank you

Raymond Caguioa
Carbon Market Expert (Consultant)
Regional and Sustainable Development Department
Asian Development Bank
Tel +63 2 632 4444 ext 70328
rcaguioa.consultant@adb.org