



Introduction to JCM methodologies

Akihisa Kuriyama

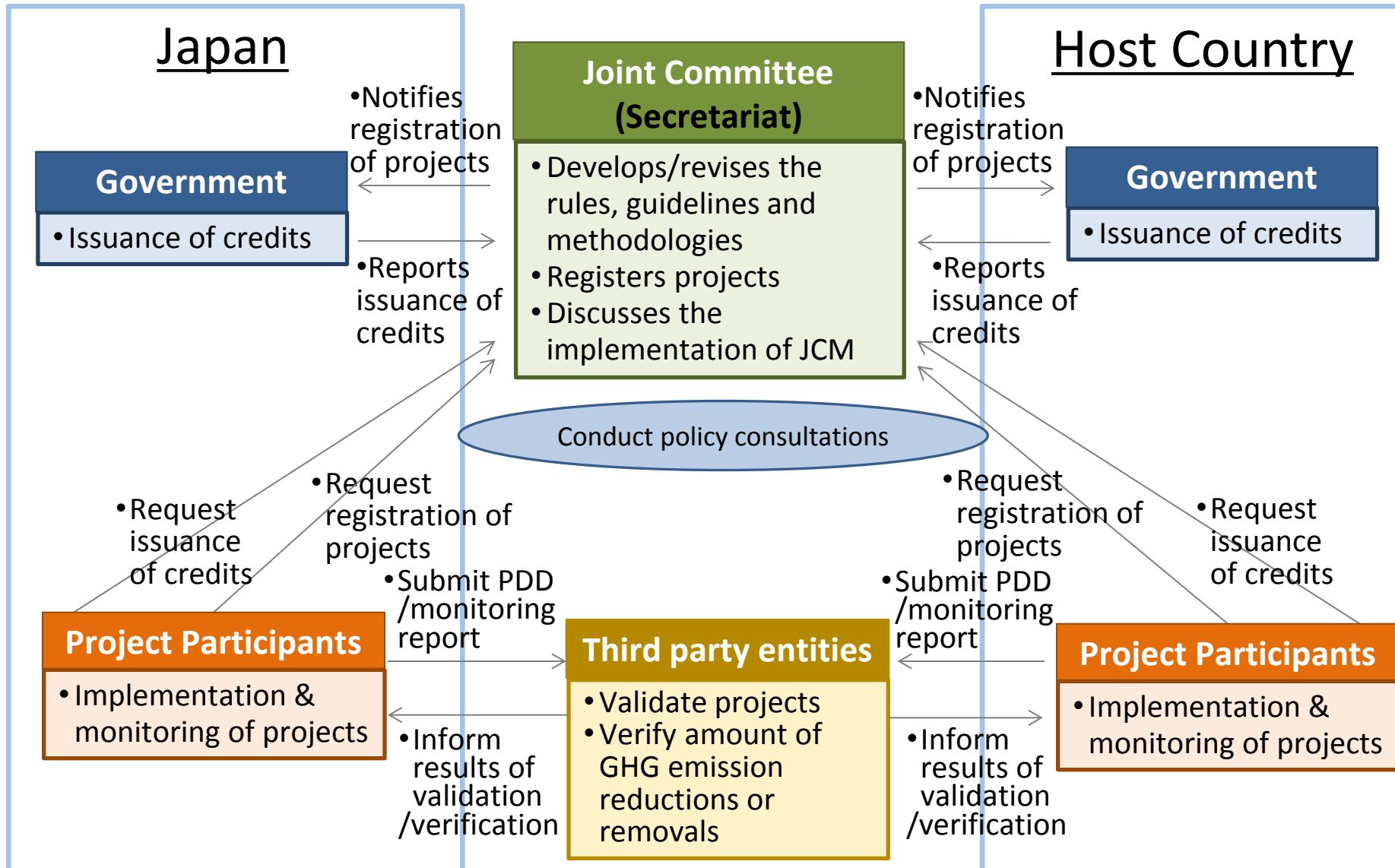
Institute for Global Environmental Strategies (IGES)

2013/10/17

kuriyama@iges.or.jp



JC consists of representatives from both governments



Role of the Joint Committee on the JCM methodology

- The **JC assess** the proposed methodology based on the materials submitted by the proponents and public inputs in line with methodology guidelines.
- The **JC may interact with methodology proponents** on specific issues regarding the proposed methodology.
- There can be case that the **JC itself develops** JCM methodologies

Part1: Eligibility criteria

What is eligibility?

- Eligibility criteria in proposed methodologies contain the followings:
 - a) Requirement for the potential project in order to be registered in the JCM.
 - *Similar concept with “Additionality” in the CDM*
 - b) Requirement for the project to be able to apply the approved methodology .
 - *Similar concept with “applicability” of the CDM methodology*

How to develop eligibility criteria?

- Include characteristics to identify the measures (e.g. technology, product, or service) applied to the methodology.
- Include conditions that are necessary in order to enable robust calculation of GHG emission reduction.
- Should avoid those which need to be monitored ex post.
- May be represented by;
 - Specific technology (e.g. ultra supercritical coal fired power plants, air conditioner with inverter...;)
 - Specific technology with a design efficiency or performance indicator above a certain threshold (e.g. power plant with a thermal efficiency above X%);
 - Specific sector to which the measure is applied.

Example of Eligibility criteria

Case1: “Comprehensive energy efficiency measures by utilizing energy-saving and renewable energy for brewing industries **in Viet Nam**” (Draft Ver 3.0)

Case 1	<u>Two or more of the following technologies shall be introduced</u> in implementing the project and the technologies must have a maintenance plan: Vapor recompression system (VRC), fuel conversion once-through boiler, cascade cooling system, heat pump system for pasteurizer, bottle washer heat recovery system, biogas recovery boiler
Case 2	The applicable factory shall include manufacturing of either or both of <u>beer and carbonated beverages</u> .
Case 3	<u>No drastic changes</u> made in manufacturing process and products before and after the project implementation.
Case 4	<u>Fossil fuels and electricity consumption</u> within the boundary including production of products <u>shall be measureable</u> after the project implementation.
Case 5	In case of existing equipment are replaced by project activities, the equipment shall not be used in other locations.
Case 6	In case of using new biomass sources, the biomass shall be proven to be unused prior to the project implementation.
Case 7	In case of using renewable energy, electricity shall be generated solely from biomass sources and used for energy consumption within the project boundary.

Note: This methodology has **not been approved** yet.

Example of Eligibility criteria

Case2: “Energy Efficiency Improvement of Buses in Lap PDR” (Draft Ver. 3.0)

Case 1	The project activity includes measures to improve <u>energy efficiency of buses</u> by introducing new vehicles that displace the use of existing vehicles, and/or retrofitting of existing vehicles.
Case 2	The type of vehicles covered by the methodology is bus for <u>public transportation</u> operating along regular routes
Case 3	The project participants should demonstrate that buses under the project and the reference scenarios have comparable <u>passenger/load capacity</u> and power rating <u>with a variation of not more than +/- 20%</u>
Case 4	The project participants shall demonstrate <u>the availability of bus operation logs</u> that record the operating the distance of buses.
Case 5	The project participants shall demonstrate that the fuel efficiency of buses under the reference and project scenarios can be measured.

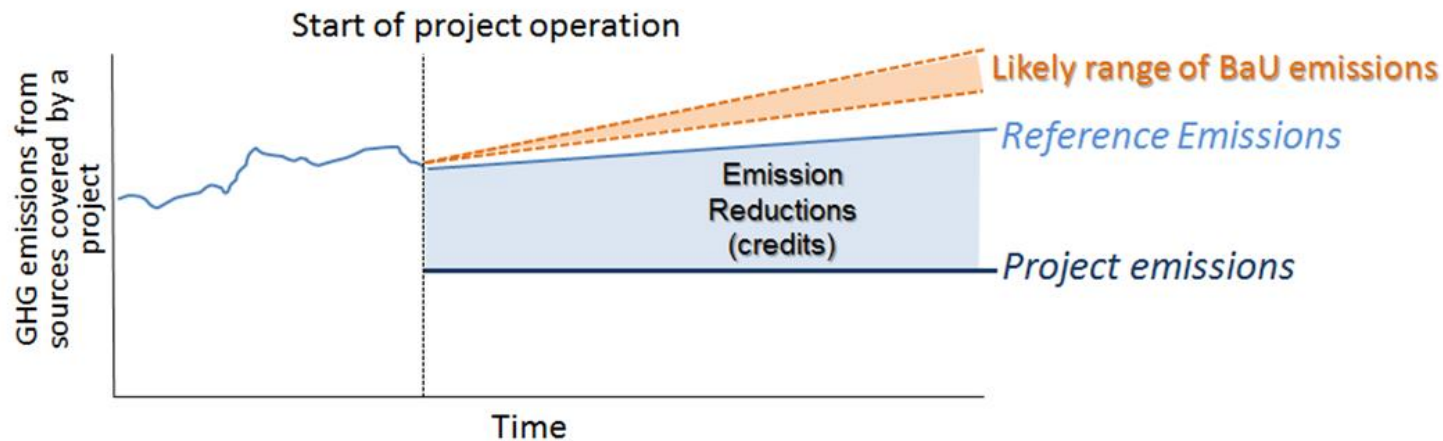
Note: This methodology has **not been approved** yet.

Part2:

Reference emissions

What is reference emissions?

- The reference emissions are calculated to be below business-as-usual (BaU) emissions which represent plausible emissions in providing the same outputs or service level of the proposed JCM project



How to develop reference emissions

- Provide only one procedure for establishing reference emissions
- Provide a description of how and why the reference emissions are below the BaU emissions.
- If reference emissions are defined by multiplying an emission factor and an output, the output should be identical to or less than monitored output of the project.
- Reference emissions may be derived from:
 - The current situation and performance;
 - Average historical performance;
 - Performance of similar products and technologies which compete with the project technology;
 - Legal requirement
 - Voluntary standards and targets
 - Best available technology of the host country

Example of Reference emissions

Case1: “Comprehensive energy efficiency measures by utilizing energy-saving and renewable energy for brewing industries in Viet Nam” (Draft Ver 3.0)

- There is no effective regulation on energy efficiency in Viet Nam, thus BaU (① or ②) is the most appropriate scenario without project.
- In general energy intensity increases (energy efficiency is decreased) as time passes, the scenario of ③ is conservative.



Example of Reference emissions

Case 2: “Energy Efficiency Improvement of Buses in Lap PDR”
(Draft Ver. 3.0)

- There is no budget to implement new bus in Vientiane, thus BaU is the most appropriate scenario without project.
- Reference scenario applies the emission factor of the most recent bus, thus the calculated emission reduction is conservative.

Questions

- Is there any policy, standard or regulation on energy efficiency in Lao PDR?
- Is there any technology to be promoted in Lao PDR?
- Others...