

# Japan's support for mitigation actions and Introduction of the Joint Crediting Mechanism (JCM)

**JIRO OGAHARA**

*Senior Researcher*

Overseas Environmental Cooperation Center, Japan (OECC)



1. Capacity building activities for NAMA / MRV in the transport sector of Lao PDR.
3. The Joint Crediting Mechanism (JCM)
5. NAMA and MRV Guidebooks

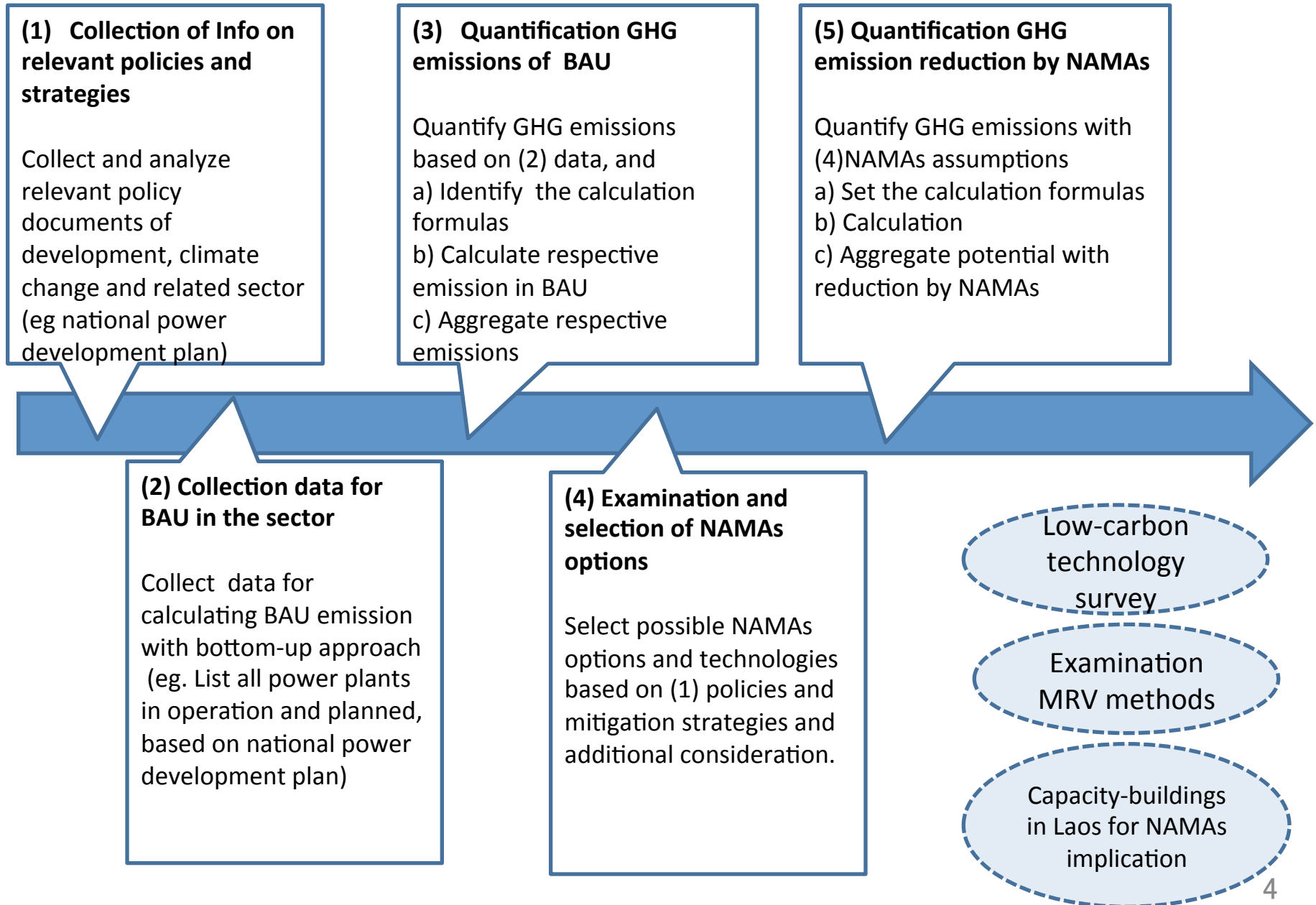
In 2007, COP13 decided to start consideration on nationally appropriate mitigation actions (NAMAs) by developing countries in a measurable, reportable, and verifiable (MRV) manner, supported by technologies, financing, and capacity-building, backed by the Copenhagen Accord, the Cancun Agreement, and the Durban Platform.

The Japanese government supports developing countries in their efforts to mitigate the effects of climate change.

The Ministry of Environment and Natural Resources, Lao PDR (MONRE), and the Ministry of the Environment, Japan (MOEJ), decided to cooperate on capacity building and joint studies on NAMAs in a MRV manner in the transport sector of Lao PDR.

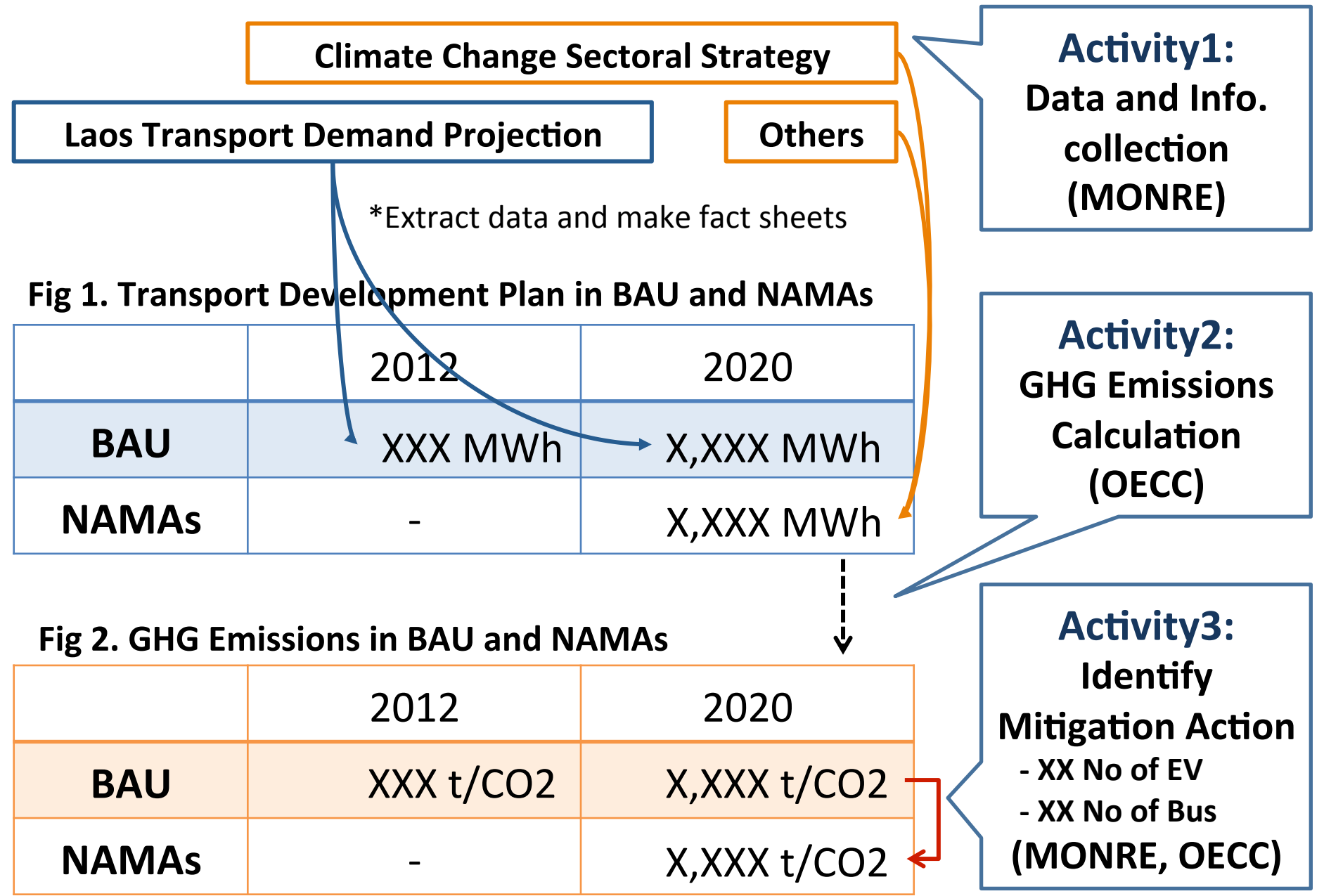
MONRE and OECC, acting as a joint Secretariat, signed an Agreement in September, 2012.

# Proposed steps for NAMA development

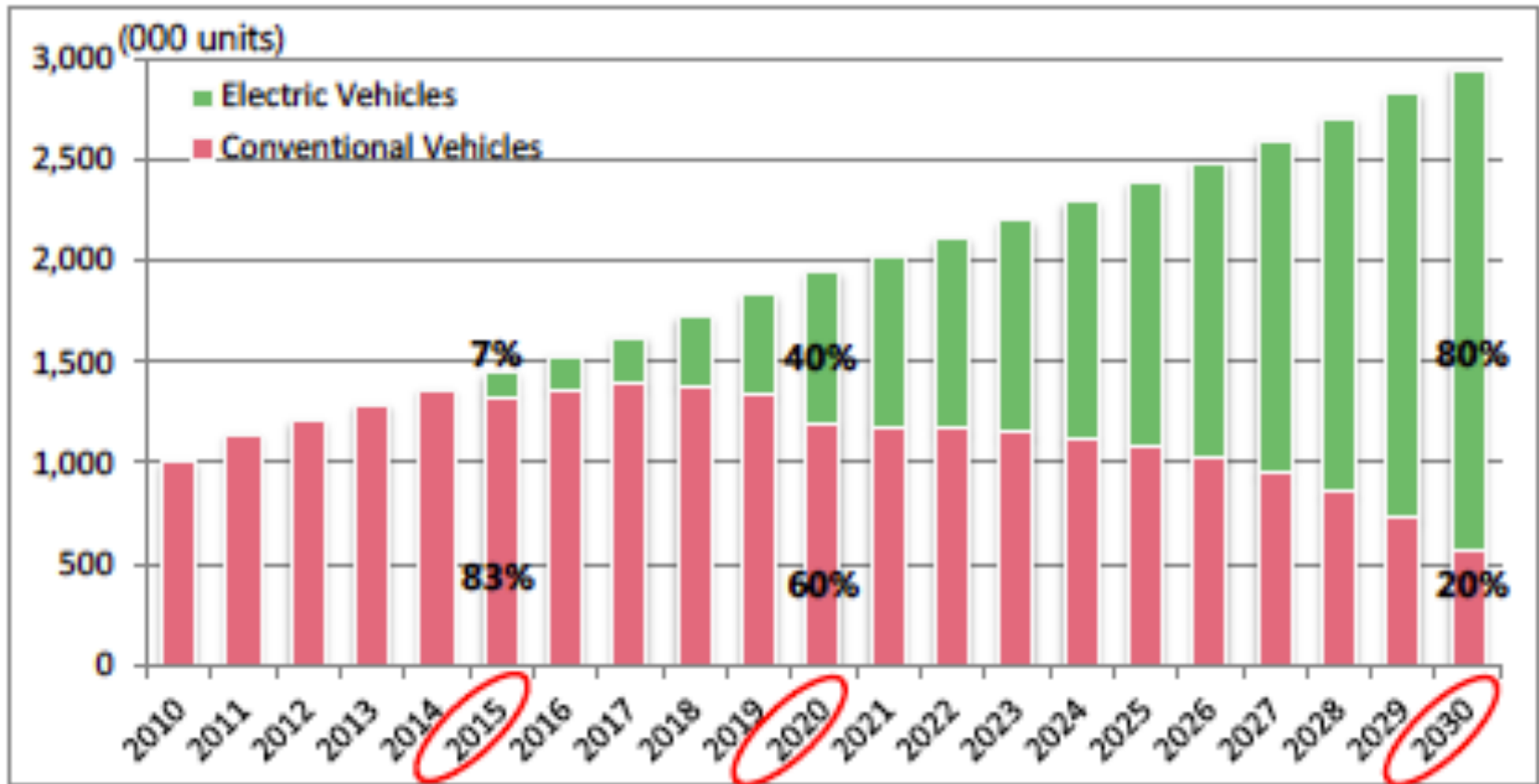


Sector	Mitigation option
Energy	<ul style="list-style-type: none"><li>● Hydro</li><li>● Energy Efficiency Measures</li></ul>
Industry	<ul style="list-style-type: none"><li>● Efficient Production System</li></ul>
Transport	<ul style="list-style-type: none"><li>● Introduction of Electric Vehicles</li><li>● Promotion of Public transport Use</li></ul>
Waste	<ul style="list-style-type: none"><li>● Composting Organic Waste</li></ul>
Agriculture	<ul style="list-style-type: none"><li>● Reduce Methane Emission from Rice field/Cows</li></ul>
Forestry	<ul style="list-style-type: none"><li>● Reforestation</li><li>● Reduce Slash-and-burn</li><li>● Reduce Wildfire</li></ul>

Source: National Strategy on Climate Change Laos, 2010



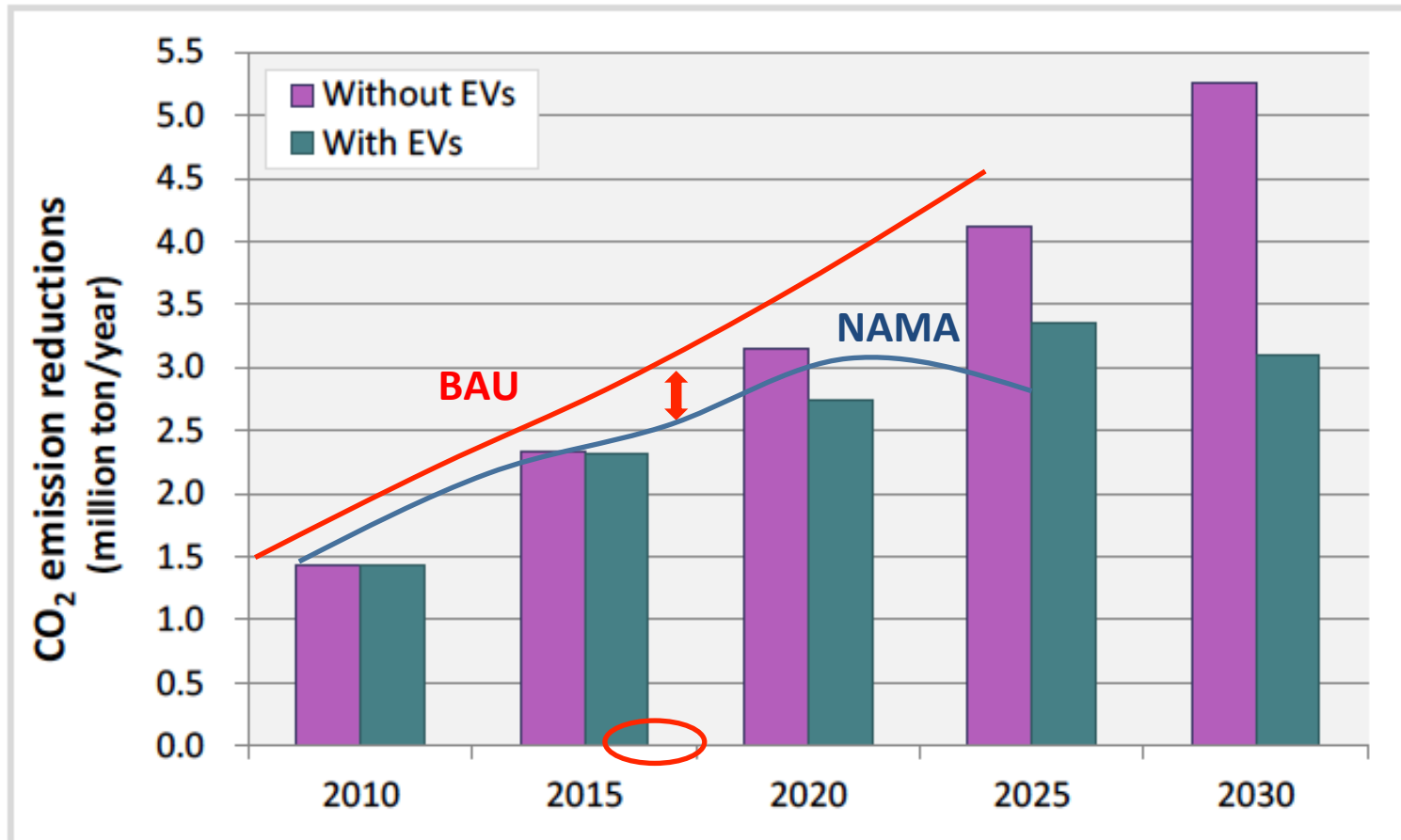
## Diffusion Target of EV in Lao PDR:



Source: Basic Data Collection Study on Low-emission Public Transport System in Lao PDR, JICA

## NAMA Project Emission Reduction in 2020

**Around 0.5 million tons of reduction by the introduction of EV**

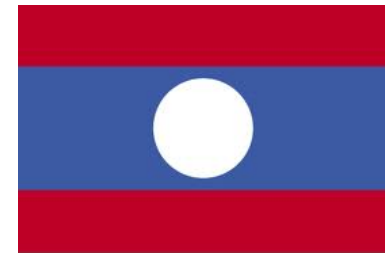


Source: Basic Data Collection Study on Low-emission Public Transport System in Lao PDR, JICA



	As indicated in the MOU	Outputs / Results
1	Identify BAU and NAMA Scenarios	<i>Quantification of GHG emissions in BAU and emissions reduction by NAMA</i>
2	<u>A draft</u> implementation plan for NAMAs	<i>Provided a list of NAMA alternatives with consideration of MRV criteria. NAMA: "Promotion of Electric Vehicles"</i>
3	<u>A draft</u> implementation plan for MRV of NAMA	<i>Proposed an Implementation Plan for MRV and NAMA (under discussion)</i>
4	Proposal of a modalities for domestic institutional arrangement for NAMA implementation	<i>Proposed Institutional Arrangement for NAMA implementation</i>
5	Provide a menu of appropriate mitigation technologies	<i>Provided a List up Environmental Technologies in relation to NAMA selections. Conducted an Environmental Mission (private sector)</i>

# Lao PDR

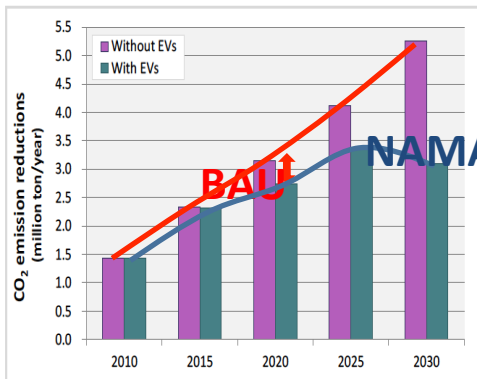


## Selected Sector: Transport Sector

NAMAs: Replacement of conventional vehicle with EV

Working Group: 7 Ministries participates, including MONRE, MPWT, MIME, MOIC, MOST, chaired by Results:

- Calculated BAU and ER by NAMAs ex ante
- Activity data (fuel economy data) originally collected and based on JICA Study
- Proposed institutional arrangements are planned to be a part of technical WG under the National Climate Change Committee

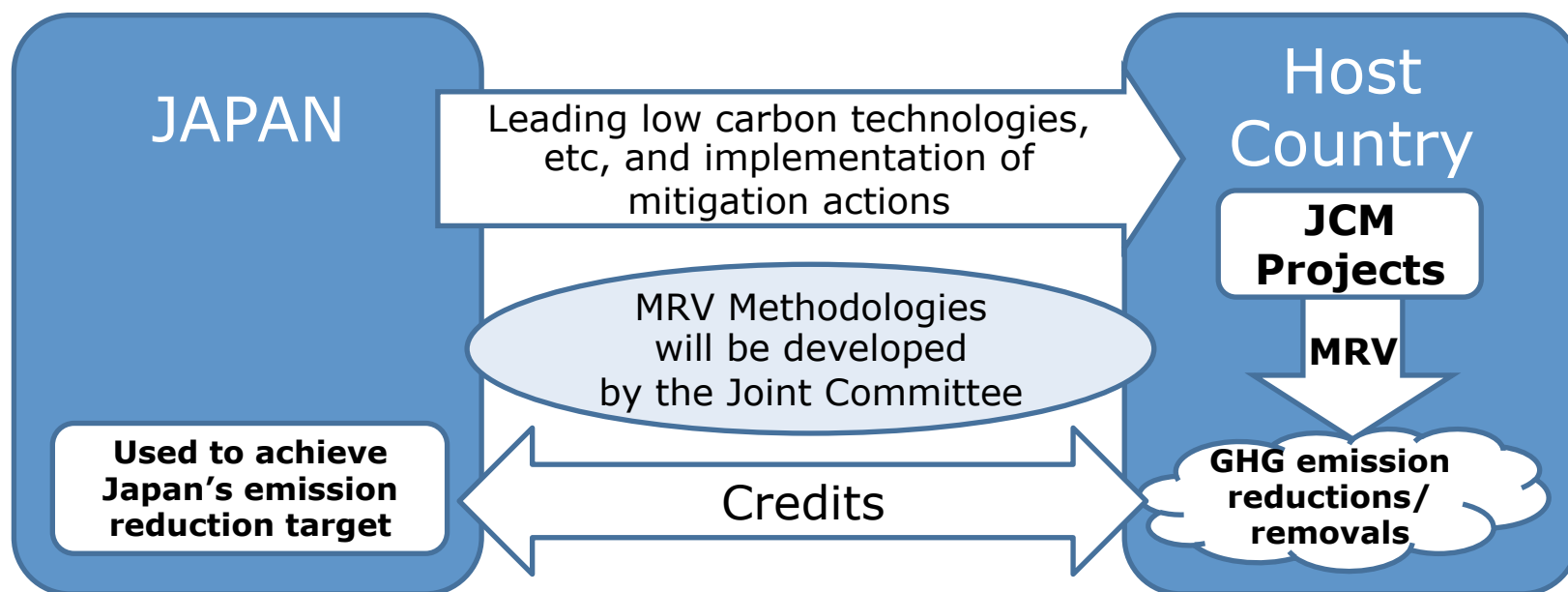


	Motorcycle	Passenger car	Tuk Tuk / Mini bus	Song Thew / Middle size bus	Large bus	Total
<b>Baseline Emissions</b>						
Baseline fuel economy (km/liter)	40	13.0	20	6.5	2.5	
Baseline fuel economy (km/liter) (2020)	43.3	14.1	21.7	7.0	2.7	
Driving distance (km/day)	16	25	45	85	120	
CO <sub>2</sub> emission factor (kgCO <sub>2</sub> /liter)	2.18	2.18	2.70	2.70	2.70	
Days per year	365	365	365	365	365	
Baseline emission (tCO <sub>2</sub> /year/vehicle)	0.3	1.4	2.0	11.9	43.8	
<b>Project Emissions</b>						
Driving distance (km/day)	16	25	45	85	120	
Project electricity economy (kWh/km)	0.080	0.130	0.130	0.310	1.000	
Grid electricity emission factor (tCO <sub>2</sub> /MWh)	0.135	0.135	0.135	0.135	0.135	
Days per year	365	365	365	365	365	
Project emission (tCO <sub>2</sub> /year/vehicle)	0.1	0.2	0.3	1.3	5.9	
<b>Emission reduction (tCO<sub>2</sub>/year/vehicle)</b>	<b>0.2</b>	<b>1.3</b>	<b>1.8</b>	<b>10.6</b>	<b>37.9</b>	
<b>Number of EV</b>	<b>698000</b>	<b>45000</b>	<b>12000</b>	<b>4000</b>	<b>1000</b>	
<b>Total Emission Reduction (tCO<sub>2</sub>/year)</b>	<b>161,204</b>	<b>56,280</b>	<b>21,065</b>	<b>42,537</b>	<b>37,887</b>	<b>318,973</b>

Source: Basic Data Collection Study on Low-emission Public Transport System in Lao PDR, JICA, modified by OECC

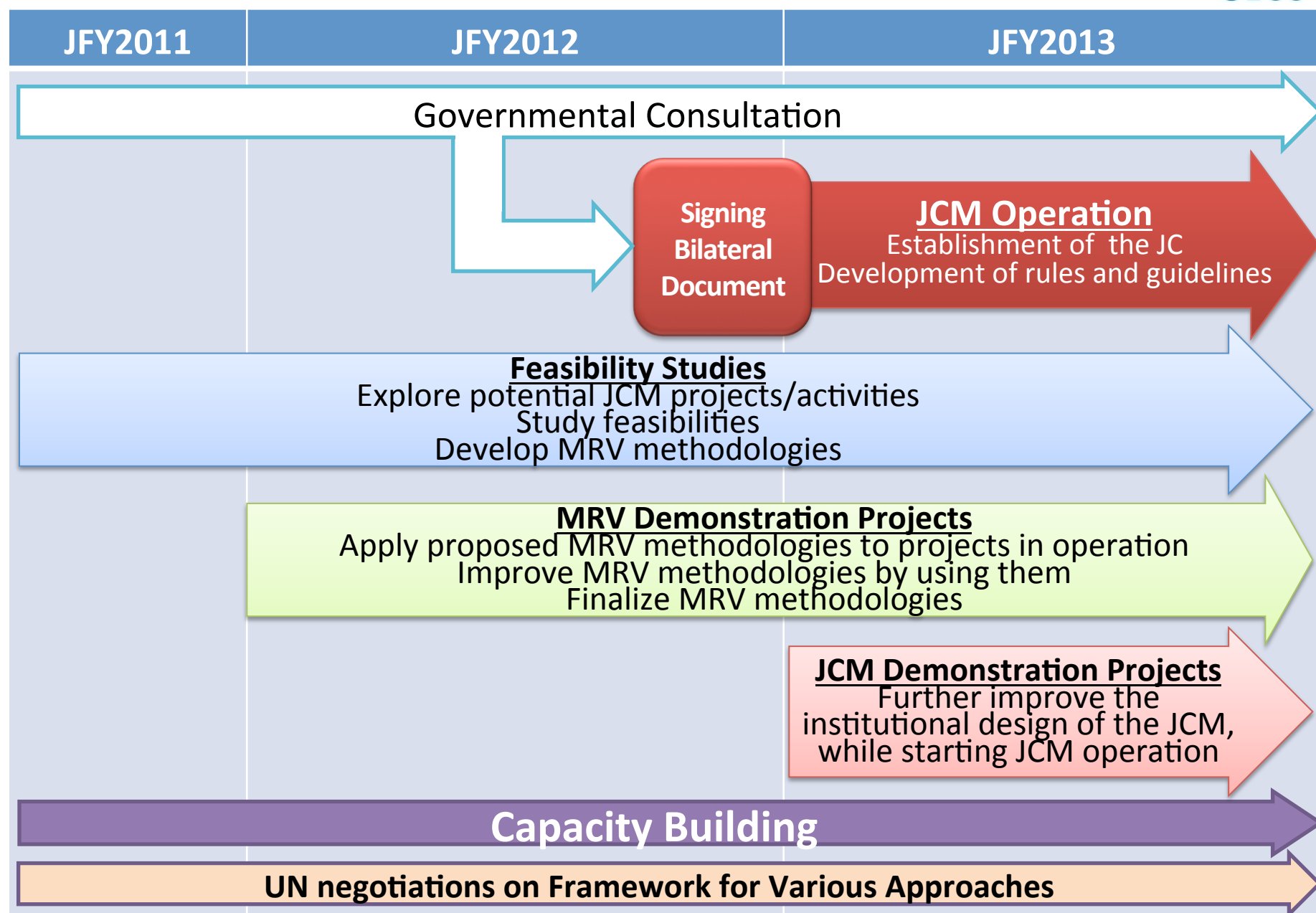
1. Capacity building activities for NAMA / MRV in the transport sector of Lao PDR.
3. The Joint Crediting Mechanism (JCM)
5. NAMA and MRV Guidebooks

- 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.



- (1) The JCM starts its operation as a 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.

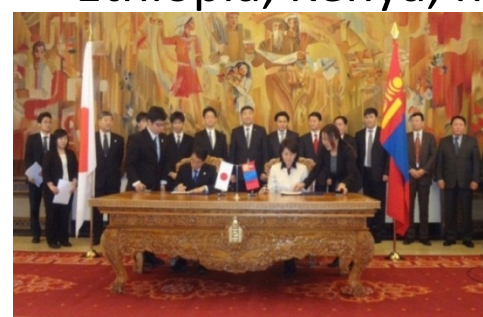
# Roadmap for the JCM





# Countries with which Japan has signed on bilateral documents

- Japan has held consultations for the JCM with developing countries since 2011 and signed the bilateral document for the JCM with Mongolia, Bangladesh, Ethiopia, Kenya, Maldives, Viet Nam, Lao PDR and Indonesia.



## Mongolia

On January 8, 2013  
(Ulaanbaatar)



## Bangladesh

On March 19, 2013  
(Dhaka)



## Ethiopia

On May 27, 2013  
(Addis Ababa)



## Kenya

On June 12, 2013  
(Nairobi)



## Maldives

On June 29, 2013  
(Okinawa)



## Viet Nam

On July 2, 2013  
(Hanoi)



## Lao PDR

On August 7, 2013  
(Vientiane)



## Indonesia

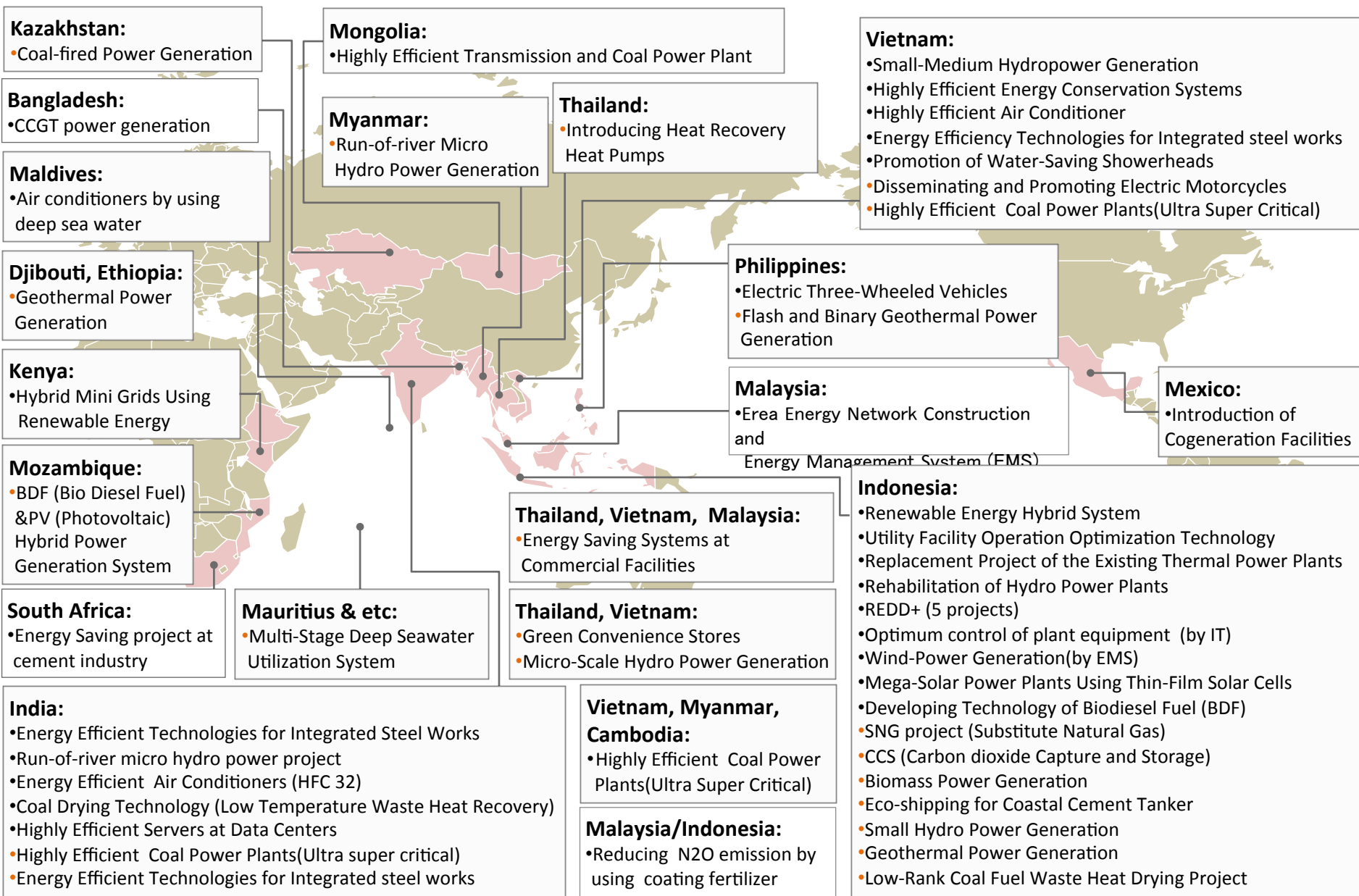
On August 26, 2013  
(Jakarta)

- Japan held the 1st Joint Committee with Mongolia, Bangladesh, Ethiopia and Kenya respectively.

# JCM Feasibility Studies by METI & NEDO (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)





**New Mechanisms Information Platform**

Font Size: [Standard](#) [Big](#) [Maximum](#) | Site Search:  | [HOME](#) | [Sitemap](#) | [Links](#) | [Disclaimer](#)


[Joint Crediting Mechanism \(JCM\)](#) | [Support Programmes](#) | [Information on NAMAs](#) | [Useful Experiences](#) | [Useful Calculation Methodology](#) | [REDD/REDD+](#)

HOME > Joint Crediting Mechanism (JCM)

Joint Crediting Mechanism (JCM)

**About JCM**

- Proposed Elements of the Joint Crediting Mechanism (JCM)
- To facilitate 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.
- To appropriately evaluate contributions to GHG emission reductions or removals from developed countries in a quantitative manner, through mitigation actions implemented in developing countries and use those emission reductions or removals to achieve emission reduction targets of the developed countries.
- To contribute to the ultimate objective of the UNFCCC by facilitating global actions for emission reductions or removals.



**Relevant documents of the JCM**

Date	Title
Jul 10, 2013	Recent Development of The Joint Crediting Mechanism (JCM)
May 23, 2013	Recent Development of the Joint Crediting Mechanism (JCM) / Bilateral Offset Credit Mechanism (BOCM)
Mar 8, 2013	Recent Development of the Joint Crediting Mechanism (JCM) / Bilateral Offset Credit Mechanism (BOCM)

Relevant Documents:  
[Gov't of Japan](#) | [Submissions to the UNFCCC](#) | [MOEJ](#) | [MOFA](#)

**JCM Partner Country Information**

[Mongolia](#) | [Bangladesh](#) | [Ethiopia](#) | [Kenya](#) | [Maldives](#) | [Viet Nam](#)

[Laos](#)

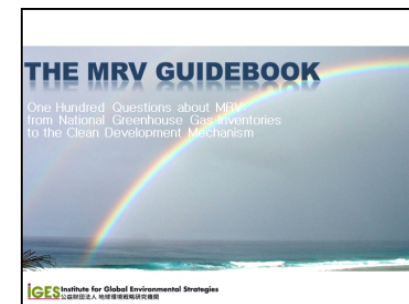
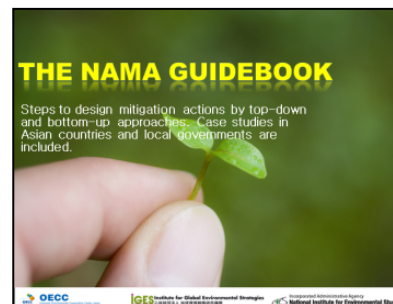
**Methodologies and Projects Information**

[Methodologies](#) | [Projects](#)

- New Mechanisms Information Platform website was established to provide the latest movements and information on the JCM.
- Help Desk also accepts and answers inquiries regarding the JCM.
- Another dedicated website for the JCM will be launched. In the meantime, all the documents regarding the JCM development (e.g. outcome of the JC, decisions, methodologies, and projects) are uploaded on this website.
- URL:  
<http://www.mmechanisms.org/e/initiatives/index.html>

1. Capacity building activities for NAMA / MRV in the transport sector of Lao PDR.
3. The Joint Crediting Mechanism (JCM)
5. **NAMA and MRV Guidebooks**

1. Comprehensive understanding of NAMAs and MRV (e.g. project-based bottom-up approach and policy-based top-down approach)
2. Based on case studies in Asia and the world that we have conducted together with Asian and global experts
3. Invite any kind of volunteer efforts to create “NAMAs and MRV Guidebooks” as our common goods to achieve net global GHG reduction and sustainable development





# Thank you for your attention!

Please visit: The New Mechanisms Information Platform  
( <http://www.mmechanisms.org/e/index.html> )



Miguel Jiro Ogahara  
Overseas Environmental Cooperation Center, Japan (OECC)  
[ogahara@oecc.or.jp](mailto:ogahara@oecc.or.jp)

