

UNFCCC COP19 & CMP9 Side Event in Warsaw, Poland

Preparing and implementing
the Joint Crediting Mechanism (JCM) and
NAMAs

Mitigation actions conducted in Laos

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Outline

- 1. Background of the Project**
- 2. Key activities from the NAMAs Capacity Building Cooperation**
- 3. Challenges and opportunities for the next step**

Background of the Project

- ❖ Laos has not yet submitted a list of NAMAs to the UNFCCC Secretariat in response to the invitation by the COP decisions.
- ❖ Laos's SNC states that its NAMAs would include mitigation efforts in several areas, and that Mitigation is one of the priorities of the national climate change strategy and Climate Change Action Plan 2013-2020. It has also been integrated into the 5-year national development plans, including the current 7th National Socio-economic Development Plan(1).



(1) Source: Lao PDR (2013): Second National Communication

❖ In order to realize those issues, MOEJ proposed a Capacity-Building Cooperation for the Development of NAMAs in a MRV Manner in Laos, (*FY2012*).

❖ In 2012 Laos and Japan have Signed MOU for Capacity-building Cooperation and Joint Study Project in NAMA in a MRV manner in the transport sector between the Ministry of Natural Resources and Environment, Lao PDR (MONRE) and the Ministry of the Environment, Japan (MOEJ),

❖ The feasibility study of NAMA Project in Transportation sector is based on:

- The National Strategy and Action Plan on Environmentally Sustainable Transport
- The Vientiane Urban Master Plan
 - Road Network Development
 - Public Transport Development
 - Traffic development and Traffic safety
- The potential Mitigation activities in Transportation

Laos and Japan Signed the bilateral Document for the JCM



- 7 August 2013. By H.E. Ms. Junko YOKOTA, Ambassador of Japan to the Laos and H.E. Mr. Noulinh SINBANDHIT, Minister of MONRE, Laos.

Key Activities from the NAMAs

Capacity Building Cooperation

NAMAs Capacity Building Cooperation:

List of activities in FY2012

Activity 1: Proposal for the institutional arrangement for NAMA implementation

Activity 2: List of the mitigation options in the transport sector in Laos

Activity 3: List of environmental technologies in relation to NAMAs options

Activity 4: Model Emission reduction calculation for NAMAs option: Introduction of electric vehicles

Selected NAMAs options

Selected as a model case in FY2012

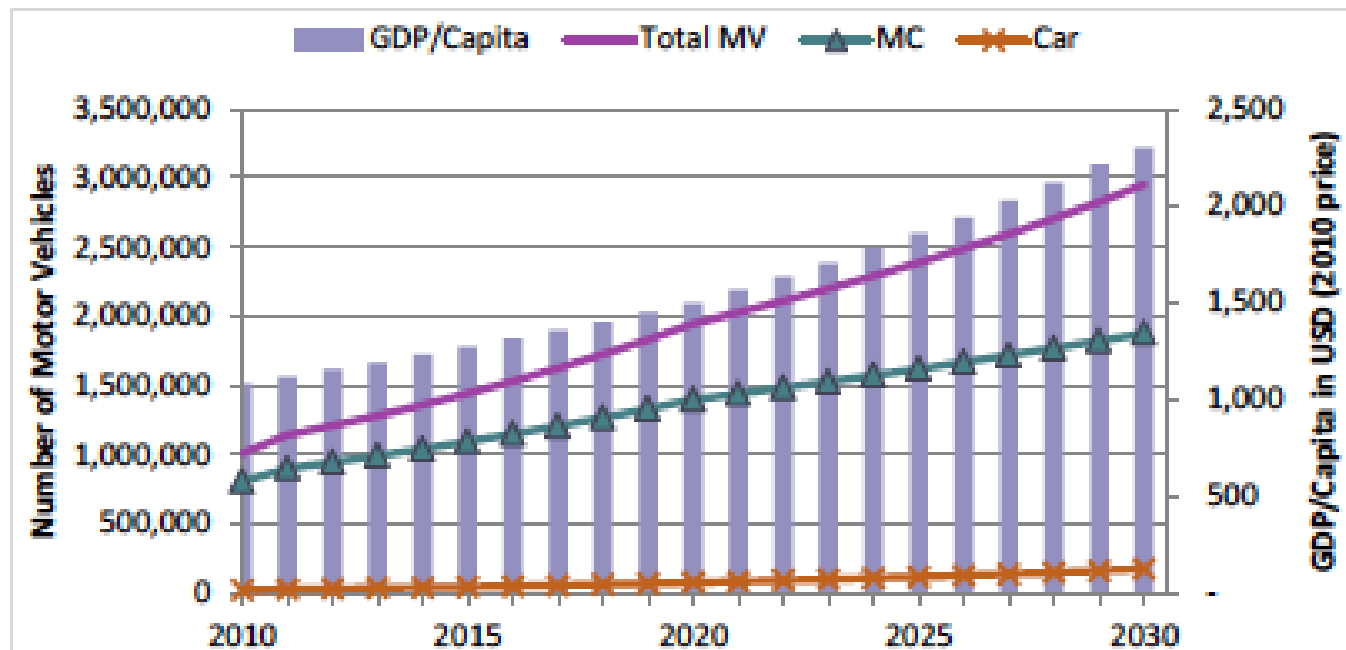
No.	Category	NAMAs Options
1	Fuel switching / Improvement of fuel efficiency per vehicle	Introduction of electric vehicle
2		Promotion of operation of electric vehicle
3		Promotion of operation of four stroke tricycles
4		Alternative fuel introduction (bio-ethanol, biodiesel)
5		Regulation on fuel quality
6		Regulation on fuel economy
7		Regulation on exhaust gas
8		Promotion of eco-driving
9	Improvement of traffic efficiency	Development and promotion of public bus
10		Development and promotion of BRT
11		Bicycle lanes
12		Car parking project
13		Truck ban
14		Signalization of major intersections
15		Ring road project
16		Introduction of ITS
17		Traffic Control Management Center
18		Establishment of a truck terminal and physical distribution centers
19	Others	Installation of LED Signals

Data Collection for NAMA Study in Transportation

Basic Data: Study on Low-emission Public Transport System in Laos, by JICA

❖ Estimation of Vehicle Ownership in future Laos:

Estimated accordingly with GDP Growth estimation, and its relations between vehicle ownership Number of Car and Motor Cycle will increase



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

Basic Data: Study on Low-emission Public Transport System in Laos, by JICA

Diffusion Target of Electric Vehicle in Laos:

- ❖ **Estimate Electric Vehicle will be introduce:**
 - **7% of total no. of vehicle year 2015;**
 - **40% of total no. of vehicle year 2020;**
 - **80% of total no. of vehicle year 2030.**

NAMAs Project Emission Calculation

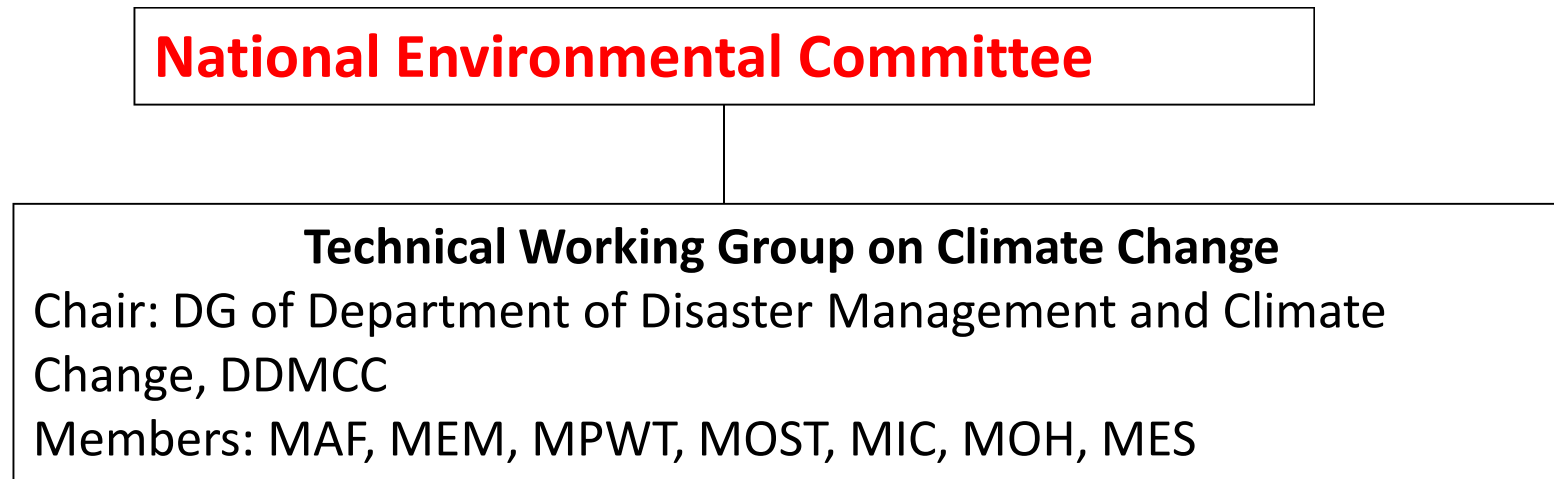
NAMA Project Estimate Emission Reduction in year 2020

➤ **Business As Usual without NAMA Project:
Approximately 2.5 million tons**

➤ **With NAMA Project: Approximately
0.3million tons of Reduction**

Possible Domestic Reporting system

Establishment of Technical Working Group on Climate Change



- Technical issues related to NAMAs, CDM, REDD+JCM and National Communications will be discussed in the Technical Working Group.

Possible Domestic Reporting system

The Duties and Authorities of the Technical Working Group

1. Be as Secretariat to the National Environment Committee on Climate Change issues
2. Study and provide suggestions to the NEC and MONRE related to climate Change and conflicts issues
3. Be the focal point for coordination between the Authorities of Climate Change agencies at national and local level
4. Study and propose recommendations to the policy, strategy and legal document on Climate change
5. Be responsible for dissemination and awareness creation of policy, strategy and decree on Climate Change to be as a plan, programme and project by effectively implementing at the ministry concerned
6. Support and monitor the Climate Change activities in central and provincial levels of the country
7. Exchange experiences and data information on the climate change activities at national and international levels
8. Disseminate and implement a community awareness- raising campaign in relation to climate change
9. Support and public awareness-raising campaign to the people in country and oversea to take part in the activities related to climate change, in general, and in the greenhouse gas reduction as well as adaptation

Challenges and opportunities for the next step

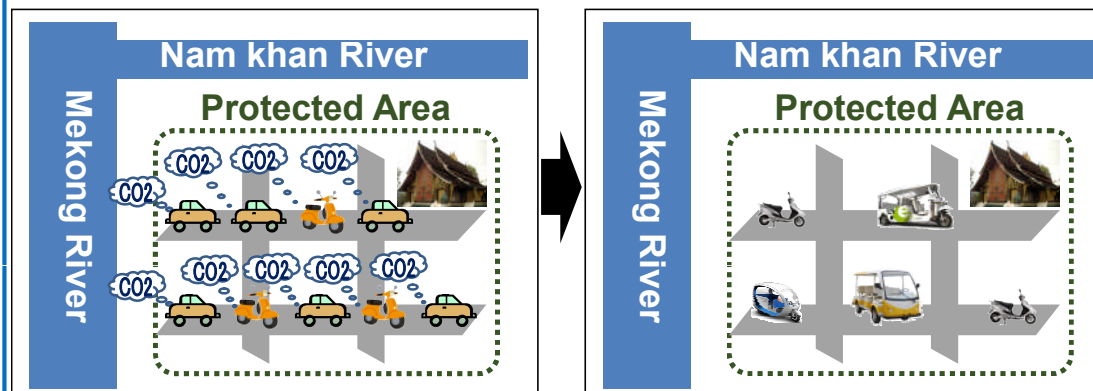
Challenges and opportunities for the next step:

1. Country specific default value for fuel efficiency by vehicle types need to be develop for calculation of NAMAs options in the transport sector;
2. Capacity building on transport data collection may be required;
3. Other listed NAMA options in the transport sector need to be study.
4. Need finance for NAMAs implementation.

JCM Methodology Demonstration Study (DS) FY2013: Promotion of Use of Electric Vehicles (EVs) Almec Corporation

Outline of GHG Mitigation Activity

The use of electric vehicles (EVs) will be promoted in Luang Prabang, one of the World Heritage towns. The GHG emission reductions are achieved by replacing automobiles and motorcycles equipped with internal combustion engines (ICEs) with EVs, since the EVs are fueled by Lao electricity grid mainly composed of hydropower. After the Luang Prabang EV promotion project, further EV use will be promoted nation-wide in the future.



E-Motor Cycle



E-Tuktuk



E-minibus

Draft JCM Methodology

Under the methodology, (i) running distance of EVs, and (ii) electricity consumptions of EVs will be monitored to quantify GHG emission reductions.

The fuel efficiency of reference vehicles should be preset as the default value, to enable to easily calculate GHG emission reductions.

Site of Project for DS



Expected GHG Reductions

180 tCO₂/yr (for the introduction of 100 EVs)

➔ When all of public transport vehicles and other vehicles in the protected area of Luang Prabang are replaced by EVs, expected GHG emission reductions are 3,771tCO₂/yr.

Challenges and opportunities for the next step:

Possible NAMAs projects in FY2013

Category	Mitigation Option
Fuel Switching / Improve Fuel Efficiency per vehicle	Promote use of Electric Vehicle
	Promote operation of Electric Vehicle
	Promote Operation of four stroke tricycles
	Alternative Fuel Introduction (Bioethanol, Biodiesel)
	Regulation on Fuel quality
	Regulation on Fuel economy
	Regulation on exhaust gas
	Promotion of Eco-driving
Improve Traffic Efficiency	Development and Promotion of Public bus
	Development and Promotion of BRT
	Bicycle Lane
	Car Parking Project
	Truck Ban
	Signalization of major intersections
	Ring Road Project
	Introduction of ITS
	Traffic Control Management Center
	Establishment of Truck Terminal and Physical Distribution Centers
Others	Installation of LED Signals (Energy Efficiency)

Thank you very much!

