



**MEKONG  
INSTITUTE**



Implemented by Mekong Institute (MI)

Funded by Mekong – Republic of Korea Cooperation Fund (MKCF)

## **Curriculum Design Statement (CDS)**

**2<sup>nd</sup> Modular Training on Green Freight and Logistics Management in Mekong Countries**

**February 18 - 22, 2019**

**3<sup>rd</sup> Modular Training on Green Freight and Logistics Management in Mekong Countries**

**April 1 - 5, 2019**

Venue: Mekong River Conference Room, Mekong Institute Annex, Khon Kaen, Thailand

### **I. Introduction**

Freight transportation is critical to businesses, consumers and the world economy. The freight sector moves vast volumes of goods, commodities, materials and food domestically and globally and is primary factor in economy and growth. But a goods movement comes with an impact on the global environment. It contributes a significant portion of air pollution and its contribution is expected to grow significantly in the coming years. Globally, carbon dioxide (CO<sub>2</sub>) emissions from freight transport are growing more quickly than those from passenger vehicles. In particular, heavy duty vehicles are expected to be the largest emitter of CO<sub>2</sub> from all transport modes by 2035.

As the Asian economy continues to grow at a rapid pace, an increase in freight transport activity is also expected. It is estimated that by the year 2050, medium and heavy freight trucks worldwide will consume 1,240 billion litres of fuel, which is estimated at 138% more than 2000 levels. The global share of trucks operating within Asian countries is expected to increase from 19% in 2000 to 34% in 2050.

The Mekong Institute (MI) is implementing a three-year project on “Green Freight and Logistics Development in Mekong countries’ funded by the Republic of Korea through the Mekong – Republic of Korea Cooperation Fund (MKCF). The long-term objective of the project is to reduce the cost of logistics and transport to improve economic performance in the five countries in Cambodia, Lao PDR, Myanmar, Vietnam and Thailand (CLMVT). This will eventually aid the transport sector to increase its contribution to economic development in the Mekong countries as well reduce its carbon footprint.

As part of this project, MI will be organizing 2<sup>nd</sup> and 3<sup>rd</sup> modular training programs on Green Freight and Logistics Management in Mekong Countries on February 18 – 22 and April 1-5, 2019 respectively at Mekong Institute (MI), Khon Kaen, Thailand.

## 2. Training Objectives

1. Discuss tools to help Logistics Service Providers (LSP) to become more competitive and reduce cost of logistics and transport for improvement in economic performance in the Mekong countries;
2. Build capacities of the LSPs on green freight and logistics to comply with the 'green mark' certification;
3. To discuss the potential and benefits of green freight policies;
4. To identify opportunities that can be developed into actions and projects;
5. To form a knowledge base to complement efficient logistics and green freight programs in the countries;
6. To share best practices green freight and logistics to promote learning and exchange among various stakeholders in green freight and logistics;
7. Introduce the participants to software on the Green Logistics Service Quality Standards (GLSQS) for the logistics companies to monitor the performance of the set standards;
8. To discuss on green logistic technologies available with suppliers of green freight technologies.

## 3. Training Outcomes

At the end of the training, the participants should have acquired knowledge and practical skills on a variety of pertinent topics. They will have a deeper understanding of the significance of "Green" or more generally sustainable practices in the transport and logistics industry. Moreover, this training will aim to have the following outcomes:

- Greater understanding of procedures, formalities, and practices in transport and logistics activities and management in the Mekong countries.
- Develop strategies for transport and logistics planning and management to complement efficient logistics and green freight programs in the Mekong countries.
- Enhanced participants' knowledge on effective implementation of green logistics procedures and logistics management.
- Enhanced capacities of national ministries and logistics associations on green freight standards and certification
- Improved mechanism to share and promote collective action on green freight and logistics development in Mekong region
- Improved information on access to green freight technologies

## 4. Project Approach

The project approach consists of

### ***Prior to the Modular Training***

- A baseline study has been conducted to establish baseline data on keys aspects of logistics and green freight among the logistics service providers (LSP) which will be used to monitor the progress and measure the outcomes of the project.
- Three categories of labels to measure green logistics and freight service standards on core logistics services such as cargo/freight handling, transportation, warehouse, ICD, cold chains etc. have been decided upon and agreed by GMS - FRETA members, government agencies (e.g ministries of transport) in all the 5 Mekong countries.
- A software program has been developed on the Green Logistics Service Quality Standards (GLSQS) for the logistics companies to monitor the performance of the set standards.
- Country workshops are being held in the five Mekong countries to provide training key personnel of departments of land transport and logistics associations on the use and application of the software program.
- Formation of Technical Working Group of the project with the membership of key regional and national stakeholders from CLMVT and the Republic of Korea was established.
- Country workshops to introduce GLSQS software were organized in the CLMVT countries.
- A first modular training is conducted for national level agencies and logistics service providers involved in logistics development back to back with the adoption of the green logistics standards in their respective countries.

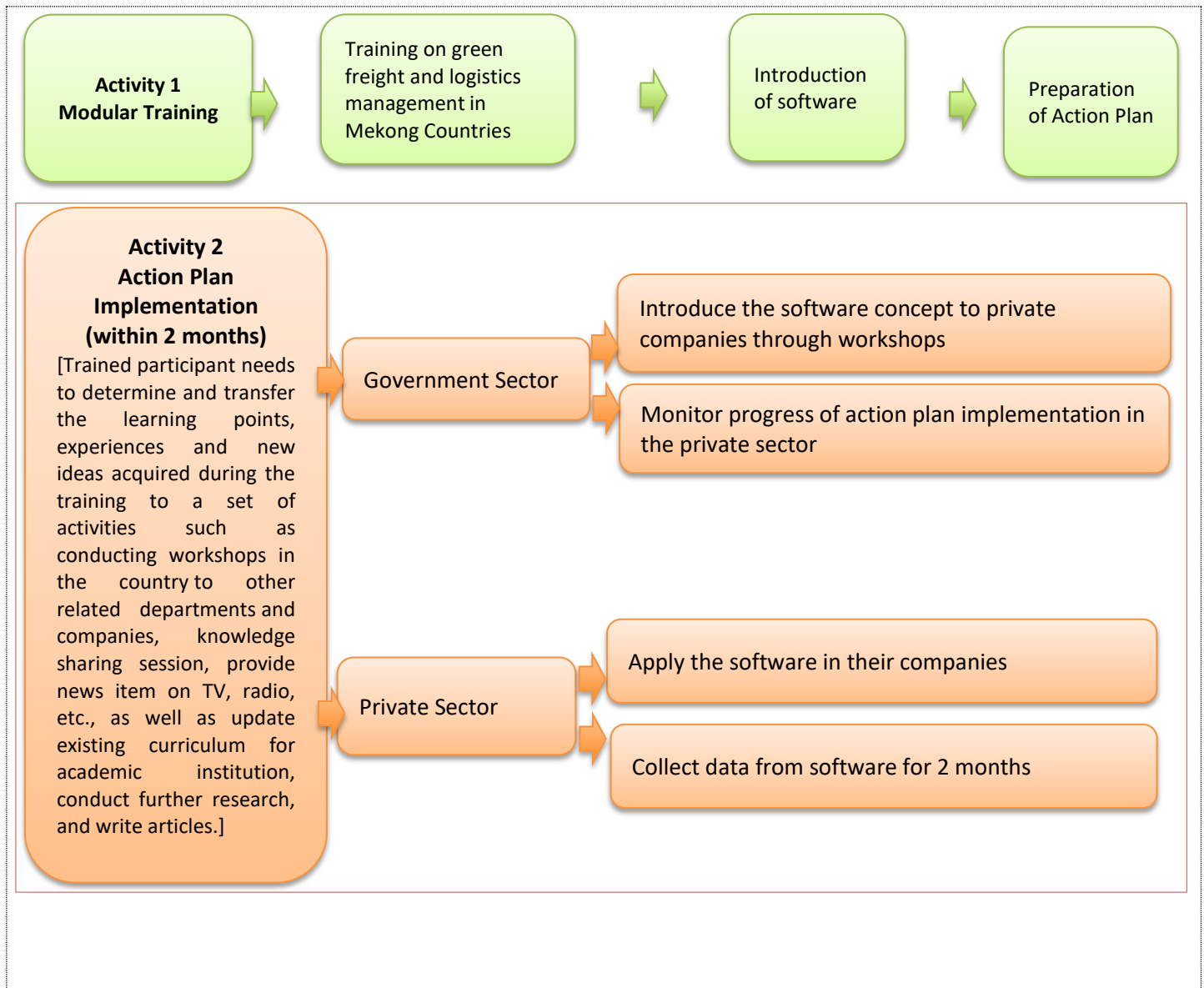
### ***At the Modular Training***

- A 2<sup>nd</sup> modular training is being conducted for national level agencies and logistics service providers involved in logistics development on February 18 – 22, 2019, Thailand.
- A 3<sup>rd</sup> modular training is being conducted for national level agencies and logistics service providers involved in logistics development on April 1 – 5, 2019, Thailand.

### ***After the Modular Training***

- Technical assistance will be provided to implement country wide action plans decided upon by participants themselves at the modular training.

The different activities for the participants of the training are explained in the table below.



## 5. Target Group

The training targets senior and mid-level officials, academic institutions and members of logistics associations from CLMVT namely;

- Government representatives (including Ministries of Transport, Energy and Environment, Port Authorities),
- Private sector (Logistics Associations, Freight Forwarders Associations, Logistics Operators, Trucking Companies, Shipping Liners etc.)
- Universities and Logistics training institutes.

In general, participants should;

- Have at least 5 years of experience in Logistics / Transport sectors from Government, private or academies.

- Have a university degree in a discipline directly related to Logistics/ Transport sectors;
- Be able to communicate (speak, understand, read and write) at professional level in English;
- Have sufficient professional capacity to actively participate cross-culturally at international level;
- Be in good health both physically and mentally;
- Be able to attend the entire course, including its field trips and outdoor activities.

In addition, MI encourages;

- The participation of women and minorities;
- The participation of persons from border areas with other neighboring target countries or those who may otherwise be engaged in cross-border or regional trade and investment.

Important criteria for participant selection are English language proficiency and ability to commit themselves to full attendance, and implementing the action plan after completion of the training within 2 months.

## 6. Duration and Location

The program comprises of two phases as follows

- Learning phase: One - week modular training program will be held at the Mekong Institute's Residential Training Center, Khon Kaen, Thailand on
  - February 18 - 22, 2019
  - April 1-5, 2019
- Knowledge application phase: the trained participants will implement the action plan(s) in his/her country within 2 months after completion of the training. A MI's team will provide technical assistance to implement the activity during February – June, 2019.

## 7. Training Content

In this course, participants will explore five interrelated modules:

<b>Module 1</b>	Introduction to and need for green freight and logistics (GFL)
<b>Module 2</b>	Green freight and logistics issues
<b>Module 3</b>	Preparing companies for the GFL
<b>Module 4</b>	GFL certification process: recognition scheme
<b>Module 5</b>	GFL strategy – combining the actions/discussions

## ***Module 1: Introduction to and need for green freight and logistics***

The module will introduce the concept of freight and logistics emphasizing the “economic”, “green”, “social” dimensions and steering through various terminologies associated with the green freight and logistics. The module also will introduce concepts on

- Difference between freight transport and logistics and “green freight and logistics” (GFL)?
- Why GFL is important for the GMS region?
- Link between economic growth, freight transport and international processes and commitments
- Key sustainability-related terminologies such externalities and external costs
- Global Overview and status in the GMS region
- UNCTAD Reference Framework for Sustainable Freight Transport which provides a step-by-step methodology on how to plan, design, develop and implement tailored sustainable freight transport strategies

## ***Module 2: Green freight and logistics issues***

This module will discuss on challenges related to the diagnosis and measurement of freight and logistics emissions. The participants will be exposed to evaluation techniques to identify the main challenges confronting the sustainability aspect of the freight sector and to examine their underlying causes. In addition, the participants will be introduced to the following sessions.

### ***Session on Diagnosis which includes framework and measurement***

The session will consider challenges related to diagnosis and measurement of freight and logistics emissions. The participants will be introduced to concepts such as

- Frameworks for assessing the strategic opportunities of improving environmental performance of freight transport and logistics.
- Measuring the environmental performance of freight transport
- Qualitative and quantitative assessments
- Data and the need for quantifying the external costs

### ***Session on Vision, targets and KPIs***

The session will focus on the importance of

- the need for establishing a comprehensive vision, goals and objectives
- set targets with a view to improving the environmental performance of the freight sector
- identify KPI's to monitor progress towards GFL
- How diverse freight transport perspectives can best be integrated into the sustainable freight transport planning process by identifying consensus driven vision, objectives and targets

## ***Module 3: Preparing Companies for Green Logistics***

The module will emphasis CLMTV countries' economic dependence on freight transport using a parameter – freight intensity which is a ratio of freight tonne-km to an economic output measure i.e. GDP. The module comprises of following sessions.

### ***Session on Freight intensity***

The session will discuss

- What is freight transport intensity?
- Freight transport intensity is a measure that relates two key indicators:
  - the volume of freight transport (measured in tonne kilometres) and the economic output (GDP)
  - Ratio of freight movement to economic output

### ***Session on Freight intensity***

The session will discuss

- What is freight transport intensity?
- The need to decouple freight externalities with economic growth
- Current role of trade in freight growth
- Tradeoff between freight transport and other logistics elements (handling/warehouse)
- Impact of oil prices on logistics cost
- Solutions to decouple freight externalities with economic growth

### ***Session on Modal Shift***

The session will discuss

- Why mode shift is important?
- Is modal shift in current political and private sector agenda?
- What are the constraints for modal shift in the GMS region?
- How effective are the current modal shift strategies?
- Government policy measures to support freight modal shift

### ***Session on Vehicle Utilization***

The session will discuss

- Why Productivity & Utilization Matters?
- Measurement of Vehicle Utilization: key parameters
- What are the constraints on Truck Utilization/Productivity?
- What could countries and companies do to improve productivity and utilization?

### ***Session on Energy Efficiency***

The session will discuss

- Why fuel efficiency matters?
- What are the current barriers to energy efficiency improvements?
- The need for systems approach i.e. link with vehicle emission standards?
- What can stakeholders do to improve energy efficiency in the freight transport and logistics sector?

### ***Session on Decarbonising fuels***

- Why decarbonizing fuel is important?
- What are the current barriers to decarbonizing fuel?
- What are the measures and policies to decarbonise fuel in the freight transport and logistics sector?

### ***Session on Green freight technologies***

- Importance of green freight technology
- Type of green technology
  - Driver training technologies
  - Trucking eco-technologies
  - Trucking safety technologies
  - Trucking management technologies

### ***Module 4: GFL Standards and Certification Scheme***

In this module, the participants will learn the importance of implementing a recognition scheme, i.e. a mechanism for motivating a defined set of stakeholders to change their behaviour or performance in the direction strategically set by the organizer of the recognition program. The main topics of the discussions are

- Why recognition scheme is important?
- What are the different types of recognition schemes?
- Introduce “green mark” standards in logistics service operations

### ***Module 5: GFL strategy – combining the actions/discussions***

Since the main objective of the training is to promote peer learning and best practice exchanges among key stakeholders active in freight and logistics sector, several breakout discussions (roundtables, flip chart orientation) will be carried out. The breakout exercises will be tailored to provide participants with hands-on experience with the detailed steps involved in developing a GFL strategy with inputs from diverse stakeholders. The participants will be divided into six groups (country and regional) to address the following questions.

- a. What are the main drivers for GFL in the CLMTV countries?
- b. What environmental factors should be included in the GFL strategy?
- c. What stakeholders should be involved in the development, implementation, monitoring, evaluation and review of the environmentally-sustainable strategy?
- d. What should be the role of the government/public authorities, the private sector/business in developing, implementing, monitoring, evaluating and reviewing the GFL Strategy?
- e. Can freight emissions growth be decoupled with economic growth?
- f. How should the distribution of freight among transport modes be changed to improve environmental sustainability?
- g. What is the potential for increasing the level of loading?
- h. How is transport (truck, rail, maritime) fuel efficiency in this region constrained?
- i. What are the barriers to switching freight transport modes to cleaner energy sources and how can they be overcome?

## **8. Action Plan Guidance and Preparation**

As part of the training program, the participants will be required to prepare their action plans to disseminate the knowledge and skills they learned/gained during the training. The



orientation for action plans, individual and / or joint action plan preparations and group presentations will be delivered on the last day of the training.

The participants are able to develop their feasible action plans to address the group's objectives. An action plan consists of a number of action steps in accordance with the national/local scenario, added with the endowment of clear-cut group work divisions and responsibilities.

## 9. Training Assignment

Training assignments will require participants to practice professional skills and integrate concepts of transport and logistics management for their own country linking to regional and international level. In addition, participants will work in groups, these activities will promote communication and promote national level collaboration and foster a professional network of contacts among participants. Specific assignments will also be provided throughout the course.

The team of resource persons / instructors will comprise international and national experts with a significant experience in logistics management in international level. The instructors are all experts in their respective areas of competency which will provide participants with significant opportunities for being exposed to international practice and expertise.

## 10. Curriculum Design & Methodology

The training design is drawn from capacity building needs and tailored to the regional context. The training is designed to foster greater understanding of the training contents, and to focus on practical knowledge, respect adult learning principles, use real case studies, adopt participative approaches, as well as stimulate sharing and networking among the participants. Interactive experiential learning will be employed here. The training will be delivered in English and will adopt the following methods.

- Lectures and presentations
- Plenary discussions, case studies and group exercises
- Role plays and simulation games.

As required, all training modules are to be drawn from practical experiences and tailored to the needs of stakeholders involved in transport and logistics activities. It would incorporate concrete actions for follow-up activities after training.

Each training module is designed and delivered using the "Integrated Curriculum" approach. The salient features of this integrated curriculum are that competencies are carefully selected, integration of theoretical concepts with skills practice and essential knowledge directed at enhanced performance, and above all, various implicit competencies (e.g. facilitation, presentation, and communication, negotiation, and leadership skills) are integrated across the curriculum.

For each module, participants will go through three progressive stages of a modular training approach as follows:

**Learn to Do:** Each training module will start with the participatory training sessions where concerned trainees are trained on the concepts, techniques, tools and effective strategies to develop and promote transport and logistics trade and management. At this cognitive stage, learner-centered instruction applied where the trainer is a leader of a community of learners, devising ways to promote inquiry, higher order thinking, problem-solving, higher levels of literacy and engagement. This is a conceptualizing stage which requires processing and drawing on a rich knowledge base of content, methods appropriate to the content, and technology appropriate to the content.

**Do to Learn:** This competency-based module has been classified as a form of work-based learning. Immediately, after the new skills/knowledge have been acquired, the trainees will then carry out their corresponding assignments, e.g. after completing deliberation on the concept and tools for “Green freight planning and management”, participants will be given assignments to identify, design a particular activity in groups.

This application or “doing” (psychomotor) enables the learner to apply the ideas and concepts expressed in cognitive objectives. This stage will be carried out using case studies and simulation exercises.

**Share to Learn:** Before progressing to another learning module, there will be a share-to-learn session where each individual/group will have a chance to present their outputs and share the learning/working experience with others. Lessons learned and practical experiences from the actual applications will be shared and innovative knowledge and skills will emerge and become institutionalized.

## 11. Monitoring and Evaluation (M&E)

An effective monitoring and evaluation mechanism will be put in place to assess the progress and measure the results of the intervention. The M&E will be introduced in the pre, during and post stages of each modular training approach.

## 12. Contacts

For details, please contact MI Team

**Mr. Madhurjya Kumar Dutta**

Director

Trade and Investment Facilitation  
Department

Tel: (+66) 43 202 411-2 ext. 2101

Fax: (+66) 43 203 656

Email: [dutta@mekonginstitute.org](mailto:dutta@mekonginstitute.org)

Website: [www.mekonginstitute.org](http://www.mekonginstitute.org)

**Mr. Sa-nga Sattanun**

Program Manager

Trade and Investment Facilitation Department

Tel: (+66) 43 202 411-2 ext. 2102

Fax: (+66) 43 203 656

Email: [sa-nga@mekonginstitute.org](mailto:sa-nga@mekonginstitute.org)

Website: [www.mekonginstitute.org](http://www.mekonginstitute.org)