



Regional Training on
“Promoting Efficient
Utilization of Resources and
Sustainable Energy in the
Lancang-Mekong Region”



MEKONG
INSTITUTE

**Regional Training on Promoting Efficient Utilization
of Resources and Sustainable Energy in the
Lancang-Mekong Region**

Curriculum Design Statement



Mekong Institute

Khon Kaen, Thailand

1. BACKGROUND

The Lancang-Mekong Region, comprised of Cambodia, Lao PDR, Myanmar, Thailand, Vietnam, Yunnan Province and Guangxi Autonomous Region of China, has experienced a decade of strong economic growth coupled up with rising energy demand. Despite the fact that GMS region has abundant energy sources which are unevenly distributed among the member countries, it is estimated that the energy consumption will result in double-fold or triple-fold increase in the next 15-20 years. In recognition of energy as the fundamental enabler to foster further social-economic development in the region, the Lancang-Mekong Region countries are aware that the dire need to tackle energy security in the region and started looking for alternatives to phase down their dependence on energy imports by unlocking renewable potentials. Attentions are also given on energy conservation and efficiency to prevent energy from being wasted more than its purpose of use and improvement of energy use through technological improvement.

Sustainable energy is a form of energy that meet our today's demand of energy without putting them in danger of getting expired or depleted and can be used over and over again. Sustainable energy should be widely encouraged as it do not cause any harm to the environment and is available widely free of cost. All renewable energy sources like solar, wind, geothermal, hydropower and ocean energy are sustainable as they are stable and available in plenty. The cost of power from renewable energy is falling fast; renewable energy is now often cheaper than conventional power generation. This is true even without considering subsidies or the cost of pollution and greenhouse gas emissions. Global growth in renewable energy is accelerating and it is becoming the preferred generation option in many countries in Asia and beyond. For example, China exceeded its 2020 target for renewable energy growth by the middle of 2017¹. Most of the primary energy used in the GMS is not used in an efficient, modern, and sustainable manner while the energy generation process is not efficient as well. Improving efficient utilization of resources and energy conservation can be one of the potential solutions to achieve the energy sustainability.

Through regional approach, Mekong Institute (MI) believes that the Lancang-Mekong Region countries could develop sound strategies for efficient utilization of resources relevant for both supply-side and demand-side management, and share technologies which could results in substantial energy savings and sustainable energy. While taking regional approaches, MI is also aware that the importance to consider country-specific characteristics and explore the feasible solutions that could be performed best by cooperation. Taking capacity development approach via training, workshop, seminar and research programs, MI is working to contribute in developing robust strategies for efficient

¹ GMS Environment Operations Center, Asian Development Bank (ADB). 2016. Strategic Environmental Assessment for Power Sector Planning in the Greater Mekong Subregion. Thailand. <https://www.adb.org/sites/default/files/publication/469811/gms-environmental-assessments-power-sector.pdf>.



utilization of resources in the context of sustainable development in the Lancang-Mekong Region.

In this context, MI proposes to implement a two-week training program on “Promoting Efficient Utilization of Resources and Sustainable Energy in the Lancang-Mekong Region” to strengthen the capacity of government officials and representatives from private sector working in energy sector development in the region.

2. OBJECTIVES

- To increase understanding on accessible and profitable potentials of efficient utilization of energy in the Lancang-Mekong Region;
- To exchange experiences and good practices in applying efficient utilization of resources and promoting sustainable energy in each Lancang-Mekong country;
- To identify patterns of energy usage, equipment fault and human errors that waste energy.

3. OUTCOMES

The intended outcomes are as follows:

- Network of government agencies and companies to share experiences and good practices in applying efficient utilization of resources and promoting sustainable energy;
- Knowledge enhancement of the participants on strategies of efficient utilization of resources for effective implementation of energy projects; and
- Awareness of patterns of energy usage, equipment fault and human errors that waste energy.

4. CONTENTS

The training course will be conducted at MI Residential Training Centre, Khon Kaen, Thailand with the structured learning visits to Thailand and Yunnan, China. In this course, participants will be trained in four interrelated modules:

Module 1: Introduction to Sustainable Energy, Energy Efficiency and Energy Saving Potentials in the GMS

This is an introductory module for the training and will provide the concepts of sustainable energy and energy efficiency. It will also explain importance of energy efficiency in moving towards sustainability. Focusing on the GMS context, this module will introduce the energy savings potentials in different sectors; i.e, residential sector, commercial sector, transportation sector, industrial sector, agricultural sector and refining sector. It will subsequently expose the participants to the reasons that cause the potential of

cost-effective energy savings unrealized. The challenges faced in terms of market failures, behavioral barriers and government failures would be explained.

Module 2: Measuring and Monitoring Energy Use

This module is the essential first stage in any bid to save energy by understanding energy usage patterns. Highlight equipment faults and human errors and comparing performance to the industry standards.

Module 3: Efficient Utilization of Resources: Supply-side

This module introduces how to achieve the energy efficiency from supply-side. It mainly focuses on approaches, technology and innovation and support policies and strategies. Case studies in the GMS countries or beyond will be shared as well.

Module 4: Efficient Utilization of Resources: Demand-side

This module introduces how to achieve the energy efficiency from demand-side. It mainly focuses on approaches, technology and innovation and support policies and strategies. Case studies in the GMS countries or beyond will be shared as well.

Module 5: Structured Learning Visits

This module will bring participants to the best practices in Thailand and Yunnan, China which are providing labor market information. The visits will provide opportunity for the participants to acquire first-hand experiences that can be adapted and transferred to the practice in their countries.

5. TRAINING ASSIGNMENTS

As the participants will work in cross-national groups, these activities will promote communication skills, regional collaboration and foster a professional network of contacts among participants. Specific assignments will also be provided throughout the course. The learning methodology is designed to foster a greater understanding of the training content, as well as stimulate sharing and networking among the participants. Interactive experiential learning will be employed. A team of experts in the field of communication skills will deliver the modules and will adopt the following methods:

- Lectures and presentations;
- Group Discussions; and
- Group exercises, presentation, role play and action plan.

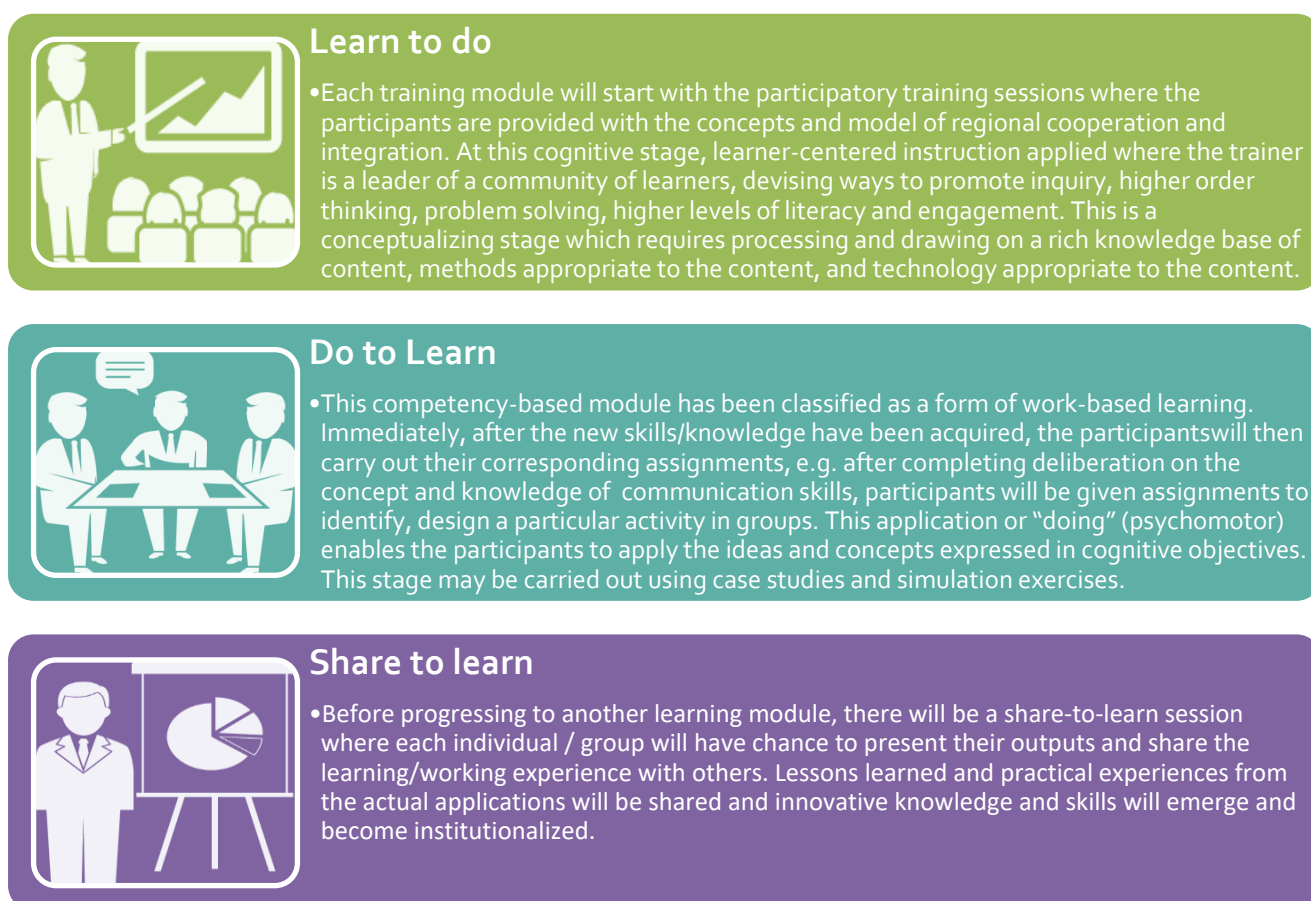


6. CURRICULUM DESIGN AND METHODOLOGY

All training modules and simulation exercises will be drawn from and tailored to the GMS context and will focus on practical knowledge and adult learning principles. The training will employ a participatory method and will be linked to the realities of the GMS countries. Each training topic and module will be designed and delivered using the, “integrated curriculum” approach. The salient features of the integrated curriculum are that, competencies are carefully selected, support theory is integrated with skill based practice and essential knowledge is learned to support the performance of skills, and above all, various functional competencies (e.g. facilitation, presentation, communication skill, and etc.).

As mentioned above, the program will particularly adopt a modular training approach with which the participants will go through three progressive stages: (i) Learn to Do, (ii) Do to Learn, and (iii) Share to learn as described in Figure 1:

Figure 1. Modular Training Approach



7. TARGET PARTICIPANTS

The training program will consist of 24 participants with 4 participants representing each GMS country. The training program targets professionals from the academic, research and extension institutions involved in efficient utilization of resources and sustainable energy with and/or under the aegis of national and/or international organizations, institutions, universities, NGOs, etc. in the Lancang-Mekong Region.



8. TENTATIVE SCHEDULE

November 25-December 6, 2019

	Mon (Day 1)	Tue (Day 2)	Wed (Day 3)	Thu (Day 4)	Fri (Day 5)
08.30-09.00	Registration	Recapitulation of Sessions			
09.00-10.00	Opening Ceremony at	Module 1 (Cont.)	Module 2 (Cont.)	Module 3: Efficient Utilization of Resources: Supply-side	Module 4: Efficient Utilization of Resources: Demand-side
10.00-10.30	Coffee break				
10.30-12.00	Getting to Know Each Other Exploring Expectations and Setting Norms Program Overview Pre-Assessment	Module 1 (Cont.)	Module 2 (Cont.)	Module 3(Cont.)	Module 4 (Cont.)
12.00-13.00	Lunch break				
13.30-15.00	Module 1: Introduction to Sustainable Energy, Energy Efficiency and Energy Saving Potentials in the GMS	Module 2: Measuring and Monitoring Energy Use	Module 2 (Cont.)	Module 3 (Cont.)	Module 4 (Cont.)
15.00-15.30	Coffee break				
15.30-17.00	Module 1 (Cont.)	Module 2 (Cont.)	Module 2 (Cont.)	Module 3 (Cont.)	Module 4 (Cont.)
17.00-17.15	BOD Meeting				
18.30-20.00	Welcome Dinner				

	Mon (Day 6)	Tue (Day 7)	Wed (Day 8)	Thu (Day 9)	Fri (Day 10)
08.30-09.00	Recapitulation of Sessions				
09.00-10.00	Module 5: Structured Learning Visits (SLV) in Thailand and Yunnan, China				Preparation of the SLVs Report
10.00-10.30					Coffee break
10.30-12.00					SLVs Report Presentation
12.00-13.00					Lunch break
13.30-15.00					Program Evaluation
15.00-15.30					Coffee break
15.30-17.00					Closing Ceremony
17.00-17.15					BOD Meeting
18.30-20.00	--				Farewell Dinner



9. MONITORING AND EVALUATION

An effective monitoring and evaluation (M&E) mechanism will be utilized 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 the training.

Pre-event

Selection of Participants: Prior to the launch of the training program, relevant information on the prospective participants' knowledge level will be collected. The information will be used to assess and select the participants, monitor the progress, and assess results of the intervention.

During event

During the event, a pre- and post-training assessment will be conducted to assess their knowledge and competencies of the participants. Pre-assessment aims to gather information on the participants' level of knowledge. The result will be compared to the post assessment in order to measure the improvement in knowledge and experience. Furthermore, the training M&E tools, such as 'mood meter', 'Board of Directors' will be employed to evaluate day-to-day learning progress. The on-line after-event evaluation of the training will be conducted at the end of the training. Also, the participants will prepare action plan to transfer knowledge back at their work places, provinces, and countries.

- The Mood Meter is an instrument for the daily subjective measurement of the learning atmosphere and mood of the participants. At the end of each day, the participants rated their mood as very happy, normal, or disappointed.
- The Board of Directors consists of two or three participants selected by the group on a rotational basis. The BOD provides feedback to MI facilitators and resource persons (RPs) at the end of each day on the learning contents, methodologies and other activities related to the learning. This feedback session helps RPs and MI facilitators to improve training delivery methods and strategies on the next day. Every morning starts with a recapitulation of sessions where the BOD reports to the class what they learned on the previous day.

Post event

This is the knowledge transfer stage during which the participants will be required to implement individual action plans at their work place and / or in the provinces, and countries to transfer the knowledge and skill leaned during the training. This could be in the form of knowledge sharing sessions with their colleagues. The on-line follow-up evaluation of the training will be conducted in three-six months after the completion of the training.



10. CONTACT

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