



Best Practices in Mandatory and Voluntary Implementation of Energy Efficiency Lighting in Southeast Asia

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Outline

2

- Introduction
 - Quick updates on regulatory frameworks for efficient lighting implementation in Southeast Asia
- Mandatory implementation
- Voluntary implementation
- Best practices and lessons learnt in Southeast Asian implementations

Introduction

3

- There are 11 countries in Southeast Asia: Brunei Darussalam, Myanmar, Cambodia, Timor Leste, Indonesia, Lao PDR, Malaysia, the Philippines, Singapore, Thailand, and Vietnam
- Only Indonesia, the Philippines and Vietnam have implemented mandatory efficient lighting programmes (MEPS and/or labelling)
- The remaining countries implement either voluntary labelling programmes for lighting or a project promoting efficient lighting

Summary of Efficient Lighting Policies in Southeast Asia

4

Country	MEPS	Labelling
Brunei Darussalam	No	No
Cambodia	No	No
Indonesia	Yes (Mandatory, under review)	Yes (Mandatory, under review)
Lao PDR	No	No
Malaysia	No	No
Myanmar	No	No
Philippines	Yes (Mandatory)	Yes (Mandatory)
Singapore	No	No
Thailand	Yes (Voluntary)	Yes (Voluntary)
Viet Nam	Yes (Mandatory)	Yes (Mandatory)

Source: Status Report on Lighting Monitoring, Verification and Enforcement Activities and Programmes in Cambodia, Indonesia, Lao PDR, Myanmar, the Philippines, Thailand and Vietnam, UNEP, 2015, and researches by IIEC

Mandatory Implementation – Indonesia

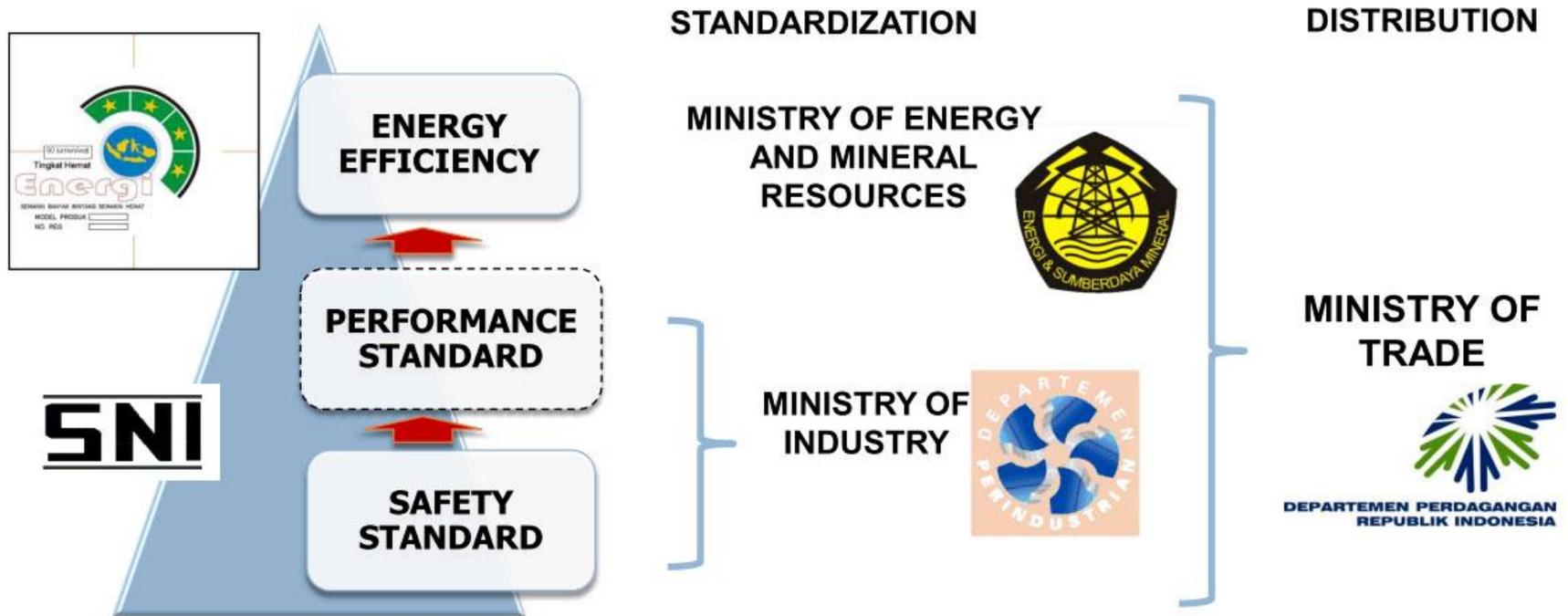
5

- A comparative labelling and MEPS requirements for compact fluorescent lamps was initially introduced in Indonesia in 2003.
- A ministerial regulation for mandatory energy labelling and MEPS was issued in 2013, but actual enforcement has been delayed due to various obstacles faced by local manufacturers.
- Indonesia is finalising a draft regulation to define the MVE framework for lighting products, including sampling and testing procedures

Mandatory Implementation – Indonesia (cont.)

6

Institutional frameworks in Indonesia



lite.asia meeting, Hanoi, June 2012

Mandatory Implementation – Philippines

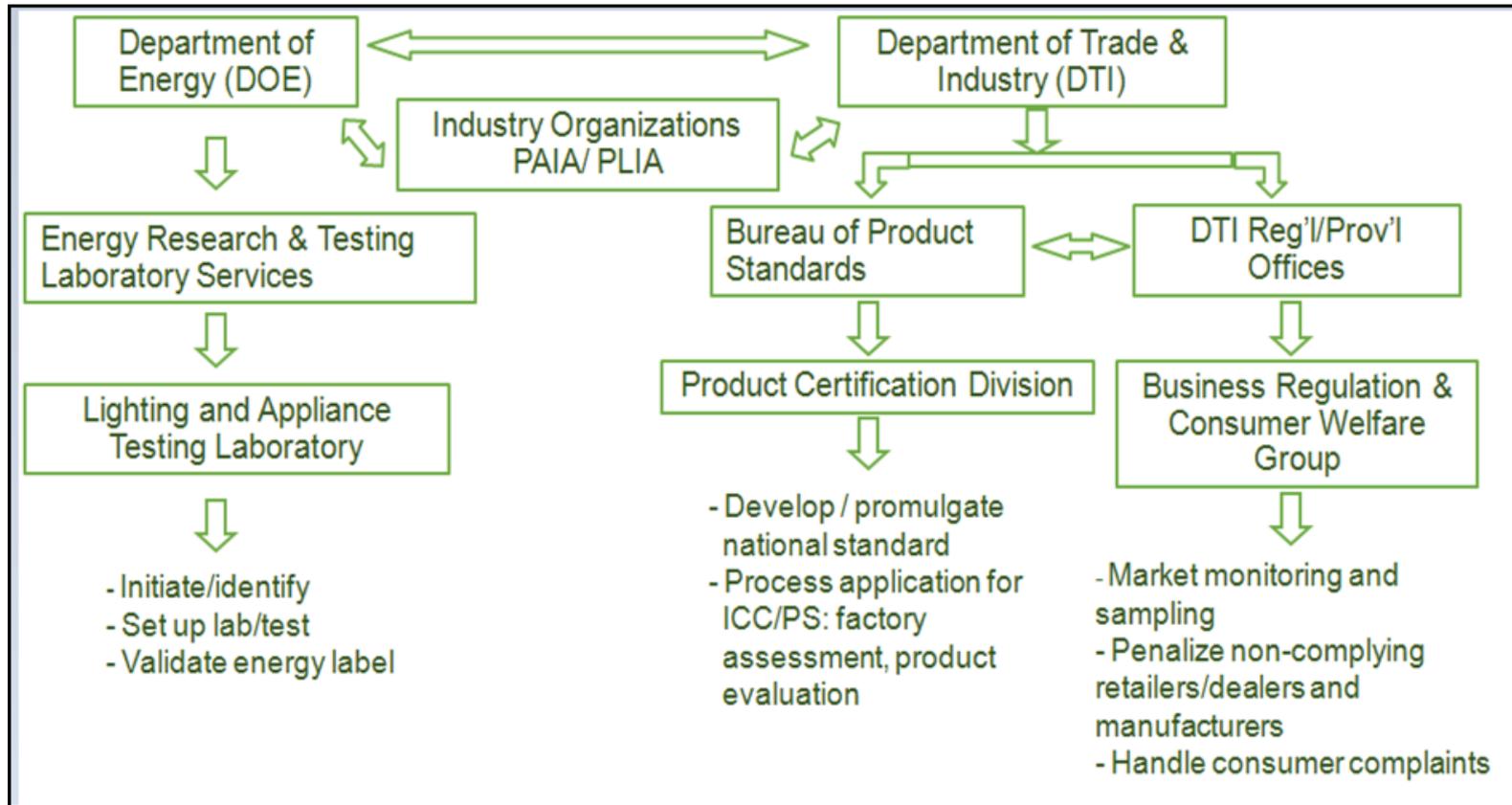
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- Mandatory implementation of MEPS and labelling for lighting products carried out through a joint effort between Department of Energy (DOE) and Department of Trade and Industry (DTI)
- A voluntary energy label for compact fluorescent lamps was started in the Philippines in 2003
- MEPS and mandatory energy labelling for compact fluorescent lamps and double-capped fluorescent lamps were promulgated in 2009
- Other lighting products covered under the mandatory energy labelling scheme (no MEPS): single-capped fluorescent lamps and fluorescent lamp ballasts (both magnetic and electronic)



Mandatory Implementation – Philippines (cont.)

Institutional frameworks in the Philippines



UNEP, 2015

Mandatory Implementation – Philippines (cont.)

9

- Enforcement practices of the Philippines
 - When non-compliance is found, goods/products must be withdrawn from the premises of the establishment
 - The owner shall report to the DTI provincial office within 48 hours
- For violation of the standards and labelling requirements, DTI imposes penalties including:
 - Seizure and disapproval of products which are subject to the offense
 - Seizure all properties, real or personal, used in the commission of the offense
 - Closure of the business establishment, warehouse, building shop or any other structure used in the commission of the offense
 - Fines (depending on the gravity of the offense)
 - Cancellation of any permit, license, authority, or registration granted by DTI or suspension of the same

Mandatory Implementation – Vietnam

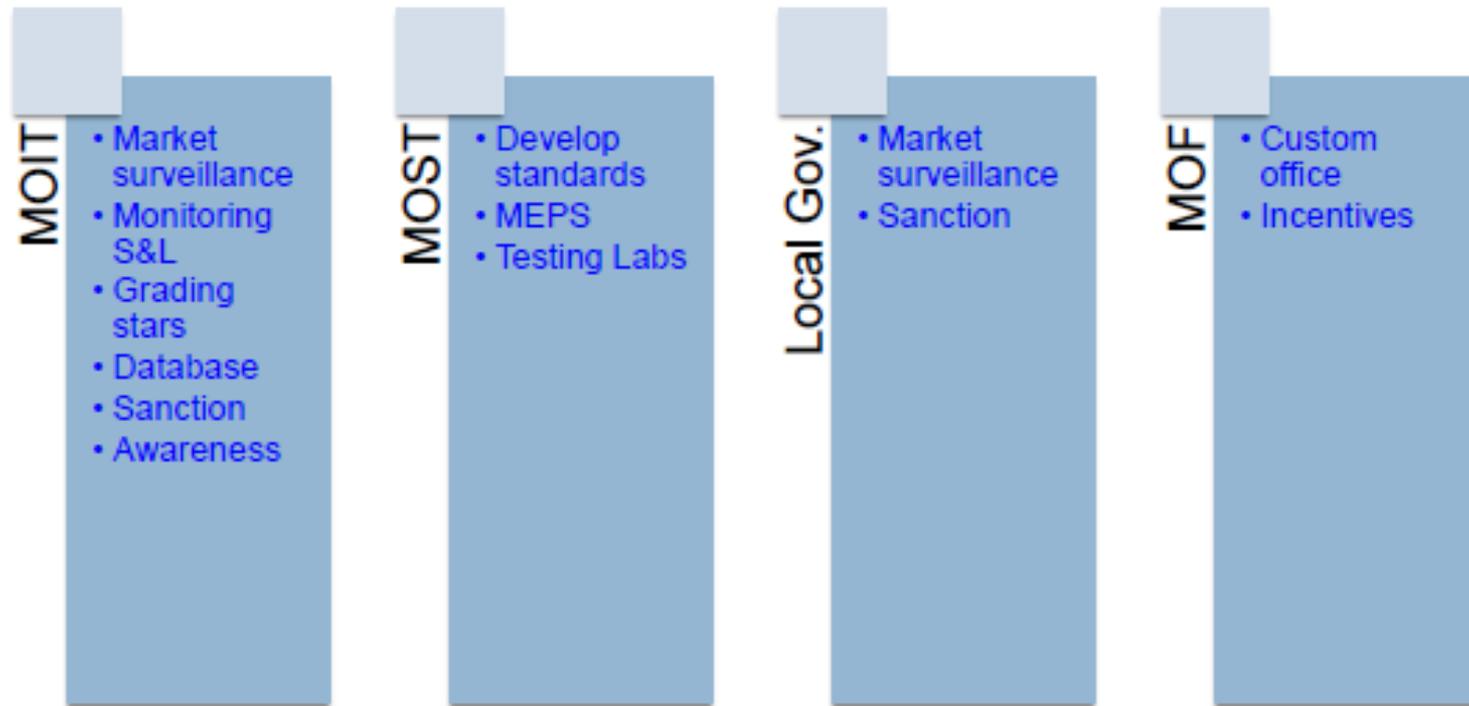
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- Vietnam has enforced mandatory labelling for compact fluorescent and linear fluorescent lamps in 2013 and has set to phase-out tungsten filament lamps with a capacity higher than 60W and launched mandatory MEPS in 2015
- Implementation practice
 - Phasing-out tungsten filament lamps undertaken through prohibition of manufacturing and import
 - Vietnam has established a product registration system with an online registration feature, but to date approvals have been carried out manually

Mandatory Implementation – Vietnam (cont.)

11

Institutional frameworks in Vietnam



lite.asia meeting, Hanoi, June 2012

Some Common Features of Mandatory Implementations in Southeast Asia

12

- All mandatory implementations require coordination among different ministries/authorities
 - The two major authorities are: the Energy Ministry and the National Standard Body
- Central government authorities are responsible for overall procedures, certifications and check testing
- Provincial/local authorities are the focal points for penalties and administrative sanctions
- Self-certification and self-policing have not been used in the region

Best Practices and Lessons Learnt in Mandatory Implementations

13

■ Best Practices

- Enforcement through joint-Ministerial regulations with detailed guidelines for implementation (e.g. Implementing Rules and Regulations or IRR document in the Philippines)
- Engaging the industry in the development phase of lighting standards and energy efficient lighting programmes
- Agreements with the key local manufacturers to phase out supply of inefficient lighting products

■ Lessons Learnt

- Securing support from the lighting industry in design and implementation is vital to the success of the programmes

Best Practices and Lessons Learnt in Mandatory Implementations (cont.)

14

■ Lessons Learnt

- Comprehensive and effective communication programmes for key stakeholders (e.g. industry, provincial/local authorities) are required in all phases of programme development and implementation
- Limited capacities of designated testing facilities (for certification and check testing) create backlog of product testing and delay overall implementation
- Capacity buildings for provincial/local authorities are important for effective compliance activities
- Routine market surveillance requires competent human resources

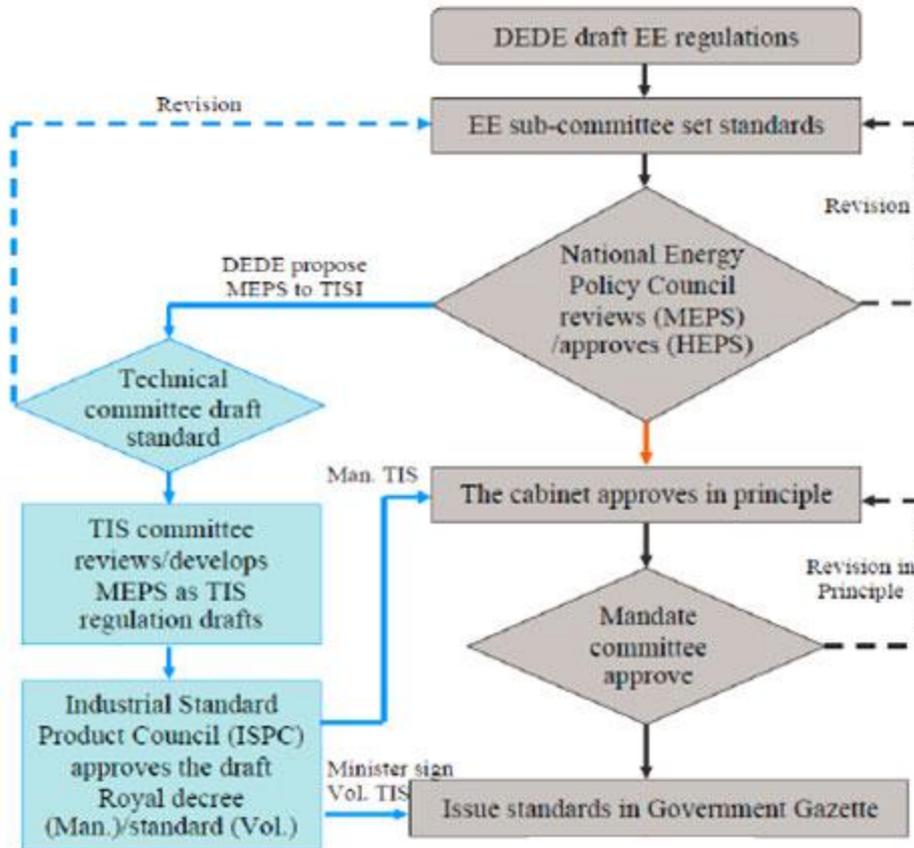
Voluntary Implementation – Thailand

15

- Thailand has a long track record of energy efficiency implementation
 - Energy Efficiency Act has been in place since 1992
 - The first nationwide energy efficient lighting programme through voluntary agreements with lighting manufacturers implemented in 1994
 - Thailand also made a formal commitment to the phase-out of inefficient incandescent lamps
- However all energy efficiency standards and labelling programmes for lighting products in Thailand are still voluntary (including ones issued for compact fluorescent lamps and linear fluorescent lamps)

Voluntary Implementation – Thailand (cont.)

16



Adapted from the BRESL Project

- **National standard body:** the Thailand Industrial Standards (TISI) – having a legal power to implement mandatory standards and labelling
- **Energy efficiency regulator:** Department of Alternative Energy Development and Efficiency (DEDE)
- To date only the EMC requirements for lighting products have been made mandatory - TIS 1955-2551 (2008) Lighting and similar equipment : radio disturbance limits

Voluntary Implementation – Thailand (cont.)

17

■ Market Intervention

- “EGAT brand” CFLs and LED lamps at subsidised prices – 13W CFL ≈ US\$1.8 (2008-2011); 8W LED lamp ≈ US\$3.8 (2014)

■ Verification Practice

- EGAT has an ownership of its No. 5 voluntary energy labelling programme.
- Regular performance check testing conducted by EGAT
- In case discrepancies found, EGAT will request amendment of product info on the label, or remove that particular model from its labelling programme

■ Enforcement Practice (safety and quality requirements)

- TISI has a role to protect consumers from non-compliant products especially in relation to safety and quality requirements



Implementation of Energy Efficient Lighting Projects and Programmes

18

- Cambodia
 - CFLs were distributed to commercial end-users in Siem Reap province with supports from the Energy for Environment Partnership - Mekong (EEP-Mekong) Programme
- Lao PDR
 - Lao PDR has neither energy efficiency national policy nor energy efficiency lighting standards, the country relies on voluntary actions from private companies and foreign funds
 - Through the Demand Side Management / Energy Efficiency Program funded by the World Bank, Electricite du Laos (EdL) implemented a CFL give away programme in 2014

Energy Efficiency Lighting Implementation in Lao PDR

19

- Total residential lighting stock \approx 500,000 lamps in 2010
- 400,000 CFLs were procured and distributed throughout the country to replace incandescent lamps and low quality CFLs in households and small businesses.
- Communication and awareness activities were organised to increase awareness of people.
- Market share of incandescent lamps reduced from 40% to around 10%



Best Practices and Lessons Learnt in Voluntary Implementations

20

■ Best Practices

- For a small market size, a give away programme and agreements with suppliers for energy efficient lighting can effectively transform the market
- If number of popular models limited, market price intervention can accelerate adoption of energy efficient lighting.

■ Lessons Learnt

- A long period of voluntary implementation of a comparative energy labelling programme could undermine the overall effectiveness
 - For example: All suppliers want to stick to No.5 labels, so no No.4 or No. 3 labels in the market



Thank you for your attention...

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