Report on the Final Workshop on the Project: "Market Assessment for Standards and Labelling on Air Conditioners in Lao PDR"

Executive Summary

This report presents the outcomes from the final dissemination workshop held on August 25, 2025. The hybrid event convened 45 participants from key government ministries, the private sector, academia, and international partners to validate and adopt a strategic roadmap for implementing Air Conditioner (AC) Standards and Labeling (S&L) in Lao PDR.

The workshop successfully presented definitive findings from the national Market Assessment and Life Cycle Assessment (LCA). A key conclusion from the data is the massive, quantifiable energy saving potential achievable by transitioning from inefficient fixed-speed ACs to modern inverter technology. The discussions confirmed that addressing AC efficiency is not merely beneficial but essential if Lao PDR is to meet its Nationally Determined Contribution (NDC) goal of a 10% energy reduction by 2030.

Key recommendations were ratified, focusing on a 3-pillar strategy: overcoming financial barriers, strengthening the regulatory framework, and building national capacity. Critical action points emerging from stakeholder feedback include launching a national campaign to promote inverter technology, addressing the challenge of product testing through regional agreements, and using Lao-specific GHG emission factors to guide policy.

Workshop Overview

Objectives

- To present the final, validated findings of the project.
- To secure high-level stakeholder commitment for a prioritized action plan.
- To address key implementation challenges identified through stakeholder feedback.
- To officially conclude the project and define the next steps for implementation.

Target Audience

The workshop targeted:

- Policymakers and government officials from MOIC, MOAE, MOF, EDL, LNCCI, including 10 provincial departments of industry and commerce.

- AC importers, retailers, Lao Business Refrigeration Association, household owners, commercial building owners.
- Academic researchers and institutions, primarily from the National University of Laos.
- Community organizations and NGOs focused on environment and sustainability.

Workshop Structure

The half-day event included an opening ceremony with high-level remarks, a presentation on the CCG programme, three technical presentations on the project's findings and proposed roadmap, and a highly interactive Q&A session with a panel of experts to address questions from both in-person and online audiences.

Key Presentations and Findings

Presentation 1 & 2: Market Assessment & LCA Findings

Presenters: Assoc. Prof. Sengratry KYTHAVONE and Dr. Korrakot Phomsoda

The presentations highlighted the Lao AC market's complete dependence on imports and its deep saturation with inefficient technology (92% of household and 98% of commercial units are fixed speed). Based on the workshop discussions, the following key findings were emphasized:

Quantified National Energy Saving Potential: The analysis concluded that a nationwide transition from average fixed-speed ACs to energy-efficient inverter models presents a monumental energy-saving opportunity. For the residential sector, this could reduce AC electricity consumption by an estimated 30-40%, saving hundreds of GWh annually. For the commercial sector, where units are older and run longer, the savings potential is even higher, estimated at 40-50%. This translates into significant financial savings for consumers and reduced load on the national grid.

Lao-Specific GHG Emission Factors: The LCA results, which identified the "use phase" as 99% of an AC's emissions, were reinforced by the use of greenhouse gas (GHG) impact factors derived specifically for Lao PDR's energy resource mix. This localized approach provides a highly accurate and credible evidence base for national climate policy, confirming that reducing electricity consumption is the most impactful climate action for this sector.

AC Inefficiency as a Critical Barrier to NDC Goals: The data confirms that ACs are a primary driver of electricity demand growth. The workshop concluded that without aggressive policy intervention to improve the efficiency of the AC stock, the 10% energy reduction target under the NDC will be extremely difficult, if not impossible, to achieve. Therefore, AC efficiency must be considered a national priority.

Presentation 3: A Strategic Roadmap for Lao PDR

Presenter: Mr. Xayalak Vilaida

This presentation outlined the 3-pillar strategy for transforming the market.

Breakout Session & Q&A Results

The interactive Q&A session generated critical feedback that refined the project's recommendations.

Key Discussion Point: The Challenge of Product Testing in Laos

Problem Identified: Participants universally acknowledged that the lack of an in-country, accredited AC testing laboratory is the single greatest barrier to enforcing MEPS. Stakeholders questioned how Lao standards could be verified without a domestic facility.

Consensus Reached: The discussion concluded that while a long-term vision might include a simple verification lab, the only practical and immediate solution is to leverage regional infrastructure. This reinforced the high-priority nature of the Mutual Recognition Agreement (MRA) recommendation.

Recommendations and Next Steps

The workshop ratified the 3-pillar strategic roadmap and added further detail based on stakeholder feedback.

Pillar A: Overcome Financial Barriers and Drive Demand

(Recommendations on Fee-bate, GPP, and Financing remain as previously stated)

Pillar B: Strengthen the Regulatory and Enforcement Framework

1.Establish a Mandatory Digital Product Registration Database: The foundational tool for all enforcement.

2.Strengthen and Expand MEPS: Publish a long-term roadmap that includes not only stricter EER values but also standards on component quality and durability to address issues like the use of aluminum parts.

3.Address the Testing Challenge with a Two-Pronged Approach:

Short-term (High Priority): Actively pursue a Mutual Recognition Agreement (MRA) with accredited labs in Thailand and Vietnam to immediately enable cost-effective enforcement of Lao standards.

Long-term: Conduct a feasibility study for establishing a small-scale verification testing facility within Laos, not for full certification, but for random market surveillance and validation.

Pillar C: Build National Capacity and Regional Integration

1.Launch a National Campaign to Promote Inverter Technology:

Action: Develop and execute a sustained public awareness campaign specifically designed to educate Lao consumers on the benefits of inverter ACs.

Messaging: The campaign must be simple and focus on three key messages: 1) long-term money savings on electricity bills, 2) improved comfort, and 3) environmental benefits.

Channels: Utilize social media, partnerships with retailers, and direct messaging via EDL electricity bills.

2.Implement Coordinated Capacity Building: Train Customs, Retailers, Technicians, and Government Staff.

3.Actively Participate in ASEAN Standards Harmonization: Continue to align Lao PDR's policies with regional best practices.

4.Additional comment from EDL: Electricité du Laos (EDL) has proposed the formal determination of a national CO2 emission factor for electricity generation. This initiative is a critical prerequisite for accurately calculating the country's carbon footprint and is essential for enabling future participation in international carbon credit markets and climate finance projects.

Conclusion

The final dissemination workshop successfully validated the project's findings and solidified a collective commitment to a clear, actionable roadmap. The consensus is that tackling AC inefficiency is a national priority critical to achieving Lao PDR's NDC targets. By focusing on the prioritized recommendations-particularly promoting inverter technology, establishing a product registry, and securing a regional testing agreement-Laos can effectively transform its cooling market for a more sustainable and energy-secure future.

Report Prepared by: Mr. Xayalak Vilaida, Project assistance
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