Cleaner Fuels and Vehicles Roadmap in ASEAN

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About Clean Air Asia

Mission: to promote better air quality and livable cities by translating knowledge to policies and actions that reduce air pollution and greenhouse gas emissions from transport, energy and other sectors.
Key Points

- Significant improvement at **country level** e.g. in standards, fiscal measures and incentives, and/or fuel economy labeling

- Recognition of the need for a **regional roadmap** to enhance actions on cleaner fuels and vehicles (experts group meeting in BAQ2014); will work with partners such as UNEP, GFEI, GIZ, WRI, etc

- **Roadmap** envisioned will have broader elements
  - guidance on national level interventions
  - knowledge and experience sharing
  - discussions on regional harmonization
Growing vehicle fleets

- **515 million** vehicles in 2050
- **389** 4-wheeled vehicles/1000 people
- **388** 2 and 3-wheeled vehicles/1000 people
- **2.5 million** cars will be added per year
- **5.3 million** motorcycles will be added per year

Source: ITPS, CAA, 2014

In 2014, 3.1 passenger and commercial vehicles sold in ASEAN (excluding Cambodia, Lao, Myanmar), 11.2 million motorcycles (INO, MYS, PHL, THA). Source – Asean Automotive Federation
Road transport related emissions

- Transport CO2 emissions will increase by 4.6-fold from 2005-2050
- 208 million tons CO2 in 2005 → 956 million tons CO2 in 2050
- CO2 emissions per capita will increase to 1.32 tons/year from 0.37 in 2005.

Source: ITPS, CAA, 2014
Fuel economy standards in ASEAN

Impact potential 2012 – 2035 compared to BAU
Indonesia, Thailand, Philippines, Vietnam

Fuel savings:
446 b liters diesel
134 b liters gasoline

CO2 reductions LDVs
16%

CO2 reductions LDVs and HDVs
26-27%

Source: GFEI and Clean Air Asia. 2010. Improving Vehicle Fuel Economy in the ASEAN Region
Fuel economy standards in Asia in 2012

- Few Asian countries have fuel economy standards
- LDV standards given priority in Indonesia, Malaysia, Philippines, Thailand, Vietnam
- HDV standards: Japan, China

Source: Clean Air Asia 2012
National initiatives in the ASEAN

**THAILAND**
- Development of automotive fuel economy standards (DEDE, Ministry of Energy)
- CO2-based taxation

**VIETNAM**
- TCVN fuel economy standards for LDV and motorcycles (Ministry of Transport)

**PHILIPPINES**
- Baseline calculations for fuel economy standards setting (with Department of Energy, Department of Trade and Industry)
- Fuel economy labeling scheme is being formulated

**INDONESIA**
- Cost-Benefit Analysis on Fuel Quality and Fuel Economy (with Ministry of Environment)
- Low cost Green Car Program

**MALAYSIA:**
- National Automotive Policy 2014 – implementation of Energy efficient vehicles
Highlights in the ASEAN

Standards
- Brunei: standards for LDVs are being discussed and included in INDCs: 17.2 km/liter (2020), 21.3 km/liter (2025)
- Thailand: minimum energy performance standards drafted, currently in discussion (km/liter)
- Vietnam: fuel consumption (l/100 km) for passenger cars and 2-wheelers are targeted to be implemented in line with Euro standards implementation

Fiscal Measures and Incentives
- Indonesia: Low Cost Green Car Program
- Malaysia: EEV incentives under the National Automotive Policy
- Singapore: Carbon emission based vehicle scheme; early de-registration rebates; special tax base on compliance to emission standards
- Thailand: CO2-based taxation policy (by 2016)
- Vietnam: preferential tax rates for environmentally-friendlier vehicles; stated in the National Automotive Industry Master Plans

Fuel Economy Labeling
- Singapore: Fuel economy labelling scheme established (cars and light goods vehicles since 2012)
- Thailand: Eco-labeling program (October 2015)
- Philippines: fuel economy labelling action plan
Barriers brought by lack of harmonization

- Lack of standards and mutual recognition of certification – technical barriers to trade within ASEAN and with global markets
- Varying stages of industry development in the ASEAN – needs to be taken into account
- Need for ASEAN roadmap to provide guidance on policy options to enhance fuel economy improvements in the transport sector; could learn from experiences of other countries like India, China
Barriers at the regional level

- Difficulty in finding a body to champion within the ASEAN structure
- Alignment with other regional goals such as market integration and with national circumstances
- At the national level, multiple agencies with overlapping responsibilities
- Lack of baseline data
Strong collaboration of multiple players needed for regional fuel economy standards

**ASEAN Secretariat**

Senior Transport Officials Meeting & Land Transport Working Group

Global Fuel Economy Initiative (FIA Foundation, IEA, ITF, UNEP)
Clean Air Asia and Country Networks
Japan MLIT
JARI
Others

Framework for Fuel Economy Policies and Measures

JAMA, KAMA, CAMA, and other National Vehicle Manufacturers’ Associations

Development of Common Methodologies and/or Guidelines

Fuel Economy/Efficiency Standards

Eco-driving

Fiscal Incentives (e.g. Vehicle labeling)

Regional and National Dialogues

Fuel Economy Community of Practice – ASEAN

Development of National Action Plans
Towards a Regional Roadmap

- Fuel economy is currently included in the discussions for the post-2015 ASEAN Strategic Transport Plan as a thematic area under sustainable transport
  - Establishment of an ASEAN expert group on fuel economy
  - Fuel economy roadmap formulation
  - Support for national efforts to improve vehicle fuel economy

- A proposal was also discussed under the ASEAN Center for Energy/ Energy Efficiency and Conservation Sub-sector Network for formulating a Roadmap on Fuel Economy in the Region
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