

3rd. Asia Automobile Institute Summit
2-4 December 2014, Bangkok

Summary
AAI Summit
Fuel Economy/Emission Session

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Co-Chair: Dr. Nuwong Chollacoop

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Japan

- Progress of Japanese FER (Fuel Economy Regulation)
 - Passenger car & Truck
 - Both new (+31%) and in-use (+17%) cars
 - FER from improved engine efficiency, drive system, aerodynamics, vehicle weight, rolling resistance etc
 - Government approach by tax credit (automotive & acquisition taxes)
- JARI develops CAMPATH model to calculate impact of fuel economy
- Reviews of FER in Korea, China, India and Thailand
 - Korea: implemented since 1990 and updated in 2005
 - China: implemented since 2005 and regularly updated
 - India: to be implemented from 2016
 - Thailand: considered based on exhaust emission

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Japan Q&A

- Indonesia
 - From best practice in the world, which mode to measure FER
 - Japanese is 10-15 mode while others is WLTP
 - Comment about low cost car with 20 km/L fuel economy
- Thailand
 - Comparison of FER from different driving cycle
- Malaysia
 - FER or in-use car? Yes
 - Tax credit to car company or user? User
 - If advance case, will affect tax revenue? Not analyzed yet

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China

- National Energy Strategy & Automobile Industry Energy Strategy
 - Set limit on T_{CAFC} for passenger car & EEV; whereas, commercial car should follow international trend
 - Many organizations related to automotive fuel economy
 - Various standard issued on light-duty, heavy-duty
 - 4 on automotive and 2 on motorcycle
 - Been using NEDC but under review for 4th stage (WTVC → C-WTVC for heavy-duty)
 - EEV subsidy policy (1.6L EEV since 2009)
- Q&A
 - Why shift from vehicle class to CAFE

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India

- Harmonizing both Safety & Emission regulation
- Significant portion on 2-wheeler (2/3) & HDV
- 50 & 350ppm sulfur fuel quality in India → 50ppm by 2016
- Emission regulations for different classes of vehicles including 2-wheelers, off-road tractor, diesel generator, etc
- 4th stage of emission regulation for 2-wheeler
- Worldwide Harmonized Motorcycle Test Cycle (WMTC)
 - Focus on 2-wheelers for own development
- Other factors
 - Phasing out older vehicles, infrastructure & fuel improvement
- Fuel Efficiency Standards (FES): CAFC \propto weight
- Fuel economy labeling (both mandatory & optional)
- Durability limit for various vehicle classes
- Q&A: CNG & fuel quality

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Thailand

- Emission regulation
 - for both new and in-use vehicles
 - Consideration on non-regulated emission as well
- Proficiency Testing program on emission and fuel economy
- Initiative on fuel efficiency standard (esp. CO₂ emission)
 - Methodology: MEPS vs HEPS (excluding hybrid)
 - Forecast methodology from current emission regulation to future
- Vehicle related tax
 - Eco car project: phase I (2007) and II (2014)
 - CO₂ tailpipe emission based excise tax to be implemented from 2016
 - Thailand Energy Efficiency Development Plan (2011-2010)
 - Green label (Eco label)
- Q&A
 - Eco-car project has been effective? Indonesia just started last year

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Discussion

- UNESCAP
 - Enjoy interesting presentation as UNESCAP is also interested in fuel economy under sustainable transportation
- JARI
 - Different countries are different so need to set priority and find unique solution
 - Propose data sharing for mutual benefits, and all members agreed in principle. JARI will circulate template for data sharing
- China
 - As R&D Institutes, good to discuss on technology rather than regulation
- India
 - How to achieve fuel economy (cost vs implementation). Cost benefit ratio, technology aspect, human behavior