

Vehicle Fuel Economy Labeling Technical Workshop for IRR Development

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Marquis Events Place, BGC

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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.



Air Quality and Climate Change Program



Low Emissions Urban Development Program



Clean Fuels and Vehicles Program



Green Freight and Logistics Program

Clean Air Asia's Work on Fuel Economy



Workshop Objectives



- To discuss the comments and inputs of stakeholders from the previous Public Consultation Workshop
- To refine the contents of the current version of the draft IRR
- To discuss the plans and points of action towards IRR finalization and towards implementation

How can Fuel Economy help?

- Climate change
- Energy security
- Resource waste
- Sustainable development
- Air quality

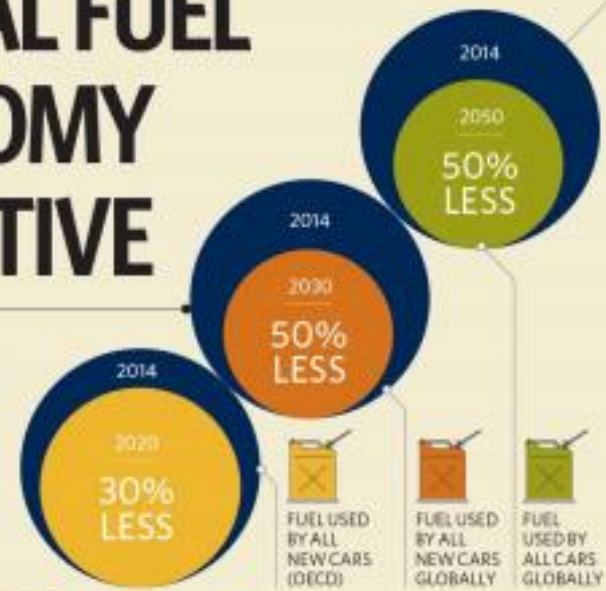


GLOBAL FUEL ECONOMY INITIATIVE

THE GFEI FUEL ECONOMY TARGETS

6BN BARRELS OF OIL PER YEAR

is how much we will save globally if we achieve these targets by 2050.



2TRNDOLLARS

could be saved in the next decade from better fuel economy.



CARS AND OIL

by 2030, 2 million vehicles would need at least 120 million barrels of oil a day.

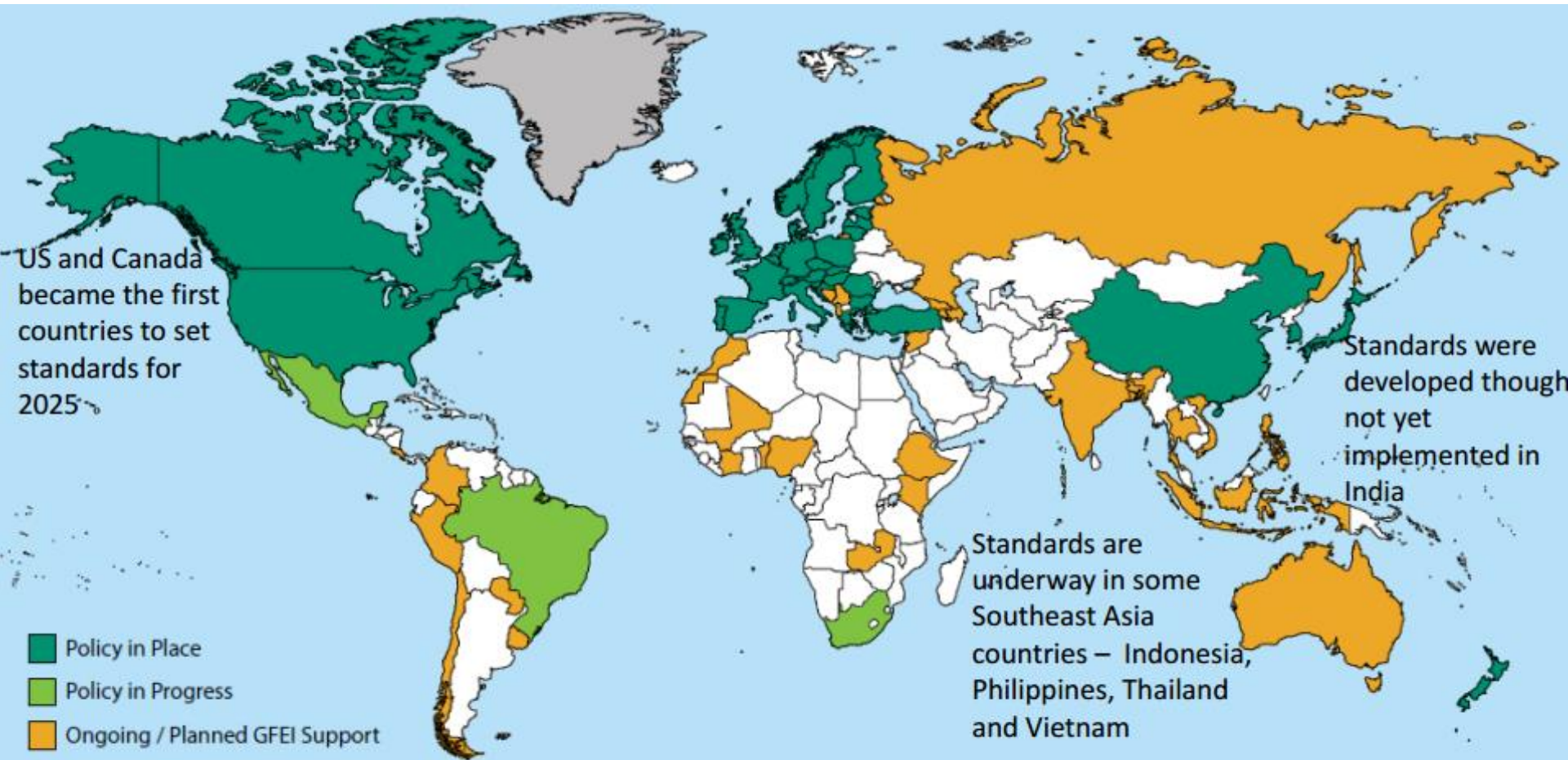


GROWING NUMBER OF CARS

CHINA TODAY
WORLD TODAY
CHINA IN 2050
WORLD IN 2050



Southeast Asia yet to implement fuel economy policies



GFEI Targets 50% Fuel Economy Improvement



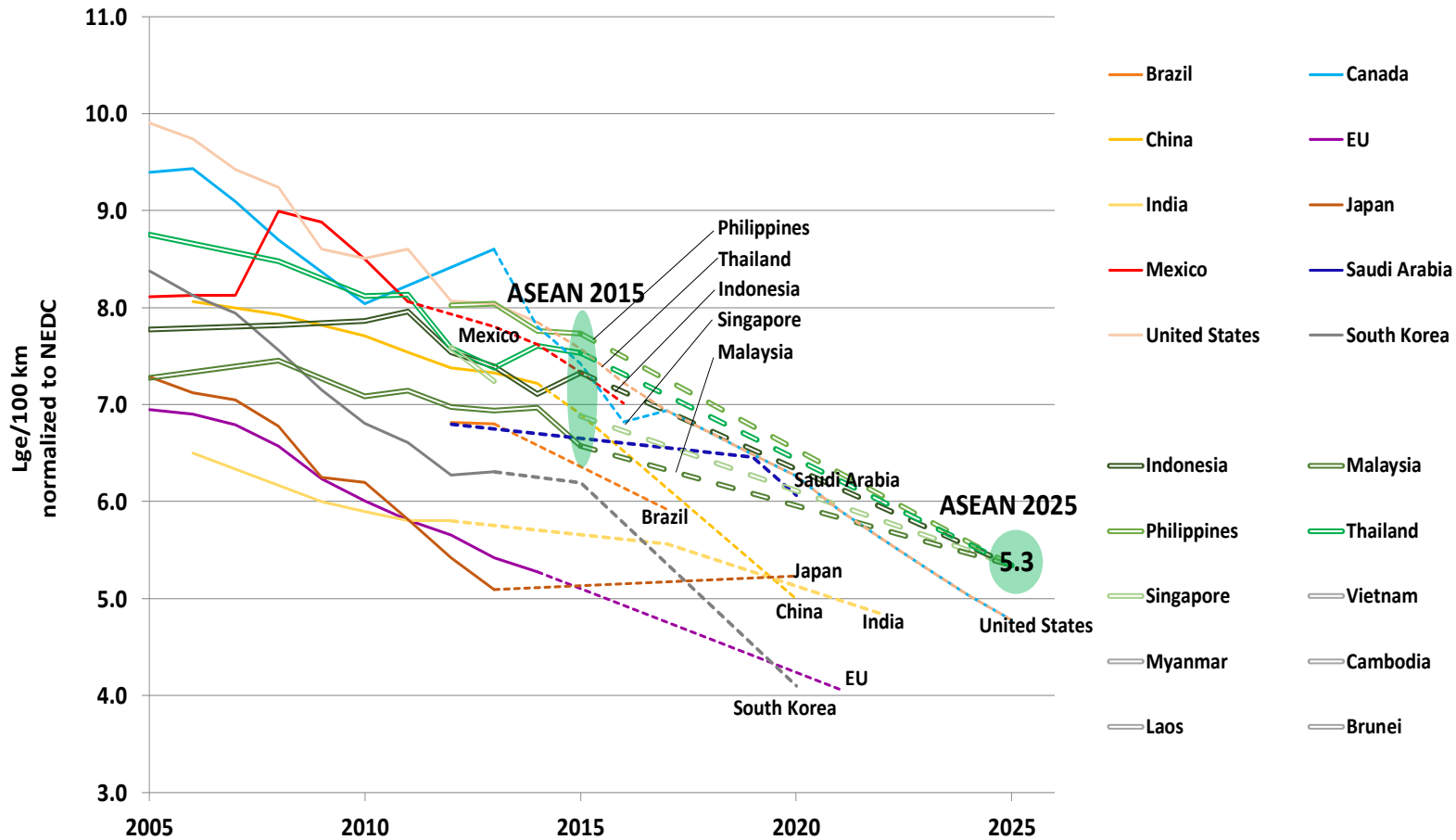
	2020	2030	2050
New Cars	30% reduction* in L/100km compared to 2005 Engines, drive-trains, weight, aerodynamics.	50% average improvement globally Hybridisation of most models.	50% + globally Significant contributions from Plug-in vehicles
Total fleet	20% reduction With lag time for stock turnover; includes eco-driving, maintenance	35% reduction	50by50

Fuel Consumption Standards in the World



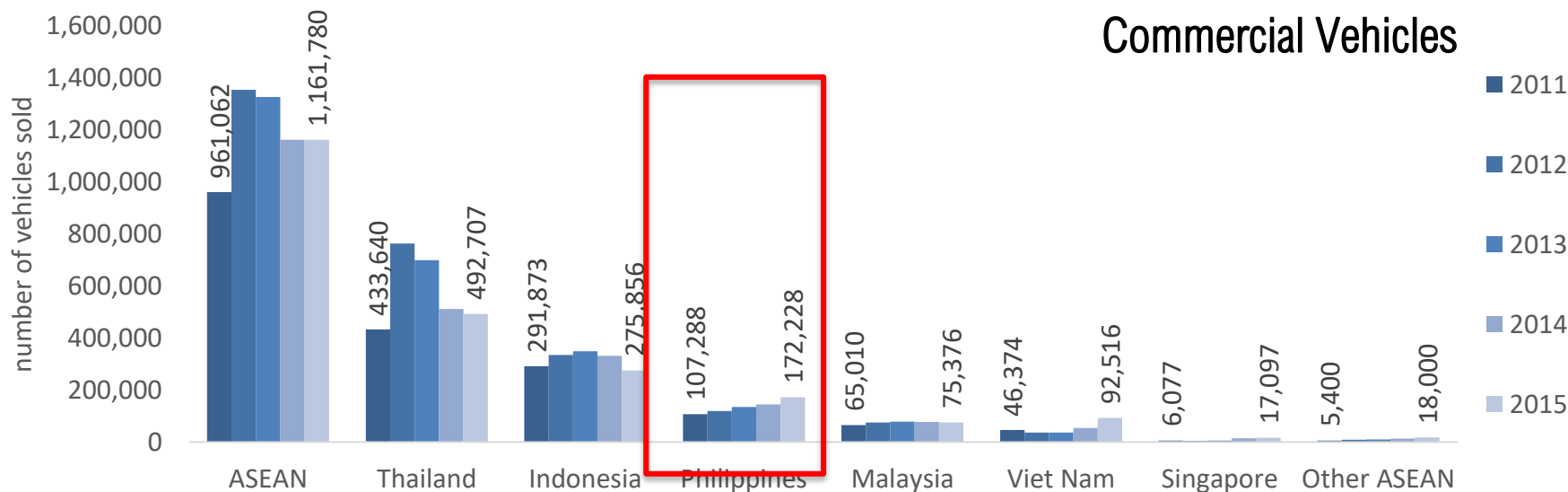
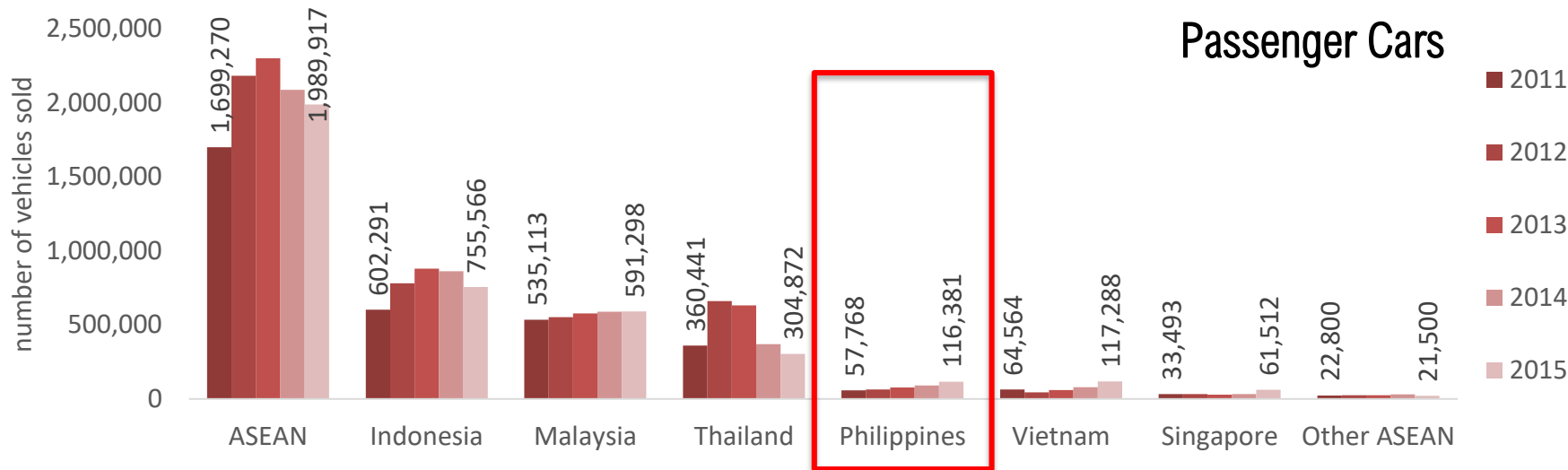
	Base year	Target year	Number of years	Base year fuel consumption Lge/100km	Target year fuel consumption Lge/100km	Total reduction base year to target year	Annual reduction base year to target year	Source for base year & target year
Existing LDV Standards								
EU LDV	2014	2021	7	5.5	4.3	-22%	-3.4%	Est. ICCT 2015
EU PC	2014	2021	7	5.3	4.1	-23%	-3.7%	ICCT 2015
EU LCV	2014	2020	6	7.2	6.3	-13%	-2.3%	ICCT 2015
USA LDV	2014	2025	11	7.8	4.8	-39%	-4.4%	ICCT 2015
USA PC	2014	2025	11	6.7	4.2	-38%	-4.3%	ICCT 2015
USA LT	2014	2025	11	9.5	6.0	-37%	-4.1%	ICCT 2015
Canada LDV	2015	2025	10	7.4	4.8	-36%	-4.3%	ICCT 2015
Canada PC	2015	2025	10	6.4	4.2	-35%	-4.2%	ICCT 2015
Canada LT	2015	2025	10	8.7	6.0	-31%	-3.6%	ICCT 2015
Mexico LDV	2014	2016	2	7.6	7.0	-8%	-4.1%	ICCT 2015
Mexico PC	2014	2016	2	6.8	6.2	-9%	-4.4%	ICCT 2015
Mexico LT	2014	2016	2	9.2	8.4	-8%	-4.3%	ICCT 2015
Existing PLDV Standards								
Brazil PC	2013	2017	4	6.8	5.9	-13%	-3.4%	ICCT 2015
China PC	2015	2020	5	6.9	5.0	-28%	-6.2%	ICCT 2015
India PC	2017	2022	5	5.6	4.8	-13%	-2.7%	ICCT 2015
Saudi Arabia PC	2012	2020	8	6.8	6.1	-11%	-1.4%	ICCT 2015
Korea PC	2015	2020	5	6.2	4.1	-34%	-7.9%	ICCT 2015

Global Trends in Fuel Economy



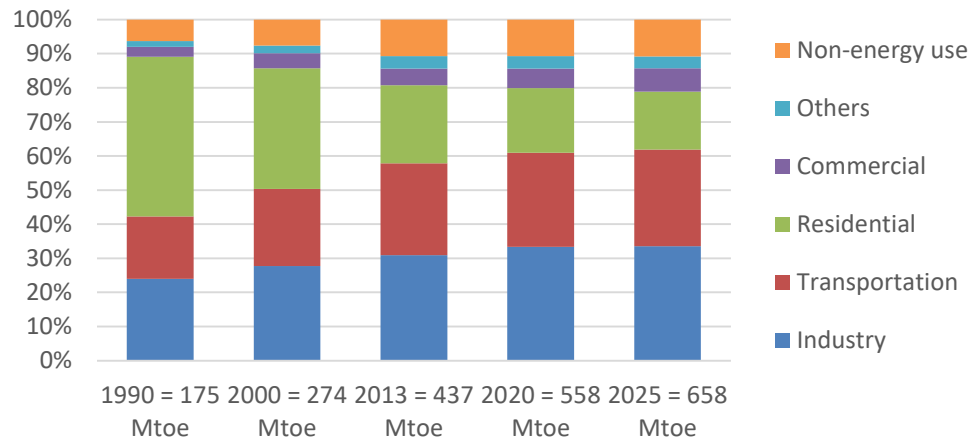
Source: ICCT 2015, GFEI 2016 and GFEI 2017

ASEAN Sales Trend for LDVs 2011-2015

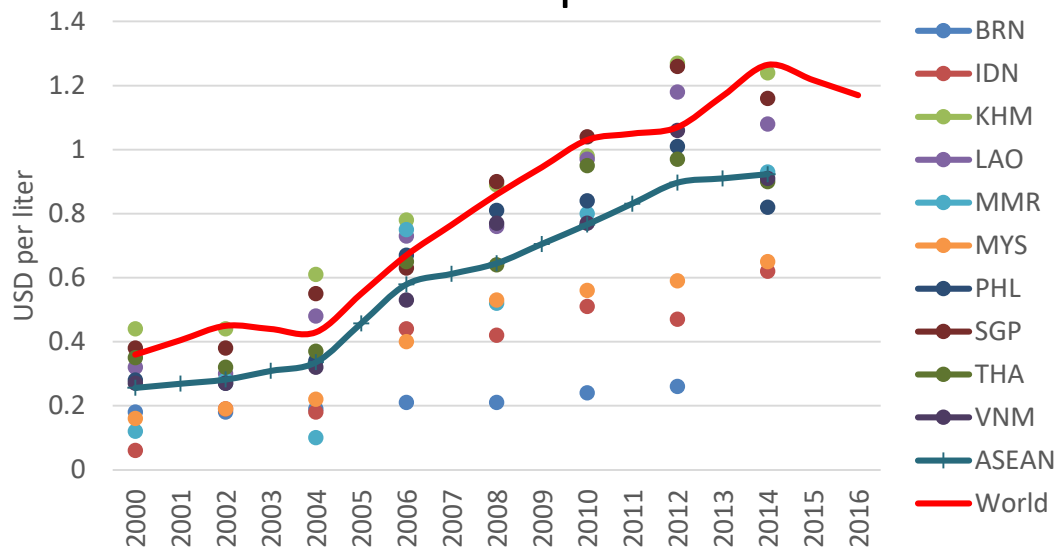


Energy demand is on the rise as global fuel prices fluctuate with market uncertainties

Energy Demand per Sector



Diesel Pump Prices



Regional and National Energy Efficiency Targets Relevant to the Philippines

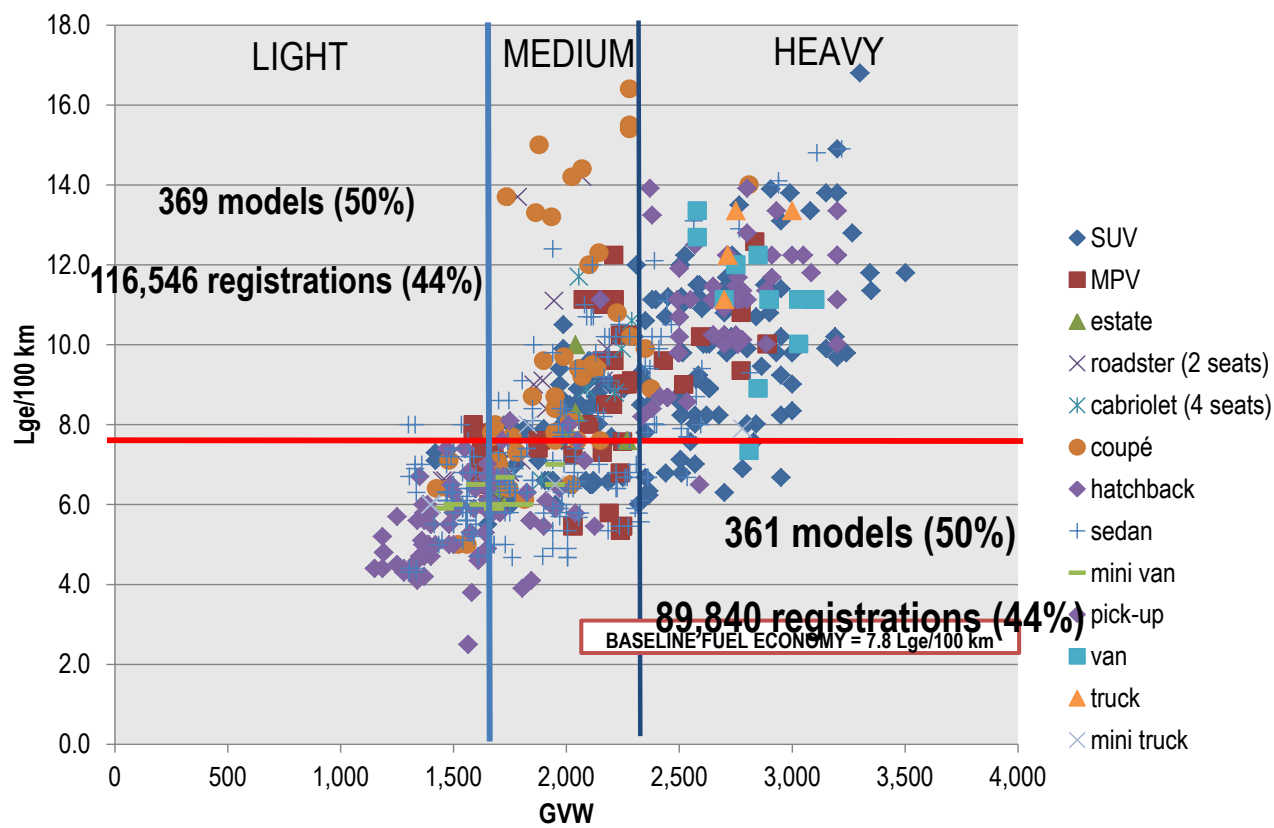


INITIATIVE	TARGET	TARGET YEAR
Energy Efficiency Roadmap	12% reduction in energy consumption from transport 20% reduction from transport	2030 2040
Asia-Pacific Economic Cooperation	10% reduction in energy consumption across all sectors	2030
ASEAN Plan of Action on Energy Cooperation	20% reduction in energy consumption across all sectors 30% reduction across all sectors (based on 2005 levels)	2020 2025
Nationally Determined Contributions	70% reduction of CO2 (being revised)	2030

Preceding Work on Fuel Economy in the Philippines

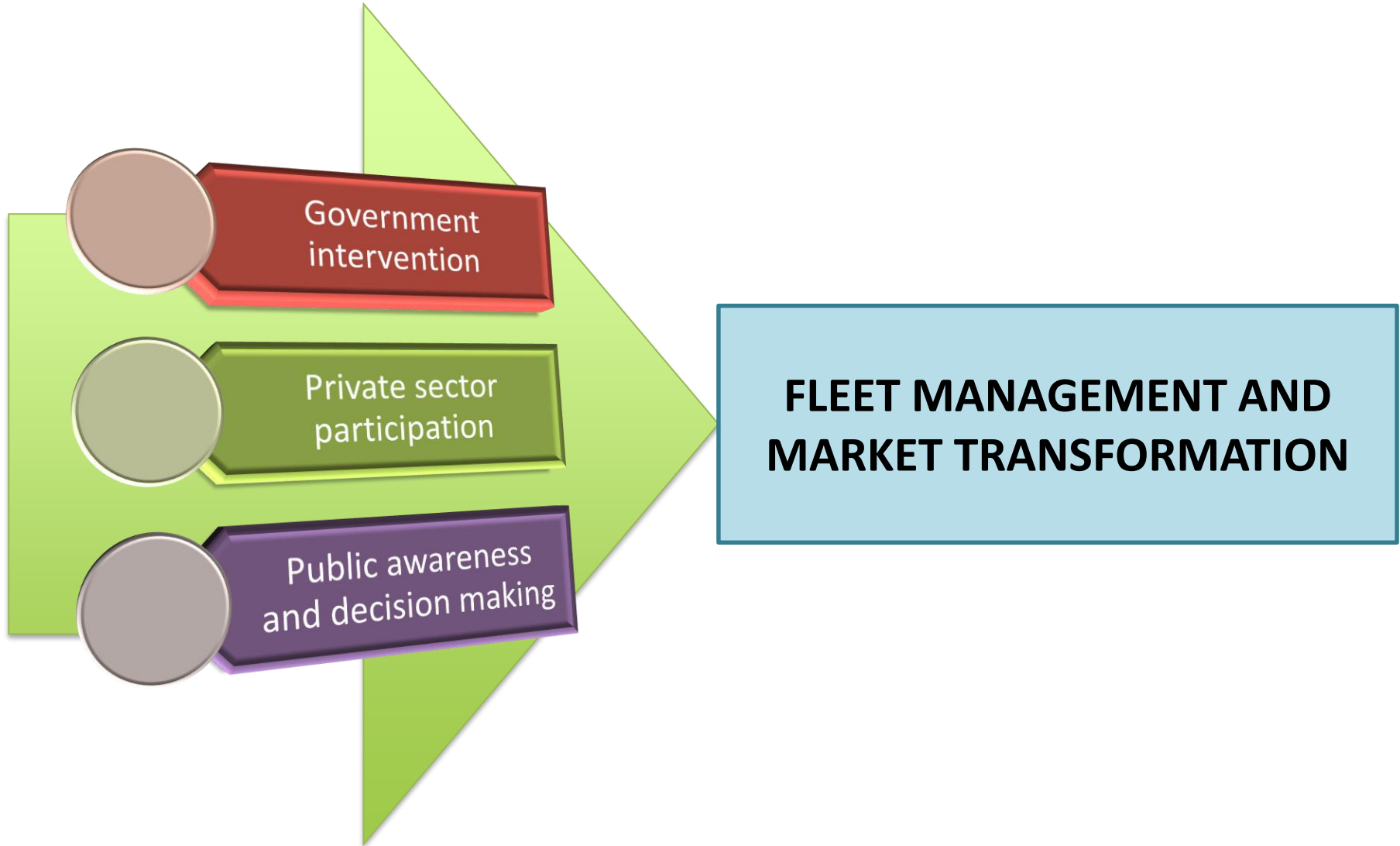


- ✘ Fuel economy standards (2012-2014)
- ✓ Baseline study on fuel economy for light duty vehicles (CAA 2015)
- ✓ Philippine Energy Standards and Labeling Program (DOE 2016)
- ✓ Energy Efficiency Road Map (DOE 2017)

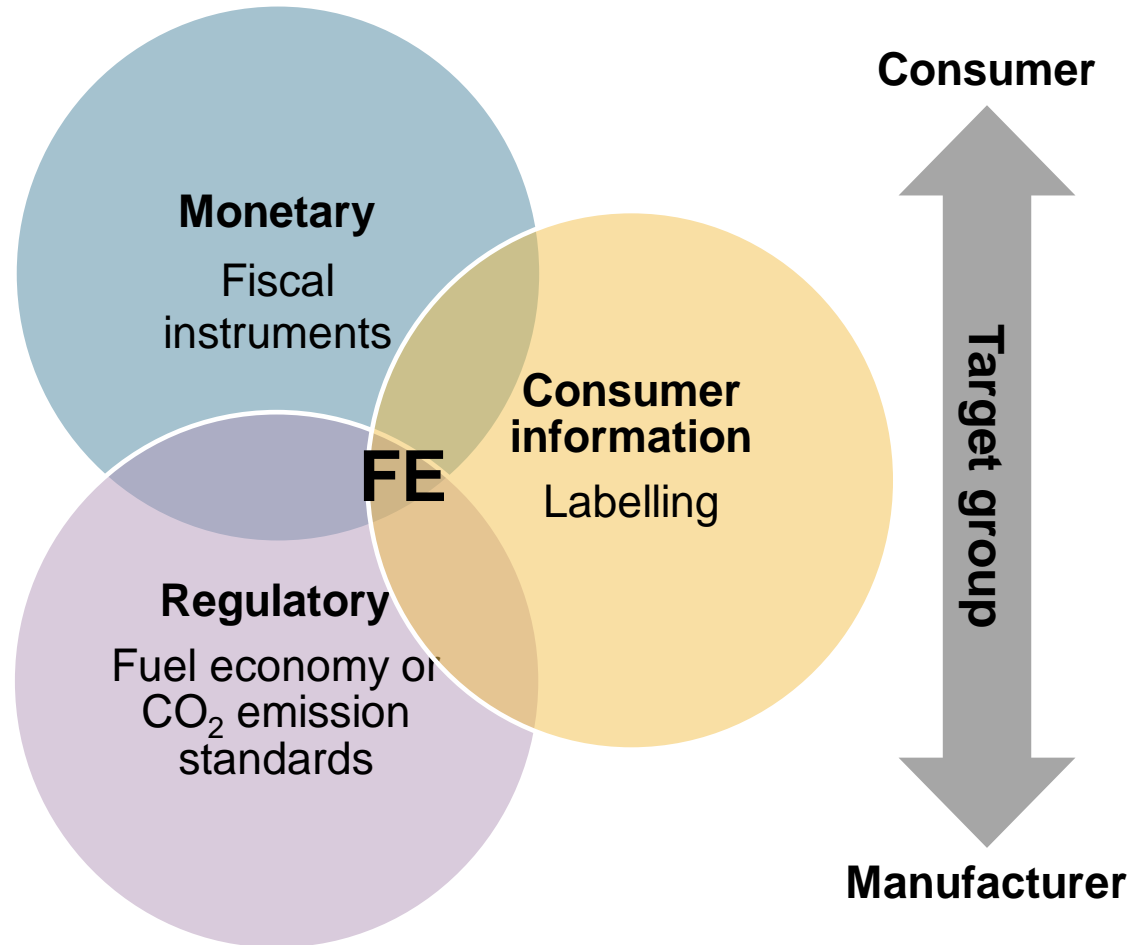


Vehicle Type	Harmonic Mean FE (Lge/100 km)	Median FE (Lge/100 km)	Arithmetic Mean FE (Lge/100 km)	5% Trimmed Mean FE (Lge/100 km)	10% Trimmed Mean FE (Lge/100 km)	20% Trimmed Mean FE (Lge/100 km)
passenger cars	7.3	7.6	8.0	7.9	7.8	7.8
light commercial vehicles	9.9	10	9.2	9.2	9.2	9.3

Fuel economy is a transformative approach



Overview on Fuel Economy Policy Measure Categories



A Business Case: TRAIN Law Exemption



“Provided, That hybrid vehicles shall be subject to fifty percent (50%) of the applicable excise tax rates on automobiles under this Section: Provided, further, That purely electric vehicles and pick-ups shall be exempt from excise tax on automobiles.

Key Updates Based on Stakeholder Recommendations



- ✓ Clarity on vehicles covered by the IRR
- ✓ Adopted definitions from the European Regulation 101, R84, and the European Directive 1999/94
- ✓ Clear definition of a “new vehicle” and “point of sale” based on EU regulations
- ✓ Inclusion of HEVs and PHVs
- ✓ Simplified recognized Driving Cycle to adopt NEDC and WLTP
- ✓ Specifics on labeling process now incorporates DOE proposed process, but needs refinement (e.g. COC process)

Key Questions to DOE



- * When is the label pasted? Before selling (at point of manufacture/import)? During selling (at point of sale only)?
- * Where is the label pasted?
- * What is the size of the label?
- * What is the lead time for acquiring the labels?
- * What is the necessary document to be submitted? How will it be submitted?
- * Who will cover the costs (e.g. testing and retesting)?

Decision Points



- * Cleaning and finalization of definitions
- * Discussion of label information and design especially an agreement on the Star Rating Scale
- * Discussion and clarity on the labeling process
- * Recommendations to the Fuel Economy Website

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TOYOTA

261 Clean Air Asia Partnership Members

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- Non-government organizations
- Academic and research institutions
- Private sector companies and associations

Clean Air Asia Country Networks

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