

# Global Fuel Economy: State and Prospects

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**Session: Institutionalizing Fuel Economy in Asia**

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# Clean Air Asia Programs

**AIR QUALITY  
AND CLIMATE  
CHANGE**



**LOW  
EMISSIONS  
URBAN  
DEVELOPMENT**

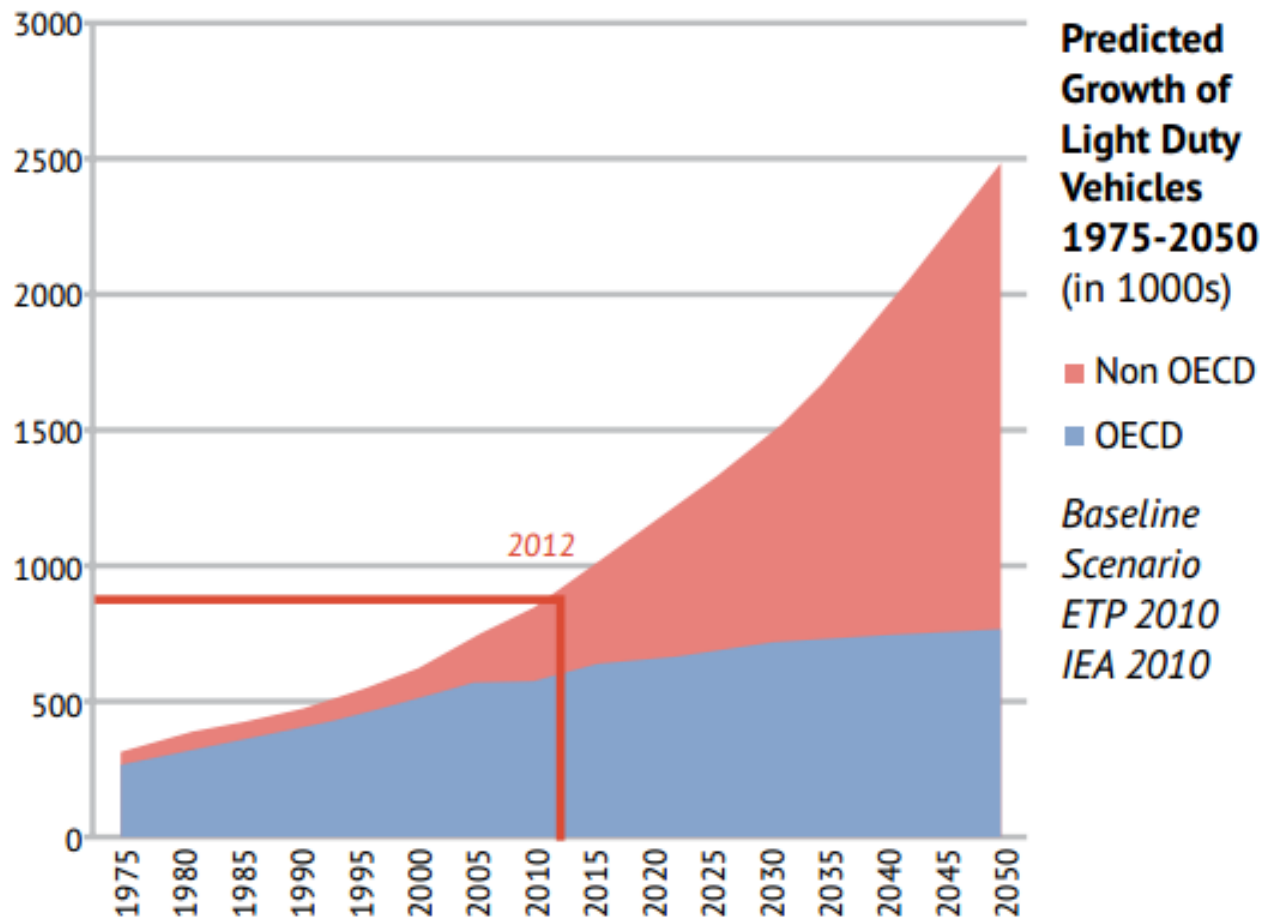


**CLEAN FUELS  
AND VEHICLES**



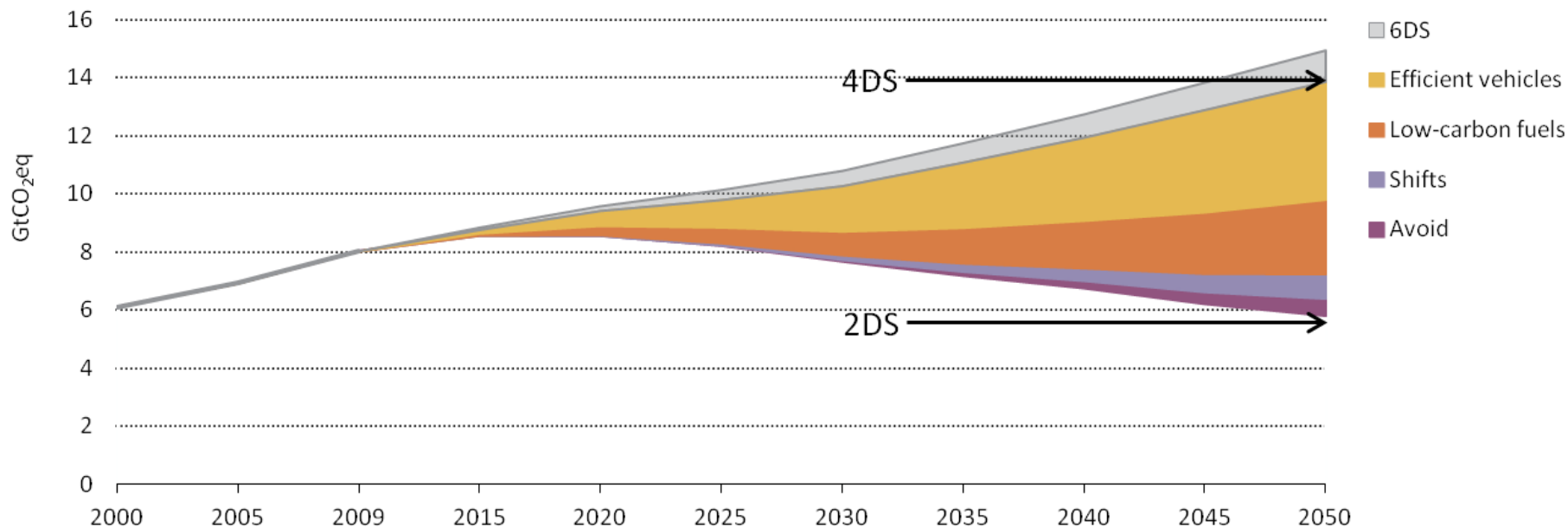
**GREEN FREIGHT  
AND LOGISTICS**

# Vehicle population in the world will triple



- Vehicles will triple in numbers
- Most of the increase will come from developing countries
- This will prompt higher energy demand and increased emissions from the sector

# Fuel Economy Plays the Largest Role in Reaching 2DS



	Yearly	Cumulative
CO <sub>2</sub> saved by achieving GFEI target	0.5 Gt/year by 2025, 1.5Gt/year by 2050	33 Gt in total by 2050
\$ saved by achieving GFEI target	\$400 billion/year in 2050	\$8 trillion net saving by 2050
Barrels of oil saved by achieving GFEI target	3 billion barrels of oil a year by 2050	54 billion barrels of oil in total by 2050

Source: GFEI State of the World 2016

# The Global Fuel Economy Initiative



## Partners



## Donors



**Mission:** facilitate large reductions in CO<sub>2</sub> emissions and oil use through improvements in automotive fuel economy as per IPCC and G8 recommendations.

# GFEI 50 by 50

## THE GFEI FUEL ECONOMY TARGETS

From 2005 baseline:

30%

reduction in L/100km by 2020 in  
all new cars in OECD countries

50%

by 2030 in all new cars globally

50%

by 2050 in all cars globally

## GFEI'S WORK:



### Capacity Building

GFEI helps capacity building for fuel economy policy in countries around the world.



### Strong evidence base

GFEI brings together leading global experts in the field of fuel economy, and including the only global data on fuel economy trends.



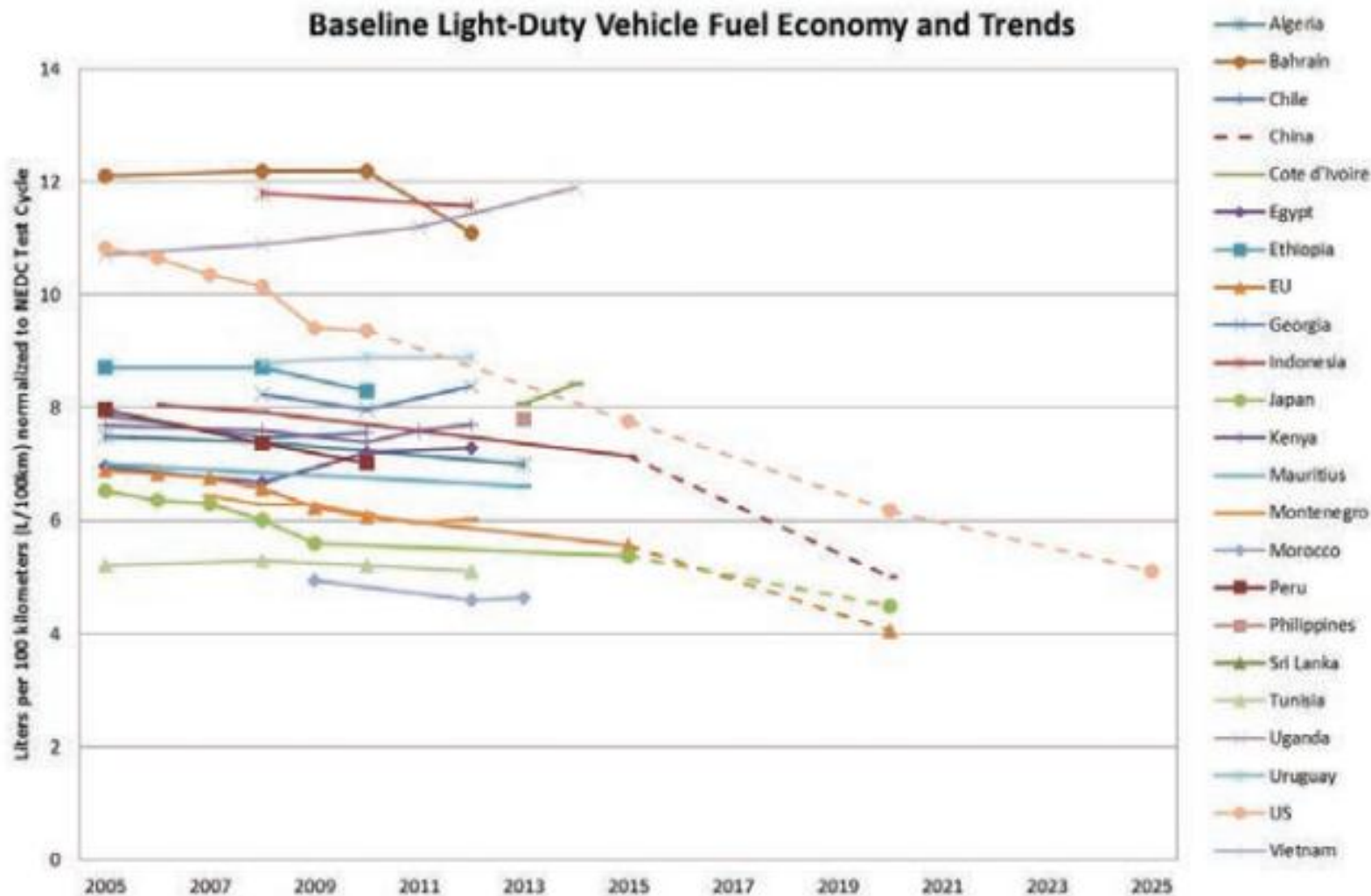
### Awareness raising

GFEI helps shape a series of global processes on energy efficiency and fuel economy.

# Global Fuel Economy: State vs Targets

		2005	2008	2011	2013	2030
<b>OECD average</b>	average fuel economy (Lge/100km)	8.6	7.9	7.3	6.9	
	annual improvement rate (% per year)	-2.7%	-2.6%	-2.6%	-2.6%	
		-2.6%				
<b>Non-OECD average</b>	average fuel economy (Lge/100km)	7.3	7.4	7.3	7.2	
	annual improvement rate (% per year)	0.5%	-0.4%	-0.9%	-0.9%	
		-0.2%				
<b>Global average</b>	average fuel economy (Lge/100km)	8.3	7.7	7.3	7.1	
	annual improvement rate (% per year)	-2.3%	-1.9%	-1.8%	-1.8%	
		-2.0%				
<b>GFEI target</b>	average fuel economy (Lge/100km)	8.3				
	required annual improvement rate (% per year)	2005 base year	-2.7%			
		2014 base year	-3.1%			

# Baseline Fuel Economy in the World



Source: GFEI State of the World 2016



# Fuel Economy Policies Impact Tool (FEPIt) and the Guideline for Fuel Economy Baseline Setting



[www.globalfueleconomy.org](http://www.globalfueleconomy.org)

Policy Options	Today	To be deployed by 2020	Policy Impact
Choose your country: <input type="text" value="Georgia"/>			
<b>Fuel Options</b>			
Fuel Tax	<input type="text" value="Moderate"/>	<input type="text" value="High Tax"/>	<b>Important</b>
Fuel tax differentiation (lower tax for diesel)	<input type="text" value="None"/>	<input type="text" value="High"/>	<b>Important</b>
<b>Vehicle Options</b>			
Labelling	<input type="text" value="None"/>	<input type="text" value="High"/>	<b>Important</b>
CO <sub>2</sub> -Based Vehicle acquisition tax	<input type="text" value="None"/>		
CO <sub>2</sub> -Based Vehicle ownership tax	<input type="text" value="None"/>		
Used Imports restriction	<input type="text" value="Low"/>		
<b>2020 expected FE</b>			
if policy status quo			<b>175 gCO<sub>2</sub>/km</b>
if policies implemented			<b>145 gCO<sub>2</sub>/km</b>

- All in all, the Global Fuel Economy Initiative has been effective at driving the improvement of fuel economy
- However, baseline data have shown that more needs to be done
- Transport will continue to be an energy-intensive and high emitting sector; fuel economy policies are critical in mitigating climate change impacts from transport
- Establishing baselines is crucial. This will guide policy development and implementation in the future. Tools have been made available to aid in establishing national fuel economy baselines.

For more information: [www.cleanairasia.org](http://www.cleanairasia.org)



**BUSAN, SOUTH KOREA**  
29 AUG - 2 SEP 2016

[www.cleanairforcities.org](http://www.cleanairforcities.org)

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### Clean Air Asia Center Members



**TOYOTA**

### 261 Clean Air Asia Partnership Members

- Cities
- Environment ministries and government agencies
- Development agencies and foundations
- Non-government organizations
- Academic and research institutions
- Private sector companies and associations

### Clean Air Asia Country Networks

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Philippines . Sri Lanka . Vietnam**