ACCELERATING SDG 7 ACHIEVEMENT

ACTION BRIEF 7

GLOBAL FUEL EFFICIENCY INITIATIVE

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Developed by

FIA Foundation

In collaboration with

Multi-stakeholder partners

Summary

The Global Fuel Economy Initiative (GFEI) is the world's leading partnership working to help governments set policies for cleaner and more efficient vehicles. GFEI brings together experts from the transport and energy sectors with detailed technical, modelling, and analytical expertise, and provides capacity building support to help countries introduce policies to improve vehicle fuel economy.

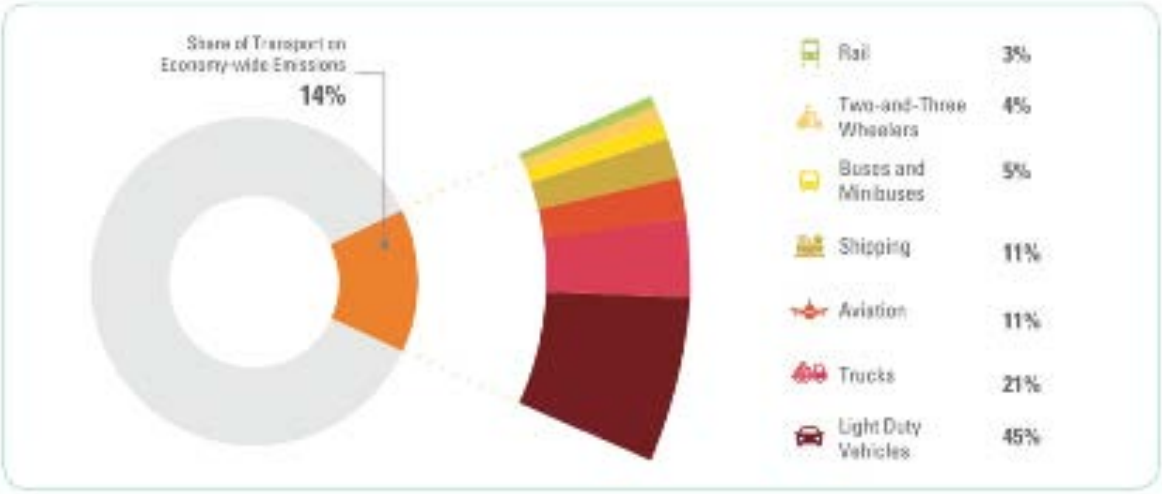
GFEI was founded in 2009 as a partnership of the world's leading transport and energy organisations. There are now 6 GFEI partners: the International Energy Agency (IEA); UN Environment; the International Transport Forum of the OECD (ITF); International Council on Clean Transportation (ICCT); Institute for Transportation Studies at University of California, Davis (UC Davis); and the FIA Foundation, which hosts the secretariat.

GFEI's main goal for passenger vehicles, in line with SDG 7.3, is to double the energy efficiency of new vehicles by 2030. This will also help mitigate climate change by reducing harmful CO_2 emissions. For this reason, GFEI has been recognised by SEforALL as an accelerator initiative, and by SLoCaT (the partnership on Sustainable Low-Carbon Transport) as a 'quick win' at the COP 21 climate talks. GFEI also provides support to the G20 Transport Task Group.

GFEI has shown that progress is possible, but it requires continued focus, drawing on the latest technologies and evidence, as well as political will to secure the huge benefits that are available from improved vehicle fuel economy.

Achievements of the Global Fuel Efficiency Initiative

Fuel economy refers to the amount of fuel required to complete a journey. More efficient vehicles—both light and heavy duty—require less energy, thus saving money on fuel, and releasing less carbon dioxide, which contributes to climate change. This is essential, as these two sectors account for the largest shares of transport emissions, as Figure 1 below shows.



GFEI has worked with over seventy countries, ranging from large economies such as the EU and China, and smaller nations such as Mauritius or Nepal.

Chile was one of GFEI's original pilot countries and adopted a mandatory fuel economy labelling scheme in February 2013—becoming the first Latin American country to do so. It has also adopted fiscal incentives

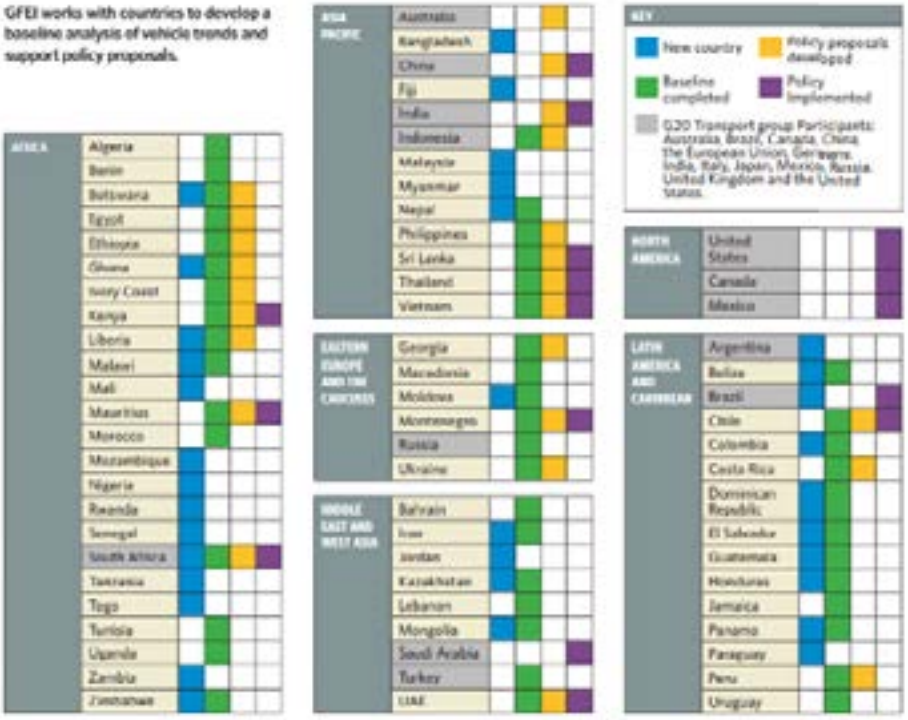
to promote cleaner, more efficient vehicles. Similarly, Sri Lanka has worked closely with GFEI to set import taxes that led to a significant increase in the proportion of hybrid vehicles on the road.

GFEI has also been supporting inter-country learning, organising global networking events, and also regional workshops. This has led to new fuel economy roadmaps being developed in the ASEAN (South-East Asia) and ECOWAS (West Africa) regions, which are bringing together countries to agree a coordinated approach. In ASEAN, Thailand and Vietnam have both recently introduced new fuel economy labelling policies, and Malaysia has announced plans to introduce its own type-approval testing to check vehicle fuel economy.

Other recent new policies include a new fuel economy label in Montenegro, Heavy Duty Vehicle fuel economy standards in India, tax reforms in the Ukraine to promote electric vehicles, and new reforms proposed in Zambia.

Significantly, in the EU, new fuel economy standards have also recently been proposed for 2030. This includes standards that would cut carbon emissions from new cars and vans in the EU by 15 per cent in 2025 and 37.5 per cent in 2030, compared to 2021 levels (with a 31 per cent reduction for vans). The world's largest car market, China, has set future fuel economy standards which include a mandate for zero emission vehicles.

Fuller details of GFEI's activities are contained in the table below.



GFEI's main goal, in line with SDG 7.3, is to double the energy efficiency of new vehicles by 2030. This will also help mitigate climate change by reducing harmful CO_2 emissions. For this reason, GFEI has been recognised by SE4ALL as an accelerator initiative and by SLoCaT (the partnership on Sustainable Low-Carbon Transport) as a 'quick win' at the COP21 climate talks. GFEI provides support to the G20 Transport Task Group, most recently at the Argentina G20 meetings, where it has been providing 'deep dive' support on HDV fuel economy.

GFEI is having an impact. GFEI's research shows that fuel economy continues to improve globally, although the rate of improvement has slowed in recent years, in part because of a shift towards larger vehicles—so more effort is needed. The improvement in fuel economy between 2005 and 2015 led to an annual saving of

1.5EJ of energy, equivalent to the entire transport-related energy use of Italy per year (see Table KF1 below).

			2005	2030	2015	2017	2030
Advanced (Gasoline price ≥ USD 1/L)	average fuel economy (Lge/100km)		7.4	6.5	5.8	5.8	
	annual improvement rate (% per year)		-2.4%	-2.5%	-0.1%		
			-2.0%				
Advanced (Gasoline price < USD 1/L)	average fuel economy (Lge/100km)		11.0	9.5	8.6	8.6	
	annual improvement rate (% per year)		-2.9%	-1.9%	-0.4%		
			-2.0%				4.4
Emerging	average fuel economy (Lge/100km)		8.6	8.5	7.8	7.5	
	annual improvement rate (% per year)		-0.2%	-1.6%	-2.3%		
			-1.2%				
Global average	average fuel economy (Lge/100km)		8.8	8.0	7.4	7.2	
	annual improvement rate (% per year)		-2.0%	-1.5%	-1.4%		
			-1.7%				
GFEI target	Required annual improvement rate (% per year)	2005 base year	-2.8%				
		2017 base year				-3.7%	

For Heavy Duty Vehicles, GFEI has set a target of improving average fuel economy by 35 per cent by 2035. This would save 9 million barrels of oil per day, and 1-2 billion tonnes of CO_2 per year by 2035. Half of these savings would come from just two countries—China and India—which would save around a quarter each.

To mark its ten year anniversary in 2019, GFEI is celebrating what has been achieved so far over the past decade, but also redoubling its efforts to support governments in using policy to improve the efficiency of road vehicles – to save money, energy and cut carbon emissions. GFEI will continue to work with governments around the world, increasingly integrating policies for electric vehicles into policy frameworks. In addition, GFEI is expanding it' focus to support electrification in light-duty (passenger) vehicles, heavy-duty vehicles (such as trucks), and also urban buses and motorcycles. GFEI has shown that progress is possible, but it requires continued focus, drawing on the latest technologies and evidence, as well as political will to secure the huge benefits that are available from improved vehicle fuel economy.

Endnotes

1 Estimates for investment needs per year until 2030 are from the 2015 SEforAll Global Tracking Framework (IEA & WB, 2017). These estimates align with the SDG7/SEforAll objectives. In this brief, the estimates have been updated for electrification (IEA, 2017a). Other estimates of investment needs have been modelled, for example the IEA New Policies and IRENA REMap Doubling Case scenarios, as stated in the 2017 SEforAll Global Tracking Framework (IEA & WB, 2017). However, since these estimates do not all align with the SDG 7 objectives, they are not used in this brief.

2 The IEA counts investment in energy efficiency as the additional cost of an "energy efficient good" relative to an "average efficiency good." In effect, this efficiency premium is the additional investment required to drive efficiency improvements and subsequent energy savings. The efficiency premium is calculated in different ways for the sectors.

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7 AFFORDABLE AND CLEAN ENERGY