

GFEI shares new global fuel economy analysis at Challenge Bibendum



This year's Challenge Bibendum in Berlin, was the busy location for the a consultation meeting and discussion on the International Energy Agency's (IEA) latest Global Fuel Economy Trends Analysis. The work, which was presented by Lew Fulton, Senior Transport Energy Specialist, at the IEA, featured results from a 22 country comparison of new car fuel economy for 2005 and 2008. This study is the first to

look worldwide, and provide important insights for the Global Fuel Economy Initiative, including providing a base year number for 2005 and the changes to 2008.

Also present at the event was KGDuleep, Managing Director, Transportation with Energy and Environmental Analysis, Inc, who presented his findings from a deeper dive into some selected

countries. This recent work used the IEA database, to look at some of the technologies and trends behind fuel economy in key countries around the world, including China, India, France, the US and some early results from Russia. Duleep identified the role of different technologies in different countries, and the potential to improve fuel economy (as compared to expected trends) in the future.

'The world needs more small cars' says GFEI research showcased at LowCVP conference in London

Speaking at the Low Carbon Vehicle Partnership's (LowCVP) annual conference 'Accelerating the shift to low carbon vehicles and fuels' David Ward, Director General of FIA Foundation presented a challenging overview of the global state of play regarding fuel economy.

With massive growth in the global car fleet predicted over the next 40 years – and so much of that growth coming outside of the OECD, there are worrying trends in the size-mix and fuel economy of those non-OECD countries' fleets. Whilst the precise picture differs from country to country, an increased uptake in larger vehicles in the huge Chinese markets does for example, give some cause for concern.

By the same token, inside the OECD, where the fleet is more mature, and expecting a far lower level of growth, there has been a small improvement in fuel economy in recent years, but not enough to address the climate challenge we face. So there remain challenges to embed and accelerate the improvements which have taken place already, through a range of measures from stricter standards to improved driver training.

In concluding David Ward said, 'The evidence suggests that the size-mix of the fleet is very important. The growing market for smaller cars looks to be vital in securing fuel economy improvements

- and policies to sustain this trend should be encouraged. Moreover, new technology alone does not work as the comparison of the USA and Europe shows. So a supportive policy framework of fuel economy incentives and standards is required especially in the newly motorising economies. GFEI will continue to work with countries across the world on just such policy frameworks in the coming months and years.'



GFEI Working Paper shows Car subsidy schemes in US, France and Germany fail to reach potential

Car fleet renewal schemes introduced in the US, France and Germany fell short of their potential to deliver on environmental and safety objectives. The study investigates the impact on CO₂ and NO_x emissions of 2.8 million transactions in which old cars were traded for new vehicles under car fleet renewal schemes in France, Germany and the United States. The report assesses the value for money of the different schemes and identifies critical design elements for ensuring success in meeting the environmental and safety objectives.

In the US, there were positive results from targeted incentives with regard to fuel economy. However, these incentives were not optimally designed to achieve improvements in fuel consumption or pollutant emissions. With the German scheme, a greater number of lighter and smaller vehicles were traded in for medium sized vehicles which reduced its effectiveness. The French scheme benefited from imposing a type-approval CO₂ limit for new cars and retiring very old gross-emitters. However, this led to a very high share of new diesel vehicles which strongly limits lifetime NO_x benefits.

While all three schemes helped reduce CO₂ emissions, the monetised value of that impact was quite small: less than 5 million Euros (\$7m) in the US and less than 10 million Euros (\$14m) in France and Germany. The monetised impact on NO_x emissions appears to be significantly higher, reaching about 300 million Euros (\$430m) in the US, c. 300 million Euros (\$430m) in Germany and c. 100 million Euros (\$144m) for France.

With respect to road safety, the car renewal schemes are estimated to avoid c. 40 fatalities and 2 800 serious injuries in the US. For Germany, the



estimated impact is 60 deaths and 6 100 serious injuries avoided. France is somewhat lower at 330 fewer serious injuries, 20 of which would be fatalities.

The report concludes that it is vital to consider the objectives of the schemes very carefully when setting their design parameters (conditions and incentives on the traded and new vehicles) in order to guarantee success. Whilst scrappage schemes have the potential to deliver on objectives such as reducing pollutant emissions, these have not done so as well as they could, precisely because of their design characteristics. Further, the study suggests that seeking CO₂ reduction ahead of pollution or safety improvements in the design of the schemes leads to decreased cost-effectiveness and lower overall societal benefit.



GFEI showcased at Global Green Growth Forum

The Global Fuel Economy Initiative was showcased in October at the invitation-only Global Green Growth Forum (3GF) in Copenhagen. The Forum – instigated by the Danish and South Korean Governments and supported by Mexico – was developed to spur green growth through better public-private collaboration.

This inaugural 3GF event was attended by the newly elected Danish Prime Minister Helle Thorning-Schmidt, the UN Secretary-General Ban Ki-Moon, OECD

Secretary-General Angel Gurría, Prime Minister of Ethiopia, Meles Zenawi, Prime Minister of Kenya, Raila Odinga, 12 Ministers and deputy Ministers, five leaders of UN organizations, 50 global corporate leaders, leading civil society organizations and world leading experts. Moreover, the 200 participants came from 27 countries across five continents.

Speaking at the event Helle Thorning-Schmidt said, “3GF offers a space for world economic leaders to challenge conventional thinking and find new green avenues to growth. Jointly we can promote the bold decisions which will make all of us winners of tomorrow’s green industrial revolution,”

The conference concluded that:

.... energy efficiency in transport as well as promising and viable alternatives to fossil fuels like renewable electricity; sustainable biomass and hydrogen are being developed to scale through large investments. Participants also recognized a need for further maturing and testing of the technologies and developing global standards along the value chain of transport in order to fully unleash the business potential for sustainable transport and make new technologies cost-effective and competitive with fossil based alternatives....

The GFEI – which was represented by Sheila Watson, Director of Environment at FIA Foundation and Executive Secretary of GFEI, was invited as an example of how to marshal public and private sector resources towards the goal of greater sustainability in mobility – in this case towards greater fuel economy in the growing use of light duty vehicles.

Speaking in the Transport Fuel Gap sub-plenary at the event, Sheila Watson said “Being invited to present GFEI at such an important and potentially influential gathering is a huge honour. Improved fuel economy in LDVs is the low-hanging fruit, and is a vital response to the challenges we face. It also has wider benefits for growth by freeing up contested resources for use and investment elsewhere. Indeed, the pursuit of improved fuel economy is the pursuit of new technologies – with potential economic advantage in huge markets. And, of course, mobility is vital to all development, so the maximum possible fuel efficiency helps to ensure that it is sustainable, and not at a cost which will then need to be met from elsewhere. It is very heartening that 3GF has endorsed the work of initiatives such as GFEI in promoting greater efficiency in transport, and I look forward to reconvening in Copenhagen next year, and reviewing progress.

◉ **Beta version of GFEI Cleaner, More Efficient Vehicles Tool now available:**

Available from <http://www.unep.org/transport/gfei/autotool/> the GFEI Tool is an online product designed to support the development of auto fuel economy policies worldwide by answering basic questions related to the technology and policies required. It can be explored in any order, and is crafted to be accessible. The Tool contains guidance and real-world examples to inform users of what is being done to improve automotive fuel economy around the world. The Tool's aim is to open the door to national discussions and planning and it is designed to answer questions related to the why, where and how's of cleaner, more efficient vehicles, including:

- Why should countries adopt fuel economy policies and standards for light duty vehicles?
- What are the various types of technology and policy instruments available to decision makers to help improve national average auto fuel economy?
- What are other countries doing to reduce the amount of energy used by cars?
- What are the benefits of making cars more fuel efficient?
- Which measures are available and cost-effective for my country's energy and environment strategies and targets?

The Tool also provides technical and policy briefs, including auto labeling schemes, fiscal instruments, alternative fuels and vehicles, and concrete guidance on how to calculate national emissions.

◉ **Work on fuel economy begins in Montenegro:**

UNEP, through the Partnership for Clean Fuels and Vehicles, has supported Montenegro's transition to cleaner fuels since 2005. Following Montenegro's adoption of cleaner fuel standards in January 2011 (leaded petrol is now banned and phased out from the market, and low sulphur 10 ppm fuels are the national norm) the country is moving to the next level of measures to ensure a clean, efficient car stock.

In continuing partnership with the Regional Environmental Center (REC) and the Ministry of Economy, the GFEI is supporting the development of a national program to address auto fuel

economy through the establishment of a national working group and the calculation of a national auto fuel economy baseline starting with the year 2005. This effort aims to catalyze a longer-term national effort to build on the availability of clean fuels and encourage a more sustainable auto sector. As an EU candidate country, Montenegro has an added incentive to adopt advancing fuel economy and vehicle emission standards.

According to the 2010 national communication of Montenegro to the UNFCCC, road traffic accounted for almost 90% of energy consumption in the transport sector (15.2% of overall consumption). The national communication states that "[i]n order to reduce emissions of greenhouse gases on roads in Montenegro, it is necessary to implement a package of measures that includes: increase energy efficiency of motor pools."

Srna Sudar, Director of the REC Country Office Montenegro said "With the launch of this project, we fully expect to reach a national consensus on Montenegro's need to transpose EU transport emission standards."

◉ **Caucasus Fuel Economy Initiative (CFEI) rolling towards first national auto CO2 emission calculation:**

Following the launch of the GFEI for EECCA countries in May 2010, UNEP has been working intensively with the Caucasus Environmental NGO Network (CENN) and the Georgia Partnership for Road Safety to implement a sub regional program that addresses energy efficiency in the auto sector. The program's initial focus is on Georgia, including the calculation of the country's baseline vehicle stock energy consumption and trends. In addition to the inaugural meeting of the Georgian high-level steering committee in October, working groups are also being formed in Armenia and Azerbaijan.

◉ **GFEI begins in Vietnam:**

UNEP, through the Partnership for Clean Fuels and Vehicles, has been working since 2008 with Vietnam to set a roadmap for cleaner fuels. On 1 September 2011, Prime Minister Nguyen Tan Dung approved a roadmap that covers both fuel quality and new motor vehicle emission standards. Under the roadmap, automobiles will be required to comply with Euro 4 emission standards by January 1,

2017 with further tightening to Euro 5 emission standards starting January 1, 2022. Motorcycles manufactured, assembled or newly imported will be required to comply with Euro 3 emission standards beginning January 1, 2017. Fuel quality standards will leapfrog to Euro 4 beginning 1 January 2016 and eventually move up to Euro 5 by 1 January 2021.

Building on this successful work, a GFEI project agreement has been signed with the Vietnam Register of the Ministry of Transport. The overall objective of the project is to catalyze the development of national fuel economy plans, targets and policies in Vietnam through partnership with the Global Fuel Economy Initiative. The specific objectives of the project are to help lower CO2 and pollutant emissions from vehicles by supporting improvements in fuel efficiency through planning and strategy development at the national level in Vietnam. A project plan is currently being developed with the Vietnam Register.

◉ **Chile presents its Feebate proposal:**

UNEP, together with the Centro Mario Molina Chile (CMMCh), presented a feebate proposal to the Minister of Environment and Minister of Transport. Professor Mario Molina met with the Chilean Environmental Minister on June 28th 2011 and presented the proposal of an incentives system for more clean and efficient vehicles that UNEP and CMMCh developed with ICCT support (see attached). The feebate proposal for the Chilean car market was highlighted in an interview on CNN Chile: <http://www.cnnchile.com/salud-medio-ambiente/2011/07/05/la-asociacion-cataliticolimpio-y-no-cataliticosucio-esta-desactualizada/>

The Environmental Minister, Maria Ignacia Benitez, gave an interview to the most important newspaper in Chile, where she described the proposal and made a public commitment to present a law proposal to implement March 2012. In October, a public - private forum, led by the Ministry of Environment, and in participation with the GFEI, has been established to discuss more broadly the preparation of a feebate law based on incentives. In November 2011, the GFEI will host an inter-ministerial workshop in Chile for the Ministry of Environment, Ministry of Transport, Ministry of Energy and Ministry of Finance to support transport and environmental authorities in the discussion together with car manufacturer and dealers.

Who are the partners?

The Global Fuel Economy Initiative (GFEI) is a partnership of four organizations – IEA, ITF, UNEP and FIA Foundation – which seeks to promote the potential of a substantial but attainable improvement in vehicle fuel economy as a contribution to the debates on how we might address climate change, energy security and more sustainable mobility on a global basis.



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Support our campaign

Global action needed now to promote greater fuel efficiency

We face a massive challenge to address the issue of man-made climate change, and in particular, the role which transport plays within that. With a global car fleet predicted to triple by 2050 - over 80% of that in the developing world - and now, with a global economy facing huge difficulties, we have to find a way to reconcile legitimate aspirations for mobility, an ambitious reduction in CO2 from cars worldwide, and global economic recovery.

We believe that a move across the global fleet towards far better fuel economy at a scale which is already technically achievable, could save over 6 billion barrels of oil per year by 2050, and close to half of CO2 emissions from cars, as well as generate significant local air pollution benefits - and all using existing, cost-effective technologies. This is simply too good to ignore.

We want to:

- promote further research, discussion and action to improve fuel economy worldwide
- work with Governments in developing policies to encourage fuel economy improvement for vehicles produced or sold in their countries
- support regional awareness initiatives that provide consumers and decision makers with the information they need to make informed choices.

Join our campaign at www.50by50campaign.org

Who are the secretariat?



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Upcoming GFEI events

**May 20th 2011, 14.00-15.15,
at Challenge Bibendum, Berlin:**

This event will showcase some path-breaking new work on fuel economy trends globally by IEA. Speakers include, David Ward, FIA Foundation; Patrick Oliva, Michelin; Lew Fulton, IEA and KG Duleep.

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