

Fuel levy's end could be nigh

By [Dr Alec Basson](#)

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The fuel levy or tax on each litre of petrol is an important revenue stream for government, but this stream could dry up in the near future, says professor Stephan Krygsman, an expert in transport economics in the Department of Logistics at Stellenbosch University.

Krygsman is doing research on the ways in which road users are being taxed and whether these are efficient.

He says even though there's an increase in the number of vehicles on the country's roads, the fuel levy, which contributes 5% to the national tax revenue, could be gone in 10 years. The fuel levy is the fourth biggest source of income for the government after income tax, company tax and VAT.



Source: pixabay.com

Krygsman says the fuel levy remains popular with the government because it's a revenue source that is difficult to evade. It's also simple and easy to the levy charges, and the administration costs are very low. It used to be a fair tax which reflected the costs of road use.



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But, adds Krygsman, the fuel levy is probably exhausted as a long-term sustainable road user charge and is becoming increasingly unproductive as vehicles' fuel efficiency increases and electric and hybrid vehicles emerge.

“In 2000 the fuel levy was at 100% productivity, but since then there's been roughly a 1.1% decrease in annual productivity. By 2040, greater fuel efficiency will reduce the fuel tax by almost 48% per vehicle.”

“Electric vehicles could hasten the demise of the fuel levy. They use less or no fuel at all, resulting in less fuel consumption per kilometer which means the fuel levy will decrease.”

“It's being estimated that by 2040, electric cars can make up 30–40% of the world's 2 billion cars. Taken together with the increased fuel efficiency of internal combustion vehicles, this would translate into savings of millions of barrels oil a year. And of courses savings in fuel levies and taxes.”



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Krygsman points out that countries like Norway, The Netherlands, Germany, France and the United Kingdom are already putting plans in place to ban sales of diesel-powered vehicles by 2040. In some countries, diesel cars may be banned from city centers as early as 2025.

He says it is important that we act now and find alternative ways to generate the funds for the construction and maintenance of our roads.

“There is a need to move away from a general fuel tax that is dependent on fuel sales to a road user pricing system that reflects actual costs that road users and society incur.”

A kilometre-based system

Krygsman says one way to replace the fuel levy would be to introduce a kilometre-based road user charge system.

“What this means is that road users are charged for the distance they travel. They pay per kilometre and get an invoice at the end of the month”, says Krygsman.

“Through an onboard GPS, it will be possible to track different vehicle types to charge for actual road use. The charge will be based on the distance travelled, the vehicle type (e.g. large or small vehicles), the weight of the vehicle, the time of day and where the travelling takes place (e.g. cities or rural areas). This data will then be transmitted through a cellular network and used to calculate what each road user would pay.”

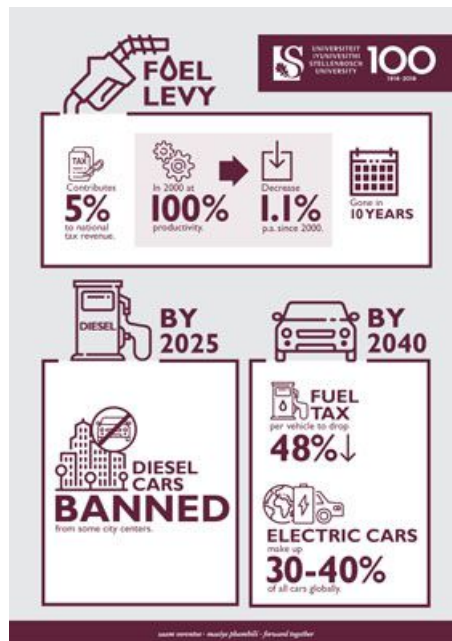
“If this sounds too far-fetched to some people, just think about cellphone companies billing you for the data you use or the monthly water and electricity bills you receive from your local municipality. Why can't we apply the same principle to

roads?”

Krygsman adds that in a distance-based system the vehicle’s fuel efficiency will not influence the charge and everyone will pay according to their vehicle kilometres of travel and vehicle type.

“If we set the right price, this system can deliver sufficient income for government.”

Krygsman says several issues will have to be solved before such a system can be implemented, including but not limited to privacy and ethical considerations, user needs, technical system requirements and the role of the government, for example.



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A lot of research is being done internationally with several pilot projects underway. In some countries, distance-based weight charges have already been implemented.

Krygsman’s research group has started a pilot programme in the Western Cape to test the kilometre-based charging system.

“We will have to find another way to pay. People are becoming more and more suspicious about the fuel levy and the fuel-using cars may not be around in the future and we have to start working on new alternatives.”

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