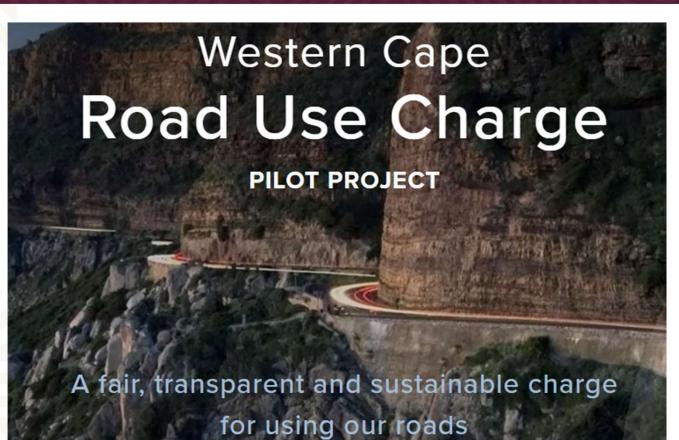


Stephan Krygsman Centre for Transport, Urban and Regional Research





In the news ...

SA's fuel levy could be gone in 10 years – and may be replaced by new system entirely

Staff Writer 1 September 2018



The Road Accident Fund is hopelessly insolvent

'There is a material uncertainty relating to whether the RAF is a going concern' – AG By Barbara Curson 24 Oct 2019 © 00:10



E-tolls have failed: Now for the R20bn question – how to pay the debt?

- Follow

DE-tolling in Gauteng has failed because the public never bought into the plan. (Photo: REUTERS / Siphiwe Sibeko)

By Greg Nicolson

09 Jul 2019 🗩 0

Motorists have crippled the e-toll system simply by refusing to pay. Various incentives and punishments have been used to save it, but the only remaining question is how Sanral's debts will be paid once e-tolls are inevitably scrapped.

OPINION | SA's rail system is broken. This is how it happened, and how to fix it

fin24 Notwazi Tusini with Pulane Tshabalala-Kingston, Zimkhitha Zatu and SHARE (F) ()

South Africa has another massive problem – its roads

Stellenbosch

UNIVERSITY IYUNIVESITHI

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Staff Writer 12 June 2019



Qoqosho noLawulo · Ekonomiese en Bestuurswetenskappe

What is the problem

Government declares war on potholes in South Africa



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small business	in o =

The Department of Transport, with the South African National Roads Agency (Sanral) will soon launch a new Vala Zonke "War Room" to take on the country's pothole crisis.

Acc

According to the department, the war room will monitor and manage all pothole repairs in the country, at the Sanral Central Operations Centre (COC) in Centurion. The new facility will be inspected by transport minister Sindisiwe Chikunga on Friday (7 July).

"Having reflected on the progress made, taken learnings from the processes, and addressed some of the practical challenges, government is highlighting its commitment to this campaign aimed at eradicating potholes across South Africa's road network," it said.

The new facility will feature a dedicated team from various clusters to coordinate the government's ongoing efforts in eradicating the country's pothole problem, as well as to monitor service delivery in repairing potholes.

MEC 100% liable for damages following motorist's pothole-relate SECTION 8(1) OF THE CONSTITUTION OF THE REPOBLIC OF SECTION 8(1) OF THE PUBLIC PROTECTOR ACT, 1994 accident

Engineer was claiming R8.6m but guantum of injury damages is still to be determine

By Roy Cokayne 14 Mar 2024 (0 04:01



The MEC said there were not potholes and the driver failed 'to keep a proper lookout' and failed Going potty? How to surviv avoid the accident". Image (illustrative): Shutterstock

South Africa's 25 million Listen to this article 0:00 / 7:06 potholes...

Rain erodes run-down road infrastructure to form North West MEC for Public Works and Roads Gaoage Molapisi has been found by th when these are filled with water, they become eve High Court in Mahikeng to be liable for 100% of the damages "as may be proven or agreed" from the injuries to an engineer whose vehicle hit a pothole on a gravel road. lost control and collided with a tree.



danger

Potholes on South African roads have steadily increased over the past five years. Image: iStock

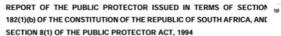
It is estimated that South Africa has 25 million potholes, which means that you have a good chance of encountering at least one when you drive around on our country's roads.

However, there are some steps you can take to protect your car and yourself against the perils of potholes.

Potholes in SA: Increase of 67% - report

According to a report of the South African National Roads Agency (Sanral), the number of potholes increased by 67% over the past five

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REPORT NUMBER: 25 OF 2023/24 ISBN NUMBER: 978-1-7764603-8-0

SYSTEMIC INVESTIGATION INTO ALLEGATIONS OF INADEQUATE AND/O LACK OF PROVISION OF ESSENTIAL SERVICES AND BASI INFRASTRUCTURE BY VARIOUS ORGANS OF STATE IN CERTAIN VILLAGE WITHIN THE PROVINCE OF EASTERN CAPE

Whether the provision of road infrastructure by the Eastern Cape Department of Roads and Transport within certain villages in the Eastern Cape Province is delivered in a progressive and effective manner as contemplated by the law, if not, whether such constitutes improper conduct as envisaged in section 182(1)(a) of the Constitution as well as improper prejudice in terms of section 6(4)(a)(v) of the Public Protector Ac

- The allegation that the provision of road infrastructure by the EC Department of Roads and Transport, within certain villages in the EC province is not delivered in a progressive and effective manner as contemplated by the law, is substantiated.
- The evidence placed before the Public Protector reveals that most of the rovincial major roads and some bridges in particular those under Alfred Nzo District such as the stretch of R61 along Mbizana, and the R405 between Matatiele and Mount Frere are dilapidated and desirous of urgent intervention or repair as extrapolated from evidence
- The investigation by the Public Protector has revealed a pattern of incomplete or partial road upgrading and maintenance, notably for roads such as R61, R405 and DR08569 at Emalahleni, where service level agreements were in place and budgets already allocated. This may be attributed to lack of proper planning and management of contracts on the part of the ECDoT
- Investigation has further revealed that conditions of the roads in forme nomelands areas such as those under Alfred Nzo District compare relatively poor to areas like BCMM and NMBMM as adumbrated in exidence
- (ce) The ECDoT acknowledged the backlog in the provision of road infrastructure but indicated that funding constraints and the current funding trends and model do not assist the ECDoT in reducing the historical backlog of upgrading and maintenance of the roads in the EC province. The HOD for ECDoT, Mr Malani submitted that the ECDoT is currently receiving about one billion, five hundred million rand (R1 500 000 000), inclusive of EPWP to maintain its road network and that the ECDoT requires a minimum of three billion, eight hundred and fifty million rand (R3 850 000 000), annually to maintain its road network.
- Investigation has also determined that the ECDoT faces the following challenges with regard to Roads Maintenance in the EC province

m

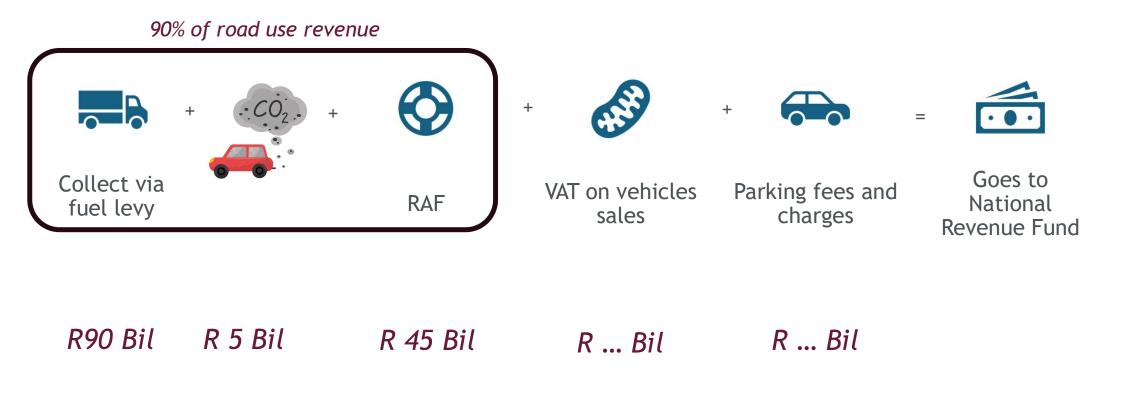
- (a) Community demands when ECDoT is implementing a project e.g. compensation for borrow pits
- (b) Project stoppages by Small, Medium and Micro Enterprises (SMME's), usually demanding "beneficiation":
- (c) Demands for roads to be surfaced with tar (though a gravel road may be in a good/reasonable condition); and

(d) Extension of scope on awarded project, e.g. request to work on access roads or other culverts

Roads	
B+ National roads	South Africa's toad network is approximately 750.000 km long, making it the tenth longest in the world. About 160.000 km of the network are pared. SAMAR, manages 21.403 km of this paved network (13% of these are toll roads), with the balance shared between provinces and municipalities. The proportion of the national road system in poor or very poor condition is below 7% thanks to SAMAR's strong mainte- nance and expansion regimers, which is excellent by global standards. By contrast, the secondary and tertiary road network is experimentia, accurated rate of deformation, compromising both mod addes and the efficiency of moving freight.
Paved provincial roads	Most provincial and local road authorities do not regularly undertake or publish assessments of the condition of their noad networks, and regains are therefore typically reactive, e.g. fiving potholis valitier than conducting regular preventative maintennance. Moveene maintennicor and improvements are generally undertindiand, and the future negative consequences of this tend on the longevity of madway are raiely assessed. With the exception of the Vettern Capacity the condition of most paved provincial roads is substandard. There is a risk of further deterioration due to increased vehicle overloading poor maintenance and the steady reduction of skilled personnel in roads digatiments. In many ruban assis the condition of paved roads have continued to deterioration due to increased vehicle overloading.
Other municipalities' paved roads	reliable mad condition data for smaller municipalities was not possible, their nads generally suffer from significant and increasing maintenance neglect. Provincial and municipal authorities share the country's gravel roads approximately equally. Gravel roads constitute nearly 80% of the country's road network, but few of them are in a satisfactory condition due to lack of capacity and insufficient funding. Most South Africans (73% of the population) depend heavily on public and non-motorised transport. Around 20% of workers
Provincial and municipal unpaved roads	wak all he way to their place of employment. All public transport users also require pedentian infrastructure for their first/stat kiloment, savel as stops, stations and ranks. Statistics on infrastructure conditions for these modes are mostly unavailable, often due to a complete lack of services. This not only creates inefficiencies in public transport services, but also contributes to an extremely high road faaility rate (12 57) persons in 2021), of which over 40% are pedestrians.

How do we collect?





Efficacy of our fuel-based levies...

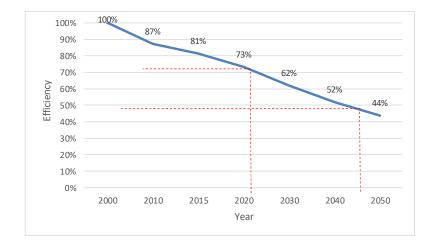


- Is this trusted road user 'cost' recovery method becoming inefficient?
 - Generating less income per vehicle per annum per litre of fuel used
 - Year 2000 = 100: +/- 1.1% decrease per year 0
 - Fuel efficiency is dwarfed by inflation and specifically transport construction inflation
 Still a growth in traffic of between 2 4 % in Southern Africa

Factors behind these trends:

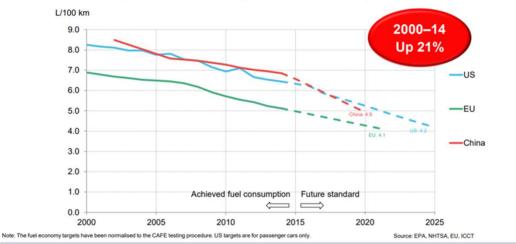
- Technology: -
 - 1. Improved vehicle fuel efficiency
 - 2. Introduction of electric and hybrid vehicles
- Socio-demographics:
 - 1. Changing travel behaviour
 - 2. Shared ownership / rideshare
 - 3. Social consciousness alternative fuels / less travel
- Policy:

- 1. Increase in road use taxes
- 2. Active opposition against ICE/Green taxes
- 3. Rules & Regulations



Not only us...

Fuel economy regulations for China, US and Europe, 2000-25 (litres/100km)

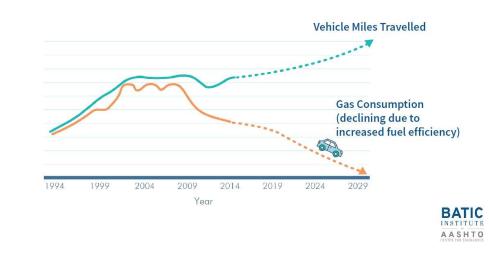


31 Michael Liebreich Bloomberg New Energy Finance Summit, 25 April 2017 @mliebreich Bloomberg New Energy Finance New Energy Finance



Revenue Loss Due to Increased Fuel Efficiency

6



A lot of long-term research



Final Report

On Thursday, February 26, 2009, the National Surface Transportation Infrastructure Financing Commission released its Final Report. A copy of the full report can be downloaded by clicking here. The Press Release can be downloaded by clicking here, and the Executive Summary, which summarizes the report's conclusions and recommendations, can be downloaded by clicking here. Printed bound copies of the Final Report can be ordered by e-mailing financecommissionreport@dot.gov. A copy of the Commission's Options Evaluation Tool, which they used to evaluate the different funding and financing options, is available at the limk below

The Financing Commission offers a roadmap for sweeping reform of the nation's transportation infrastructure funding and finance framework. The Commission offers specific recommendations for increasing investment in transportation infrastructure while at the same time moving the Federal Government away from reliance on motor fuel taxes toward more direct fees charged to transportation infrastructure users.

The Financing Commission's recommendations are timely and provocative, as the nation grapples with staggering shortfalls in infrastructure funding and the new administration turns its attention to building what President Obama calls "the roads and bridges...necessary to make this country great again."

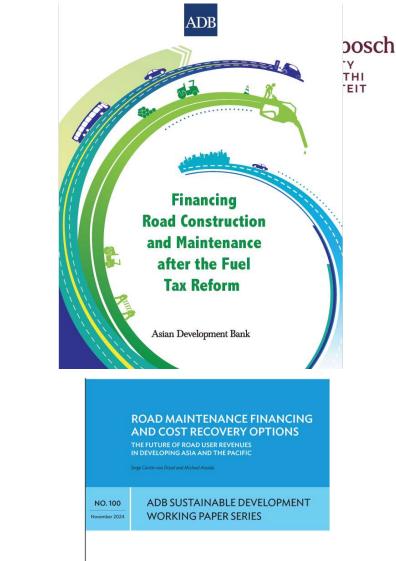
CLEAN ENERGY V ELECTRIC VEHICLES V TESLA NEWS EXCLUSIVES V SERIES PAGES V ABOUT



Images: EVs in Addis Ababa. Ethiopia. courtesy of Moses Nderitu.

Ethiopia Says ICE Vehicle Import Ban Continues As Part of New Economic Reforms, Only EV Imports Allowed!





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ASIAN DEVELOPMENT BANK

ADB

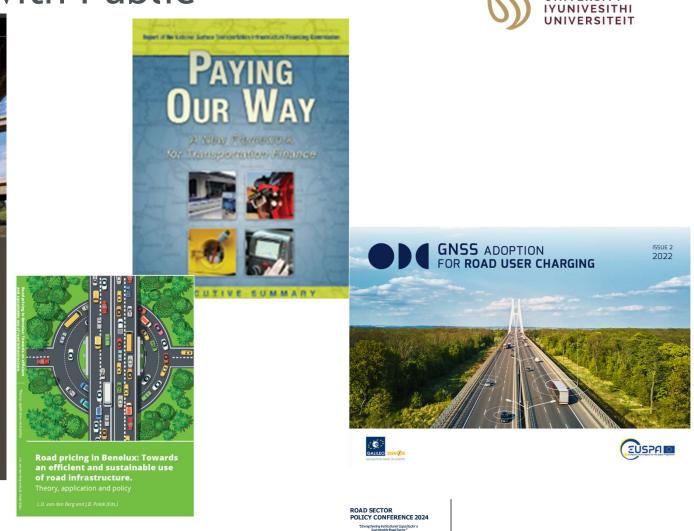
Research followed with Public



Who Pays for Roads?

How the "Users Pay" Myth Gets in the Way of Solving America's Transportation Problems

U.S. PIRG Education Fund FRONTIER GROUP



Stellenbosch

UNIVERSITY



PAY BY TRAVEL

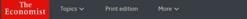
Drivers could eventually pay for each kilometre they travel. Fuel excise and registration fees might be scrapped, and replaced with a system charging drivers for how much they use the roads. What are your thoughts?



And News campaigns...





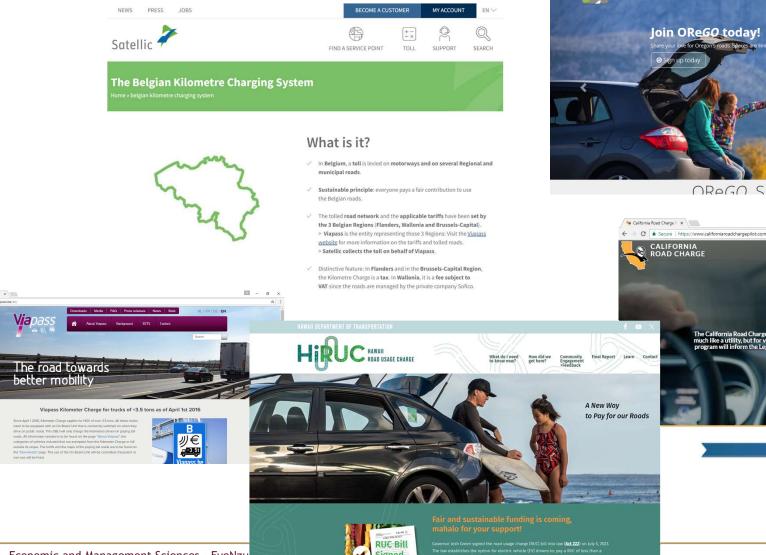


Difference Engine End of the road

Getting motorists to pay by the mile could help restore America's failing infrastructure



And the trails and pilot projects ...





OREGO Sign un todavi

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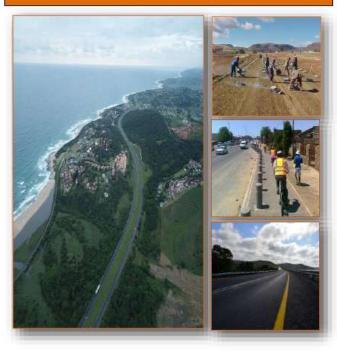
HOME ABOUT - CONNECT - Españo



South Africa Road Funding Policy ...



ROADS POLICY FOR SOUTH AFRICA JANUARY 2020





- 8.3. EXISTING AND POSSIBLE ADDITIONAL ROAD FUNDING SOURCES IN SOUTH AFRICA
- 8.3.1. In the current South African context, all taxes collected reverts to the National Revenue Fund and National Treasury allocates budgets to national departments, provinces, municipalities and State Owned Entities as outlined in the Division of Revenue Act (DoRA).
- 8.3.2 To ensure the realisation or implementation of this policy, various sources of revenue will need to be pursued by Road Authorities (including the three spheres of government).
- 8.3.2.1. At national level, the potential sources of revenue include:
 - For road infrastructure: general tax (equitable share), toll, specific taxes (carbon, fuel), loans and bonds, the road reserve portfolio, business opportunities, weigh bridges, and weight distance charges.
 - For regulation and law enforcement: general tax, business opportunities, specific taxes, cross border charges, weighbridges, traffic fines and donor funding.
 - For road safety: general tax, specific taxes (carbon, fuel), traffic fines and donor funding.
 - For victims of road crashes: general and specific taxes and fuel levies.

8.3.2.2 At provincial level, the potential sources of revenue include:

- For road infrastructure: general tax (equitable share and grants), toll, the road reserve portfolio, business opportunities, weight distance charges, driver licence fees, vehicle licence fees, developer contributions, weigh bridges, provincial airport levies/duties and business opportunities.
- For regulation and law enforcement: general tax, permit fees, traffic fines, business
 opportunities, driver licence fees, vehicle licence fees, traffic fines and donor funding.
- · For road safety: general tax, traffic fines and donor funding.

South Africa Road Funding Policy ...



National Land Transport Act (NLTA, No. 5 of 2009)
 Functions of the Minister of Transport and MEC's to,
 "(c) ensure that the money available for land transport matters is applied in an efficient, economic, equitable and transparent manner;"

As stipulated in the NLTA, each Provincial Government is required to annually prepare an integrated *Provincial Land Transport Framework*

Objectives (among others):

- 1. to invest in transport infrastructure or systems in ways which will promote growth in the economy;
- 2. to minimise the negative side affects which transport may have on its surroundings;
- 3. to improve transport infrastructure and services through greater effectiveness and efficiency;
- 4. to democratise decision-making

South Africa Road Funding Policy ...



- Criteria required to achieve an appropriate funding strategy for transport
 - The development of such a funding strategy depends on a number of these criteria:
 - 1. The strategy should be *appropriate and affordable*: in metropolitan areas, the provision of transit is generally accepted as the most cost-effective alternative to private transport.
 - 2. It should be *legally possible*: the necessary laws and institutions to provide the infrastructure should be in place.
 - 3. It should be *implementable and sustainable*: the need for adequate funds and stable funding sources needs to be emphasised.
 - 4. It should be *logical and reasonable*: the community asked to contribute should be convinced that the funding mechanisms and channels are acceptable.





TTA Stallanharch



The Centre for Urban, Regional and Transport Research at Stellenbosch University and the Western Cape Provincial Government is running an experiment to determine the need for a fair, transparent and sustainable distance-based RUC. They also want to find out what the public thinks about this idea.

Members of the public can give their opinion on the RUC by completing a survey. They can also volunteer to participate in the DRIVE pilot programme (at no cost to them) to test the system in the Western Cape.

Complete the Survey

Sign up for DRiVE

The end of the fuel levy



💪 021 808 2624 🛛 Info@wc-ruc.org 🛅 LinkedIn © Copyright 2024 Western Cape Road Use Charge RUCO Pilot. | All Rights Reserved | Design by Nudge

An increase in vehicle fuel efficiency and the anticipated growth of Electric Vehicles (EV's) on our roads will lead to a decrease in the fuel levy revenue.

Taxes and charges tied to fuel use may no longer be an option to charge road users for the use of our roads.

In future, South Africa will need to find alternative means to charge road users for the use of the roads. One option is implementing a road use charge (RUC) based on distance travelled.





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The end of the fuel levy

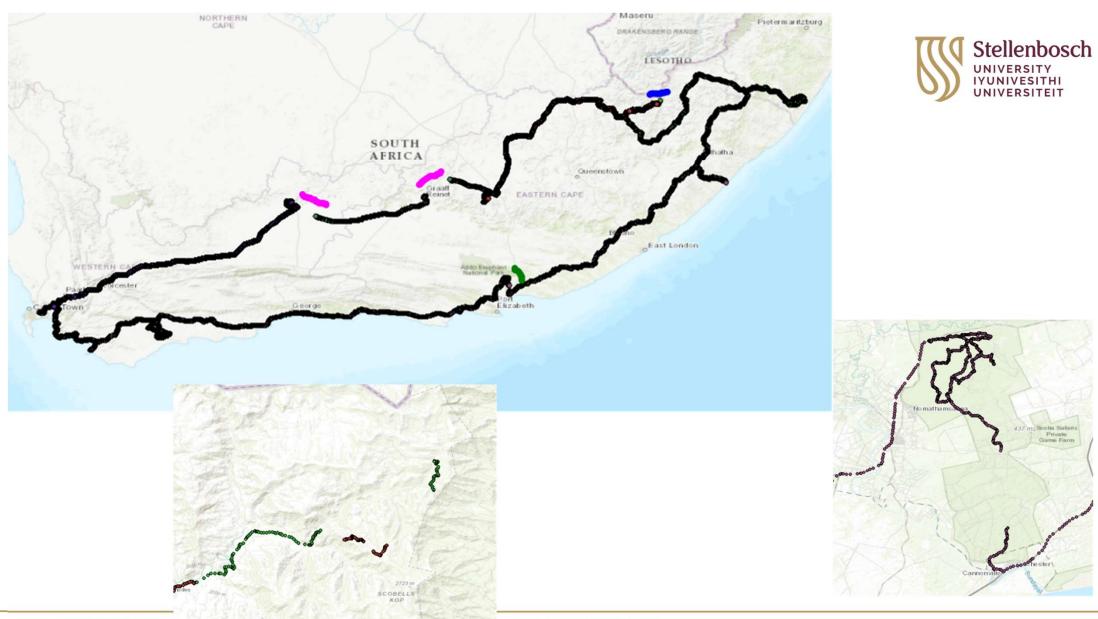
What are we trying to do?

- 1. Trying to build consensus about the importance of our *road network*
- 2. Trying to build consensus on the *need for road funding*
- 3. Explaining the *problem* with fuel-based taxes
- 4. Presenting an alternative approach to people
- 5. Getting their feedback
- 6. Testing the scenario
- 7. Source data





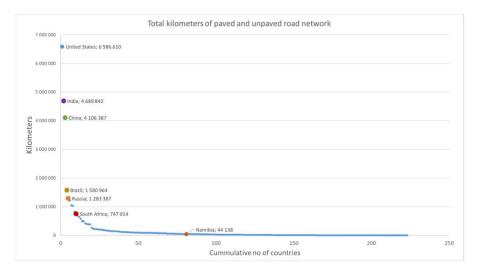
Looking for problems



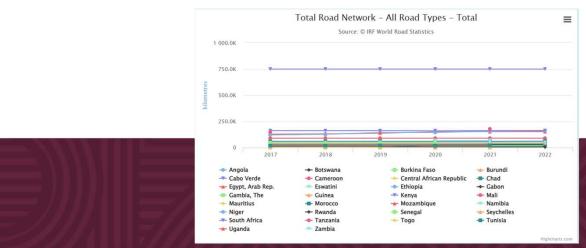
Economic and Manager.....

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South Africa: Our road network ... the value....



• +/- R2,1 trillion --- we really do not know!!!







LocalMunicipalityName	Population 2022	Road length 2022	Area size km2 20	CAPEX_budget_2021_2_Ro	Invest per KN	
!Kheis	19208	1428	11107			20
Abaqulusi	255120	3165	4314	R 30 189 612	R 954	40
Alfred Duma	362162	3764	3764	R 41 000 000	R 10.8	94
Amahlathi	89077	2432	4505	R 26 580 100	R 10.93	31
Ba-Phalaborwa	189253	2636		R 25 941 771	R 984	43
Beaufort West	51684	2806	21917	R -	R -	
Bela-Bela	77211	2164	3406	R 22 075 100	R 10 20	03
Bergrivier	75635	2328	4407	R 11 644 000	R 50	02
Big Five Hlabisa	112745	2306	3466	R 1 542 000	R	Road_length and CAPEX
Bitou	71416	849	992	R 29 982 427		
Blouberg	164954	5117	9540	R 16 213 744		y = 42198x R ² = 0.5215
Blue Crane Route	33412	2704	11068	R 5 500 000	R 85 000	•
Breede Valley	196590	2074	3834	R 48 500 511	R	
Buffalo City	787551	6391	2750	R 480 263 988	R R4 000	000
Bushbuckridge	466640	8322	10248	R 121 800 316	R	
Cape Agulhas	35830	1785	3471	R 17 812 850	R 83 000	
Cederberg	60917	2135	8007	R 6 756 797	R	Road_length_2022
Chief Albert Luthuli	184756	4134	5559	R 29 292 000	R R2 000	• Linear (Road_length_2022)
City of Cape Town	4758405	16325	2446	R 2 230 707 907	R	
City of Johannesburg	6148353	18399	1645	R 1 444 990 255	R	
City of Matlosana	454723	3674	3602	R 55 012 148	R 81 000	
City of Mbombela	776130	8059	7141	R 266 329 000	R	and the second
City of Tshwane	3904059	21679	6298	R 1 014 299 280	R	R 0 2000 4000 6000 8000 10000 12000 14000 16000 18000
Dannhauser	103657	1930	1707	R 11 594 000	R	Road Lenght
Dawid Kruiper	119853	4307	44231	R 9 208 705	R 21	38
Dihlabeng	151828	3135	4868	R 22 488 915	R 71	74
Dikgatlong	52580	1586	7316	R -	R -	
Dipaleseng	42554	1770	2645	R 19 610 712	R 110	77
Ditsobotla	186148	3304	6387	R 17 300 000	R 5.2	Population and Capex
Dr Beyers Naude	78186	5441	28653	R -	R R2 000 000	Population and Capex
Dr JS Moroka	230238	3415	1416	R 19 271 602	R R1 800 000	
Dr Nkosazana Dlamini Zuma	111293	2481	3602	R 39 500 000	R	y = 293.8x R ² = 0.8402
Dr Pixley Ka Isaka Seme	95613	2832	5227	R 3 000 000	R R1 600 000	
Drakenstein	298529	2358	1538	R 27 785 752	R R1 400 000	
eDumbe	95663	1411	1943	R 14 500 000	R R1 200 000	. /.
Ekurhuleni	4114110	14749		R 544 958 794	R	
Elias Motsoaledi	272608	4147	3713	R 53 434 000	R 3 R1 000 000	
Elundini	130391	2497		R 38 371 237		
Emadlangeni	47503	1502	3539	R 9 126 650	R R600 000	
Emakhazeni	57837	2843	4736	R 13 879 888		
Emalahleni 1	102027	3960		R 21 486 067	R 8400 000	
Emalahleni 2	570317	2038	3484	R 29 599 647	R R200.000	
Emfuleni	733031	3995	966	R 40 593 642	R	
Emthanjeni	47655	2915	13472	R 12 596 000	R	0 100 000 200 000 300 000 400 000 500 000 600 000 700 000 800 000 900 000 1 000 000 Population
Endumeni	85340	1073		R 14 986 000	R 13.9	
Engcobo	135310	2348	2484	R 43 552 899	R 1854	45

Survey results

- □ Surveys 2018, 2022, 2024 -
 - n₁ = 600; n₂ = 300; n₃ > 1000
- Main Findings
 - People do not know how much they pay
 - They over-estimate what they pay

Not a lot of trust in Government

- If you do something in one part of the country ...
 - Mistakes has 'spatial' spillover effects
 - Congestion charges, Tolls, Fuel Levy, Road Accident Levy = RUC!

□ Want to pay for roads *only*

- General government expenditure is not OK!!!
- But public transport is also OK ... also OK to help people
- They want to know how much they should pay and how the money is spent ...
- Younger users are much more OK with pay-as-you-drive approach...

□ Just maybe we are paying too much attention to the **levy** and too little to the way we **spend** the money



What do we hope to achieve

1. Gain general acceptance of the road funding problem

- · Involve the stakeholders in understanding the dilemma
- Launch the website October 2024 and tracking January 2025
- 2. Implement vehicle tracking and simulate distance-based road user charge
 - Track 100 1000 people by June 2025
 - Send monthly invoices
 - Check road network
 - Technical issues are not the biggest issues
- 3. Inform policy with collaborative long-term, imbedded research
 - It is not only the citizenry that should be engaged.
 - It is also government that must be enabled.



Participation in administration, rather than trust in government





Thank you Enkosi Dankie

Photo by Stefan Els