

GLOBAL FUEL ECONOMY INITIATIVE

Legislation and Regulations Affecting Motor Vehicle Use in Zimbabwe

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Scope of Study

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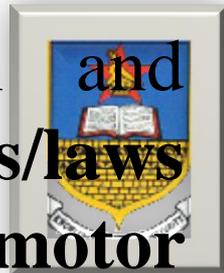
- Background and Introduction
- Legislative and Regulatory Framework
- International Benchmarks
- Regulatory Gap Analysis
- Recommendations

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Background & Introduction

- Motor vehicles play a very important socio-economic function in modern day societies
- As a result of their significance, the global vehicle fleet has been constantly increasing
- Throughout the world they have been cited as a major source of pollution, particularly in urbanized areas
- Collectively, they constitute a significant contributor to greenhouse gas emissions
- This has been exacerbated by the adoption and implementation of **unsustainable fuel use policies/laws** that has contributed to fuel use inefficiencies by motor



Background & Introduction Cont'd

- To address these challenges, countries around the world have devised disparate sector-specific legislative and regulatory frameworks that are aimed to reduce: (a) localized air pollution, (b) greenhouse gas emissions, and (c) national fuel costs
- The aim would be to achieve these objectives through the promotion of cleaner fuel and efficient vehicles
- In the case of Zimbabwe, there have been some attempts to address these concerns through an array of laws and regulations. These are found in the following sectors: (a) **environment**, (b) **energy**, (c) **tax (fiscal)**, and to a lesser extent (d) **transport**



Legislative & Regulatory Framework

Environment Sector

| Law | Purpose | Relevant Provisions |
|--|---|--|
| Legislation 1. Environmental Management Act [Ch 20:27] | Framework law that is designed to protect the environment in Zimbabwe | 1) Establishment of Air Quality and Emission Standards - Standards Enforcement Committee that advises on (a) emission standards (including from motor vehicles) (b) criteria and guidelines for air pollution control for mobile sources (c) guidelines to minimize emission of GHG and identify suitable technologies to minimize air pollution (d) best practicable technology available in controlling pollutants during the emission process |
| Regulations 1.1 Atmospheric Pollution Control Regulations, 2009; (Statutory Instrument 72 of 2009) | To give effect to the air quality and emission standards established by the Act | 1) Motor Vehicle Emission Standards - Prescribes motor vehicle emission standards in the form of <i>maximum permissible discharge for a particular compound</i> - Provides for enforcement mechanisms of the standards 2) Carbon Tax - Prescribes charging carbon tax per fuel type and payable to the Environmental Management Agency at the port of entry for imported fuels or at the point of production and distribution for fuels not imported |

Legislative & Regulatory Framework

Environment Sector Cont'd

Motor Vehicle Emission Standards

| Compound | Limit | Exposure |
|--------------------|--------------------------------|------------|
| CO | 100mg/m ³ or 90ppm | 15 minutes |
| Pb | 0,5-1 mg/m ³ | Annual |
| NO ₂ | 200ug/m ³ or 11 ppm | 1 hour |
| O ₃ | 120ug/m ³ or 6ppm | 8 hours |
| Particulate matter | 50ug/m ³ Or 25ppm | Annual |
| SO ₂ | 500UG/m ³ or 175ppm | 10 Minutes |



Legislative & Regulatory Framework

Energy Sector

| Law | Purpose | Relevant Provisions |
|--|---|---|
| Legislation 1. Petroleum Act [Ch 13:22] | Principal law that regulates fuel/petroleum use in Zimbabwe | 1) Establishes the Zimbabwe Energy Regulatory Authority 2) Provides for the licensing of petroleum products 3) Establishes a fuel stabilization fund 4) Establishes consumer protection standards |
| Regulations 1.1 Petroleum (Fuel Quality) Regulations, 2013 | <ul style="list-style-type: none"> - To establish fuel quality standards for fuel used by consumers in Zimbabwe - They apply to fuel importers, fuel blenders, fuel wholesalers, fuel retailers, and fuel producers | 1) Fuel Quality Standards <ul style="list-style-type: none"> - Prohibits a petroleum licensee from importing or selling specified petroleum products unless they meet prescribed quality standards - Prohibits the importation, offering for sale of one grade of automobile fuel as if it was another grade - Prohibits the importation of any blend or mixture of different automobile fuels - Prohibits importation of unleaded petrol with an oxygenate content of +0.2% - Requires blending of ethanol and unleaded petrol to be undertaken at a licensed blending site - Ethanol for purposes of blending should only be procured from a locally licensed producer |
| 1.2 Fuel Pricing Regulations, 2014. (SI 80/2014) read together with Petroleum (Fuels Pricing) (Amendment) Regulations, 2015 (No.2) | To regulate fuel prices in relation to petroleum products at wholesale and retail levels. To establish maximum | 1) Fuel Pricing Formulas Per Fuel Type <ul style="list-style-type: none"> - Diesel Pricing Structure - Unleaded Petrol Pricing Structure - Blend Pricing Structure |

Legislative & Regulatory Framework

Energy Sector

Fuel Quality Standards

| Licensee | Standards |
|-------------------------|--|
| Importer | a) Diesel ZWS 751 b) Unleaded petrol ZWS 753 |
| Wholesaler and Retailer | a) Diesel ZWS 751 b) c) d) E5 ZWS 964 e) E10ZWS 964 f) E85 ZWS 964 |



Legislative & Regulatory Framework

Energy Sector

| Law | Purpose | Relevant Provisions |
|---|--|--|
| <p>Regulations</p> <p>1.3 Petroleum (Mandatory Blending of Anhydrous Fuel Ethanol with Unleaded Petrol) Regulations, 2013 (S1 17/2013)</p> | <p>To reduce carbon monoxide emissions and to increase efficiency of fuel use in automobiles</p> | <p>1) Blending Requirements</p> <ul style="list-style-type: none">- Mandatory blending is required of unleaded petrol imported into Zimbabwe with anhydrous ethanol- Prohibits any procurement licensee or wholesale licensee to sell unleaded petrol unless the unleaded petrol is blended with a minimum of 5% locally produced anhydrous ethanol (being ethanol blend grade E5)- Allows only a licensed ethanol blender to blend anhydrous ethanol with unleaded petrol,- Prohibits a licensed blender for purchasing anhydrous ethanol from anyone other than a licensed producer <p>2) Quality Control Mechanisms</p> <ul style="list-style-type: none">- Requires every licensed ethanol producer to furnish a blender with a quality assurance certificate for every batch supplied <p>3) Pricing of Ethanol</p> <ul style="list-style-type: none">- ZERA, in consultation with the Minister, has authority to fix the price of ethanol- No licensed ethanol producer is permitted to sell ethanol to a licensed blender at a price in excess of the fixed price |

Legislative & Regulatory Framework

Tax (Fiscal)

| Law | Purpose | Relevant Provisions |
|-----------------------------------|--|---|
| 1. Income Tax Act [Chapter 23:06] | To provide for the taxation of incomes and for other taxes | <p>1) Carbon Tax</p> <ul style="list-style-type: none">- Requires an oil company or other person or entity engaged in oil procurement or wishing to use the petroleum product for his or her own consumption imports any petroleum product to pay carbon tax- Requires payment of carbon tax by a visitor to Zimbabwe who uses a motor vehicle registered outside the country on the basis of engine capacity <p>2) NOCZIM Debt Redemption and Strategic Reserve Levy</p> <ul style="list-style-type: none">- Levied upon every oil company and other entity that purchases any petroleum product from NOCZIM- It is also paid by any person that imports any petroleum product at the port of entry <p>3) Petroleum Importers Levy</p> <ul style="list-style-type: none">- Levied upon every petroleum importer who transports petroleum products by road and is paid at any designated port of entry into Zimbabwe |

Legislative & Regulatory Framework

Tax (Fiscal)

| Law | Purpose | Relevant Provisions |
|--------------------------------------|--|---|
| 2. Customs and Excise Act [Ch 23:02] | To provide for the imposition, collection and management of customs, excise and other duties; and regulating, controlling and prohibiting of imports and exports | 1) Customs Duty - Charged on imported fuel (diesel and unleaded petrol) 2) Special Excise Duty on 2nd Hand Vehicles - Charged on the value of second-hand motor vehicles sold, transferred or otherwise disposed of to any person inland 3) Surtax on Second hand light passenger motor vehicles - Surtax is charged on imported second hand light vehicles (that are more than 5 years old) |



Legislative & Regulatory Framework

Transport Sector

| Law | Purpose | Relevant Provisions |
|--|---|---|
| 1. Road Act [Ch 13:18] | To provide for the management of road and road infrastructure in Zimbabwe | 1) Road Levy <ul style="list-style-type: none">- Empowers the Minister responsible for Transport to impose a levy on fuel on a category of persons that the Minister designates.- The levy so collected accrues to the Road Fund for purposes of funding the construction and maintenance of road infrastructure in the country |
| Regulations/Notices 1.1 Roads (Fuel Levy) Notice of 2008 | To give effect to the provision on Fuel Levy outlined in the Act | 1) Road Levy <ul style="list-style-type: none">- The Zimbabwe National Roads Authority (ZINARA) is authorized to levy and collect fuel levy from fuel importers, for the benefit of the Road Fund |



International Benchmarks

- Different countries across the world adopt different approaches for regulating automobile fuel economy and emissions.
- As such, it is an onerous task to establish a single standardized benchmark
- Having said this, there are several global initiatives that are making attempts to provide a comparative assessment to measure the existing approaches across various countries of the world for purposes of facilitating international cooperation



International Benchmarks

| Approach | | Measures/Forms | Country/Region |
|---------------------------------|-------------------------------------|--|--|
| 1. Standards | Fuel Economy | Numeric standard averaged over fleets or based on vehicle weight-bins or sub-classes | US, Japan, Canada, Australia, China, Republic of Korea |
| | GHG Emissions | Grams/km or grams/mile | European Union (EU), California (US) |
| 2. Consumer Awareness | Fuel Economy/GHG emission labels | mpg, km/L, L/100 km, gCO ₂ /km | Brazil, Chile, Republic of Korea, US and others |
| 3. Fiscal Incentives | High fuel taxes | Fuel taxes at least 50% greater than crude price | EU, Japan |
| | Differential vehicle fees and taxes | Tax or registration fee based on engine size, efficiency & CO ₂ emissions | EU, Japan, China |
| | Economic penalties | Fuel guzzler tax | US |
| 4. Support for new technologies | R&D programmes | Funding for advanced technology research | US, Japan, EU, China |
| | Technology mandates and targets | Sales requirement for Zero Emission Vehicles (ZEVs), PHEVs and EVs | California (US), China |
| 5. Traffic control measures | Incentives | Allowing hybrids to use high occupancy vehicle (HOV) lanes | California, Virginia and others states in the US |
| | Disincentives | Banning SUVs on City Streets Inner city congestion charges | Paris, London |

International Benchmarks

- There is a sixth approach that is relevant for developing countries such as Zimbabwe i.e. ‘vehicle import regulation’.
- This approach can effectively encourage higher fuel economy by facilitating the importation of more efficient vehicles.
- Import regulations can involve minimum efficiency standards for all imported cars and trucks, either overall or separately for each vehicle class.
- Another alternative is a system of import duties that are a function of a vehicle’s fuel economy or CO2 emissions. This can facilitate more efficient cars, and fewer guzzlers, to enter the countries’ borders.



Regulatory Gap Analysis

Standards

The major standards that are in existence in Zimbabwe relate to: (i) Vehicle emission standards , and (ii) Fuel quality standards

- The vehicle emission standards are established in the form of *maximum permissible discharge for a particular compound*. These are mainly designed to curb **localized pollution** from mobile sources including motor vehicles. They are not necessary intended to measure and regulate GHG emissions from motor vehicles
- The fuel quality standards that exist are intended to **ensure fuel safety for the benefit of consumers (efficacy)**. The quality is measured in terms of the fuel's acceptability (i.e. acceptability to users), performance and storability. They were not designed to address vehicle fuel economy issues such as numeric standards based on vehicle fuel consumption, such as liters of fuel per hundred kilometers of travel (L/100-km)



Regulatory Gap Analysis

Consumer Awareness

The major consumer awareness mechanisms that exist relate to consumer protection-related regulations. These mechanisms were designed to protect consumers from using sub-standard fuel

- As such, they were not designed to address fuel economy aspects such as a fuel economy labelling system that is based on the tested score of each vehicle model available in the market

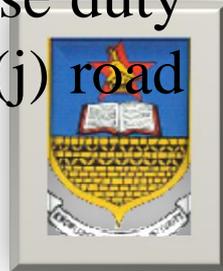


Regulatory Gap Analysis

Fiscal Incentives

Fiscal incentives that motivate consumers to reduce fuel use is probably the most outstanding approach that exist in Zimbabwe

- There are wide-ranging fiscal measures that established under different laws and regulations across all the sectors viz. environment, energy, tax, and transport
- These include: (a) carbon tax (environment), (b) fuel price stabilization levy (energy), (c) carbon tax (tax), (d) NOCZIM debt redemption levy (tax), (e) strategic reserve levy (tax), (f) petroleum importers levy (tax), (g) customs duty (tax), (h) special excise duty on 2nd hand LVs, (i) surtax on imported 2nd hand vehicles, (j) road levy (transport)



Regulatory Gap Analysis

Support for New Technologies

There are a few legislative provisions that support new technologies. These include:

- Mandatory use of ethanol in blending unleaded petrol. There is however no equivalent regulation on diesel
- The EMAct that makes provision for the adoption of best practical technology to control pollutants during emission processes. However, there is need for such measures to be taken/implemented in order for the country to utilize new technologies for purposes of addressing vehicle fuel economy and GHG emissions matters



Regulatory Gap Analysis

Traffic-Control Measures

- There are no traffic-related laws and regulations or measures (especially at the local government level) that encourage the use of fewer vehicles on the roads

Vehicle Import Regulation

While there is a surtax on the importation of 2nd hand LVs, this measure establishes a blanket tax on the basis of the landed cost of the vehicle. It does not, e.g. specify minimum efficiency standards for imported vehicles overall or separately for each vehicle class



Recommendations

- Different countries in the world have chosen to adopt different fuel economy and GHG regulatory approaches for various historic, socio-economic, and political reasons
- The same should apply to Zimbabwe
- There are clear gaps in Zimbabwe's regulatory approaches when compared to what is being done in other countries. However, before any measures are adopted (in order for Zimbabwe to harmonize its approaches with other countries), it is imperative that a Regulatory Impact Assessment (RIA) be undertaken to evaluate the proposed changes' impact on social, economic, environmental realities of the country



Recommendations

Some of the proposed changes can include:

Standards – (a) Adopting the use of clear fuel economy standards for different types of motor vehicles (e.g. numeric standards based on vehicle fuel consumption) (b) Adopting the use of guidelines/standards to minimize GHG emissions for each type of motor vehicle (e.g. as in gCO₂/km)

Consumer Awareness – Adopting the approach of labelling of motor vehicle on the basis of their particular fuel economy capacity

Supporting New Technologies – Support research and use of new technologies such as bio-diesel, and other technologies that contribute towards clean fuel and fuel efficiency

Traffic control measures – Adopting local authority by-laws that encourage the use of fewer vehicles in the streets (especially in urban areas)



Recommendations

Vehicle Import Regulations – Adopt a 2nd hand important regulatory system that: (a) establishes minimum efficiency standards for all imported cars and trucks (either overall or separately for each vehicle class), and (b) imposes duties that are a function of a vehicle's fuel economy or CO₂ emissions. This can facilitate more efficient cars, and fewer guzzlers, to enter the countries' borders.



THANK YOU

