



THE REPUBLIC OF UGANDA

STRATEGIES FOR IMPORTING AFRICAN COUNTRIES

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Presentation Outline



- Uganda Background
- Motor Vehicles in Uganda
- Country Comparisons
- Vehicles in Japan
- Factors to consider for Used Vehicles
- Regulatory and Policy Framework
- Proposed Technologies
- Current National Standards
- Fiscal Policy/Environmental Levy
- Way Forward
- Conclusion

Uganda Background



- Landlocked Country of approximately 35 Million people
- Total Number of Registered Vehicles is about 1.4 to 2 Million including motorcycles
- GDP per Capita Income of about **USD 700 (1,464)**
- Average sales for new vehicles is between 2500 and 3000 per year out of approx. 200,000
- The Capital Kampala and major roads leading to and from the city are characterized by Traffic Congestion
- Major means of transport: 14-seater minibuses and two wheelers

Motor Vehicles in Uganda



- All motor vehicles are imported
- Majority are used vehicles with no age restriction on importation
- Average age of Petrol Vehicles 15.4 years and Diesel Vehicles 16.4 years (*Baseline Survey On Uganda's National Average Automotive Fuel Economy – Dr. Charles Mutenyo et. al.*)- imported
- There are no immediate plans of introducing age restriction on vehicle imports
- A new standard published last year still kept the age provision open

Country Comparisons



- Kenya and *Tanzania*? have an 8-year cap as recommended by AU and EAC
- However, this was not based on any research and other factors are not considered apart from **the assumption** that all new vehicles are safer and environmentally friendly/cleaner
- PVOC is done for most EAC countries
- No consideration is given to emission control technologies or actual level of emissions. (**Emission testing is done using fuel in country of origin with cleaner fuel**)

Country Comparisons



Country	Average Age	Country	Average Age
Austria	8.9	Latvia	16.3
Belgium	7.7	Lithuania	16.7
Croatia	14.1	Luxembourg	6.2
Czech Republic	14.5	Netherlands	9.5
Denmark	8.5	Poland	17.2
Estonia	15.1	Portugal	12.6
Finland	12.7	Romania	15.3
France	9.0	Slovakia	13.4
Germany	8.9	Slovenia	11.2
Greece	13.5	Spain	11.4
Hungary	14.5	Sweden	9.6
Ireland	9.0	United Kingdom	8.5
Italy	10.7	Poland GDP is approx. USD 12,300	

Source: ACEA Report on Vehicles in Use in Europe

Vehicles in Japan



● AVERAGE AGE BY TYPE

In years

Year	Passenger Cars	Trucks	Buses
2007	7.09	8.68	9.80
2008	7.23	8.98	10.02
2009	7.48	9.16	10.26
2010	7.56	9.62	10.50
2011	7.74	10.04	10.78
2012	7.95	10.43	11.12
2013	8.07	10.73	11.38
2014	8.13	10.93	11.56
2015	8.29	11.09	11.76
2016	8.44	11.23	11.87

● AVERAGE SERVICE LIFE BY TYPE

In years

Year	Passenger Cars	Trucks	Buses
2007	11.66	11.92	14.83
2008	11.67	11.72	15.62
2009	11.68	13.50	15.00
2010	12.70	12.72	16.59
2011	12.43	13.04	17.37
2012	12.16	12.81	16.82
2013	12.58	13.24	17.91
2014	12.64	13.31	17.63
2015	12.38	13.72	16.95
2016	12.76	13.89	16.83

Source: Japan Automobile Manufacturers Inc.

Factors to Consider



- In view of the above where can we get vehicles from? We do not manufacture and no one manufactures specifically for us to our standards (**although we do not have**).
- **Age? Are emission control technologies limited by age? Are they not replaceable like others?**
- National Standards for fuel efficiency, economy, emissions and safety
- In-Country regulatory framework for vehicle maintenance including spare parts imports
- Emission control technologies
- Quality of fuels in-country (having the 50ppm standard at importation does not stop contamination while in the market – DRC 500ppm).

Regulatory & Policy Framework



- US 845: Code of Practice for Inspection & Testing of **Used** Motor Vehicles for Roadworthiness, 2017
- Traffic & Road Safety (Motor Vehicle Inspection) Regulations, 2017
- Draft National Environment (Air Quality Control) Regulations – **if it ever gets signed**
- New Vehicles are not certified for compliance to any safety or environmental standard yet they might lack emission control technologies – **de-specification**
- All vehicles should be subject to certification for emissions & Safety

Regulatory & Policy Framework



- Maximum Permissible Emission Limits for Motor Vehicles

Vehicle type	CO	HC	NOx	PM	Proposed Test method/technique
Grams/kilometer					
Passenger cars	2.00	0.25	0.80 (Petrol) 1.25 (Diesel)	0.125	ECE R 49
Light duty truck (greater than 3860 kg)	2.30	0.25	1.43	0.160	ECE R 49
Light Duty Truck (<3860 kg)	6.20	0.50	1.43	0.160	ECE R 49
Grams per kilowatt hour					
Heavy Duty Diesel	4.50	1.10	7.00	0.36	ECE R 49

Regulatory & Policy Framework



- Maximum Permissible Emission Limits for Motorcycles

Engine Displacement	Engine/Vehicle Type	Emission Standard				Proposed Test method/technique
		CO (g/km)	HC (g/km)	NOx (g/km)	Evap. (g/test)	
< 700 c.c.	2-stroke	7.0	1.0	1.0	2.0	ECE R40 Cold start excluding 0-40 seconds idle
	2-stroke	7.0	1.0	1.0	2.0	
< 50 c.c.	2-wheeler	1.0	1.2	1.2	NA	ECE R40 Warm start
	3-wheeler	3.5	1.2	1.2		
> 50 c.c.	2-wheeler	5.5	1.2	0.3		
	3-wheeler	7.0	1.5	0.4		

Proposed Technologies



POLLUTANT	CONTROL MEASURES
NOX Exhaust	Exhaust Gas Recirculation (EGR) Valves
HC, CO Exhaust	Three Way Catalyst (TWC), 2nd Air Pumps
Evaporative Emissions	Canisters
Particulate Matter	Diesel Oxidation Catalyst (DOC)
	Diesel Particulate Filter (DPF)
	Flow Through Filter (FTF)
	Retrofit, Repower, or Replace

Current National Standards



- Uganda and Kenya both have codes of practice for inspection of vehicles as standards
- Both standards provide for measurement of CO and HC and exhaust smoke coefficients
- Different limits are prescribed in the region
- Both standards do not provide for PM, Lambda, NOx etc
- **Yet** KS 1515 is cross referenced in the Kenya Air Quality Regulations
- This needs to be harmonised with the NEMAs
- However, **Biggest Need**, is MV Standards

Fiscal Policies



- Irrespective of whether you fulfil the emission limits prescribed in the standard in the country of origin the following environmental levies still apply:
 - **Below 5 years – 0%**
 - **6 – 10 Years – 35%**
 - **Above 10 years – 50%**
- It is debatable whether this particular policy intervention was designed to import cleaner vehicles or improve revenue collections
- A levy should be based on failure to satisfy a standard/prescribed limit

Fiscal Policies



- Example of ineffective environmental levy:

• TOYOTA COROLLA

- 2005 Model (13 years old – 50% Levy)
- CIF Value - \$ 5,466
- Taxes - \$ 6,069

• TOTAL COST - \$ 11,535

• TAXES ON VEHICLES

- Import Duty – 25%
- VAT – 22.5%
- Withholding Tax – 6%
- Environmental Levy – 35/50%
- Infrastructure Levy – 1.5%
- Registration Fees - \$350

• TOYOTA COROLLA

- 2012 Model (6 years old - 35% Levy)
- CIF Value – \$ 7,360
- Taxes – \$6,954

• TOTAL COST – \$14,314

• TOYOTA COROLLA

- 2016 model (2 years old 0% level)
- CIF – \$ 23,510
- Taxes – \$9,989

• TOTAL COST - \$33,499

Way Forward

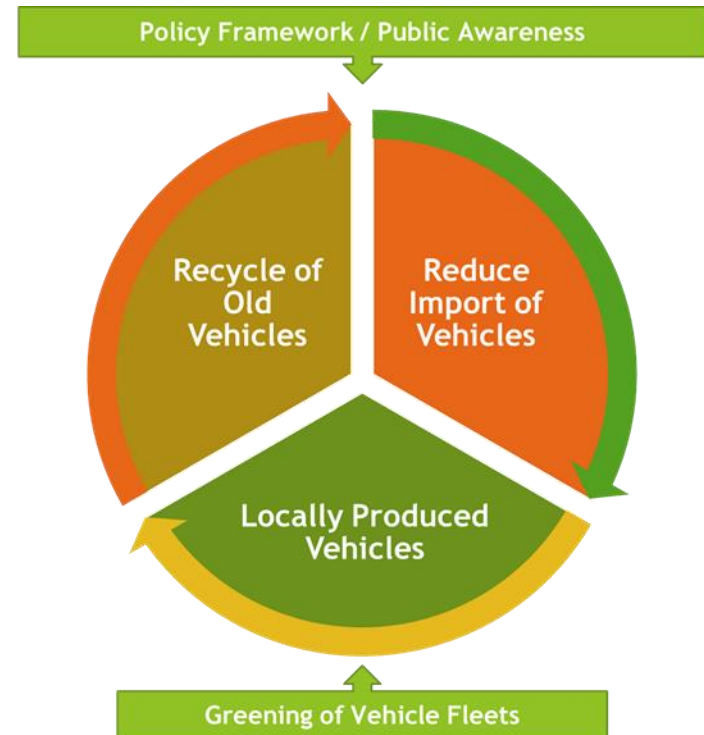


- Pro-active measures & incentives to assemble vehicles locally in accordance with set regional standards for cleaner vehicles (*otherwise even the best fuels new cars will remain unaffordable*)
- periodic inspection for emissions and emission control technologies including road side testing
- Market surveillance of both fuels and emissions need to be improved by the responsible authorities.
- Raising Awareness – *accidents cause instant risk but raising awareness is still a challenge there.*

Way Forward-NAMA proposal



- Sustainable transformation of old vehicle fleets into more energy efficient vehicle fleets through:
 - Reduced import of **old** vehicles
 - Introduce recycling facility and incentives for recycling
 - A local assembling facility for low-cost cars



Way Forward



- *God, grant me the serenity to accept the things I cannot change, Courage to change the things I can, And wisdom to know the difference*
- Use Public Private Partnerships for Inspection and Certification of Motor Vehicles:
 - DEKRA Germany
 - Bureau Veritas
 - SGS Group
 - Intertek
 - Applus Technologies
 - Opus Inspection Inc. USA
 - Parsons Advanced Technologies Inc USA

Way Forward



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RESULTS 2017			
Toyota ETIOS	✓2	★★★★☆	★★★☆☆
Renault SANDERO	✓2	★★★☆☆	★★★★☆
Volkswagen POLO VIVO	✓2	★★★☆☆	★★★☆☆
Datsun GO+	✓1	★☆☆☆☆	★★☆☆☆
Chery QQ3	×	☆☆☆☆☆	☆☆☆☆☆

Conclusion



**ACCEPTANCE IS ALWAYS
THE FIRST STEP TO CHANGE**



THANK YOU