

Why Cleaner and Safer Used Vehicles

SADC Sub-Regional Workshop on Harmonization of Low Sulphur Fuels Standards and Used Vehicles Regulation 18-19 December 2023, Johannesburg

Yulin Fu Sustainable Mobility Unit

> UN @ environment programme

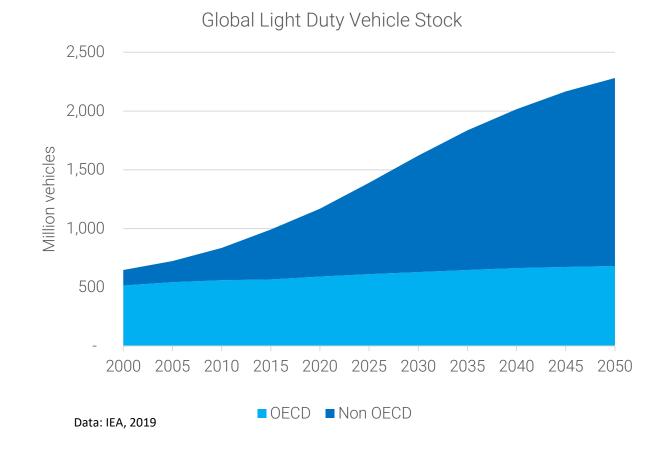
Overview

- I. Why the issue is important
- II. Major exporters of used vehicles
- III. Major importers of used vehicles
- IV. Regulations for better quality used vehicles
- V. UNEP's Global Used Vehicle Programme

I - Why Regulating Used Vehicles is Important

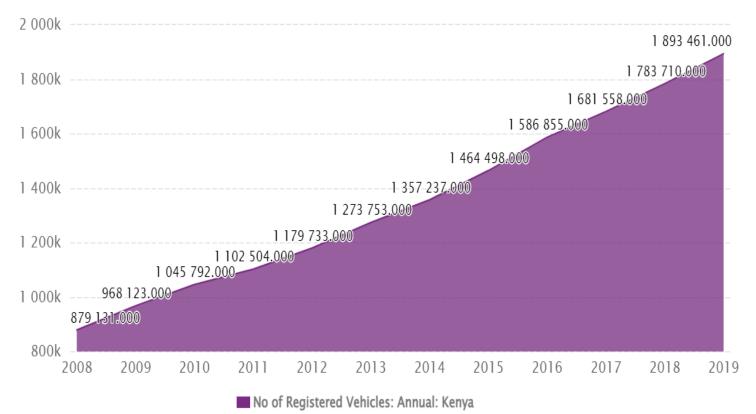
The Global Fleet is Set to Double...

Almost all vehicles are added in LMICs....



Many developing countries dependent on used vehicles to grow their fleets...

Kenya - 97% Nigeria - 94% Paraguay - 70% EL Salvador - 81% Sri Lanka - 50%



SOURCE: WWW.CEICDATA.COM | CEIC Data

Exports are increasing....

The global used LDV export market grew almost 20% between 2015 and 2019

2015	2016	2017	2018	2019	2020
3,368,357	3,398,537	3,783,111	4,347,143	4,847,678	4,037,807

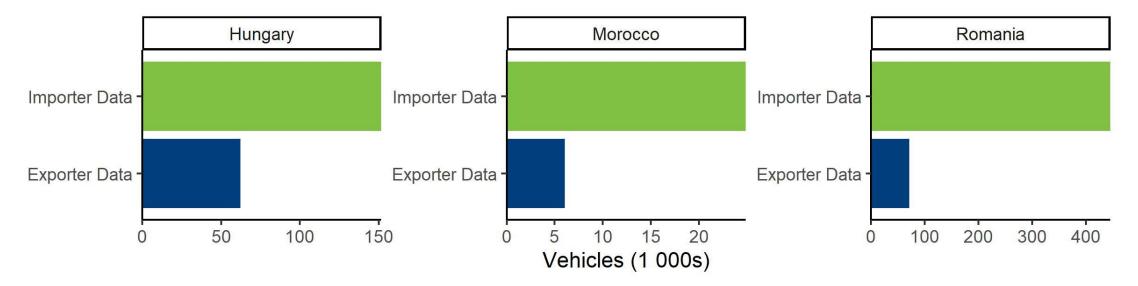


Comment: actual numbers are (much) higher – this is based on the data that UNEP has been able to retrieve from databases

Source: UNEP database

Used Vehicle Data still Incomplete

Under-reporting of used vehicle trade: differences between importer and exporter data



Source: ITF Used Vehicles report, published in December 2023

II - The Major Exporters of Used Vehicles

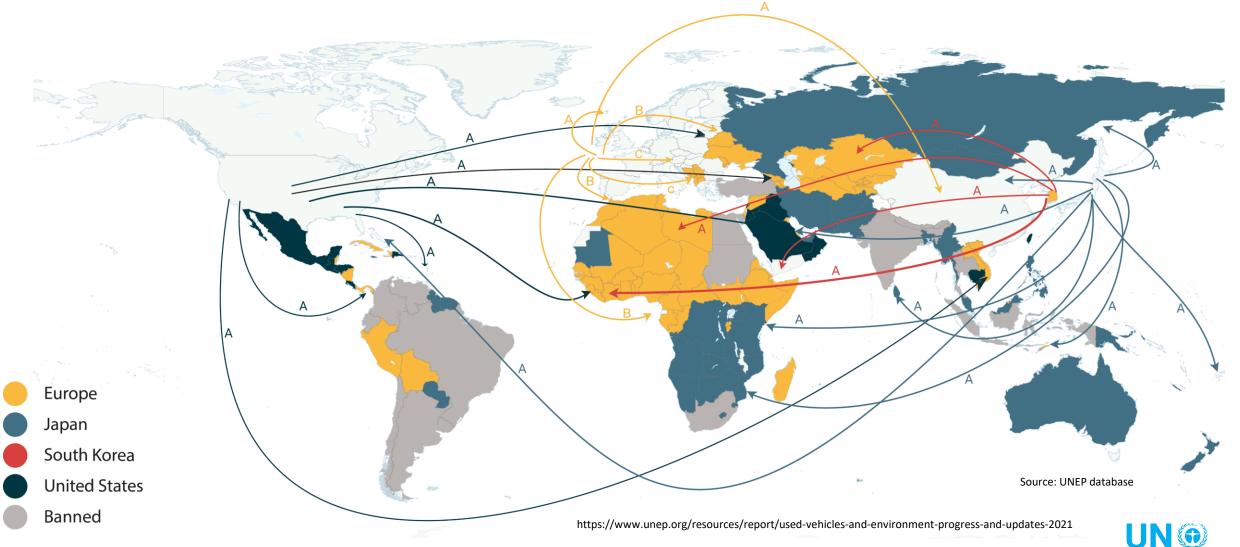
EU, Japan, US are the biggest exporters of used vehicles

Exports of Used Vehicles from 2015 to 2022				
Japan	7,849,822	34.4%		
EU	6,400,100	28.0%		
UK	728,803	3.2%		
USA	5,463,026	23.9%		
South Korea	2,397,632	10.5%		
Total	22,839,383	100.0%		

Source: UNEP database

III - Importers of Used Vehicles

Where do they go to?



environment

programme

A (20.000-145.000) B (145.000-270.000) C (Higher than 270.000)

Where do they go to - continued

Imports of Used Vehicles from 2015 to 2022 by Regions				
Asia-Pacific	3,661,259	16.0%		
EECCA	5,371,408	23.5%		
Africa	7,473,800	32.7%		
LAC	2,792,998	12.2%		
Middle East	3,293,688	14.4%		
North America	246,230	1.1%		
Total	22,839,383	100%		

Source: UNEP database

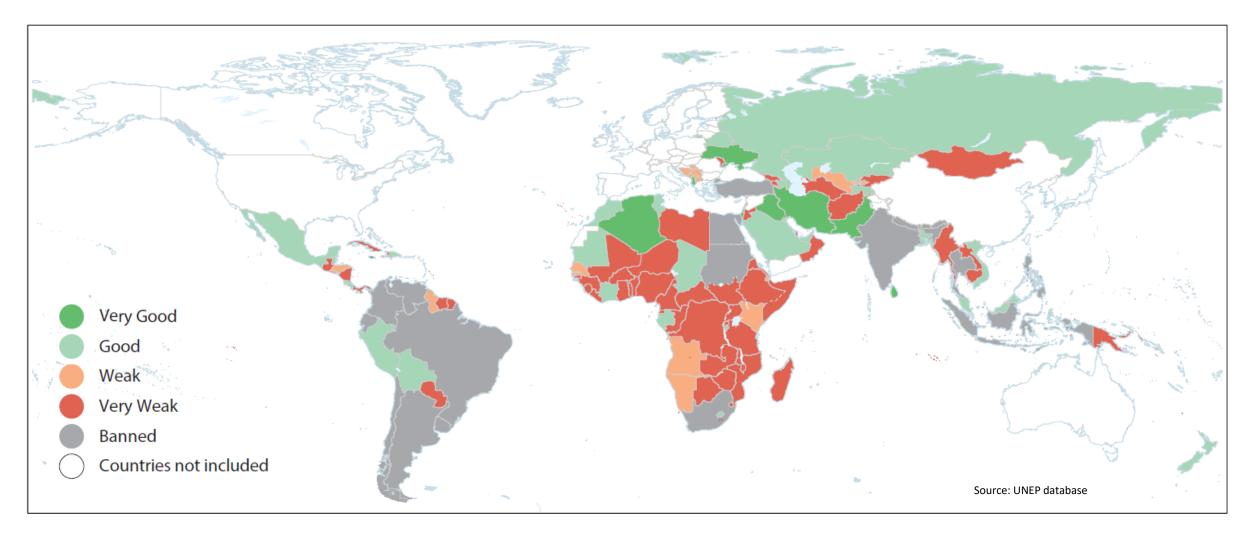
Used Vehicles Imports in Africa

	Africa					
	2015	2016	2017	2018	2019	2020
Japan	229,123	187,014	239,195	282,744	261,037	229,444
EU	446,050	386,981	385,470	443,381	481,777	335,571
USA	111,816	76,441	90,666	151,031	209,807	181,414
ROK	73,937	80,380	127,396	192,190	262,129	153,762
Total	860,926	730,816	842,727	1,069,346	1,214,750	900,191

Source: UNEP database

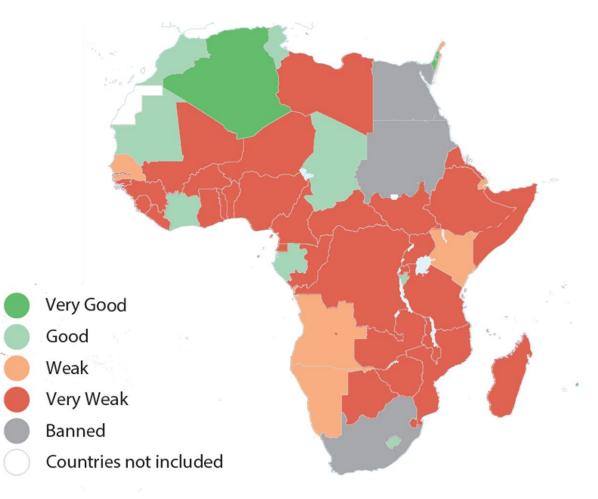
IV – Existing Regulations for better Quality Used Vehicles

Weak Policies Result in Poor Quality Imports...



https://www.unep.org/resources/report/used-vehicles-and-environment-progress-and-updates-2021

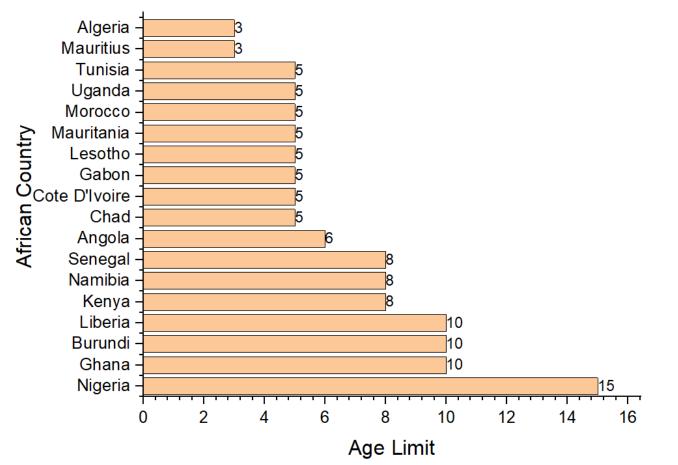
Especially in Africa...



Regulatory Environment Ranking (UNEP)	Countries	Region
Very Good	Algeria, Mauritius	2
Good	Chad, Côte d'Ivoire, Gabon, Lesotho, Mauritania, Morocco, Rwanda, Tunisia	8
Weak	Angola, Djibouti, Kenya, Namibia, Senegal	5
Very Weak	Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Comoros, Congo, Democratic Republic of Congo, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Libya, Madagascar, Malawi, Mali, Mozambique, Niger, Nigeria, Sao Tome & Principe, Sierra Leone, South Sudan, Somalia, Tanzania, Togo, Uganda, Zambia, Zimbabwe	35
Banned	Egypt, South Africa, Seychelles, Sudan	4

Source: UNEP database

https://www.unep.org/resources/report/used-vehicles-and-environment-progress-and-updates-2021



Source: UNEP database

EU (NL) Case Study.... Used vehicles are old... not roadworthy... and mainly pre-EURO4.

200 -

150 -

100 -

50 -

200 -

150 -

100 -

50 -

150

100 -

50 -

1500 -

1000 -

500 -

0.

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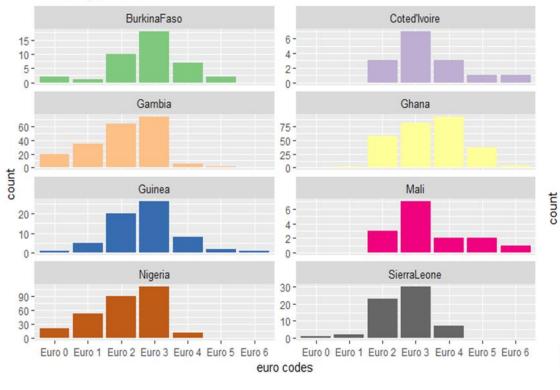
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Euro vehicle diesel, emission standards of retrieved used export vehicles, West Africa



Age and PTI of retrieved used export vehicles



age

PTI expired expires within 1 month valid more then 1 month

https://www.ilent.nl/documenten/rapporten/2020/10/26/rapport--used-vehicles-exported-to-africa

Key safety / environment equipment missing or removed....

ABS, Electronic Stability Control, airbags; crumple zones...

Exhaust filters faulty, missing or removed

Benefits

	Key Issue	Benefits
Road safety	Key safety equipment missing or removed – ABS, ESC, airbags; crumple zones	Crash avoidance (ABS); impacts improvements (ESC); reduced fatalities (Airbags); crumple zones (reduced fatalities) – together major reduction of crash impacts (~40-50%)
Environment	Exhaust filters faulty, missing or removed; reduced fuel economy	Common pollutants reduced by ~80- 90%; increased efficiency/ reduced CO2 emissions – ~5-10%

+ Economic benefits

V - UNEP's Used Vehicle Programme

UN Environment Assembly Resolution 11

9. *Requests* the Executive Director of the United Nations Environment Programme, in consultation with Member States, members of specialized agencies and relevant stakeholders, to continue to collect information and conduct further analysis on used vehicles and clean fuels, with a view to reducing the negative environmental and health-related impact of used vehicles, including end-of-life disposal, and promoting clean fuels, and to support Member States upon request;

UNITED NATIONS

United Nations Environment Assembly of the United Nations Environment Programme

United Nations Environment Assembly of the United Nations Environment Programme Fifth session Nairobi (hybrid), 22 and 23 February 2021 and 28 February-2 March 2022

> Resolution adopted by the United Nations Environment Assembly on 2 March 2022

5/11. Enhancing circular economy as a contribution to achieving sustainable consumption and production

EΡ

UNEP/EA.5/Res.11

Distr.: General 7 March 2022

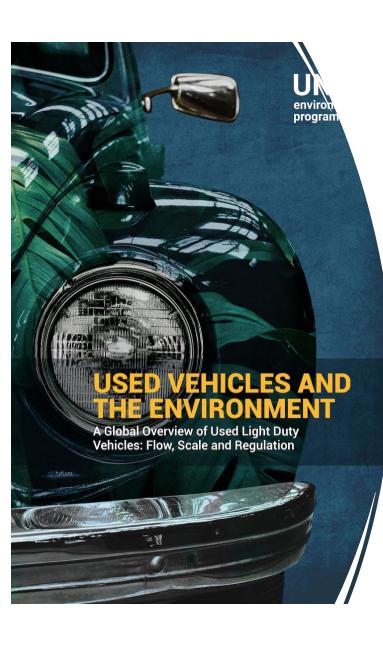
Original: English

Promoting Quality Used Vehicles ... UNEP's Used Vehicles Programme

- Focus on:
- Data and research
- Advocacy
 - Promote importance of the issue (climate, air quality, road safety...)
- Importers
 - Support importing countries to develop regionally harmonized quality standards
- Exporters
 - Support introduction of quality standards and verification at point of export

Progress – Data and Research

- 2020 UNEP report "Used Vehicles and the Environment" giving a global overview of the flow, scale and regulatory environment of the trade in used light duty vehicles
- 2021 UNEP issued an LDV update report
- 2024
- new used HDV report
- new LDV update report
- Used EVs report



Proposed Measures

1- no EOL vehicles

Vehicles that have come to their end of live should not be exported but considered waste and recycled.

2- need for valid roadworthiness certificate

Used vehicles exported should have a valid roadworthiness certificate. Vehicles that are not roadworthy, for example because important environment (filters) or safety (ABS, airbags etc) are missing or faulty should not be exported (but first be repaired)

3- enforcement of importers regulations at point of export

If importing countries adopt regulations it should be possible to check these at point of export. This can be done by an independent third-party verification process, whereby companies check the requirements on behalf of the importing country at point of export. The cost of this, which are small, can be included in the vehicle price. Some importing countries are already doing these inspections.



A Volkswagen from 1985 with doors that could not open, destined for Nigeria © ILT December 2019

Age and PRT of retrieved vehicles, West Africa

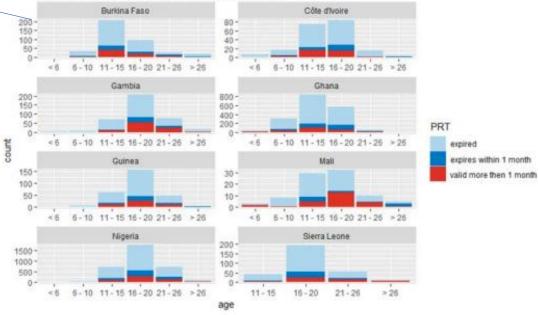


Figure 2.3. Age and PRT of retrieved vehicles to West African countries in the top 12. Data: combined Customs and RDW. ©ILT-IDIab

Progress- Importers

- Country projects many, all regions
- Africa (focus) minimum vehicle standards adopted in East (EAC) and West Africa (ECOWAS) implementation support ongoing-; Southern (SADC) and Central started.
- Asia Several Asian countries (Cambodia, Mongolia), subregional discussions (ASEAN)
- LAC- New LAC project- subregional (Central SICA), Caribbean countries, Paraguay

Progress - Exporters

- EU EC new end-of-life vehicles regulation proposal
 - End-of-life vehicles (wrecks)
 - Roadworthiness
 - Export compliance inspection against import standards (if formally informed)
- Outreach to other major exporters UK, US, Japan, South Korea
- March 2023 Brussels meeting
- 25 October Paris UNEP exporters meeting
- UNEA6 Mar 24

Thank you

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www.unep.org/transport



