

### SSATP-World Bank Group webinar

### Safer and Cleaner Used vehicles for Africa

8 April 2021

### Netherlands Ministry of Infrastructure and Water Management

Used vehicles exported to African countries







### Used vehicles exported to Africa

A study on the quality of used export vehicles



#### **FINDINGS OF STUDY**

THE WAY FORWARD: WHAT COULD BE DONE



### Why this study?

Follow-up on-road fuels report in 2018



Pro-active & to anticipate







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Fleet quality

Year of construction

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# **DESK STUDY** matching data from customs and vehicle register

1	AangID	Aar <mark>AanvDat</mark>	Aan Aang A	Artil <mark> LVB</mark>	LVV	GoedOmsch	GdnCod	Brutogewick	<mark>Nettogewicł</mark> RefZe	LevVoc Lev\ Lo	DouaneW	Statwrd
2	18NLJI5T5	1 08Jun2018 12:08:03,809	043 ADAN	1 NG	NL	used truck	870422990	10550,000	10550,000 18201	AntwerFAS 42	17900,00	17900,00
3	18NLJITYN	1 25Jun2018 9:48:47,853	043 ADAN	1 GH	NL	Bedrijfswagen, diesel, 5-20 ton, gebruikt	870422990	10025,000	10025,000	Koopm FCA 65	6450,00	6450,00
4	18NLJCHLF	1 16Jan2018 13:14:50,829	043 ADAN	1 LY	NL	GEBRUIKTE PERSONENWAGEN: CHEVROLET M	870323900	1980,000	1980,000	AMSTE FOB 10-	750,00	750,00
5	18NLJCK9E	1 18Jan2018 9:53:32,482	043 ADAN	1 LY	NL	GEBRUIKTE PERSONENWAGEN: MERCEDES A14	870323900	1380,000	1380,000	AMSTE FOB 10-	750,00	750,00
6	18NLJJTV6	2 20Jul2018 12:51:08,759	043 ADAN	1 LY	NL	GEBRUIKTE PERSONENWAGEN:	870323900	1700,000	1700,000	AMSTE FOB 10-	750,00	750,00
7	18NLIMAF	1 #####################################	043 ADAN	1 SL	NL	DAF TRUCK 4X4 CARGO CHASSISNR. 292036	870422990	7000,000	7000,000	NIEUW FCA 95	9250,00	9250,00
8	18NLJE790	12 ####################################	043 ADAN	9 ZA	NL	DEEL VAN COLLO SHS049 T/MSHS049 ANDERE	870829900	19,010	11,100 20180	AMSTEFCA 10-	280,00	280,00
9	18NLJKNXI	31 ####################################	043 ADAN	20 ZA	NL	SHT340 T/M SHT340 VERSNELLINGSBAKKEN VC	870840500	63,194	47,400 20180	AMSTEFCA 10-	895,00	895,00
10	18NLJF892	1 *************************************	039 MAAS	1 ML	NL	NIEUWE PICK-UP CHNRS.: JN1TESY61Z0573645	870421910	4726,000	4726,000 18000	NIEUW EXW 29	52266,00	52266,00
11	18NLJG500	1 *************************************	043 ADAN	1 SL	NL	Personenauto, benzine, 1500-3000 cc, gebruikt	870323900	1370,000	1370,000	Douan FCA 39.	1050,00	1050,00
12	18NLJHLO	1 25May2018 9:55:51,846	039 MAAS	1 ZA	NL	ONDERDELEN EN TOEBEHOREN VOOR TRUCKS	870829900	325,400	287,800	EINDH(EXW 56-	21167,00	21167,00
13	18NLJCBS2	1 12Jan2018 11:52:25,576	043 ADAN	1 DZ	NL	DFSK V21 CHASSIS 1.3 2WD CHASSISNR LVZBN2	870431910	923,000	923,000 27359	HAAFT EXW 41	3250,00	3250,00
14	18NLJGG8	2 26Apr2018 9:46:07,495	043 ADAN	1 LY	NL	GEBRUIKTE PERSONENWAGEN: MERCEDES	870323900	1350,000	1350,000	AMSTE FOB 10-	750,00	750,00
15	18NLJLBTT	12 27Aug2018 7:12:58,554	043 ADAN	5 LY	NL	AUTOMOBIEL VOOR PERSONEN VERVOER OPE	870323900	1000,000	1000,000 W567	AMSTE FOB 10-	500,00	500,00
16	18NLJBZ6[	1 03Jan2018 15:45:59,134	043 ADAN	1 GA	NL	Personenauto, benzine, 1500-3000 cc, gebruikt	870323900	1537,000	1537,000	Apeldo FCA 73	2800,00	2800,00
17	18NLJLG5F	1 30Aug2018 7:56:17,425	043 ADAN	1 LY	NL	GEBRUIKTE PERSONENWAGENS:	870323900	3441,000	3441,000	AMSTE FOB 10-	2250,00	2250,00
18	18NLJI0AV	1 04Jun2018 15:38:34,349	043 ADAN	1 NG	NL	Tank oplegger / aanhanger Merk: OMSP MACC	871631000	13000,000	13000,000	AMSTE DAT 76	23300,00	23300,00
19	18NLJD1T4	1 30Jan2018 16:38:12,242	043 ADAN	1 SN	NL	Gebruikte personen auto TOYOTA AVENS	870323900	1200,000	1200,000	amster FOB 10-	2500,00	2500,00
20	18NLJETM	1 16Mar2018 8:30:14,928	043 ADAN	1 LY	NL	GEBRUIKTE PERSONENWAGEN: OPEL ASTRA	870323900	1150,000	1150,000	AMSTE FOB 10-	750,00	750,00
21	18NLJGOT	2 #####################################	043 ADAN	1 MA	NL	andere I Delen en toebehoren van motorvoert	870829900	30,514	29,850 59798	Schiph CPT 11	183,00	183,00
22	18NLJCW3	4 26Jan2018 16:44:07,360	043 ADAN	1 LY	NL	AUTOMOBIEL VOOR PERSONEN VERVOER HYL	870323900	1000,000	1000,000 W567	AMSTE FOB 10-	500,00	500,00
23	18NLJFLOP	1 *************************************	043 ADAN	1 NG	NL	Soort: Bedrijfswagen 5/20T Merk: MERCEDES I	870422990	10600,000	10600,000	LELYST. EXW 82	43500,00	43500,00
24	18NLJCIX2	2 17Jan2018 11:20:47,817	043 ADAN	2 MA	NL	POMPEN LUCHT, REST ONDERDELEN	870899970	18000,000	18000,000	WOUTIEXW 91	9750,00	9750,00
25	18NLJEGZ8	3 #####################################	043 ADAN	2 MA	FR	andere I van motorrijwielen I Delen en toebeh	871410900	17,406	12,540 59388	SAINT (CPT 38)	290,00	290,00
26	18NLJEXY1	1 19Mar2018 9:03:42.418	043 ADAN	1 LY	NL	GEBRUIKTE PERSONENWAGEN: OPEL ZAFIRA	870323900	1300.000	1300.000	AMSTE FOB 10	750.00	750.00

	#KENTEK	VRTG_ID_NR	EERSTE_II	EERSTE_TO	VREEG_	MERK_BESCHR	HAI	BRA BRA	NEMISENE	MI	VERV_DAT_KE	STAT_VR <mark>S</mark>	TATUS HERK_L	TYPE_EXPO	WOI	REG_D	TELLER_STEE	TELLERSTAND
	00HVS1	WVWZZZ6XZXW004266	2E+07	19990715	1 M1	VOLKSWAGEN		1 B			20170325	2E+07	51		Nee	2E+07	198605 K	Geen Oordeel
3	00JBF1	VF1DZ0G0T41125980	2E+07	20090409	1 M1	RENAULT	ME	2 G			20190226	2E+07	52 POL	OREH	Nee	2E+07	229383 K	Logisch
1	00JBF1	VF1DZ0G0T41125980	2E+07	20090409	1 M1	RENAULT	ME	1 B			20190226	2E+07	52 POL	OREH	Nee	2E+07	229383 K	Logisch
5	00JFT2	WDB2010241A112182	2E+07	19840816	1 M1	MERCEDES-BENZ		1 G				2E+07	51		Nee	2E+07	238840 K	Geen Oordeel
ŝ	00JGH1	WDB2011221A289411	2E+07	19860319	1 M1	MERCEDES-BENZ		1 D				2E+07	52 ROU	OREH	Nee	2E+07	342000 K	Onlogisch
7	00JJD5	W0L000033D5179441	2E+07	19830624	1 M1	OPEL		1 B			20180830	2E+07	52 NLD	RDW	Nee	2E+07	7592 K	Onlogisch
3	00JKP1	WVWZZZ3CZAE005450	2E+07	20090624	1 M1	VOLKSWAGEN	PA:	1 D	0.00015		20190119	2E+07	52 POL	Export Dier	Nee	2E+07	414065 K	Logisch
9	00JKX2	SAJAA0620AKR48187	2E+07	20090626	1 M1	JAGUAR	JAC	1 D	0.00030		20190703	2E+07	52 HUN	OREH	Nee	2E+07	249486 K	Logisch
0	00JNK4	WVWZZZ1KZAW001867	2E+07	20090707	1 M1	VOLKSWAGEN	GO	1 D	0.00006	5	20180705	2E+07	52 BEL	Export Dier	Nee	2E+07	263435 K	Geen Oordeel
1	00JSF6	WVWZZZ3CZ7E223195	2E+07	20070430	1 M1	VOLKSWAGEN	PA:	1 D	0.00100		20190202	2E+07	52 ROU	Export Dier	Nee	2E+07	275932 K	Geen Oordeel
2	8DXL00	JN1TDSY61U0318765	2E+07	19991229	1 M1	NISSAN		1 D			20181009	2E+07	52 NLD	RDW	Nee	2E+07	241397 K	Logisch
3	00JXN3	WAUZZZ4L27D022586	2E+07	20060907	1 M1	AUDI	AU	1 D	0.00200		20171012	2E+07	52 LTU	OREH	Nee	2E+07	379787 K	Geen Oordeel
4	00JZH9	WBACM11030LF04417	2E+07	19990512	1 M1	BMW		1 B			20191025	2E+07	52 BEL	Export Dier	Nee	2E+07	147890 K	Geen Oordeel
5	OOKDN7	WVWZZZ9CZXM902889	2E+07	19990107	1 M1	VOLKSWAGEN		1 B			20181027	2E+07	51		Nee	2E+07	163377 K	Geen Oordeel
6	OOKKB6	ZLA84300002069007	2E+07	20040630	1 M1	LANCIA	LAI	1 D	0.02400		20180120	2E+07	52 RUS	Export Dier	Nee	2E+07	225117 K	Geen Oordee
7	OOKLB4	WDB1680322J562344	2E+07	20020228	1 M1	MERCEDES-BENZ		1 B				2E+07	51		Nee	2E+07	68496 K	Geen Oordeel
8	00KLD1	UU1KSDAM541562528	2E+07	20100115	1 M1	DACIA	LO	2 G			20190607	2E+07	52 MDA	OREH	Nee	2E+07	269557 K	Logisch
9	00KLD1	UU1KSDAM541562528	2E+07	20100115	1 M1	DACIA	LO	1 B			20190607	2E+07	52 MDA	OREH	Nee	2E+07	269557 K	Logisch
0	00KNG7	SB1ED76LX0E001443	2E+07	20100114	1 M1	TOYOTA	TO	1 D	0.00121	5	20181105	2E+07	52 LTU	Export Dier	Nee	2E+07	292908 K	Logisch
1	00KTP1	UU1KSD0M541997064	2E+07	20100212	1 M1	DACIA	LO	2 G			20181114	2E+07	52 RUS	Export Dier	Nee	2E+07	744571 K	Logisch
2	OOKTP1	UU1KSD0M541997064	2E+07	20100212	1 M1	DACIA	LO	1 B			20181114	2E+07	52 RUS	Export Dier	Nee	2E+07	744571 K	Logisch
3	00KVF8	YV1SW814272669039	2E+07	20070420	1 M1	VOLVO	V70	1 D	0.00200		20190117	2E+07	52 UKR	Export Dier	Nee	2E+07	269000 K	Onlogisch
4	00LGB6	KMJWAH7JP8U018188	2E+07	20071213	1 M1	HYUNDAI		1 D			20170704	2E+07	52 DEU	OREH	Nee	2E+07	244216 K	Geen Oordeel
5	00VLV9	WDB9026621R899371	2E+07	20060530	3 N1	MERCEDES-BENZ		1 D			20180309	2E+07	52 HUN	OREH	Nee	2E+07	196501 K	Geen Oordeel
6	00VNJ2	WV1ZZZ2KZ7X107505	2E+07	20070402	3 N1	VOLKSWAGEN		1 D			20180510	2E+07	52 SRB	Export Dier	Nee	2E+07	375345 K	Geen Oordeel

## **3-DAY FIELD INSPECTION** with vehicle authority



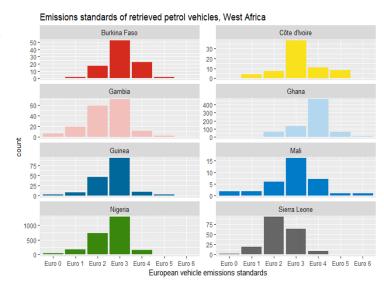
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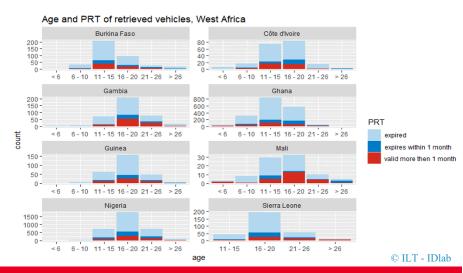


## Age, emission standards and roadworthiness

Age distribution retrieved LDV

Country	count	mean	Q1	Median	Q3
Burkina Faso	122	15.3	12.8	15.4	17.2
Côte d'Ivoire	77	14.2	12.5	14.9	17.0
Egypt	230	13.8	12.6	14.3	15.5
Ethiopia	113	12.6	9.8	13.2	15.1
Gambia	359	18.8	15.9	18.4	20.8
Ghana	987	12.4	10.2	11.7	14.2
Guinea	219	17.2	15.3	17.2	19.0
Libya	638	17.8	15.8	17.6	19.6
Mali	49	14.9	12.5	14.8	17.8
Morocco	257	4.7	3.5	4.3	4.9
Nigeria	2526	17.7	15.4	17.4	19.6
Sierra Leone	246	18.1	16.5	18.2	19.5







### **Mileage**

LDV mileage (km x 1000) retrieved vehicles

HDV mileage (x 1000) retrieved vehicles

Country	count	Mean	Q1	Median	Q3
Ghana	802	257	172	231	303
Nigeria	600	274	196	253	321
Ethiopia	169	219	147	201	283
Sierra Leone	78	234	163	230	293
Gambia	67	286	186	233	308
Burkina Faso	60	303	219	274	357
Morocco	52	317	223	295	388
Guinea	41	306	204	273	334
Côte d'Ivoire	31	277	208	279	333
Mali	17	306	242	301	366
Libya	7	252	208	245	278
				© ILT -	IDlab



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### **Used vehicles to WAF comparabe to End of Life Vehicles**

200000

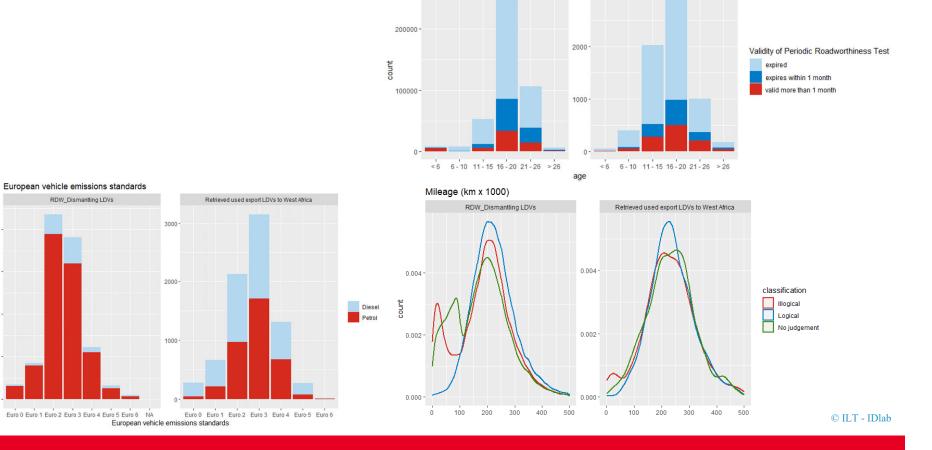
150000

1000000 ·

50000 -

Age vehicles

RDW\_Dismantling LDVs



Retrieved used export LDVs to West Africa



#### **3-DAY FIELD INSPECTION: 160 vehicles**













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#### Overall technical state of vehicles

- A group of vehicles in reasonable state
- At least 56% of petrol vehicles and 48% of the diesel vehicles would fail a periodic roadworthiness test (have one or more deficiency)
- These also included vehicles that still had a valid roadworthiness certificate
- One out of 8 airbags had a malfunction



### **HDV** high mileages, examples



from 1994, to Lagos, 896.650 km



German truck from 2002, to Benghazi, 820.789 km

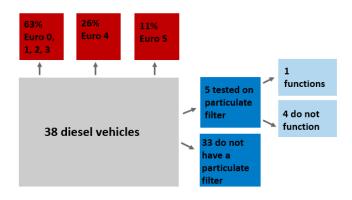
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#### **Testing emissions (diesel)**



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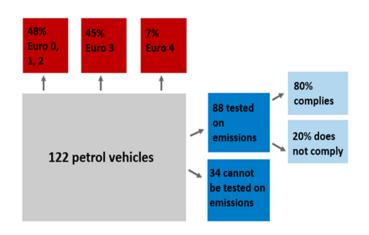








### **Testing emissions (petrol cars)**











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#### A GROUP OF VEHICLES UNABLE TO CONTROL

- empty battery
- completely worn out, too dirty to enter
- doors that don't open, stack on each other or "sandwiched"
- we stopped some vehicles (as waste) in a very bad state ->see next slides







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### A Nissan Micra from 2003 for Benghazi, Libya



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### A Volkswagen from 1988 for Nigeria



**A VOLVO TRUCK from POLAND from 2000** 

for NIGERIA





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VIN unreadable, lights and battery removed, exhaust system incomplete, fuel tank missing, air tanks hanging loose, smooth tyres

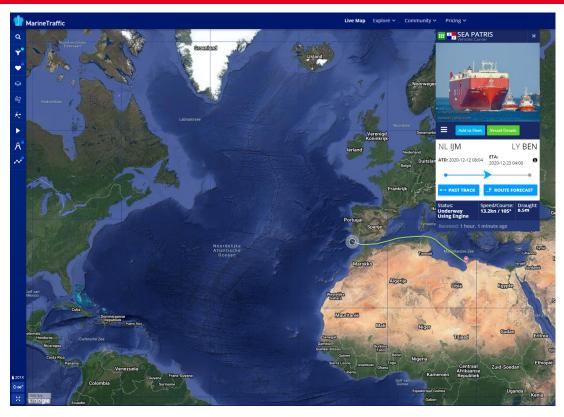


#### Our study showed: regulation works

ECOWAS countries	Mean age LDV exported in 2017/2018	Mean age HDV exported in 2017/2018	Current national regulations and policies Note: ECOWAS countries have decided on new regulation for vehicles by 2021: import vehicles max 10 years, recommendation max 5 years for LDVs, minimum euro 4/IV emission standards							
BURKINA FASO	15.3	14.8	No import restrictions, no tax incentives, no euro emissions standards							
CôTE D'IVOIRE	14.2	15.7	Passenger vehicles and taxis imported < 5 years. Minicars (9-34 seats) and vans (< 5 tons) imported < 7 years. Cars (>24 seats), vans (>5 tons) imported < 10 years. Note the decree (no 2017-792) on age restriction of used import vehicles) was adopted on 6 Dec 2017 and was applied since 1 <sup>11</sup> of July 2018. (This means that the new age standard was not into force during a long period of our desk study covering export data of 2017 and 2018.)							
GAMBIA	18.8	17.1	No import restrictions. No emissions standards.							
GHANA	12.4	14.5	Customs Act, 2015 (Act 891) established a penalty system with graduated fees to serve as disincentive for importing LDVs and HDVs over 10 years. Taxes are based on the Customs Freight and Insurance (FII) yalue.  New regulations came into effect in April, 2020 (Customs Amendment Bill, 2020) as a revision to Customs Act of 2015. This law seeks to ban the import of LDV's older than 10 years. Implementation is set to commence in October, 2020.							
GUINEA	17.2	17.5	No import restrictions.							
MALI	14.9	16.4	Encouragement of import of new vehicles: incremental tax on age.							
NIGERIA	17.7	18.9	LDVs and HDVs < 15 years, Euro 2/II emission standards.							
SIERRA LEONE	18.1	20	No import restrictions.  No incentive for cleaner vehicles: use vehicles pay less tax than new vehicles.							
Other countries	Mean age LDV exported in 2017/2018	Mean age HDV exported in 2017/2018	Current national regulations and policies							
EGYPT	13.8	8.4	Ban om import of used vehicles except electric vehicles up to an age of 3. Regulations allow for entering used cars into the country for exceptional cases (most likely returning residents), provided the Egyptian national bought it new abroad (first owner) and documentation is verified by Egypt embassy at the concerned country.							
ETHIOPIA	12.6	12.0	No import restrictions. New regulation prepared to limit the age of import vehicle to 5 years							
LIBYA	17.8	14.3	LDVs and HDVs < 10 years.  Tax of 800-1000 LD for each car imported.  Decree No 148 was implemented in May 2019. Government enforcement is difficult due to the political situation in the country. The Government of National Accord has only control in ports on the west side of the country.  (This means that the new age standard was not into force in the period of our desk study covering export data of 2017/2018. However the ILT field inspections in December 2019 showed that none of the 110 passenger cars that were inspected and destined for Libya was younger than 10 years. Their average age was 18.8.)							
MOROCCO	4.7	7.7	LDVs and HDVs < 5 years since 2010. Minimum Euro 4 emission standards for import vehicles since 2015.							

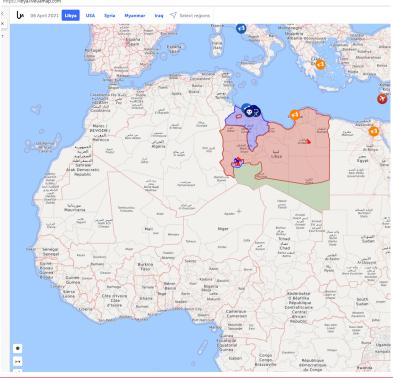
## however not complete and





Example of a vehicle carrier loading used vehicles in Antwerp (1/12/20) and Amsterdam (7/12/20) for unloading in Misurata (19/12/20) and Benghazi (21/12/20)

- Libya gateway for used vehicles to African countries?
- Threat to effective implementation of ECOWAS new regulation?







# joint action between exporting and importing countries needed

coordinated by UNEP, UN-ECE, UN-ECA, CITA, FIA and others

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## Benefits of a fleet consisting of vehicles in good technical state

- more road safety => less accidents
- with working emission control system
   less polluting emissions: cleaner air
- well maintained (and younger) vehicles consume less fuel
  - => cheaper to drive
  - => less climate emissions

Periodic vehicle inspection procedures need focusing on the technical state and emissions



#### **NEEDS FOR THE WAY FORWARD: your views?**

Besides promoting sustainable and low carbon transport systems and mobility also work on:

- 1. **Harmonisation** of fuel and vehicle standards throughout the continent this will greatly <u>enhance implementation</u> at export and import
- 2. Promoting **implementation** of used vehicles import regulation so that used vehicles <u>arrive as required</u>
- 3. Promoting vehicle roadworthy **Inspection and Maintenance programs** so that vehicles <u>remain</u> in the condition as arrived
- 4. Setting up safe **recycling** networks so that they are <u>safely disposed</u> off with a high recycling rate

for health, road safety and climate benefits



## Ad 1 &2: Harmonization and implementation of regulation on vehicle imports / fleet renewal

#### How:

- harmonized standards towards imports of used vehicles?
- capacity building and training of inspectors?

#### Why:

- to be aware of loopholes as vehicles easily cross borders
- to be aware of tricks
- to get proper access to vehicle data: vehicle identification
- to be aware of removed or non-functional emission devices



vehicles in a container with sawn off roofs, destined for export to Africa

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### Ad 4 Setting up safe disposal and recycling networks?

#### Benefits:

- Preserving tons of raw materials
- No human exposure to and leakage of oil and other liquids and acids from batteries into soil with risk of polluting groundwater
- Reducing greenhouse gas emission caused by old refrigerants leaking from car air conditioners (with high Global Warming Potential)
- Future: need for material recovery of lithium-ion batteries from battery electric vehicles ("Minerals for climate" like lithium and cobalt)

for health, environment, circular economy and climate benefits



