UN Environment Safer and Cleaner Used Vehicle Programme

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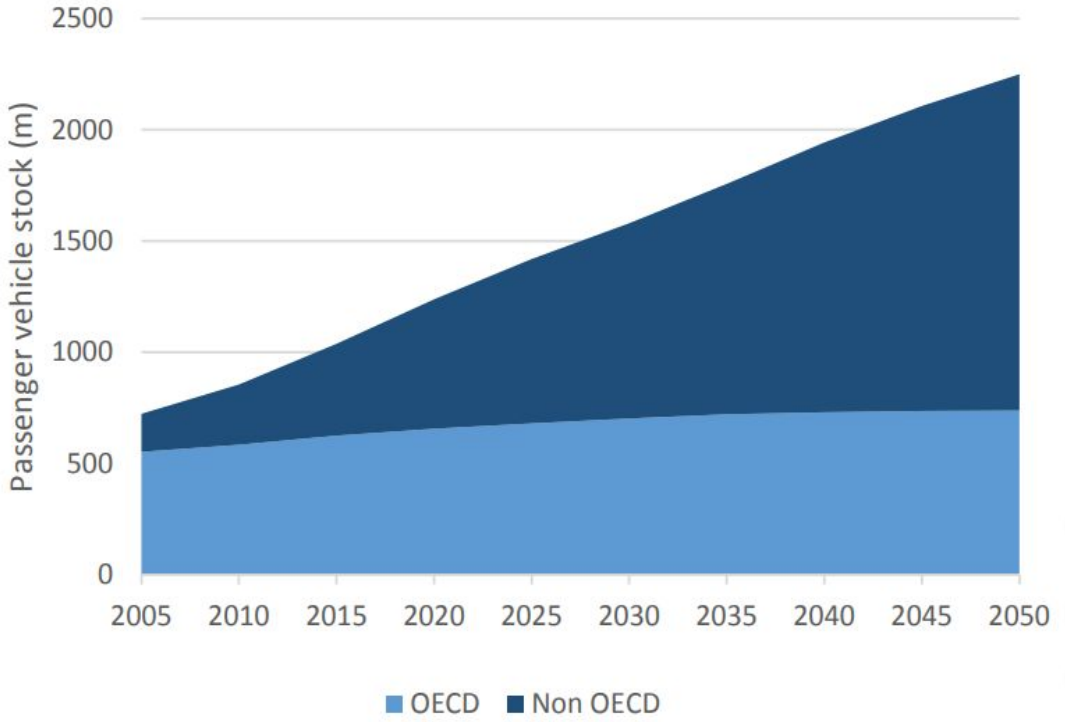
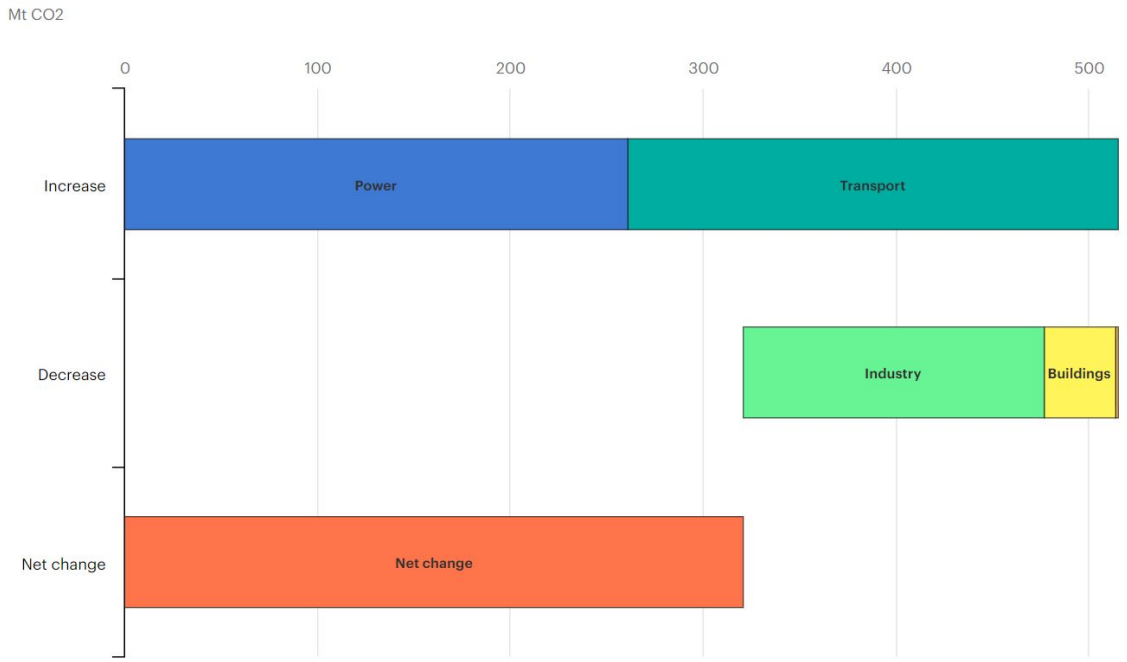
Used Vehicle Imports and Fleet Growth in LMICs

Global LDV fleet 2005 - 2050



Change of GHG emission by sector 2022 to 2023

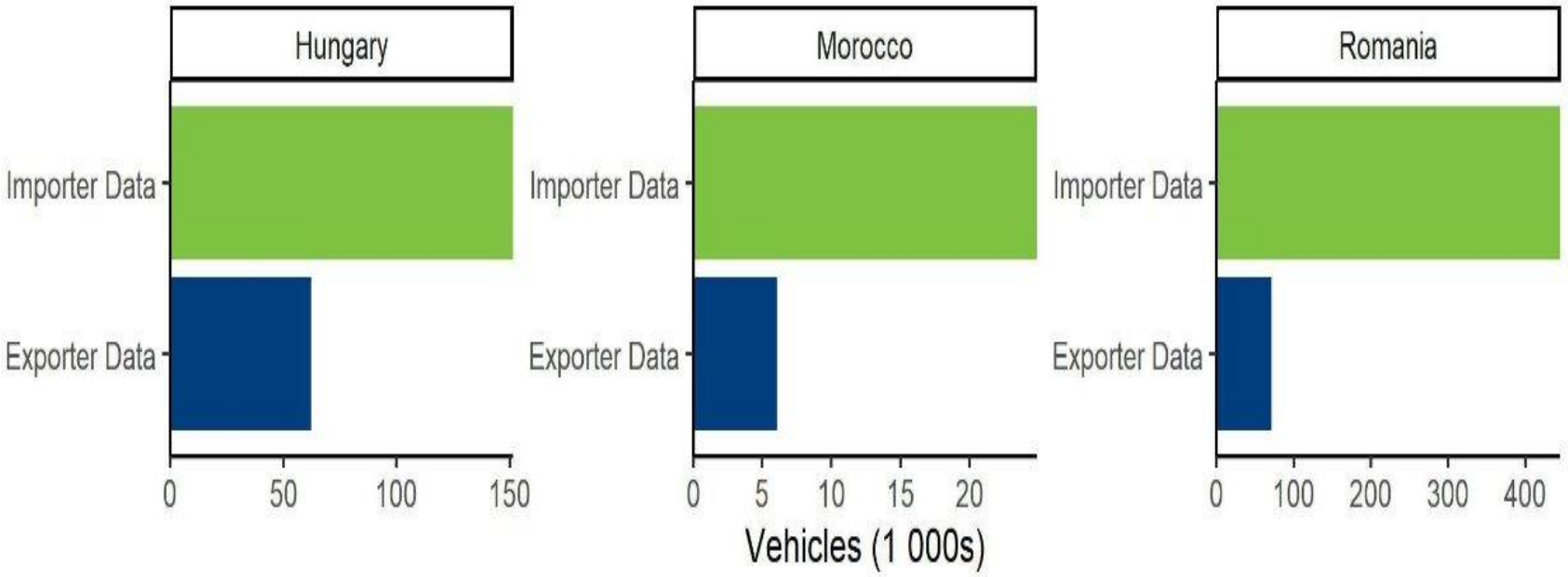


IEA, 2025

- The global vehicle fleet is projected to **double by 2050**.
- **Two-thirds of future vehicle growth will occur in Low- and Middle-Income Countries (LMICs).**
- In many LMICs, **used vehicle imports are the primary source of fleet growth.**
- These imports strongly influence **air pollution, road safety, energy demand, and GHG emissions.**

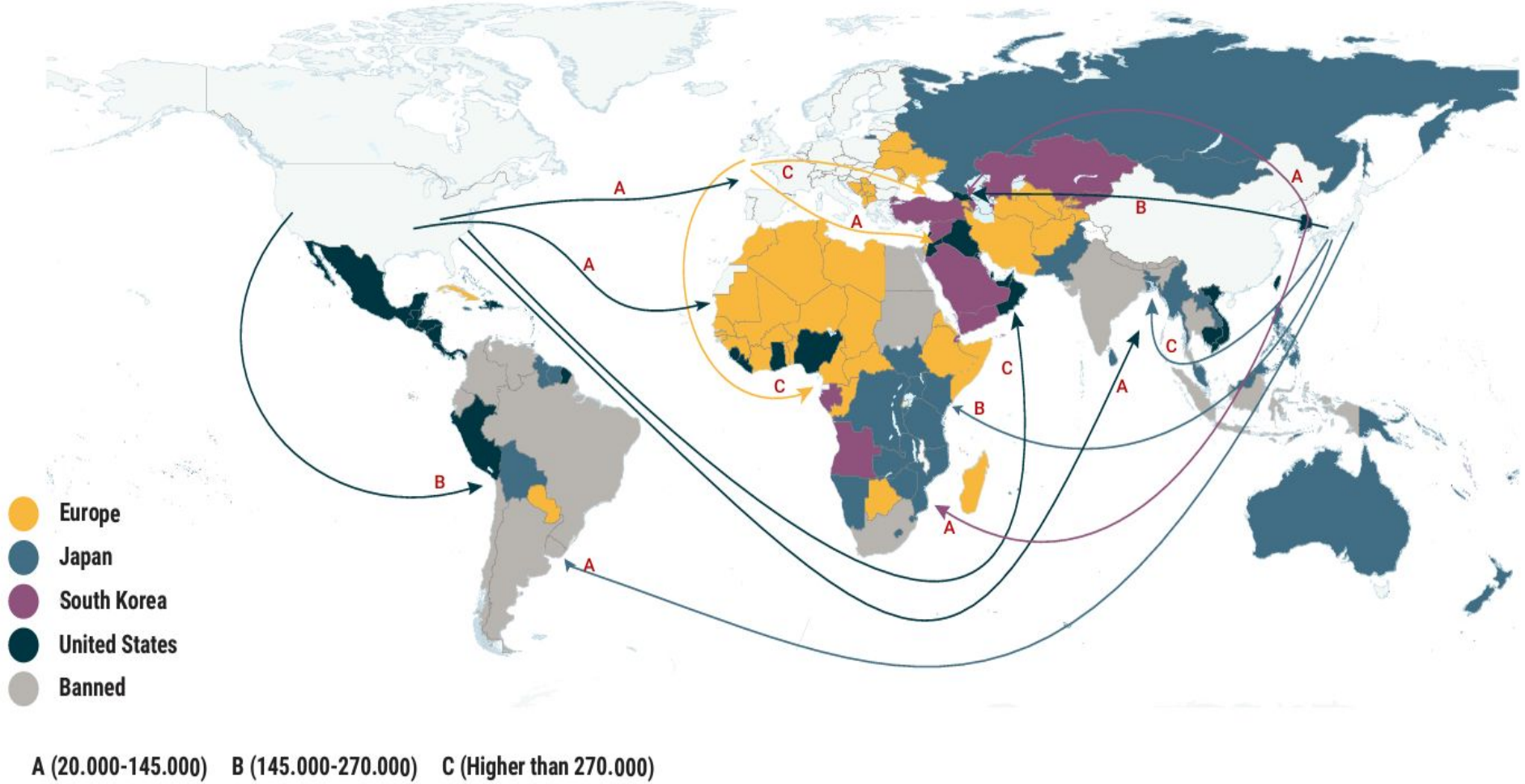
Global Used Vehicle Trade Is Significantly Under-Reported

Large discrepancies between importer and exporter statistics highlight major gaps in trade data.



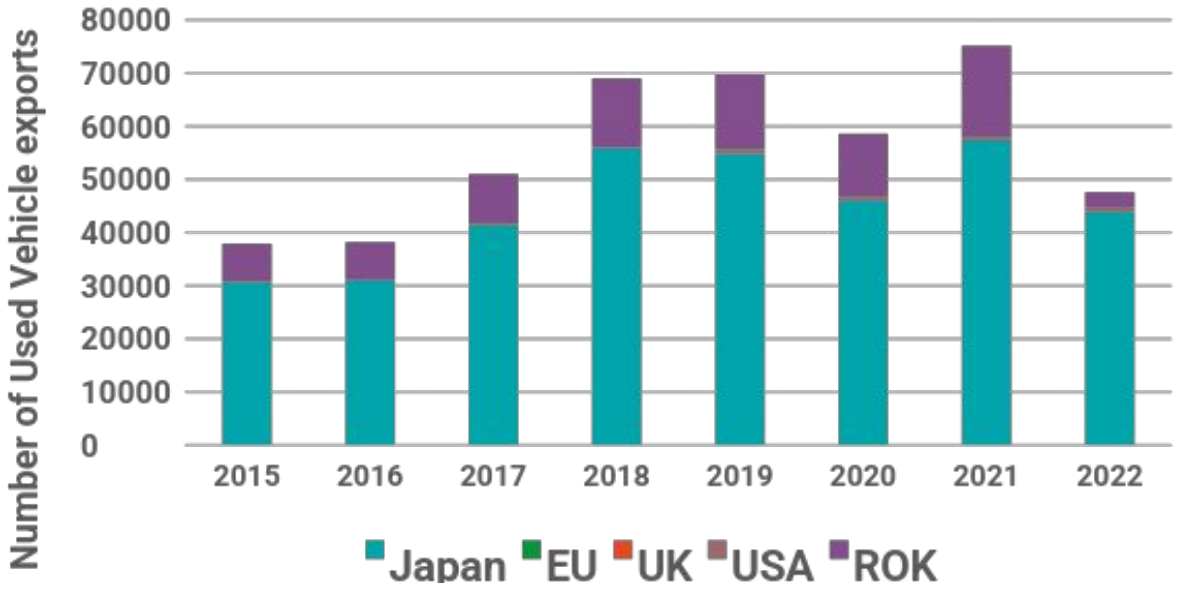
Source: ITF, 2023

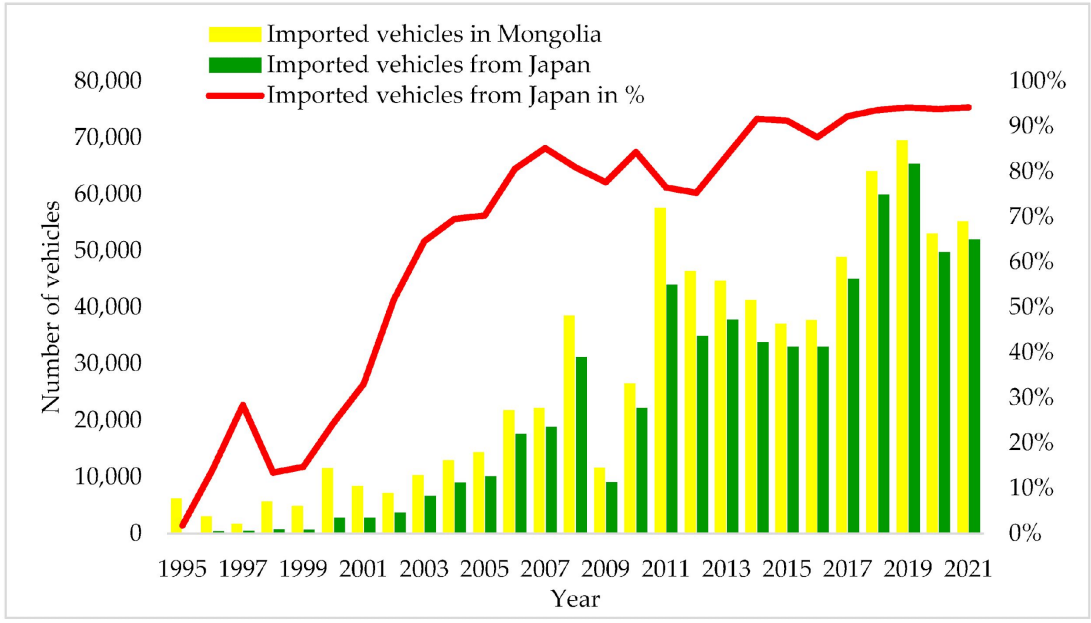
The Global Trade in Used Light- Duty Vehicles from the EU, USA, Japan and ROK- 2022



Source: UNEP, 2023

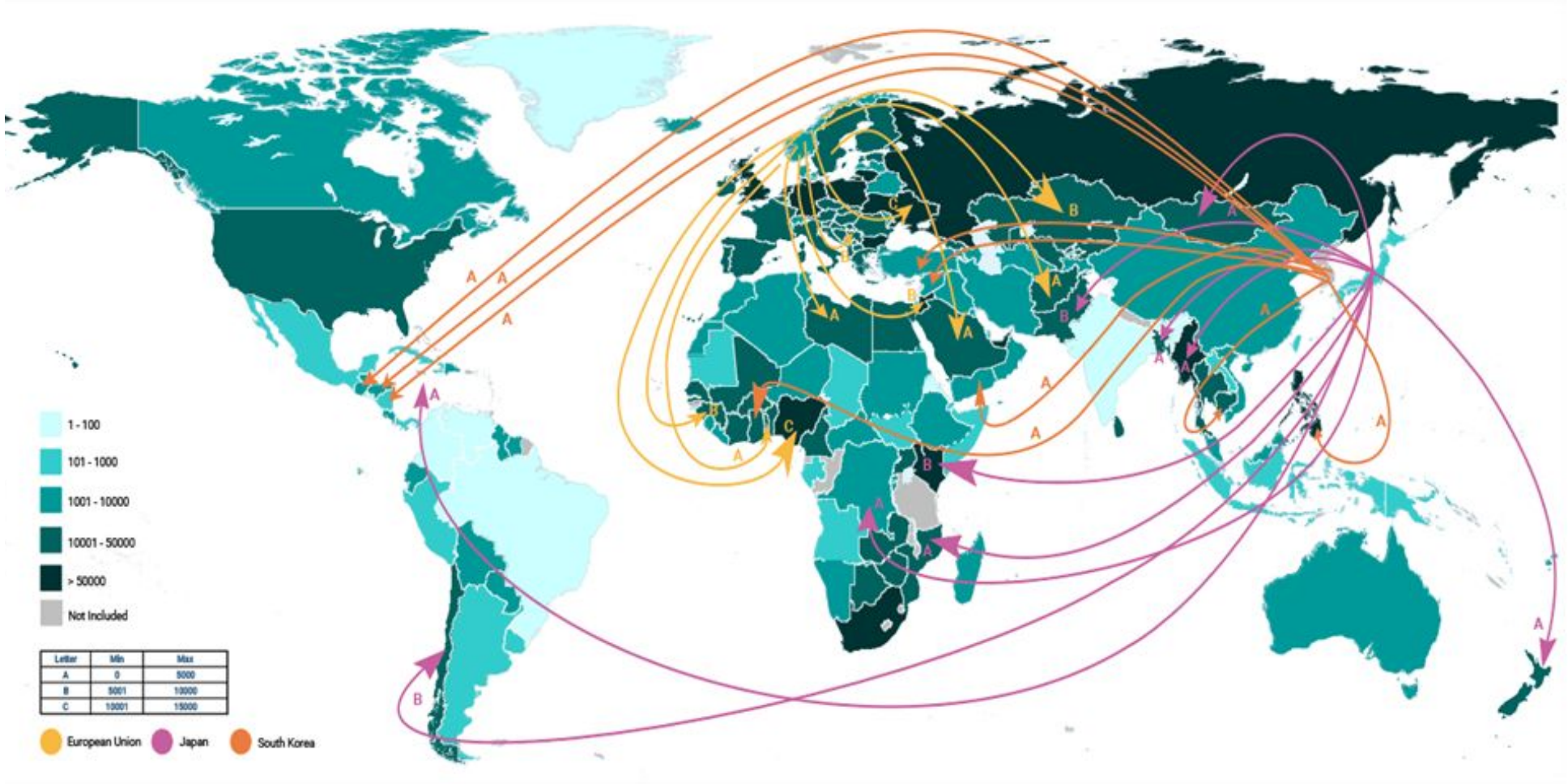
Used Vehicle exports from Japan, EU, USA, and ROK 2015-2022, and UK 2015-2019 in Mongolia



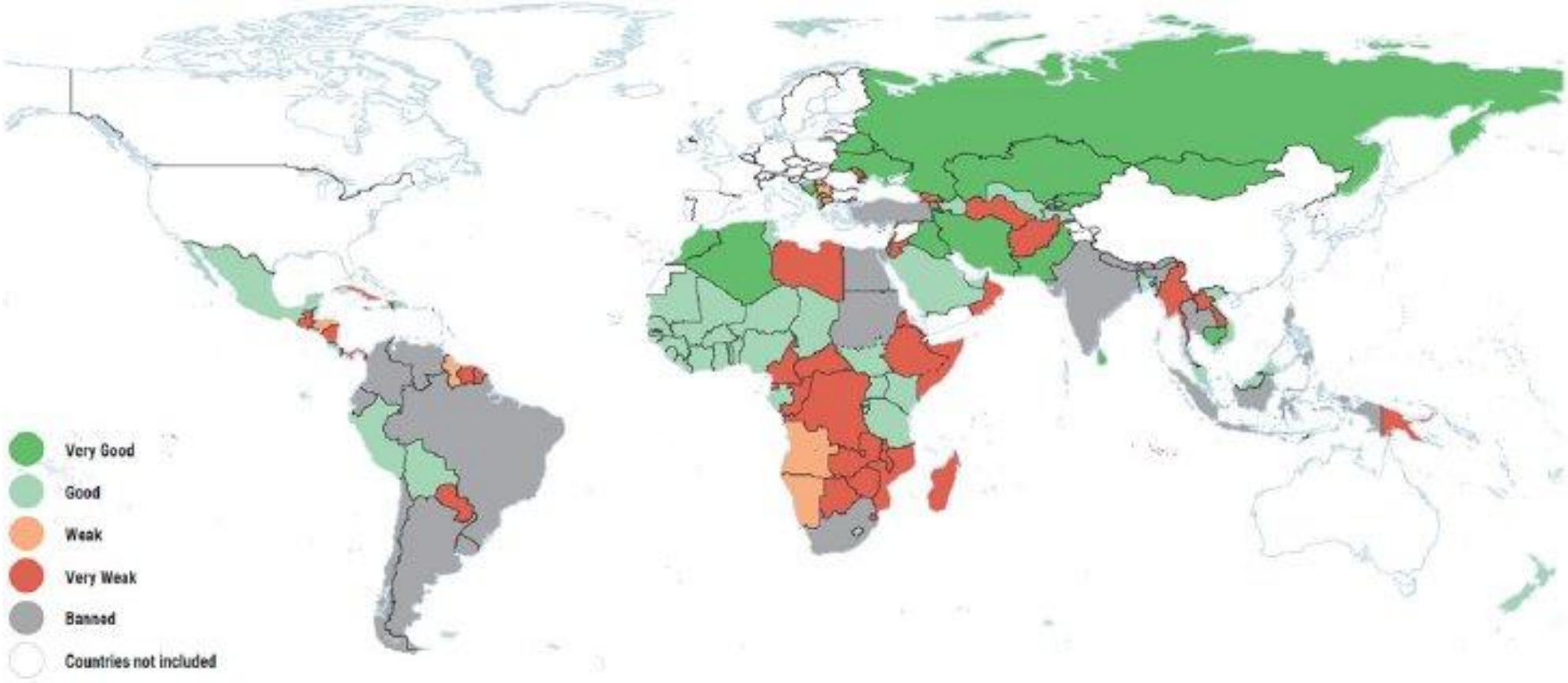


Source: UNEP, based on data collected fromsource: Nendjargal et al. 2021 major exporters, 2021

The Global Trade in Used Heavy- Duty Vehicles from the EU, Japan and ROK - 2022



Used LDV Regulatory Environment (2023)



71 countries have good or very good regulations (Malaysia, Pakistan, Singapore, Sri Lanka)
57 countries have weak or very weak regulations (Samoa, Mongolia, Myanmar)

Asia-Pacific Used Vehicle Imports

- Between **2015–2022, Asia-Pacific accounted for 16% of global used vehicle imports** *(Africa accounted for **33%**).*
- **Japan is the dominant supplier.** In **2022, 85% of imports came from Japan**.
- Other suppliers include the **United States (10%)**, **Republic of Korea (3%)**, and the **European Union (2%)**.
- These imports **significantly shape vehicle fleets and emissions outcomes across the region.**

Policy Approaches in Asia-Pacific

- **Thailand & Indonesia:** Bans most used passenger vehicle imports (since 2019).
- **Vietnam:** Strong emissions standards and import restrictions to limit older, high-polluting vehicles.
- **Sri Lanka:** Vehicle age limits and taxes linked to engine size and emissions to control fleet quality.
- **Brunei**: 3-year vehicle age limit from the original registration date and not more than 4-years from the year of manufacture.
- **Bhutan:** permit the import of used EVs provided they are relatively young (less than three years) and of low mileage (with odometer reading less than 30 000 km)
- **Pacific Island countries:** Age limits and roadworthiness requirements to prevent very old vehicles entering fleets.
- **Singapore:** Bans used vehicle imports and strictly controls vehicle ownership through its Certificate of Entitlement (COE) system.

Policy Approaches to Manage Used Vehicle Imports

Import bans: Out of the 146 countries surveyed, 18 have adopted a complete ban on the import of used vehicles (Thailand, Indonesia, Nepal, Bhutan)

Vehicle emission standards: Stringent vehicle emissions standards applied to used vehicles (Japan and Republic of Korea apply strong emission standards).

Fiscal instruments: Age-based taxation and progressive excise taxes based on CO_2 emissions or engine size, with exemptions for specific vehicles such as hybrid and electric vehicles (e.g., Sri Lanka, Singapore).

Selective restrictions: Bans on certain vehicle types, for example barring diesel vehicles above a certain age from city centers (e.g., Delhi, India low-emission restrictions).

Consumer information measures: Mandatory labelling of used vehicles to show fuel consumption and emissions (e.g., Japan fuel economy labelling system).

Exports of used EVs to LMICs

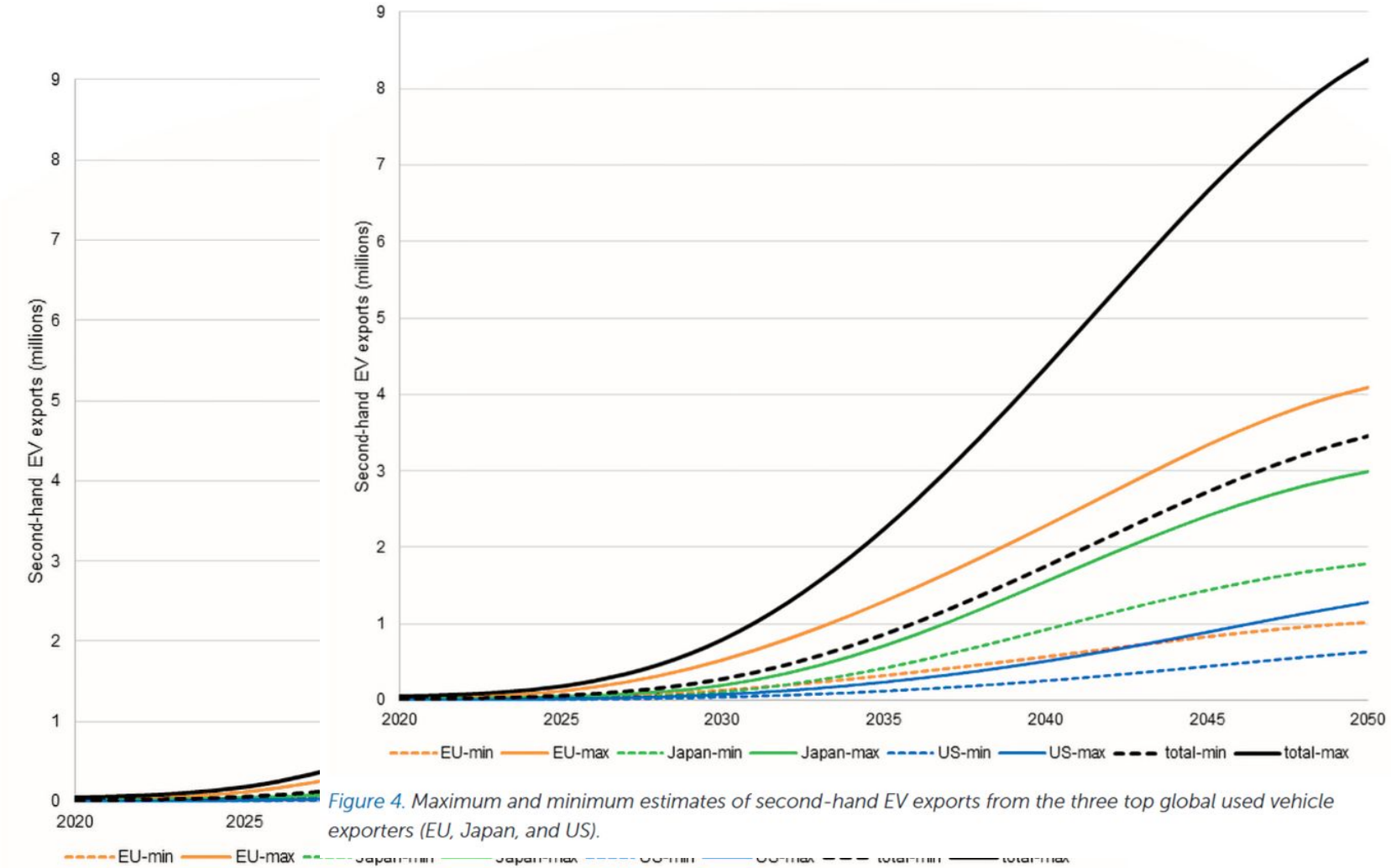


Figure 4. Maximum and minimum estimates of second-hand EV exports from the three top global used vehicle exporters (EU, Japan, and US).

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https://www.unep.org/resources/report/electric-vehicle-lithium-ion-batteries-lower-and-middle-income-countries

Why Cleaner and Safer Used Vehicles

Benefits for Climate & Air Quality

- **Vehicles meeting Euro 4/IV standards and above emit up to 80–90% fewer pollutants** (PM, NOx, hydrocarbons) than older vehicles.
- This **significantly improves urban air quality and reduces health risks**.
- **Newer vehicles are more fuel-efficient**, lowering fuel costs for owners.
- **Reduced fuel consumption also lowers CO_2 emissions.**

Benefits to Road Safety

- **Newer vehicles include critical safety features** such as airbags, ABS, and electronic stability control.
- **Reduced risks from steering conversions**, which can compromise vehicle integrity and handling.
- **Lower risk of tampered safety systems**, such as removed airbags or seatbelt mechanisms before export.

UNEP’s Safer and Clean Used Vehicle Programme

UNEP works with exporting and importing countries to prevent obsolete, ageing, unsafe, and polluting vehicles from being exported or entering national fleets.

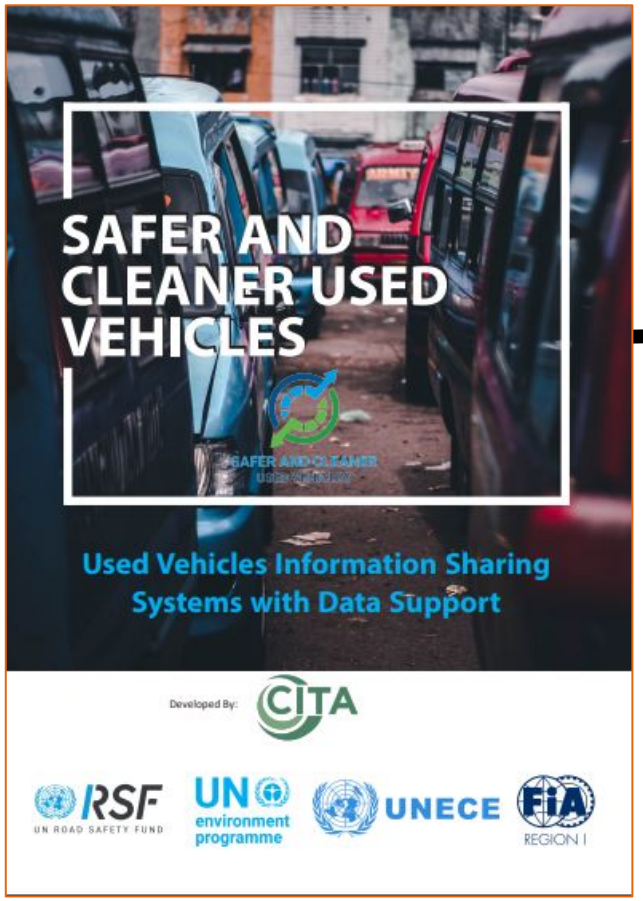
- Stop the export of end-of-life vehicles
- Valid roadworthiness certificate
- Pre-inspection of vehicles at point of export
- Minimum Euro 4/IV emission standards (Target Euro 6/VI standards)
- Systems approach (Low Sulphur Fuels)

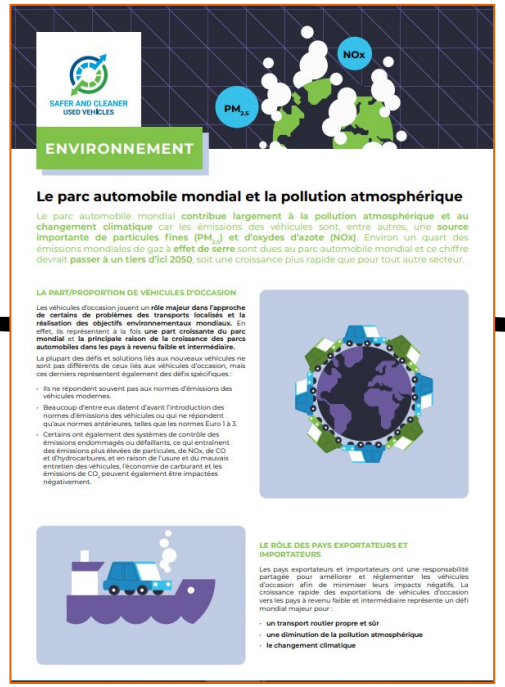
Data and Analysis: Provide evidence and research to support policy development and decision-making

Capacity Building: strengthen implementation and enforcement of vehicle regulations

Promote sub-regional harmonized standards

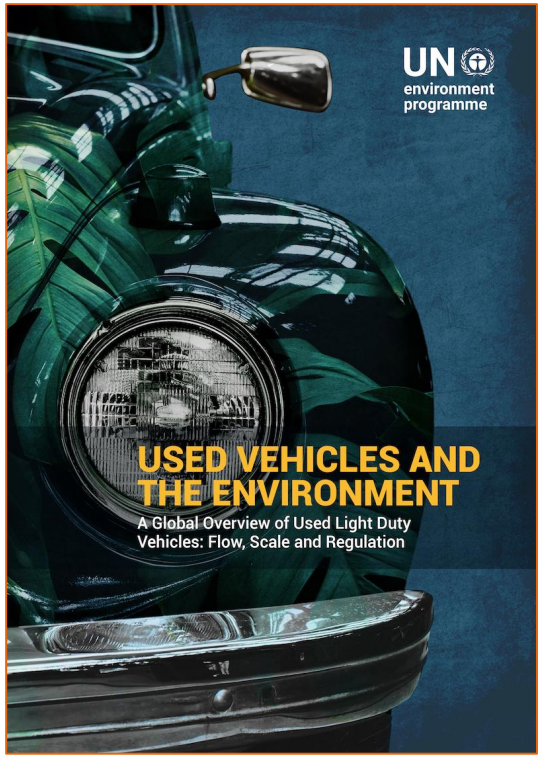
Funded by: UNRSF, FIA Foundation, Climate Works Foundation, Climate and Clean Air Coalition


SAFER AND CLEANER USED VEHICLES
Used Vehicles Information Sharing Systems with Data Support
Developed By:
CITA
RSF
UN ROAD SAFETY FUND
UN environment programme
UNECE
FIA
REGION I


SAFER AND CLEANER USED VEHICLES
NOx
PM2.5
ENVIRONNEMENT
Le parc automobile mondial et la pollution atmosphérique
LA PART/PROPORTION DE VÉHICULES D'OCCASION
LE RÔLE DES PAYS EXPORTATEURS ET IMPORTATEURS


First African Used Vehicles Importers Meeting
DATE: 25 June 2021
TIME: 12:00 - 3:00pm [east african time]
#cleanervehiclesforAfrica
#safervehiclesforAfrica
SAFER AND CLEANER USED VEHICLES
RSF
THE ROAD SAFETY FUND
UNECE
FIA
CITA
UN environment programme
ECA
African Union


SAFER AND CLEANER USED VEHICLES
PROJECT AMBITION
A step further to achieve the 2030 Agenda for Sustainable Development by ensuring prosperous lives, promoting well-being, and making roads inclusive, safe, resilient, and sustainable.
A model that can be replicated in other regions facing similar challenges.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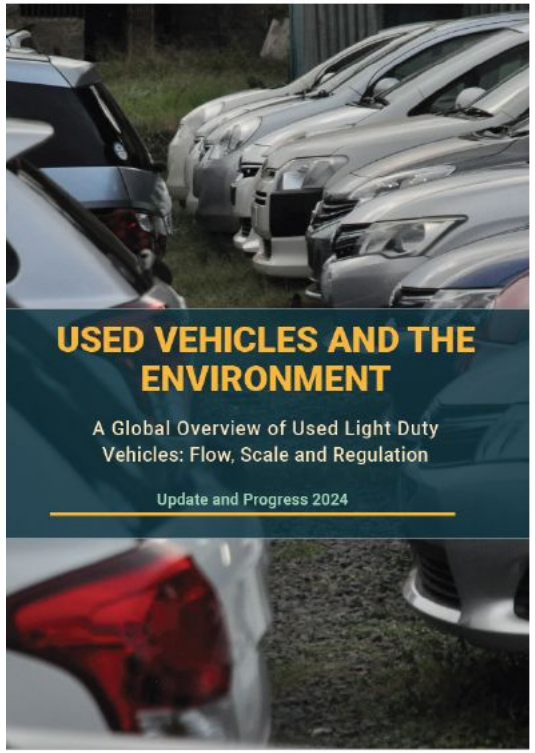
USED VEHICLES AND THE ENVIRONMENT
A Global Overview of Used Light Duty Vehicles: Flow, Scale and Regulation


UN environment programme
Africa has the highest road traffic fatality rates with 246,000 deaths each year. This number is projected to more than double to 514,000 in 2030.


USED VEHICLES AND THE ENVIRONMENT
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Update and Progress 2024

Thank you!

UN environment programme