Generation and Handling of ULABs in the Caribbean: Summary of Findings from Regional Projects

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Background

The Environmentally Sound Management (ESM) of ULABs has been identified as a priority for several countries of the region. This priority was communicated through:

1. **Regional Strategy for the ESM of ULABs** in Central America, Colombia, Venezuela and the Caribbean Island States 2008
2. Recent **baseline and needs assessments** conducted during project development highlighted the need for tighter controls on ULAB management by Caribbean Governments;
3. The framework of the **Action Plan 2019-2020 for regional cooperation on chemicals and waste management** in Latin America and the Caribbean (LAC);
4. The **BCRC-Caribbean's Business Plan 2020-2023**, which proposes projects for the development of inventories of ULABs in the Caribbean, specifically for Saint Kitts and Nevis and Trinidad and Tobago, granted that funding for same can be obtained.

GEF ISLANDS Background

The **GEF ISLANDS Programme** aims to support Small Island Developing States (SIDS) in their integrated management of chemicals and waste through the elimination of historically accumulated waste and the control of the flow of chemicals into their territories.

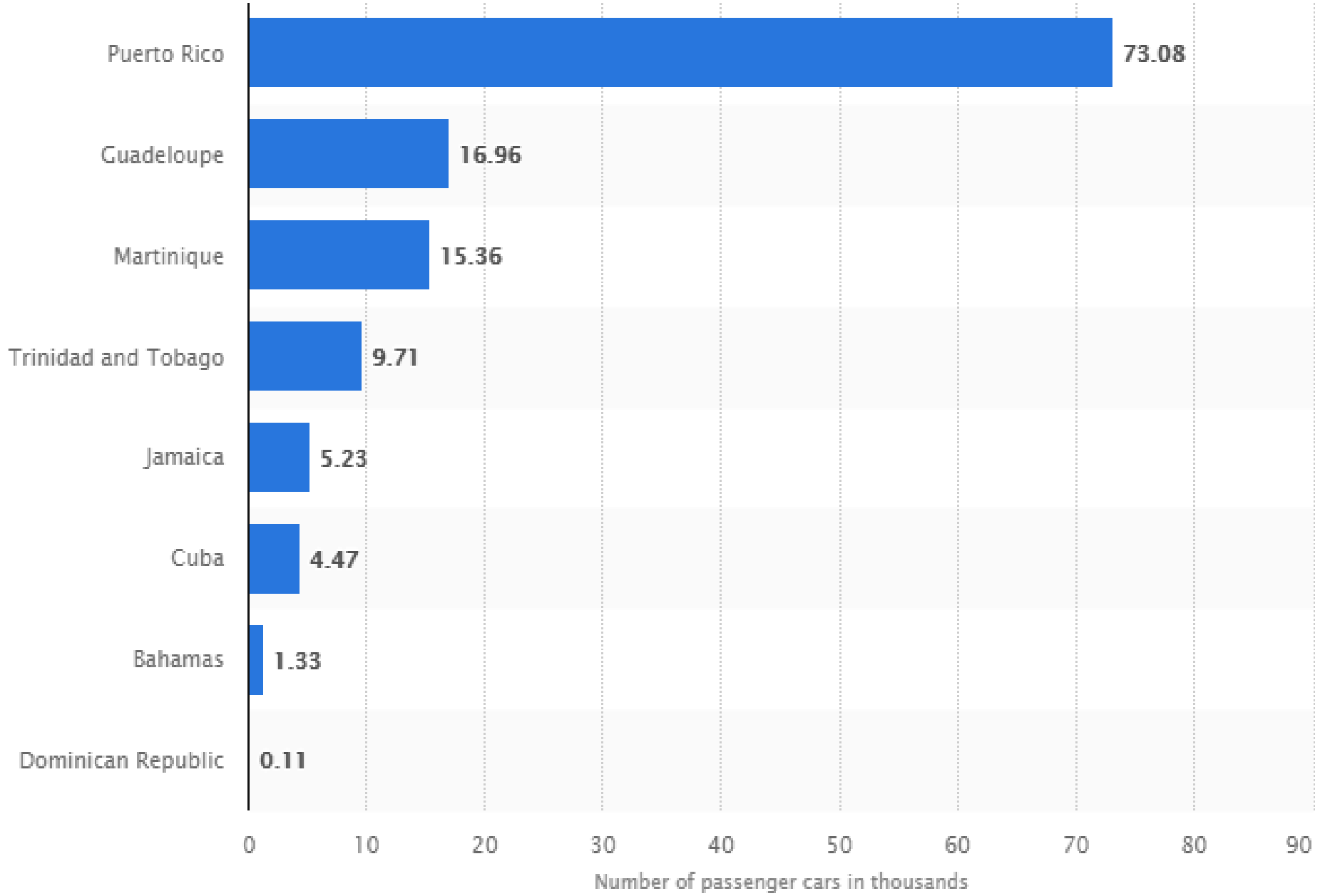
- **Three Caribbean Child Projects** with participation from the following twelve (12) Caribbean countries:

- Currently in **Project Preparation Grant Phase**, where the baseline scenario for chemicals and waste management is being established for project countries and project activities are being developed for the implementation phase of the project
- Entire Caribbean Region set to benefit from the activities under this project

Summary of Vehicles Inflow to the Caribbean

- Vehicles are not manufactured in the Project Countries and are sourced from foreign suppliers.
- Most Caribbean countries do not regulate or enforce regulations on the management of end-of-life vehicles (ELVs). ELVs are often abandoned on public roads and in public spaces.
- The improper management of ELVs may lead to soil pollution and groundwater pollution by the lead batteries, which in turn threatens human health and the environment.

Number of Passenger Cars in the Caribbean



ULABs Recycling Initiatives in the Caribbean

- In many of the Project Countries, the intrinsic value of the lead in ULAB leads to an **informal recovery/recycling activity** where:
  1. Batteries are collected,
  2. Plastic removed,
  3. Recovered lead sold to scrap metal dealers and/or exported.
- Informal ULAB recovery/recycling ensures ULAB do not end up at the landfill sites; however its private, fragmented and informal nature prevents the measurement of quantities of batteries being recovered.
- In Trinidad and Tobago, the MIC Institute of Technology (MIC-IT) use an **Ion Hammer to regenerates spent ULAB** at a commercially viable rate, optimising waste resource use which mitigates environmental contamination (Source: https://newsday.co.tt/2019/12/24/mic-unveils-new-innovations/ Accessed, June 2020)

Current Management Practices

Country	Management Mechanism for ULABs
Antigua and Barbuda	Informal private sector arrangement for the collection and export of these batteries to markets in Brazil and/or South Korea.
Barbados	Three companies involved in the collection and processing of batteries for export to Korea or Thailand, where they are recycled.
Belize	Department of Environment has developed the ULAB recycling program and has developed technical guidelines for the overall management.
Guyana	Private sector company collects the batteries, drains the acid into a container, packs the batteries onto a pallet for export. ULABs are exported in accordance with the Prior Informed Consent (PIC) Procedure outlined in the Basel Convention.
Jamaica	Export of ULABs regulated under The Natural Resources (Hazardous Waste) (Control of Transboundary Movement) Regulations, 2002.
Saint Kitts and Nevis	ULAB program implies batteries are collected privately with a discount in new batteries if old ones are returned.
Trinidad and Tobago	Private sector involvement in collection and export of ULABs to South Korea for recycling. PIC Procedure followed by some exporters.

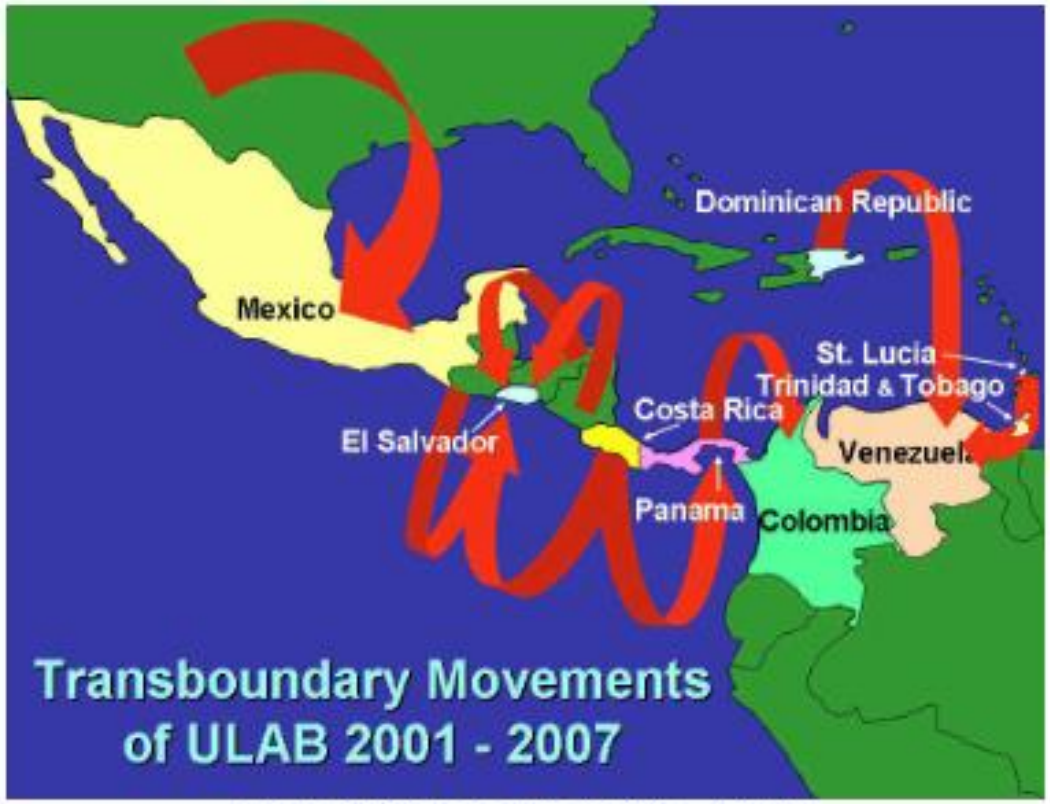
Quantity of End-of-Life Vehicles and Used Lead-Acid Batteries Generated per year (Tonnes/year)

Country	ANU	BDOS	BZE	DR	GUY	SKN	SLU	SUR	TT
End of Life Vehicles[1]	3,813	7,338	7,801	**116,666**	5,145	1,609	4,617	9,878	**39,170**
Lead-Acid Batteries	471	947	425	**102,700[(2)]**	1,657	376	468	1,640	**5,861[(3)]**

[1]Acosta & Cutina (2020) – Final Recommendations report for ELVs, GEF ISLANDS PPG
[2]This does not include the quantities of sludge, oil rags and filters which end up in the landfill per year.
[3]Estimates as actual data is not available or has not been willingly supplied

Flow of ULABs in the Caribbean and Latin America

The *Regional Strategy for the ESM of ULABs in Central America, Colombia, Venezuela and the Caribbean Island States 2008* found ULABs in the region were predominantly exported to El Salvador, Colombia and Venezuela:



ULAB Movements 2001 – 2007

The strategy also projected how the transboundary movement of ULABs may look from 2008 onwards:

Projected ULAB Movements 2008 onwards

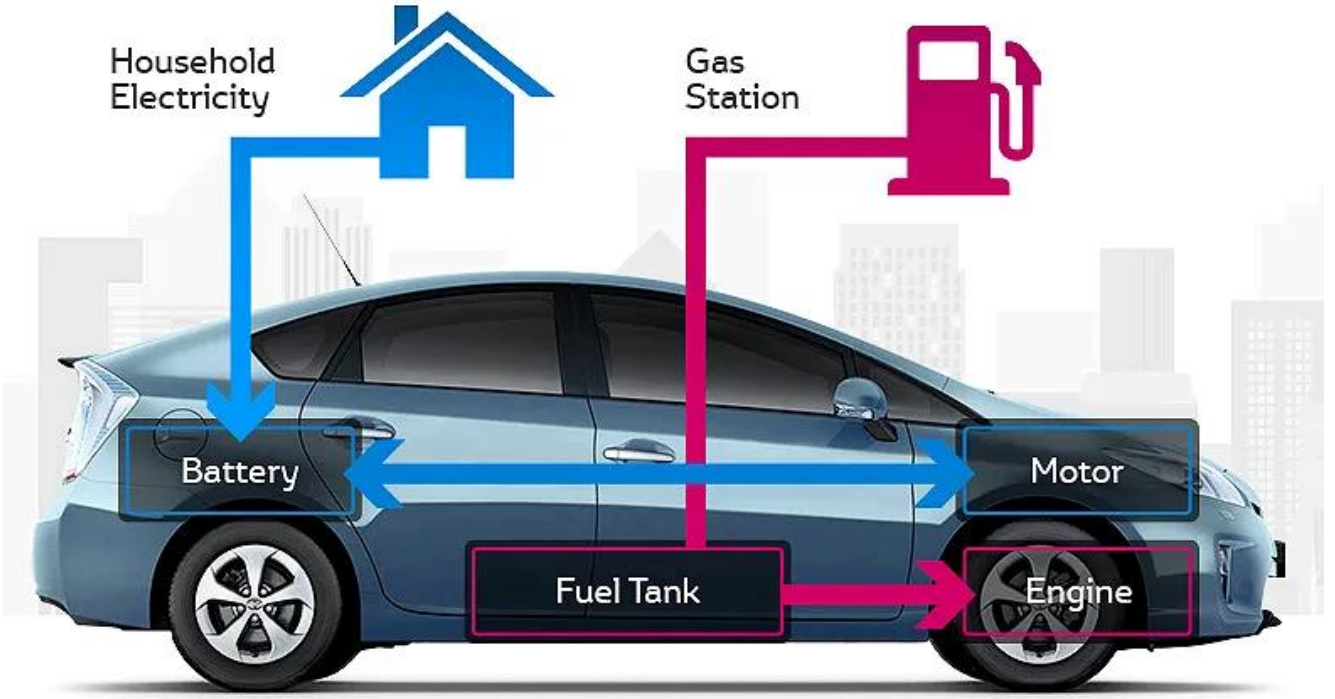
Emerging Issues in the Caribbean

High cost of fuel vehicle imports **+**

Climate Change Commitments **=**

move towards **Hybrid Vehicles**

Potential issues may arise from the 12-volt lead acid battery that **Hybrids** contain



THANK YOU!

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