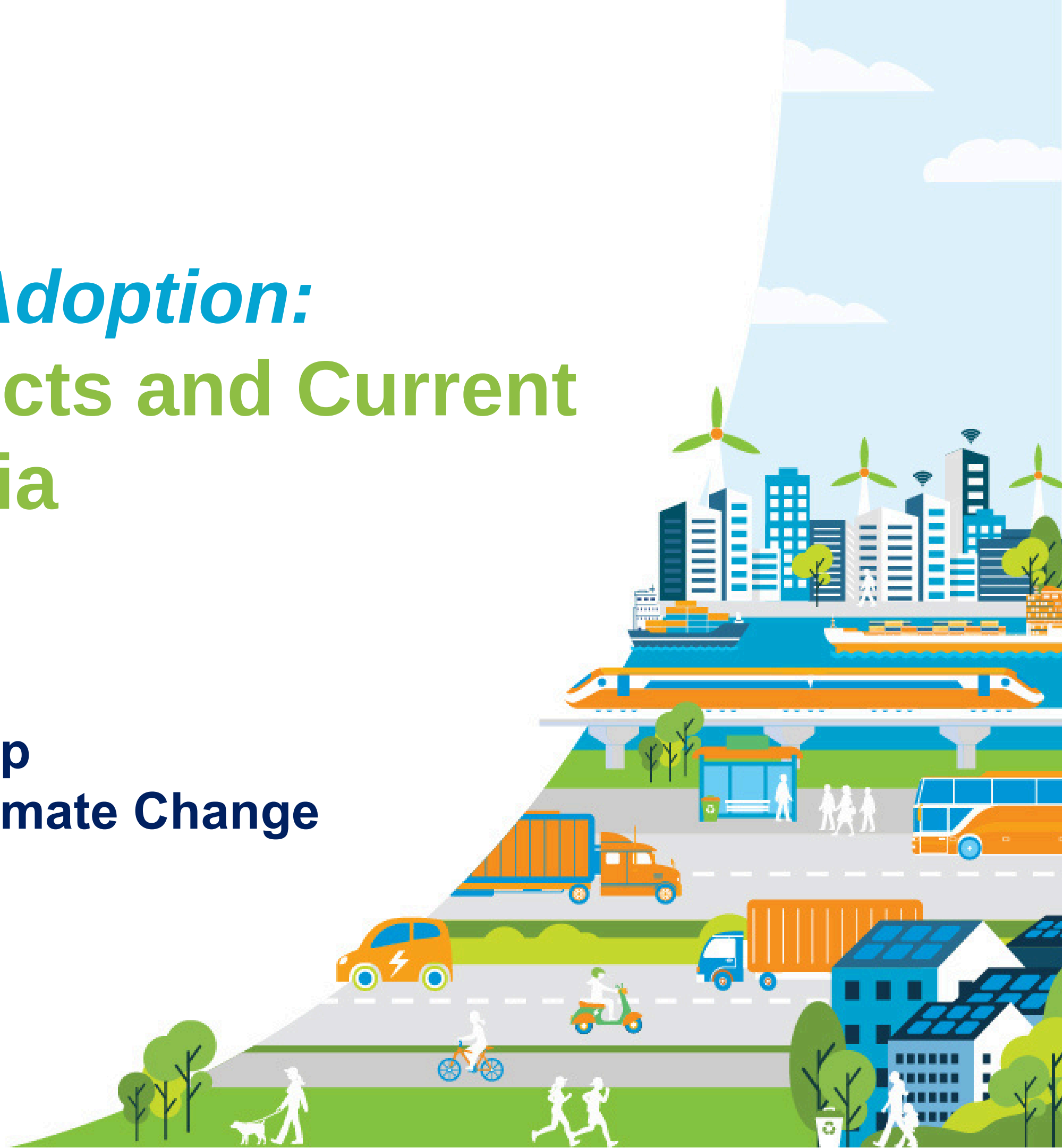


Accelerating E-Mobility Adoption: Insights from GEF Projects and Current Development in Malaysia

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Barriers to Accelerating E-Mobility Adoption in Malaysia

R eadiness of Infrastructure

- **Availability and accessibility:** EV charging infrastructure remains inadequately dispersed, falling short of targets (10,000 public charging stations by 2025), with ~60% of 155 local authorities still lacking access.

A ffordability

- **Limited affordable EV options** (<RM100k) hinder adoption, influenced by governmental policies to protect local automotive industry, as over 70% of buyers prefer vehicles within this price range
- **Higher upfront cost** e.g. bus electrification, upgrading power availability
- Electric 2 Wheelers - **performance is not comparable to ICE motorcycles** or scooters of a similar price range. Cheap fuel price dampen the urgency to shift.

M arket Awareness

- Despite the environmental benefits and potential long-term savings, many consumers **remain unaware of the advantages of EVs or have misconceptions** about their capabilities.
- Additionally, **personal preferences, such as concerns about range, charging infrastructure, and performance**, often lead consumers to stick with traditional internal combustion engine vehicles.

P olicy and Regulatory

- EV is an emerging market of interest by various Ministries which requires coordinated synergies
 - E.g. The charging installation process is **governed by numerous regulators**, prompting government efforts to **streamline** procedures for quicker implementation.
 - Battery management



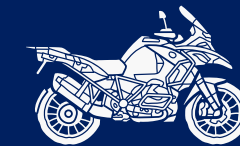
EV Status in Malaysia

(as of March 2024)



21,421

BATTERY ELECTRIC VEHICLE (BEV)



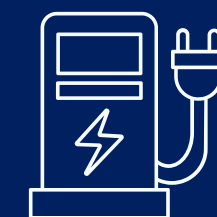
2,564

ELECTRIC MOTORCYCLES



151

ELECTRIC BUS



2,288

PUBLIC CHARGING POINTS

3.7 kW - **AC | 1,785**
 22 kW
 30 kW - **DC | 503**
 350 kW



Opportunities to Accelerating E-Mobility Adoption in Malaysia

1

Potential as Regional Hub for the EV industry

- Malaysia is the leading E&E manufacturing hubs in Southeast Asia
- Malaysia attracted over 30 billion investment (2018 - 2023) in EV - from leading EV manufacturers, battery producer, charging etc

2

EV Market prospect is promising

- The EV sales recorded >300% growth in 2023 compared to previous year
- High Total Industry Volume: reaching almost 800k units in 2023
- Local EVs is anticipated by 2025

3

Supportive policy and governance to transition to cleaner transport

- Low Carbon Mobility Blueprint 2021 -2030, National Energy Transition Roadmap set imperative action plans and targets
- National EV Steering Committee (chaired by Deputy Prime Minister) and National EV Task Force are established to expedite the development and deployment of EV in the country



GEF5-UNIDO Energy Efficient Low-carbon Transport and Low-Carbon Cities Project (2015 - 2020) build foundations of EV ecosystem in Malaysia including the establishment of Low Carbon Mobility Blueprint 2021 -2030

GEF7-UNIDO - Accelerating the Adoption of Smart Climate Transport aims to support wider adoption of EVs in Malaysia and also enhance a business sector ecosystem for EVs and sustainable batteries in Malaysia, through
 1) improving policy and regulatory framework for EV value chains, and
 2) demonstration of innovative electric mobility solutions.

THANK YOU!

