

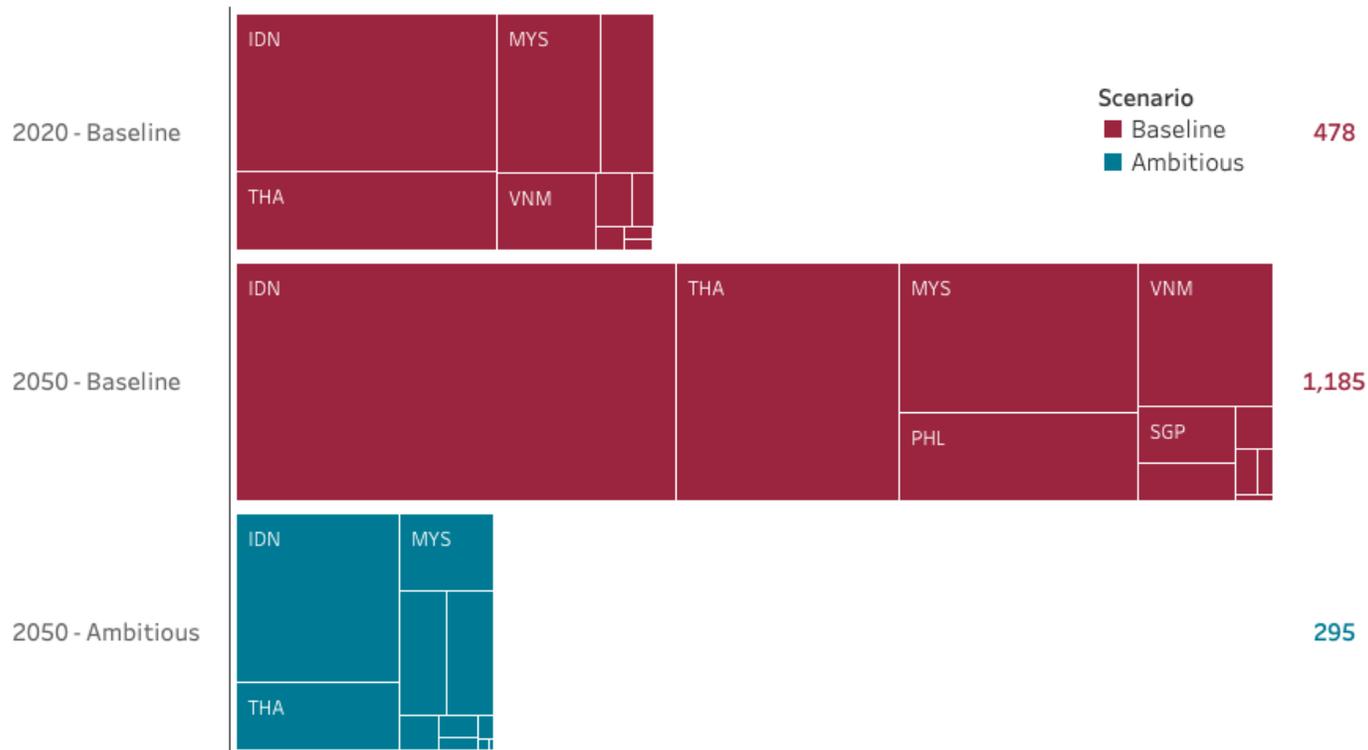
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Zero emission solutions for transport in ASEAN

Presented at the Better Air Quality Conference
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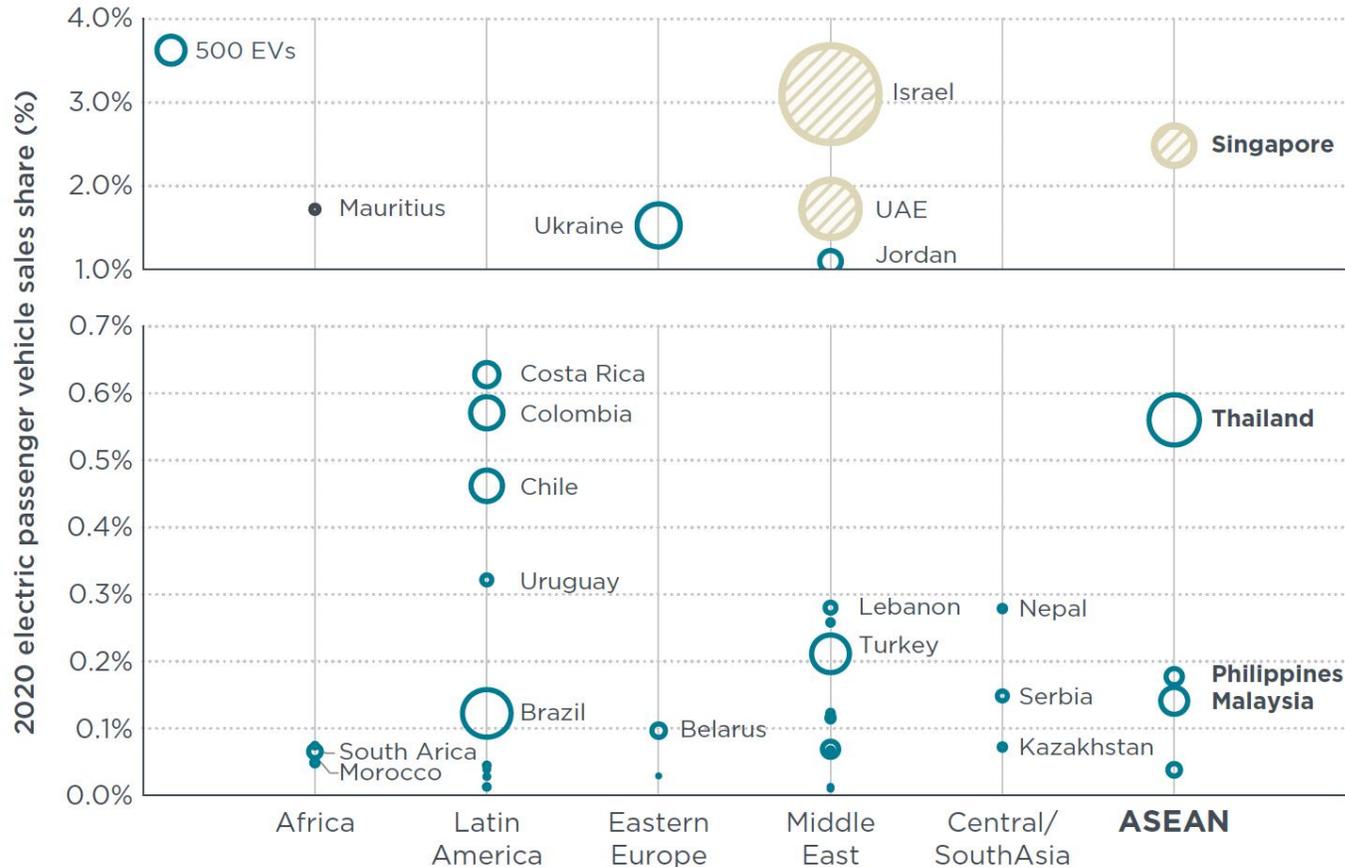
ZEV transition could significantly reduce CO₂ emissions from the road transportation sector in ASEAN region



2050 versus 2020 well-to-wheel CO₂ estimates in ASEAN

- Current policy landscape: CO₂ emissions increase by 148%
- Ambitious shift to ZEVs: CO₂ emissions lower by 38%

ASEAN Countries are scaling up with electric vehicles



Note: Israel, UAE, and Singapore are high-income countries

- Similar to other developing countries, EV uptakes in ASEAN market is at early stage.
- EV transition in the region is fastest within the 2&3 wheeler segment
- Electric buses stocks in Thailand, Singapore, Indonesia, Malaysia, and the Philippines are increasing

Our works in the ASEAN Region

- We worked in Indonesia, Vietnam, Thailand, and Philippines, mainly to support electrification
- We focus our works on heavy-duty vehicles, light duty vehicles including 2 & 3 wheelers, fuels, and charging
- We support government at national and local level, private sector and association to achieve their electrification target and commitment



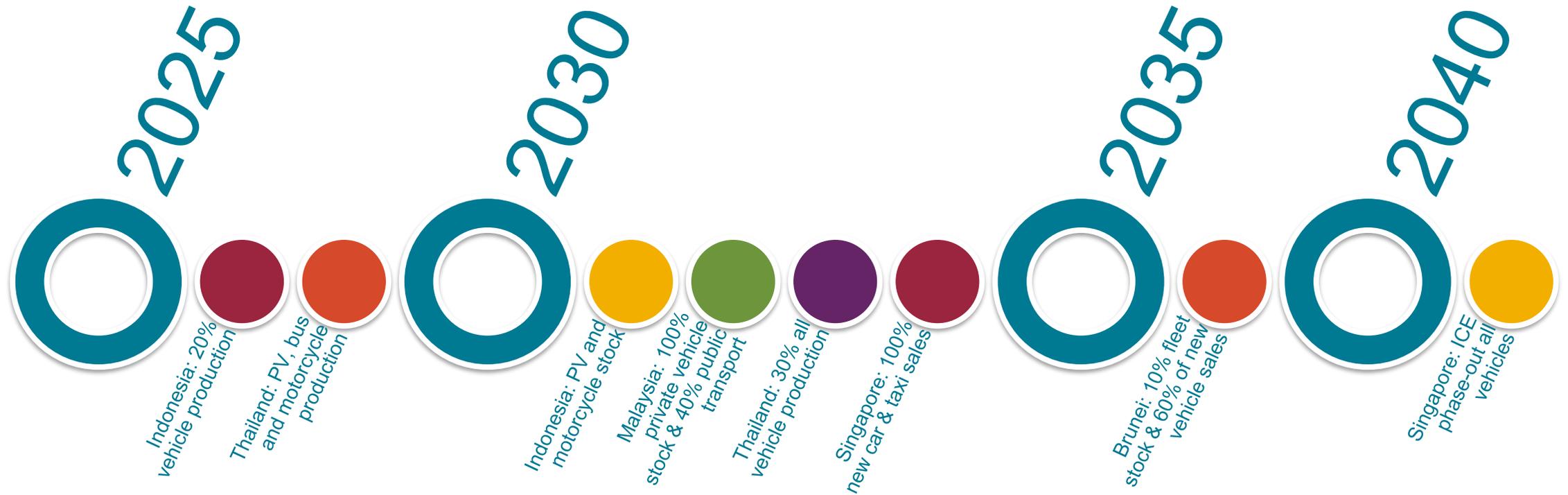
TRUE Initiative: Jakarta remote sensing

- NOx emissions from diesel vehicles are 10 times higher than from gasoline
- Diesel buses and trucks emit 14 times more pollutants than cars and taxis
- The adoption of Euro 4 for gasoline cars improved pollutant emissions by 50 - 60%
- Indonesian vehicle emissions are 20 – 30 years behind what the market offers today
- **Restricting the most polluting vehicles and accelerating EVs are the most effective way to clean the air in Jakarta**
- TRUE Initiative is open to work with more cities in the region, please feel free to reach out to us



TRUE Initiative is a partnership of the FIA Foundation and the International Council on Clean Transportation which seeks to bring transparency to the public debate on vehicle emissions and urban air quality

Electric Vehicle Policy status*



Indonesia EV policies

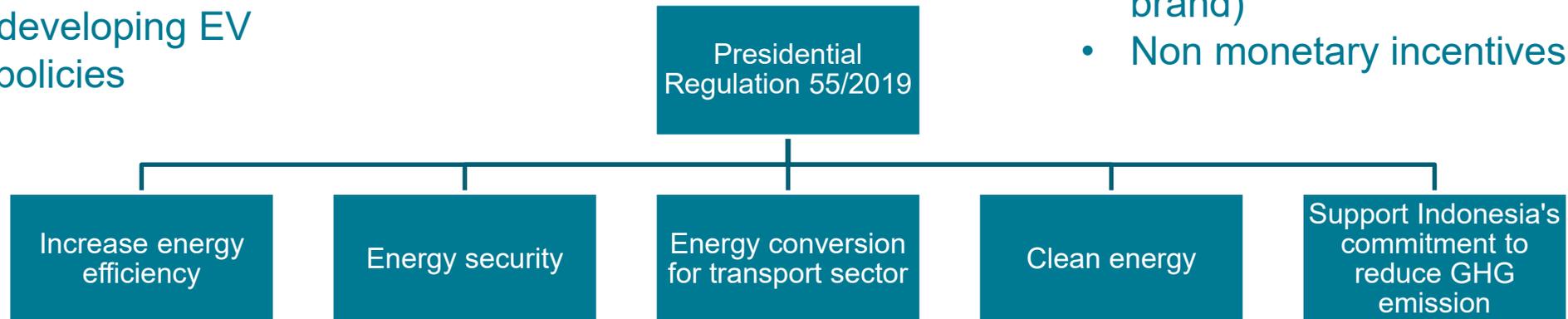
Presidential Regulation No 55/2019 on the acceleration of battery electric vehicle uptake serves as the umbrella in developing EV related policies

It provides guidelines and directions from ministries and local governments in developing EV implementation policies



EV incentives:

- 10% VAT discount for EV (with 40% local content)
- 500 USD subsidy for electric two-wheeler
- 0% transfer tax
- 0% import duties (for certain brand)
- Non monetary incentives





Concept for national e-mobility



Indonesian government is currently developing a roadmap to implement e-mobility for public transport (BRT) together with the support of the World Bank, started at Bandung and Medan city

START

Penyusunan National E-Mobility Plan

Pilot Project BTS Listrik

1 Koridor Bandung dan 2 Koridor Surabaya dengan Program Buy The Service pada TA 2021

90% Bus Listrik

Sistem Angkutan Umum Massal Perkotaan tersebar di seluruh Indonesia dengan 90% berbasis listrik



100% ANGKUTAN MASSAL

Angkutan Umum Massal Perkotaan telah 100% berbasis listrik. Implementasi sistem angkutan umum yang merata di Kota Besar Indonesia



100% Angkutan Umum

2021

2030

2040

2045

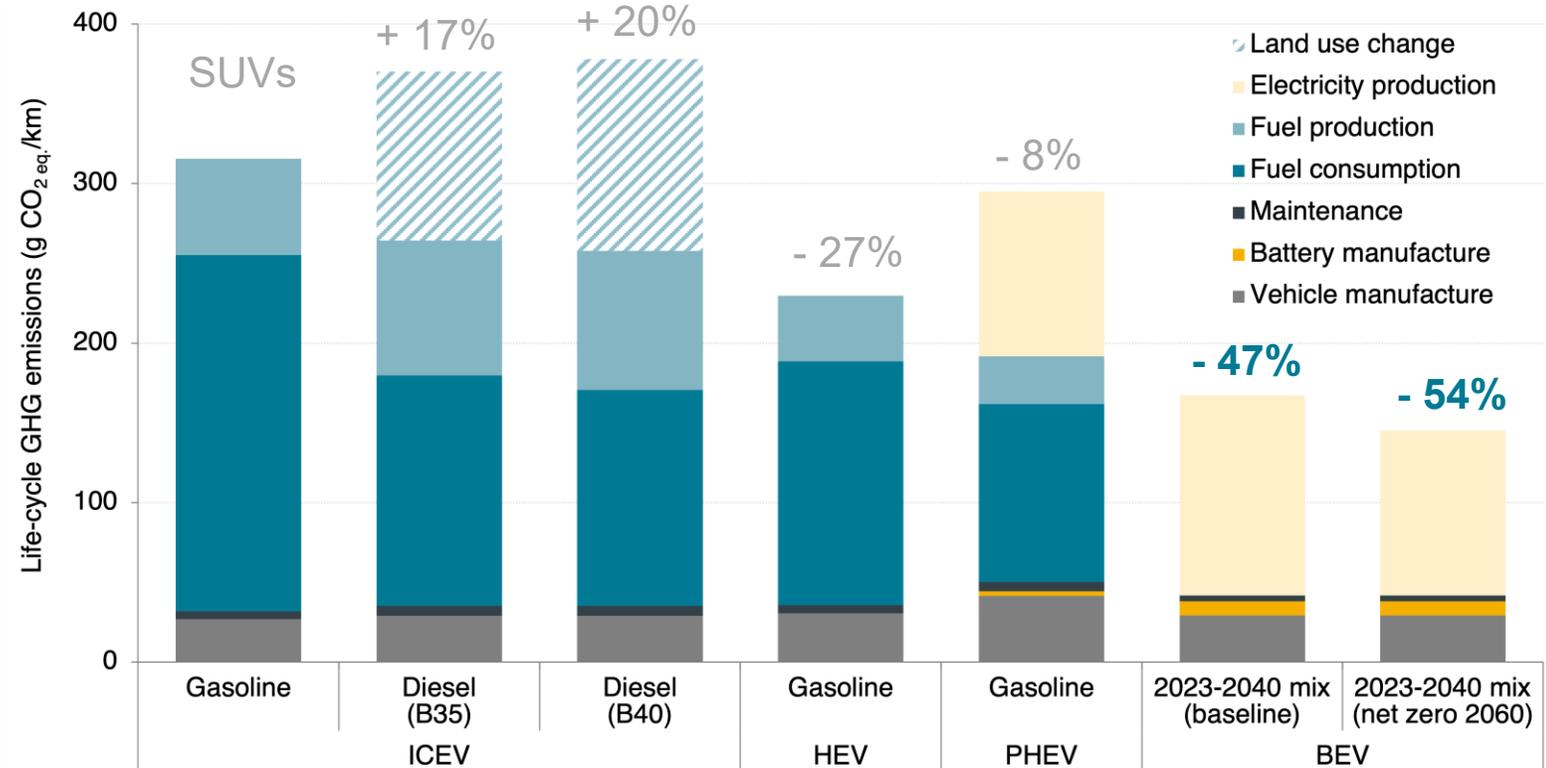
Source: Directorate of Road Transport, Ministry of Transport Indonesia

LCA study results: EVs have lowest life-cycle GHG emissions, benefit increases with faster grid decarbonization

SUV segment:

- **Gasoline cars** have relatively high fuel consumption
- **Diesel cars** with B35 or B40 mix: higher emissions than gasoline cars
- **Hybrids and plug-in hybrids:** 27% and 8% lower emissions than gasoline cars, respectively
- **Battery EVs today:** ~50% lower emissions than gasoline cars
 ➔ 52%-65% lower emissions for vehicles sold in 2030

Life-cycle GHG emissions of SUV segment cars registered in Indonesia in 2023



Thank you!

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San Francisco ●

★ Washington, DC
(headquarters)

● Berlin

● Beijing

Mexico City ○

● New Delhi

○ Hanoi

Bogotá ○

○ Jakarta

● São Paulo