Decarbonising land transport in Asia – Policy options for the national level

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Background: Global & Regional Data initiatives to make informed decisions and analysis

SLOCAT: https://tcc-gsr.com/

https://data.adb.org/dataset/asian-transport-outlook-database/
The scale of Asian challenges

- Asia’s transport CO₂ emissions grew in the last decade by 41%
- Almost all countries CO₂ transport emission grew in the last decade
- Asia’s average carbon footprint is with 0.57Gt/per Capita – 10 times lower than the US

Source: SLOCAT 2021
Road transport is the dominating sector for EST Countries emissions

- 2/5 of Asian road CO₂ transport emission is caused by freight

Source: SLOCAT 2021
Motorisation one of the main drivers for rising CO₂ emissions

- 533 mn t CO₂ from SUVs
- SUV sales in China (44%) / India (34%)

Source: SLOCAT 2021
The need to transition transport in Asia

Asia's Transport Emission Pathways

- Historic transport GHG emissions
- BAU for transport
- Average low-carbon transport pathway
- Optimistic low-carbon transport pathway

Source: SLOCAT 2021
To decarbonise the Asian transport sector the key developments need to be tackled

Growing motorisation

Growing freight sector

3 Solution clusters to decarbonise as part of a National Plan

- **Climate & Transport Plan**
  - Railway infrastructure
  - Improve Logistic efficiency
  - Electric vehicles
  - Greening Freight
  - Renewable Electrification of Transport
  - Managing Motorisation
  - Electrifying two and three wheelers
  - New investment into renewable energy
  - ICE bans and EV targets
  - Fuel economy standards
  - Electrifying two and three wheelers
  - Reduce fossil fuel subsidies

Source: Dalkmann 2021
Greening Freight challenges: Railway share decreased while projections indicates a substantial increase (e.g. India)

Creating a Regional/National Freight Strategy: Rail investment, cleaner vehicles, more efficient services

Source: SLOCAT 2021
Renewable electrification of transport: the need for Asian specific solutions

Source: SLOCAT 2021. SUM4ALL 2021 (forthcoming)
Thinking energy and transport together: A shift to electric mobility will reduce transport emissions in most Asian countries.
Electrification & Managing motorisation: The need for regulatory interventions: ICE bans and Second-hand vehicles

Singapore vows to be first in Southeast Asia to ditch petrol cars

City-state sets ambitious plan to fully switch to green vehicles by 2040

Source: UNEP 2020,
Managing motorisation: Two and three wheelers in focus

Creating an affordable and cleaner alternative to passenger cars:

- Indonesia: Phasing out conventional two wheelers by 2025
- Thailand to establish local manufacturing (over 50,000 by 2025)

Source: SLOCAT
Opportunities under the new Aichi Declaration

- Closing data gaps and share knowledge between EST Countries
- Specific attention to certain policy packages (freight, managing motorisation, renewable electrification of transport)
- Encourage regional initiatives, e.g. on second-hand vehicles, transport-energy nexus
Many thanks for your attention!

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