EST Forum

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Transport and Climate Change Policy in the ASEAN Region

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Transport and Climate Change





cooperation





About GIZ

- GIZ's purpose is to promote international cooperation for sustainable development.
- GIZ is a 100% federally owned, public-benefit enterprise.
- GIZ operates in more than 130 countries worldwide.
- GIZ employs approximately 17,000 staff members worldwide.
- GIZ is active in a variety of sectors, including e.g. education; health care; agriculture; infrastructure (water, energy, transport).





About GIZ

Current Activities in the Transport and Mobility Sector







Transport and Climate Change (TCC)

What we do in the Project

We develop an ASEAN regional policy to increase energy efficiency and reduce greenhouse gas emissions in the land transport sector.

We develop guidelines and templates for national policies and action plans for member states.

We develop action plans and measures in five countries and support their implementation according to national plans in at least three ASEAN member states.

We support the improvement of the measurement, reporting and verification (MRV) system in five countries.





Motorisation

Passenger cars per capita in TCC partner countries from 2004 to 2012



Source: ASEAN Statistics (2014)





Motorisation

Motorbikes per capita in TCC partner countries from 2004 to 2012



Source: ASEAN Statistics (2014)





World's mobility habits are diverse

Most regions and countries increasingly relying on energy intensive transportation modes -> Avoid/Shift/Improve strategy needed



Source: IEA 2012, Energy Technology Perspectives 2012





Main challenges and opportunities In EE&CC in the land transport sector in ASEAN

- Regional differences: development (factor of 50), environmental considerations, political diversity
- Process of integration (ASEAN Economic Community) with transport/connectivity as key topic
- Increasing awareness of environmental issues
- No energy-efficiency standards in the land transport sector
- Wide-spread use of two-wheelers





Motorisation in ASEAN

- Large spread in PC vs 2W ownership per capita
- Vehicle taxes/subsidies and fuel pricing policies
- Transport policy geared towards increasing motorisation instead of sustainable mobility (derived demand)
- Budget constraints, limited capacity, and lack of data make things hard e.g. for proper MRV systems
- However, Vietnam includes objectives such as "controlling growth of individual means of transport" in certain strategies (carrots and sticks towards desired outcomes)





Fuel efficiency policies and measures

- Fuel economy standards considered in four out of five TCC countries (not Malaysia)
 - In Vietnam they are also considered for motorcycles
- Car labelling is almost in place in Vietnam and Thailand, though still missing average comparative value
- CO₂-based taxation is coming online in Thailand, but there are exemptions for pick-up trucks, which skew the overall effect
- No policies in place nor considered for low-rolling resistance tyres





Unlocking the Potential of e-bikes in ASEAN

- Large potential in all countries, but little policy support
- E2Ws emit between 1/3 and 4/5 less CO₂ per km compared to petrolpowered 2W
- Scattered few in Vietnam and Malaysia, otherwise China and Netherlands
- Consumers regard high purchase prices, low range of E2W, and long charging times compared to conventional 2Ws as disadvantages
- Public demonstration projects could promote the advantages of E2Ws









Institutional challenges

- Avoid/Shift policies often with Ministry of Transport, 'Improve' with Ministry of Energy
 - Exception: Vietnam
- Important roles for Ministries of Trade, Industry, Finance, Environment
- Conflicting policy objectives (industry versus transport/environment) complicate decisionmaking
- Ministries of Transport do not always possess a mandate for policy design, but sometimes function as an implementing and licensing body.
- Scattered responsibilities and insufficient inter-ministerial coordination





Overview of responsibilities for transport policymaking in Thailand







INDCs in ASEAN

- In developing sectoral contributions, some countries mostly relied on consultants, while in others the Ministry of Transport was in the lead, supported by consultants and different institutions, and in some cases our project;
- Transport-related mitigation options included in the INDCs appear to be based on existing plans and strategies for most countries. Selection of these involved one or more rounds of discussions with stakeholders. There is no evidence that marginal abatement cost curves played a major role, but at least one country was using it;
- There are significant challenges in estimating business-as-usual emissions, emission reduction potentials of mitigation options, and in some countries, historical emissions. Analyses are done using various kinds of energy-emissions focused models, such as LEAP.





Conclusions 1(2)

We can change the status quo and cut transport emissions via a <u>combination</u> of:

- Strong efficiency improvements in fuel economy
- Rapid uptake of advanced technology vehicles (e.g. electric two-wheelers), but <u>avoid silver bullet bias</u>
- Increasing the efficiency of freight to decrease costs and emissions (road freight makes up 9% of the fleet but emits 54% of road transport CO₂ emissions in Asia)
- Integrated land-use planning (TOD & NMT) and shifting to more efficient modes of transportation (buses and rail)
- THE Question: which solution and by when?





Conclusions 2(2)

- Nothing ever changes...
- Until it does.
- International conferences such as this provide policymakers opportunities to learn/exchange and may impact national policies in multiple countries
- Similarly, for INDCs, even if no transport sector details were included in the final INDC, there were extensive discussions as to what the sectoral contribution to the INDC could be -> <u>How can we take this forward?</u>





Thank you!

For more, please visit our booth outside, and: <u>www.TransportandClimateChange.org</u>

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Time permitting...







Road space and human beings...

Source: Claes Tingvall, SRA





Rio de Janeiro, 1993

tulul ulundu

Xangai, 1993

(sem metrô)

Glotz-Richter 2010

... before introduction of clean vehicles...

DC

Glotz-Richter 2010

...after introduction of clean vehicles...