Improving public bus services and Non-Motorised transport in Bangkok

Thematic sessions B3: Sustainable Transportation and Metropolitan

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ASEAN-German technical cooperation project
“Energy Efficiency and Climate Change Mitigation in the Land Transport Sector in the ASEAN Region”

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GIZ and Sustainable Transport

Transport Policy Advisory Services

• supports developing cities through the
• dissemination of best practice, policy advice and capacity building
• rich information platform, expert dialog, advisory services.
• capacity building in sustainable urban transport
• open platform, to announce its non-commercial trainings
• training related documents in the area of sustainable urban transport.
• guide for sustainable mobility and green logistics solutions from Germany
• platform for exchanging knowledge, expertise, experiences
• network of information from academia, businesses, civil society and associations.
• comprehensive information on fuel prices and regulation available to a wide audience, thereby enabling a more transparent and efficient policymaking.

The Programme “Cities, Environment and Transport”

2016-2018
€ 2.4 mill. - 5 countries

Hosted by
Thailand 2016-2018
€ 3.5 mill. - 5 countries

EU Co-financing: Sustainable Freight and Logistics in the GMS Region

ASEAN Regional Level

10 PRINCIPLES FOR SUSTAINABLE URBAN TRANSPORT

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2016-2018
€ 3.5 mill. - 5 countries

LTWG
AWGESC
EEC SSN
ASEC Infra. Division

Subnational / MetReg Level

TCC
National Level

SMMR

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About GIZ
Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH –
German International Cooperation

• GIZ’s purpose is to promote international cooperation for sustainable development—supporting the objectives of the German Government
• Operations in 130 countries and employs 17,000 staff

International Fuel Prices

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Main Activities of TCC in Thailand

- Transport NAMA development
- Policy Gaps analysis study
- Fuel Efficiency policy study
- MRV Stocktaking Report

Improving public bus services and Non-Motorised transport in Bangkok

- Biking Barriers
- Pedestrian barrier

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- Motorcycle taxi and Tuk-Tuk station

Problems of taking public bus in Bangkok

Greenhouse gas emission from Land transport

"Transportation of a person in one year with 12,000 kilometers will emit greenhouse gas approximately"

2.5
1
0.6
0.4
1 ton CO₂

Aims and scope of work:

1. Optimise the bus system and its management,
2. Shift access modes to public transport stations and other short trips from motorised to non-motorised transport,
3. Increase public transport ridership by improving the connectivity between NMT, buses and rail-based public transport

Implementation in Bangkok and Metropolitan Area and other cities in Thailand

Two phases: 2016 – 2020 with international support, and full-scale implementation from 2021 to 2025

Concept: People-centred Urban Transport in Thailand

Infrastructures

Bus Public Transport Management

Non-Motorized Transport Accessibility

Walking

National Policy Framework promoting Bus and NMT as feeder modes

Bus route optimization and institutional reform

Improved bus stations

Bus priority measures

Real time traffic information

Dedicated bus lanes / BRT

Bus priority measures

Walking

Accessibility of footpaths (vendors, objects)

Road concepts (speed limits)

NMT-friendly Neighbourhood (Branding, events)

Parking

Access to parking (PT stations, street crossings, sidewalks, cover and)

Campains (benefits and branding of PT and NMT)

Branding

NMT friendly

Awareness

Campaigns (benefits and branding of PT and NMT)
Pilot area for the development of good walking and cycling neighborhood.

Phahonyothin 7 (Soi Ari)

— lanes for the improvement of bike lane and sidewalk
— Bike rack
— Pun Pun Station

Example designed for the geographical development of Soi Ari

Before NAMA implementation

After NAMA implementation

The design of bus routes and infrastructure for public transport connectivity
Benefits of NAMA in Transport sector

- Health, due to better air quality and exercise
- Liveability, due to better walkability, less disruption by cars and noise
- Reduced congestion
- Better accessibility for all citizens including poor and aged
- Resource efficiency and reduced oil consumption
- Economic: less need to build roads
- Greenhouse gas emission reduction
- Transformational change

Current Mode Split (Baseline)

Means of passenger transport (after NAMA implementation)

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Preliminary calculations based on conservative assumptions indicate an emission reduction potential in the range of 0.3 – 0.7 MtCO₂ per year in 2025.
Expected greenhouse gas emission reduction (rough calculation)

<table>
<thead>
<tr>
<th>Activities for greenhouse gas emission reduction</th>
<th>The estimated greenhouse gas emission reduction in 2030* (million ton CO2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Urban Public Transport Connectivity by Non-Motorised Transport (NMT)</td>
<td>0.05 – 0.3</td>
</tr>
<tr>
<td>2) Public transport management</td>
<td>0.1 - 0.7</td>
</tr>
<tr>
<td>Total</td>
<td>0.1 – 1.0</td>
</tr>
</tbody>
</table>

* The estimated figures are obtained from rough calculation, studies are required for more accurate estimation.

Conclusion

- This concept can be replicated to new construction public transit lines in the future
- Need the improvement in all aspects: Infrastructure, Regulator and planning and Information and communication
- Need cooperation from various stakeholders
- Need number of stations according to rail network master plan (after adjusted gray line)
- Interchange station : 52
- non-interchange station : 222

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Potential areas for developing to be Non-Motorised transport neighborhood

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Thank you for your kind attention!

For more information, please visit www.TransportandClimateChange.org

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