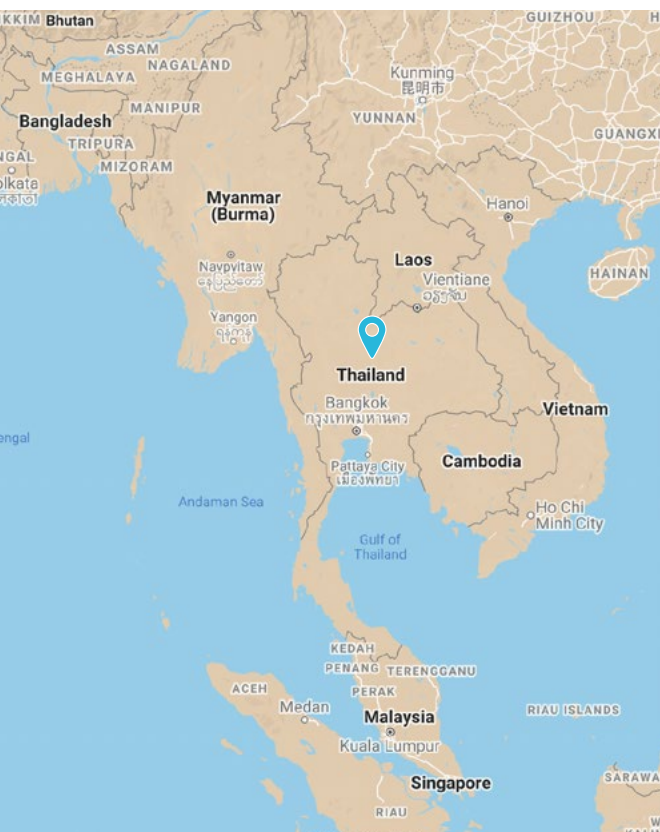


Thailand

Status of the project: ongoing technical assistance



Basic Information

Population: 66.17 million¹ (2021) | Growth rate: -0.01%²

Percentage of urban population: 34.47%³

GDP per capita: USD 6,730.31⁴ (2020)

Percentage of the population living below the national poverty lines: 6.84%⁵ (2020)

Nationally Determined Contribution (NDC):

Reducing GHG emissions by 20%, or 115.6 MtCO₂, from projected BAU level by 2030.

Transport will aim to reduce 41 MtCO₂, or 35.42% of the total NDC target (MoT).⁶

National GHG emissions per capita: 5.37 tCO₂eq (excluding LULUCF), 3.99 tCO₂eq (including LULUCF)⁷

Proportion of transport related GHG emissions: 25.93% (including LULUCF)⁸

Exposure to climate change: HIGH⁹

Context

Thailand is located in the heart of Southeast Asia, and it borders with Lao PDR, Myanmar, Cambodia, and Malaysia. Its capital is Bangkok or Krung Thep in Thai. Thailand has the second largest economy in Southeast Asia after Indonesia. The services sector represents 45.75% of jobs in Thailand and contributes to 58.59% of the total GDP, followed by the agriculture sector, which employs 31.62% of the active workforce and contributes to 8% of the GDP. Last is the industry sector, which employs 22.63% of the active workforce and contributes to 33.4% of the GDP (Statista, 2019). Thailand relies heavily on tourism, with nearly 40 million visitors in 2019. This puts Thailand in one of the top 10 most visited countries in 2019. However, many sectors have suffered from the decline in tourism due to the COVID-19 pandemic, which had a major impact on Thailand's economy. Thailand experienced a negative GDP growth in 2020 for the first time since 1998.

¹ http://www.ratchakitcha.soc.go.th/DATA/PDF/2565/E/012/T_0010.PDF

² https://www.nesdc.go.th/ewt_dl_link.php?nid=3507&filename=social

³ http://statbbi.nso.go.th/staticreport/Page/sector/TH/report/sector_01_11206_TH_.xlsx

⁴ https://www.nesdc.go.th/ewt_dl_link.php?nid=12073&filename=ni_page

⁵ https://www.nesdc.go.th/ewt_dl_link.php?nid=3518&filename=social

⁶ <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Thailand%20First/Thailand%20Updated%20NDC.pdf>

⁷ https://unfccc.int/sites/default/files/resource/BUR3_Thailand_251220%20.pdf

⁸ https://unfccc.int/sites/default/files/resource/BUR3_Thailand_251220%20.pdf

⁹ https://unfccc.int/sites/default/files/resource/BUR3_Thailand_251220%20.pdf

Private vehicles are the most popular mode of transportation in Thailand. Bangkok has the most diversified transport offer in the country, including BTS (sky train), MRT (subway), metered taxis, motorcycle taxis, Tuk Tuks. However, the city is still notorious for traffic congestion as people prefer to use private vehicles for convenience and flexibility. To travel across the country or to the suburbs, there is an abundance of minivans and buses that connect most cities and popular destinations. Thailand also has 38 airports, seven of which are international airports. It typically takes around an hour to reach anywhere in Thailand by plane. Thailand also has a rail system spanning 4,925 km (BOI), which serves every part of the country albeit it is not a high-speed train.

The national government has collaborated with GIZ to develop a National Urban Mobility Programme (NUMP) called the Thai Clean Mobility Program aiming at reducing GHG emissions from the transport sector, reducing air pollution and promoting a modal shift away from motorized private vehicles to public transport.

The development of the NUMP is a participatory process and requires several preparatory steps and discussions. These steps include:

- Building on existing sector studies to assess current funding, financing and transport planning mechanisms and implementation of cities and national government
- Identifying support needs for cities that are to be included in the NUMP (capacity, financial instruments, funding, planning procedures, institutional framework)
- Assessing the current main barriers to low-carbon transport in Thailand
- Providing recommendations for "Vision & Goal setting" to:
 - » Draft a national vision for urban mobility (in line with the NDC action plan);
 - » Define the objectives of the National Urban Mobility Programme; and
 - » Provide strategic direction on using the various levers of action available (governance, financing, funding, capacity building, technological choices, etc.) in Thailand

Support from the Partnership

Technical Assistance: National Urban Mobility Programme (NUMP)

Type of NUMP: Programme NUMP

Funded by: BMUV

Funding amount: EUR 1,661,634

Implemented by: GIZ through the TRANSfer III Project

Local counterpart: Office of Transport and Traffic Policy and Planning (OTP), Ministry of Transport

Main purpose of the NUMP:

- Provide necessary groundwork that allows policy makers in the Thai government to make an informed decision on the implementation of the NDC action plan
- Develop a funding mechanism that supports the implementation of urban transport measures
- Provide a planning framework for urban transport planning (quality standards, clear guidance on roles and responsibilities, capacity development)

Objectives:

The 'Thai Clean Mobility Program' consists of three pillars:

- Congestion charging
- Set-up of a Clean Transport Fund
- Public transport electrification

Supported activities:

- Inter-ministerial agencies to create detailed design of the Thai Clean Mobility Program

Status of implementation

Project start: 2017 Q1

Expected project completion: 2022 Q3

Completed outputs:

- Study Tour to Berlin and London (February 2020)
- Pre-feasibility study on congestion charging design for Bangkok (November 2020)
- 2 congestion charge videos for communication and educational purposes for broad public as well as for the expert and policy maker community (December 2020)
- Study for development of Clean Transport fund (December 2020)

Next expected outputs

- Financial mechanisms and business model solutions enhancing Bangkok public transport electrification
- Stakeholder dialogue and visioning roadmap towards Thailand Clean Mobility Programme (TCMP) implementation

NUMP key measures and cost estimates

The following table highlights the most significant measures identified in the NUMP.

Measure	Cost Estimate ^{10, 11}
Congestion Charge	EUR 662,279,406
Bus Modernisation	EUR 124,902,630
BTS/MRT Fare Subsidy	EUR 290,633,646

Core impact indicators baselines

Indicator	Baseline - 2016
Total annual transport related GHG emissions (Mt CO₂eq)	68.26 Mt CO ₂ eq from the energy sector ¹²
Annual transport related GHG emissions per capita (kg CO₂eq)	1.04 kgCO ₂ eq ¹³
Air pollution	43 µg/m ³ of PM _{2.5} ¹⁴
Mean urban air pollution of particulate matter (in µg PM _{2.5}) at road-based monitoring stations	
Road safety	11 fatalities
Annual traffic fatalities in the urban area, per 100,000 inhabitants	/ 100,000 habitants (2020)

¹⁰ Based on the exchange rate on 1 February 2022 at 12:00 p.m.

¹¹ Study for development of Clean Transport fund (December 2020)

¹² https://unfccc.int/sites/default/files/resource/BUR3_Thailand_251220%20.pdf

¹³ https://unfccc.int/sites/default/files/resource/BUR3_Thailand_251220%20.pdf

¹⁴ <http://air4thai.pcd.go.th/webV3/#/History>

Highlights

Lesson learned: less fragmentation to sustain the momentum

The electrification of public transport project faces the fragmentation of superfluous small operators, which makes it difficult for a comprehensive data collection and for them to afford fleet transformation. The NUMP is developing a new business model to support these operators and make up for their lack of sufficient credibility when it comes to them accessing financial support and getting loans from financial institutions.

Project visibility among high-level policymakers is also essential. Holding a big event is a great way to boost visibility but having a clear plan on follow-up activities afterwards to keep the momentum going is just as important to make the most out of the event. Continuity is key to keeping decision makers enthusiastic about implementing the project and agreeing to new project ideas.

Pre-feasibility studies and capacity building activities to bolster the participatory process in 2021

The pre-feasibility study report and two introduction videos for congestion charging in Bangkok have been completed, the MRV for the Public Bus Electrification webinar and iEVTech was successfully held as well as the participation to the Women on the Move (Transforming Transportation in Asia) Initiative.

The covid pandemic has increased the challenges posed by the trend towards the private car at the expense of sustainable transport

Due to curfews and restrictions on movement, public transport suffered from a drastic drop in ridership and, at the same time, faced with additional operating costs incurred from complying with COVID-19 countermeasures. Furthermore, the popularity of private cars was on the rise among people who can afford use it, further contributing to the trend of shifting away from public transport. With decreasing GDP, increasing public debt and public debt-GDP ratio on the rise, the transport sector experienced a drop of almost 20 per cent in the Private Final Consumption Expenditure (PFCE). As well, the 2022 budget for the Ministry of Transport was cut down by 7.4 per cent from last year.

A third wave of infections emerged in early 2021 has proven especially severe with strict containment measures reducing mobility and negatively affecting consumption and business sentiment. The economic recovery is expected to accelerate in 2022, with the annual GDP growth rate projected to rise to 5.1 percent depending on: (i) solid progress on domestic vaccination rates; (ii) an improvement in the global trajectory of COVID-19 sufficient to allow international tourism to partially recover; and (iii) the full disbursement of the recently approved THB 500 billion fiscal response package. However, for transport sector recovery, although there had been relief measures designated for small operators, a holistic policy approach is yet to be established.