

# NS-246 - People-centred Urban Mobility in Thailand (Thailand Mobility NAMA)

## Thailand

### NAMA Seeking Support for Implementation

#### A Overview

A.1 Party	Thailand										
A.2 Title of Mitigation Action	People-centred Urban Mobility in Thailand (Thailand Mobility NAMA)										
A.3 Description of mitigation action	<p>The NAMA “People-centred Urban Mobility in Thailand” focuses on improving feeder modes to the urban rail network in Bangkok, which is undergoing expansion, in order to provide for better inter-modal connectivity and an overall more attractive public transport system. Building on various ongoing policy initiatives and the INDC, the proposed interventions include consolidation of the bus services, improvement of public transport hubs, bus prioritisation, introduction of more energy-efficient buses and the improvement of conditions for cycling and walking (non-motorised transport). These are further enabled and encouraged by national policies, a financial mechanism and improved monitoring systems. Other cities in Thailand will also propose and implement similar measures, building on the lessons from Bangkok and enabled by the national policy. The measures will result directly in reduced energy consumed by buses, as well as promote a modal shift from private motor vehicles to public transport, walking and cycling, thereby saving CO2 emissions and yielding sustainable development benefits. This NAMA contributes to a transformation in the sector towards sustainable transport by providing a viable alternative to private transport and addressing the motorisation trend; allocating finance, creating institutional change and develop policies for NMT and bus; a consistent and integrated framework for urban transport policies and a national policy framework to support cities; helping to attract private finance; and creating a solid system for improved data gathering and monitoring (MRV) of policy actions.</p>										
A.4 Sector	<table border="1"> <tr> <td><input type="checkbox"/> Energy supply</td> <td><input checked="" type="checkbox"/> Transport and its Infrastructure</td> </tr> <tr> <td><input type="checkbox"/> Residential and Commercial buildings</td> <td><input type="checkbox"/> Industry</td> </tr> <tr> <td><input type="checkbox"/> Agriculture</td> <td><input type="checkbox"/> Forestry</td> </tr> <tr> <td><input type="checkbox"/> Waste management</td> <td></td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Other <input type="text"/></td> </tr> </table>	<input type="checkbox"/> Energy supply	<input checked="" type="checkbox"/> Transport and its Infrastructure	<input type="checkbox"/> Residential and Commercial buildings	<input type="checkbox"/> Industry	<input type="checkbox"/> Agriculture	<input type="checkbox"/> Forestry	<input type="checkbox"/> Waste management		<input type="checkbox"/> Other <input type="text"/>	
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A.5 Technology	<table border="1"> <tr> <td><input type="checkbox"/> Bioenergy</td> <td><input checked="" type="checkbox"/> Cleaner Fuels</td> </tr> <tr> <td><input checked="" type="checkbox"/> Energy Efficiency</td> <td><input type="checkbox"/> Geothermal energy</td> </tr> <tr> <td><input type="checkbox"/> Hydropower</td> <td><input type="checkbox"/> Solar energy</td> </tr> <tr> <td><input type="checkbox"/> Wind energy</td> <td></td> </tr> </table>	<input type="checkbox"/> Bioenergy	<input checked="" type="checkbox"/> Cleaner Fuels	<input checked="" type="checkbox"/> Energy Efficiency	<input type="checkbox"/> Geothermal energy	<input type="checkbox"/> Hydropower	<input type="checkbox"/> Solar energy	<input type="checkbox"/> Wind energy			
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A.6 Type of action	<input type="checkbox"/> Carbon Capture and Storage	<input type="checkbox"/> Ocean energy
	<input type="checkbox"/> Land fill gas collection	<input type="checkbox"/> Low till / No till
	<input checked="" type="checkbox"/> Other <input type="text" value="Transport planning"/>	
A.7 Greenhouse gases covered by the action	<input type="checkbox"/> National/ Sectoral goal	<input type="checkbox"/> Project: Investment in machinery
	<input type="checkbox"/> Strategy	<input checked="" type="checkbox"/> Project: Investment in infrastructure
	<input checked="" type="checkbox"/> National/Sectoral policy or program	<input type="checkbox"/> Project: Other
	<input type="checkbox"/> Other <input type="text"/>	
A.7 Greenhouse gases covered by the action	<input checked="" type="checkbox"/> CO2	<input checked="" type="checkbox"/> CH4
	<input type="checkbox"/> N2O	<input type="checkbox"/> HFCs
	<input type="checkbox"/> PFCs	<input type="checkbox"/> SF6
	<input type="checkbox"/> Other <input type="text"/>	

### B National Implementing Entity

B.1.0 Name	Ministry of Transport, Office of Traffic and Transport Policy and Planning
B.1.1 Contact Person 1	Ms. Chutinthorn Mankhong
B.1.2 Address	35 Petchaburi Road, Thungphayathai Ratchathewi Bangkok 10400, Thailand
B.1.3 Phone	+66-215-1515#2061
B.1.4 Email	chutinthorn.p@gmail.com
B.1.5 Contact Person 2	Ms. Wipada Unlumlert
B.1.6 Address	
B.1.7 Phone	+66-215-1515#2023
B.1.8 Email	wipada52@hotmail.com
B.1.9 Contact Person 3	
B.1.10 Address	
B.1.11 Phone	
B.1.12 Email	
B.1.13 Comments	

### C Expected timeframe for the implementation of the mitigation action

C.1	Number of years for completion	10
C.2	Expected start year of implementation	2016

### D Currency

D.1	Used Currency	<input type="text" value="AED"/>
		Conversion to USD: 1

### E Cost

E.1.1	Estimated full cost of implementation	640000000
E.1.2	Comments on full cost of implementation	Investment requirements include purchase of natural gas and electric buses, improving bus stops and stations, implementation of real-time travel information systems, bus priority measures, and infrastructure for cycling and walking. Other costs include bus or transport management agency, NAMA management, capacity building and the MRV system. The USD 640 million figure is indicative only and likely to be a conservative estimate.
E.2.1	Estimated incremental cost of implementation	

E.2.2 Comments on estimated incremental cost of implementation

F Support required for the implementation the mitigation action

F.1.1 Amount of Financial support

16000000

F.1.2 Type of required Financial support

<input checked="" type="checkbox"/> Grant	<input type="checkbox"/> Guarantee
<input type="checkbox"/> Loan (sovereign)	<input type="checkbox"/> Equity
<input type="checkbox"/> Loan (Private)	<input type="checkbox"/> Carbon finance
<input type="checkbox"/> Concessional loan	
<input type="checkbox"/> Other <input type="text"/>	

F.1.3 Comments on Financial support

The main barriers to implementation of the action are 1) lack of technical capacity and experience to develop and implement high quality bus and NMT plans and 2) uncertainty in budget allocation to sustainable transport, resulting in plans not being implemented at times. These barriers will be addressed by capacity building (see F.3), setting up a data and MRV system, development of a high-quality project pipeline and management of the NAMA by a Technical Support Unit staffed by highly-qualified personnel and a national policy framework, which includes a new mechanism in which cities can submit plans for bus and NMT interventions, which are scrutinised by an expert team based on criteria. If the plans meet the criteria the cities are eligible for financial and technical assistance from the national government and NAMA support, ensuring quality and scale of future urban transport initiatives is enhanced. International financial support is requested for the NAMA management, data and MRV system and the new financial mechanism for sustainable urban transport, the latter in order to secure a more stable budget for sustainable transport from public and private sources in Thailand.

F.2.1 Amount of Technological support

250000

F.2.2 Comments on Technological support

International support is required for assessing the most appropriate technologies for electric buses, intelligent transport systems and electronic ticketing and how to build up a national innovation system particularly for electric vehicles. A team of international and national consultants (250 person-days) could provide policy advice in studies, meetings and workshops.

F.3.1 Amount of capacity building support

1750000

F.3.2 Type of required capacity building support

<input checked="" type="checkbox"/> Individual level
<input checked="" type="checkbox"/> Institutional level
<input checked="" type="checkbox"/> Systemic level
<input type="checkbox"/> Other <input type="text"/>

F.3.3 Comments on Capacity Building support

Building increased capacity to design and implement high-quality plans for walking and cycling infrastructure, public transport management, operation and maintenance of vehicles and transport systems and monitoring of plans will require training for key individuals in government and knowledge institutions. Government institutions can be strengthened to improve planning and management capacity as well as setting up and managing a data, statistics and MRV system. Building on currently available tools such as the Bangkok transport model and traffic information apps, this will require improved transport planning tools, including for land-use

transport interaction, emission scenarios, MRV and operation of transport systems. This can be carried out by long-term programmes involving national and international experts from the public and private sector, academia and consultants. Improved tools and knowledge will enhance sustainable transport management capacity beyond the scope of this NAMA. It will also enable better communication to the public, which helps building awareness and support for policies. Sustainable transport training programmes for universities, e.g. in transport engineering and planning faculties, and professionals will ensure a long-lasting, bottom-up development of capacity. Such programmes could take 2-4 years to establish, after which these should run without additional support.

F.4 Financial support for implementation required

F.5 Technological support for implementation required

F.6 Capacity Building support for implementation required

### G Estimated emission reductions

G.1 Amount

0.4 to 1.1

G.2 Unit

MtCO<sub>2</sub>e/yr

G.3 Additional information (e.g. if available, information on the methodological approach followed)

Total transport sector emissions in Thailand were 59 MtCO<sub>2</sub>-eq in 2012 and are expected to increase by about 3% per year. In a baseline scenario, passenger transport emissions in the Bangkok Metropolitan Region and five other cities are expected to rise to approximately 35 MtCO<sub>2</sub>-eq in 2025. Through this NAMA, emission reductions are achieved by: 1) increased energy efficiency of buses, with electric and (to a lesser extent) CNG buses saving energy and CO<sub>2</sub> compared to conventional diesel buses. The grid emission factor of Thailand is approximately 0.55 kgCO<sub>2</sub>/kWh and projected to improve over time; 2) reduction of fuel consumption by optimisation of bus routes, resulting in lower bus-km travelled while ensuring better bus service operational distance; 3) modal shift from private vehicles and taxis to public transport and non-motorised transport. Draft results from ongoing surveys indicate improvement of the bus system, infrastructure and conditions for walking and cycling are critical in achieving high ridership of planned urban rail systems. Further research is required to ensure more robust assumptions and mitigation estimates.

### H Other indicators

H.1 Other indicators of implementation

Fuel consumption; Public transport ridership; change of modal shares; Quality and Quantity of Infrastructure built; Walkability; Adoption of national and local plans; MRV system in place and used;

### I Other relevant information

I.1 Other relevant information including co-benefits for local sustainable development

- Health, due to better air quality and exercise
- reduction of black carbon, further mitigating climate change
- 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

J Relevant National Policies strategies, plans and programmes and/or other mitigation action

J.1 Relevant National Policies

- INDC (transport actions include promotion of shifting from private to public transport and improvement of bus transport in Bangkok)
- The Eleventh National Economic and Social Development Plan (2012-2016)
- The National Transport Master Plan (2011-2020)
- Master Plan for Sustainable Transport System and Mitigation of Climate Change
- Supportive Systems and Structures for Walking and Cycling in Daily Living
- A project study on promotion of non-motorised transport (NMT) and improvement of public transport connectivity for sustainable and environmentally friendly transportation (2014)

J.2 Link to other NAMAs

K Attachments

K Attachments

Title	Description
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K.1 Attachment description

K.2 File

Browse...

L Support received

L.1 Outside the Registry

L.2 Within the Registry

Support provided	SupportType	Amount	Comment	Date
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