

Environmental Sustainable Transport and Climate Change Mitigation Master Plan

8th ATRANS Symposium Bangkok

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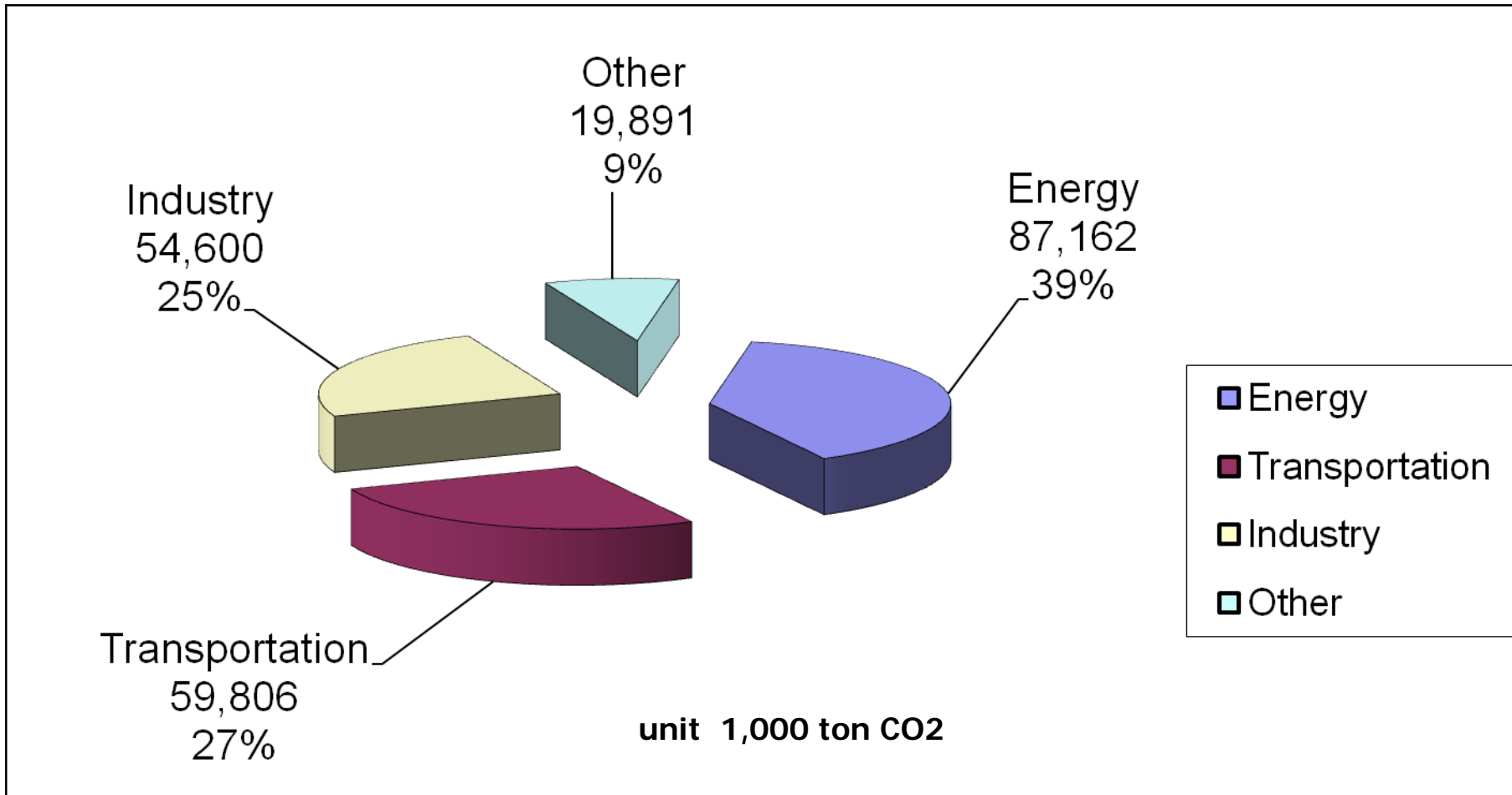


Topic

- Background
- Environmental Sustainable Transport and Climate Change Mitigation Masterplan
- Non - Motorized Transport :NMT Master plan

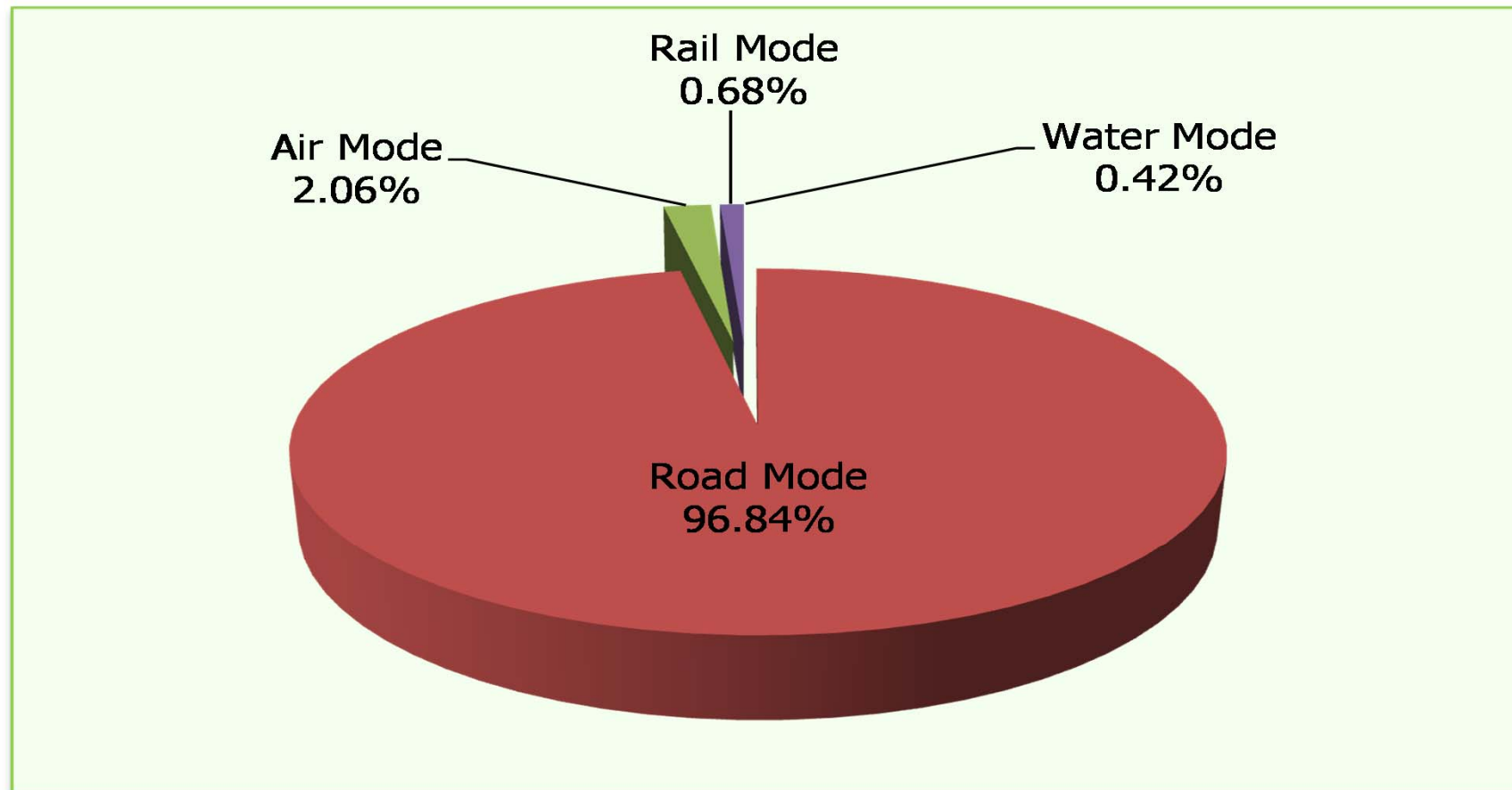


GHGs Emission by Sector : 2011



Source: Thailand Energy Statistic 2012

Volumes of Greenhouse gas released by Thailand's Transport Sector



Source: National Greenhouse Gas listing

11th Thailand National Economic and Social Development Plan (Transport Sector During Year 2010-2015)

International
Trade
Agreement

Climate
Change

Sub – regional
Corporation

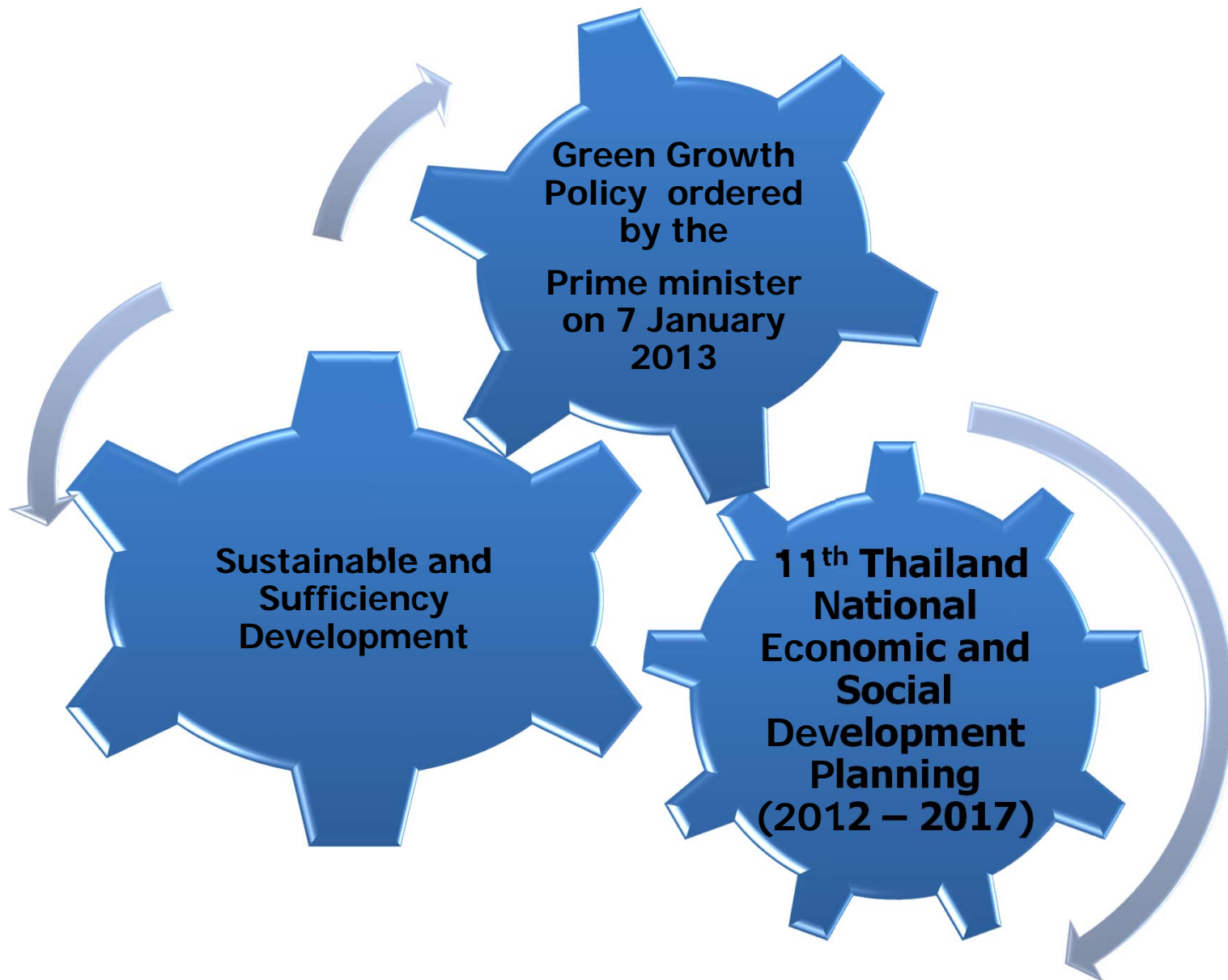
Energy

Aging
Society

Green Transportation

- Change to Alternative Energy , Green Energy and Efficiency use in Energy
- Road and Rail integrated Network around country and Neighboring Country
- Improve Multi-modal Transportation
- Improve Transport System, Efficiency , Effectiveness, Accessibility, Safety ,Transport for all, (Aging people and Handicap)
- More Public Private Participation(PPP) Investment

Linkage of National Strategic Formulation through Transportation Planning



Ministry of Transport

Vision : Toward Sustainable Transport

Transport and
Traffic
Development
Master Plan
2011 - 2020

Economic prosperity

Decrease economic loss
(VOT, VOC)

Increase Competitiveness

**Bangkok Declaratic
EST 2010 - 2020**

Sustainable

Transport

Environmental friendly

Energy saving,
Energy efficiency
Reduce air emission
& GHGs reduction

Social & Quality of life

Safety, Accessibility,
Equity, Sufficiency

Master Plan Development

Internal Driving force

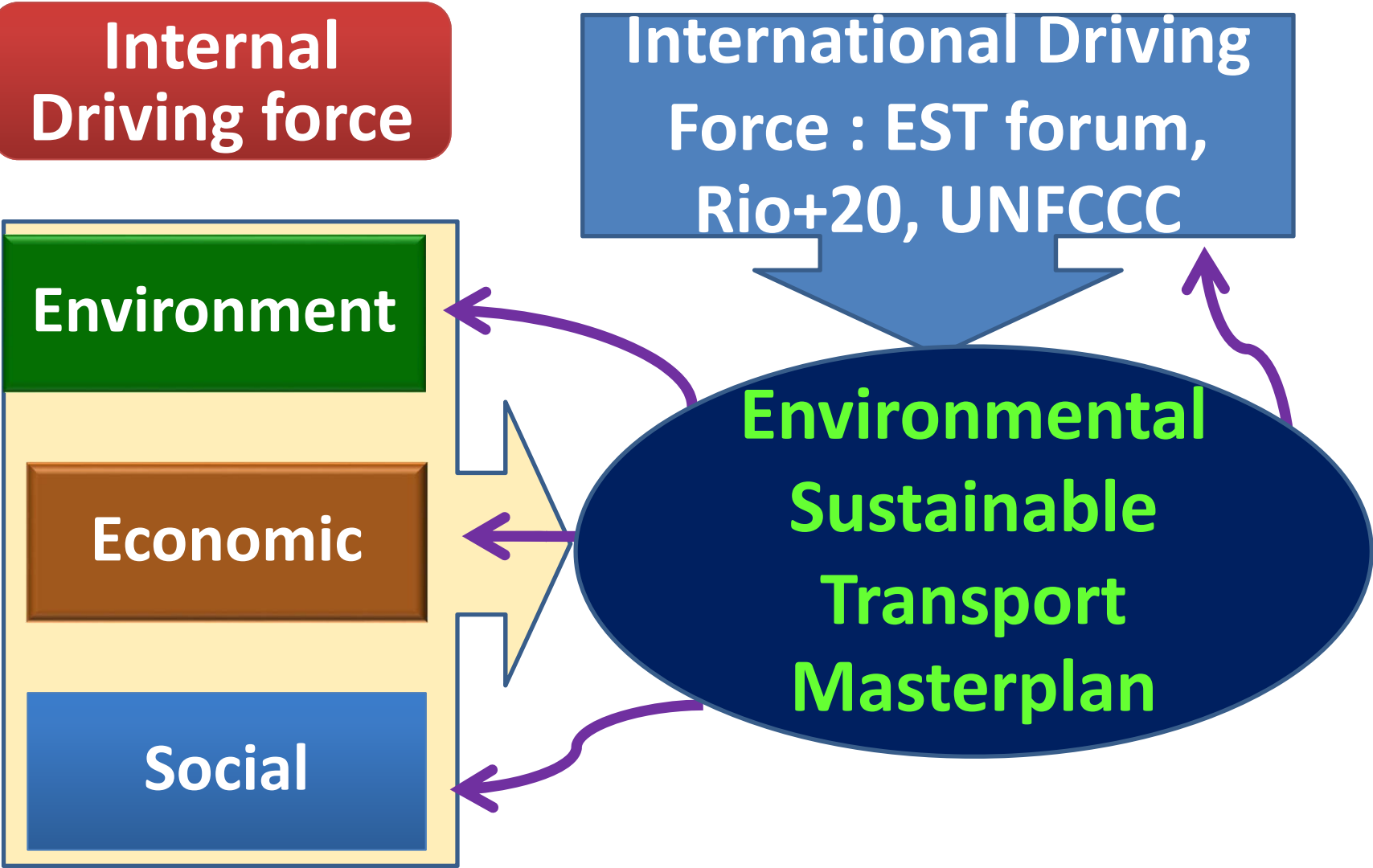
International Driving Force : EST forum, Rio+20, UNFCCC

Environment

Economic

Social

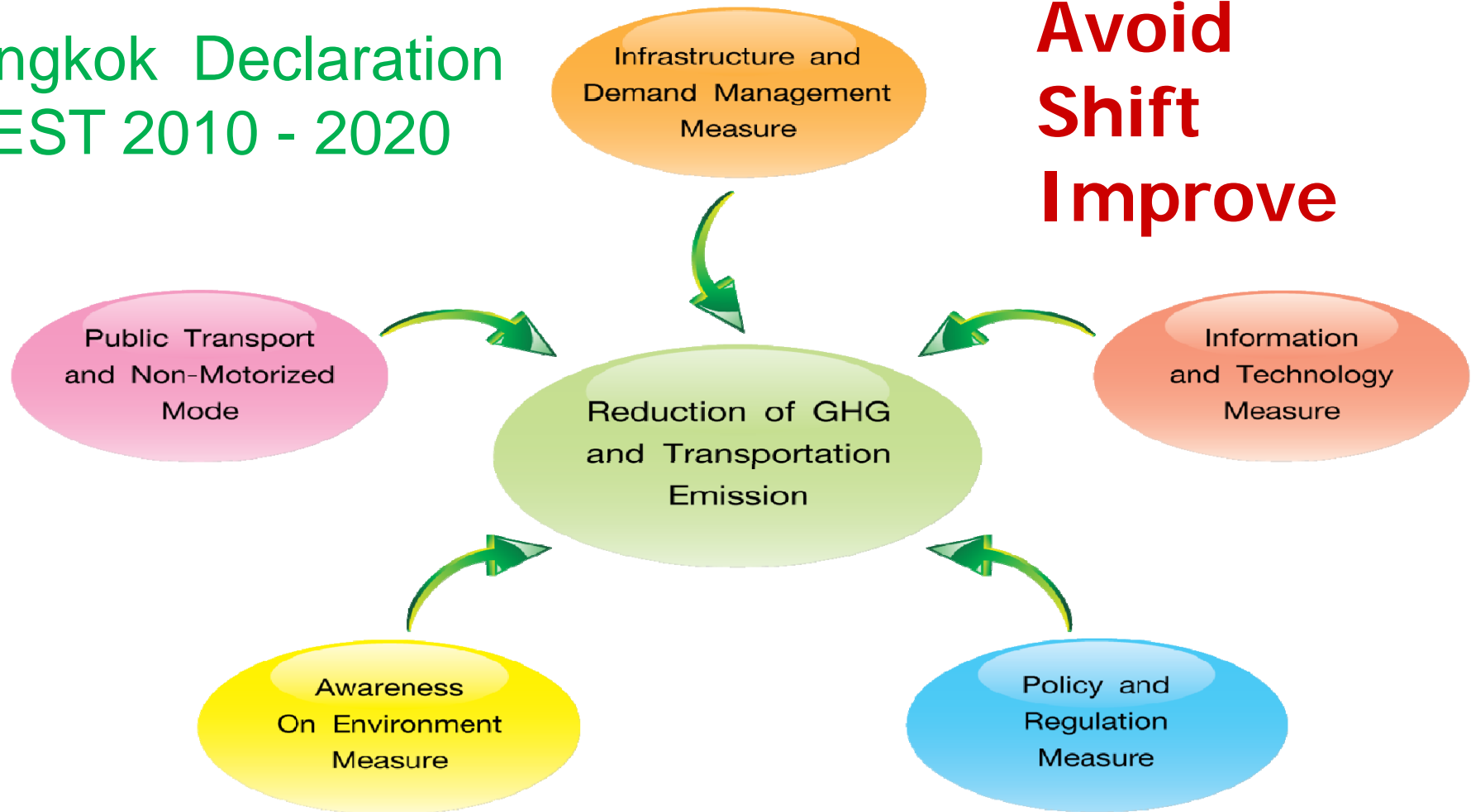
Environmental Sustainable Transport Masterplan



SUSTAINABLE TRANSPORT MASTER PLAN

Bangkok Declaration
EST 2010 - 2020

**Avoid
Shift
Improve**





**S
T
R
A
T
E
G
Y**

Strategy 1: *Upgrade capability of agencies and personnel for the development of an environmentally sustainable transport system.*

Strategy 2: *Establish appropriate plans and mechanisms for interfacing and monitoring of transport and traffic work plans/measures/projects; and to move them forward to implementation.*

Strategy 3: *Establish comprehensive and inter-connected transport infrastructure.*

Strategy 4: *Efficient transport management for sustainability and greenhouse gas reduction.*

Strategy 5: *Promote transport R&D and adoption of environment-friendly innovations and technologies.*

Strategy 6: *Promote public awareness of the environment.*

Potential GHGs reduction in Transportation Sector

Year	GHGs at BAU (Million tons CO ₂ e)	Potential of GHGs reduction	
		(Million tons CO ₂ e)	%
2005	57.52	-	-
2017	67.53	11 - 13	16 - 19
2020	74.02	15 - 16	20 - 22
2030	102.82	27 - 30	26 - 29

Source: OTP, 2013

Mass Rapid Transit Master plan

Previous plan

Short

10 years

20 year



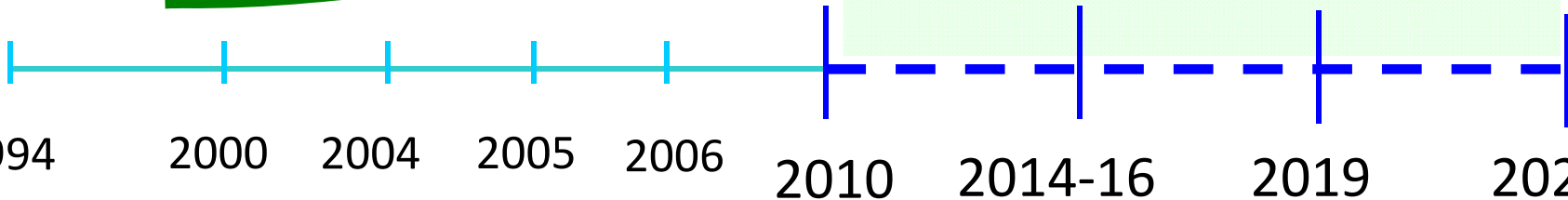
1999
24 km



2004
20 km



2009
2.2 km



1994

2000

2004

2005

2006

2010

2014-16

2019

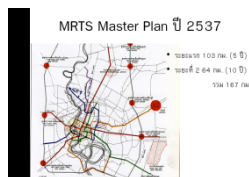
2029

IRTS MASTER LAN (MTMP)

URMAP Revised URMAP (BMT)

IMAC MRT Modernization

M-MAP (2010-2029)



Siam - Chula (2 km.)

Bangkok City Hall 2 - Rang Ngam Rd.
- Yothee Rd. (5 km.)

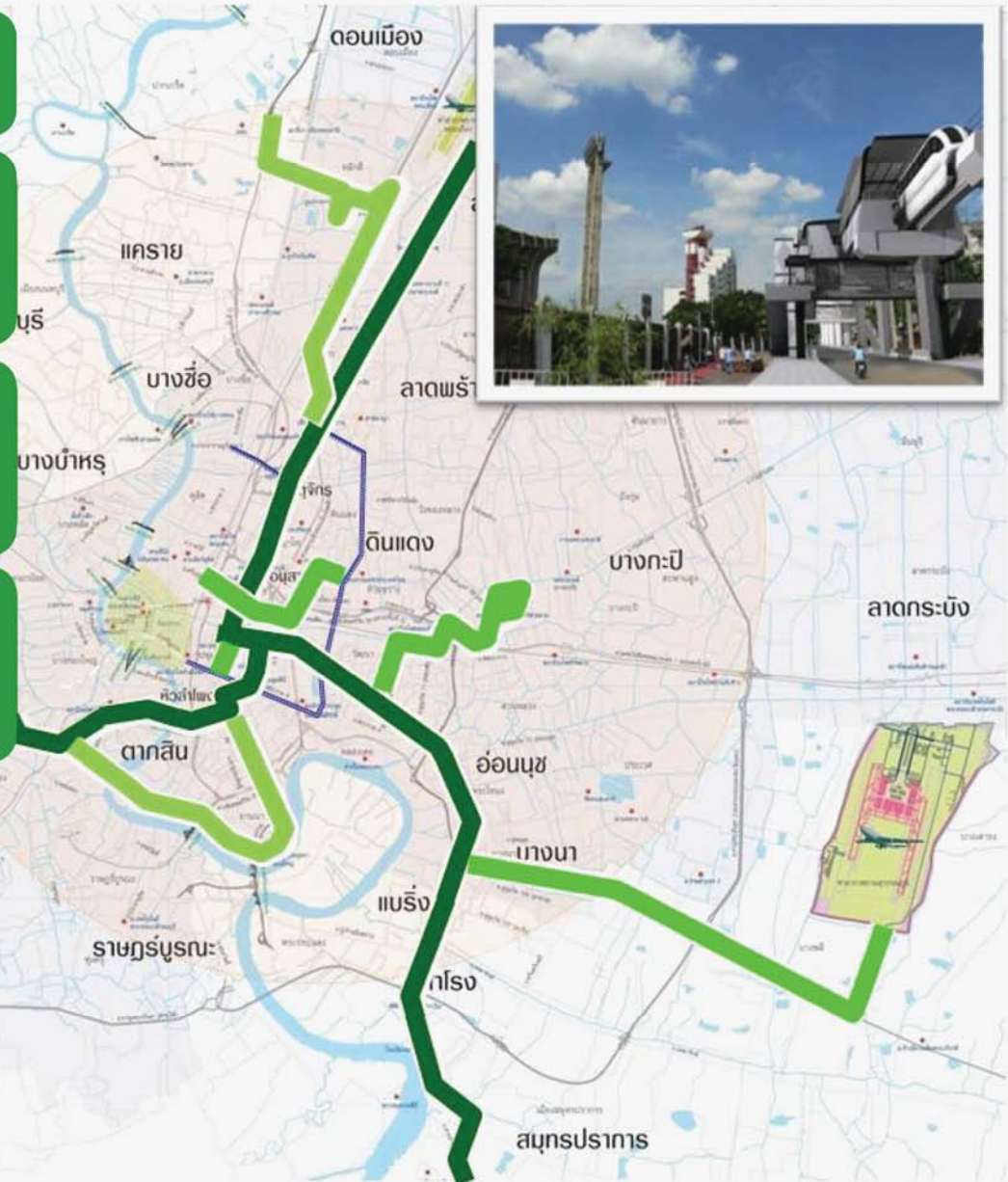
Ramkhamhaeng University
- Thonglor (11.1 km.)

Bangna - Suwannabhumi
Airport (18.3 km.)

LRT & Monorail



กรุงเทพมหานคร



Inland water - Bangkok

Current River Cruise Routes

- 1-1 Chao Phraya River
- 2-2 Saen Saep Canal
- 3-3 Bangkok Yai Canal
- 4-4 Dao Khanong Canal
- 5-5 Phasi Charoen Canal
- 6-6 Phra Khanong Canal

Future Routes

- 7-7 Saen Saep Canal (Extension)
- 8-8 Lat Phrao Canal



Current NMT Facility in Bangkok

Pun Pun Public Bicycle Project



Green Wall
เพื่อเพิ่มพื้นที่สีเขียวให้กับกรุงเทพฯ



ตู้ควบคุมสถานะ
ระบบอัตโนมัติ



แท่นล้อจักรยาน



ปั่นปั่น

Current NMT Facility in Bangkok

Pun Pun Public Bicycle Project





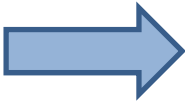
Non-Motorized Transport (NMT) project

Non-Motorized Transport project
(started from 1 November 2013 – 31 August 2014)

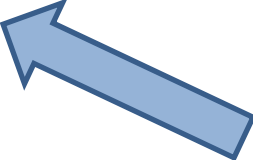
Connect the link between each mode of Transport

- 3 pilot projects in BMR
- 1 pilot "bicycle town"
- Energy consumption reduction
- GHGs emission reduction

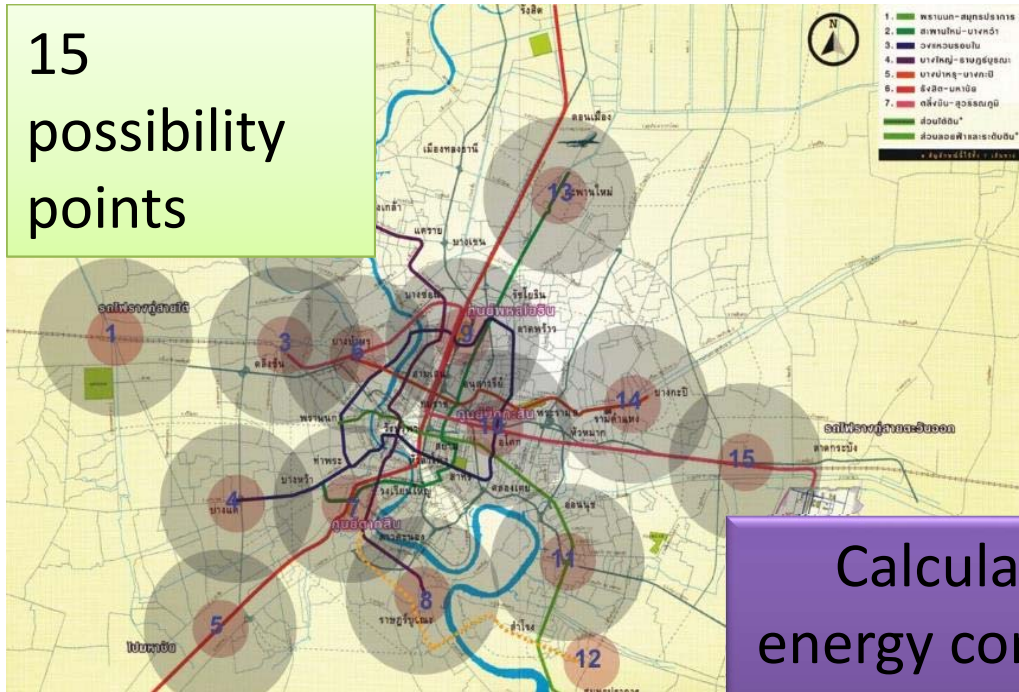
National Health Assembly



Cabinet
resolution on 19 November 2013 approved the promotion of "Bicycle use in daily life"



15
possibility
points



Universal
design
for 3
pilots
station

Calculation for
energy consumption
and GHGs reduction
from NMT project

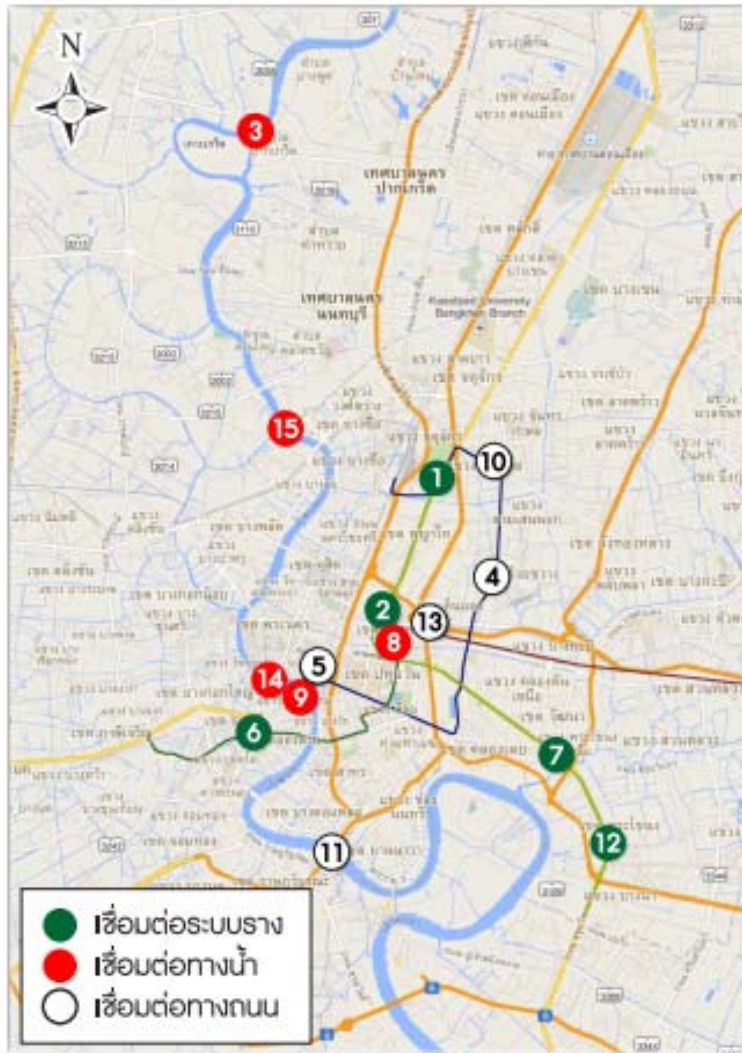
1 pilot
project for
“bicycle
town”



Target of OTP's NMT project

- To unify the policy of Non Motorized Transport in Public and Private sector in support of NMT in connection with Public Transport Modes
- To create NMT Master Plan that serve the transport need of the people in Greater Bangkok toward sustainable transport
- To create awareness and public participation in using NMT as alternative to private car
- To calculate the energy consumption and GHGs reduction from NMT project in order to submit as NAMAs project.

15 Possibility Points : BMR



1. Mor-Chi BTS Station
2. Phayathai BTS Station
3. Pakkret Boat Station
4. Pharam 9 MRT Station
5. Hualumpung Bus Station
6. Phonimit BTS Station
7. Prakanong BTS Station
8. Sapan Withayu Boat Station
9. Ratchawong Boat Station
10. Ladprow Bus&MRT Station
11. Pharam 9 Bus Station
12. Udomsuk BTS Station
13. Ratcharop BTS Station
14. Sapan Phut Boat Station
15. Wat Tuk Boat Station

3 Pilot Project : Details Design



Mo Chit Bus Stop
and BTS Station



NMT connection with road
and rail transport

Phaya Thai
BTS Station



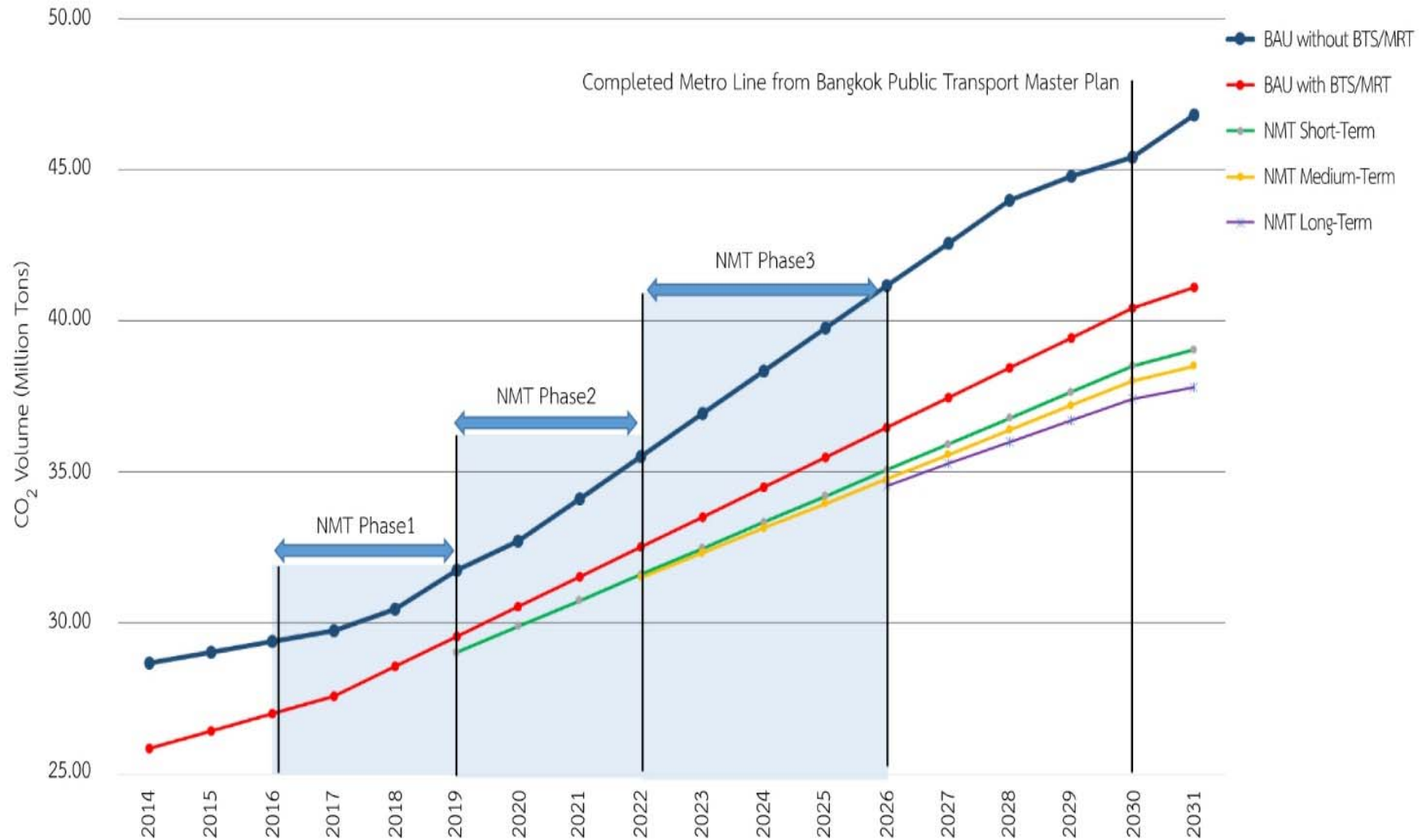
NMT connection
with rail transport

Pak Kret
Pier



NMT connection
with river boat transport

GHGs reduction from NMT project



Source: OTP, 2015

Conclusion

EIA & HIA

Thailand's EST Master Plan
120 projects/plans/policies

Avoid

- Urban planning
- Complex city

Most difficult

Not yet

Shift

- Mode of Transport : public and mass transit
- Freight : road to rail
- Alternative Fuel

Implementing

• **NMT**

Improve

- Vehicle/fuel standard
- Technology

Largely Implemented

Cross cutting

- Safety :
Decade of road safety
- Climate Change
- Awareness

Largely Implemented



Thank you for your attention

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