



# Mega Projects to Drive Thailand's Economic Growth



March 19, 2018

Chuchottaworn

Pailin



## Contents

**Thailand's Transport Infrastructure Development Strategy**

**2015-2022**

**Priority Projects and Plans**

**Eastern Economic Corridor (EEC)**



# Transportation Development Framework



# 20 Years' Thailand Transport System Development Strategy (2017-2036)



Strategy 1

Integrated Transport Systems: Connectivity, Accessibility, Mobility

Strategy 2

Transport Services: Safety, Reliability

Strategy 3

Regulations & Institution: Transparency, Equity, PPP

Strategy 4

Human Resource Development: World-Class Standard

Strategy 5

Technology & Innovation: Research and Development (R&D)





# Transport Infrastructure Development Strategy 2015-2022

## Plan 1: Intercity Rail Networks Development

1.1 Tracking & Facilities Improvement

1.2 Dual Track Development

## Plan 2: Improving Public Transport Networks & Services

2.1 Implementation of 10 Metro Lines

2.2 Construction of Roads & Bridges

2.3 Procurement of 3,183 NGV Buses and Depots

## Plan 3: Enhancing Connectivity between Key Domestic Production Bases & Neighboring Countries

3.1 Accessibility to Agricultural & Tourist Areas

3.2 Connectivity between Hub & Key Production Bases

3.3 Connectivity between Gateways

3.4 Promoting Seamless Multi-Modal Transport

## Plan 4: Increasing Water Transport Network

4.1 Inland Port Development

4.2 Coastal Port Development

## Plan 5: Enhancing Air Transport Capability

5.1 Airport Capacity Expansion

5.2 Enhancement in Air Traffic Management Capability

5.3 Increased Fleet Utilization

5.4 Air Transport Industrial Park

5.5 Human Resource Development



# Action Plan 2016 (20 Projects) Investment Cost 49,570.04 US M.



## 1. Air Transport

Suvarnabhumi Airport Phase II (1,437.78 US M.)

## Dual Track Railways (1.00 Meter-gauge)

- 1) Jira Junction – Khon Kaen (680.07 US M.)
- 2) Mab Kabao- Jira Junction (841.38 US M.)
- 3) Nakhon Pathom -Hua Hin (572.75 US M.)

## Standard-gauge, Dual-Track Railways <sup>85 US M.</sup>

- 1) Bangkok- Nong Khai, Kaeng Koi-Mab Taphut (10,547.08 US M.)
- 2) Bangkok- Phitsanulok-Chiang Mai (12,842.08 US M.)
- 3) Bangkok-Hua Hin (2,704.94 US M.)
- 4) Bangkok-Ra Yong (4,357.94 US M.)



## Motorway

- 1) Pattaya-Mab Taphut (509.13 US M.)
- 2) Bang Pa In- Saraburi-Nakhon Ratchasima (2,089.51 US M.)
- 3) Bang Yai-Ban Pong-Kanchanaburi (1,340.60 US M.)

*Cabinet acknowledged  
December 1, 2015*

## Urban Mass Rapid Transit

- 1) Orange Line: Thailand Cultural Ctr-Minburi (3,259.93 US M.)
- 2) Pink Line: Kae Rai-Minburi (1,528.16 US M.)
- 3) Yellow Line: Lad Praow - Sam Rong (1,408.19 US M.)
- 4) Red Line: Bang Sue-Phyathai-Makkasan- Hua Mak & Bang Sue-Hua Lam Phong (1,261.65 US M.)
- 5) Purple Line: Tao Poon-Ratburana (2,888.91 US M.)



## Maritime Transport

- 1) Coastal port development (Terminal A), Laem Chabang Port (48.72 US M.)
- 2) Single Rail Transfer Operator (SRTO) Phase 1, Laem Chabang Port (52.02 US M.)



# Action Plan 2017 (36 Projects) Investment Cost 25,593.07 US M.

**In Service: 2 projects**

1. Ferry Service across Gulf of Thailand (MD)	38.72 US M.
2. Common ticket system (OTP)	- US M. 38.72 US M.

**Procurement Stage: 15 projects**

1. Public Bus Procurement & Station (BMTA)	13,387.56 US M.
2. Blue Line : Bang Kae – Sai 4 (MRT)	64.92 US M.
3. Dark Green : Samutprakarn – Bang Pu (MRT)	605.63 US M.
4. Dark : Kukot - Lumluka (MRT)	347.03 US M.
5. Orange : Talingchan –Thailand Cultural Centre (MRT)	280.09 US M.
6. ARL Extension Don Muang-Bang Sue- Phayathai (SRT)	3,524.40 US M.
7. Dark Red : Rangsit – TU Rangsit (SRT)	889.98 US M.
8. Dual Track (DT) Paknampho-DenChai (SRT)	217.06 US M.
9. DT Jira - Ubonratchathani (SRT)	1,601.89 US M.
10.DT Khonkaen – Nong Khai (SRT)	1,023.99 US M.
11.DT Chumporn – Surat Thani (SRT)	744.74 US M.
12.DT Surat Thani - Songkha (SRT)	668.14 US M.
13.DT Hat Yai – Padang Besa (SRT)	1,480.67 US M.
14.DT Denchai – Chiang Mai (SRT)	226.91 US M.
15.MRO Dev. at U – Tapao Airport (TG)	1,712.12 US M.
	- US M.

**Proposal Development: 4 projects**

1. Ferry Terminal Dev. (MD)	1,399.59 US M.
2. Motorway Hat Yai-TH-Malaysia Border (DOH)	28.05 US M.
3. Regional Truck Terminal (9 border provinces) (DLT)	871.43 US M.
4. Regional Truck Terminal (8 regional cities) (DLT)	230.45 US M.
	269.66 US M.



Cabinet acknowledged  
December 13, 2016

**Construction Stage: 5 projects**

1. Intermodal Facility – Chiang Khong (DLT)	1,565.67 US M.
2. Regional Airport Dev. (Mae Sot/Bae Tong/Sakon Nakhon/Krabi)	67.59 US M.
3. Rama 3 – Dao Kanong-Outer Ring (West) (EXAT)	1,059 US M.
4. DT Hua Hin- Prachuap Khiri Khan (SRT)	892.69 US M.
5. Baggage System Handling Upgrade at Suvarnabhumi Airport	292.56 US M.

**Cabinet/PPP Committee Approval: 8 projects**

1. New Line DT Den Chai-Chiang Rai-Chiang Khong (SRT)	8,514.42 US M.
2. New Line DT Ban Pai – Nakhon Phanom (SRT)	2,199.39 US M.
3. Light Red Extension : Taling Chan-Siriraj & Taling Chan-Saraya (SRT)	1,724.34 US M.
4. Lam Cha Bang Phase 3 (PAT)	874.06 US M.
5. Exp. Northern Route N <sub>2</sub> and E-W Corridor (CAAT)	1,002.84 US M.
6. Exp. Kratu – Patong (EXAT)	410.91 US M.
7. Motorway Nakhon Phanom – Cha Am (DOH)	299.90 US M.
8. Cross-border Logistics Center Nakorn Phanom (DLT)	2,302.86 US M.
	30.10 US M.

**Policy Driven: 2 projects**

1. Truck Rest Area (Buriram/Udonthani/Kampaeng Phet (DOH))	687.11 US M.
2. Mass Transit in Phuket (MRT)	15.71 US M.



# Action Plan 2018 (44 Projects) Total Investment 5,7714.28 US M.

Target within Fiscal year 2018



## 21 Projects Cabinet/ PPP Committee Approval

1. Expressway: Kratu-Patong (EXAT)	397.62
2. Cross-Border Logistics Centre at Nakorn Phanom (DLT)	32.36
3. Regional Truck Terminal (9 Border provinces) (DLT)	230.00
4. Regional Truck Terminal (9 Regional cities) (DLT)	238.35
5. Bus Procurement (EV) (BMTA)	11.91
6. Bus Procurement (NGV) (BMTA)	49.60
7. Motorway: Nakhon Phatom-Cha Am (DOH)	2,223.80
8. Motorway: Hat Yai-TH-Malaysia Border (DOH)	973.43
9. Motorway: Rangsit-Bang Pa-In <u>New</u> (DOH)	716.30
10. Motorway: H35 BKK-Maha Chai <u>New</u> (DOH)	1,145.00
11. HSR BKK-Chiang Mai (OTP/SRT)	7,892.17
12. HSR BKK-Hua Hin (OTP/SRT)	2,225.91
13. Red Line: Bang Sue – Phayathai – Makkasan - Hua Mak & Bang Sue - Hua Lam Phong <u>New</u> (SRT)	1,412.90
14. Purple Line: Tao Poon-Ratburana (SRT)	3,663.86
15. Mass Transit in Phuket (OTP/SRT)	861.56
16. Mass Transit in Chiang Mai <u>New</u> (OTP/SRT)	3,063.8
17. Mass Transit in Nakhon Ratchasima <u>New</u> (OTP/SRT)	388.37
18. Mass Transit in Khon Kean <u>New</u> (OTP/SRT)	398.50
19. Laem Chabang Phase 3 (PAT)	2.59
20. Dry Port <u>New</u> (PAT)	52.17
21. MRO (TG)	114.90

รวม 26,114.64 US M.

Note : Orange - Action Plan 2016 10 projects

Black - Action Plan 2017 : 32 projects

Blue - New 8 projects



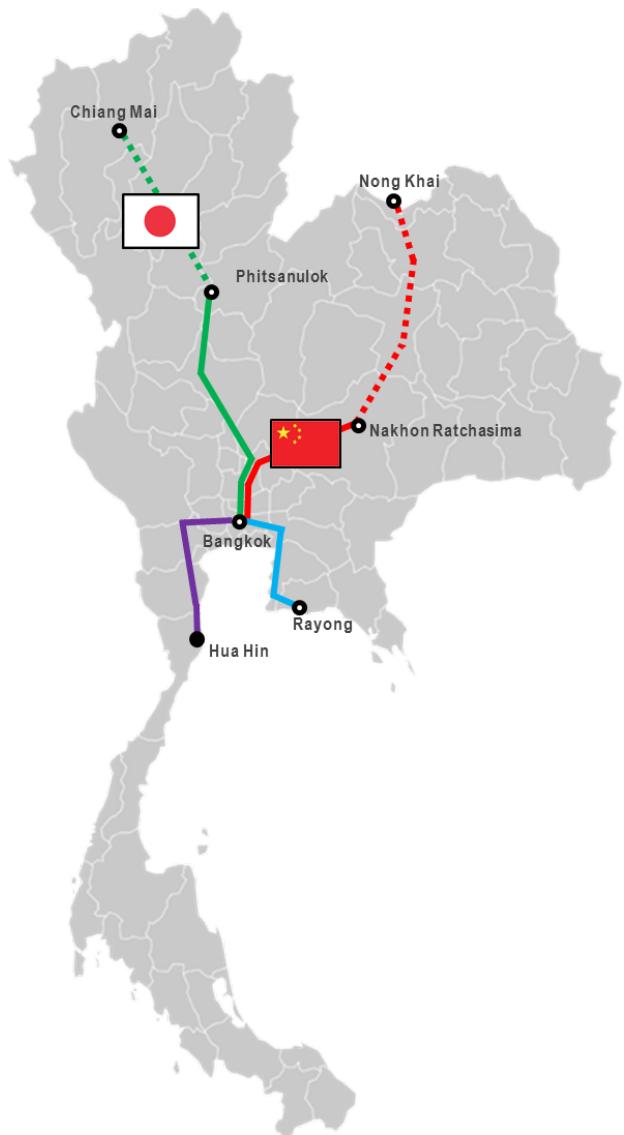
## 23 Projects Procurement/Construction/In Service

1. Truck Rest Area Buriram/Khon Kean (DOH)	13.71
2. Expressway: Rama 3-Dao Kanong-Outer Ring Road (EXAT)	892.70
3. Northern Route N <sub>2</sub> and E-W Corridor (EXAT)	501.46
4. DT Nakhon Pathom-Chumphon (SRT)	1,226.67
5. DT Lop Buri-Pak Nam Pho (SRT)	647.94
6. DT Mab Kabao-Jira Junction (SRT)	882.30
7. DT Paknampho-Denchai (SRT)	1,789.00
8. DT Jira-Ubonratchathani (SRT)	1,072.00
9. DT Khon Kean-Nong Khai (SRT)	761.55
10. DT Chumporn-Surat Thani (SRT)	694.00
11. DT Surat Thani-Song Khla (SRT)	1,639.12
12. DT Hat Yai-Padang Besar (SRT)	231.90
13. DT Den Chai-Chiang Mai (SRT)	1,711.86
14. New DT Den Chai-Chiang Rai-Chiang Khong (SRT)	2,438.43
15. New DT Ban Pai-Nakhon Phanom (SRT)	1,941.86
16. HSR BKK-Nakhon Ratchasima (OTP/SRT)	5,126.06
17. ARL Phayathai-Bang Sue-Don Muang (SRT)	5,811.35
18. Dark Red Rangsit-TU Rangsit (SRT)	187.73
19. Light Red Extension Sirirat-Taling Chan-Salaya (SRT)	504.9
20. Orange Line : Western Section (SRT.)	3,441.68
21. Dev. Krabi Airport (Apron) <u>New</u> (DOA)	34.73
22. Dev. Khon Kean (Passenger terminal) <u>New</u> (DOA)	64.28
23. Common Ticket (SRT/OTP)	21.07

รวม 31,636.32 US M.



# High Speed Rail



Bangkok - Nakhon Ratchasima - Nong Khai 608 km.

Bangkok - Ra Yong 194 km.

Bangkok - Hua Hin 211 km.



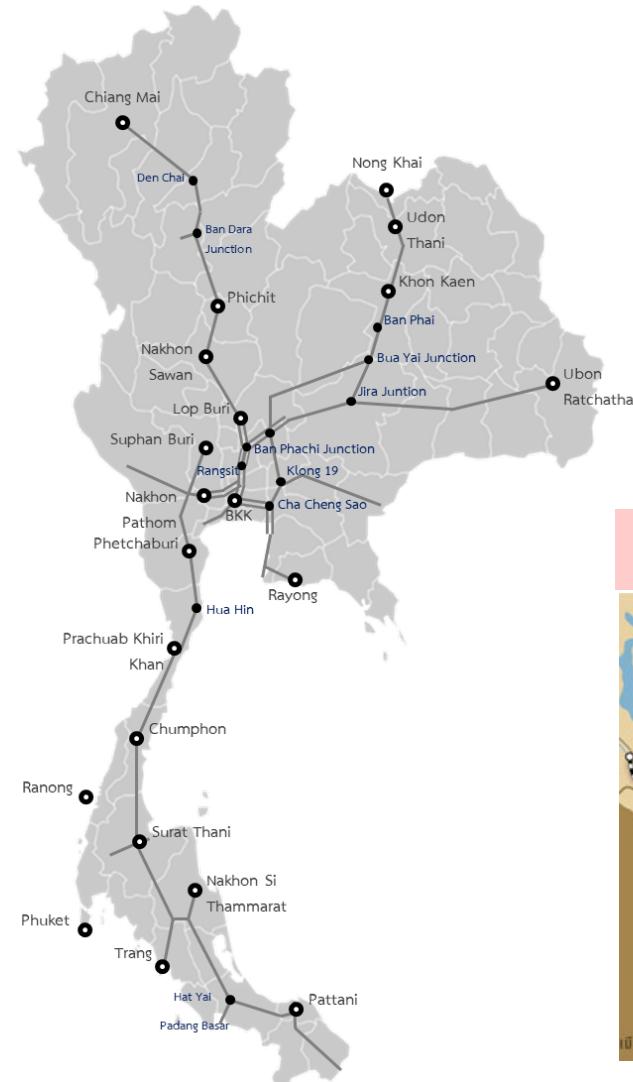
Bangkok - Phisanulok - Chiang Mai 673 km.





# Existing Railway Network

<b>Single</b>	3,764 km
<b>Double</b>	174 km
(Lop Buri-Ban Pachi / Kaeng Khoi-Ban Phachi/Nakhon Pathom- BKK/BKK-Rangsit)	
<b>Triple</b>	105 km
(Rangsit-Ban Phachi Junction/Hua Mak-Chachoengsao)	
<b>Total</b>	4,043 km



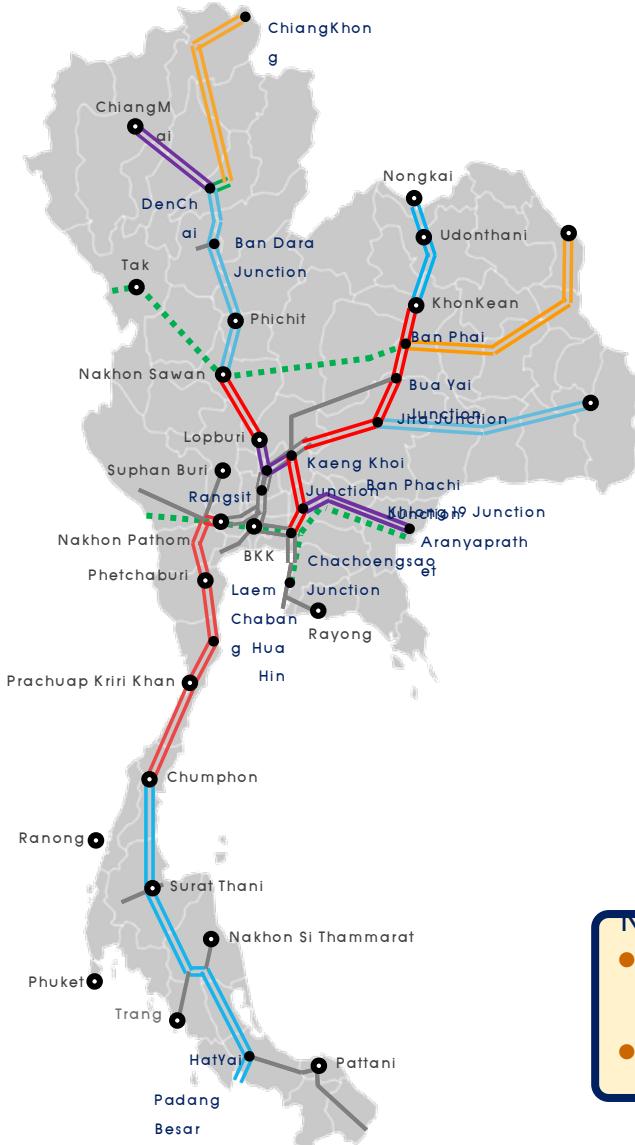
Existing Railway Network





# Future Railways 3,455 Km

Completion km			
<b>Immediate Phase</b> 7 sections <b>993 km</b>	Chachoengsao-Khlong 19-Kaeng Khoq	2019	106
	Jira Junction-Khon Kean	2019	185
	Prachuap Kiri Khan-Chumphon	2020	167
	Lopburi-Pak Nam Pho	2020	148
	Mab Kabao-Jira Junction	2020	132
	Nakhon Pathom-Hua Hin	2020	165
	Hua Hin-Prachuap Kiri Khan	2020	90
<b>Medium Phase</b> 7 sections <b>1,392 km</b>	Khon Kean-Nong Kai	2024	174
	Chumphon-Surat Thani	2024	167
	Pak Nam Pho-Den Chai	2025	285
	Jira Junction-Ubonratchathani	2025	309
	Hat Yai-Padang Besar	2025	48
	Sriracha-Map Ta Phut	2025	70
	Surat Thani-Hat Yai-Song Kha	2026	339
<b>Long term Plan</b> 2 sections <b>392 km</b>	Den Chai-Chiang Mai	2029	217
	Khlong 19-Aranyaprathet	2030	175

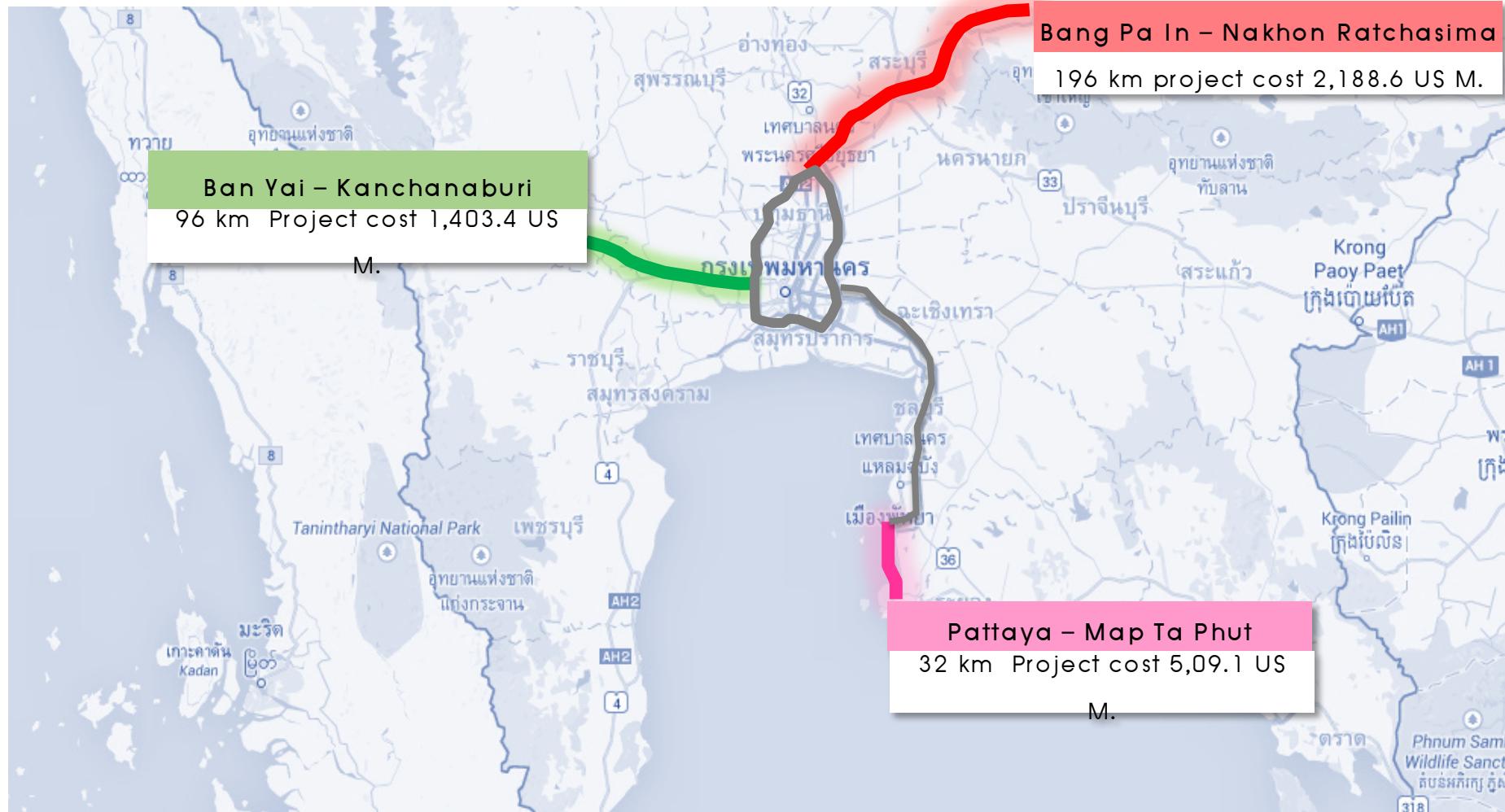


## New Double Track Lines

- Den Chai-Chiang Khong 323 km
- Ban Pai-Nakhon Phanom 355 km



# Intercity Motorway



Cabinet approved for construction  
July 14, 2015

**Pattaya – Map Ta Phut**

- Progress : 68 percent
- Expected Completion: November 2018

**Bang Pa In – Nakhon**

- Progress : 29 percent
- Expected Completion: July 2020

**Bang Yai - Kanchanaburi**

- Progress : 7 percent
- Expected Completion: October 2020



# Motorway 3 New Sections – Support Tourism & Industrial



## Enhancing network to other areas

- **Pattaya – Map Ta Phut**
  - Distance 32 km
  - To support related industrial areas
- **Laem Chabang – Map Ta Phut**
- **Laem Chabang – Nakhon Ratchasima**
- **Ban Bueng-Klaeng – Chanthaburi-Trat**



# Future : Maritime Transport

Completion

Single Rail Transfer Operator 2018 (SRTO), Laem Chabang

Coastal Port Dev. (Terminal A) 2018

Laem Chabang Phase III 2020



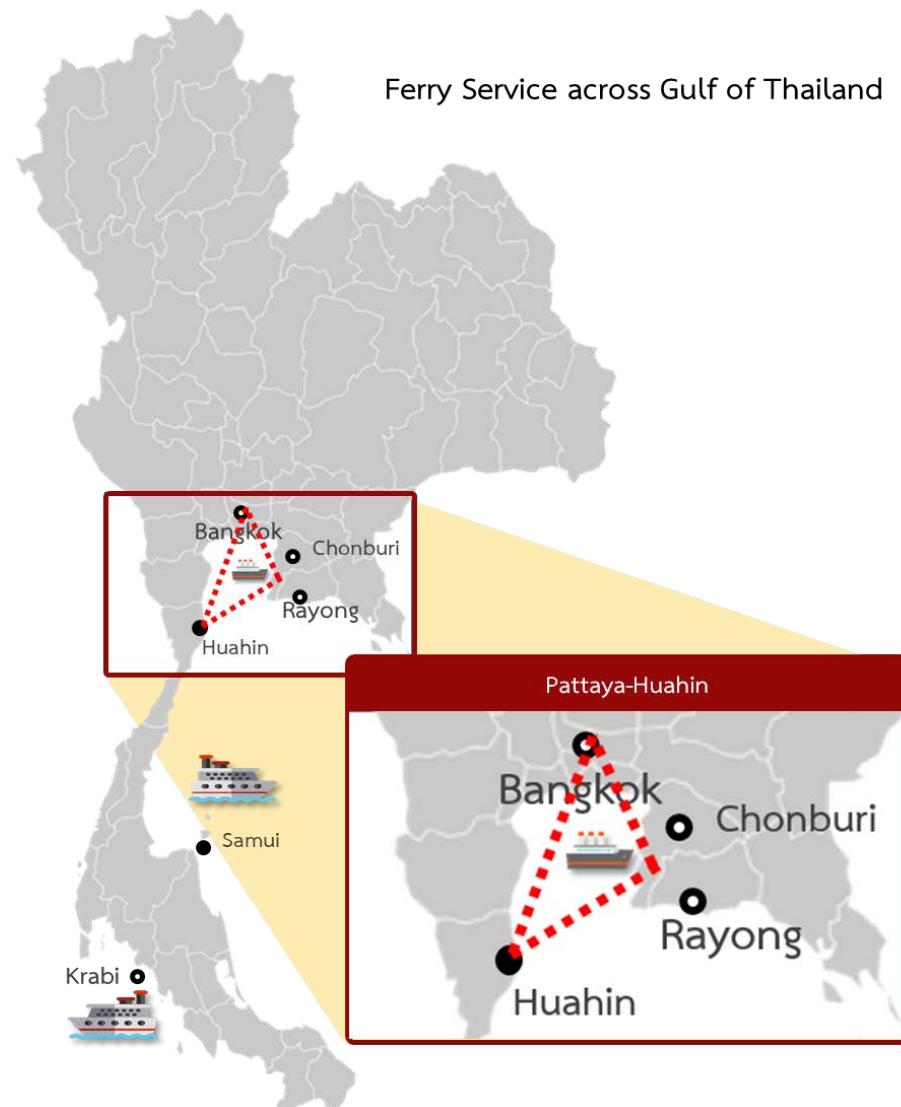


# Future : Maritime Transport

Completion

-  Single Rail Transfer Operator (SRTO), Laem Chabang 2018
-  Coastal Port Dev. (Terminal A) 2018
-  Laem Chabang Phase III 2020
-  Ferry Service across Gulf of Thailand 2023

Ferry Service across Gulf of Thailand





# Future : Maritime Transport

Completion

	Single Rail Transfer Operator (SRTO), Laem Chabang	2018
	Coastal Port Development (Terminal A)	2018
	Laem Chabang Phase III	2020
	Ferry Service across Gulf of Thailand	2023
	Development of Ferry Terminal Krabi/Samui, Surat Thani	2024

Ferry Terminal



Samui, Suratthani Province





# Future : Air Transport

- Suvarnabhumi International Airport
- Don Muang International Airport
- Mae Sot Airport
- Bae Tong Airport
- Sakon Nakhon Airport
- U-Tapao International Airport





# Suvarnabhumi Airport Development Plan

## Development Plan 2<sup>nd</sup> Phase (Project cost 1,785.80 US M. approved by Cabinet)

- Midfield Satellite Building (SAT) 1 and 2
- Passenger Terminal

Passengers Capacity Current capacity : accommodate 45 mil

passenger/year/million passengers

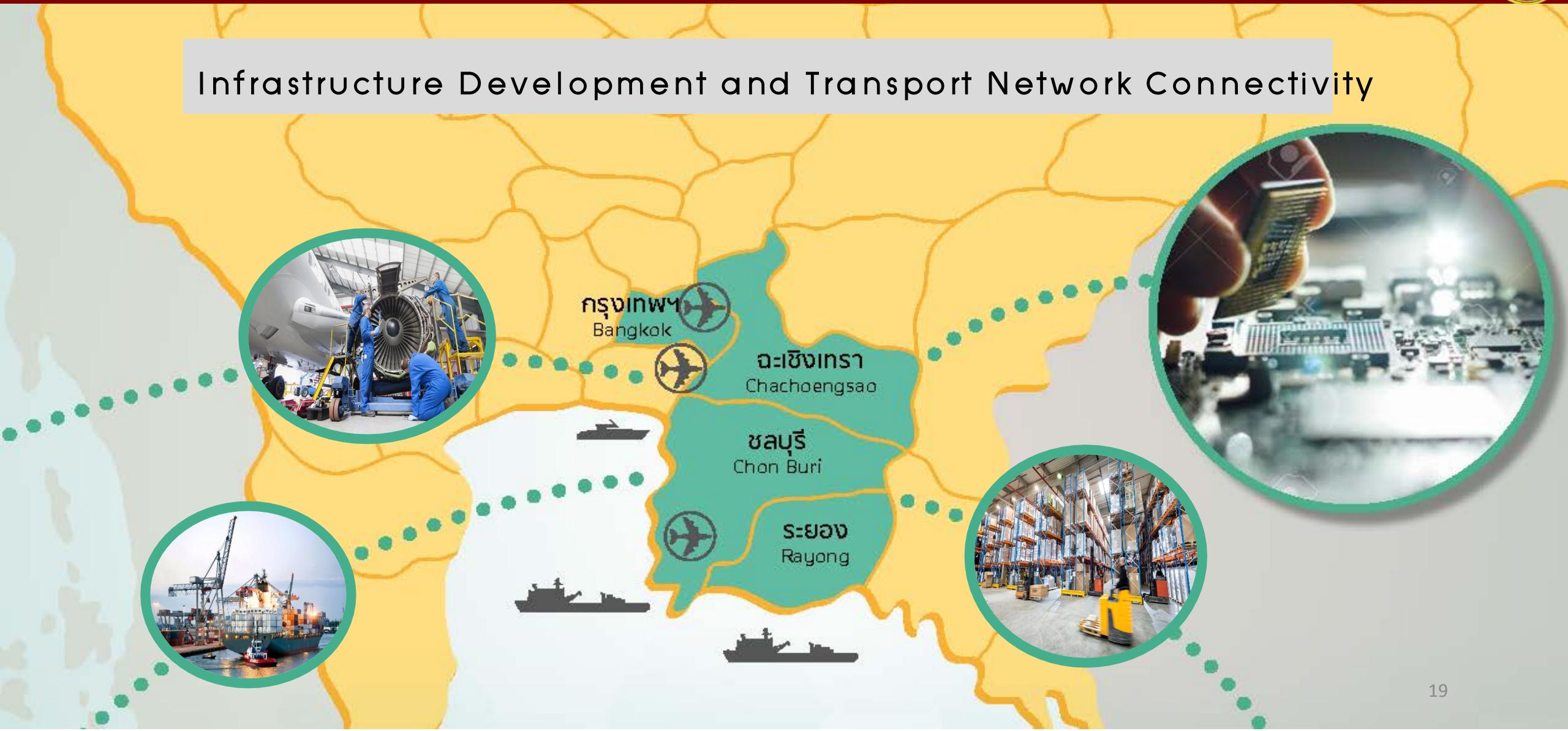
3 <sup>rd</sup> Stage (2021)	Accom. 90 mil passenger/year	 449,044 Flights/years
4 <sup>th</sup> Stage (2026)	Accom. 105 mil passenger/year	 504,316 Flights/years
5 <sup>th</sup> Stage (2030)	Accom. 120 Million/year	 561,332 Flights/years





## Eastern Economic Corridor Development (EEC)

### Infrastructure Development and Transport Network Connectivity





# Development Plan : 3 Phases

## Immediate Phase (2 yr)

Plans/projects to accelerate implementation for driving economic development in EEC

2017

2018

2019

2020

2021

2022

## Medium Phase (3 yr)

Plans/projects continue from 1<sup>st</sup> stage to support trade activities from transport network efficiency

## Long Term Plan

Plans/projects to support sustainable development in EEC, connect transportation network with regional countries and neighbor countries to be Gateway for CLMV

- PPP MRO U-Tapao Phase I
- PPP HSR connect 3 airports
- U-Tapao Train Station
- PPP Passenger terminal 3 at U-Tapao
- PPP Laem Chabang Phase 3
- PPP Map Ta Phut Port Phase 3
- Motorway (Pattaya – Map Ta Phut)
- Passenger Terminal at Chuk Samet Pier
- Secondary rd. network improvement

99 projects

8,368 US M.

- Double Track Railway (Laem Chabang – Mab Ta Phut - Rayong-Chanthani - Trad)
- 2<sup>nd</sup> Runway at U-Tapao International Airport
- PPP Air cargo (U-Tapao) Phase 1
- PPP Free Trade Zone at U – Tapao International Airport
- Motorway (Laem Chabang -Prachinburi)
- Secondary rd. network improvement
- Bypass network improvement

62 projects

11,839 US M.

- Railway connect EEC- Dawei -Cambodia
- ICD Chachoengsao
- PPP Air cargo (U - Tapao) Phase 2
- Motorway (Chonburi- Klaeng district)
- Increase road network for new urban development

The EEC Development Policy  
Committee endorsed plans  
February 1, 2018

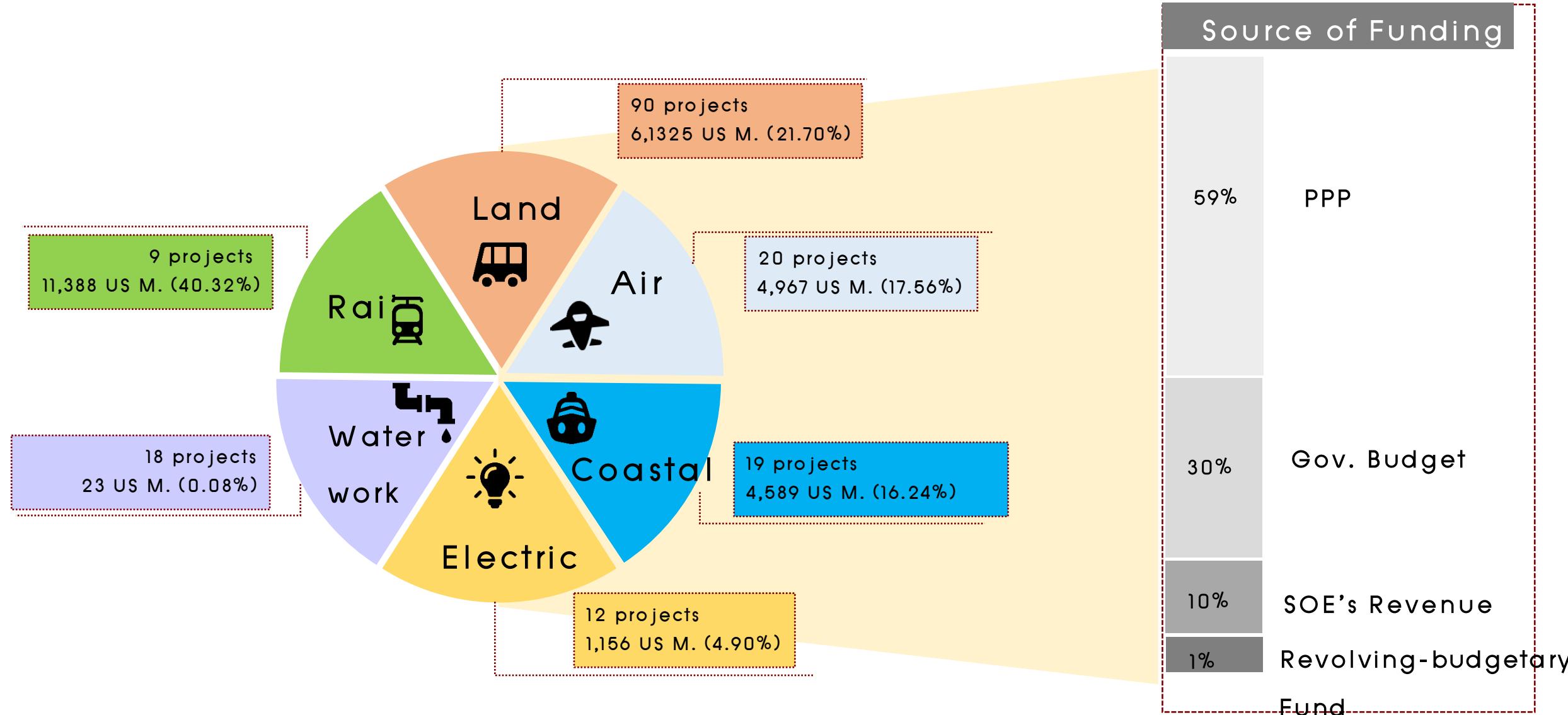
7 projects

7,225 US M.

168 projects with total investment cost 27,432 US M.



# 6 Plans 168 Projects





# Eastern Economic Corridor Development



**High Speed Rail: Bangkok-Ra Yong**  
 Linking 3 International Airport  
 Don Muang – Suvarnabhumi - U Ta Pao  
 Accommodate 100,000

## Laem Chabang Deep Sea Port

To accommodate 18 M. TEU/year  
 To accommodate 3 M. exported car units/year  
 To rank world's no. 10 port

## Map Ta Phut Port

To serve 10,285.7 US M. investment in petrochemical over the next 5 years

## Sattahip Port

To accommodate 3 M. investors & tourists/year



**Double Track Railway**  
 Chachoengsao-Khlong 19-Kaeng Khoi  
 Connecting industrial area &



**Motorway No. 7 Bangkok – Ban Chang:** Pattaya – Mab Ta Phut (32 km)

To support related industries between Laem Chabang – Map Ta Phut & U-Tapao International Airport

## Motorway No. 61

Laem Chabang – Nakhon Ratchasima 288 km

## Motorway No. 72

Chonburi-Trat 216 km



## U-Ta Pao International Airport

Accommodate more than 3 mil passenger/yr  
 Aerotropolis on area 575 Rai

**การบูรณาการเชื่อมโยงด้านโครงสร้างพื้นฐานและการตั้งคุณลักษณะ**

**ຈະເຊີ້ງເກຣາ** ຜູມສບປ່າອຍໍມາທຽບຈຳບົດໂລກຮອງຮັບກຽງເກພາ

**ชลบุรี-ศรีราชา**  
เมือง/ศูนย์กลางการศึกษา  
 Baba Chai Thi รองรับ  
 อุตสาหกรรมบริการท่องนาคด/  
 อิสกกรอบบิกส์อัจฉริยะ:

ก้าวเรื่อแฟลเมดบัง  
ก้าวเรื่อระดับโลก  
เชื่อม AEC ชั้น-อีป้าเติย

**ພັກຍາ-ສັດທິບ-ຮະຍອງ**  
ເບີດກ່ອນເຖິງວິກາຄະຫະວັນອອກ  
(ເພື່ອຊຸຽນກົງ-ຄຣອບຄຣວ-ສູນກາພ)  
ບໍາໂດຍສະບາມບັນພັກຍາອຸ້ດະເກາ

**ระยอง**  
เมืองนาบนาชาติมาตราฐานโลก  
ป่าอยุธยาสุดในอาเซียนธุรกิจ  
กับสมัยวิจัยด้านอาหาร  
และใบโอลีโคน้ำมัน

**ສະນາບິນອຸດະເກາ ກ່າເຮືອຈຸກເສີມດ**  
ຄູນຍົກລາງຄມນາຄມ  
ດົນ-ເຮືອ-ເຄຣີ່ອງບິນ-ຮກໄຟຄວາມເຮົວສູງ  
ຄູນຍົຮກຈຳກັດ  
(ຫ່ອມ-ສັງສົນຄ້າ-ພຶດນາຄປ)

- เชื่อมโยงทำอาหารชayan 3 แห่ง(สุวรรณภูมิ ดอนเมือง และอู่ตะเภา)
  - เชื่อมโยงการคมนาคมขนส่งทางถนน ทางราง ทางเรือ และทางอากาศ
  - พัฒนาทำเรือ
  - เพิ่มศักยภาพการท่องเที่ยวทางทะเลการเชื่อมโยงกับทำเรือท่องเที่ยว 2 ฝั่งทะเลอ่าวไทยและอินเดีย

## การเชื่อมโยงพื้นที่ ชายฝั่งทะเลตะวันออกกับอนุภูมิภาค



A large industrial complex with multiple tall cranes and conveyor belt structures against a dark, cloudy sky.

Thank you

