



Thailand's Transport Infrastructure Development Strategy 2015-2022



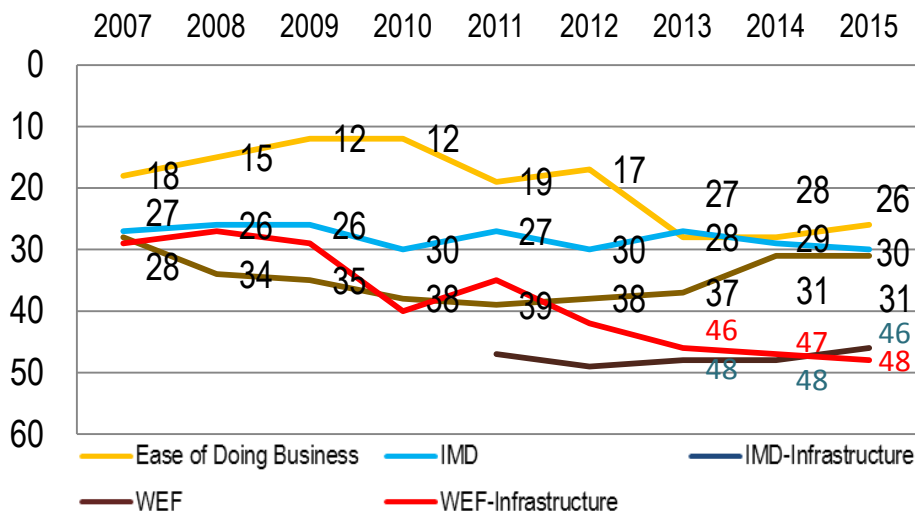
Arkhom Termpittayapaisith
Minister of Transport
Japan, November 2015

Today's Topic

- **Overview of Thailand Infrastructure**
- **Transport Infrastructure Development & Action Plan**
- **Thailand-Japan Railway Cooperation**
 - **Container Freight Train Trial**
- **Public Private Partnership in Transport Infrastructure Development**
- **Dawei Project**

Thailand's infrastructure still needs further development and improvement in order to boost the nation's competitiveness hence, more investment will unavoidably be required in the future

Overall Competitiveness Ranking 2003 - 2015



Transport Infrastructure Statistics

Road	National Highway Motorway & Expressway	61,747 km. 313 km.
	Rural road Local road	47,916 km. 110,845 km.
Water	Total International Deep Sea Port	6
	- Laem Chabang Port	7.7 MTEU/year
Rail	Single Track	3,685 km.
	Double and Third Track	385 km.
Air	Airports	36
	- Suvarnabhumi Airport	45 M ppl/y
	- Don Mueang Airport	36 M ppl/y
	- Phuket Airport	6.5 M ppl/y
	- Chiang Mai Airport	8 M ppl/y

Infrastructure Development Target

- Reduce logistics costs to be lower than 15.0 % of GDP
- Increase the proportion of the Rail transport to 5.0%
- Increase the proportion of the renewable and the alternative energy consumption to the final energy consumption to be at least 19.0%
- Reduce energy import by at least 3.0%
- Interconnect regional supply chains that can facilitate economic development over a period of time
- Increase in Thailand's cross-border trade and direct investment with neighboring countries to reach 15 percent and 10 percent per annual respectively

“Thailand Transport Infrastructure Development Strategy 2015-2022” as a development framework of Thailand over the next 8 years as well as to efficiently monitor the implementation of the projects.

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

20 Transport Infrastructure Investment Projects



Air Transport

1. Suvarnabhumi Airport Phase II (51,607 Million Baht)

**Total
investment
1.796 Trillion
Baht**



Mass Rapid Transit

1. Orange Line: Thailand Cultural Ctr-Minburi (110,116 Million Baht)
2. Pink Line: Kae Rai-Minburi (56,690 Million Baht)
3. Yellow: Lad Praow - Sam Rong (54,644 Million Baht)
4. Red Line: Bang Sue-Phyathai-Makkasan-Hua Mak & Bang Sue-Hua Lam Phong (44,157 Million Baht)
5. Purple Line: Tao Poon-Ratburana (131,004 Million Baht)

Dual Track (Meter gauge)

- 1) Jira Junction – Khon Kaen (26,004 Million Baht)
- 2) Mab Kabao- Jira Junction (29,853 Million Baht)
- 3) Nakhon Pathom -Hua Hin (20,036 Million Baht)
- 4) Prachuab Kiirikan- Chumpon (17,290 Million Baht)
- 5) Lop Buri- Pak Nam Pho (24,840 Million Baht)



Motorway

1. Pattaya – Mab Taphut (20,200 Million Baht)
2. Bang Pa In- Saraburi-Nakhon Ratchasima (84,600 Million Baht)
3. Bang Yai-Ban Pong-Kanchanaburi (55,620 Million Baht)



Dual Track (Standard gauge)

1. Bangkok- Nong Khai, Kaeng Koi-Mab Taphut (369,148 Million Baht)
2. Bangkok- Phitsanulok-Chiang Mai (449,473 Million Baht)
3. Bangkok-Hua Hin (94,673 Million Baht)
4. Bangkok-Ra Yong (152,528 Million Baht)



Maritime Transport

1. Coastal port development (Terminal A), Laem Chabang Port (1,864 Million Baht)
2. Single Rail Transfer Operator (SRTO) Phase 1, Laem Chabang Port (2,031 Million Baht)

Projects approved from Cabinet and bidding in 2015

Dual track

1) Jira Junction - Khon Kaen Section

Motorway

2) Pattaya - Mab Ta Phut

3) Bang Pa In- Saraburi- Nakhon Ratchasima



4) Coastal port development (Terminal A), Laem Chabang Port

5) Single Rail Transfer Operator (SRTO) Phase 1, Laem Chabang Port

6) Suvarnabhumi Airport Phase II



Projects bidding in 2016-2017

Dual track (Metre Gauge)

1. Mab Kabao - Jira Junction section
2. Nakhon Pathom - Hua Hin section
3. Prachuab Kirikan - Chumpon section

Dual track (Standard gauge)

4. Nong Khai-Khon Kaen-Nakhon Ratchasima-Kaeng Koi-Chachoengsao-Sriracha-Mab Taphut
5. Bangkok-Phitsanulok-Chiang Mai
6. Bangkok-Hua Hin
7. Bangkok-Rayong

Mass Rapid Transit

8. Orange Line: Thailand Cultural Center-Min Buri
9. Pink Line: Kae Rai-Min Buri
10. Yellow Line: Lad Praow-Sam Rong
11. Purple Line: Tao Poon-Ratburana
12. **Commuter Train**: Red Line: Bang Sue-Phayathai-Makkasan-Hua Mak & Bang Sue-Hua Lampong
13. **Single Rail Transfer Operator (SRTTO)** Phase 1, Laem Chabang Port
14. **Motorway** : Bang Yai-Ban Pong- Kanchanaburi

Thailand-Japan Railway Cooperation



Route	Distance (km.)
1. Bangkok – Kanchanaburi	180
2. Bangkok - Aranyaprathed	255
3. Bangkok – Laem Chabang	139
1,2,3 : Thai & Japan will consider the type of gauge to accommodate speed of 100-120 km/h	
4. Bangkok – Chiang Mai - Dual track - Standard Gauge - Speed >200 km/h	672

Process	Bangkok- Chiang Mai	Kanchanaburi-Bangkok-Aranyaprathed-Bangkok-Laem Chabang
Operation Plan	September 2015	September 2015
Study & Design	January 2016	January 2016
Construction	When study completed	When study completed

Upper East-West Corridor

Upper East-West Corridor



Route	Distance (Km.)	Status
Tak- Phitsanulok- Phetchabun- Khon Kaen- Roi Et- Mukdahan	718	Requesting budget for Feasibility Study

Lower East-West Corridor

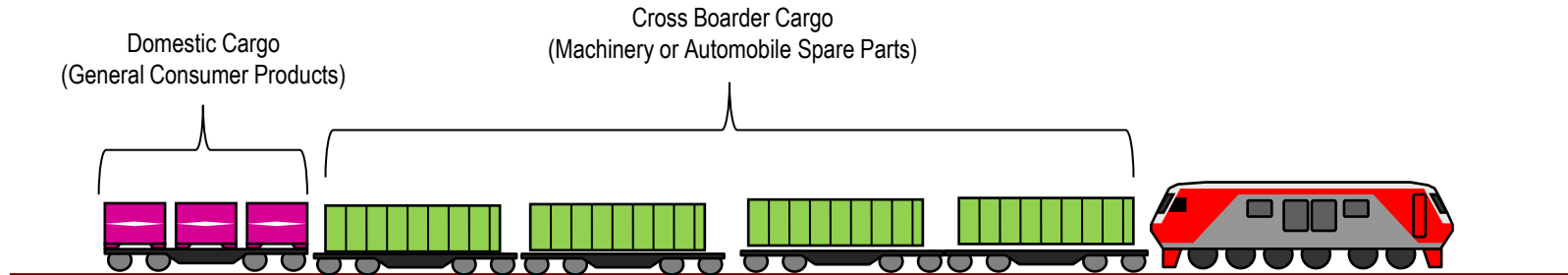


**Lower East-West
Corridor**

Route	Distance (km.)	Progress
Bangkok – Kanchanaburi	180	Conducting Feasibility Study by State Railway of Thailand (SRT)
Bangkok - Aranyaprathet	255	
Bangkok – Laem Chabang	139	
Total	574	

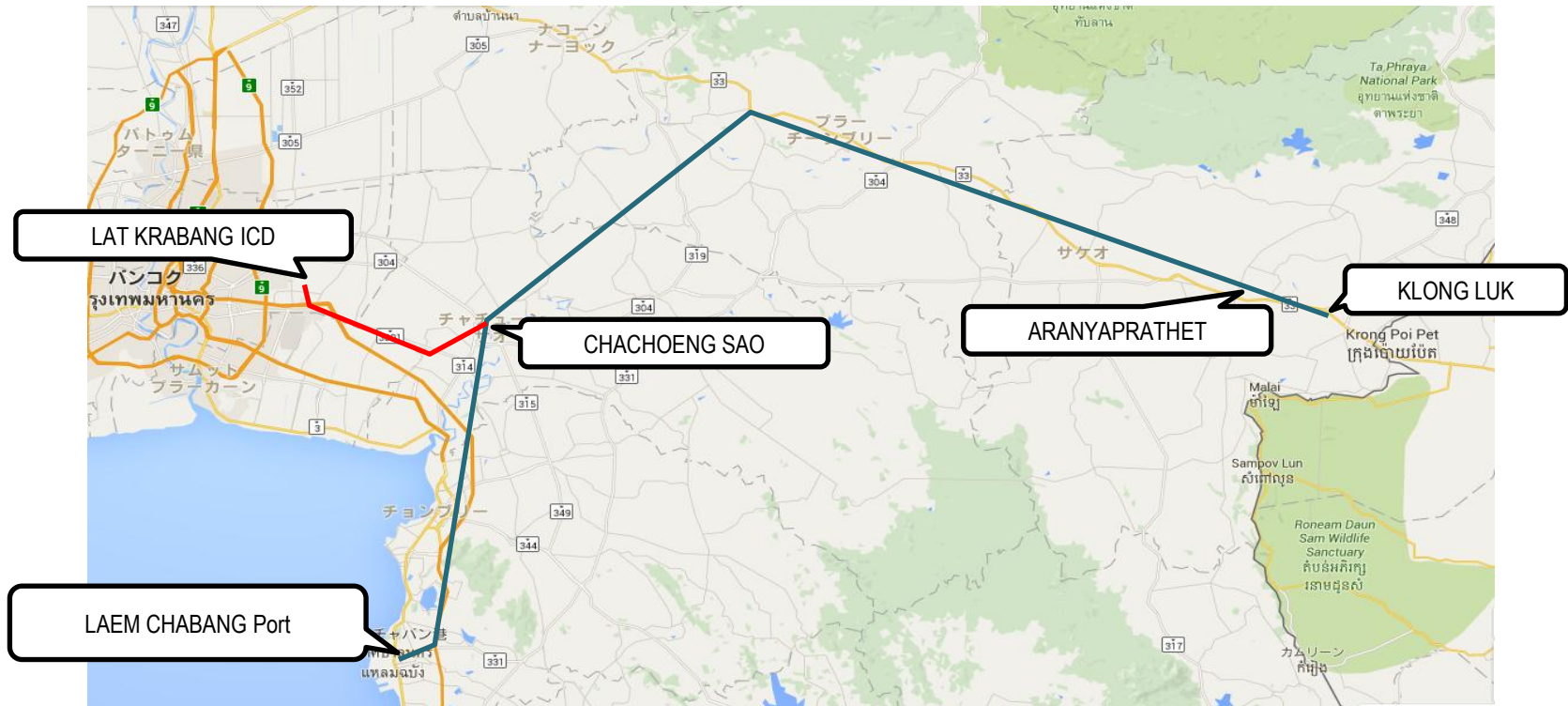
Container Freight Train Trial

- The feasibility study to improve the efficiency of railway freight services, based on MOC between Thailand & Japan.
- Purposes :
 - Construction of domestic railway container transport network by small container (12 feet container)
 - Construction of IT system for management of rail freight transport
- 5 Container Wagons : 4 Wagons-40 ft Container
 - 1 Wagon-12 ft Container
- Transport Goods : General consumers products & machinery/ automobile spare parts



Container Freight Train Trial

- Responsible agent: State Railway of Thailand & Study Team of Ministry of Land, Infrastructure and Transport
- Ceremony Plan of Trial Run : The last week of January 2016
- Route : Laem Chabang Port/ Lat Krabang ICD – Aranyaprathet (Klong Luk)
- Schedule of Trial : October 2015- March 2016



Public Private Partnership (PPP) in Transport Infrastructure Development

Projects	Civil works	System works & Rolling stock	Operation & Maintenance
Motorway 1. Bang Pa In-Nakhon Ratchasima 2. Bang Yai-Ban Pong-Kanchanaburi 3. Pattaya-Map Taphut			/
Airport Rail Link (Extension) 4. Don Muang-Bang Sue-Phyathai		/	
5. Dual Track : Bangkok-Hua Hin		/	
6. Dual Track : Bangkok-Ra Yong		/	
7. MRT: Orange Line		/	
8. MRT: Purple Line		/	
9. MRT: Pink Line	/	/	
10. MRT: Yellow Line	/	/	

Motorway : Pattaya – Map Taphut

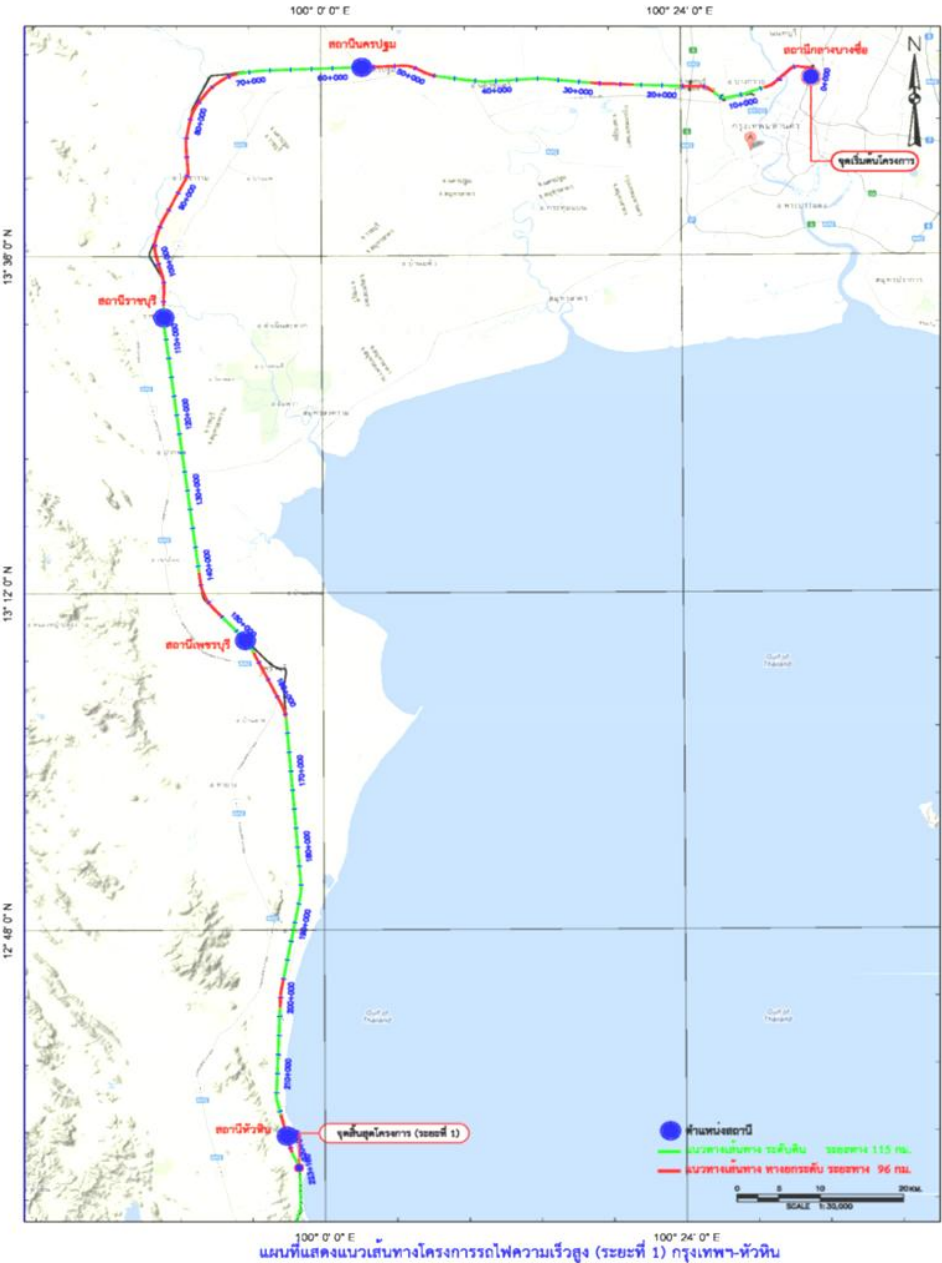
- 5 Toll Plaza
- 3 Interchanges
- 1 Service centers



Rationale

- Expansion from highway no.7
- Improved motorway network connecting to Eastern Seaboard
- Distance 32 km, 4 lanes

Standard gauge : Bangkok- Hua Hin



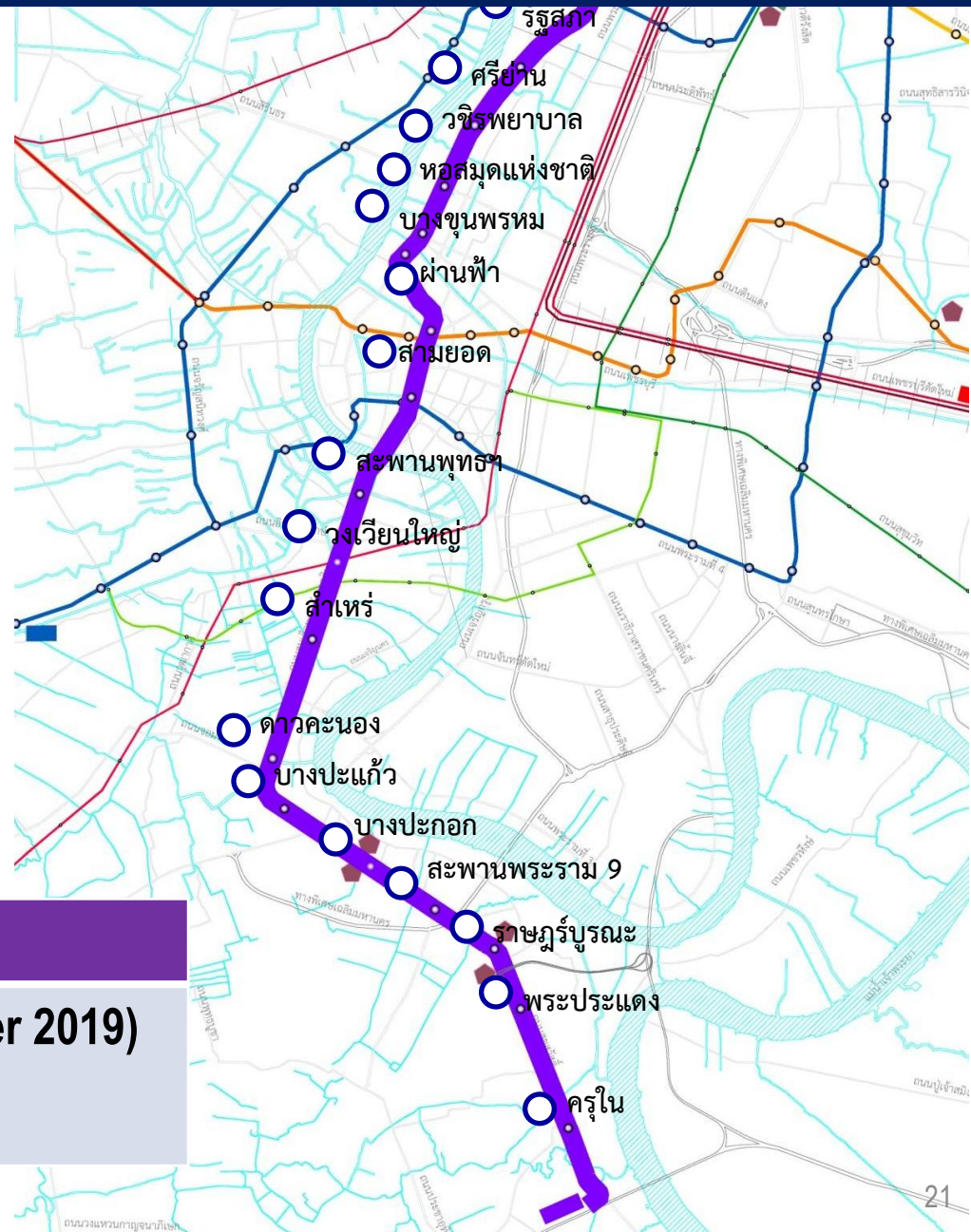
- Distance 222 km.
- EIA approved/ Cabinet to approve construction (October-January 2016)
- Land acquisition (January 2016-February 2017)
- Hire consultant for bidding (April-June 2017)
- Bidding (July-December 2017)
- Construction (January 2018-June 2020)

Standard gauge : Bangkok- Ra Yong



- Distance 221 km
- EIA approved/Cabinet approved PPP concept (October 2015 -February 2016)
- PPP Committee to approve (March – December 2016)
- PPP Selection for rolling stock & E&M (April – December 2017)
- Civil works bidding (April 2016- June 2017)

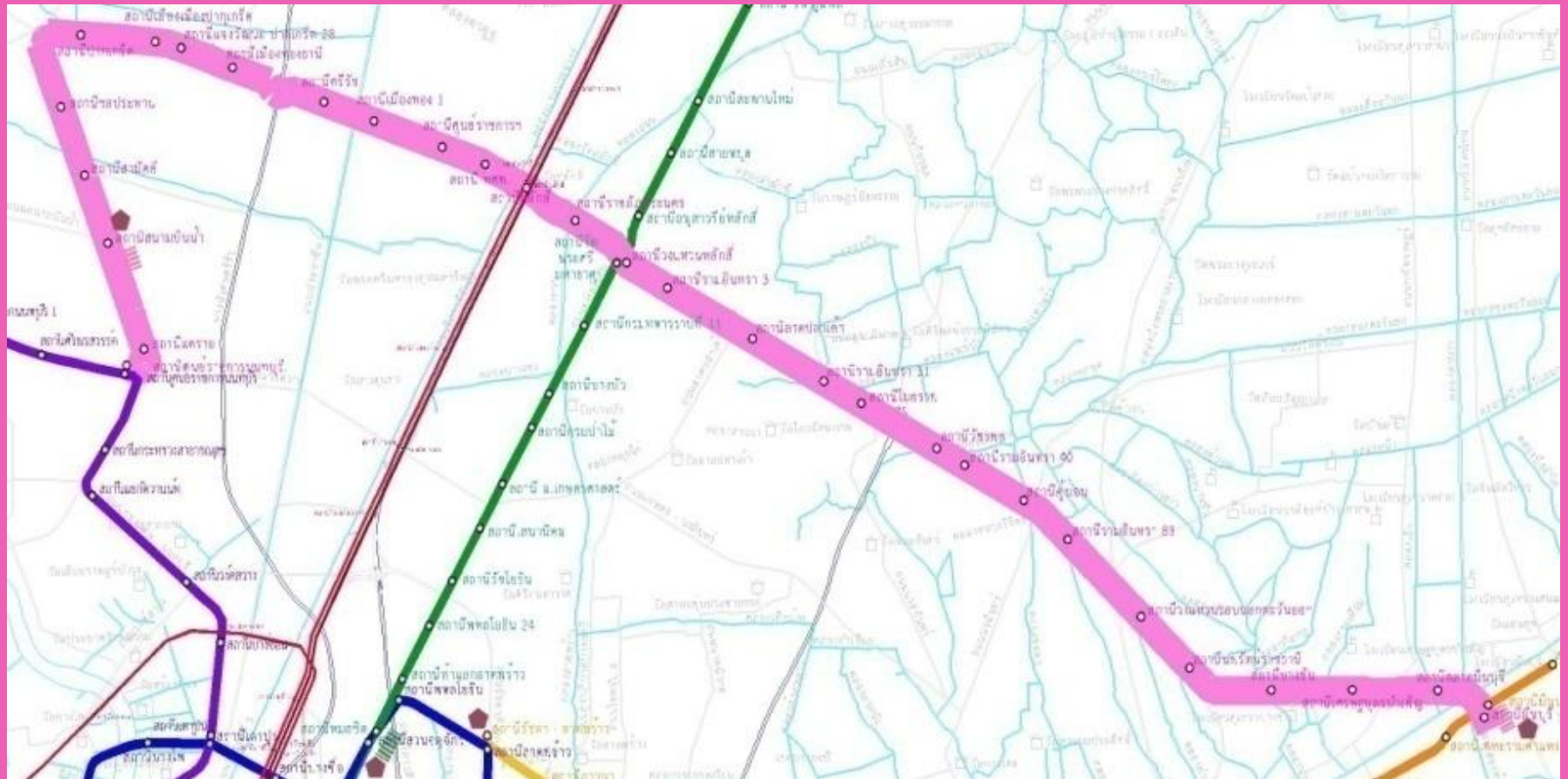
MRT Purple Line : Tao Poon-Ratburana



Plan

- Land acquisition (August 2016-September 2019)
- Bidding (May 2016 - April 2017)

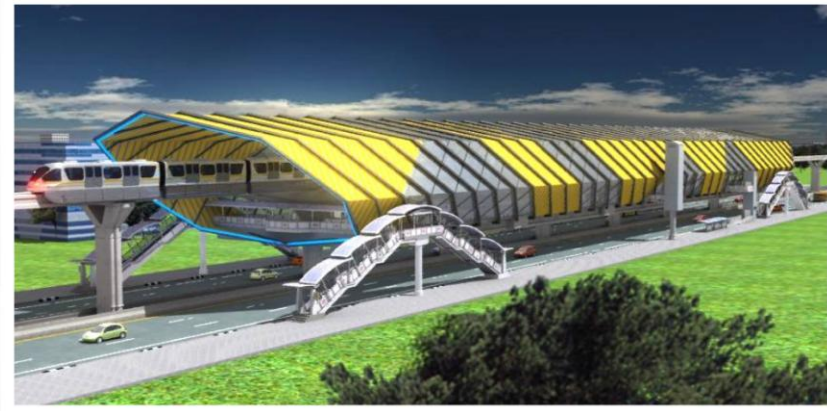
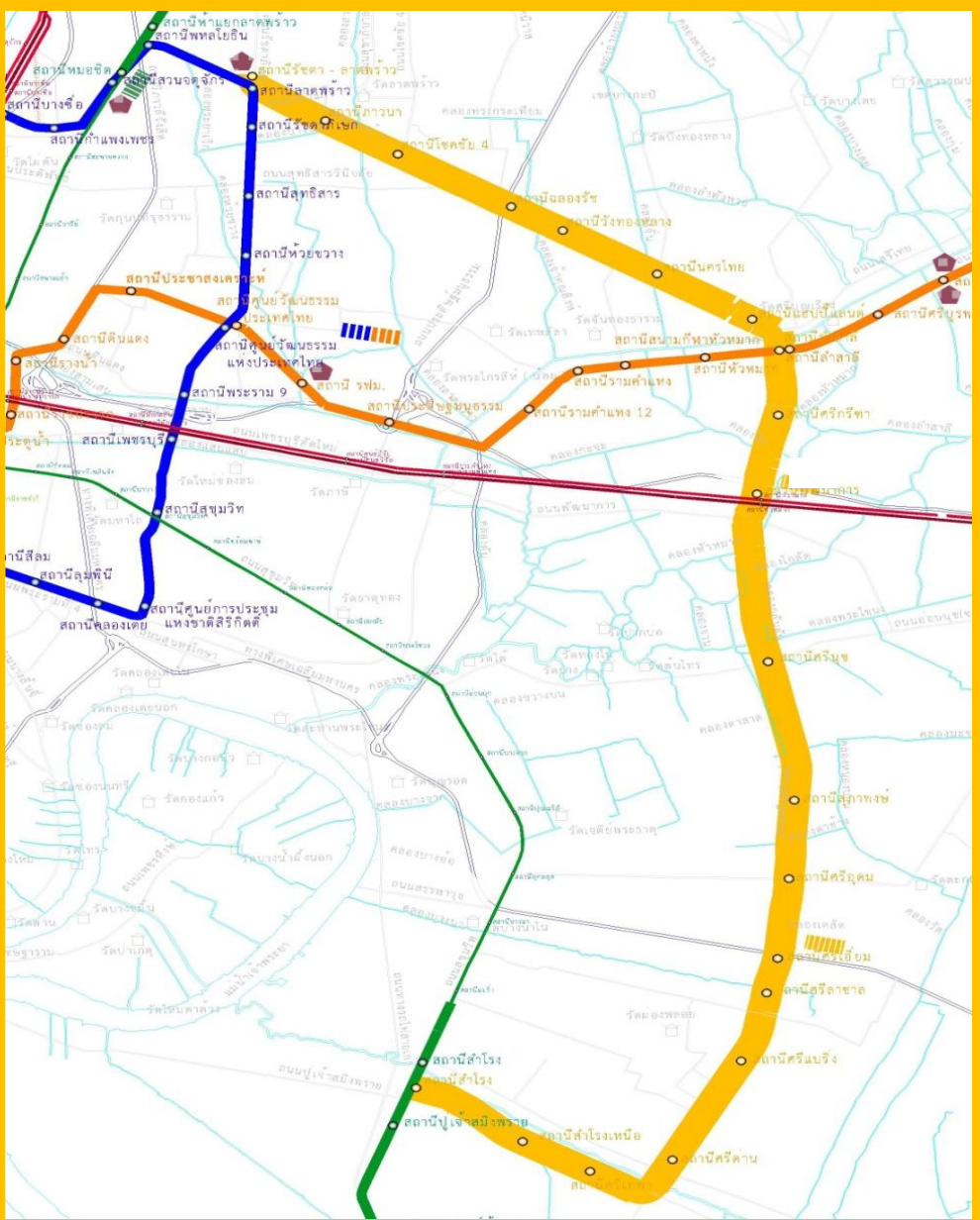
MRT Pink Line : Kae Rai-Min Buri



Plan

- Cabinet approve for construction (August 2015-March 2016)
- Land acquisition (May 2016 - June 2019)
- Bidding (April 2016-April 2017)

MRT Yellow Line : Lat Proaw-Sam Rong



Plan

- Cabinet approve for construction (August 2015 - March 2016)
- Land acquisition (April 2016- June 2019)
- Bidding (April 2016 - April 2017)

DAWEI PROJECT FACT SHEET



Background

- G-to-G MOU signed on May 19th 2008
- Italian-Thai Development Cooperation (ITD) and Myanmar Port Authority MOU signed on June 12th 2008
- Framework Agreement signed between ITD and Myanmar Port Authority on November 2nd 2010
- Project established as **Special Economic Zone**.
- ITD has been granted concession to develop the following ;
 - ✓ **Cross Border Road and Rail** link with Connecting Transmission Lines
 - ✓ **Deep Sea Port**
 - ✓ **Industrial Estate** – steel mill, oil refinery, petrochemical complex, fertilizer plant, power plant, other utility services.
 - ✓ **Utilities** i.e. water supply and treatment system, electricity (coal-fired and hydro power plant), telecommunication
 - ✓ **Township** for Residential and Commercial Development

At a glance

Location

- **Tanawstri District**
(160 km from Thai-Myanmar border
230 km from Kanchanaburi
370 Km from Bkk and 500 km from ESB)

Area

- **Total area: 205 sq km**

Investment

- **Total 250,000 mil. baht. (not include resettlement cost)**

Concessio

- **60 years + possible extension**

Land

Lease

- **Up to 75 years**

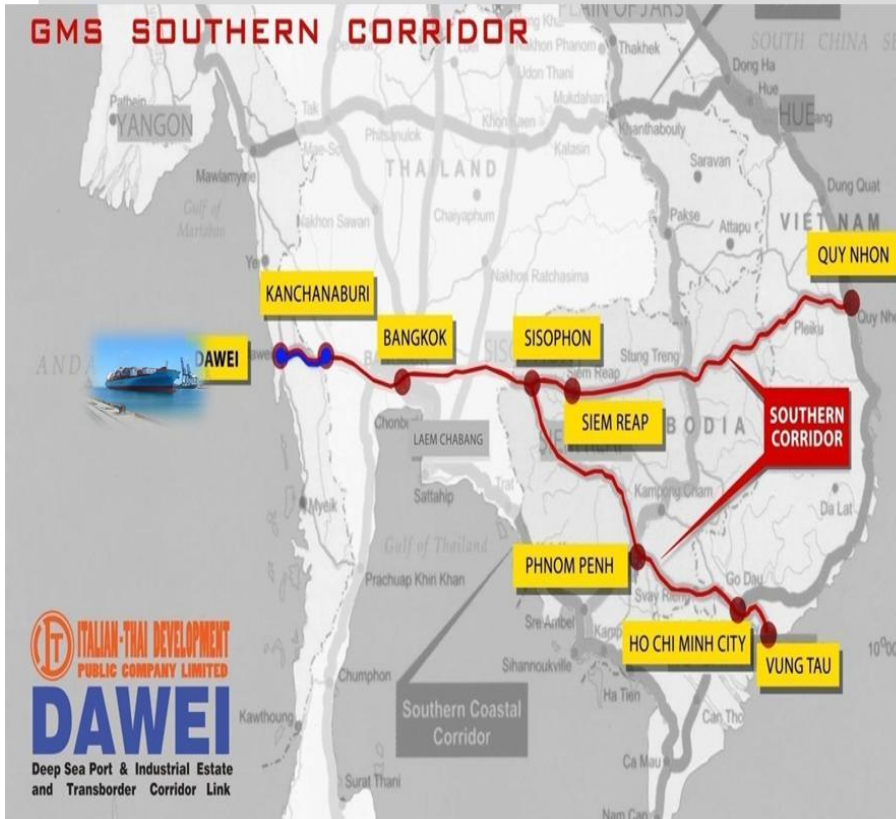
Capacity

Full Capacity of Dawei Port

- **200 mil. Ton per year or 14 mil. TEU** in the year 2037, compared to capacity of Laem Chabang port stage II which is 7.7 mil.TEU per year. (not include container ports D1, D2, D3)
- **100,000 DWT**, compared to 80,000 of Laem Chabang port
- **25-40 meter-depth**, compared to 14-16 meter-depth of Laem Chabang port

Dawei Project

Thailand's Support : Infrastructure



Progress and Way Forward

- ❖ The Cabinet resolution on 20/05/2012 giving a full support for the Dawei development project in Myanmar
- ❖ Mega infrastructure projects linking Dawei with Eastern Seaboard;

- ✓ 4-6 lane Motorway from Thai-Myanmar border to BKK (169 km) and ESB.

[On 20/05/2012, the Cabinet agreed to proceed with Motorway #81 [Bangkok- Kanchanaburi] and scheduled to be completed in 2015]

[F/S and D/D are underway for Kanchanaburi-Thai-Myanmar border section 70 km.]

- ✓ Double track railways linking Dawei-Bangkok

[Numtok-Three Pagoda Pass, 135 km. railway is under MOT Master Plan]



Questions and Answers



Thank you