otp

Office of Transport and Traffic Policy and Planning



Forging ahead with our mission throughstrategyto achieve goals



Preface

The Office of Transport and Traffic Policy and Planning (OTP), the Ministry of Transport is responsible for recommending policies and plans for land, rail, water and air transportation to the implementation in order that the development of transport infrastructure would be supportive part for economy and social development. The mutual goal is to increase the quality of life of the people. This transport infrastructure investment has high expectati on from the government and the people as it is the catalyst for economy, job opportunity, budget spreading, and safety in lives and properties of the people. Therefore, the OTP thus gives the priority to the driving of policies and plans for actual implementation under the transport infrastructure development towards the sustainable development.

Throughout 2021, OTP proposed policies, plans, projects, and various activities for sustainable development of transport sector by setting up transport infrastructure development plan of Thailand (2015 – 2022) for utilizing as the framework for development foundation in the future. Furthermore, the pushing of national rail system development, transportation safety and security for people confidence, and common ticketing system development for elevating quality of travel. In addition, the development of the regional transportation system for connecting the economy, the management of land traffic, the development of transport and traffic and transport infrastructure facilities, as well as the development of transport information databases for supporting policy decision of the MOT.

This annual report compiles achievements related to the development of transport infrastructure in 2021 to spread to the public, agencies, and interested individuals on related information of the overall development in transport sector.



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Organization Chart Ministry of Transport

Government Service



- Office of the Minister
- Office of the Permanent Secretary
- Marine Department
- Department of Land Transport
- Department of Airport
- Department of Highways
- Department of Rural Roads
- Office of Transport and Traffic Policy and Planning
- Department of Rail Transport

State Enterpris

- State Railway of Thailand
- Port Authority of Thailand
- Expressway Authority of Thailand
- Mass Rapid Transit Authority of Thailand
- Bangkok Mass Transit Authority
- Civil Aviation Training Center
- Transport Company Limited
- Aeronautical Radio of Thailand Limited
- Thai Airways International Public Company Limited
- Airports of Thailand Public Company Limited
- Suvarnabhumi Airport Hotel Company Limited
- Thai–Amadeus Southeast Asia Company Limited
- S.R.T. Electrifed Train Company Limited
- Thaismile Airways Company Limited
- Civil Aviation Authority of Thailand

Organization Chart Office of Transport and Traffic Policy and Planning (OTP)

Office of Transport and Traffic Policy and Planning

- Director General
- Deputy Director General (2)
- Senior Transport Advisor
- Internal Auditing Group
- Administrative System Development Group

- Bureau of Central Administration
- Division of Land Traffic Management
- Division of Transport and Traffic System Development
- Transport and Traffic Information Technology Center
- Common Ticket Service Office
- Bureau of Safety Planning
- Bureau of Planning
- Bureau of Regional Transport and Traffic System Promotion

Executives

1 oct 20 – 30 sep 21

Office of Transport and Traffic Policy and Planning









1. Mr. Panya Chupanit
Director – General

2. Mrs. Wilairat Sirisoponsilp
Deputy Director – General

3. Mr. Surapong Meantmitr
Deputy Director – General

4. Mr. Wijit Nimitrwanich
Transport Technical Officer, Advisory Level

Executives

1 oct 20 – 30 sep 21

Office of Transport and Traffic Policy and Planning











5. Mrs. Phanit Mungmee
Director, Bureau of Central Administration

6. Mr. Surapong Meantmitr
Director, Division of Land Traffic Management
(21 mar 18 – 6 jun 21)

7. Mr. Athibhu Chitranukroh
Director, Bureau of Safety Planning
(11 jul 19 – 24 jan 21)

8. Mr. Athibhu Chitranukroh
Director, Bureau of Planning
(25 jan 21 – Current)

9. Mr. Roengsak Thongsom
Director, Bureau of Transport and Traffic System Development

Executives

1 oct 20 – 30 sep 21

Office of Transport and Traffic Policy and Planning











10. Mr. Padet Praditphet
Director, Bureau of Common Ticket Service Office
(16 may 16 – 30 apr 21)

11. Ms. Luksanawadee Tanamee
Director, Transport and Traffic Information Technology Center

12. Mr. Jiraroth Sukolrat
Director, Bureau of Regional Transport and Traffic System Promotion

13. Mr. Bumcha Maneekum
Chief of Administraive Development

14. Ms. Pinyada Aiemhem
Chief of internal Audit



OTP History/ Vision/ Mission/ Strategies

History

The Office of Transport and Traffic Policy and Planning (OTP), Ministry of Transport, was established pursuant to the Government Agencies' Restructuring Act of B.E. 2545 (2002) and the Reassignment of Administration, Duties, Powers and Authorities ofGovernment Agencies' Restructuring Act of B.E.2545 (2002) Royal Decree of B.E. 2545 (2002). These laws authorized the merging of the merging of the following three government agencies: the Office of the Commission for the Management of Land Traffic under the Office of the Prime Minister, constituents of the Office of the Maritime Promotion Commission, the latter two offices coming under the former Ministry of Transport and Communications.

Vision

"To be the leading organization in setting the direction for the development of the country' stransport and traffic systems"

Missions

1. To suggest policy measures, standards and integration of transport and traffic plan including driven into practice

2. To promote safety and the environment in transport and traffic systems

3. To establish, develop, and disseminate data, information, and knowledge management in transport and traffic

Strategies

1. Suitable suggestions on transport and traffic policy, plan, measure, and standard for national sustainable development

2. Transport and traffic development planning through study, research, and technology and innovation development for convenient, rapid, safe, and economical transport in consideration of quality of environment, convenience of people travelling, and supporting the mission of the Ministry of Transport

3. The coordination, monitoring and evaluation to guide and increase the efficiency of the policy, plan, measure, and standard in transport and traffic

4. The development of efficient organization, knowledge management and human resource development



Objectives

1. To construct a policy framework for national transport and traffic policy, plan, measure and standard development

2. To provide study, research and technology and innovation development for convenient, rapid, safe, and environment friendly development in transport

3. To develop, establish, and disseminate data, information, and knowledge management in transport and traffic

4. To establish system for coordination, monitoring, and evaluation in plans, project, measure and standard that is efficient

5. To encourage efficient organization and human resource management

Organization Value : Teamwork Open-mind Partnership

T - Team Work

We emphasize on working as a team toward the same goal with responsibility and goal-orientation.

O - Open-mind

We emphasize on working open-mindedly and accepting opinions of others, which leads to the integration and sharing of knowledge.

P - Partnership

We emphasize on cooperation and participation at work.

OTP TO TOP
Teamwork Open-mind Partnership

otp
Office of Transport and Traffic Policy and Planning



Transport infrastructure development for sustainable transport



Plans and policies recommendation forfuture development

The 2020 Transport Development Action Plan

1. *Background*

Ministry of Transport is accountable for transport Infrastructure development and services as well as integrated transport system to enhance level of transport services and quality of life. Transport sector is an important component of the economic and social development and also increasing the country's competitiveness.

The National Council for Peace and Order (NCPO) has approved the framework of Thailand's Transport Infrastructure Development Strategy 2015-2022 since July 29, 2014, which provides a direction for transport agencies over 8 years period. This strategy focuses on railway and maritime development in order to promote modal shift from road to rail and waterway.

After the framework was approved, Ministry of Transport has proposed the 8 - year Thailand's Transport Infrastructure Development Plan covering 2015 to 2022. This plan includes transport infrastructure projects for all modes of transport which has been approved by the Cabinet on March 27, 2015. Then, Ministry of Transport has assigned Office of Transport and Traffic Policy and Planning (OTP) and relevant agencies to formulate Action Plan from 2016 - 2020 consecutively.

Action Plan 2021 aims for priority transport infrastructure mega projects which will be approved by the Cabinet / PPP Committee or can start procurement process within fiscal year 2020. The main selection criteria are listed in the next section.



2. The selection criteria for projects are:

2.1 Project value is higher than 1,000 million baht or yields benefit in logistics or economy.

2.2 Project that is ready to implement/ submit to relevant agencies for consideration.

2.3 The projects that are in Action Plan 2017 – 2020 which has not achieved the targets or start construction.

2.4 Project that is useful with high expectation from the public.

3. Details of Action Plan 2021

Action Plan 2021 consists of 23 priority projects with total investment of 396,087.24 million baht. There are 14 projects carried forward from Action Plan 2017 – 2020 with total budget of 328,923.43 million baht and 9 new initiative projects which received budget in financial year 2021 with budget of 67,163.81 million baht. These projects are classified into 5 groups and set targets that can be accomplished within fiscal year 2021, as follow :

3.1 Projects to complete study and revision/ feasibility study 2 projects with total investment cost of 40,258.34 million baht.

3.2 Projects to be approved by cabinet or PPP committee: 6 projects with investment cost of 110,432.50 million baht.

3.3 Projects to accomplish land acquisition 1 project with total investment cost of 1,142.80 million baht.

3.4 Projects to complete survey and route selection 1 project with total investment cost of 0.23 million baht.

3.5 Projects to start procurement or construction within fiscal year 2021: 13 projects with total investment cost of 244,253.37 million baht.

Action Plan 2021, 23 Projects, Total investment cost 396,087.24 million baht

Projects to complete study and revision/ feasibility 2 projects

1. Connecting Burapa Withi Expressway and Chonburi Bypass (EXAT)	4,963.78
2. Phuket Mass Transit System Phase 1: Phuket Airport – Chalong junction (MRTA)	35,294.56
	40,258.34 ลบ.

Projects to complete survey and route selection: 1 project

1. Integrated Coach Service as Feeder Services (The Transport Co.,Ltd)	0.23
	0.23 ลบ.

Projects to be approved by cabinet or PPP committee: 6 projects

1.Civil work: elevated Intercity Motorway, Highway No. 35 Bang Khun Thien- Pak Thor: Akechai - Baanpaew (DOH)	19,700.00
2. Sriracha Rest Area: Intercity Motorway No. 7 Bangkok – Baan Chang Chonburi – Pattay (DOH)	899.65
3. Banglamung Rest Area: Intercity Motorway No. 7 Bangkok – Baan Chang: Pattaya – Mab Taput (DOH)	460.58
4. Don Muang Airport Development Phase 3 (AOT)	32,292.40
5. Chiang Mai Airport Development Phase 1 (AOT)	15,818.51
6. North Expansion Suvarnabhumi Airport (AOT)	41,261.36
	110,432.50 ลบ.

Projects to accomplish land acquisition: 1 project

1. Nakhorn Phanom Truck Terminal Centre (DLT)	1,142.80
	1,142.80 ลบ.

Projects to start procurement or construction within fiscal year 2021 13 projects

1. Road construction: NHW No. 1020 – Kiwkeaw, Toeng/ Joon District, Chiang Rai/ Pa Yao Province (DRR)	1,233.00
2. Katu – Patong Expressway, Phuket (EXAT)	14,177.22
3. New Double Track: Denchai - Chiang Rai - Chiang Khong (SRT)	85,332.90
4. New Double Track: Baan Phai – Mukdahan - Nakhon Phanom (SRT)	66,848.33
5. Passenger Pier and Safety facilities to accommodate elderly and disabled in Bangkok and GBR Development: 29 Piers (MD)	50.00
6. Laem Chabang Port Phase 3 (PAT)	53,489.58
7. Karbi Airport Development (DOA)	941.90
8. Buriram Airport Development (DOA)	1,725.00
9. Narathiwas Airport Development (DOA)	800.00
10. Khon Kean Airport Development (DOA)	500.00
11. Surat Thani Airport development (DOA	131.00
12. Ubon Ratchathani Airport development (DOA)	131.00
13. 3rd Runway at Suvarnabhumi Airport (AOT)	18,893.44
	244,253.37 ลบ.

Note : Projects with underline are new initiatives in Action Plan 2021: 9 Projects

The Plan has been approved by the Ministry of Transport, on 14 May 2021 to use as a guideline for related agencies to accelerate the implementation of the project, public relation and strengthen general public and investors' confidence regarding transport infrastructure development.



Analyze and assess the feasibility of the infrastructure development plan/project

As the Transport Academic Agency for policy and planning of Ministry of Transport, one of the main roles is to analyze, and reach suitable economic solution to mega transport infrastructure and services, including public private partnership, along with National Policy, as well as advising management on appropriate approach to the state enterprises restructuring in order to enhance their efficiency.

In 2021 fiscal year, Planning Bureau (Investment Plan Group) has proposed the project appraisal to support MOT and cabinet's decision making on transport policy and planning as follows :

Land Transport : The Bang khun Thian – Ban Phaeo Intercity Motorway Project (M82) and Rest area projects (Sriracha service center and Banglamung service area) in Motorway M7.

Rail Transport : The procurement for 965 Bogies to carry cargo containers and Brown line sky train project (Khea Rai – Lam Sali (Bueng Kum) section).

Water transport : The Operation of Laem Chabang Port after the end of the PPP contract (B1, B2, B5 and A5).

Air Transport : Chiang Mai Airport Development Project Phase 1, Don Mueang Development Project Phase 3 and Ground service equipment, passenger service and other services at Suvarnabhumi Airport.

These mega-projects would contribute to Thailand's efficient, safe and seamless transport sector. As a key enable for its social and economic growth, transport will enhance Thailand's supply chain connectivity for goods and services of domestic and overseas markets, especially those with its neighboring countries.



Implementation of the Ministry of Transport's Strategic Plan to Support the Development of the National Logistics System No. 3 B.E. 2560 – 2565 (2017 – 2022)

Cabinet resolution on March 12, 2021 (B.E. 2564), has approve the master plan under the national strategy and requested government agencies to revise the level 3 plan along with the cabinet resolution on December 4, 2017 (B.E. 2560), in accordance with the national strategy and master plan under the national strategy. Therefore, the Ministry of Transport by the District Office has collaborated with relevant agencies under the Ministry of Transport to improve the Ministry of Transport's strategic plan to support the development of the National Logistics System No. 3 B.E. 2560 – 2565 (2017 – 2022) by adding plans/projects to be implemented in fiscal year 2022. The goal is to comply with the aforementioned Cabinet resolution as well as to develop a complete logistics system in continuation of the previous plan. It should eliminate the Missing Link problem and support the Super Cluster promotion policy set by the government. It is the engine that drives the country's economy in the future in Thailand's 4.0 era. It is to enhance the country's competitiveness to develop into a digital economy under the vision "Continuous, connected, driven, sustainable" It consists of 4 key strategic cores totaling 295 projects/projects. The total amount is 967,838.1438 million baht.



Picture 1 : 4 key strategics under the Ministry of Transport's Strategic Plan No. 3 B.E. 2560 – 2565 (2017 – 2022)



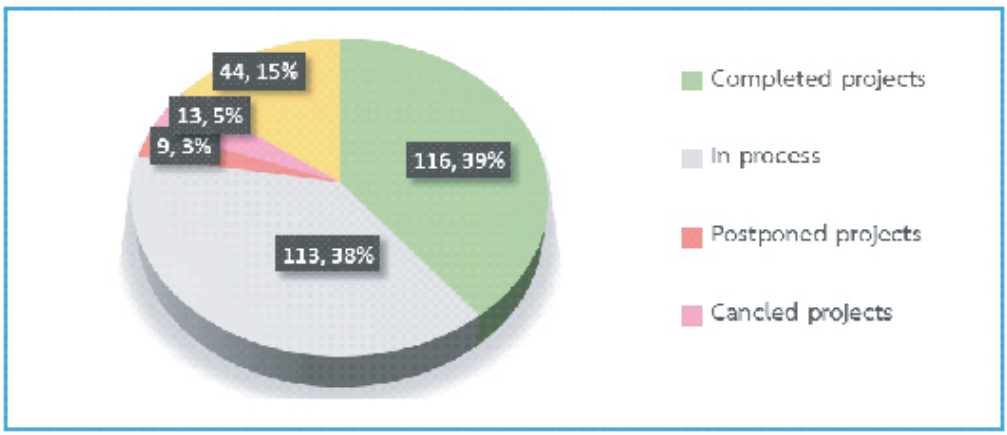


The Office of Transport and Traffic Policy and Planning (OTP) has summarized the results of plans/projects/measures under the Ministry of Transport Strategic Plan No. 3 of agencies under the Ministry of Transport as of September 2021. The progress in operating results is as follows:

- 116 projects, or 39 percent, were completed, including coastal port development projects (Port A) at Laem Chabang Port, 20G coastal terminal improvement and development project, agricultural commodity standards system study and cold chain management project, construction /improvement projects of highways/rural roads, car breakpoint projects of the Department of Highways, the construction of a cargo and personnel inspection building at Krabi Airport.
- 113 projects in operation or 38 percent. For example, the construction of a double – track railway and a new railway project of 6 routes, the Rama 3 – Dao Khanong – Outer Ring Road Expressway project on the west side of Bangkok, Laem Chabang Port Development Project (Stage 3), Chiang Khong Freight Transformation Center Project, Chiang Rai Province, Nakhon Phanom Border Transport Center Project.

In addition, there are 44 other projects that are not yet implemented which are planned to be implemented in the fiscal year 2023 onwards in the total of 44 projects or 15%.



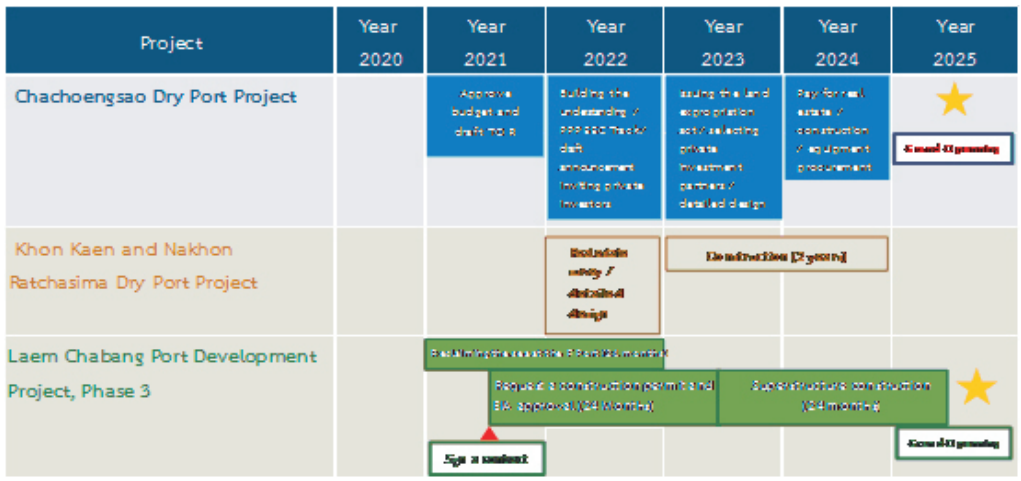


Picture 2 : Conclusion the status of project under the Ministry of Transport's Strategic Plan to Support the Development of the National Logistics System in September 2021

Progress on the development of the dry port with related agencies

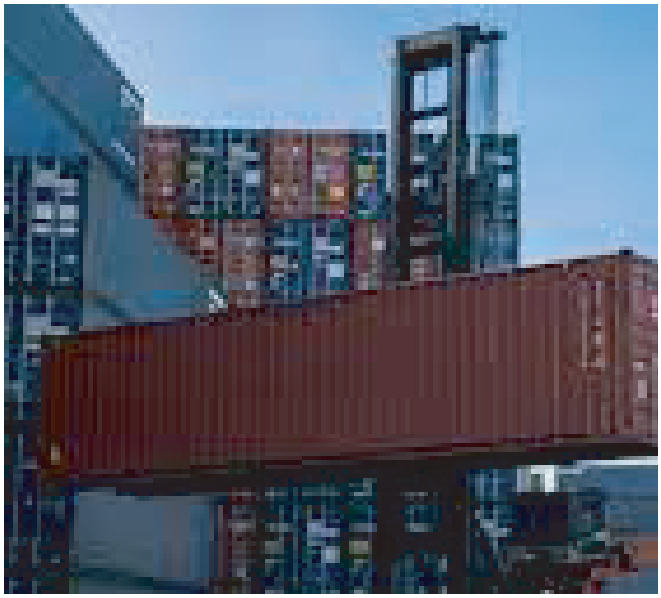
The Board of Development of the National Cargo and Services Management System (MDES) at its meeting No. 1/2020 on October 9, 2020 (B.E. 2563) has approved the principle of the Dry Port Development Plan in 4 provinces such as Chachoengsao, Khon Kaen, Nakhon Ratchasima and Nakhon Sawan, as proposed by the Ministry of Transport.

To develop the Dry Port and provide the services in time for the opening of Laem Chabang Port Phase 3. It will maximize efficiency in the development of transportation and logistics systems in the whole country. The Ministry of Transport held discussions with relevant agencies on May 25, 2021 (B.E. 2564) to set guidelines for the development of Dry Port. The Office of Transport and Traffic Policy and Planning (OTP) together with the Port Authority of Thailand (PAT) has prepared the Action Plan to drive the development of the Dry Port. The framework is as follows:



At present, the Port Authority of Thailand is in the process of establishing a committee to drive the dry port to join in the integration of the dry port development to achieve the objectives and to meet the specified goals.








Annual Budget Expenditure: The Integrated Plan for Transport and Logistics Development in Fiscal Year 2021

Office of Transport and Traffic Policy and Planning (OTP) is the host organization for annual budget expenditure: The Integrated Plan for Transport and Logistics Development in Fiscal Year 2021, which has 2 operational goals as follows: 1) Thailand's transportation network become connected, convenient, safe, and efficient, which enable seamless travel in-house and neighboring countries. And 2) Logistics and supply chain management and trade facilitation to be efficient and meet international standards. There are budget units of 8 ministries (21 agencies), with a total of 56 projects and a total budget of 106,115.6512 million baht.

At the end of the 4th quarter (October 2020 – September 2021), the budget disbursement was 88,154.3519 million baht, accounting for 83.07 percent, which the amount is less than predetermined map.



Currently, the Implementation of the projects under the integrated plan can be summarized as follows:

- The development of road infrastructure: the total length of roads 1,412.3960 kilometers
- The development of railway infrastructure networks and necessary facilities supporting railways network: the total length of railway networks 239.57 kilometers
- The development of maritime infrastructure and necessary facilities supporting maritime network: 45 locations and 8 channels
- The development of domestic Airports: 21 Airports
- Logistics and supply chain cost reduction of target establishments: 1,002.8915 million baht
- The number of successful business matchmaking between Thai Logistics Providers and international companies: 85 cases

Finally, the projects under the integrated plan are still ongoing, however, several projects have been delayed. All these causes of delays can be attributed to many more variables such as Covid-19 pandemic, land expropriation conflicts etc.



Thailand's Transport Infrastructure Development Master Plan (2015 – 2022)

Monitoring and Evaluation Thailand's Transport Infrastructure Development Master Plan (2015 – 2022) report.

Thailand's Transport Infrastructure Development Master Plan (2015 – 2022). Which the eight – year strategic plan involves development of five transportation systems. Mechanism for economic and social development, stimulate the economics, enhancing job creation, income distribution and safety population living and properties. In fact, at its meeting on 27 March 2015 the cabinet approved the Thai Transport Infrastructure Development Plan 2015 – 2022, which includes 111 projects under 5 plans and investment budget 1,912,679 Million baht

Table 1 Thailand's Transport Infrastructure Development Master Plan (2015 – 2022) Consists 5 Plans

Plans	number of projects	investment budget (Million baht)
1. Inter – city rail networks development	31	494,460
2. Development of public transportation system	24	744,566
3. Enhancing connectivity between key domestic production bases & Neighboring Countries	26	522,297
4. Marine logistical transport system development	15	101,288
5. Enhancing Air Transport Capability	15	50,068
รวม	111	1,912,679





The monitoring and evaluation Projects under the Thailand's Transport Infrastructure Development Master Plan (2015 – 2022). Currently, there are 111 projects. The project status in June 2021 summarized as follows 3 projects under studying, 9 projects completed study, 8 projects under Environmental Impact Assessment (EIA) process, 11 projects under preparation for cabinet presentation, 5 projects are preparing the tender document, 3 projects are under tendering, 32 projects are construction/operation, 27 projects completed, 8 projects were delayed and 6 projects not start.

Table 2 Conclusion the status of project under the development plan of transportation infrastructure (2015 – 2022) in June 2021

Plan	status of project										Total
	studying*	Study complete	EIA process	Cabinet process	Pre-tender	tender	construction/ operation	finish	canceled/ Delayed	Did not start	
1. Inter – city rail networks development	-	2	2	8	-	2	10	4	-	3	31
2. Development of public transportation system	1	3	3	1	3	1	4	4	4	-	24
3. Enhancing Connectivity between Key Domestic Production Bases & Neighboring Countries	1	-	2	1	1	-	14	6	-	1	26
4. Marine logistical transport system development	1	1	1	-	1	-	2	4	4	1	15
5. Enhancing Air Transport Capability	-	3	-	1	-	-	2	9	-	-	15
Total	3	9	8	11	5	3	32	27	8	5	111

Action Plan of the Office of Transport and Traffic Policy and Planning 2021

OTP has Action Plan Office of Transport and Traffic Policy and Planning 2020 under The Action Plan Office of Transport and Traffic Policy and Planning (B.E. 2020 – 2022). Which a framework to monitor and evaluation the success of the implementing for the year 2020. OTP's action plan has projects/activities under the plan totally 63 projects/activities. The result of project under the Action Plan of the Office of Transport and Traffic Policy and Planning 2021, there are 49 projects/activities that are carried out according to the Action Plan of the Office of Transport and Traffic Policy and Planning 2021. Accounted for 77.77%

Table 1 The result of project under the Action Plan of the Office of Transport and Traffic Policy and Planning 2021

Strategy issue / Strategy	projects/activities		%
	2021	Completed	
Strategy issue 1 : Develop transportation policies and plans for sustainable national development			
Strategy 1 : Focusing on policies making and development plans to increase the Transport efficiency of the country's competitiveness (Transport Efficiency : TE)	14	7	50.00
Strategy 2 : Focusing on policies making and development plans to Improve the level of access to the transportation system of all groups of people equality (Inclusive Transport : IT)	4	2	50.00
Strategy 3 : Focusing on policies making and development plans for the development of safe and environmentally friendly transportation systems (Green and Safe Transport : GST)	1	0	0
Strategy issue 2 : Drive transportation policies and plans into action			
Strategy 4 : Establish mechanisms and drive transportation policies and plans to Monitoring and Evaluation (Monitoring and Evaluation : ME)	33	33	100
Strategy 5 : Make awareness and understanding with relevant network partnership to drive transportation policies and plans into action (Network Cognition: NC)	4	3	75.00
Strategy issue 3 : Develop the supporting factors for mission success			
Strategy 6 : Promoting the organization development approach to the changing contexts (Organization Development : OD)	1	1	100.00
Strategy 7 : Accumulating knowledge, competency and experience of personnel with Human Resource Development Road Map (Human Resource Development Plan : HRD)	2	1	50.00
Strategy 8 : Promoting the technology and innovation for transportation worker (Technology and Innovation : TI)	4	2	50.00
Total	63	49	77.77



Transport Safety Plan and ImplementationThe Fiscal Year 2021

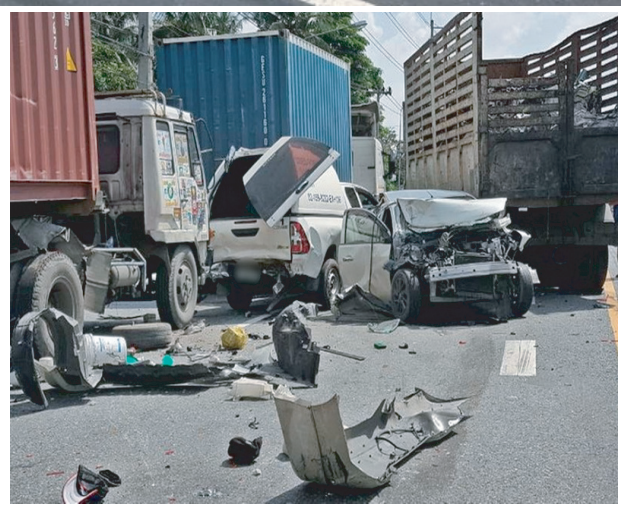
Office of Transport and Traffic Policy and Planning (OTP) has a crucial role in driving a number of transport plans of the Ministry of Transport (MOT) for experience of transport systems users, in terms of comfort, reliability, safety and above all convenience. During the festival and continuous holidays, OTP by the Bureau of Safety Planning unveiled the Facilitation and safety plan for providing a convenience and safe in public transport services during the long holidays. Nonetheless, enhancing transport safety of OTP involves collaboration with various agencies at all levels, such as the Road Safety Operation Center of Ministry of the Interior, Ministry of Public Health, Royal Thai Police, academic institutions and private sectors. As such, main contexts of transport safety implementation of OTP are as follows:

1. Facilitation and safety plan in public transportation services during the festival and continuous holidays 2020 and 2021

OTP cooperated with relevant agencies of the MOT to develop the Facilitation and safety plans in public transportation services for Continuous holidays to stimulate the domestic economy of the Ministry of Transport (19 – 22 November 2020), Continuous holidays to stimulate the domestic economy of the Ministry of Transport (9 – 13 December 2020), the New Year Festival, Songkran Festival and Asarnha Bucha and Buddhist Lent Day. On the one hand, these Plans integrate initiatives of public transport service of MOT's agencies to make a facilitated and safe journey for the public. On others hand, these Plans were used as a framework for MOT's agencies and relevant duty holders in the government sector. The main points of the Facilitation and safety plan are as follows:







1.1 Objective

1.1.1 Public transportation is easy access, sufficient, no delay, no passengers left behind, does not raise the price, not leaving passengers and catch up with the event.

1.1.2 To give people confidence in the quality of public transport services by maintaining the safety of the passenger bus terminal in public buses, trains, boats and planes intensely and seriously.

1.1.3 Regulate and control to prevent the number of accidents and reduce the loss of life and property of the people from traveling during the festival and continuous holidays.

1.1.4 Manage road traffic during and continuous holidays to be flexible and free from congestion.

1.1.5 Integrate cooperation with relevant departments to facilitate and ensure the safety of public travel.

1.2 Period of time for implementation

1.2.1 Continuous holidays to stimulate the domestic economy of the Ministry of Transport: 19 – 22 November 2020 (5 days)

1.2.2 Continuous holidays to stimulate the domestic economy of the Ministry of Transport: 9 – 13 December 2020 (5 days)

1.2.3 New Year Festival 2021: 29 December 2020 – 4 January 2021 (7 days)

1.2.4 Songkran Festival 2021: 10 – 16 April 2021 (7 days)

1.2.5 Asarnha Bucha and Buddhist Lent Day 2021: 23 – 28 July 2021 (6 days)

1.3 The Implementation Framework

1.3.1 The plan supports traveling by personal car.

1) Measures for facilitate include facilitation of travel networks, provision of road facilities and traffic information service.













2) Measures for safety include measures to reduce human risk factors, measures to reduce road and environmental risk factors, measures to reduce vehicle risk factors and measures to help after an accident.

1.3.2 The plan supports traveling by public transport.

1) Measures for facilitate include providing public transport services and facilitation, provision of station facilities and services for travel information and complaints.

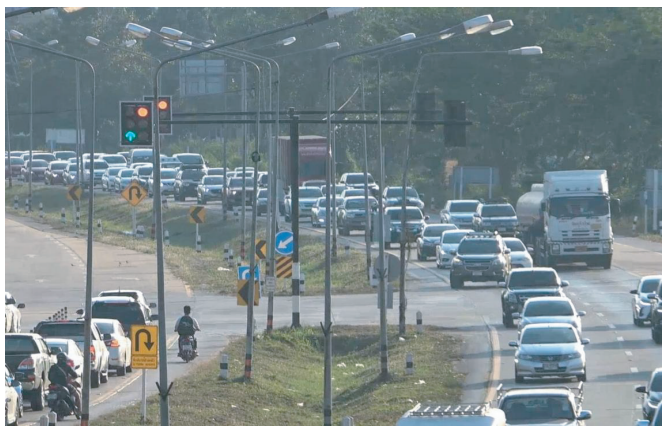
2) Measures for safety include measures to prevent and reduce accidents from public transport, measures for the prevention and reduction of water accidents, measures for the prevention and reduction of rail accidents and safety measures.

1.4 Results of the Implementation of facilitation and safety plan in public transportation services during the festival and continuous holidays 2020 and 2021

1.4.1 The Implementation results

1) Continuous holidays to stimulate the domestic economy of the Ministry of Transport (19 – 22 November 2020), there were a total of 10,820,385 people. Traveling in Bangkok and surrounding areas of 8,520,948 people. Inter-provincial / international travel of 2,299,437 people. Traffic volume in – out of Bangkok on major highways and intercity expressways 10 points that are under the responsibility of the Department of Highways 6,035,437 vehicles and 4,330,484 vehicles in and out of Bangkok on expressways under the responsibility of expressway.

2) Continuous holidays to stimulate the domestic economy of the Ministry of Transport (9 – 13 December 2020), there are people traveling by public transport in Bangkok and surrounding areas of 7,888,513 people, traveling between provinces of 1,949,745 people. Traffic volume in – out









of Bangkok on major highways and intercity expressways 10 points that are under the responsibility of the Department of Highways 5,946,121 vehicles and 4,337,381 vehicles in and out of Bangkok on expressways under the responsibility of expressway.

3) New Year Festival 2021 (29 December 2020 – 4 January 2021), there were a total of 9,014,427 people. Traveling in Bangkok and surrounding areas of 7,383,403 people, traveling between provinces of 2,080,465 people and international travel of 9,379 people. Traffic volume in – out of Bangkok on major highways and intercity expressways 10 points that are under the responsibility of the Department of Highways 6,328,973 vehicles and 7,254,150 vehicles in and out of Bangkok on expressways under the responsibility of expressway.

4) Songkran Festival 2021 (10 – 16 April 2021), there were a total of 7,549,122 people. Traveling in Bangkok and surrounding areas of 5,271,028 people, traveling between provinces and in province of 2,265,333 people and international travel of 12,761 people. Traffic volume in – out of Bangkok on major highways and intercity expressways 10 points that are under the responsibility of the Department of Highways 6,469,748 vehicles and 6,795,902 vehicles in and out of Bangkok on expressways under the responsibility of expressway.

5) Asarnha Bucha and Buddhist Lent Day 2021 (23 – 28 July 2021), there were a total of 2,765,694 people. Traveling in Bangkok and surrounding areas of 2,481,236 people, traveling between provinces and in province of 268,636 people and international travel of 15,822 people. Traffic volume in – out of Bangkok on major highways and intercity expressways 10 points that are under the responsibility of the Department of Highways 3,944,380 vehicles and 2,327,345 vehicles in and out of Bangkok on expressways under the responsibility of expressway.

1.4.2 Road accidents statistics on MOT's roads during the festival and continuous holidays 2020 and 2021

1) Continuous holidays to stimulate the domestic economy of the Ministry of Transport (19 – 22 November 2020), there were 475 accidents, 78 deaths and 484 injuries.









2) Continuous holidays to stimulate the domestic economy of the Ministry of Transport (9 – 13 December 2020), there were 430 accidents, 67 deaths and 429 injuries.

3) New Year Festival 2021 (29 December 2020 – 4 January 2021), there were 1,670 accidents, 264 deaths and 1,698 injuries.

4) Songkran Festival 2021 (10 – 16 April 2021), there were 1,353 accidents, 149 deaths and 1,286 injuries.

5) Asarnha Bucha and Buddhist Lent Day 2021 (23 – 28 July 2021), there were 237 accidents, 22 deaths and 153 injuries.

2. Safety analysis of traffic accident situations on the road under the Ministry of Transport 2020

The OTP is in charge of traffic accident analysis on the MOT's roads. The safety analysis of traffic accident situations on the road under the Ministry of Transport 2020 has been publicize. The key findings include;





2.1 Overview of traffic accidents on MOT's roads

According to traffic accident report on roads under purview of MOT from the TRAMS system, there were a total of 21,963 road accidents in 2020 with 3,363 deaths and 17,987 injuries. In the last 7 years, the trend of traffic accident on MOT's increased. The number of traffic accident in 2020 is slightly higher compared to 2019, with accidents increased by 9.78%, deaths increased by 2.62% and injuries decreased by 2.71%

The top 3vehicles causing traffic accidents in 2020 are 4-wheeled pick-up trucks (35.64%), private cars/Taxis (32.63%), and motorcycles (14.65%). The top 5 assumptions contributing traffic accidents are driving too fast (72.51%), cutting off a car/people (8.80%), falling asleep while driving (5.08%), defective vehicle parts (3.38%) and drink driving (1.36%)











2.2 Road accident statistics in public buses

In 2020, the most accidents traffic accidents was contributed by 74 single-decker buses (38.14% of the total number of public buses), followed by 51 passenger vans (26.29%), 45 double-decker buses (23.20%).

2.3 Railroad crossing accidents

Accidents involving road vehicles colliding with trains at level crossings in 2020 found 54 cases, with 72 deaths and 37 injuries. The most accident spot was an unofficial railroad crossings and barrier areas.

2.4 Main factors contributing to road accidents

The findings found that people behaviors, vehicle conditions, and the road environment are the 3 main factors contributing to road accidents on the MOT's roads. In particular, the factor of risk-taking behaviors of drivers on the road often involved in the incident, such as exceeding the speed limit, cutting off a car/people, and drink driving.

Transportation Security Administration Operations

Transportation Security Administration Operations of the Bureau of Safety Plans It is responsible for the management of security, safety and disaster relief in the transportation sector. Focusing on operations from prevention and preparedness before the accident (Prevention and Preparedness), management in the event of an accident (Response) and recovery after the situation (Recovery) covering transport and traffic by land, rail, waterway, and Aviation.

In 2021, the flooding problem affects the transportation infrastructure, making it difficult for people to travel, especially floods caused by continuous heavy rains due to the influence of Typhoon Mu Even though it was weakening, the amount of water in various rivers, including many reservoirs in the North, Central, Northeastern and Eastern regions, was still abundant. In order to mitigate







disasters in the transport sector, the "Disaster Action Plan that Affects Thailand of the Ministry of Transport" has been prepared. To be a framework and guideline for disaster relief operations of agencies under the Ministry of Transport to be in the same direction Integrate work between departments in a systematic way and use the action plan to monitor the situation and prepare a disaster report that occurs through the Line Application so that the executives can make decisions to promptly solve problems.

Pperformance in closely monitoring the flood situation that affects the transport network and has prepared a weekly situation report. Together with the Information and Communication Technology Center Office of the Permanent Secretary, Ministry of Transport (TOT) prepares daily situation reports in infographic format. It was found that during the rainy season of 2021 (late May







Until the beginning of October 2021), there are 7 storms that affect the transport network. In the middle to the end of October, the flood situation occurred as a result of the monsoon trough that prevailed over Thailand causing continuous rain. together with sea water, the drainage from the river into the sea is delayed. As a result, there are still floods in many areas. By now, various situations have begun to unravel in order The path that is still flooded is the nature of the water waiting to be drained into the river. And with sea water to support the drainage is delayed.

For flood damage and requesting the budget allocation for the rehabilitation of the transport network from the budget expenditure for fiscal year 2022, the central budget, the list of reserve funds for emergencies or necessities in 31 provinces, 336 items, totaling 6,339.62 million baht, with the Department of Highways requesting a budget allocation of 235 items, amounting to 4,826.46 million baht to restore infrastructure damaged by flooding in 24 provinces and the Department of Rural Roads to request a budget allocation. amounting to 101 items, with a budget of 1,513.16 million baht, to restore infrastructure damaged by flooding in 19 provinces.

Tracking Greenhouse Gas Mitigation Measures in the Transport Sector in 2019

The Office of Transport and Traffic Policy and Planning (OTP) tracked of greenhouse gases (GHG) emissions reduction from the transport sector. The total GHG emissions reduction from six transport measures amounted 464,155.69 tons of carbon dioxide equivalent (tCO2e) in 2019, detailed as follows:

1. ***Mass Rapid Transit Projects*** OTP tracked GHG emissions reduction from shifting private vehicle to public transport (metro lines), which were including BTS Green Line, MRT Blue Line, Purple Line, and Airport Rail Link. In 2019, those measures contributed to 126,112.00 tCO2e of GHG emissions reduction.



2. ***The Optimization of flight performance*** by Thai Airways International Public Company Limited. This mitigation aimed to improve and modify the flight system to enhance efficiency and reduce fuel consumption of aircrafts. Following the implementation of this mitigation measure, GHG emissions reduction in 2019 were estimated to be 6,798.65 tCO2e.

3. ***CO2 Taxation for vehicles and Eco-Sticker*** According to the study of an Approach to Tracking of Energy Consumption Reduction from the Transport Sector Measures, it estimated GHG emissions reduction from CO2 Taxation of vehicles and Eco-sticker approximately 317,000.00 tCO2e in 2019.

4. Power cars modification by The State Railway of Thailand (SRT). The SRT had been modifying 6 power cars, which represented a reduction in GHG emissions 194.05 tCO2e in 2019.

5. A cruising speed control in maritime sector by Port Authority of Thailand. This measure, the vessel speed restriction, can be monitored and verified that GHG emissions in maritime sector were reduced by 15.40 tCO2e in 2019.

6. NGV Bus Procurement by the Bangkok Mass Transit Authority's (BMTA). The BMTA had been procuring 489 NGV buses to replace its ageing fleet. As the result of this project, it brought about the GHG emissions reduction by 14,035.59 tCO2e

The below table summarize the GHG emissions reduction of all 6 mitigation actions.

Measures/Projects	Greenhouse gas emissions reduction in 2019 (tCO_2e)
1. Mass Rapid Transit Projects	126,112.00
1) BTS Green Line[1]	70,615.00
2) MRT Blue Line[2]	35,885.00
3) MRT Purple Line [2]	4,103.00
4) Airport Rail Link[3]	15,509.00
2. Optimization of flight performance in domestic flight[4]	6,798.65
3. CO_2 Taxation for vehicles based on Greenhouse gas Emission and Eco-Sticker[5]	317,000.00
4. Power cars modification[6]	194.05
5. A cruising speed control in maritime sector [7]	15.40
6. NGV Bus Procurement[8]	14,035.59
Total	464,155.69





Common ticketing system development for quality of life

The Implementation of a Common Ticketing System to enhance people's mobility

According to the policy of the Ministry of Transport to improve the quality of public services with digital technology, the Common Ticketing Office has accelerated the implementation of a Common Ticketing System for public transport connectivity in order to increase the capability of public transport services in Bangkok and its vicinities. This will provide people with improved convenience when traveling and connecting across the various public transport systems (i.e. the MRT, bus, passenger boat), including expressways. This strategy aligns with the government's policy for managing public transport systems through digital technology, whilst developing transport infrastructure that supports seamless multi-modal travel.

The implementation of a Common Ticketing System is aimed at "increasing the convenience of public transport connectivity by using a single ticket to travel on all modes of the transit system".

1. The usage of EMV (Europay, Mastercard and Visa) cards on the transport system

The EMV standard is currently being utilised in the development of a Common Ticketing System for public transport services by allowing the use of credit or debit cards, with contactless technology, for fare payment by tapping the card on the card reader. This enables a passenger to carry only one card and helps reduce the ticket purchasing time, as well as the cost of managing the ticketing system by the service providers. The current common ticketing system using EMV standard cards is supported on the BMTA (Bangkok Mass Transit Authority) Bus and the MINE Smart Ferry, and is expected to be rolled-out for EMV fare payment on the MRT Blue and Purple lines and SRT Red line by March 2022.

2. The Regulations of the Office of the Prime Minister on the Management of the Common Ticketing System, B.E. 2563

The regulations of the Prime Minister's Office on the Management of the Common Ticketing System, B.E. 2563, was published in the Government Gazette (Publication and General Announcement, Volume 137, Special Section 277 D, dated 26 November 2020) with the significant content regarding the establishment of the Committee on Common Ticketing System Policy or "Kor Nor Tor" with its structure, responsibilities, and authorities as follows:

2.1 Structure of the Committee :

2.1.1 The Transport Minister is to be the chairman of the committee.

2.1.2 Members of the committee, by position, are:

- Permanent Secretary of Ministry of Finance,
- Permanent Secretary of Ministry of Transport,
- Permanent Secretary for Interior,
- Secretary General of the National Economic and Social Development Council,
- Director of Budget Bureau,
- Director General of Department of Land Transport,
- Director General of Department of Rail Transport,
- Director General of the Marine Department,
- Secretary General of the Consumer Protection Board,
- Governor of Bangkok, and
- Director General of the Civil Aviation Authority of Thailand.





2.1.3 Honourable Members (up to 4 members) are members who are appointed by the Minister from those who possess the knowledge, abilities or experiences in finance, marketing, law, economics, science and technology, engineering, or others related disciplines, or those who may be beneficial to the Common Ticketing System.

The Director of the Office of Transport and Traffic Policy and Planning (OTP) will serve as committee member and secretary. Two officials from the Office of Transport and Traffic Policy and Planning (OTP) are to be appointed as assistant secretaries.

2.2 Responsibilities and Authorities

2.2.1 Provide and propose policies or guidelines for the management of the Common Ticketing System, the common fare structure and its transaction fees, to the Cabinet.

2.2.2 Establish plans and government agencies who will be responsible for the implementation and management of the Common Ticketing System, in compliance with the policies or guidelines.

2.2.3 Issue measures to support the implementation and management of the Common Ticketing System, in compliance with the policies, guidelines or plans, for the management, technological standards and model of the Common Ticketing System.

2.2.4 Recommend to the Cabinet, or relevant government agencies, the issuing the orders, announcements, regulations or rules regarding the following matters, in order to comply with the policies, guidelines, work plans, measures, standards or the model according to 2.2.1, 2.2.2, or 2.2.3

(A) The technological standards and model of the Common Ticketing System,

(B) The criteria, conditions and requirements related to the management of the Common Ticketing System,

(C) The integration of the Common Ticketing System by the Common Ticketing Manager and the public transport service providers, and

(D) The management of the security code system for the Common Ticketing System.

2.2.5 Collaborate with government agencies and private sector operators who are involved in the provision of passenger transport services on the public transport network and the management of the Common Ticketing System.

2.2.6 Monitor and evaluate the performance of transport service providers in compliance with policies, guidelines, work plans, measures, standards or the model according to 2.1, 2.2 or 2.3.

2.2.7 Appoint a sub-committee, or an advisor, to perform duties as assigned by the Committee on Common Ticketing System Policy or "Kor Nor Tor".

2.2.8 Perform any other duties as assigned by the Cabinet or the Prime Minister.

3. The accomplishments of the Committee on Common Ticketing System Policy or "Kor Nor Tor".

The Committee has held 3 meetings, namely Meeting no.1/2564 on 28 January 2021, no.2/2564 on 7 July 2021 and no. 3/2564 on 23 December 2021. The key resolutions are as follows:.



3.1 Appointment of 2 sub-committees under the supervision of the Committee on Common Ticketing System Policy or "Kor Nor Tor". These are (1) the Sub-Committee on Standardisation of Technology and Organisational Architecture and (2) the Sub-Committee on Standardisation of Fare Rate and Revenue Allocation. Mr. Ekachai Sumalee is appointed to act as the chairman of both sub-committees. The Sub-Committee on Standardisation of Technology and Organisational Architecture has held 3 meetings, whereas the Sub-Committee on Standardisation of Fare Rate and Revenue Allocation has held 2 meetings



3.2 Assigning the Mass Rapid Transit Authority of Thailand and Krungthai Bank Public Company Limited to develop a Common Ticketing System, using Account Based Ticketing (ABT), through the use of EMV standard cards (i.e. credit or debit cards) for fare payment. The installation of EMV compliant card readers in all stations is currently progressing and is expected to provide services to the public by March 2022. This system will be applied only to the MRT Blue and Purple lines and SRT Red line.

3.3 Cancelling the Order of the Ministry of Transport No. 288/2559, dated 6 October 2016, for the appointment of a Committee for Drafting the Common Ticketing System Management Act B.E. ...., cancelling the Order No. 362/2559, dated 6 December 2016, for the appointment of additional members on the Committee for Drafting the Common Ticketing System Management Act B.E. and to appoint a Sub-Committee for Drafting the Common Ticketing System Management Act B.E. under the Committee on Common Ticketing System Policy or "Kor Nor Tor".

3.4 Endorsement of the proposals from the Sub-Committee on Standardisation of Technology and Organisational Architecture and the Sub-Committee on Standardisation of Fare Rate and Revenue Allocation, and assigning the sub-committees, as well as the related agents (MRTA, SRT, DRT and OTP), to take comments from the Transport Minister and the Permanent Secretary of Ministry of Transport for consideration and further action.

At this stage, the project focus is currently on delivering other relevant tasks.





Development of transportation system in the regional cities, connect the economy

The Bureau of Regional Transport and Traffic System Promotion has the authority and duties to undertake study, analysis and preparation of regional transport and traffic master plans to be consistent with the national economic and social development plans and the transport and traffic master plans as well as performance monitoring and evaluation in accordance with the plans; and study and analysis of regional transport and traffic plans and projects. The Bureau also gives recommendations on guidelines and measures for integrated prevention and solutions to regional transport and traffic problems, as well as coordinates and provides technical support and assistance to the performance of duties of the Subcommittee on Provincial Land Transport System Management. The Bureau promotes the operations of related agencies in the region and works in cooperation with or supports the operations of other relevant agencies or as mandated. Furthermore, the Bureau has the mission to support the Ministry of Transport's strategies and the Government's policies for area development in an integrated and concrete manner. In 2020, the following projects were implemented.

1. Feasibility Study, Conceptual Design, Environmental Impact Assessment and Business Development Model Analysis for Transport Infrastructure Development under Southern Economic Corridor Development for Transport Connectivity between the Gulf of Thailand and the Andaman Sea Project (Landbridge Project)

Nearly 90% of international trade relies on maritime transport because of the world geography, with oceans covering three-fourths of the earth's surface, and the international maritime connectivity of all regions of the world. Maritime transport can carry cargoes in huge bulk, with freight rates lower than other modes of transport. Therefore, maritime transport is a factor influencing competitiveness in the global trade and a significant component of international trade system.

In the Southeast Asian Region, the Strait of Malacca is a route linking the Andaman Sea, Indian Ocean and the South China Sea, Pacific Ocean. Consequently, it is a major shipping route and one of the world's busiest routes as it is the shortest route connecting the trade and transport between countries in the Indian and Pacific Oceans. Several important ports are located along this route, i.e. Port of Singapore, and Malaysian ports: Port of Tanjung Pelepas, Port Klang, and Pulau Penang Port. The Port of Singapore handles the world's second largest container transport volume, with the containerized cargo volume in 2018 amounting to 37 million TEUs (Twenty Foot Equivalent Unit). It is also a transshipment port with the world's highest transshipment volume. The current density of vessel traffic in the Strait of Malacca is about 85,000 vessels per year or 250 vessels per day on average, with an upward trend of 2.35% per year. The expansion of global trade contributes to a rising trend of cargo vessels traversing the Strait of Malacca. It is anticipated that this may lead to traffic congestion in the Strait of Malacca in the future.

Project Objectives

1) To undertake a feasibility study encompassing economic, financial, engineering, and social aspects of Transport Infrastructure Development under Southern Economic Corridor Development Project such as ports, railways, roads, etc., to provide cargo transport connectivity between the Gulf of Thailand and the Andaman Sea.







2) To carry out conceptual design and environmental impact assessment of Transport Infrastructure Development under Southern Economic Corridor Development for Transport Connectivity between the Gulf of Thailand and the Andaman Sea Project.

3) To prepare a report on the project study and analysis, in accordance with the Public–Private Partnership Act B.E. 2562 (2019), of Transport Infrastructure Development under Southern Economic Corridor Development for Transport Connectivity between the Gulf of Thailand and the Andaman Sea Project.

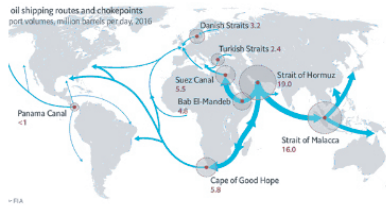
4) To analyze and formulate a business development model of Transport Infrastructure Development under Southern Economic Corridor Development Project such as ports, railways, roads, etc., to provide cargo transport connectivity between the Gulf of Thailand and the Andaman Sea.

Rationale and Necessity of the Development of Landbridge Project

1) **Strategic Advantage of Thailand's Geographical Location:** Located in the center of the Southeast Asian Region, Thailand is a gateway for cargo transport and exchanges of the countries in the region including South China and also a channel for intercontinental cargo exchanges.

2) **Strategic Advantage of the Project Location:** Landbridge Project will help reduce transport time and distance, resulting in transport cost reduction, and also avoid congestion problems in the Strait of Malacca. There is a trend towards attracting transport operators and investors to increasingly utilize this route.

3) **Strategic Advantage of Cargo and Oil Transport in the Region:** The oil volume flowing through the Strait of Malacca is 15–18% of the global oil transport. The transport density in the Strait of Malacca provides an opportunity for the project development so that Thailand will become the hub of oil and natural gas transport in the future.

Strategic Advantage of Thailand's Geographical Location	Strategic Advantage of the Project Location	Strategic Advantage of Cargo and Oil Transport in the Region
		
▪ Thailand is the center of the Region ▪ Gateway for cargo transport and exchanges of the countries in the region ▪ Channel for intercontinental cargo exchanges	▪ Reduce transport time and distance, resulting in transport cost reduction ▪ Avoid congestion problems in the Strait of Malacca ▪ Trend towards attracting transport operators and investors to increasingly utilize this route	▪ Oil and natural gas volume flowing through the Strait of Malacca is 15-18% of the global trade volume ▪ Transport density in the Strait of Malacca provides an opportunity for the project development to enable Thailand to become the oil and natural gas transport hub



Landbridge Project Development Approaches

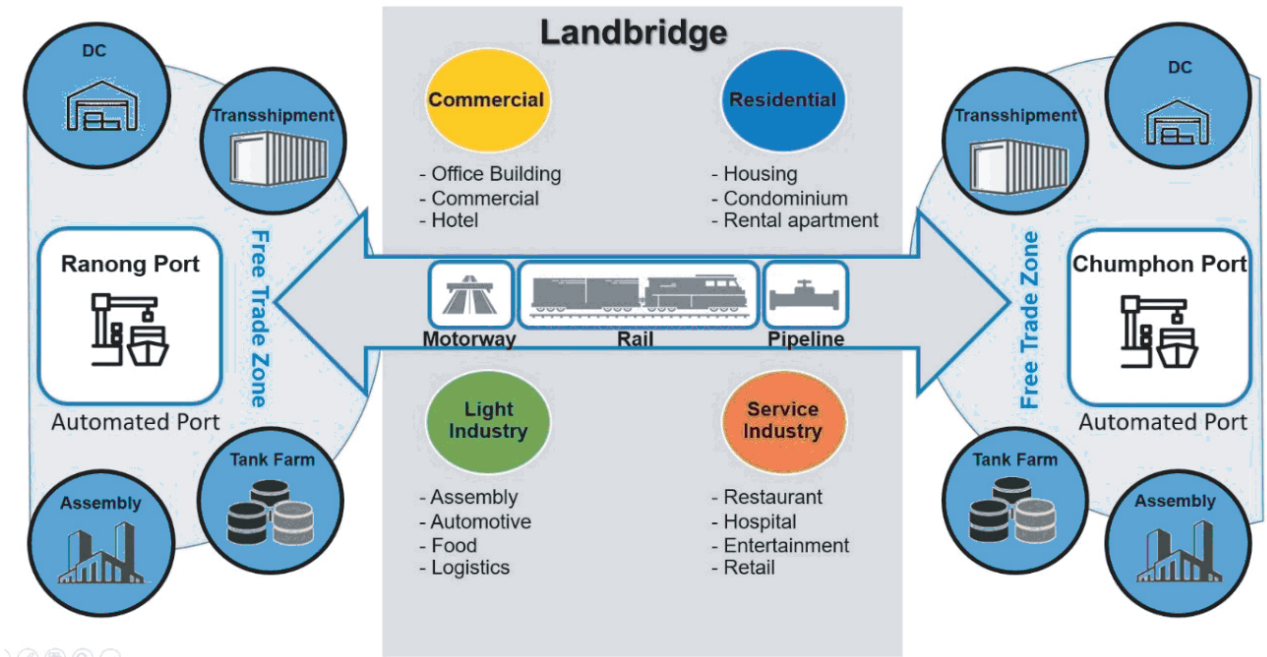
1) Trade Gateway for Thailand's Import–Export and a gateway for cargo transport and exchanges of the countries in the region such as ASEAN, BIMSTEC, South China, for exports to the Middle East and European countries.



2) Transshipment Port as an alternative for transshipments between the Indian Ocean and the Pacific Ocean, with rail and road linkage through Chumphon Port in the Gulf of Thailand and Ranong Port in the Andaman Sea.

3) Oil Bridge as an alternative for oil transportation. Oil will be shipped from the Strait of Hormuz to Ranong Port and then transported by pipeline to Chumphon Port for distribution in the region such as ASEAN, BIMSTEC, including some parts of China.

4) Port Hinterland Development by Free Zone Development and Investment Promotion to attract investors so as to enhance the potential for economic competitions in the southern region.



Project Development Strategies

1) To promote and develop transport and logistics competitiveness in terms of transport costs and time and consider the possibilities for shipping lines to utilize the project.

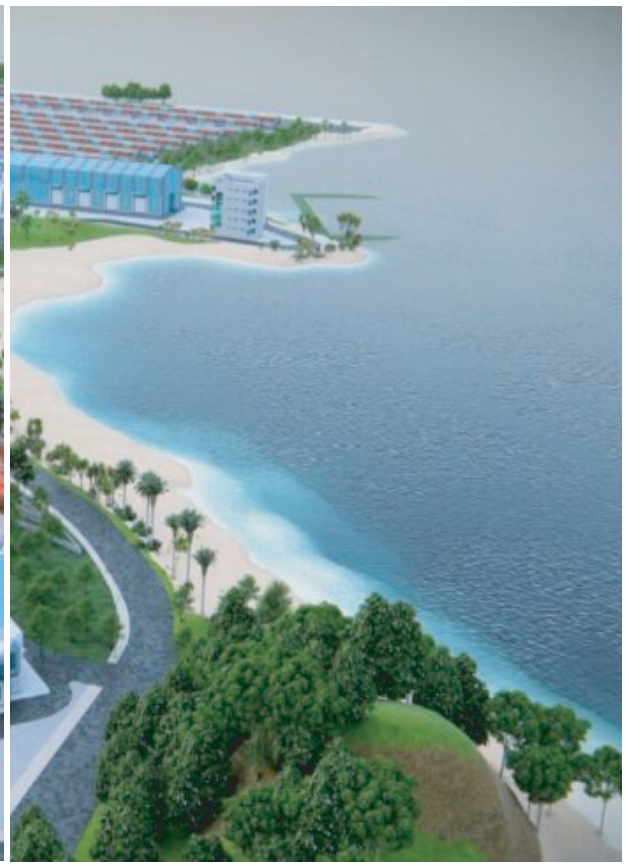
2) To promote and facilitate businesses related to maritime transport such as bunkering services, ship maintenance, insurance, etc.

3) To develop hinterland industries and domestic industries, comprising promotion of industries in accordance with Thailand's policies, industries with potential for Landbridge promotion, and new industries.

4) Investment promotion and privilege policies such as establishment of policies on incentives for the use of Landbridge and tax reduction measures.

Project Status : The project is presently under study. The Consultant is preparing the Progress Report 1 and organizing a seminar on project information and public participation for relevant public agencies, private sector and people sector in Bangkok, the coastal areas of the Gulf of Thailand and the Andaman Sea in December 2021.







2. Logistics plan development project for increase logistics efficiency and connect the manufacturing in the Eastern Economic Corridor (EEC) area with Southern trading gateway in Ranong province.

At present, Thailand's major trading partners include the Pacific Ocean countries (Japan, China, Korea, and United State), the Indian Ocean countries (countries in South Asia, Middle East, Europe, and Africa), and the ASEAN countries. The trade values are circa 60%, 25%, and 15% of total country trading value, respectively. The Pacific Ocean countries and ASEAN countries (account for approximately 75% of the import and export volume) can transport goods directly via Bangkok Port and Laem Chabang Port. Whereas the Indian Ocean countries import or export via transshipment in Singapore or Malaysia.

Ranong Port is a container port that is a gateway for Thailand to transport goods to the Indian Ocean. Currently, the port uses still do not meet its objectives. Meanwhile, in the Gulf of Thailand, there are two ports including Prachuap Port which can support cargo, and Chumphon Port where the Marine Department has terminated the project. To increase Thailand's marine logistics efficiency, the consideration to focus on the logistics plan for connecting the manufacturing in the Eastern Economic Corridor (EEC) area with the Southern trading gateway through Ranong port will help decrease travel distance and logistic fees for import and export goods directly to the Indian Ocean.

Project objectives

1) To establish an effective logistics plan in responding to the logistics cost reductions.

2) To increase Thailand's logistics efficiency by connecting the manufacturing in the Eastern Economic Corridor (EEC) area with Southern trading gateway through Ranong port and to increase the transportation infrastructure development efficiency in the southern region of Thailand (Connection two sides of the seas).

Project Scope

1) Review of trade strategies and the development of logistics systems for transporting goods connecting the two seas (Gulf of Thailand - Andaman) through the Strait of Malacca, including the Land-bridge project in the region.

2) Establish a Logistics plan strategy to connect the manufacturing in the Eastern Economic Corridor (EEC) area with the Southern trading gateway in Ranong province.

3) Establish a transportation infrastructure development plan in the southern region of Thailand (Connection two sides of the seas).

4) Implement public relations and public participation.





Expected Outcomes

1) Decrease cost and delivery time for import and export between the Eastern Economic Corridor (EEC) and the Indian Ocean countries. This development will be an alternative to transporting goods without the need for an indirect route through the Straits of Malacca (Singapore). The project will increase the competitiveness of entrepreneurs and promote the development of Thailand's Eastern Economic Corridor (EEC) and Southern Economic Corridor (SEC).

2) Decrease logistic mode that implemented by truck by promoting marine logistic between the EEC port and Southern region port for collect and distribute goods. Connecting the logistics from Thailand to Malaysia through Sadao Customs House under this new implement will reduce the maintenance cost of the national road, reduce the accident rate, reduce traffic congestion, and reduce environmental issues cause by truck logistic mode.

3) Promote the utilization of the Ranong deep seaport to be the trading gateway of the Andaman side according to its main objective. This promotion will increase Thailand trading capability by the support the goods logistic between Thailand and BIMSTEC countries–Bangladesh, Bhutan, India, Nepal, and Sri Lanka–.

4) Support and promote the Eastern Economic Corridor (EEC) and the Southern Economic Corridor (SEC) that are the potential are to develop into a new economic base of Thailand.

This project is under study process. The consultant is preparing the Draft final report and planning to implement the first public hearing in the Eastern Economic Corridor (EEC) area and the Southern Economic Corridor (SEC) area in December 2021.

3. The study on Udon Thani Mass Transit Master Plan

The Office of Transport and Traffic Policy and Planning (OTP) has conducted the study on Udon Thani mass transit master plan which focused on the objectives about public transport development plan in Udon Thani Province consist of pilot projects, preliminary design, traffic system management plan and transit oriented development plan including park and ride areas.

The study found that public transport system serving Udon Thani Province is not appropriate and not enough. Therefore, people have to use private cars and motorcycles more than 90 percent. So the study suggests suitable public transport networks for Udon Thani Province as well as electric public bus that uses batteries as power source. The network consists of 6 bus routes with a total distance of 100.55 kilometers in which 2 pilot project routes with a total distance of 20.60 kilometers will be implemented. The development plan are as follows;

The first Phase, implementing during 2563 – 2569, BE. to develop a network of 5 routes, with 2 pilot projects, Red line and Orange line. Red line has 10.80 kilometers and 18 stations while Orange line 9.80 kilometers and 21 stations. According to the plan, the pilot project will operate in 2566, BE. while the Blue line, Green line, and Pink line will be on service in 2569, BE.



The second Phase, implementing during 2570 – 2582, BE. to develop one more line (Yellow line) which will be carried out in parallel with the traffic management plan, TOD plan, including park and ride to facilitate passengers traveling by public transport.

The Committee for the Management of Land Traffic (CMLT), in the meeting No. 1/2564 on February 1, 2564, BE. approved the master plan and has the resolution to grant the Department of Land Transport to use as the master plan to be conducted on the period of the Plan. The Cabinet has the resolution to acknowledge the resolution of the CMLT meeting on May 11, 2564, BE.

4. The study to review mass transit development plan in Khon Kaen

Province' s urban area (Light Rail Transit System Red line pilot project : Samran Subdistrict – Tha Phra Subdistrict)

The Office of Transport and Traffic Policy and planning (OTP) had finished the master plan for Khon Kaen Province's Public transport project on the feasibility study and detail design (Light Rail Red line project) since 2561 BE. After that, OTP had presented the project to the Committee for the Management of Land Traffic (CMLT), in the meeting No. 2/2561 on October 17, 2561, BE. The Committee approved the results of the mass transit development plan in Khon Kaen Province'urban area and allowed Khon Kaen Province to develop and manage the Red line project (Samran Subdistrict – Tha Phra Subdistrict) according to the Khon Kaen public transport development Plan.

Khon Kaen Province has delivered the plan to Partners of municipalities (Nakorn Khon Kaen municipality, Sila municipality, Muangkao municipality, Samran municipality and Tha Phra municipality) and they established Khon Kaen Transit System Company Limited (KKTS) to implementing the Red line project afterwards. KKTS considered the changing situation and context within Khon Kaen province and decided to review the Red line project which will be appropriate for its smart city in the future. The differences between OTP study and KKTS review are as follows;

OTP had presented to the Committee for the Management of Land Traffic (CMLT), in the meeting No. 1/2564 on February 1, 2563, BE. The Committee had a resolution to acknowledge the review study by KKTS and the Cabinet had resolution to acknowledge the CMLT's resolution on March 11, 2564, BE.





Land Traffic Management and Mitigation of Traffice Probleme

The Land Traffic Management Division

The Land Traffic Management Division is the government agency established within the Office of Transport and Traffic Policy and Planning (OTP). The mission has the authority under the Ministerial Regulation on the Organization of the OTP, Ministry of Transport (MOT), B.E. 2552 (B.C. 2009) to study, survey, plan to organize road traffic. Suggestion policies and standards relating to the traffic system management as well as measures to tackle road traffic accord with urban development and the environment. Analyze and scrutinizethe suitability of plans and projects relating to the traffic system of technic, economic, environment and urban planning of programs and projects. Suggestion guidelines, policies, measures, programs and projects of road traffic system management, including coordination, monitoring and evaluation operations.

In addition, The Land Traffic Management Division also responsible for the implementation of the Act of Commission for the Management of Land Traffic (CMLT) and other relevant laws according to the Act of CMLT, B.E. 2521 (B.C. 1978) 2nd Amendment B.E. 2535 (B.C. 1992). Which has the authority to study and analyze the land traffic condition. To formulate the master plan, to propose policy guidelines and set the standard solutions of traffic problems for CMLT to consider. Including, propose opinions related to improve and rectify in the road traffic laws or related laws that affect the road traffic system management to fit the situation. As well as the considering to formulate training and educational programs and disseminating knowledge about the road traffic system management. The conduct of the CMLT meeting is important in the policy level, it is a mechanism to push the country's important policies, plans, projects into concrete implementation.



In the past year, OTP has held CMLT meeting for 2 times, the meeting No. 1/2564 on February 1, B.E. 2021 and the meeting No. 2/2564 on September 20, B.E. 2564 by the Deputy Prime Ministers (General Prawit Wongsuwan) as Chairman, Minister of the Interior, Minister of Transport, Representative of Permanent Secretary of Minister of Interior, Representative of Permanent Secretary of Minister of Transport, Representative of Director of the Bureau of Budget, Representative of Secretary General of the office of the national Economic and Social Development Council, Representative of Bangkok Governor as committee with experts in Traffic Planning Sector, Traffic Engineering Sector, Environment Engineering Sector, Economics Sector, Fiscal Economics Sector and Urban Planning Sector with The Director of Office of Transport and Traffic Policy and Planning (OTP) is a committee member and also a secretary to the committee and the agencies related. The meeting has passed a resolution on important matters such as.

1. Subject: The Route reform guidelines of the bus system in Bangkok and provinces with continuous routes. The meeting resolved as follows:

– To approve the plan to reform the bus system in Bangkok and provinces with continuous routes by using a network of bus routes in Bangkok and provinces with continuous routes. It is appropriate and consistent with the road traffic management plan and reduce the impact to traffic problems in Bangkok and its vicinity.

– To approve the Ministry of Transport (MOT) by the Department of Land Transport (DLT known as "Khorbor"), Office of Transport and Traffic Policy and Planning (OTP known as "Sonorkhor") and Bangkok Mass Transit Authority (BMTA known as "Khorsomokhor") to integrate together in implementing the bus system reform plan in Bangkok and provinces with routes continuously. In the future, there may be development of the vehicle route network to support the expansion of the city and connect to other transport systems necessary in accordance with the travel needs and interests of the people in order to have routes covering Bangkok and provinces with continuous routes. Under the management of the bus lines in the same network (Single Network), the same management system (Single Management) and set the fare at the same rate (Single Price) and may be considered to determine the price of the fare according to the actual distance by assigning the Central Land Transport Control Board take these for consideration and determination the appropriate fare price further. In this regard, the opinions and suggestions of the meeting shall be brought for consideration the operation further.

2. Subject: The Plans for the development and operation of the installation of Electronic Toll Collection System without barriers gate (or "M-Flow") on intercity highways under the Department of Highways (DOH known as "Tolor") and the integration of law enforcement with person, who avoid or disobey to pay toll way fees. The meeting resolved as follows:





– To acknowledge the Plans for the development and operation of the installation of Electronic Toll Collection System without barriers gate (or "M-Flow") to solve the problem of traffic congestion at toll plaza on the intercity highways of DOH and on the expressways of the Expressway Authority of Thailand (EXAT known as "Gotorpor") and to assign Royal Thai Police (RTP known as "Sortorchor") with MOT to consider in the integration of law enforcement operations with person, who avoid or disobey to pay toll way fees for the M-Flow system or to break the rules related to the use of the M-Flow system.

– To assign MOT, DOH, DLT and EXAT to integrate together in the study of guidelines for implementing additional measures including issuing regulations, amending necessary regulations for effective legal action against violators who avoid or disobey to pay toll way fees via the M-Flow system in an efficient manner and in accordance with international guidelines.

3. Subject: The Master Plan for the development of public transport systems in Udon Thani City Areas, the meeting resolved to assign DLT to implement following the procedures with according to the timeline of the development plan following the results of the study and received the comments and suggestions from the meeting further.

4. Subject: The Master Plan for the development of public transport systems in Cha choeng sao, Chonburi, and Rayong provinces cluster to support the development of the Eastern Special Development Zone (known as "Eastern Economic Corridor Public Transit Master Plan : EPMP"), the meeting resolved as follows:

– To approve the results of the study to formulate The Master Plan for the development of public transport systems in Cha choen gsao, Chon Buri, and Rayong provinces cluster to support the development of the Eastern Special Development Zone.

– To assign the Eastern Economic Corridor Policy Committee to consider encouragement the Master Plan for the development of public transport systems in Cha choeng sao, Chonburi, and Rayong provinces cluster to support the development of the Eastern Special Development Zone into practice further.

5. **Subject: Motorways – Railways Masterplan (MR – Map).** The meeting approved in the principle of the study project to formulate the Motorways – Railways Masterplan and agreed on The Draft the network of Motorways – Railways Masterplan proposed by MOT and assigned DOH, EXAT and the State Railway of Thailand (SRT) to develop themselves in according to Motorways – Railways Masterplan and reported the results of the operation to CMLT to acknowledge further.







Development and management of transport infrastructure facilities

A study of transport network development for accessibilities to mass transit stations and airports in Bangkok Metropolitan Region

Division of Transport and Traffic System Development has been studying a project which name a study of transport network development for accessibilities to mass transit stations and airports in Bangkok Metropolitan Region. According to the second national strategy on competitiveness enhancement in the issue of infrastructure, which connect Thailand and the world, could create seamless transport networks. This strategy could development infrastructure covering all over the country and increase the proportion of public transport passengers in Bangkok and vicinity not less than 30 percent according to the master plan under the national strategy as well. However, The problems and obstacles in the transportation sector of the country revealed that the transportation network development of the city is not complete yet and the access to the train system is not convenient and fast. This is due to lack of connectivity with other modes of transport. In addition, the connecting facilities for the transport sector are insufficient, so they cannot motivate people to use the transportation system instead of using personal cars to solve traffic problems.

A Study of Transport Network Development for Accessibilities to Mass Transit Stations and Airports in Bangkok Metropolitan Region will be an important project to connect all transport modes of transport, including land, rail and air to One Transport for all policy. The results of the project will bea plan to develop a communication network for accessibilities to mass transit stations and airports in Bangkok Metropolitan Region and be able to continually solve traffic congestion problems in Bangkok and vicinities. People can travel easily fast and safely from the outskirts to the inner city of Bangkok by public transportation as well as being a level 3 plan to serve as a practical guideline for various agencies that have this plan for optimizing travel connectivity and improvement of Intermodal Transfer Facility (ITF) to be complete for people of all groups, all genders, and all ages as well.

Transport Network Development for Accessibilities to Mass Transit Stations and Airports in Bangkok Metropolitan Region Plan will be guidelines to optimize travel connections for train station development which is a transportation hub in Bangkok and vicinity to connect with other modes of transport to become concrete in the form Wheels-rails-boats of the MRT Purple Line Phra Nang Klao Bridge Station – Phra Nang Klao Pier – Bus and in the form of wheels-rails-airport of The SRT Red Lines Suburban Mass Transit System Bang Sue Station – Bus – Don Mueang Airport as shown in Figure 1.



Source : Manager Online Figure 1 : Wheels-rails-boats and wheels-rails-airport



In addition, Feeder is one of the key elements in optimizing travel connectivity to the train stations. Also, There are bus, minibus, tricycle and other vehicles to serves passengers in the area around the train station to its station and transport passengers from the train station to the final destination. For instance, the alignment of the Feeder route in Rangsit Station – Thammasat University Rangsit campus according to the meeting resolution of Office of the Commission for the Management of Road Traffic in the meeting no. 2/2564 by using the road along the Prem Prachakorn Canal. The distance is about 9.1 kilometers, which will motivate people to use the train at Rangsit station instead of using private cars for reducing pollution from the transportation sector as well.

Moreover, Transport Network Development for Accessibilities to Mass Transit Stations and Airports in Bangkok Metropolitan Region Plan will promote the improvement of Intermodal Transfer Facility (ITF) for people of all groups, genders and ages including inside and outside the train stations to do its plan. Also, The plan will promote Non-Motorized Transport (walking, cycling and wheelchairs) Public Transport and Private Transport to be able to access the train station easily, fast, and safely as shown in Figure 2. It is prepared as train station plan, which is part of the transport network development for accessibilities to mass transit stations and airports in Bangkok metropolitan region plan to develop a communication network connecting the modes of transport and this plan need to integrate operations with other agencies, including government sectors, private sectors and public sectors. Also, it will drive the plan into effective operations, such as creating a Cover Walkway from the exit of Nonthaburi Civic Center Station to the bus stop, establishment Drop – off / kiss and ride for pick-up and drop off passengers atBang Sue Station, construction and installation of benches and shelter roof atPhra Khanong Station and Skywalk installation to connect between buildingsor a walkway between tall buildings at Wat Phra Sri Mahathat Station.



Transport and traffic database for competiveness assessment

The Transport and Traffic Information Technology Center be responsible for the main operation as follow;

1. Establish the master plan and action plan about information technology, and Intelligent Transport Systems (ITS) include monitoring and evaluating.

2. Establish transportation and traffic information and publish it to the people and related agencies.

3. Develop and create the standard of transportation and traffic systems include Intelligent Transport Systems (ITS).

4. Perform or support the operation of other related agencies or assigned.

The Transport and Traffic Information Technology Center has a sub-section operation as follow;

1. Administrative Work

Operating on correspondence work, financing, and accounting, human resource management of The Transport and Traffic Information Technology Center, including assignments work.

2. Policy and Information management Group

2.1 Study, analyze, and establish the master plan and action plan about information technology and communication, transport and traffic data and information systems development, Intelligent Transport Systems (ITS) development, and integrated government data network include monitoring and evaluating.

2.2 Integrated budgeting about the development of information technology and communication development of OTP.

2.3 Study, analyze, and suggest suitable information technology for organization development that relates to digital economy policy.





2.4 Perform other tasks or support the operation of other related agencies or assigned.

3. Information System Development Group

3.1 Establish, improve, maintain, and integrate information database about transport and traffic and organization management system.

3.2 Publish transport and traffic information.

3.3 Establish the standard of the data link and government data integration, and data of Department Operation Center (DOC).

3.4 Develop and establish the standard of transport and traffic model systems and Intelligent Transport Systems (ITS).

3.5 Perform other tasks or support the operation of other related agencies or assigned.

4. Computer and Network System Development Group

4.1 Develop and improve information infrastructure about computer and network, information center, and government data storage system.

4.2 Study and suggest policy and regulation on information security and personal data protection by electronics method.

4.3 Develop and improve electronics service systems.

4.4 Personnel development on information technology, computer, and network.

4.5 Perform other tasks or support the operation of other related agencies or assigned.

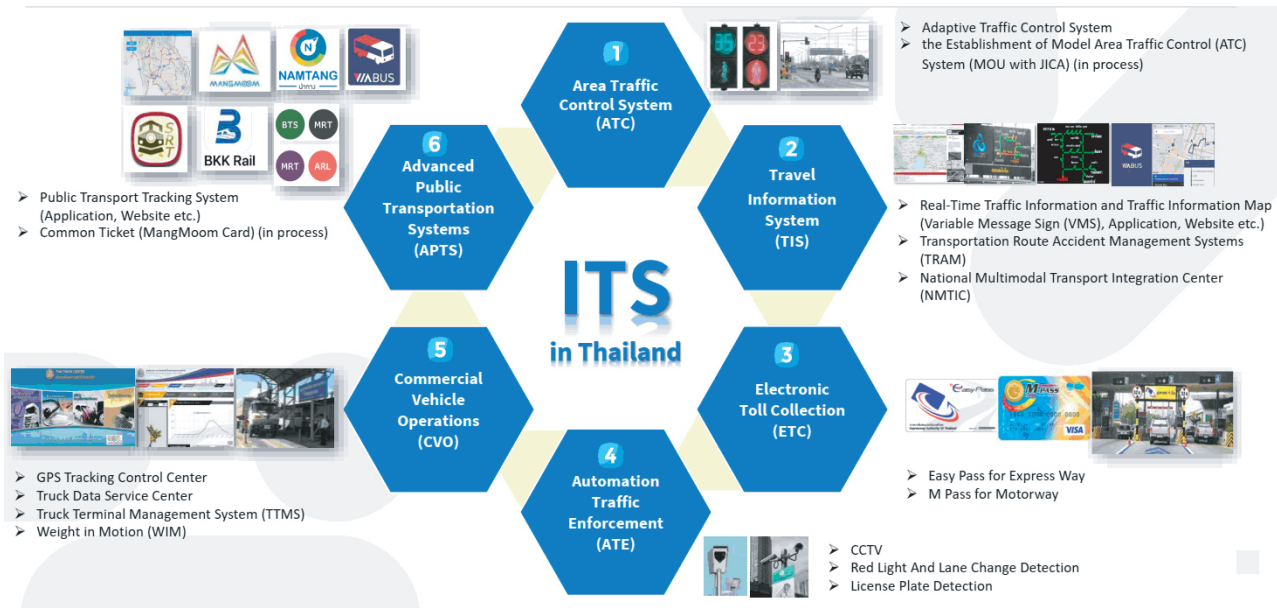
The Establishment of ITS Integrated Center

The Transport and Traffic Information Technology Center by Policy and Information management Group be responsible for developing the Intelligent Transport Systems (ITS) has studied and established the ITS master plan (10 years: 2018 – 2027), including the cabinet approves the ITS master plan and assigns the ministry of transport to drive and implementation the ITS master plan.

According to the middle term plan (5 years: 2018 – 2022) that which requires the establishment of ITS Integrated Center for responsibility on integrated traffic data, transport data, and related data, including operating systems. Therefore, has proposed and summarized the concept of The Establishment of ITS Integrated Center as follow;

Current Situation

1. Current Thailand ITS Situation



The current ITS operations in Thailand are classified in to 6 types as follow;

1. Area Traffic Control System (ATC)

We have an Adaptive Traffic Control System that operates by the traffic police division, Bangkok Metropolitan Administration (BMA), Department of Highways (DOH), and Department of Rural Roads (DRR). Also, BMA has the Memorandum of Understanding (MOU) with the Japan International Cooperation Agency (JICA) about the establishment of a model area traffic control system.





2. Travel Information System (TIS)

We have Real-Time traffic information and traffic information map that provide on Variable Message Sign (VMS), applications, and websites and operate by the traffic police division, BMA, DOH, and DRR. Also, we have the Transportation Route Accident Manage systems (TRAM) and National Multimodal Transport Integration Center (NMTIC) that operate by the Ministry of Transport (MOT).

3) Electronic Toll Collection (ETC)

We have an automatic fare deduction from the Easy Pass card on the expressway. That operates by the expressway authority and the M Pass Card on the motorway. That operates by DOH.

4) Automation Traffic Enforcement (ATE)

We have automatic enforcement for speeding, red-light signal, and lane change detection on the roads, expressways, highways, and rural roads. That operates by the road's owner agency.

5) Commercial Vehicle Operations (CVO)

We have the GPS Tracking Control Center, Truck Data Service Center, and Truck Terminal Management System (TTMS). That operates by the Department of Land Transport (DLT). Also, Weigh-in-Motion (WIM) operates by the road's owner agency.

6) Advanced Public Transportation Systems (APTS)

We have public transport tracking system that provides on the application and website and operates by a service owner agency. Also, we are in the process of preparing the common ticket in the name of Mangmoom Card that can use one card for all transport.

2. Current Data Center in Thailand

Thailand has 9 data centers from the public sector and the non-government sector as follows;

- **Public Sector**

  – Ministry of Transport

  1) National Multimodal Transport Integration Center (NMTIC) by ICT Center

  2) Expressway Traffic Management Center (ITS Center) by EXAT

  3) Data Exchange Center (DXC) by EXAT

  4) GPS Tracking Control Center by DLT

  5) Highway Traffic Operations Center (HTOC) by DOH

  6) Control Center Building on Motorway by DOH

  – Royal Thai Police

  7) Traffic Command Center by Traffic Police Division

  – Local Government

  8) CCTV Center by BMA



- **Non-Government Sector**

  – The Intelligent Traffic Information Center Foundation (ITIC)

  9) Traffic Information Center (TIC)

3. Current ITS Standard in Thailand

Thailand has the existing standard and on-process standard as follows;

- **Existing ITS related standards and requirement**

  – Thai Industrial Standards Institute and National Electronics and Computer

Technology Center (NECTEC)

1) Traffic Information Service and Exchange – Past 1: Request and Response Protocol

2) Traffic Information Service and Exchange – Past 2: Locating Referencing

3) Traffic Information Service and Exchange – Past 3: Traffic Event and Information Coding

– DLT

4) GPS Tracking Service Installation Requirement

– OTP

5) Common Ticketing System Standard

- **On-process ITS standard**

– OTP

1) (Draft) Public Transport Information Service Standards

The challenges and problems

The challenges and problems of ITS development in Thailand are as follows;

Ministry of Transport (MOT) has established the National Multimodal Transport Integration Center (NMTIC) for Integrated All Data and Information of Traffic and Transport, which Contains 3 Main Sections: Safety, Logistics, and Mobility.

Various Data Centers, GPS Data Centers, Ticket Transaction, and other related data.

Non-integrated ITS Operations in Thailand.

Non-architecture and standards of data and operation sharing.

Non-effective traffic management of traffic congestion solving.

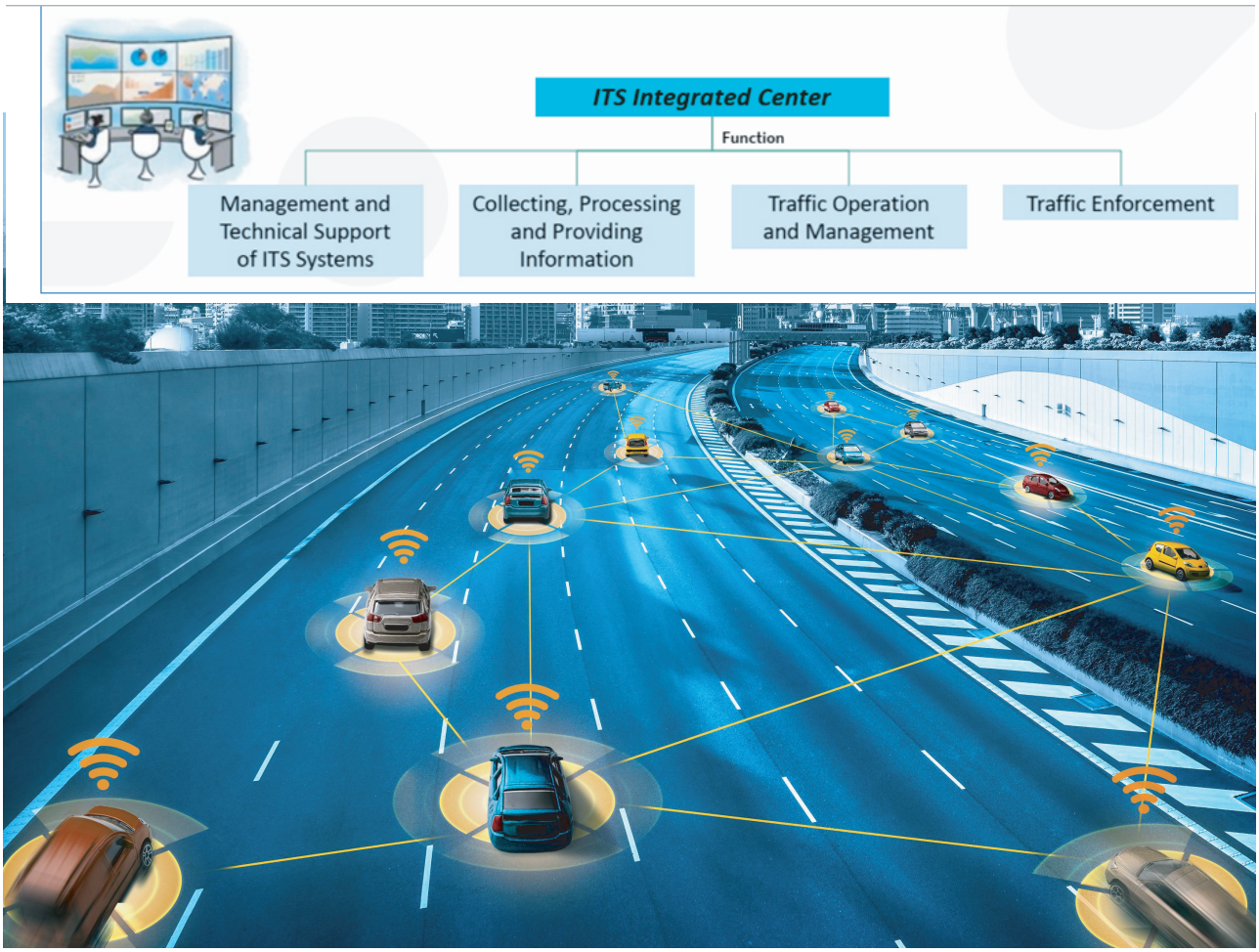


The concept of the Establishment of ITS Integrated Center

1. Objective and Goals

The Establishment of ITS Integrated Center in Thailand has 3 Objective and Goals and 4 main functions of the center as follow;

- To develop and design ITS Integrated Center architecture and ITS integrated standard service.
- To develop and design operation systems of ITS Integrated Center.
  (Management, Enforcement, Analytic, Prediction, Forecasting, etc.)
- To establish the ITS Integrated Center
  (Single Command, Real-time, and One-Stop Services)



2. Implementing Organization

Agencies under the ministry of transport, BMA, Traffic Police Division, and Privates sectors

3. Expected Result from the project

1) Enhance transport and traffic planning and policy to be a more effective strategy by predictive behavior information to improve accessibility, safety, and satisfy services.

2) Enhance more effective traffic management of traffic congestion solving.

3) Bangkok has a complete integrated ITS data and operations as a role model to developing in the metropolitan region and major cities.

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