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1.1 Background and importance

The government declared its policy to the Parliament on July 25, 2019. The government vowed to consider establishing appropriate measures to accommodate the operation and partnership between the public and private entities in the pursuit of significant policies. The government would consider that the expenditure would be from extrabudgetary sources, including loans and the private entity to participate in investments to develop the country for any economically-viable plan or project that establishes the groundwork for long-term national development. The government also contemplated the use of modern financial instruments that would aid in reducing the investment's fiscal burden, such as the Thailand Future Fund or TFFIF, the accumulation money from funds and the future conversion of rights and assets into capital. Furthermore, the government had 12 urgent policies. One was to attract private investment to the Eastern Economic Corridor, the special economic zones, the smart city and modern infrastructure investment. In addition, the government rolled out significant action plans for the implementation of state affairs and the development of transport and logistics infrastructure to support the competitiveness-building strategies, as well as the development of the Southern Economic Corridor and the southern border provinces. The government, therefore, developed transport and logistics infrastructure to expand the country's and the region's maritime export channels, in particular exporting to South Asia, developed connections between the Andaman Sea and Gulf of Thailand tourist destinations, improved bio-based industries and agricultural processing from local resources and neighboring nations. The government also placed an importance on the conservation of natural resources and culture, and the development of liveable cities to reduce logistics system costs.

The Office of Transport and Traffic Policy and Planning (OTP) was tasked with the key missions of evaluating the suitability and feasibility of investments made by agencies under the Ministry of Transport. Besides, the OTP has designated to be involved in numerous public-private partnership (PPP) initiatives, both initiatives under the responsibility of the Ministry of Transport and other agencies.

The OTP recognized that investment in transport and logistics infrastructure is a complex endeavor requiring specialized knowledge, effective management and partnership with the private entity. The key to the success of public-private partnership (PPP) projects partly requires knowledge and comprehension of all aspects of project implementation. It involves the level of preparation of plans for partnership projects, project proposal (analyzing the suitability and feasibility of the project for presentation to the Public-Private Partnership Policy Commission), the selection of the private entity in joining the partnership, the partnership project supervision and the adjustment of the partnership agreement and the signing of a new agreement. This requires knowledge of the economic and business activities.

Therefore, the OTP has initiated a knowledge management study to develop the project of private entity investment in state-owned transport and logistics enterprises. In this, the personnel of the OTP and Ministry of Transport agencies can enhance their knowledge and understanding of the project implementation process and evaluate the suitability and feasibility of the project, i.e. the guidelines for identifying the returns between the public and private entities, the consideration that the government should take into account when formulating the structure of partnership, the framework for evaluating and allocating risks and determining the return on public and private entity partnership, the government's missions and responsibility to oversee the distribution of income, and manage budget and incentives for the service of private entity, as well as the level of interest of joint investors. The implementation of this project will allow the workforce of the OTP and agencies under the Ministry of Transport, which is responsible for the project, to fulfill the essential tasks that will benefit the nation-wide implementation of significant projects.

1.2 Objectives

1) Prepare the handbook for the development of public-private partnership (PPP) initiatives in the transport and logistics aspects to cover roads, rails, waterways, and air. This is to serve as a guideline for transportation and logistics operations at each step, starting from the level of planning preparation, formulation of partnership projects, project proposal (an analysis of the suitability and feasibility of the project for presentation to the Public-Private Partnership Policy Commission), the selection of the private entity to enter into partnership projects, the partnership project supervision and the adjustment of the partnership agreement and the signing of a new agreement.
2) Build knowledge to enhance operational capability in public-private partnership (PPP) projects in transport and logistics for the personnel of the OTP and Ministry of Transport agencies.

1.3 Project implementation process

The execution plan of the study project on the knowledge of project development for Public-Private Partnership (PPP) in transport and logistics. The execution processes consist of five parts:

Part 1: literature review of the related laws, guideline, the outcomes of the past partnership projects between the public and private entities (PPP) in the transport and logistics industries.

1) Literature review of the laws governing the development of Public-Private Partnership (PPP) projects.
2) Literature review of the manuals regarding the development of Public-Private Partnership (PPP) projects, both domestic and international.
3) Revision of Thai and overseas information regarding Public-Private Partnership (PPP) projects in transport and logistics over the past three decades, which must encompass all modes of transport, i.e. roads, rails, waterways and air.

Part 2: Analysis and lessons learned from international and domestic Public-Private Partnership (PPP) initiatives in transport and logistics to ensure good practice

1) Analyze and create lessons learned from Public-Private Partnership (PPP) initiatives in transport and logistics and significant past experiences.
2) Prepare a summary of previous Public-Private Partnerships, issues, obstacles, and recommendations for Public-Private Partnership (PPP) initiatives across methods such as roads, rails, waterways, and air, and suggest an improvement for a future operation.
3) Prepare a specified analysis of the most suitable approaches for foreign investors to engage in state-owned transport and logistics enterprises.

Part 3 Prepare a handbook for the development of Public-Private Partnership (PPP) transport and logistics initiatives to cover roads, rails, waterways, and air.

Part 4 Increase the knowledge to enhance operational capability in Public-Private Partnership (PPP) initiatives in transport and logistics for Office of Transport and Traffic Policy and Planning (OTP) and Ministry of Transport agencies personnel.

Organizing 2 workshops, one was in the form of an intensive course and the other was an intensive course for testing the use of handbook.

Part 5 Public relations and public awareness campaign

Develop a public relations strategy to disseminate and present the study's findings. The following are the details:

1) The preparation of public relations material that consistently promotes a positive data throughout the duration of the initiative, as detailed below:
   - Monthly public relations for the project
   - PR boards and material for the project
   - 1 video for Focus Group 1st and 2nd
   - 1 video for Workshop 1st and 2nd
   - 2 videos for government agencies, state enterprises, and the private entity (Thai language).
   - 1 video on Public-Private Partnership (PPP) investment in transport and logistics (English) for foreign investors.

2) Organize Focus Group and in-depth interviews with agencies reporting to the Ministry of Transport and stakeholders. The 2 sessions are listed below:
   - **1st** was aimed to solicit expert opinion, and agencies under the Ministry of Transport and other respective government agencies.
   - **2nd** was aimed to brainstormed ideas from related private agencies and investors. This included both the private entities who were joint investors in state affairs and other private entities who were interested in investing in future projects.

The objective of the study project of the management of the knowledge of project development for Public-Private Partnership in transport and logistics is to create the knowledge for the workforce of the Office of Transport and Traffic Policy and Planning (OTP) and agencies under the Ministry of Transport to get insight of the process of the implementation of partnership project. To address the point, the consultant will pay close attention to literature review of the applicable laws in Thailand, the handbooks regarding the development of domestic and international Public-Private Partnership (PPP) projects, and the past data on Public-Private Partnership (PPP) projects. They will serve as information for comparative analysis and lessons learned from the PPP projects in transport and logistics between Thailand and foreign nations. In addition, they will be used to prepare summaries, issues, obstacles and recommendations for Public-Private Partnership (PPP) projects that span across all modes of transport.

The outcomes of the said actions will be crucial for the preparation of the handbook for the development of Public-Private Partnership (PPP) project in transport and logistics, and serve as as information as part of workshops for the personnel of the OTP and agencies under the Ministry of Transport.

1.4 Anticipated outcomes

1) A handbook will serve the implementation of the Ministry of Transport's Public-Private Partnership (PPP) projects in transport and logistics.
2) Gain knowledge and greater competency in the development and the implementation of Public-Private Partnership (PPP) projects in transport and logistics.
3) Achieve higher efficiency in an implementation of Public-Private Partnership (PPP) projects in transport and logistics.

This executive summary report is a summary of the complete version of the report. All of the details, examples and analysis are available on the final report.

Chapter 2
A literature review of the development of Public-Private Partnership (PPP) laws, a comparative study of PPP investment handbooks and a review of the development of PPP projects in Thailand and other countries

- A literature review of the development of laws related to Public-Private Partnerships (PPP) and other relevant laws
- A comparative study of PPP investment handbooks in foreign countries

2.1 A literature review of the development of laws related to Public-Private Partnerships (PPP) and other relevant laws

2.1.1 The laws related to Public-Private Partnerships and other relevant laws

2.1.1.1 The Public-Private Partnership Act, B.E. 2562 (2019)

The governing law related to Public-Private Partnership (PPP) is the Public-Private Partnership Act, B.E. 2562 (2019), which defines the procedures for implementing PPP projects. The important steps are divided into 5 steps as shown in Figure 2.1-1 below:

Step 1
Project Development and Analysis

- This step is planning to start a PPP project.
- A PPP project plan must be consistent with the master plan of the country in terms of infrastructure development and social aspects.
- The steps will cover the preparation of the plan, feasibility study report to submit the project in the next step

Step 2
Submission of Project

- This is to submit the project to the responsible minister and the PPP Policy Commission for consideration and approval.
- This step covers the details of submitting the project until a submission to the Council of Ministers for consideration and approval.

Step 3
Selection of Private Parties

- After the Council of Ministers approves to implementation of the partnership project, the next step is selection of private parties that submits an offer of a partnership project.
- This step deals with the characteristic of the private entity that are unsuitable to invest in the partnership project and a non-bidding selection of a private party.
- Details of a draft invitation, draft documents for the selection of a private party, a draft partnership agreement and conditions of partnership agreement.

Step 4
Supervision of Project

- When the partnership agreement has been signed, the next step is the operation of the selected private party.
- While the project-handling agency shall supervise the partnership project to ensure its operation as specified in the partnership agreement .
- This step involves the explanation of the duties and powers of the Supervisory Committee.

Step 5
Partnership Agreement Amendment

- After a partnership agreement has been signed, in the case where a partnership agreement requires amendment, this step involves the explanation of partnership agreement amendment and the timeframe that must be performed in each step.

Figure 2.1-1 The Steps for implementing a Public-Private Partnership project

In each step, there are laws at both the level of primary legislation and relevant subordinate legislation as shown in Table 2.1-1.

Table 2.1-1 The laws related to Public-Private Partnerships

Steps in a project	Relevant Laws
Project development and analysis	• Public-Private Partnership Act, B.E. 2562 (2019) • Enhancement and Conservation of the National Environmental Quality Act, B.E. 2535 (1992) and as amended. • Ratchaphatsadu Land Act, B.E. 2562 (2019) • Town Planning Act, B.E. 2562 (2019) • Expropriation and Acquisition of Immovable Property Act, B.E. 2562 (2019) • Building Control Act, B.E. 2522 (1979) • Procurement of Immovable Property for Public Transportation Enterprises Act, B.E. 2540 (1997) • Ministerial Regulation regarding Bangkok Comprehensive Town Plan Enforcement B.E. 2556 (2013) • Ministerial Regulation regarding Procurement of Benefits of Ratchaphatsadu Land B.E. 2564 • Regulation of the Office of the Prime Minister on Public Hearings B.E. 2548 (2005). • Notification of the Public-Private Partnership Policy Commission on Criteria and Procedures for Public Consultation B.E. 2563 (2020) • Notification of the Public-Private Partnership Policy Commission on Criteria and Methods for Calculating Value of partnership Projects B.E. 2562 (2019) • Notification of the Public-Private Partnership Policy Commission on Criteria and Procedures for Implementation of partnership Projects with a Value Lower than the Requirement in Section 9 of the Public-Private Partnership Act, B.E. 2562 (2019) B.E. 2563 (2020) • Notification of the Public-Private Partnership Policy Commission on Details Required in the Project Study and Analysis Report, and Criteria and Procedures for Taking Opinions of Public and Private entities into Preparation of Project Study and Analysis Report 2563 (2020)
Submission of Projects	• Public-Private Partnership Act, B.E. 2562 (2019) • Notification of the Public-Private Partnership Policy Commission regarding Criteria, Methods and Timeframe for Project Proposal B.E. 2563 (2020)

Table 2.1-1 The laws related to Public-Private Partnerships (Continued)

Steps in a Project	Applicable Laws
Selection of Private Party	• Notification of the Public-Private Partnership Policy Commission Regarding the Characteristics of Private Entities that are Unsuitable to Invest in Partnership Projects B.E. 2562 (2019) • Notification of the Public-Private Partnership Policy Commission Regarding the Characteristics of Private Entities that are Unsuitable to Invest in Partnership Projects (No.2) B.E. 2562 (2019) • Notification of the Public-Private Partnership Policy Commission Regarding the Details of the Draft Invitation, Draft Documents for Private entity selection and the Essence of the Draft Partnership Agreement B.E. 2563 (2020) • Notification of the Public-Private Partnership Policy Commission Regarding Criteria, Methods and Conditions for Selection of Private entity B.E. 2563 (2020) • Notification of the Public-Private Partnership Policy Commission Regarding Important Conditions of the Partnership Agreement B.E. 2563 (2020)
Supervision of Project	• Public-Private Partnership Act, B.E. 2562 (2019)
Partnership Agreement Amendment	• Public-Private Partnership Act, B.E. 2562 (2019)

1) Project development and analysis processes

The project development and analysis processes is divided into two phases: pre-project study and analysis report stage; and project study and analysis report execution. Each phase can be details as follows:

1.1) Pre-report preparation phase

Under the Public-Private Partnership Act, B.E. 2562 (2019), the Office of the State Enterprise Policy Office (SEPO) is responsible for a PPP project planning that is aligned with the national master plan for infrastructure and social development formulated by the Office of the National Economic and Social Development Council. The plan is then proposed to the Public-Private Partnership Policy Commission for an approval.

Once the Public-Private Partnership Policy Commission approves the project development plan, progress monitoring shall be carried out according to the master plan for infrastructure and social development. The project plan needs to be adjusted once there is an update to the national master plan for infrastructure and social development formulated by the Office of the National Economic and Social Development Council. [1]

Before proceeding the partnership project, the project value framework shall be considered because the project value varies across legal enforcement scopes. The criteria for calculating the project value are outlined in the "Notification of the Public-Private Partnership Policy Commission Regarding the Criteria and Methods for Calculating the Value of Investment Projects, B.E. 2562 (2019)," which includes the following steps:

1) The project value is based on the date when an authorized person of PPP approves the PPP project principles.
2) The capital investment and assets of both the public and private entities, including tangible assets (machinery, equipment) and intangible assets that creates the execution of the PPP project under utilization capacity at projected level, shall be calculated. Only the said capital investment and the assets, specifically those used for project operations according to the PPP project and the duration of utilization, shall be included into the calculation.

[1] The Public-Private Partnership Act, B.E. 2562 (2019, March 10). Royal Gazette. Volume 136, Section 29, Article 12, Paragraph one.

- Concerning the capital investment from the public and private entities, the state agency shall estimate an initial capital investment and future capital expenditure to ensure the successful implementation of the investment project.
- The public sector's assets are calculated based on the following:
  - Land and Property
  - Machine and Equipment
  - Intangible Asset such as Trademark, Patent, Copyright
  - Granting of licensing, concession, or right to the private entity for partnership
  - Other assets necessary for partnership implementation

If the value of the investment project is calculated and exceeds 5,000 million baht, it shall proceed in accordance with the criteria, methods, and conditions stipulated in the Public-Private Partnership Act, B.E. 2562 (2019).[2]

However, if the value is less than 5,000 million baht, it shall be carried out according to the criteria and methods specified by the Public-Private Partnership Policy Commission, namely, the Notification of the Public-Private Partnership Policy Commission Regarding the Criteria and Methods for Implementing Partnership Projects with Value Lower than that Value specified in Section 19 of the Public-Private Partnership Act, B.E. 2562 (2019). [3] A summary of the operational steps for partnership projects with a value lower than 5,000 million baht is illustrated in Figure 2.1-2.

[2] The Public-Private Partnership Act, B.E. 2562 (2019) Section 8

[3] The Notification of the Public-Private Partnership Policy Commission on Criteria and Method for Implementing Partnership Projects with a Value Below the Specified Value, Section 19 of the Public-Private Partnership Act, B.E. 2562, B.E. 2563

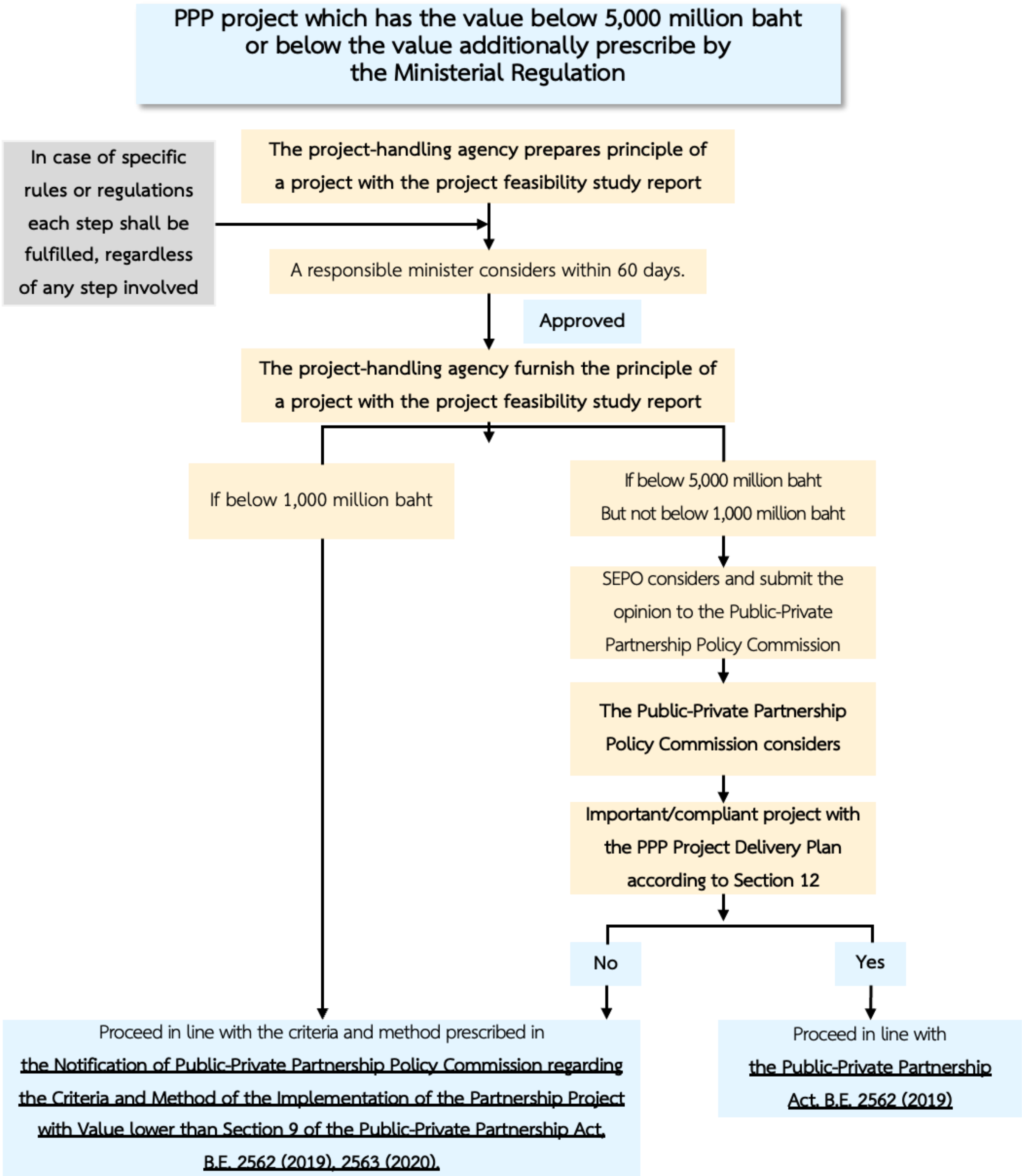

Figure 2.1-2 The steps for screening PPP project with a value less than 5,000 million baht

1.2) Prepare a feasibility study report

To propose a project for a partnership, the Public-Private Partnership Act, B.E. 2562 (2019) requires that the project-handling agency shall prepare a feasibility study report. [4]

However, the Notification of the Public-Private Partnership Policy Commission regarding the Requirements for the Detail in the prepare the feasibility study report, and the Criteria and Method for Incorporating the Opinion of Government and Private entity Agencies in the Preparation of the Feasibility Study Report B.E. 2563 (2020) stipulates the details that must be included in the feasibility study report as listed below.

- backgrounds of the project
- key substances of the project
- readiness for the preparation and operation of the project, with an indication of impacts on the success of the project
- feasibility of the project
- Risks involving the project
- options and forms of public-private partnership
- readiness of State agencies concerned with the preparation and operation of the project
- results of public hearings from the private sector concerned

In addition, the project study and analysis shall include other important issues in accordance with applicable laws, such as conducting an environmental impact assessment report[5] property expropriation and acquisition[6] and an application of permission for the use of governmental land,[7] to name but a few.

[4] The Public-Private Partnership Act, B.E. 2562 (2019)

[5] The Enhancement and Conservation of the. National Environmental Quality Act, B.E. 2535 (1992)

[6] The Expropriation and Acquisition of Immovable Property Act, B.E. 2562 (2019)

[7] State Property Act, B.E. 2562 (2019)

2) Submission of projects process

After completing the project study and analysis report and the principles of the partnership project, the next step is to propose the project to the responsible minister and the Public-Private Partnership Policy Commission for consideration and approval. The "Notification of the Public-Private Partnership Policy Commission regarding Criteria, Methods and Timeframe for Project Proposal B.E. 2563 (2020)" by virtue of Sections 20 (8) and 31 of the Public-Private Partnership Act, B.E. 2562 (2019) specifies the details for the project-handling agency to proceed under the timeframe, as shown in Figure 2.1-3.

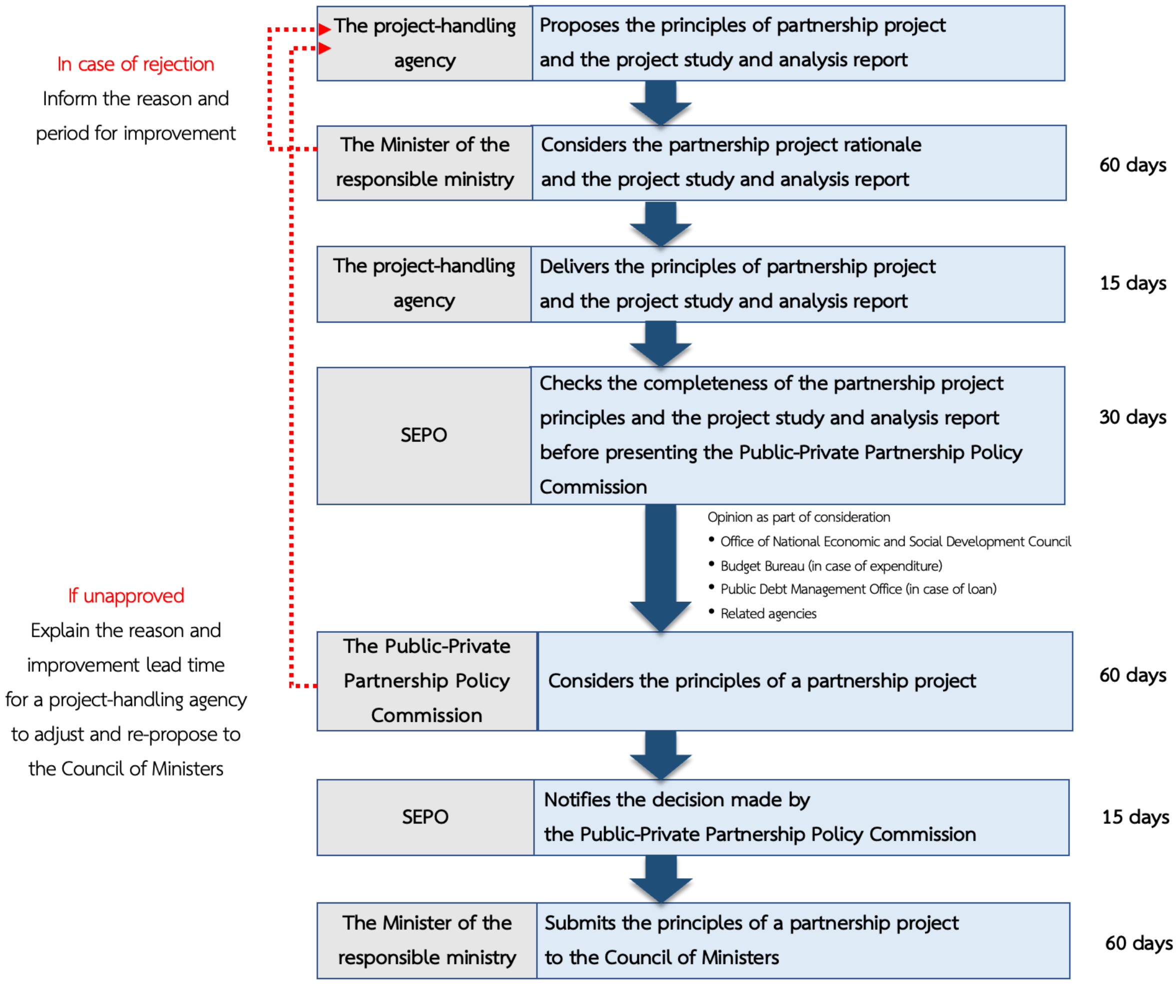

Figure 2.1-3 Timeline framwork for project proposal

However, after the Policy Commission approves the principles of the partnership within the said leadtime, the Public-Private Partnership Policy Commission shall notify the responsible minister of the results of the evaluation to propose the principles of the said partnership project to the Council of Ministers for consideration and approval to proceed with the partnership in the future[8]

[8] The Public-Private Partnership Act, B.E. 2562 (2019) Section 29 Paragraph Three

3) Selection of private parties process

After the Council of Ministers approves the partnership project, the next step is the selection of private entity who has submitted proposals for investment in partnership projects. The project-handling agency shall appoint a selection commission. Listed below are the key duties and authorities:

1) Review and approve the draft invitation letter, draft documents for private entity selection, and a partnership agreement
2) Negotiate and evaluate the selection of private entity to participate in a partnership project
3) Negotiate a draft partnership agreement

The procedure of private entity selection shall be in accordance with the "Notification of the Public-Private Partnership Policy Commission Regarding Criteria, Methods and Conditions for Private Entity Selection B.E. 2563 (2020)," and the Notification of the Public-Private Partnership Policy Commission Regarding the Characteristics of Private Entities that are Unsuitable to Invest in Partnership Projects B.E. 2562 (2019) and as amended which specifies the characteristics of private entities that are inappropriate for investment in the following partnership projects:

1) An entity who is on the list of prematurely quitting a public work in accordance with the law on government procurement and supplies management.
2) An entity who has filed a petition for business rehabilitation or has been ordered by the court to rehabilitate business, or has been appointed a receiver or declared as bankrupt, or a dishonest bankrupt, except for those who has filed a petition for business rehabilitation or has been ordered by the court to rehabilitate the business, is a juristic person of which a government agency owns capital exceeding 25%, and is a party in an agreement in an infrastructure-related activity and public service as specified in Section 7 of the Public-Private Partnership Act, B.E. 2562 (2019)[9]

[9] Notification of the Public-Private Partnership Policy Commission regarding the Characteristics of Private Entities that are Unsuitable to Invest in Partnership Projects (No.2) B.E. 2562 (2019) Section 2

3) An entity who has been imprisoned by a final judgment, except for offenses committed through negligence or a petty offence.
4) An entity who has been terminated by a government agency in a partnership agreement according to the law that includes provisions relating to private investment between the state and private entity, due to a breach of agreement.

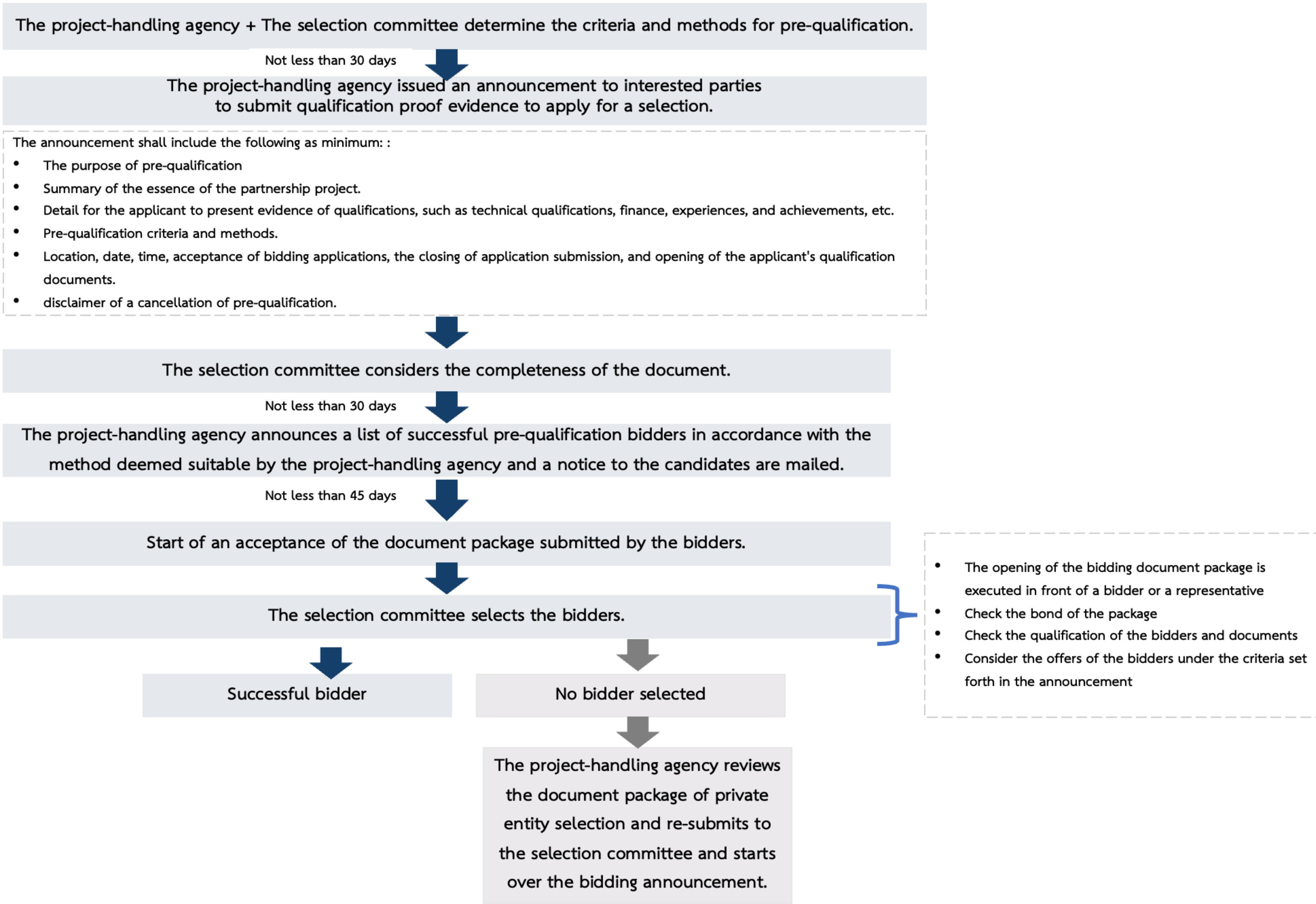

Figure 2.1-4 The process of selecting private entities (perliminary qualification selection)

A selection in line with the Public-Private Partnership Act, B.E. 2562 (2019) is divided into 2 cases, (1) a bidding-based private entity selection, and (2) a non-bidding private entity selection method.

Concerning the method of **"non-bidding private entity selection"** which is mentioned in Step 1 of Project Development and Analysis during the preparation of the project study and analysis report, if the project-handling agency indicates that the non-bidding private entity selection should be avoided, the project-handling agency is required to provide the reasons, necessity, advantages, disadvantages, and tangible benefits that both the government and the public will receive. At least, it must be demonstrated that using the non-bidding private entity selection is suitable for the project and can address the limitations associated with bidding-based private entity selection, which is the standard procedure in most cases. The project-handling agency shall strictly follow the "Notification of the Public-Private Partnership Policy Commission Regarding the Criteria for Considering the Use of Non-bidding Private Entity Selection, B.E. 2563 (2019)".[10]

If the project-handling agency and the selection committee are in agreement that the bidding-based method should not be used for the selection process, the project-handling agency should propose it to the responsible minister for consideration. If the responsible minister approves the proposal, the project-handling agency should submit it to the SEPO for furnish to the Public-Private Partnership Policy Commission for consideration.[11] Once the Policy Commission agrees that the bidding method should not be used, the Commission should notify the relevant ministry of the consideration result to seek an approval by the Council of Ministers.[12] If the Council of Ministers approves the proposal, the project-handling agency should disclose the names of the selected bidder from the non-bidding method and the reason, and the resolution by the Council of Ministers.

[10] The Notification of the Public-Private Partnership Policy Commission regarding the Criteria for Considering the Use of Non-bidding Private Entity Selection, B.E. 2563 (2019) Section 3

[11] The Public-Private Partnership Act, B.E. 2562 (2019) Section 34 Paragraph One

[12] The Public-Private Partnership Act, B.E. 2562 (2019) Section 34 Paragraph Three

4) Supervision of partnership project process

When a partnership project has been signed, the minister of the responsible ministry shall appoint a supervisory committee. The supervisory committee shall have the duties and powers to supervise and monitor the partnership project, to make suggestions for resolving problems possibly arising from the operation of the partnership project, to request the project-handling agency, the private contractual party or State agencies concerned with the project to give explanations or opinions or furnish relevant information or documents, to report operation results, progress, problems and directions for resolutions thereof in the operation of the partnership project as specified in the partnership agreement to the minister of the responsible ministry for information and to give opinions on amendment of the partnership agreement.

5) Partnership agreement amendment process

Following the partnership execution, if an adjustment to the agreement is required, the project-handling agency must submit the necessary adjustment to the Supervisory Commission for review, including necessity, reason, adjustment areas, impacts, and other critical information. Next, the Attorney General's Office will examine the revised draft of the partnership agreement that has been negotiated with the private entity. In this case, the Attorney General's Office shall conclude its review of the revised partnership agreement draft and return it to the project-handling agency within 45 days of receiving the draft agreement. Then, the project-handling agency shall present the reason, necessity, adjustment areas, impacts, and opinion of the Supervisory Committee of the Draft Revised Partnership Agreement that has been reviewed by the Attorney General's Office, and other pertinent information shall be forwarded to the responsible minister for consideration and approval. When such a minister has granted approval of the adjustment, the project-handling agency shall execute the revised partnership agreement.

If the Supervisory Commission observes that the proposed amendment to the partnership agreement by the project-handling agency deviates from the principles of the partnership project or alters key terms that have been approved by the Cabinet, the responsible minister is required to propose the Policy Commission for consideration of adjustment to the partnership agreement regarding the different parts, the Policy Commission shall notify the results of their deliberation to the responsible minister, who will present it to the Cabinet for further evaluation. Upon approval of the approved adjustment to the partnership agreement by the Cabinet, which differs from the previous approval, the project-handling agency can proceed to sign the adjusted partnership agreement. Please refer to Figure 2.1-5 for a visual representation.

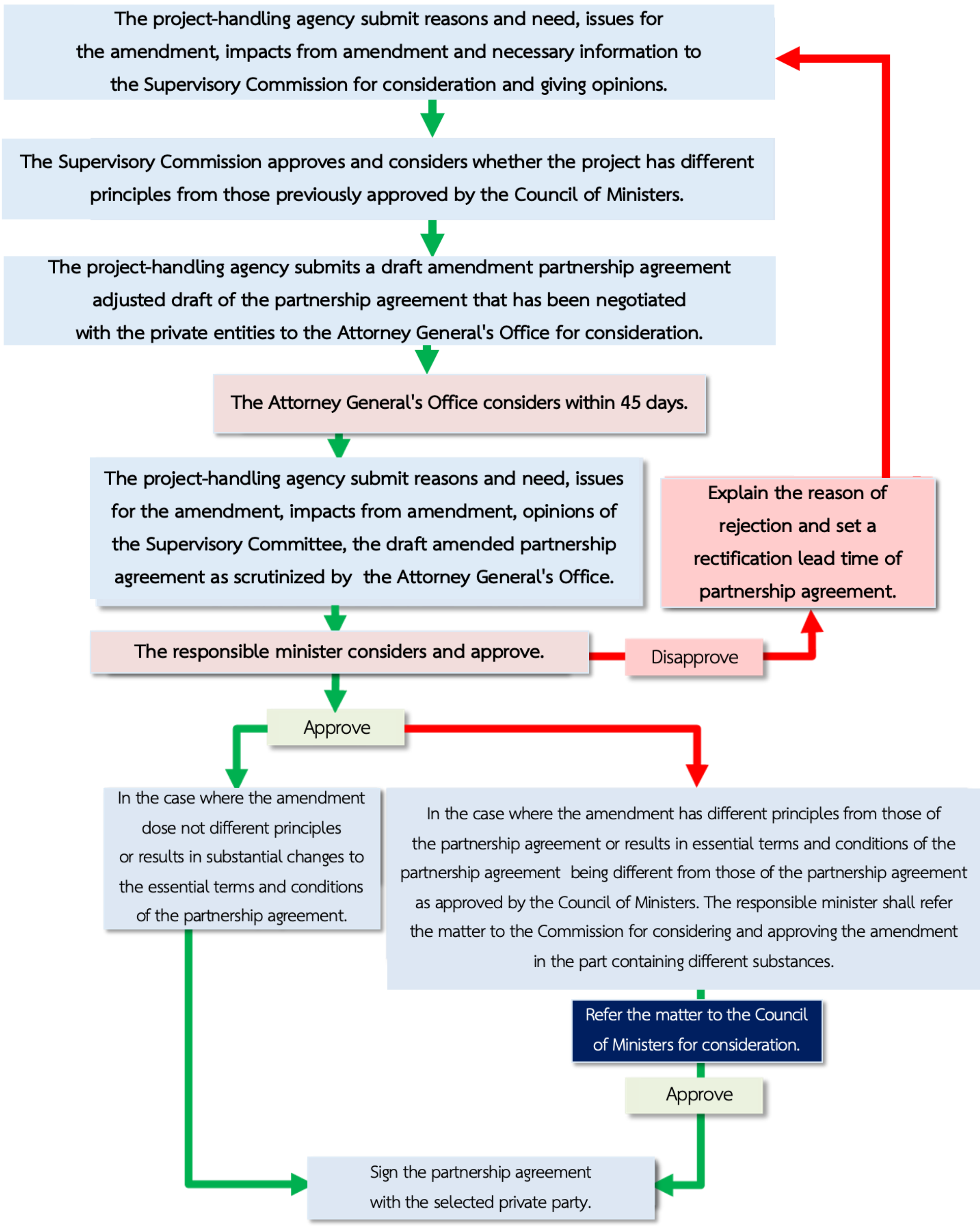

Figure 2.1-5 Partnership agreement amendment process

2.1.1.2 Eastern Special Development Zone Act, B.E. 2561 (2018)

The participation of private entity in state undertakings in the Eastern Economic Corridor (EEC) is a case of private entity participation in state undertaking exempted under the Public-Private Partnership Act, B.E. 2562 (2019). The term "Eastern Economic Corridor" refers to the provinces of Chachoengsao, Chonburi, and Rayong, as well as any other areas in the eastern region designated as part of the Eastern Economic Corridor by a royal decree. The Eastern Economic Corridor is established with the following significant objectives:

(1) Foster the development of modern and environmentally-sustainable economic activities to enhance the country's competitiveness.

(2) Establish total solution government service to minimize obstacles and costs in business operations.

(3) Formulate efficient infrastructure and public utilities that are easily accessible and well-connected.

(4) Implement utilization of land plans that are suitable for the conditions and potential in local areas in line with the principles of sustainable development.

(5) Transform cities into modern international areas that offer convenient living, safety, universal accessibility, and favorable conditions for business operations.

With these objectives in mind, the following outlines the specific details and procedures for private entity investment in public undertaking in the EEC:

1) Submission of projects process

The project-handling agency shall prepare a feasibility study report in the format and detail as prescribe in the Notification of the EEC Policy Committee. By the aforementioned notification, guidelines and procedures for providing private sector support should be included, with detailed steps of implementation as shown in Figure 2.1-6.

The project-handling agency prepares the project feasibility study report.

↓ within 7 days

The project-handling agency submits the project feasibility study report to state agencies concerned for consideration and giving opinion.

- The Responsible Ministry
- The Eastern Economic Corridor Office of Thailand (EECO)
- Office of the National Economic and Social Development Council
- The State Enterprise Policy Office (SEPO)
- Other State Agencies Concerned

↓ within 15 days

The state agencies concerned give opinions to the project-handling agency.

↓ within 15 days

The project-handling agency submit the project feasibility study report and opinions of State agencies concerned to the Eastern Economic Corridor Office of Thailand.

↓ within 15 days

Submit to Propose to the Eastern Economic Corridor Committee for consideration and approval the principles of project.

Figure 2.1-6 The process for submit the PPP project or of the partnership project or the private investment in the EEC

2) **Selection of private parties process**

After the project has been submitted, the project-handling agency shall prepare a draft invitation, draft documents for the selection of a private party and a draft partnership agreement.[13] Furthermore, in the invitation to participate, it must include at least the following matters:

1) Private parties selection document sales fee
2) Private parties proposal assessment fee
3) Partnership agreement signing fee
4) Bid bond and performance bond

When the EEC Policy Committee has convened and passed a resolution stipulating that any PPP project must proceed in accordance with the Notification of the EEC Policy Committee Regarding the Criteria, Methods, Conditions and Processes for Partnership with Private Entities or Private Investment, B.E. 2560 (2017). The EEC Policy Committee shall appoint a Selection Committee with the authority in consideration to approve a draft invitation, draft documents for the selection of a private party and a draft partnership agreement before the invitation. This includes selection of private entities, negotiation and preparation of draft partnership agreement with successful private entities.[14]

In the case where the project-handling agency has an opinion that the selection of private parties should not be made by way of bidding, the project-handling agency shall submit the matter to the Eastern Economic Corridor Office of Thailand (EECO) with the opinion of the Selection Committee for submission to the EEC Policy Committee for consideration and approval together with the project feasibility study report.

[13] Notification of the EEC Policy Committee on Criteria, Methods, Conditions and Procedures for Partnership with the Private Entity or the Private Investment, B.E. 2560 (2017), Section 11

[14] Notification of the EEC Policy Committee on Criteria, Methods, Conditions and Procedures for Partnership with the Private Entity or the Private Investment, B.E. 2560 (2017), Section 13

When the results of the selection of a private party and draft partnership agreement as already negotiated with the selected private party have been obtained, the project-handling agency shall furnish such draft partnership agreement to the Office of the Attorney-General for scrutiny. The Office of the Attorney-General shall complete the scrutiny thereof and return the same to the project-handling agency within 30 days as from the date of receipt of the draft partnership agreement. Then, the project-handling agency shall submit the result of the selection of a private party, the draft partnership agreement as scrutinized by the Office of the Attorney-General to the EEC Policy Committee for consideration and approval within 3 days as from the date of receipt the draft partnership agreement as scrutinized by the Office of the Attorney-General.[15]

Upon the EEC Policy Committee's approval of the result of the selection of the private party and essential terms and conditions of partnership agreement, the project-handling agency shall sign the partnership agreement with the selected private party. In case where the EEC Policy Committee disapproves the result of the selection of the private party or the draft partnership agreement, therefor shall notified to the project-handling agency and the selection committee for review.

3) Supervision and monitoring

When a partnership agreement has been signed, the EEC Policy Office shall appoint a Supervisory Committee which have the duties and powers to supervise and monitor the partnership project to ensure its operation as specified in the partnership agreement and to give opinions on amendment of the partnership agreement,[16] and shall appoint an Agreement Management Committee which have the duties and powers to support the operation of the supervisory committee and give opinions to the supervisory committee for consideration in the performance of duties and to monitor and supervise the operation of project-handling agency under the partnership agreement. It also formulates a plan to supervise and inspect

[15] Notification of the Eastern Economic Corridor Policy Committee on Criteria, Methods, Conditions and Procedures for Partnership with the Private Entity or the Private Investment, B.E. 2560 (2017), Section 18

[16] Notification of the Eastern Economic Corridor Policy Committee on Criteria, Methods, Conditions and Procedures for Partnership with the Private Entity or the Private Investment, B.E. 2560 (2017), Section 20

the project-handling agency and the private entity to perform their duties as stipulated in the partnership agreement.[17]

4) Partnership agreement amendment and re-conclusion of agreement

In the case where a partnership agreement requires amendment, the project-handling agency shall submit reasons and need therefor, issues for the amendment, impacts from the amendment and other necessary information to the supervision committee for consideration and giving opinions. The project-handling agency furnish such draft partnership agreement to the Office of Attorney-General for scrutiny[18] before referring the draft amendment partnership agreement, opinions of the supervisory committee and the draft amend partnership agreement as scrutinised by the Office of Attorney-General to the EECO for submit to the EEC Policy Committee for consideration.

[17] Notification of the Eastern Economic Corridor Policy Committee on Criteria, Methods, Conditions and Procedures for Partnership with the Private Entity or the Private Investment, (No.5) B.E. 2562 (2019), Section 20/1

[18] Notification of the Eastern Economic Corridor Policy Committee on Criteria, Methods, Conditions and Procedures for Partnership with the Private Entity or the Private Investment, B.E. 2560 (2017), Section 21

In addition, Thailand has the investment promotion measures that are enacted as part of the Investment Promotion Act, B.E. 2520 (1977) and the amendments. It promotes the investment in the construction of public utilities. If the private entity who invests in state undertaking wishes to receive such privileges, it shall submit an application under the conditions specified by this law. For this reason, it can be seen that the principle of government support used as a tool to promote and support the private entity through the system of private investment in state undertaking in Thailand that is clearly and concretely manifested is the promotion and support for investment by the Public-Private Partnership Policy Committee and the Board of Investment (BOI).

2.1.1.3 Models of Public-Private Partnership (PPP)

The Public-Private Partnership project is open for private entity to participate in various undertakings by the government, such as infrastructure, public service and the utilization of state assets, etc., with a variety of scopes and forms of operation. The implementation of the appropriate private investment in state undertaking of each project depends on the type of investment of infrastructure and the appropriateness of risk management in each aspect of the project and risk allocation between the public and private entities. The possible models include Design (D), Construction = Build (B), Finding a source of funds for the project = Finance (F), ownership during the period = Own (O), work = Operate (O), Project Maintenance = Maintenance (M), transfer of ownership = transfer (T), the government pays rent and wages to the private entity party = Lease (L), the government takes the risk of the number of users (Gross Cost), the private entity collects fees and shares income to the government (Net Cost), etc. The models of private investment in state undertaking that are used worldwide are listed below:

Table 2.1-2 The Models of PPP at an international level

Models of PPP	Key Substance
Design-Build (DB)	• It is a form that the state employs a complete agreement (turn-key). • Assign a private entity to carry out the design and the construction of the project • The state owns the assets and operates the project, performs asset maintenance • After the construction is completed, and the risk is allocated to the private entity.
Design-Build-Maintain (DBM)	• Similar to DB, but the private entity has a duty of asset maintenance of the project • The state operates the project after the construction is completed and the risk of maintenance is allocated to the private entity.
Design-Build-Operate (DBO)	• The government hires a private entity to design, construct, and provide services for the project. • The state still owns the assets. The private entity who implements the project may receive money in the form of management fee. • For a very large project. The fund from the private entity is not enough to carry out the whole project.
Design-Build-Operate-Maintain (DBOM)	• It is a model that combines the responsibilities of the private entity in the procurement in the DB type with the operation and maintenance of project assets within the specified timeframe. • At the end of the agreement, the government takes over the project.
Design-Build-Finance-Operate/ Maintain (DBFO/M)	• It is a widely-used model of collaboration in the PPPs system. • It combines key responsibilities such as design, construction, fund sourcing, and service operation, which may also include asset maintenance used in long-term agreement projects. • The private entity serves as the fund procurer, which can be loans or co-investor to develop the project. The private entity receives wages based on the agreed-upon service agreement. • Ownership of the assets is determined by mutual agreement, which can be owned by either the government or the private entity. Alternatively, the private entity may transfer the assets to the government upon agreement completion.
Build-Operate-Transfer (BOT)	• It is a form of concession that the concessionaire holds ownership of the property throughout the period of service until the end of the concession period and must return ownership to the government sector

Table 2.1-2 The Models of PPP at an international level (Continued)

Models of PPP	Key Substance
Build-Transfer-Operate (BTO)	• As for this concession, the ownership is transferred to the state upon the completion of construction. The concessionaire, in turn, is granted with the right of operation under a prescribed duration.
Build-Own-Operate-Transfer (BOOT)	• The government provides private entities with the privilege to secure funding, design, construction, and provide services during an agreed duration. • The right of ownership returns to the government at the end of the agreed point of time.
Build-Own-Operate (BOO)	• The concessionaire assumes the responsibility of procuring funding, designing, construction, operation and maintenance of the project's assets. The concessionaire holds the rights of providing services after the construction is completed. • There are no specific provisions mandating the transfer of assets back to the public sector once the contract expires.
Build-Transfer-Lease (BTL)	• The private entity acts as the procurer of assets, funding, and permanent structures to execute the project. Upon completion, the private entity transfers the ownership of assets to the government and become the lessees responsible for project management.

2.1.1.4 A comparative analysis of significant distinctions between Public-Private Partnership under the Public-Private Partnership Act, B.E. 2562 (2019) and the Eastern Special Development Zone Act, B.E. 2561 (2018)

According to the comparative analysis of significant distinctions between Public-Private Partnership under the Public-Private Partnership Act, B.E. 2562 (2019) and the Eastern Special Development Zone Act, B.E. 2561 (2018), the findings can be summarized as described below:

Issue	PPP Project under Public-Private Partnership Act, B.E. 2562 (2019)	PPP Projects under Eastern Special Development Zone Act, B.E. 2561 (2018)
Scope of enforcement	For partnership with a private entity by any means or authorizing a private entity to unilaterally invest by way of permission, concession or granting any rights regardless of methods	For partnership with a private entity or authorizing a private entity to invest in the Eastern Special Develop Zone
Processing Period	About 20 months	About 8-10 months
Total number of committee in the project	• Public-Private Partnership Policy Commission • Selection committee • Supervisory committee	• EEC Policy Committee • Selection committee • Supervisory committee • Agreement management committee
Characteristics of a private entity that is not appropriate to invest in a partnership project	Prescribes in the Notification of the Public-Private Partnership Policy Committee Re: Characteristics of Private Entities that are Inappropriate to Invest in Public-private Partnership Projects, B.E. 2562 (2019)	Unspecified
Reporting and disclosing project performance that is not a trade secret of a private entity	The supervisory committee shall supervise and monitor the partnership project to ensure its operation as specified in the partnership agreement, and report result of the operation of the partnership project to the minister of the responsible ministry for information at least once every 6 months.	The project-handling agency and the supervisory committee shall jointly prepare the project operation report in the part that is not a private trade secret and disclose to the public at least every 6 months.

2.1.1.5 Guidelines for applying the criteria according to the Eastern Special Development Zone Act, B.E. 2561 (2018) to the implementation of the Public-Private Partnership Act, B.E. 2562 (2019)

1) Issues regarding agreement management committee

When considering issues regarding the "committee", it has been found that the Eastern Special Development Zone Act, B.E. 2561 (2018) has the "agreement management committee"[19] which is appointed by the EEC Policy Committee, consisting of a representative of the EECO, as Chairperson, a representative of the project-handling agency, a representative of the responsible ministry, qualified person who possess knowledge or expertise beneficial to the formulation of the operation of the agreement management committee, as members, and a representative of the EECO, as member and secretary. The duties and powers of the agreement management committee are: (1) controlling and supervising the operation of the project-handling agency according to the partnership agreement, including setting up a plan to supervise and inspect to ensure that the project-handling agency and the private party are fully and correctly compliant with the partnership agreement (2) supporting the performance of the supervisory committee and offering opinions for the supervisory committee to consider (3) reporting the results of operations, progress, problems and solutions to problems that arise or may arise in the partnership agreement to the supervisory committee at least once every 3 months.

However, it has not been found in the Public-Private Partnership Act, B.E. 2562 (2019) that the Public-private Partnership Policy Committee has the authority to appoint an agreement management committee. Therefore, if the Ministry of Transport wishes to have a committee responsible for supervising the performance of the project-handling agency, overseeing and monitoring agreement compliance with an agreement in the same manner as the “agreement management committee”, the Ministry of Transport can establish the committee internally. The main role of this committee is to support the "supervisory committee". Still, such action will not be an exercise of power under the Public-Private Partnership Act, B.E. 2562 (2019).

[19] Notification of the Eastern Special Development Zone Policy Committee on Criteria, Methods, Conditions, and Procedures for Public-Private Partnerships or Investments by Private Entities (No. 5), B.E. 2562 (2019), Clause 3

2) Issues regarding processing period

The time frame for summitting a PPP project under the Eastern Special Development Zone Act, B.E. 2561 (2018) is approximately 8-10 months, while the time frame under the Public-Private Partnership Act, B.E. 2562 (2019) is approximately 20 months. This because the project proposal submission process under the Eastern Special Development Zone Act, B.E. 2561 (2018) has a clear timeline for each step as specified in the "Notification of the Eastern Economic Corridor Development Policy Committee on Criteria, Methods, Conditions and Procedures for Public-Private Partnerships or Investments by Private Entities B.E. 2560 (2017)". The Notification applies to all relevant agencies requiring them to give opinions to the project-handling agency within the specified time frame.

The process of submitting a PPP project under the Public-Private Partnership Act, B.E. 2562 (2019) still has some limitations in terms of processing time which is longer than that of the Eastern Special Development Zone Act, B.E. 2561 (2018). This is because certain steps in the process have much longer time frames. For example, the time frame of the project proposal submission process of the SEPO for referring to the Public-Private Partnership Policy Committee for consideration is set at a maximum of 60 days from the date receiving complete information, while in the case of the project proposal submission process of the EECO for referring to the EEC Policy Committee, the time frame is only 15 days.

Therefore, in order to expedite the proposal process of PPP projects in transport and logistics of the Ministry of Transport, the consultants have adapted the proposal time frame according to the criteria set forth in the "Notification of the Eastern Economic Corridor Development Policy Committee on Criteria, Procedures, Conditions and Procedures for Public-Private Partnerships or Investments by Private Entities B.E. 2560 (2017)" for the proposals under the Public-Private Partnership Act, B.E. 2562 (2019) as follows:

(1) In the case of projects which has the value of 5,000 million baht upwards. (as shown in Figure 2.1-7)

- For the benefit and expediency to submission of project proposal, the project-handling agency shall establish a working group according to Section 26 of the Public-Private Partnership Act, B.E. 2562 (2019). The working group consists of representatives of government agencies involved in the preparation and implementation of the partnership project to consider and give opinions on the preparation of a project study and analysis report before submitting to the Minister of Transport for consideration and approval.
- Prescribe the time frame for the project-handling agency to submit the principles of the project and the feasibility study report to the Minister of Transport is approximately 7 days from the date of completion of the report.
- Reduce the consideration time on the principles of the project and the feasibility study report of the Minister of Transport from the previous within 60 days, counting from the date of receiving the proposal to within 30 days as from the date of receipt the proposal.

(2) In the case of projects which has the value below 5,000 million baht (as shown in Figure 2.1-8)

- Prescribe the time frame for the project-handling agency to submit the principles of the project and the feasibility study report to the Minister of Transport is approximately 7 days from the date of completion of the report.
- Reduce the consideration time on the principles of the project and the feasibility study report of the Minister of Transport from the previous within 60 days, counting from the date of receiving the proposal to within 30 days as from the date of receipt the proposal.
- Prescribe the time frame for the project-handling agency to submit the principles of the project and the feasibility study report as approved is approximately 15 day.

In adapting the time frame according to the Eastern Special Development Zone Act, B.E. 2561 (2018) for the operation of the Ministry of Transport, the Ministry of Transport shall prescribe framework of the operation and understanding among the agencies within the Ministry of Transport to expedite the implementation within the time frame specified by the Ministry of Transport. This time frame is shorter than that specified in the Public-Private Partnership Act, B.E. 2562 (2019).

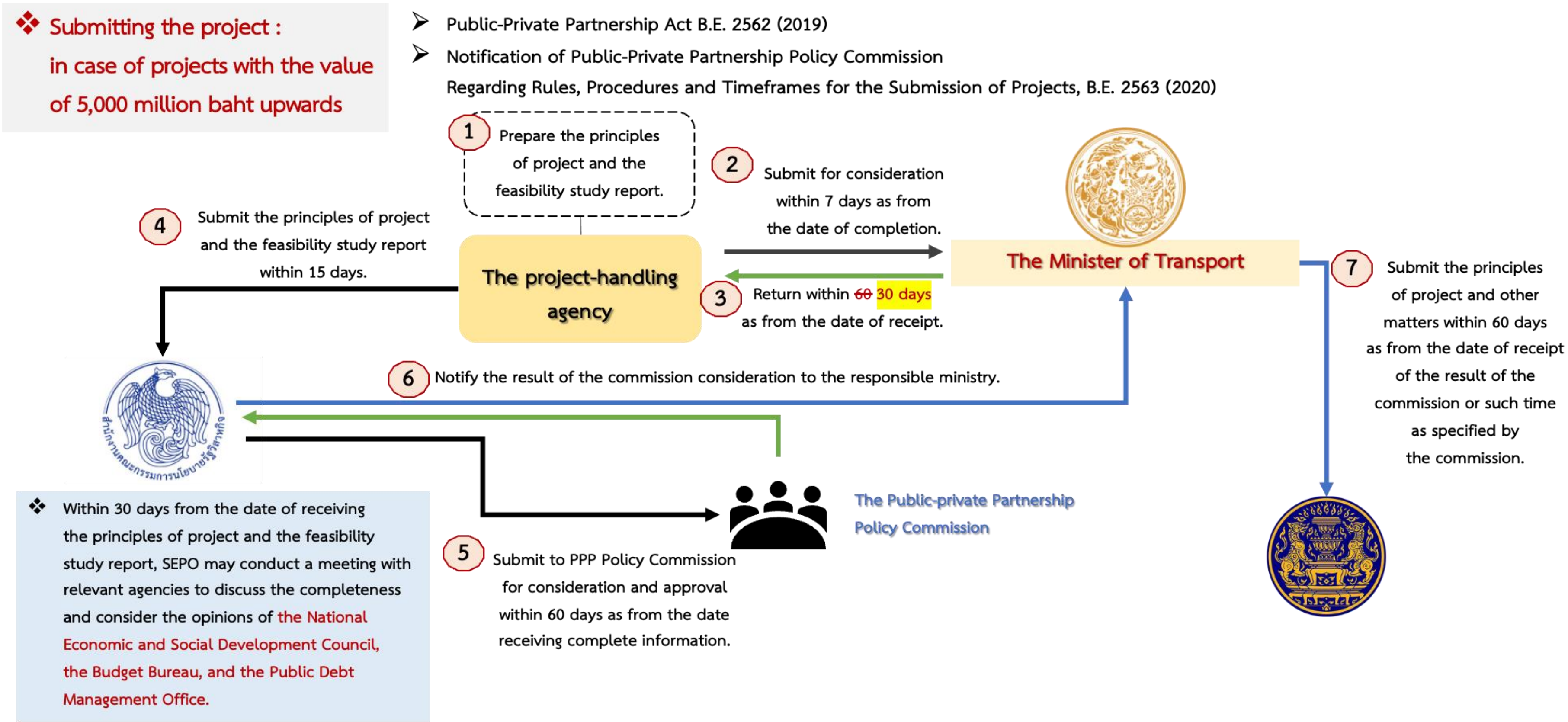

Figure 2.1-7 Guidelines for improving the process of submitting the PPP project
in case of projects with a value of 5,000 million baht upwards under the Public-Private Partnership Act, B.E. 2562 (2019)

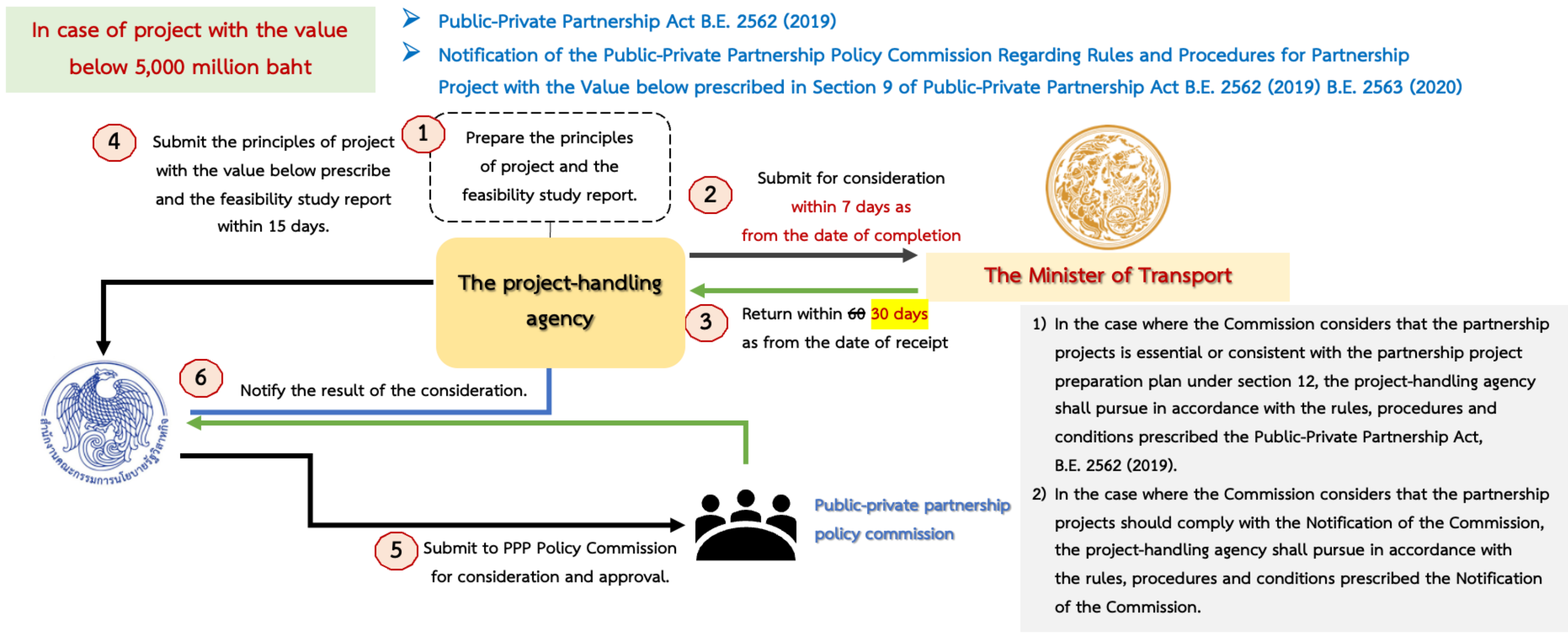

Figure 2.1-8 Guidelines for improving the process of submitting the PPP project
in case of projects with a value below 5,000 million baht under the Public-Private Partnership Act, B.E. 2562 (2019)

2.2 The comparative study of PPP investment handbooks in foreign countries

The comparative study of PPP investment handbooks in other countries was conducted along with the handbook preparation to ensure that the scope of its content is in line with the standards and scope of international manual content. The operation in this part, therefore, greatly plays significant roles on searching for information as well as searching and creating lessons learned from any case studies.

The comparative study of handbooks for public-private partnership in foreign countries has been conducted in parallel with the development of operational handbooks. This ensures that the content scope of the operational handbooks aligns with international standards and widely accepted content criteria. Therefore, this effort is crucial for gathering reference data alongside the exploration and extraction of insights from various case studies.

The consultant has reviewed foreign handbooks and categorized them into 3 levels based on the agencies that developed them. These levels are as follows:

Table 2.2-1 The classifying the foreign handbooks studied and reviewed

Levels of Documents	Names of Document Groups	Name of Target Documents
Tier 1	Handbooks developed by International Organizations	- **Partnerships - PUBLIC-PRIVATE PARTNERSHIPS Reference Guide (2014)**, The World Bank - **Guidelines for Port Authorities and Governments on the Privatization of Port Facilities** (2008), UNCTAD **- Recommendation of the Council on OECD Legal Instruments Principles for Public Governance of Public-Private Partnerships** (2012), OECD
Tier 2	Handbooks developed by National Authorities from at least 3 Countries	- **National PPP Policy and Guidance** (2008), Australian Government - **Public Private Partnership Handbook, version 2** (2012), Ministry of Finance, Singapore - **PPP Guide for Practitioners (2016),** Ministry of Finance, India
Tier 3	Handbooks developed by Standard Supervisory Agencies or Thinktank	- **Manual on the Privatization in the Provision of Airports and Air Navigation Services** (Doc 9980), ICAO

2.2.1 Analysis results of the handbooks developed by international organizations

A review of handbooks developed by international organizations helps reflect the structure of operational guideline and the influence of the manuals of national-leveled organizations. Document analysis studies are as follows.

An analysis of handbooks developed by international organizations facilitates the elucidation of operational guideline structures and the discernment of the impact of handbooks from organizations at the national level. The ensuing section outlines the scope of handbooks analysis studies.

Table 2.2-2 Lists of the handbooks developed by international organizations and advantages

Document Lists	Advantages
Partnerships - PUBLIC-PRIVATE PARTNERSHIPS Reference Guide (2014), The World Bank	The PPP manual of the World Bank is a standard manual that has been widely adopted in many leading countries since it conforms to the practice and standards of the United Nations and the standards of the international financial system. Therefore, it is the main document to analyze its basic practices and influence on the national manual.
Guidelines for Port Authorities and Governments on the Privatization of Port Facilities (2008), UNCTAD	Since UNCTAD is the main trade and investment development agency, its manual greatly focuses on the presentation of investment tool sets and promotions.
Recommendation of the Council on OECD Legal Instruments Principles for Public Governance of Public-Private Partnerships (2012), OECD	This manual focuses on clarifying legal systems and institutional practices for member states to provide clarity for investors and the financial risks of member states. This document, therefore, focuses on tools to design the legal and institutional frameworks for project mobilization, creating a transparent audit mechanism and action plan creation guidelines.

The review of international handbooks encompasses analytical studies across 3 dimensions:

(1) Sets of operational guidelines, requirements, standards, or recommendations that each handbook focuses on,

(2) Mechanisms for compulsion or persuasion to follow the above handbooks,

(3) Sets of handbook tools and assets supporting countries to adopt the practices or recommendations of the handbook.

2.2.2 Analysis results of the handbooks developed by national organizations

The consultant selected the PPP project handbooks conducted by at least 3 national agencies by selecting countries that efficiently performed the widely-known PPP projects and countries with a diversity in geographical size, economy size, and economic management systems in both liberalism and corporatism to reduce the case study selection bias. The review includes the handbooks as follows.

Table 2.2-3 Details of analytical operations and extracting lessons from foreign handbooks

Document Lists	Reasons for Selection
National PPP Policy and Guidance (2008), Australian Government	The Australian manual is very interesting in an outstanding adoption of practices and standards of international organizations, and in an intriguing manual structuring because it is divided into several sections upon user groups. Hence, this is a very interesting case study in the management of manual structure and content categories by user groups.
Public Private Partnership Handbook, version 2 (2012), Ministry of Finance, Singapore	The Singaporean handbook is the most concise of all case studies. It also stands out for completeness. As a result, it is interesting to review how complete and concise content should be designed to structure content.
PPP Guide for Practitioners (2016), Ministry of Finance, India	India is one of the countries with high economic growth, especially in the engineering and infrastructure sectors, due to the mechanism of competition between states promotion by the Ministry of Finance and the Ministry of Infrastructure continuously from before 2010 until now. The PPP projects can be regarded as one of the main alternative projects that India has a lot of experience in both successful and non-successful cases. For this reason, the Indian PPP project manual is thorough and has a broad scope of application covering policy users, practitioners, investors, or stakeholders until there is an interesting information ecosystem for PPP projects.

Table 2.2-4 Summarizing common characteristics and unique attributes of handbooks

Characteristics of Handbooks	Australia	Singapore	India
1. General Knowledge of PPP Projects		/	/
2. Policy framework	/	/	/
3. Guidelines for Project Consideration	/	/	/
4. Models of Investment and Finance	/	/	/
5. Procurement Process	/	/	/
6. Ways for Cooperation and Investor Relations		/	
7. Management of Unsolicited Projects and Foreign Investors		/	
8. Project Structure Design and Deal (Deal Design)		/	
9. Specific Tools for Economic, Finance, and Value Analysis	/	/	/
10. Guidelines for Transparency and Competition Promotion	/		/
11. Guidelines for Public Supervision and Social Responsibility Measures	/		/
12. Project Samples with Detailed Descriptions and Systematic Categorizations			/
13. Online Information ecosystem			/
14. Specific Documents for Investors	/		/

2.2.3 Analysis results of the handbooks developed by standard supervisory agencies or thinktank

Analysis results of handbooks developed by the international standard supervisory agencies focuses on the International Civil Aviation Organization (ICAO) because aviation infrastructure projects require specific technical knowledge and are related to the safety of passengers, crews, and stakeholders in the project area. As a result, the project management process has more specific operational steps than other forms of infrastructures. This document focuses on technical information on infrastructure management, asset management, and investment and financial models of airports according to ICAO standards, determined by ICAO principles, for example, service standards determine the structure of airport management as follows.

1) ICAO Policies and Government Responsibilities
2) Ownership and Supervision of Civil Aviation Business by Government
3) Airport Financial and Business Management
4) Airport Fee Collection and Determination Process
5) Areas Not Related to Aviation Activity Development and Management
6) Financial Management to Support Airport Operations
7) Appendix including Various Calculation Tools and Methods

It is evident that the documents by the standard supervisory agencies focus on the specific investment model for which the agency takes responsible. They mainly center on the technical issues related to responding to the agency's indicators. However, the recommendations are of great relevance to the potential promotion of large-scale infrastructure partnerships, especially O&M projects, especially relating to the issues of the investment structure and the determination of the responsibility scope of PPP.

2.2.4 Observation and recommendations regarding handbook structure and content scope within the handbook

A summary of the common characteristics of PPP handbooks can be applied to the PPP Handbook as follows.

1) The PPP Handbook must refer to international standards from one or more sources, such as the World Bank, OECD, United Nations, etc., with content showing the above principles as a criterion for determining procedures along with practices.
2) The PPP Handbook should be prepared as a set of manuals or clearly classified by user groups into Sections as follows.
   2.1) PPP General Principles Section
   2.2) Policy Framework and Project Framework Development Section
   2.3) Procurement Procedures and PPP Project Implementation Section
   2.4) Techniques for Cooperating with Partnership Privates Section
   2.5) Case Studies of Issues, Disputes, and Proper Practices Section
   2.6) Recommendations for Investors Section
3) Considerations of the manual preparation by economic assessment techniques and the contract management skills are added to Sections 2.3 and 2.4.
4) PPP Deal Design techniques that contribute to a win-win situation is an important technique that should be added as detail in Section 2.2 to solve project disputes from the root cause.
5) Apart from clear anti-corruption issues, the establishment of measures to prevent honest defects caused by negligence or unnecessary discretion of the practitioners should also be given more importance.

Chapter 3
The comparative study of the Public-Private Partnership Projects

- Comparative analysis of case studies for PPP project in Thailand and other countries
- Comparative analysis of comparable business-characterized PPP Projects in Thailand and other countries
- Guidelines for preparing specific analysis of PPP investment for foreign investors

3.1 Comparative analysis of case studies for PPP project in Thailand and other countries

Regarding the review of PPP Projects in transport and logistics in the past 30 years in both Thailand and abroad, there are case studies covering all forms of transport including road, rail, water, and air. Under the study scope of the project, there are 27 PPP projects that have been reviewed as shown in Figure 3.1-1.

Group 1

Road transport (2)

- Intercity Motorway Project Bang Pa-In – Nakhon Ratchasima (M6)
- Intercity Motorway Project Bang Yai – Kanchanaburi (M81)

Railway transport (5)

- MRT Green Line Project
- MRT Blue Line Project
- MRT Purple Line Project
- Inland Container Depot (Ladkrabang) Project
- High-Speed Rail Connecting 3 Airports Project

Water transport (2)

- Laem Chabang Pot Phase 3
- Map Ta Phut Industrial Port Phase 3

Air transport (2)

- Utapao Airport and the Eastern Aviation City Project
- Maintenance Repair and Overhaul (MRO) Center of Utapao Airport Project

In total, 27 projects were studied.

Group 2

Road transport (2)

- Concession Highway Project on National Highway No. 31, Vibhavadi Rangsit Road, Din Daeng - Don Mueang Section
- Second Stage Expressway System Project (Si Rat Expressway)

Railway transport

- MRT Green Line Project
- MRT Blue Line Project
- MRT Purple Line Project
- Inland Container Depot (Ladkrabang) Project
- High-Speed Rail Connecting 3 Airports Project

Water transport (2)

- Investment Project to Construct, Manage, and Operate Terminals A3, C1, C2, D1, D2 and D3 at Laem Chabang Port
- Investment Project to Construct, Manage, and Operate Terminals C3 at Laem Chabang Port

Air transport (1)

- Ground Service Equipment and Maintenance Facilities Project at Suvarnabhumi Airport

Road transport (2)

- Tuni-Anakapalli Expressways, India
- WARNOWQUERUNGROSTOCK, Germany

Railway transport (5)

- Incheon Airport Railroad Express, Korea
- Seoul Subway Line 9, Korea
- Development Project of the Area around the Stations of the MTR System in Hong Kong
- Automatic Fare Collection System, Philippines

Water transport (3)

- Port of Baltimore, Seagirt Marine Terminal, USA
- Development of Oil Jetty to Handle Liquid Cargo and Ship Bunkering Terminal at Old Kandla Port, India
- Busan New Port, Korea

Air transport (1)

- Delhi International Airport, India

Figure 3.1-1 Summary of all projects reviewed

3.2 Comparative analysis of comparable business-characterized PPP projects in Thailand and other countries

Based on the case study analysis mentioned earlier, the consultants took the lessons from the PPP projects and summarized the operating models, processes, operations, and partnership structures by comparing them to foreign projects with similar business characteristics. They were categorized according to their transportation mode for easy comparison. Causal factors contributing to the difference in the achievement patterns of partnership projects in Thailand and abroad are as follows.

3.2.1 Road transport

The principal difference is the mechanism of persuading investors to invest through the condition of returns and risk management, which those of Germany (Warnowquerung Rostock Project) are more outstanding as follows.

1) Investment subsidies by the central government are an important mechanism to reduce risks from investment in construction and civil works. In Thailand, this can be achieved through the adaptation of subsidy mechanisms by using Section 23 of the Public-Private Partnership Act, B.E. 2562 (2019).
2) Precise traffic forecasting tools are used as a key factor in risk analysis and management. For foreign projects, they use private consultants with specialized expertise as a mechanism to analyze the risks of returns throughout the project phase. Thailand needs to consider the structure of the project process along with infrastructure operation and maintenance (O&M).

3.2.2 Rail transport

According to the South Korean project, Seoul Subway No. 9, this scenario is significantly different from that of Thailand in two ways: (1) the nature of the risk-bearing structure that allocates risk responsibility in line with the proficiency and authority framework of the public and private sectors, which can be directly adapted in Thailand; and (2) the minimum income guarantee, which is a very interesting mechanism to persuade private investors. However, Thailand needs to perform this in parallel with controlling the project analysis studies of the consultant to be precise, especially in terms of the project feasibility calculation and the actual return rate calculation of the project. This is to ensure that the state does not lose benefits from miscalculated returns.

3.2.3 Water transport

The main difference between Thailand and other countries involves the responsibility proportion in a project between the public and private sectors. In other countries, the private sector has a relatively large proportion of responsibility in significantly related activities and operations. That is why the operations of ports and other relevant works of private sectors, as contracting parties, can be conducted more smoothly and flexibly than projects in Thailand. Therefore, the adaptation may require the relevance of the missions as a factor of the responsibility proportion of the private sector.

3.2.4 Air transport

The outstanding factor of the Delhi Airport in India is the management to ensure continuity of partnerships in both determining directions and implementation measures of the partnerships during the transitional phase after the termination of its agreement. Priority is placed on the dimension of continuity of service.

The consultant came up with lessons learned from partnerships in Thailand, analyzed the root causes of any problems and disputes, summarized the patterns, and proposed solutions to avoid the same issues or prevent unnecessary disputes or activities disadvantaging the government or the public in the partnership process. For this reason, the consultant summarized the issues and devised the preventive guidelines by categorizing projects as follows:

Table 3.2-1 Summary of previous PPP projects for land transport in Thailand and guidelines for improving future implementation

Projects	Problems / Best practices	Guidelines for improving future implementation
Highway Concession Project for National Highway No. 31, Din Daeng – Don Mueang section	There was not a specific legal framework governing PPP projects. (The agreement began in 1989.)	Develop a law that best fits a PPP investment and standard guidelines to support the implementation.
	Adding extensions to resolve traffic congestion caused the state to provide additional funding which considered a new cost of the project.	Conduct a feasibility study that considers traffic risks.
	Ambiguous texts in laws lead to different interpretations.	Prepare texts in the agreement and guidelines preventing dead words in the agreement, such as the definition of a competitive action, or the definition of an action that reduces traffic volumes.
	The clause specified in the agreement stated that the state shall not conduct activities that competed with the private sector. Therefore, the state's approval of the Bang-Pa-In – Pak Kret expressway project and the U-turn bridge over Vibhavadi Rangsit Road was considered non-compliance with the agreement.	The state and the private sector jointly make an agreement's attachment that elaborates on the interpretation guideline of the term "actions that compete with the private sector". The state and the private party jointly extend the results to make a standard interpretation for any future partnership.

Table 3.2-1 Summary of previous PPP projects for land transport in Thailand and guidelines for improving future implementation (Continued)

Projects	Problems / Best practices	Guidelines for improving future implementation
The Second Stage Expressway (Si Rat Expressway) Project	There was no specific law for PPP projects at the beginning of the project. (The agreement began in 1989.)	Develop a law that best fits PPP investment and standard guidelines to support the implementation.
	It was stated in the agreement that when the first part of the construction was completed, it was considered as the in-service date of the project. The construction of the first part was completed on November 13, 1992, but the company received the sharing payment on September 2, 1993 which was not in compliance with the agreement and caused revenue loss to the company.	Develop an agreement management process and agreement compliance guidelines so as not to pass on the burden to the private sector, while creating clarity to attract investment.
	Pitfalls in cost estimation of the extension D in 1997 resulted in the project requiring approval of a loan extension and the second amendment to the concession agreement	Give importance to the accuracy of the cost estimation prior to submitting the project.
	The revision of toll rates was incompliant with the agreement. And there were disagreements regarding toll rates revision between the project-handling agency and the private.	Set up guidelines on the scope of work between the project-handling agency and the private sector. Gather examples of dispute resolution to use as a reference in similar cases.

Table 3.2-1 Summary of previous PPP projects for land transport in Thailand and guidelines for improving future implementation (Continued)

Projects	Problems / Best practices	Guidelines for improving future implementation
The Bang Pa-in - Nakhon Ratchasima Intercity Motorway (M6) Project	Remedial problems for people affected by project land expropriation	Cooperate with local agencies such as Local Administrative Organizations to gain access to the community.
	Problems of the design that was inconsistent with the physical conditions and geological changes of the area	There should be an operational supervision of consultants and mechanisms that strengthen accountability regarding the accuracy of study results.
	Problems regarding a delay in requesting access to the project site	Improve the process of handing over right of way to the project site to the private sector to be more efficient and less time consuming.
The Bang Yai – Kanchanaburi Intercity Motorway (M81) Project	Problems regarding land expropriation such as an increase of the cost estimate	Cooperate with local agencies such as Local Administrative Organizations to gain access to the community.
	Problems regarding the revision of the construction drawings for phase 12 and 15 required the approval of the increased budget framework of the project.	It should be specified that the construction drawing inspection is a step that must be completed prior to submitting the project proposal, along with the land expropriation and site preparation.

Table 3.2-2 Summary of previous PPP projects for rail transport in Thailand and guidelines for improving future implementation

Projects	Problems / Best practices	Guidelines for improving future implementation
The Blue Line Rail Project	Problems regarding changing method of selecting the private entity from bidding to negotiating directly with the original service provider and the amendment of the concession agreement for the Chalerm Rachamongkol Line project	The project-handling agency must consider a through operation at the initiation phase of the project.
	Problems regarding regulations prohibiting any actions that affect the passenger flow into the MRT Blue Line system	Future concession agreements must consider issues regarding the prohibition of any actions that affect the passenger flow. This type of clause may be removed or remained in the agreement, but the details of actions that affect the passenger flow into the system must be clearly defined to prevent interpretation problems in the future which may lead to litigation.
The Purple Line Rail Project	Problems regarding an interchange between the Purple line and the Blue line	The project-handling agency must consider proper connections between trains. This consideration should be specified in the project plan in order to ensure that the electric railway systems in the future are properly designed in terms of railway route and interchange stations to facilitate convenience of service users
	Problems regarding the actual number of the passengers was lower than the estimated number, resulting in revenue loss of the project	The project-handling agency must consider the study report and analyse the project. The data must be updated to the current situations as much as possible prior to making policy decisions.

Table 3.2-2 Summary of previous PPP projects for rail transport in Thailand and guidelines for improving future implementation (Continued)

Projects	Problems / Best practices	Guidelines for improving future implementation
The Green Line Rail Project	Problems regarding the clarity of the concession extension for the Green Line Rail project	Since the project management was affected by the lack of clarity, for future implementation, the project-handling agency must prepare all information presented to the administrative section for decision-making.
	High fares	BMA must ask the administrative sector for clarification in order to be able to properly plan the project and the fare policy must be consistent with the policy on common fare and common ticket system.
	BMA's debt burden from the implementation of the Green Line project	The lack of clarity in policy resulted in BMA having a huge amount of outstanding debts.
High-Speed Rail Linking 3 Airports Project	Problems regarding the delegation of the rights to operate the Airport Rail Link and the payment of compensation for the rights due to the impact of the COVID-19 pandemic	Future concession agreements should have flexibility according to situations that might happen in the future such as a pandemic.
Ladkrabang Inland Container Depot Project (ICD)	Problems regarding the selection of a new private partner	For future project implementation, the project-handling agency must prepare all information presented to the administrative pillar for decision-making.
	Problem regarding Ladkrabang ICD management during the absence of a concessionaire	The original private partner still remained in the worksite due to the delay in the selection of a new private entity. As a result, concession agreements in the future may need to specify details about a facility utilization fee or a fine in case the original partner entity fails to move property and deliver the facility after the termination of the agreement.

Table 3.2-3 Summary of previous PPP projects for water transport in Thailand and guidelines for improving future implementation

Projects	Problems / Best practices	Guidelines for improving future implementation
Investment, Management and Operation Project of Container Terminal C3 at Laem Chabang Port	single operation under single operator	Having a single operator invest in, manage, and operate Terminal A3, C1, C2, D1, D2 and D3 all at once results in economy of scale. This method may be applied to manage other projects.
Construction, Management and Operation Project of Terminal A3, C1, C2, D1, D2 and D3 at Laem Chabang Port	The result of the selection of the private partner was opposed due to the fact that the additional benefits form the private sector that did not appear in the business plan had been included in the calculation of the benefits that PAT would receive as the net present value (NPV). This was considered inconsistent with the terms and conditions of the bid documents.	The project-handling agency should be meticulous about the selection method and follow the procedures correctly.
Laem Chabang Port Development Project, Phase 3	Negotiation with the concessionaires to have them send money to remedy fund	Establishing a remedy fund is an appropriate guideline for implementing projects that may have an impact on the environment in the future. It can be specified as a condition in the concession agreement.
Map Ta Phut Port Development project, Phase 3	Providing an environmental impact assessment report If there is any changes in the project details, a report about the changes must be made.	State agencies must prepare all necessary information and make it clear to stakeholders and persons involved beforehand in order to be able to quickly submit the matter for consideration.
	Establishment of an emergency insurance fund and a fund to improve the quality of life by having those who may cause damage to the environment contribute money to the funds.	Establishing a fund is an appropriate guideline for implementing projects that may have an impact on the environment in the future. It can be specified as a condition in the concession agreement.

Table 3.2-4 Summary of previous PPP projects for air transport in Thailand and guidelines for improving future implementation

Projects	Problems / Best practices	Guidelines for improving future implementation
GSE Project at Suvarnabhumi Airport	Amendment to partnership agreement to remediate the impact of political unrest on business entities.	- Improving the partnership agreement process to have more concise and appropriate procedures proportional to the issue of correction. - Amendment to partnership agreement, the owner agency must provide a reason for necessity issues to be addressed and impact of the amendment completely and proposed accordingly legal procedures without delay. - Guidelines for assistance to private sector must be based on the principle that giving the assistance does not exceed the damage value.
	Thai Airways Public Company Limited (THAI) lost its state enterprise status, as a result, the GSE project by THAI need to process under PPP Law.	Follow the verdict of the Public-Private Partnership Policy Committee which determined that TAC is currently a private sector. Therefore, it must operate according to Public-Private Partnership Act, B.E. 2562 (2019) and the secondary laws from the date TAC has lost its state enterprise status onwards.
U-Tapao Airport and Eastern Aviation City Project	Dispute over unlawful act of the administrative agency or state officials who was refusing to check 2 boxes of proposal documents because they were submitted to the selection committee after the proposal closing time	Setting clear norms for the use of discretion of officials and bidding options for emergency cases.
U-Tapao Aircraft Maintenance Center Project	Thai Airways Public Company Limited's liabilities and its expectation to exit the rehabilitation plan by 2024 might cause problems for the project investment.	Specifying contingency measures in case the private entity changes its status or its shareholding structure and specifying the qualification of the private entity by taking the security of the private entity into consideration

3.3 Guidelines for preparing specific analysis of PPP investment for foreign investors

According to the interviews with private enterprises and investors, some issues and concerns were raised about the future of public-private partnerships in Thailand. These include several limitations that keep investors from making fully investment decision, especially a conglomerate with multinational corporations in the shareholding structure. The structure of the problem can be divided into 3 parts as follows:

1) the structure of the problem that is not directly related to the partnership process, including problems regarding bureaucratic process, legal procedures, authorization and coordination with the public sector
2) the structure of the problem that is directly related to the partnership process, including form of agreement, responsibility structure, clarity and predictability, implementation period and the protection of well-deserved benefits
3) the structure of the problem in terms of operational processes, including a delay in handing over the area, a consideration process that takes time improper to the issues and remedies for delay.

The consultants conducted a specific review of PPP for foreign investors by using lessons learned from 3 countries (Australia, Singapore and India) of which results of partnership were satisfactory. However, support and promotion were given to partnership. It was found that at least 5 fundamental factors of the overall partnership process and acts as an important mechanism for attracting partnerships, namely

1) Creating clarity about "the host" of the partnership. All 3 case studies have created clarity about which agency can be an agreement party, which agency is responsible for setting common standards, which agency is responsible for auditing, etc., then turn them into the basic guidelines that apply to every project.
2) The responsibility framework of the public and the private sectors is clear and is set as a standard of the partnership. The framework includes specifying the authority and work procedures of the inspection agency in order to gain the private partner's confidence.
3) Establishing a collaborative network of the private entity to create options for the agreement party in selecting a private entity. Establishing a collaborative network of the private entity also results in cooperation and credibility of the partnership market.

4) An appropriate support from the central agencies who know how to use supervisory power and not to intervene the agreement party and support what the agreement party cannot do, such as increasing investment liquidity.
5) Publish a comprehensive guideline for partnerships throughout the project lifetime. The guideline is concise with only one main document and break down the details by types of the partnerships and separate the content for the policy division and the operation division.

The above 5 characteristics are included in the process of project implementation and are the key mechanisms to attract partnerships form both domestic and foreign investors. What is missing from partnerships in Thailand is the establishment of a private partner network, the clarification between public and private accountability, and the creation of a dataset specially for foreign private sector.

Table 3.3-1 Proposed recommendations for PPP guidelines for foreign investors

Structure of Problem	Recommendations
Structural improvement in work processes	1) Restructure of consideration process - new considerations related to partnerships should have clear procedures, a reasonable number of consideration steps, and a fixed implementation period. 2) Reduce the process of consideration by cutting off minor issues to the minimum as only as necessary, and determine the order of consideration - it should be concise to prevent being sent back and forth and causing delay. 3) Adjust the attitude towards controlling and focus on effective supervision and agreement compliance. 4) Modify the compensation strategy in case the delays are not directly caused by the deficiency of the private sector to be in line with the risks and burdens carried by the private sector. 5) Improve operational efficiency, especially in the process of handing over the area.

Table 3.3-1 Proposed recommendations for PPP guidelines for foreign investors (Continued)

Structure of Problem	Recommendations
Bringing operational standards into line with international standards	1) Apply clear and predicable criteria to work process clarification, providing information as well as coordination with the private sector in every step. 2) Apply transparency criteria to the whole partnership process since the beginning of the feasibility study to prevent misconduct in good faith. 3) Develop a common benchmark for partnerships in every scope of work and go into necessary subtleties according to the nature of each work. 4) Apply free competition system to reduce barriers to the market access of small and medium enterprises under the same criteria which are the criteria about the suitability of the contractor when compared with the job's size. 5) Adjust the concept of joint investment to become the concept of partnership to be able to apply tendering method to the selection of the private partner
Improving operational mechanisms to address specific problems in the context of partnerships in Thailand	1) Develop a mechanism to control the operations of consultants and strengthen the capability to control the job of the project-handling agency. 2) Develop a common toolkit for project evaluation and upgrade it to a standard toolkit or a standard calculation method that consultants shall use as a main toolkit. 3) Develop a market sounding process to attract the participation, support accessibility and clearly reflect the needs of the private sector. 4) Develop mechanisms for approval, giving permission and fast track or firm track consideration for foreign private enterprises in order to be in line with a predictability principle which is an important principle that foreign private entities give attention to. 5) Develop an agency specializing in partnerships and cooperate with an investor network that investing in PPP in Thailand. The agency will be the main technical arm, the network coordination unit, the supporting unit for the partnership committee in the policy making and the main agency overseeing transparency.

Chapter 4

Preparation of the PPP Handbook

❖ Guidelines for preparing the PPP Handbook for OTP

4.1 Guidelines for preparing the PPP Handbook for OTP

Consultants formulated a conceptual framework for preparing the handbook for PPP projects in transport and logistics. The objective was to be able to apply the handbook in actual practice. Therefore, issues to consider were as follows:

1) Compliance with the essence of the Public-Private Partnership Act, B.E. 2562 (2019)
2) Correspondence to the content of PPP projects for transport and logistics.
3) Correspondence to the scope of work according to the cycle of PPP projects
4) Use of international standards as a reference or equivalence to international standards
5) Use of information from past partnership projects as a lesson learned.

The consultants reviewed reference guides form World Bank, the United Nations and the Asian Development Bank and draft a handbook on proposing a partnership project (Institute of Research and Development for Public Enterprises: IRDP). The development of the handbook adhered to the scope of the Public-Private Partnership Act, B.E.2562 (2019) and focus on the content in section 5, Project Planning and Implementation, which consisted of 5 elements.

- Part 1 Submission of Project
- Part 2 Selection of Private Parties
- Part 3 Executing Agreement
- Part 4 Supervision of Partnership Projects
- Part 5 Partnership Agreement Amendment and Re-conclusion of Agreement

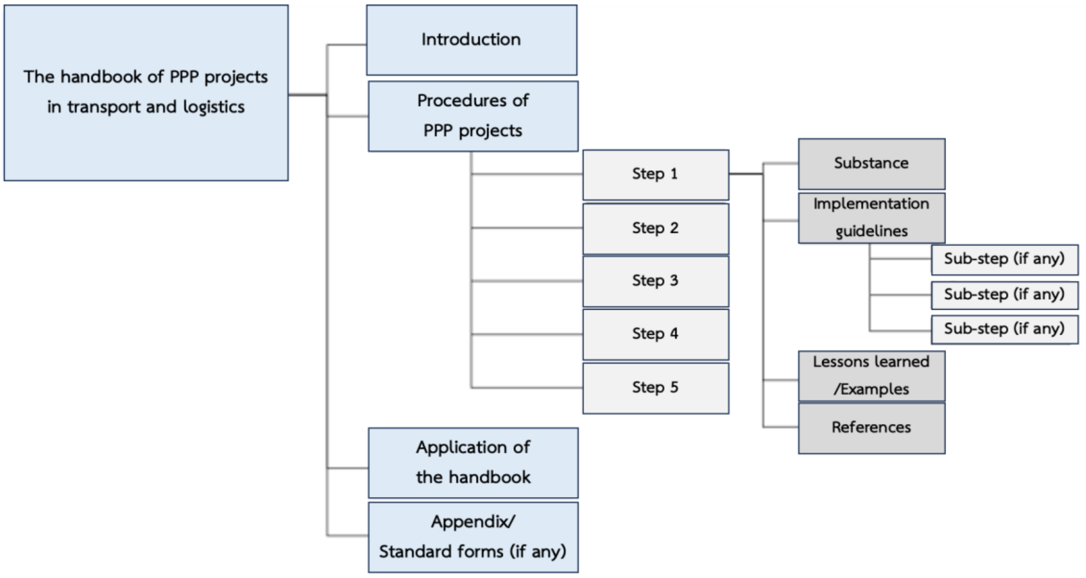

Figure 4.1-1 Content structure of the Public-Private Partnership Handbook

Introduction: The content includes the main objectives of the use of the handbook, an identification of user groups of the handbook, and explanation of the structure and scope of the content in each section, as well as a presentation of the PPP Wireframe showing the project's framework, steps and sub-steps involved in the partnership from project initiation to agreement renewal or adjustment.

Part 1 Submission of Project: the content in this part includes the consideration process of the feasibility of the project, preparation of a study report on project details, and other related processes according to the Public-Private Partnership Act, B.E.2562 (2019) (Sections 22-31).

Part 2 Selection of Private Parties: this concerns procedures for selecting private entity and other processes according to the Public-Private Partnership Act, B.E.2562 (2019) (Sections 32-40).

Part 3 Executing Agreement: this involves the process of making agreements and executing partnership agreement according to the Public-Private Partnership Act, B.E.2562 (2019) (Sections 41-42).

Part 4 Supervision of Partnership Projects: this investigates the management and supervision of PPP projects according to the Public-Private Partnership Act, B.E.2562 (2019) (Sections 43-45).

Part 5 Partnership Agreement Amendment and Re-conclusion of Agreement: this explores renewal consideration, agreement adjustment as well as operations after the termination of the agreement according to the Public-Private Partnership Act, B.E.2562 (2019) (Sections 46-49).

The consultants, then, structured the content in Part 1 to Part 5 by using the same format. The content is divided into two important sections: the content regarding procedures to create clarity and summary of actions that must be done (Checklist) and the substantial content regarding techniques, do's, don'ts, case studies and tools that help reduce complexities in the operations. In addition, this handbook is designed for three main levels of users: policy level, operational level and supervisory level.

Table 4.1-1 Details of the structure of the Public-Private Partnership Handbook

Public-Private Partnership Act, B.E. 2562 (2019) Chapter 4	Steps	Content Detail
Part 1 Submission of Project	Step 1 Submission of Project	Including project consideration and submission process
Part 2 Selection of Private	Step 2 Selection of Private	Including the process of setting conditions, submitting a request of proposal (RFP), considering qualifications and selecting private entities
	Step 3 Executing Agreement	Including the process of setting partnership conditions, determining investment pattern and scope of responsibility, and preparing agreement
Part 3 Supervision of Partnership Projects	Step 4 Supervision of Partnership Projects	Including project management, project supervision and on-site operation
Part 4 Partnership Agreement Amendment and Re-conclusion of Agreement	Step 5 Partnership Agreement Amendment and Re-conclusion of Agreement	Including the process of agreement amendment, renewal consideration, new partner recruitment, transitional management as well as operations after the termination of the agreement

Chapter 5
The results of public relations and public perception, including knowledge management for Public-Private Partnership

- Summary of in-depth interviews and focus group discussions
- Summary of workshop and training

5.1 Summary of In-depth interviews and focus group discussions

From in-depth interviews and focus group, the challenges encountered by the public and private sectors in relation to public-private partnerships can be encapsulated as follows:

5.1.1 Issues of the public sector

According to the in-depth interviews and focus group discussions, the issues of the public sector and the private sector regarding public-private partnership can be described as follows:

1) Issues from bureaucratic system that extent beyond operational procedures prescribed in the Public-Private Partnership Act, B.E. 2562 (2019)

This issue is related to the overall government administration structure, where certain aspects of partnership must navigate through a central government system that lacks specific mechanisms designed specially for the partnerships requiring a streamlined and flexible approach. This issues includes problems of approval and permission processes (other than those specified in the Public-Private Partnership Act, B.E. 2562 (2019) and relevant announcements) that are unclear and cause several returns.

2) Issues at the policy structure level

This issue is related to fundamental principles, principles of partnership, and methods of collaboration, such as defining the characteristics of participants, determining responsibilities and risks, setting selection criteria using factors like price or quality. These factors will influence project design, selection processes, and contract formulation.

Issues in this group include:

- Issues in allocating responsibilities and risk burdens between the public and the private entity
- Issues of unfair remedies or compensation that do not cover the private entity's risk burdens
- Issues of unattractive investment conditions
- Issues of the private entity passing on some burdens onto the people due to strict adherence to maximizing the benefits of the public sector

3) Issues at the operational structure level

This issues are related to the details of implementing the procedures specified in the Public-Private Partnership Act, B.E. 2562 (2019). The issues can be divided into 2 groups: (1) the issue of ambiguity or lack of understanding of the project-handling agency results in an inability to act in accordance with the intention of the Public-Private Partnership Act, B.E. 2562 (2019), which requires fair competition and maximum public interests, and (2) the issue of ambiguity or inefficiency such as the remedial process and the remedial payment are inconsistent with the actual risks carried by the private entity, or the partnership processes do not align with the characteristics of small-scale projects with lower value and shorter investment periods. The State Enterprise Policy Office (SEPO) stipulates that all projects related to infrastructure and public services as stated in Section 7 must follow the legal procedures for public-private partnerships.

5.1.2 Issues of private sector

Regarding the collaborative issues within the private sector concerning the execution of public-private partnership projects, a summary can be found in Table 5.1-1.

Table 5.1-1 The collaborative issues within the private sector concerning the execution of Public-Private Partnership projects

Issues	Case Studies
Issues with contracting and loose agreements resulting in frequent contract amendments	• Don Mueang Tollway Project • MRT Pink Line Project • Laem Chabang Port Project
Issues of state actions being interpreted as competitive and facing allegations that the state inadequately safeguards the rights of private sector investors or provides insufficient remedy.	• Don Mueang Tollway Project • Si Rat Expressway Project • Laem Chabang Port Project • Fuel Service System Project • GSE Project at Suvarnabhumi Airport • Warehouse and Catering Service Project
Issues of discrepancy in return appraisal misaligned performance evaluation from actual outcomes.	• Bang Sue Grand Station • MRT Purple Line Project • U-Tapao Airport Project
Issues of delays in the approval, permitting, and operational processes, such as land handover and reclamation activities.	• MRT Yellow Line Project • High-Speed Rail Connecting 3 Airports Project • MRT Pink Line Project • Kratu-Patong Motorway Project • U-Tapao Airport Project

Concerns at each step of a partnership can be summarize in Table 5.1-2

Table 5.1-2 Common concerns of agencies categorized by steps of partnership

Pre-Appraisal	Appraisal	Deal Making	Project Implement
1) Project feasibility analysis is inaccurate		1) unfair agreement 2) unattractive market sounding 3) unclear responsibility 4) lengthy agreement amendment	1) non-partnership relationship 2) the problem of implementation is non-compliant with international standards 3) handing over the area 4) a delay in bureaucratic procedure 5) lengthy concession renewal

In addition, in terms of the protection of the benefits of the entities, including the remedial processes, sometimes damage occurs as a result of the government actions, such as lengthy decision-making processes that impose additional costs on the private entities. This still lacks effective remedial mechanism.

5.2 Summary of workshop and training

In the study of the knowledge management of project development for Public-Private Partnership in transport and logistics, it is determined that 2 workshops were needed in the form of intensive courses to transfer knowledge and findings from the study to the personnel of the Office of Transport and Traffic Policy and Planning (OTP) and/or relevant agencies under the Ministry of Transport. Each workshop took at least 2 days and 50 participants involved. The results of both workshops can be summarized as follows:

5.2.1 The 1st workshop

1) Operational details

The first workshop was held on April 27-28, 2023 at Oakwood Hotel & Residence Sri Racha, Chonburi Province. There were 51 participants from the Department of Land Transport, other agencies under the Ministry of Transport and State Enterprise Policy Office (SEPO) attending. The activities were divided into two parts, which are as follows:

Part 1: Briefing session by expert speakers on a lesson learned from partnerships, observations, and problem prevention strategies. The briefing was delivered by

- Representative of the State Enterprise Policy Office delivering a briefing on the topic of Public-Private Partnership (PPP), conveying knowledge about the principles of partnerships, relevant laws, and guidelines for partnerships from the perspective of SEPO.
- Mr. Chaiwut Tanchai, the author of the PPP Handbook, on the topic of the PPP Handbook, its components and implementation guidelines by presenting the operational principles of the handbook, the objective of its usage and the structure of the handbook.

Part 2: Workshop activities involving the transfer of knowledge and understanding regarding the use of the handbook and having the participants apply the handbook in solving problems related to the partnership process.

- Mr. Chaiwut Tanchai and Mr. Thianthawat Srichaingam, authors of the PPP Handbook, on the topic of the public-private partnership process, cautions, lessons learned from past projects and the use of the handbook to prevent problems by providing details of sub-steps in each step of the partnership process as presented in the handbook, including the focal point of each step.

2) Summary of issues and recommendations

The representatives of the State Enterprise Policy Office (SEPO) described the principles of the partnership to present the purposes and the intention of the partnership project. The aforementioned principles and purposes affected the form of the preparation of the project; the formulation of procedures; the determination of provisions according to the law on public-private partnerships; the relevant notifications made by the Public-Private Partnership Policy Commission and SEPO; and the description of key steps in the partnership process, the intention and the background of all requirements in each process, with a main focus on the partnership project proposal step to the responsible agency and SEPO to consider. The process started with the calculation of the project's value, preparing and proposing project principles, implementing the moral agreement, and operating the project with a value less than the criteria specified in Section 9 of the Partnership Act (a project under 5,000 million baht).

Mr. Chaiwut Tanchai, the representative of the committee of the Handbook preparation, explained the topic of PPP Handbook, its composition, and practical guidelines. The objectives of the activities during the first day of the training were clarified to lay the fundamental for participants to understand the cycle of each stage of the partnership project according to the Public-Private Partnership Act, B.E. 2562 (2019) and the structure of the Handbook was demonstrated to help meet the needs of each step of the partnership from step-by-step, which started at implementation, prevention and problem-solving at each step, and studying case studies in the past to gain practical experiences to prevent such problems from reappearing. The handbook can be applied in many cases according to the mission of the Ministry of Transport, including (1) the use by the operating personnel to perform duties in the project at all stages (2) the use in the human resource development process in the Ministry of Transport in at least 3 main groups or the development of personnel competency in the commission according to Section 36, Section 43 and the project-handling agency (3) the use in the Knowledge Management (KM) by fulfilling accumulated knowledge in the handbook by adding case studies analysis and other interesting issues so that it would be more detailed over time.

In addition, he completely described the standard partnership procedures outlined in the Part 1 of the handbook in five steps: (1) study, analysis and proposal of the project; (2) private sector selection; (3) agreement signing ; (4) project supervision, (5) agreement adjustment and new agreement signing. He explained each sub-step, essence of each procedure, applicable laws or regulations, as well as providing information about critical issues to be paid attention to. The lecturer tried to illustrate which step was relevant to any procedure, where problems often occurred, as well as initial handling guidelines for each problem raised by the lecturer in the training.

5.2.2 The 2nd workshop

1) Operational details

The 2nd workshop was held on May 11 – 12, 2023 at The Buffalo Amphawa Hotel, Samut Songkhram Province. A total of 54 personnel from the OTP and agencies under the Ministry of Transport and State Enterprise Policy Office (SEPO) participated in the event. The activities were divided into 3 parts as follows:

- Briefing on the topic of roles and duties of the Selection Committee and the Supervisory Committee in the partnership process by Dr. Sumet Ongkittikul, the Project Specialist
- Briefing on the topic of key issues found in each step, impacts on project success, and related sample cases by Mr. Chaiwut Tanchai and Mr. Thienthawat Srijaingam, the Handbook Preparation Team
- A stage to exchange and discuss key issues at each stage of the partnership and to propose ways to prevent partnership problems for projects under the supervision of the Ministry of Transport by Dr. Sumet Ongkittikul and Mr. Chaiwut Tanchai

2) Summary of issues and recommendations

Dr. Sumet Ongkittikul started the briefing by explaining the role and importance of the key committees in the partnership process, the Selection Committee under Section 36 and the Supervisory Committee under Section 43.

Mr. Chaiwut Tanchai and Mr. Thianthawat Srijai-ngam, the authors of the operational manual, provided a concise overview of the issues, problems, and intriguing debates encountered throughout the various stages of partnership. Their main objective was to inform participants in the training program of the potential vulnerabilities that could arise and the consequential impact if not correctly addressed in a timely manner. Moreover, they discussed their potential implications on the overall project.

Opinions were shared in the seminar on the issue of increasing the responsibility of consultants for the study result to create a process that could make the private sector more responsible for the study result. In this regard, the lecturer gave the opinion that an important issue that would help the OTP and the project-handling agency to control the risks from the consultant hiring process was that they should have understood the project study process to realize which step defects in the process could occur in and what factors were.

In addition, many opinions were exchanged on the necessity of the existence of the agreement contents protecting the interests of the private sector by using the competition-related clauses.

However, expert speakers commented that the preparation of the partnership agreement may be divided in to 2 parts. First, parts that can be standardized such as construction. In this part, agreement should be written in accordance with standards to prevent mistakes or problems that may arise. And the other part is the innovative part. Which will be changed to enable innovation. Therefore, the agreement must be separate into standard part derived form past experience and part that can be changed to lead to new innovations.

Chapter 6

Recommendations for the PPP Handbook to enhance the efficiency of PPP project execution within the Ministry of Transport

- Legal recommendations
- Recommendations for the PPP Handbook usage

6.1 Legal recommendations

The consultant offered some recommendations on legal issues about the power and duties of the Partnership Project Supervisory Committee under the Public-Private Partnership Act, B.E. 2562 (2019) as follows:

6.1.1 Guidelines to increase the role of the Partnership Project Supervisory Committee and enhance the power and duties understanding for a newcomer

The Supervisory Committee is responsible for supervising the implementation of the PPP project to be aligned to the goals and the objectives of the agreement, as well as considering solutions to problems that occurred during the implementation of the project. However, in the implementation of the Supervisory Committee, it was found that there were still limitations, especially the issue of the expertise of the PPP Supervisory Committee. The Public-Private Partnership Act, B.E. 2562 (2019) prescribes the origin of the Committee members without specifying their qualifications.

Therefore, increasing the efficiency and expertise of the Supervisory Committee under the Ministry of Transport was relevant to these 2 positions:

- Representative of the Ministry of Transport who is a civil servant in the Ministry of Transport, not the project-handling agency, and has a position not lower than the junior management level and is a chairman.
- Project-handling agency's Representative 1 person as a committee and secretary

For this reason, the Committee members, who are representatives from the Ministry of Transport and the project-handling agency, shall be appointed from persons who own proper knowledge and expertise, including experience in supervision. If the Ministry of Transport can appropriately ensure workforce's readiness, it will be able to operate efficiently and solve problems in case the Supervisory Committee has a new member.

However, if other actions are needed to improve the authority and mission of the Supervisory Committee according to the Public-Private Partnership Act, B.E. 2562 (2019), there is a need to amend the statute-level legislation, which may require a long time to complete. So, to increase the operational efficiency of the Supervisory Committee, administrative mechanisms should be adopted, especially the part of the Ministry of Transport as the project-handling agency with many PPP projects implemented. As a result, the number of personnel with expertise in PPP project supervision shall be sufficient and appropriate.

6.2 Recommendations for the PPP Handbook usage

The consultant provides recommendations regarding support for the operational handbook to ensure its practical implementation within relevant agencies involved in PPP in the Ministry of Transport sector, utilizing tools as follows:"

6.2.1 Recommendations for promoting the handbook's utilization by agencies under the Ministry of Transport

The consultant suggests measures to support the utilization of the operational handbook for agencies under the Ministry of Transport as follows:

Table 6.2-1 Measures supporting the use of the handbook for agencies under the Ministry of Transport

Measures	Details
Measure 1: Encouraging the use of the Handbook through internal command mechanisms/guidelines	This measure aims to encourage the use of the Handbook through the issuance of central orders, commands, or guidelines of the Ministry of Transport by adapting indicators to draw the interest of operational agencies under the Ministry.
Measure 2: Cooperating with the project-considering agencies to adopt the Handbook as a reference	The Ministry of Transport cooperates with the project-considering agencies and the project supervision agencies to adopt the Handbook as a principle to consider any project in the future and as a reference to provide recommendations. This will help build credibility for the Handbook because the supervisory agency relies on the Handbook as the main criterion for project monitor and evaluation.
Measure 3: Developing a new partnership project management system	The Ministry of Transport adopts the principles of the Handbook to adapt the consideration and supervision process of the real partnership projects to create a balance between the actual work system and the knowledge taught to the operators.
Measure 4: Developing departments with specialized expertise in the partnership	Develop departments with specialized expertise in partnerships with well-rounded expertise in project consideration, technical ability, project management, and business to be able to work together with the private sector as a partner.
Measure 5: Developing continuous long-term courses to strengthen the operational skills of personnel	Develop long-term training courses based on an intensive course in the project by teaching skills little by little till they become familiar with each step in the work system and enhance understanding to develop a team with specialized expertise according to the concept of PPP Specialist Operation Taskforce Incubation.

6.2.2 Guidelines for the project-handling agency and the responsible ministry to take an action if the Supervisory Committee does not perform the duties.

Under the Public-Private Partnership Act, B.E. 2562 (2019), upon signing a partnership agreement, the responsible minister shall appoint a Supervisory Committee. However, if such Supervisory Committee does not perform its duties as required by law and the result is a delay or damage of the project PPP, what can be done in this case? The Public-Private Partnership Act, B.E. 2562 (2019) does not specify details on the issue, only penalizing members of the selection committee for violating Article 37.

The consultant suggested setting up an individual indicator for assessing the performance of civil servants as representatives of the Ministry of Transport and the project-handling agency in the Supervisory Committee by considering guidelines for dealing with the Supervisory Committee in case of omission of duties as required by law. For this reason, it shall be considered that the Supervisory Committee shall include members from the positions of government officials. They are obliged to comply with their duties under the Public-Private Partnership Act, B.E. 2562 (2019). If the Supervisory Committee does not perform their duties as required by law, the malfunction concerns 2 counts: disciplinary and criminal penalties, as follows:

6.2.2.1 Disciplinary penalties

The committee who are civil servants shall comply with discipline according to the Civil Service Regulation Act, B.E. 2551 (2008). If a member of the Supervisory Committee does not perform his or her duties as required by the Public-Private Partnership Act, B.E. 2562 (2019), it will be considered a failure to perform official duties in accordance with the law, government regulations, cabinet resolutions, government policies, and compliance with government regulations according to Section 82 (2) of the Civil Service Act, B.E. 2551 (2008), causing the member to be a disciplinary offender. [20]

[20] The Civil Service Act, B.E. 2553 (2010) Section 84

And if such omission to perform duties causes serious damage to the government, such committee member shall be subject to a serious disciplinary offence. [21] Regarding the committee member from the Office of the Prosecutor General, the Public Prosecution Official Regulation Act, B.E. 2553 (2010) stipulates a discipline penalty. That is, a public prosecutor civil servant shall strictly maintain discipline as well. [22]

Therefore, in case that a Supervisory Committee member fails to perform its duties as required by the Public-Private Partnership Act, B.E. 2562 (2019), (s)he may be subject to a disciplinary penalty. However, before the disciplinary penalty is taken, a commander in charge shall ask a committee member to take an action first. And if such member still fails to perform its duties, (s)he may be subject to a disciplinary penalty. If considering only the case of the implementation of PPP projects in transport and logistics, the commander directing the Supervisory Committee to take an action is the Minister of Transport as the appointer.

6.2.2.2 Criminal penalties

If such omission to perform the duties of the Supervisory Committee is characterized as (1) wrongful omission of duty to cause damage to any person, or (2) dishonest omission of duty, it shall constitute a criminal offense under Section 157 of the Criminal Code, which carries a penalty of 1-10 years in prison, a 20,000-200,000 baht fine, or both. However, such ignorance to perform the duties shall match the criminal element so that criminal proceedings can be taken.

6.2.3 Guidelines during the transition of the PPP law

As for PPP projects that have been implemented in advance according to the procedures of the Private Investment in State Undertaking Act, B.E. 2556 (2013), when the Public-Private Partnership Act, B.E. 2562 (2019) comes into force, the law prescribes temporary provisions for the implementation consistent with the new law, with the following details:[23]

[21] The Civil Service Act, B.E. 2551 (2008) Section 85 (7)

[22] The Civil Service Act, B.E. 2553 (2010) Section 60

[23] Public-Private Partnership Act, B.E. 2562 (2019) Section 68

Table 6.2-2 Guidelines during the transition of the PPP law

Project Status	Guidelines
Projects during the process under Chapter 4 Project Proposal or under Chapter 5 Project Implementation of the Private Investment in State Undertaking Act, B.E. 2556 (2013)	The project-handling agency shall continue to follow the provisions of this section until completion and shall proceed to the next steps as required in the Public-Private Partnership Act, B.E. 2562 (2019).
Projects during the process under Chapter 6 Supervision and Follow-up of the Private Investment in State Undertaking Act, B.E. 2556 (2013)	The minister from the responsible ministry shall appoint a new Supervisory Committee member within 90 days from the effective date of the Public-Private Partnership Act, B.E. 2562 (2019). And while such new committee member under this Act has not been appointed yet, the Supervisory Committee under Section 43 of the Private Investment in State Undertaking Act, B.E. 2556 (2013) shall continue to act as the Supervisory Committee member until the new Supervisory Committee member is appointed under the Public-Private Partnership Act, B.E. 2562 (2019).
Projects during the process under Chapter 7 Agreement Amendments and New Agreements of the Private Investment in State Undertaking Act, B.E. 2556 (2013)	The project-handling agency shall continue to follow the provisions of this section until completion and shall proceed to the next steps as required in the Public-Private Partnership Act, B.E. 2562 (2019).
Projects during the process under the notification of the Private Investment in State Undertaking Policy Committee on criteria and procedures for private investment in projects with a value less than those specified in Section 23 of the Private Investment in State Undertaking Act, B.E. 2556 (2013) B.E. 2559 (2016)	The criteria and procedures shall be adopted and continued until completion and shall proceed to the next steps as the Committee may announce the criteria and procedures for the projects under Section 9 of the Public-Private Partnership Act, B.E. 2562 (2019).

Based on the above-described principles, for the projects with a value less than 5,000 million baht that are under "the Notification of the Public-Private Partnership Policy Commission regarding Criteria and Procedures for Private Investment in Projects with a Value Less Than Those Specified in Section 23 of the Private Investment in State Undertaking Act, B.E. 2556 (2013) B.E. 2559 (2016)". The law requires that the criteria and procedures shall continue until completion and shall proceed to the next steps as the commission shall announce the criteria and procedures for projects under Section 23 of Act 9.

All in all, the PPP Policy Commission has been currently issued "the Notification of the PPP Policy Commission on Criteria and Procedures for the Implementation of PPP Projects with a Value Less than Specified in Section 9 of the Public-Private Partnership Act, B.E. 2562 (2019) B.E. 2563 (2020)" which was effective on July 21, 2020. Therefore, the action shall be considered from that date, which can be summarized as follows.

6.2.3.1 In case of action taken before July 21, 2020

Regarding the projects with a value less than 5,000 million baht implemented before July 21 2020, Section 68 (4) of the Public-Private Partnership Act B.E. 2562 (2019) requires that the projects with a value less than specified in Section 23 according to the Notification of the Private Participation in State Undertaking Policy Commission on Criteria and Procedures for Private Investment in Projects with a Value Less than Specified in Section 23 of the Private Investment in State Undertaking Act, B.E. 2556 (2013) B.E. 2559 (2016) shall continue to follow such criteria and procedures until completion.

Upon completion of the foregoing steps, such projects shall be carried out according to the procedures in the Notification of the PPP Policy Commission on Criteria and Procedures for the Implementation of PPP Projects with a Value Less than Specified in Section 9 of the Public-Private Partnership Act, B.E. 2562 (2019) B.E. 2563 (2020).

6.2.3.2 In case of action taken after July 21, 2020

Regarding the projects with a value less than 5,000 million baht implemented after July 21, 2020, they shall be carried out according to the procedures in the Notification of the PPP Policy Commission on Criteria and Procedures for the Implementation of PPP Projects with a Value Less than Specified in Section 9 of the Public-Private Partnership Act, B.E. 2562 (2019) B.E. 2563 (2020).

6.2.4 Recommendations for knowledge adopting into the executive training course of the Ministry of Transport

The consultant offered some recommendations on how to adopt knowledge into the executive training course of the Ministry of Transport as follows

6.2.4.1 Senior Executive Course:

1) Target group: Executives and Departmental Heads in the Ministry of Transport

The required knowledge of the senior executives of the Ministry of Transport consisted of key skills as listed below:

- Skill 1: Consideration and approval of project principles and policy impact analysis
- Skill 2: Performing duties as the Private Selection Committee
- Skill 3: Performing duties as the Partnership Project Supervisory Committee
- Skill 4: Order Preparation for project-handling agency and senior executives of the Ministry of Transport
- Skill 5: Consideration of partnership agreement amendments

The Ministry of Transport can include the 5 skill sets into the training course indicators by specifying learning milestones and educational achievement indicators to develop appropriate learning outcome tests and exercises.

2) Course activities include:

2.1) Comprehensive course for executives

There were at least 6 intensive briefings, which were 5 briefings of 3 hours each on each skill and 1 briefing of 3 hours on the keys to the success of the partnership and the need for support through policy-making mechanisms directly related to the mission of executive civil servants.

2.2) Workshops and situation-based learning

At least 3 sessions were organized as part of the course, focusing on experimenting as 3 important committees in the partnership process: (1) the Project Study Report Reviewing Committee, (2) the Private Selection Committee, (3) the Project Supervisory Committee. The Workshop would bring practical problems, such as study reports the consultant conducted and attached comments of the project-handling agency, for the participants to do the experiment to learn the truth or some samples of agreement amendment requests, that has been approved by the Office of the Attorney General, for the participants to consider and do the experiment to reflect the truth.

All in all, the consultant recommended that the Ministry of Transport adopt the Handbook and knowledge kits (video training) into the senior, intermediate, and junior executive courses. The Ministry of Transport can assign personnel or executives, who have passed the Handbook training, to be representatives to perform duties in the committee according to the Public-Private Partnership Act, B.E. 2562 (2019).

2.3) Tests for a certificate

This referred to a comprehensive examination, an assignment to show a vision on issues related to 5 main skills, answering theoretical questions, principles of law, and solving practical problems.

The expected results are that the executives are equipped with specialized knowledge about the duty of guidance in the important PPP committees.

6.2.4.2 Intermediate Executive Course

1) Target group: executives at the Level of Director of Bureau and Division and Technical Supervisors or specialized agencies for partnership

The main objective of the courses was to offer knowledge in working closely with consultants and private investors. Important skills are a deep understanding of the partnership process under the Public-Private Partnership Act, B.E. 2562 (2019) and the knowledge of technical problems, agreement management, and relationship management with the partnership investor network.

The required knowledge of intermediate executives of the Ministry of Transport consisted of key skills as follows.

- Skills to work together with the consultants and monitor their work in the project study process
- Skills to use project value calculation tools/principles
- Skills to monitor and control the environmental impact study
- Skills to draft partnership agreements, preliminary agreement review, and precautions of signing an agreement.
- Skills to determine the scope of responsibility, investment pattern, and risk control
- Skills to select the private sector with or without using auctions
- Skills to supervise the private sector co-investors, and project management
- Skills to manage and coordinate stakeholder

The Ministry of Transport can incorporate the 8 skill sets into the training course indicators by specifying learning milestones and educational achievement indicators to develop appropriate learning outcome tests and exercises.

The consultant recommended that the Ministry of Transport put the Handbook and the VDO Training into the intermediate executive course.

2) Course activities include:

2.1) Briefing with skills development activities in classrooms

There were 18 briefings for 8 skills, and each skill could be divided into at least 2 briefings of 3 hours. It described the importance of each skill, transferred deep knowledge of each issue, and encouraged participation by giving the participants practical problems to debate or find solutions together.

2.2) Expert forum workshops

The course invited experts with extensive experience in partnerships from the public and private sectors to be keynote speakers and discuss partnership problems in the past and find ways to avoid or solve problems from reappearing.

These experts were the key to identifying the problem and project issues that may lead to partnership problems in the future. This was very useful in terms of transferring practical experience to practitioners.

2.3) Tests for a certificate

This referred to a comprehensive examination, and a writing assignment to summarize knowledge to present the understanding level of technical issues, operations, and partnership project management.

The expected results were that the intermediate executives would be equipped with enough specialized knowledge to act as a key mechanism to drive the partnerships in detail with consultants and private sector investors.

6.4.2.3 Junior Management Program

1) **Target Group: Chief or Deputy Chief that the Agency Agrees to have enough potential to be trained to supervise the PPP works in the future**

The objective of this course was to explore potential personnel suitable for promotion as a chief in supervising the PPP works, or to train them to have skills as practical partnership drivers.

The mandatory knowledge of junior executives of the Ministry of Transport included the key skills as listed below:

- Skills to join force with consultants, coordinate, and support information
- Skills to use project value calculation tools/principles
- Skills to monitor/control the environmental impact studies
- Skills to select the private sector with or without using auctions
- Skills to supervise the work of private sector co-investors and project management, including skills to perform duties as the Supervisory Committee, skills to manage agreements, skills to negotiate for friendly dispute resolution, skills to build a network of cooperation with the private sector, etc.

The Ministry of Transport can embed the 5 skill sets into the training course indicators by specifying learning milestones and educational achievement indicators to develop appropriate learning outcome tests and exercises.

2) **Course activities include:**

2.1) Briefing to build basic knowledge

There were 18 briefings for lay the foundation of understanding about the partnership 2 times, 3 hours each, transfer all 5 skills 1 time each, and summarize the body of knowledge and guidelines for extension 1 time at the end of the course.

2.2) Workshops with a trial adoption of handbook

The course adopted the Handbook that was developed for this project and revised to ensure accuracy and included more case studies for the participants to use solve problems under close guidance by experts.

2.3) Tests for a certificate

This was a comprehensive examination, and a writing assignment to summarize knowledge to reflect the understanding level through questions that the course collected from real-life problems.

6.2.4.4 Development of the lists of trained personnel or executives

All the said 3 training courses were created by the Ministry of Transport. They were separated from the existing executive supplementary courses offered by the Ministry as a specific training course on PPP with certificates to certify the personnel with enhanced skills in partnerships. The certificates were divided into 3 levels with prestige and right as listed below:

- **Junior Certificate:** For those who have passed the junior executive course and are able to perform duties as secretaries or supporters in the main partnership committee
- **Intermediate Certificate:** For those who have passed the intermediate executive course and are able to perform duties as chiefs or supervisors in the partnership team and are able to be members of the main partnership project committee
- **Senior Certificate:** For those who have passed the senior executive course and are able to perform duties as a chairman in the main partnership committee