Executive Summary Report

Strategic Environmental Assessment: SEA

By
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August 2021

Content

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Executive Summary

1.   Background

A central planning agency responsible for developing and driving Strategic Environmental Assessment (SEA) in Thailand, Office of the National Economic and Social Development Council (NESDC) has continuously developed and driven Thailand's SEA in many means, especially through amending Thailand's SEA Guideline to raise knowledge and understanding of planning agencies for executing in their planning processes. NESDC actualized "Project on Driving Strategic Environmental Assessment" between May 2020 and August 2021. The project objectives are as follows:

(1) to enhance the knowledge and understanding of SEA, in accordance with academic principles, for executives and personnel who are involved in the preparation of plans and programmes at different levels, so that they can effectively apply SEA in the planning process of the policies and programmes, and organize targeted SEA academic training and seminars to equip top-level executives and establish academics with the technical competence to select and employ a variety of SEA methods during policy planning;

(2) to develop knowledge on SEA and the key information system for SEA, which is systematically presented in a manner that is easy to access and search, including conducting the SEA pilot project, so that it can be used as supporting data in the SEA implementation of relevant agencies.

(3) to monitor and evaluate the SEA implementation process of various agencies carried out in 2019 as well as analyse problems and obstacles, such that the results of the assessment can facilitate further development of Thailand's SEA system; and

(4) to improve the SEA Guideline of the country and develop an appropriate mechanism for driving SEA in Thailand.

In order to achieve the aforementioned project objectives, NESDC has devised the following activities under this project: (1) reviewing the literature and knowledge on SEA and related works; (2) organizing and preparing the curriculum for advanced academic training in SEA; (3) developing the SEA key information system; (4) monitoring and evaluating Sa Kaeo Special Economic Zone (SEZ) for sustainable development; (5) reviewing SEA projects implemented in 2019; (6) assessing the comparative case studies on driving SEA in Vietnam; and (7) proposing recommendations for driving SEA and improving SEA Guideline.

2. Conceptual Framework

The operational conceptual framework has been established to be consistent with and cover the scope of the Terms of Reference (TOR). It was divided into individual activities according to the scope and methods of the study (TOR Item 5) (**Figure 2-1**).
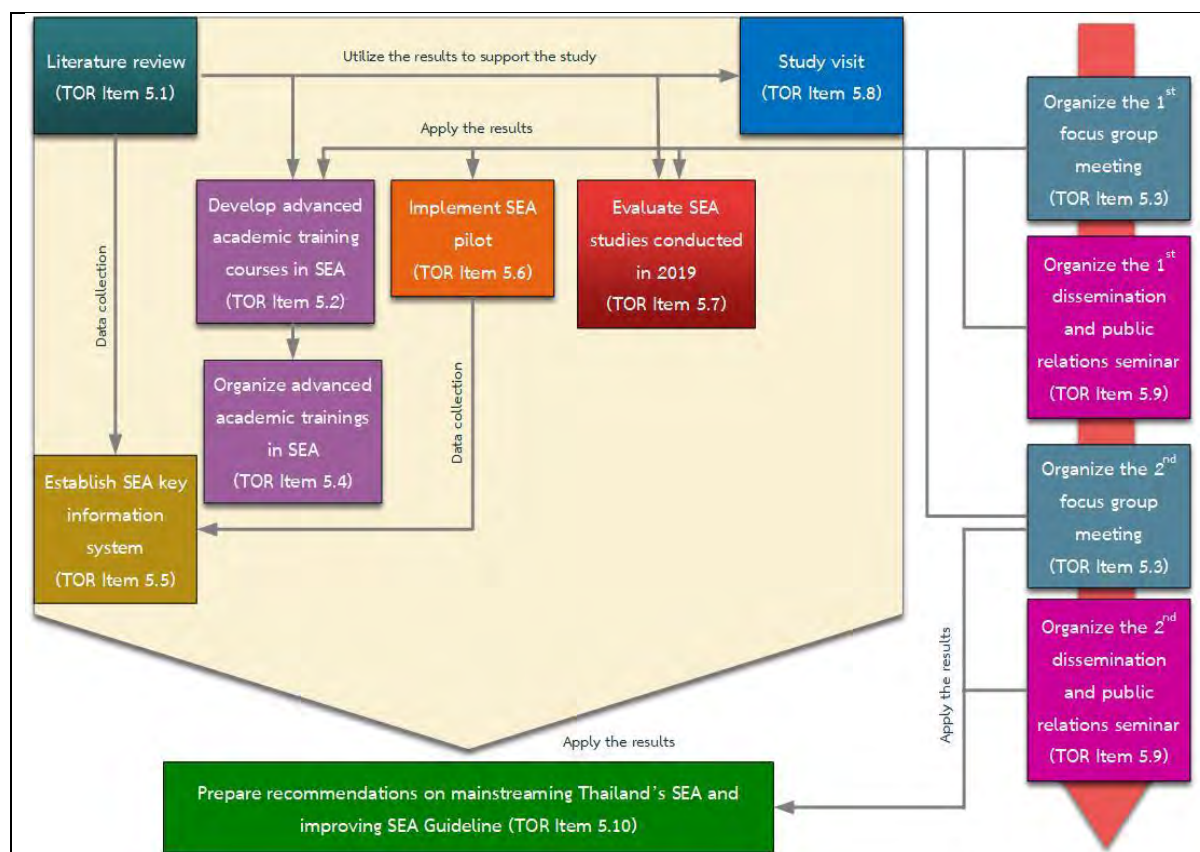

Figure 2-1 **Project Implementation Conceptual Framework**

3.   Project Performance

The results of each project activity can be summarized as shown below.

3.1   Organization of Advanced Academic Training in SEA

1)   Objective

To improve the proficiency of executives and personnel of the agencies involved in policy planning at various levels, including develop qualified academic personnel in SEA to carry out the assessment accurately and appropriately, and apply it in the planning process effectively.

2)   Methods

Developing advanced academic training courses in SEA: The training courses were revised from the past training courses in 2019, which were used to build basic knowledge and understanding of SEA with the target groups nationwide. The curriculum was further developed to including more technical and academic content, focusing on results that can be effectively applied to the planning process, for planning agencies to set policies and directions in driving SEA. The main target groups are mid-level to high-level executives of these agencies. In addition, the two focus group meetings were held to brainstorm ideas, namely "The Preparation of Advanced Academic Training Courses in SEA" (conducted on 22nd September 2020) and "The Evaluation of Academic Training in SEA nationwide in 2019" (conducted on 24th September 2020). The discussion outcomes were used to support the development of the curriculum as well. The curriculum is divided into 2 levels, according to the target group: (1) advanced academic training course in SEA for mid-level executives; and (2) advanced academic training course in SEA for high-level executives.

Organizing advanced academic training course in SEA for mid-level executives: The target group is the mid-level executives of the agencies who have roles and responsibilities in the preparation of plans at different levels. The training courses were conducted twice, spanning 5 days each time, in the form of training with real practice through the case studies (onsite).

Organizing advanced academic training course in SEA for high-level executives: The target group is high-level executives with decision-making authority in the agencies who have roles and responsibilities in the preparation of plans at different levels.

The training course was conducted once, spanning 4 days, in the form of a discussion group to exchange knowledge and share experiences among participants as well as national and international experts, through electronic media (online).

3) Outcomes

(1) Advanced Academic Training in SEA for Mid-level Executives

(1.1) Summary of the training results

The advanced academic training in SEA for mid-level executives was organized twice. The first training session was conducted during 26th – 30th October 2020, with a total of 41 participants (9 participants participated in the past training conducted in 2019). The second training session was conducted between 16th – 18th and 22nd – 23rd March 2021, with a total of 54 participants (11 participants participated in the past training conducted in 2019). The training event is illustrated in **Figure 3-1**.

The training results showed that the trainees' knowledge and understanding on every topic of the curriculum increased by over 90%. The lessons learnt from the training include using the variety of SEA tools, techniques, and methods demonstrated by the trainers. The steps in teaching were summarized to be used to improve the future training.

(1.2) Key findings

From the provision of advanced academic training in SEA for mid-level executives, the project found that the guidelines in conducting SEA in each context (i.e. the types of plan) are different. Even though this training adhered to the operating principle following the SEA Guideline (in the main steps), the different context of the case study in each group resulted in different sub-steps for the operation. Although there are different considerations in applying approaches and techniques to prepare the Policy, Plan, Programme (PPP), SEA can still be carried out and integrated into the planning process. This demonstrated the flexibility of the techniques and approaches used in conducting SEA at each step, such that they can be adapted as appropriate, depending on the context of the study.

(2)　Advanced Academic Training in SEA for High-level Executives

(2.1)　Summary of the training results

The advanced academic training in SEA for high-level executives was conducted for 4 days, between 14th – 16th and 18th June 2021, with a total of 18 participants, consisting of high-level executives, including the head of government agencies, Director-General, Deputy Director-General, Division Directors, and senior experts from the planning agencies (**Figure 3-1**). The training provided an opportunity for the high-level executives to express their views on SEA by learning together. The training content awareness the importance of SEA and focused on the collaboration in driving Thailand's SEA. The top-level executives of each agency gave a speech to present their organization's vision in implemental SEA. The analysis and recommendations on the SEA movement were also provided. Moreover, lessons learnt from the dialogue and presentation by senior international experts have been included as recommendations to further improve the SEA Guideline.

(2.2)　Key findings

The key findings from the SEA training for high-level executives were found through the speech given by the top-level executives of each agency, which demonstrated the respective agencies vision in considering SEA for implementation. The speech highlighted the advantages and disadvantages of SEA implementation, which reinforced the importance in supporting the participation of stakeholders by preparing a plans for SEA as well as encouraging collaborative learning among SEA implementers, planners, and relevant stakeholders, in order to consider the benefits and create the goals for development together. It would also help to facilitate integration among different sectors and agencies to enable mutual operations, which will be a new direction in the preparation of the country's development plan. However, to do so, it is necessary to build a common understanding and ensure clarity on the SEA application as well as the types and levels of the plans that are required to conduct SEA. It is also essential to provide the right knowledge on SEA and influence the vision of the executives in various agencies to drive the effective implementation. Moreover, the high-level executives also identified the major obstacles that would affect in driving SEA, such as budget constraints in supporting SEA, SEA personnel and experts, as well as Thailand's SEA Guideline, which will be the main guideline for those who

are interested in conducting SEA for future implementation. These findings will lead to further improvement of the guidelines for driving Thailand's SEA.

The First Advanced Academic Training in SEA for Mid-level Executives

The Second Advanced Academic Training in SEA for Mid-level Executives

The Advanced Academic Training in SEA for High-level Executives
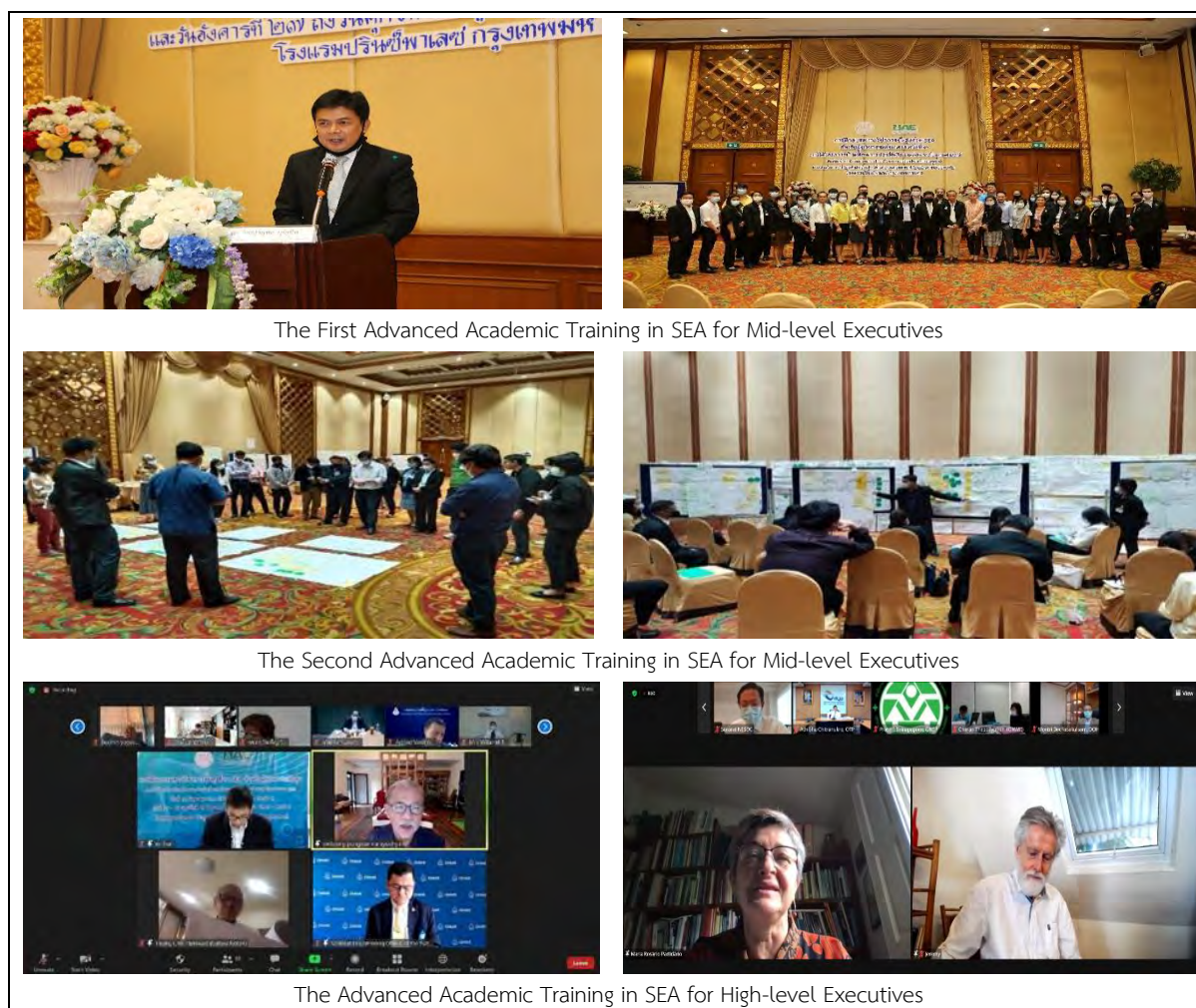
Figure 3-1　　Advanced Academic Training in SEA for Mid-level and High-level Executives

3.2　Establishment of the SEA Key Information System

1)　Objectives

To improve the knowledge of SEA and the key information system to conduct SEA in a systematic format, such that it is easy to access and search, and to use it as information for relevant agencies to conduct SEA.

2)　Methods

The project established the key information system for outreaching SEA to relevant sectors. By developing a website specific to SEA and linking it to the NESDC's database system, it is also used as supporting information by relevant agencies for SEA implementation. The process started with reviewing the relevant information system, before developing and

designing the SEA information system, and transferring the knowledge in creating the key information system, including basic banner and icon design, to relevant personnel to continually manage the system. The SEA key information system can be accessed from https://www.sea.nesdc.go.th or https://www.nesdc.go.th.

3) Outcomes

(1) SEA Information System Design

The project designed and implemented the rights designation system, to limit the rights to access the system, which are divided into two levels.

(1.1) General user level, for the accessing and retrieving the key information to support SEA implementation

Home screen for general users was designed to support access via browsers on desktop devices, notebooks, and mobile devices, in the form of Responsive Site (**Figure 3-2**).

(1.2) Administrator level, for the data management and key information retrieval to support SEA implementation

Home screen for the administrators was designed to support access via browsers on desktop devices, notebooks, and mobile devices, in the form of Responsive Site, which sets the rights to access for the administrators (**Figure 3-2**).
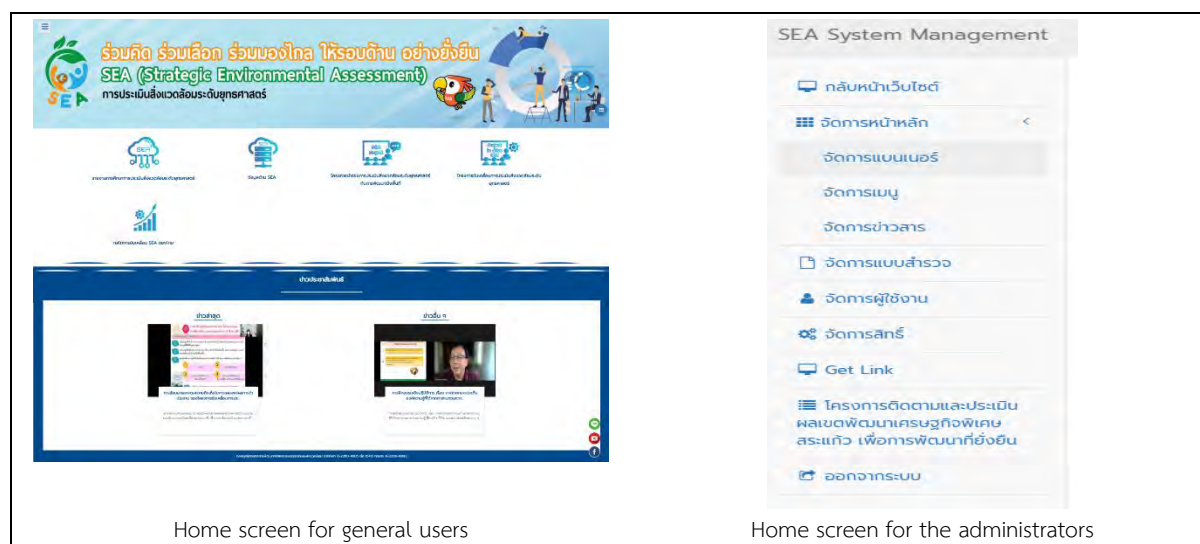

| Home screen for general users | Home screen for the administrators |

Figure 3-2   The Information System of the Project on Driving SEA

(2)　Knowledge Transfer in Establishing the Key Information System, including Basic Banner and Icon Design

(2.1)　Workshop on the Information Usage and Management in the SEA Information System, and the Data Management of "Sa Kaeo Special Economic Zone Monitoring and Evaluation for Sustainable Development Project"

<u>Summary of the workshop results</u>

The workshop was conducted on 24th February 2021. The participants included the NESDC officers responsible for information system administration and information technology as well as other relevant NESDC officers, totalling 18 participants. The results from pre- and post-workshop tests showed that the participants did not understand two main points: (1) the website addresses for users to access the SEA information system; and (2) the main menus of the webpage in the information system structure.

(2.2) Workshop on the Information Administration and Management of the SEA Information System Website, including Basic Banner and Icon Design, for Key Information Administrators

<u>Summary of the workshop results</u>

The workshop was conducted on 7th July 2021. The participants included the NESDC officers responsible for information system administration and information technology as well as other relevant NESDC officers, totalling 14 participants. According to the Satisfaction Questionnaire results, 66.7% of the participants were greatly satisfied with the overall training, while 33.3% were moderately satisfied. Also, 77.8% felt that the contents of the presentation were consistent with the objectives of the workshop and the same number were satisfied with the clarity of the information presented.

3.3　Implementation of "Sa Kaeo Special Economic Zone Monitoring and Evaluation for Sustainable Development Project"

1)　Objectives

-　To prepare a scoping report on the SEA implementation in Phase I for the development of Sa Kaeo SEZ, in order to identify a vision, strategic issues, sustainable development objectives and indicators, baseline data, initial development alternatives as well

as the participation and communication plan, for further consideration when conducting SEA in Phase II.

- - To apply the SEA Guideline (as January 2020), prepared by NESDC for spatial development.

- - To monitor and evaluate progress in the development of Sa Kaeo SEZ for recommendations to improve Sa Kaeo Provincial Development Plan in the next plan period.

2) **Methods**

The Sa Kaeo SEZ was selected as a learning demonstration area through "Sa Kaeo SEZ Monitoring and Evaluation for Sustainable Development Project" for the fiscal year 2020. The main objectives are to monitor and evaluate the progress and performance of the SEZ of Sa Kaeo province as well as establish the SEA process (with a focus on the scoping step) in the Sa Kaeo SEZ, in order to determine the direction of key future developments that would be suitable for the Sa Kaeo SEZ.

The study in this pilot project followed the SEA process, starting from reviewing and analysing the relevant plans and data, identifying spatial and temporal boundaries, reviewing causes and effects/ driving forces of the development, setting goals and strategic issues, establishing sustainable development objectives and indicators, assessing baseline data, determining initial development alternatives, developing the participation and communication plan, and producing the Scoping Report as the final output. The supporting activities under this pilot project included the focus group meetings with various stakeholders in Sa Kaeo province study area, consisting of data collection with relevant agencies during 7th – 9th October 2020, the public hearing workshop on 24th November 2020, and the online meeting for public opinion divided into 7 sessions during 14th – 20th July 2021. Every activity had NESDC officers participated to study and learn together with the project consultants, in conducting this scoping process.

3) **Outcomes**

The activities in the pilot project were successfully carried out, achieving the set objectives. The output is the Scoping Report, which identifies key development directions of the Sa Kaeo SEZ and offers initial development alternatives that will help to drive the

development to achieve its vision. The results obtained from this study consisted of the following:

Vision	The Sa Kaeo Special Economic Zone is a gateway to wealth, based on the sustainable natural and human resources.
Strategic issues	1. Value-added to the processed agriculture in order to attract the Foreign Direct Investment (FDI) 2. Adequate hygienic waste management system 3. Improvement of the education system and enhancement of skilled labour to support the development of the Sa Kaeo SEZ
Initial development alternatives	**Alternative 1**: SEZ development according to Business as Usual (BAU) **Alternative 2**: SEZ development in a Circular Economy **Alternative 3**: SEZ development under the BCG (Bioeconomy + Circular Economy + Green Economy) Model

Nevertheless, it is still necessary to review key findings such as the vision, strategic issues, and initial development alternatives, before further developing and evaluating the alternatives to determine the measures for the sustainability of the SEA process in the next phase of the project. This scoping process provided the opportunity for NESDC officers to participate in the study together with the project consultants, which led to the recommendations to enhance competency and the officers' knowledge as well.

3.4　Evaluation of the SEA Projects Implemented in 2019

1)　Objectives

To monitor and evaluate the SEA implementation process of various agencies carried out in 2019 as well as analyse problems and obstacles, in order to propose the assessment results and guidelines that can benefit to the development of Thailand's SEA system.

2)　Methods

This SEA study examines the quality and effectiveness of SEA implementation, particularly the procedures of the SEA process, according to the SEA Guideline (as January 2020). The study included the evaluation of five SEA projects conducted

by the planning agencies in 2019, consisting of: (1) SEA of land use, by Office of Natural Resources and Environmental Policy and Planning (ONEP); (2) SEA of the Chi River Basin; (3) SEA of the Sakae Krang River Basin; (4) SEA of the Prachinburi-Bang Pakong River Basin Water Budget Development Project; and (5) SEA of the Peninsula – East Basin, by Office of the National Water Resources (ONWR) The qualitative assessment method, based on the CIPP (Context-Input-Process-Product) Model, according to the OECD (Organization for Economic Co-operation and Development) Evaluation Guideline, was applied in this study. Details are shown in **Figure 3-3**.
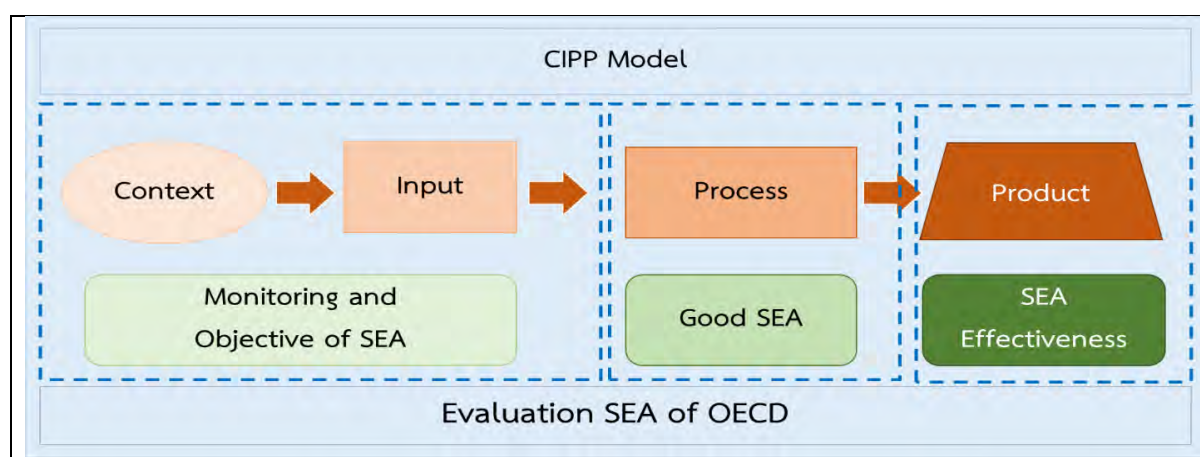
Source: Consultant (2021)

Figure 3-3　　Tools for Monitoring and Evaluating SEA Projects

In addition to the aforementioned CIPP model framework, the project gathered data from reviewing and analysing various reports of the five projects, along with the primary data collection. In-depth interviews were conducted with the respective agencies' personnel as well as those involved in the SEA implementation of all five projects. The results obtained were used to support an evaluation analysis, according to the developed conceptual framework. After collecting information on the various aspects of the SEA projects, the project adopted the Data Analysis Framework technique for its suitability in studying social science-related fields, public policy as well as applied policy research to achieve the most complete and comprehensive results.

3) Outcomes

With the conceptual framework used in the evaluation, the project used a qualitative assessment method that focused on the phenomenon, rather than the quantitative number. Data Analysis Framework was used as the main technique in the analysis, under the

CIPP assessment framework, together with the adoption of the OECD Evaluation Guideline. The evaluation results are summarized as shown below.

(1) Context

The project considered the context of the SEA studies in two main factors: (1) the legal authority to formulate and mainstream plans into actions; and (2) the determination of objectives and initiatives in SEA implementation. It was concluded that:

- both ONWR and ONEP have the legal authority for planning and mainstreaming plans into actions; and

- all five SEA projects have set objectives at the process and productivity levels, which were inconsistent with the principles of the SEA objectives that focus on identifying objectives at the strategic level (in terms of product and impact) or for a desirable long-term future.

(2) Input

The project evaluated the coverage of four main groups of experts who were at the core of the SEA process.

(2.1) The ONWR's SEA Projects

- Expert Group on SEA Process: All four projects under the responsibility of ONWR had an "Environmental Specialist" who had deep expertise and experience in the EIA (Environmental Impact Assessment) implementation but lacked understanding in the SEA implementation process, to be considered as "SEA Expert". This resulted to the SEA implementation being done in a similar manner as conducting EIA. Therefore, the project should procure personnel with the expertise and experience in SEA implementation to supervise the project, in order to differentiate between SEA and EIA implementation processes.

- Expert Group on Planning Process: All four projects lacked the experts in the planning process who could deeply examine the plan for execution, rather than merely analyse the compatibility between the direction of the river basin development and various relevant plans at a higher level.

- Expert Group on Participatory Process: Each project assigned only one Participation Expert, which may not be sufficient to promote the quality of participatory process for implementing SEA in a good quality.

- Specialist Team in Specific Fields/ Sectors: All four projects had many specialists in specific fields/ sectors, which was similar to the structure of experts in EIA and the Feasibility Study. Although the experts involved in EIA and the Feasibility Study have strengths in analysing the statistical or empirical data, it may be insufficient for analysing data that has the characteristics of trend prediction, including the data obtained from the SEA participation that reflected the mechanism of SEA and its plan preparation, which requires a highly dynamic and integrative analysis and interpretation.

(2.2) The ONEP's SEA Project

- Expert Group on SEA Process: SEA of Land Use, owned by ONEP, had two SEA Experts. However, the study found that they had limitations in their expertise on the SEA process as well as understanding of the planning process. Consequently, the project needed to recruit the specialists with solid experience and high accuracy in the SEA process at a later stage, which became a key factor that enabled this project to be completed in accordance with the ONEP's objectives.

- Expert Group on Planning Process: This project did not assign a Planning Specialist, which was a weakness in the project, especially for determining the methods and process of SEA implementation, whether to conduct SEA under a strategy-based or EIA-based model, and the level of development alternative, based on the output from SEA.

- Expert Group on Participatory Process: The problems with the Participation Expert Team involved in the ONEP's SEA project were similar to those in the SEA projects, owned by ONWR.

- Specialist Team in Specific Fields/ Sectors: This project had specialists in specific fields/ sectors in place to cover the dimensions related to land use, without identifying the experts with deep technical expertise on SEA.

(3) Process

(3.1) Presentation of the information and data quality: The assessment results concluded that all five projects had much to be improved, as they still

presented information that lacked robustness, in terms of sufficiency as well as quality in summarizing the analysis and determining the assessment processes of SEA implementation.

(3.2) **Collaboration and participation of stakeholders**: The assessment results concluded that all five projects could be improved qualitatively. While all four projects under the ONWR had a SEA Implementation Working Group and Planning Team that integrated well together, ONEP's SEA Implementation Working Group and Planning Team did not integrate at an acceptable level, according to the SEA standards. In the aspect of participation, all five projects should be improved qualitatively, in terms of stakeholder analysis, communication, and interpretation. Moreover, every project should encourage and support civil society and vulnerable groups to participate in the consultation process at an acceptable level.

(3.3) **The implementation of SEA in accordance with the relevant academic standards**: Overall, the projects should be improved, in terms of setting the objectives to align with the goals of SEA implementation; analysing the link between key issues and related policies or plans; developing the appropriate alternatives; identifying a clear strategy in supporting the evaluation of alternatives; and choosing an appropriate alternative appraisal method, throughout preparing an evaluation plan.

(4)   **Product**

The objective of the product assessment is to examine the effectiveness of SEA. The key issue that needs to be addressed most urgently is the utilization of SEA in the planning process. It was found that none of the five projects utilized the findings from SEA in their planning processes, which was inconsistent with the sustainability objectives of SEA. The project design was the compilation of plans from the agencies that owned the mission. However, all five projects were unable to assess the impacts from their development plans.

3.5   Improvement of the SEA Guideline

1)   Objectives

-    To improve the content of the SEA Guideline for it to be used as a general guideline that can be applied to all sectors. The elements of content are made easier to understand. The details of some sub-steps are reduced to provide more flexible in the implementation.

- To improve the clarity of content on issues that are not detailed enough, in order to preempt the problems and obstacles in the implementation procedures and methods, especially from the experiences of implementing the SEA Guideline (as January 2020) by various agencies and answering the questions about its effective implementation.

- To establish an understanding on the links between the procedures and operational methods in preparing development plans and implementing SEA to support and deliver the coherent outcomes.

2) Methods

This National SEA Guideline was updated from the January 2020 Edition, which was disseminated and implemented by interested agencies, but was found to require further clarification. Therefore, the project considered improving the clarity of the SEA Guideline. The public hearing were conducted for relevant sectors to provide their opinions and make suggestions to improve the SEA Guideline. The activities included seminars and brainstorming sessions, such as focus group meetings to brainstorm for ideas and exchange the opinions during the advanced academic trainings in SEA. In addition, Key findings from the literature review, the assessment of SEA projects implemented in 2019, knowledge and information obtained from the review of the SEA implementation by the Socialist Republic of Vietnam, integrated with comments and suggestions received, were used to synthesize the key issues and that lead to the revision of the SEA Guideline for the 2021 Edition.

3) Outcomes

All key findings, comments, and suggestions obtained from conducting the project activities were synthesized and that led to the improvement of the SEA Guideline. The key improvements are summarized as follows:

- adjusted to be a general guideline that can be applied to all sectors. The details section may be further developed into the guideline for specific areas or sectors in the future;

- clarified the Definitions, Glossary, and Keywords in the SEA Guideline;

- made the content elements be easier to understand, and more flexible to be used efficiently;

- improved the SEA implementation process by linking to the planning process to make it clearer;

- minimized the details, excessive content, and complex sub-steps for easier implementation;

- further elaborated the certain procedural steps that may be confusing and cannot be easy to comprehend; and

- expanded the details on the participatory process.

In summary, the structure and improvements to the SEA Guideline are detailed in **Table 3-1**

Table 3-1   Improvements to the SEA Guideline Structure

| Structure	Improvement Details
Chapter 1 Introduction	
1.1 Definition of SEA	● Retained its former name, "Strategic Environmental Assessment". ● Redefined SEA to be a "systematic assessment process to support the decision-making process in planning, leading to sustainable development, with a focus on participation and integration among economic, social, and environmental aspects."
1.2 Development of Thailand's SEA System and Guideline	Added "Development of Thailand's SEA System" by emphasizing on the development that occurred during 2019 - 2021, which was a period of intensely driven SEA.
1.3 Objectives	No change to the content.
1.4 Target Users	No change to the content.
1.5 Structure of the Guideline	Improved in accordance with the new structure.
1.6 Suggestions in Using the Guideline	Improved in accordance with the new structure.
Chapter 2 Basic Understanding	
2.1 Importance of SEA to Sustainable Development	Added a new topic to highlight the purpose of SEA in connection with sustainable development (SEA for Sustainable Development Goals: SDGs).
2.2 Characteristics and Types of SEA	No change to the content.
2.3 Good SEA Principles for Planning	No change to the content.

Table 3-1   Improvements to the SEA Guideline Structure (Continue)

Structure	Improvement Details
2.4 Benefits of the SEA Process to Planning	Updated the topic to be "Benefits of the SEA Process to Planning" to enable the users to understand how SEA can support effective planning and achieve the sustainable development.
2.5 Types of Plans using the SEA Process	No change to the content.
2.6 Concepts and Types of SEA in Planning	Improved the supporting description in the reinforcement of different formats to support a shift in concept from a strategy-based SEA model to an impact-based SEA model.
2.7 Chapter Summary	Updated the main summary of the chapter to reflect the revised content, which highlighted the importance of implementing SEA in planning and the importance of participatory-based planning, to truly respond to the stakeholders. The chapter also focuses on the understanding that the SEA process does not separate from the planning process. SEA is used as a tool to support comprehensive and discreet planning, and the results of the SEA process can be used to further develop the appropriate plan.
Chapter 3 SEA Procedure and Process with Planning	
3.1 SEA Process and Planning 1) Screening 2) Determining the Direction and Goals of the Plan 3) Defining the Strategy of the Plan 4) Establishing Guidelines and Measures for the Plan Implementation 5) SEA Reporting 6) Defining the Plan that Integrated with SEA	This chapter contains the most significant improvement in both context and structure. The chapter has been revised, in terms of the explanation style of certain technical content. In particular, the emphasis is on explaining the details of the SEA process and the planning process, in order to understand that they are not separate processes. There is a link to the results of each process and with each other. SEA implementation can be integrated within the original stage of the planning process as appropriate and linked to the outcomes or the key elements of the planning process, including: (1) the direction and goals of the plan; (2) the strategy of the plan; and (3) the guidelines and measures for the implementation of the plan.

Table 3-1   Improvements to the SEA Guideline Structure (Continue)

Structure	Improvement Details
7) Monitoring and Evaluating the Plan and SEA	This chapter describes the nature of the relationships between the main components of the plan and the SEA process as shown in **Figure 3-4**.
3.2 Stakeholders Participation	
3.3 Chapter Summary	
Chapter 4 SEA Participatory Process and Plan Preparation	

4.1 Stakeholder Analysis of the Plan and SEA
 	
   1) Objectives of Stakeholder Analysis
 	
   2) Determining Stakeholder Levels
 	
4.2 Participation and Communication Plan
	Separated the topic of participation into new chapter to emphasize its importance and integrated all the participatory-related issues, from stakeholder analysis to the preparation for the participation and communication plan. Specific content was also improved to make it easier to understand, such as the prioritization of stakeholders, preparation for the participation and communication plan, etc.

4.3 Participatory Techniques and Methods	Added new topics along with examples of popular participatory techniques. The advantages and precautions for each technique were also identified.
4.4 Good Participation Considerations	Updated the content, in particular on the issue of choosing appropriate and effective participatory techniques. New topic on "Choosing an Effective Media" was also added.
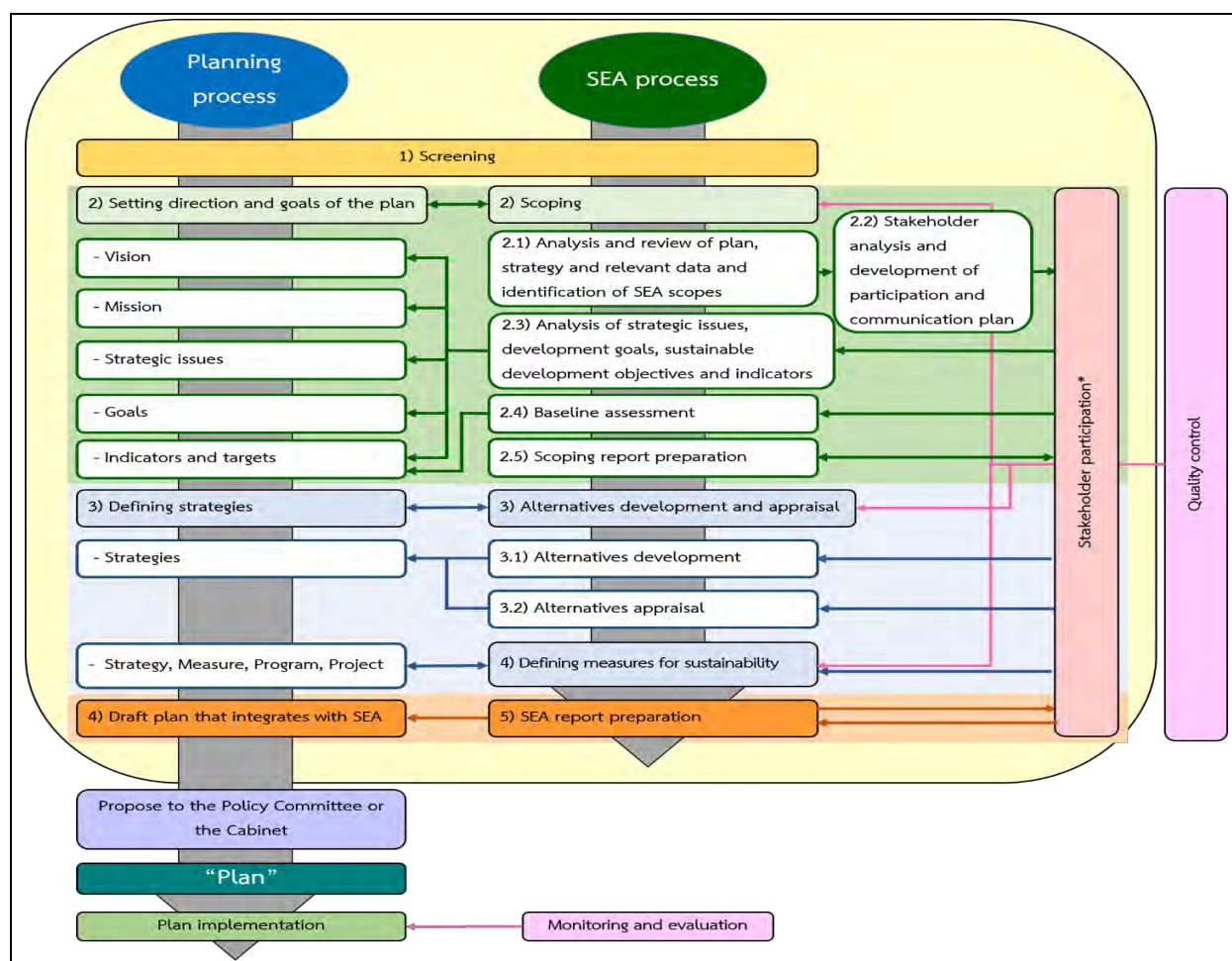
* Stakeholder participation is a process that should be integrated throughout the SEA process.

Figure 3-4　　Planning Process and SEA Process

3.6　Development of the Mechanisms for Driving Thailand's SEA

1)　Objective

To successfully develop the progressive mechanisms for driving Thailand's SEA, meeting the highest standard of driving SEA for sustainable development in the future.

2)　Methods

Direction for the development of mechanisms for driving Thailand's SEA was drawn from the key findings of activities carried out over the project period. The activities included the literature review, the evaluation of SEA projects conducted in 2019, the knowledge review of the SEA implementation of the Socialist Republic of Vietnam, the findings from the exchange of opinions during the SEA advanced academic training sessions as well as the opinions and suggestions gained from the project's supporting activities, such as seminars

and the first and second focus group discussions to brainstorm on the opinions. Key findings obtained from all the activities were considered, together with the implementation results of driving SEA by NESDC during 2018 - 2020, to further improve and develop Thailand's SEA driving mechanisms, both in policy-driven and practicality-driven.

3) Outcomes

The analysis of the direction for the development of SEA driving mechanisms, including the findings and the results of the various analyses, highlighted that the direction for driving SEA in the future can be divided into two ways: policy-driven and practicality-driven. The policy-driven mechanism is largely an organizational issue that needs to be addressed urgently. On the other hand, the practicality-driven mechanism consists of the practical issues in SEA knowledge, availability of personnel skilled in SEA, effectiveness of SEA implementation, and budgeting. It requires agencies and related parties to support in driving SEA together to encourage the implementation of SEA with the quality, accuracy, and practicality. In summary, the key driving mechanisms are listed as shown below.

(1) Organization

The organizational-driven approach has the following sub-components.

Main agency: NESDC should be the main agency in driving SEA due to its readiness in context, mission, organizational structure, and appropriate organization hierarchy.

Government organization structure: The constraints on government organization structure should be improved by upscaling the highest organizational structure in driving to become a national committee and designating sub-organizations under the national committee as the consultation body. The preliminary structure should have a sub-committee on academics and participation, and a sub-committee on monitoring and evaluation.

Legislation: The legislation is necessary and will greatly help to clarify the mechanisms of driving. It should be added into the government regulations, such as the Regulation of Office of the Prime Minister on the Strategic Environmental Assessment, B.E. …. to be enforced in an early stage.

Supporting organizations: The supporting organizations are crucial in driving SEA in Thailand, specifically: (1) the planning agency is that should accelerate

cooperation and build alliances among agencies by deepening understanding and developing the communication channels that can be easily and promptly reached for flexibility in coordination and discussion; (2) the educational institutions as important academic alliances that can help to develop knowledge on SEA, together with the institutions, especially at the higher education level, as well as design a course on SEA to be included as a higher education learning course; (3) the public sector that can encourage cooperation among various groups of people or organizations in each area, in order to expand awareness on the objectives of SEA; and (4) the private sector that can enhance the impact and expedite the planning for development. Therefore, the private sector should be motivated to apply the principles and concepts of SEA by deepening their understanding and developing effective communication channels to achieve flexibility in coordination and discussion.

(2)   Knowledge

Knowledge-driven recommendations include the development and evaluation of the application of the outreached SEA Guideline, as well as the development of General Guideline and SEA Manuals that can be sectoral-based, area-based or issue-based SEA, depending on an urgency, in order to increase the quality of SEA application by being able to apply the knowledge appropriately. The recommendations also include the development of a modern SEA information system that compiles the knowledge into the central information system for all sectors to search for relevant information easily and accurately.

(3)   Personnel

The personnel-driven approach consists of the following sub-components.

Determination of the qualifications of SEA Expert: This can help the plan owners to select the suitable experts who can effectively support the implementation of SEA. The SEA Academic Sub-committee can assist in joint consideration and determination of appropriate qualifications.

Building the SEA trainers: Currently, there are limited of the SEA trainers. Therefore, the production of trainers should be accelerated as an important driving force. This can be done with the creation of specific training courses to develop leading SEA

trainers in Thailand. It is necessary for the courses to focus on all SEA-related issues, including the development of effective communication skills.

Building personnel in the planning agencies: The SEA knowledge and understanding of executives in the planning agencies should be deepened. Vision and perspective should be adjusted to understand the intention of applying SEA and link with the sustainable development objectives. The use of SEA should be agreed as a supporting tool to achieve the goals of sustainable development by all agencies. The executives of the relevant planning agencies should continue to build the knowledge and understanding on SEA to develop more personnel who will be the main driving force of SEA implementation in the future. Moreover, further studies are needed to discover gaps in the development of the training courses.

Expanding to the public and stakeholders: Knowledge building and understanding should be rapidly expanded to the public through a set of knowledge that can be easily understood, with key the points and the main principle of SEA implementation clearly communicated. This should begin with the creation and development of effective public relations materials and channels for the public and stakeholders to access for the information.

(4) SEA effectiveness

Increasing the effectiveness of SEA implementation is crucial as the recent implementation of SEA in Thailand faced the problem of being ineffective to the plan and was not able to fully support the plan preparation. Therefore, SEA implementation should increase its effectiveness by preparing a plan that can be fully implemented. This can be done by: (1) recognizing the importance in the preparation of recommendations; (2) accelerating the determination of measures to solve the problem of not being able to apply SEA to the planning process; (3) placing the most emphasis on evaluating the utilization of SEA findings; (4) encouraging the planning agencies with the legal authority to prepare the SEA study; and (5) improving the system and SEA process so that it can be operated conveniently and quickly.

(5) Budget

Obstacles to driving SEA operations by the agency include budget constraints. It should be noted that the need for a budget proposal for the preparation of SEA is not the main mission of each agency. If the agencies are allocated an annual budget, they

may receive the budget for a limited timeframe and scope. Therefore, the key point is to have sufficient resources to support the SEA implementation properly and continuously for the required timeframe, which should be highlighted to establish an understanding among the executives of various planning agencies.

Table 3-2   Issues in Driving Thailand's SEA

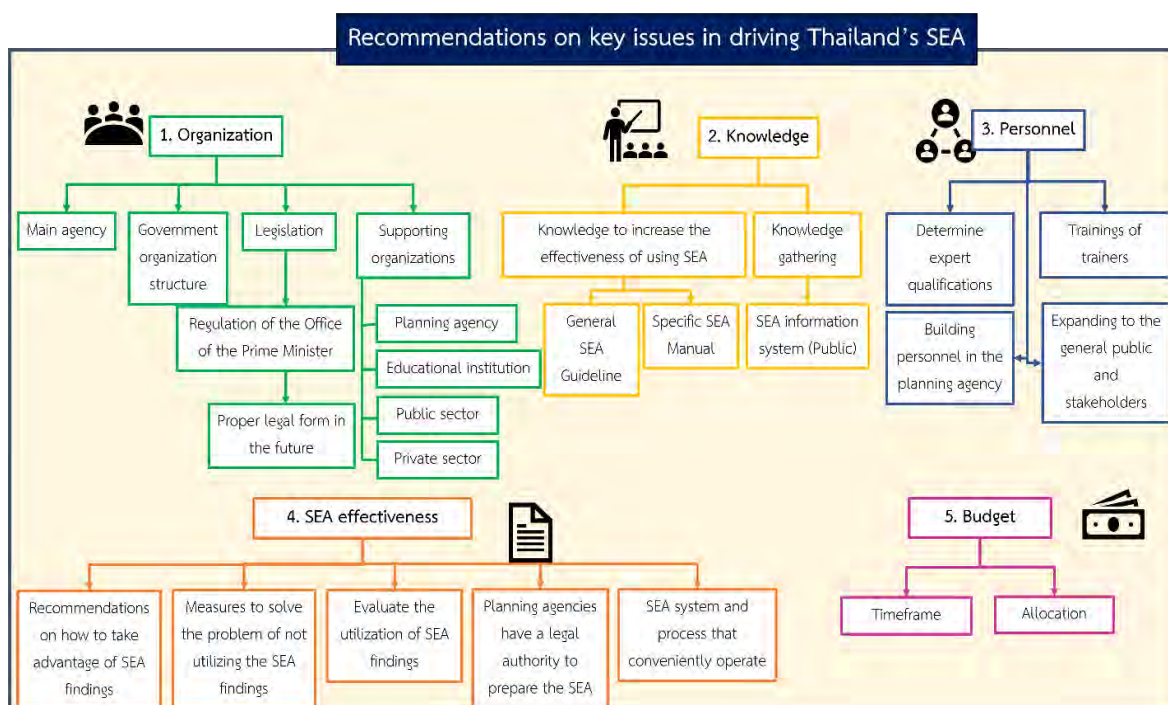| Key Issues in driving	Gaps in driving	Recommendations / Directions in driving	Agencies and Related Parties	
			Key	Supporting
1. Organization	The main organization responsible to drive Thailand's SEA has not yet been formally defined. The organizational structure in driving is limited and insufficient to drive the process promptly and efficiently. The supporting organizations have not had the opportunity to fully contribute. The mission of the organizations to collaborate in driving has not concretely defined.	● Designate NESDC to be the main agency for driving SEA. ● Upscale the highest organizational structure in driving SEA. ● Define sub-organizations under the national committee. ● Upscale supporting organizations for planning agencies, educational institutions, public sector, and private sector.	NESDC, SEA Sub-committee, and relevant sub-committees	Planning agencies
	There is no law to enforce the organizations to have the mission and responsibility in implementing SEA. The SEA implementation is just a good practice according to the policy, in accordance with the National Economic and Social Development Plan. The agencies are not expected to perform resource-supported practices without legal obligations. Various sectors, including stakeholders, are unable to get involved due to the lack of law enforcement.	Establish government regulations, such as the Regulation of Office of the Prime Minister on the Strategic Environmental Assessment, B.E. …. to be enforced in the early stage.	NESDC	

Table 3-2　　　Issues in Driving Thailand's SEA (cont.)

Key Issues in driving	Gaps in Driving	Recommendations / Directions in Driving	Agencies and Related Parties	
			Key	Supporting
2. Knowledge	The agencies are equipped with the basic knowledge of SEA, which should be sufficient to be applied. However, the application of SEA knowledge in practice still requires continuous improvement since the SEA knowledge is still relatively new, compared to the knowledge relating to the economy, society, and environment. Therefore, it is necessary to devise lessons and learning experiences for more effective application of the SEA knowledge.	● Develop the SEA Guideline and Manuals as tools to enhance knowledge. ● Establish the central SEA information system that collects key information about preparing and driving Thailand's SEA.	NESDC, educational institutions, academics	SEA consultants, planning agencies, and interested people
3. Personnel	While there are existing personnel who has contributed to the implementation and driving of SEA, such as SEA experts, facilitators, and the personnel of the planning agencies, they may not be adequate and their skills and knowledge on SEA may need to be further improved to meet the needs of the SEA process and its integration with the plan. There are not enough speakers and some of the experts do not fit in the roles of SEA experts as they lack extensive knowledge and experiences to cover all aspects of the sustainable development.	● Define the suitable qualifications of SEA experts. ● Escalate SEA trainers' potential. ● Build personnel in the planning agencies, both at the management level and as the personnel of the planning agencies. ● Expand knowledge and understanding of SEA to the public.	NESDC, planning agencies, and SEA consultants	Academic Sub-committee, under the SEA Development Committee, and stakeholders

Table 3-2   Issues in Driving Thailand's SEA (cont.)

Key Issues in driving	Gaps in Driving	Recommendations / Directions in Driving	Agencies and Related Parties	
			Key	Supporting
4. SEA effectiveness	The implementation of SEA by the planning agencies still have limitations, especially in the use of the results in the preparation of effective plans, which are inconsistent with the resources deployed.	● Make recommendations on how to take advantage of SEA findings. ● Devise measures to solve the problem of ineffectively utilizing the SEA in the planning process. ● Evaluate the utilization of SEA findings. ● Encourage legitimate authorities to implement SEA with their plans. ● Improve the system and process of the SEA implementation to operate conveniently and quickly.	NESDC and the planning agencies	Monitoring and Evaluation Sub-committee under the SEA Development Committee
5. Budget	As organizations and laws are not formally driven by the missions of different agencies and sectors, budget allocation, including the educational and personnel costs, has been limited. It is undesirable for the SEA study, which requires consistent and continuous long-term planning for many consecutive years.	Build an understanding among executives of various planning agencies to realize the importance of SEA and continuously provide the appropriate supporting resources for SEA implementation over the required timeframe.	Planning agencies	Budget Bureau

Source: Consultant (2021)

Figure 3-5　　　Recommendations on key issues in driving Thailand's SEA

4.　　Conclusion and Recommendations

4.1　　Conclusion

The summary of the implementation of each activity under this project can fully address the project's objectives. The achievements include: (1) empowering experts, academics, and executives of the agencies involved in the plan preparation at different levels, through SEA academic training and seminars, to understand SEA correctly so it can be effectively used in the planning process and develop their technical competence to prepare SEA efficiently and appropriately; (2) developing of the knowledge and key information system for SEA implementation, through literature review, improvement of the SEA Guideline, and establishment of the pilot project on "Sa Kaeo Special Economic Zone Monitoring and Evaluation for Sustainable Development" to be used as reference for the SEA implementation by the relevant agencies; (3) monitoring and evaluating the implementation of SEA in the past, through the assessment of SEA projects carried out in 2019, to further develop Thailand's SEA system; and (4) improving of the national SEA Guideline, based on the summarized findings from all the activities under this project, which led to the development of the SEA driving mechanisms of Thailand. The recommendations proposed for the development of Thailand's

SEA driving mechanisms are crucial in helping to fill the gaps, set the direction for driving SEA, and push SEA as one of the tools that can support sustainable development in the future.

4.2   Driving SEA in the future

The recommendations on driving SEA in 5 aspects (i.e. Organization, Knowledge, Personnel, SEA effectiveness, and Budget) will address the current gaps in SEA implementation, but there are certain areas that will require further study, such as the operational methods in driving SEA, especially in the sectors that do not have research results or direct operating experiences in Thailand. The project highlighted the issues that need to be further studied, including:

- The duties and responsibilities of the Academic Sub-committee and the Monitoring and Evaluation Sub-committee;

- The qualifications of personnel to support the SEA education and process, such as SEA expert and Strategy, Monitoring and Evaluation expert;

- The knowledge for the implementation of sectoral-based and area-based SEA, to integrate with the plan preparation;

- knowledge on the SEA system development to support the sustainable development;

- The effective communication to drive stakeholder participation in the SEA process;

- The appropriate and simplified techniques and methods to be used in the SEA study process;

- knowledge transfer of lessons and experiences by speakers and experts to the executives of the planning agencies; and

- The development of SEA courses for public sector and educational institutions.

These issues will need to be further studied to close the gaps in driving SEA and encourage its practical application.