SEA OF THE RAYONG PROVINCIAL DEVELOPMENT PLAN - METHODOLOGY AND SCOPING REPORT

ADB TA-9204 THA: Strategic Environmental Assessment of the Rayong Provincial Development Plan and Revision of the Draft Thai SEA Guidelines

September 2019

SEA of the Rayong Provincial Development Plan
Methodology and Scoping Report

This is one of four linked reports in the SEA of the Rayong Province Development Plan set:

- **Methodology and scoping report**
- Baseline assessment report
- Sustainability analysis (impact assessment) report
- Sustainable development pathway report

DISCLAIMER

This document was prepared for Thailand's National Economic and Social Development Council (NESDC), the Rayong Provincial Governor's Office and the Asian Development Bank (ADB) by an ICEM team engaged to undertake the technical assistance project TA 9204-THA Phase 2: *Strategic Environmental Assessment (SEA) of Rayong Provincial Development Plan and Revision of the Draft SEA Guidelines*. The views, conclusions and recommendations in the document are not to be taken to represent the views of NESDC and ADB.

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ABBREVIATIONS

3Rs	Reduce, Reuse, Recycle
ADB	Asian Development Bank
BAU	Business as usual
CDS	National Committee for Sustainable Development
CSOs	Civil society organizations
DIW	Department of Industrial Works
DWR	Department of Water Resources
ECRB	Eastern Coast River Basins
EEC	Eastern Economic Corridor
EECO	Eastern Economic Corridor Office
IAIA	International Association of Impact Assessment
ICOR	Incremental capital-output ratio
MCRRDE	Marine and Coastal Resources Research and Development Center
MNRE	Ministry of Natural Resources and Environment
NESDC	National Economic and Social Development Council
ONWR	Office of National Water Resources
ONEP	Office of Natural Resources and Environmental Policy and Planning
PNRE	Provincial Office of Natural Resources and Environment
RIO	Regional Irrigation Office
RPDP	Rayong Provincial Development Plan
RTG	Royal Thai Government
SD	Sustainable development
SDF	Sustainable development framework
SEA	Strategic Environmental Assessment
SEP	Stakeholder engagement plan

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1. INTRODUCTION

1.1. Background

The National Economic and Social Development Council (NESDC), the Office of Natural Resources and Environmental Policy and Planning (ONEP) and the Rayong Governor's Office initiated this pilot Strategic Environmental Assessment (SEA) of the Rayong Provincial Development Plan (RPDP). The aim is to demonstrate best practice SEA and to test the draft National SEA Guidelines. The SEA process and lessons from its implementation are informing completion of the Guidelines for submission to Government for adoption. The Guidelines were drafted by a cross sector Sub-Committee of the National Committee for Sustainable Development with the NESDC providing the technical secretariat.

The SEA and guidelines revision was conducted with support from the Asian Development Bank (ADB) as a final component of the broader technical assistance - *TA9204-Strengthening Integrated Water Resources Management and Planning at River Basin Level in Thailand*. This component of the TA is overseen by a SEA Working Group made up of representatives from NESDC, ONEP and the Department of Water Resources along with several development planning specialists.

The pilot SEA was to be conducted over six months from February to July 2019 to demonstrate a rapid strategic assessment which remains relevant and applicable to immediate development decision making and planning challenges. The TA was extended to end November to allow for effective completion of the national SEA guidelines, the preparation of a set of supporting training materials and to ensure the SEA Working Group members had an opportunity to review, comment and finalise all the SEA reports for wide circulation and use as a best practice case study.

1.2. The pilot SEA

SEAs seek to enhance the ecological sustainability of development.[1] They are *an analytical and participatory process that aims to integrate environmental and social considerations into strategic planning and decision-making to enhance its sustainability.*

The pilot SEA addresses the challenges which come with rapid provincial, river basin and coastal development, including rapid industrial expansion and population growth, constraints in water resources, and concerns over environmental quality and pollution. The pilot SEA, an integrated strategic planning initiative covering all sectors, is especially timely given the upcoming revision to the Rayong Provincial Development Plan as part of the normal development planning cycle. Impending implementation of the Eastern Economic Corridor (EEC) plan, which is inextricably bound into Rayong's development, further highlights the importance, timeliness and relevance of this SEA as a tool to support and enhance provincial decision-making. The EEC Development Plan, approved by the Thai National Legislative Assembly in February 2018, aims to develop the economies of the three eastern provinces as an integrated economic and spatial region: Chachoengsao, Chonburi, and Rayong.

The pilot SEA seeks to enhance the ecological sustainability and social equity of the Rayong plan in its next iteration. Rayong Province is a focal point of the EEC socio-economic development plan, and has received significant attention in terms of policy development, investment and economic growth across a broad range of sectors, especially transport, energy, and industry. The Rayong spatial plan – a part

[1] It is important for society to recognize that all development and human activity is founded on healthy ecosystems – for that reason the Australian national SD strategy is titled "the National Strategy for Ecologically Sustainable Development" where Ecologically Sustainable Development is defined as "using, conserving and enhancing the community's resources so that ecological processes, on which life depends, are maintained, and the total quality of life, now and in the future, can be increased". http://www.environment.gov.au/about-us/esd/publications/national-esd-strategy-part1#WIESD

of the broader provincial development plan – is currently being revised to accommodate the EEC spatial plan.

The pilot SEA contributes to sustainability at various levels. It addresses development within the context of EEC plan and programs, planning processes of relevance to Rayong at national, provincial, and community levels, and key sector and thematic plans relating to, for example, infrastructure, industry, fisheries, and tourism in the Province.

In summary, the pilot SEA is focusing on the Rayong Provincial Development Plan because:

- The RPDP process and plan provides a platform of growing importance for integrated spatial planning and coordination of investment within Rayong
- The Government has identified Rayong as a priority economic region – it has focused particularly on investments for industrial and energy development in Rayong, as one of the three Eastern Economic Corridor provinces
- As a result of three decades of rapid economic, social and environment change, Rayong in need of a comprehensive sustainable development framework
- Many national line agencies and regional organisations are involved in shaping development in the province and the RPDP thereby opening the way for coordinated cross sector action
- The province has the greater part of two important river basins within its borders allowing for upstream – downstream analysis and consideration of inter-provincial planning
- The RPDP is soon to enter into a new planning phase in which the existing plan will be reviewed and revised ensuring the SEA is well timed to influence the new plan content
- The Rayong Governor and local administration are strongly supportive of the NESDC initiative to conduct the SEA – and to integrating its recommendations into the existing and new plan.
- There are 76 provinces in Thailand, and so there is significant potential for replication of SEA best practice as demonstrated in the Rayong SEA and the national SEA guidelines.

The purpose of this first report of the pilot SEA is to summarise the methodology and to document the activities and outputs of the scoping phase. The report is one of four volumes in the SEA package. They should be read together as an integrated set, with each volume providing a benchmark for the staged assessment and stakeholder involvement:

1. **Methodology and scoping report (this report)**
2. Baseline assessment report
3. Sustainability analysis (impact assessment) report
4. Sustainable development pathways report

2. THE SEA PROCESS AND PHASES

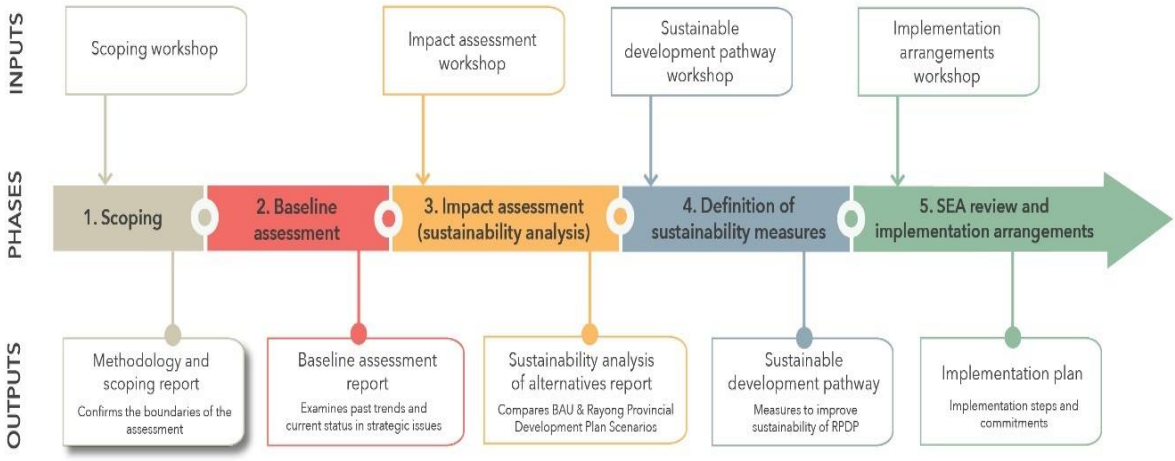
The main stages of the SEA process are summarized in this section. It is important to emphasise that there is no single best way to conduct an SEA. The exact process and tools applied need to be shaped by the SEA team, the SEA proponent and the stakeholders. SEA's draw from a wide range of tools and approaches and selections in their use will depend on the nature of the plan being assessed, the capacities of the SEA team and the resources and time available.

For clarity and simplicity it is valuable to identify a common set of SEA stages as detailed in the national SEA guidelines. Those stages were followed in this pilot SEA and are summarized here. SEA practitioners need to keep in mind that, ultimately the process followed and tools used will depend on their creative shaping of each SEA to suit the planning context and needs at hand.

As illustrated in Figure 1 and Figure 2, the stages followed in this pilot SEA process were:

1. Screening
2. Scoping
3. Baseline assessment
4. Sustainability analysis (impact assessment)
5. The sustainable development pathway

Figure 1: The SEA process and phases



2.1. Screening

Screening responds to the question: "is an SEA required?" It is the first step in which a decision is made to initiate an SEA. In Thailand that decision can be made by Cabinet, by the National Committee for Sustainable Development, or by a line Ministry with approval of Cabinet. All SEAs are conducted at the discretion of those high level institutions. The SEA process is designed to be proactive, with implementation happening before detailed projects are formulated. In contrast, Environmental impact assessments (EIAs) are used for assessment of individual projects later in the development planning process. This arrangement is prescribed through regulations under Thailand's *Enhancement and Conservation of the National Environmental Quality Act (1992).*

Currently, there is no regulatory provision for mandatory SEAs. That situation would change with the adoption of the National SEA Guidelines which includes a list the plans for which SEAs must be conducted. Even when not mandatory, the Guidelines encourage agencies to use their discretion in

initiating SEAs as part of all development planning within their jurisdiction. The aim is to have SEAs applied systematically across all arms and levels of government as an essential tool in strategic planning for ecological sustainability.

In the case of this pilot, a decision was made by NESDC to conduct an SEA as a demonstration and learning process in completing the National SEA Guidelines. It was also considered important in its own right to assist Rayong Province in creating an effective sustainability framework within its development plan which all arms of government and the private sector would need to respect. A TOR was prepared by NESDC to guide the pilot SEA and its role in shaping the national guidelines (Annex 1).

2.2. Scoping

Scoping responds to the question: "what are the substantive, spatial and temporal boundaries to the SEA?" A scoping process should establish the coverage of an SEA in terms of the main subjects to be considered, the geographic area, and the past and future time periods covered in the assessment. During the scoping phase reported on here stakeholders and the SEA team defined strategic themes as the main substantive focus for the SEA. Within each theme, stakeholders also identified strategic issues of special concern to development and environmental and social conditions in Rayong Province. This report describes the activities and outputs of the scoping stage of the SEA. Further information on scoping is provided in Chapter 3.

2.3. Baseline assessment

The baseline assessment responds to the question: "what are the past trends and current status of the strategic themes and issues of concern to the plan?" The baseline assessment is described in Volume 2 of the SEA.

The baseline assessment describes each strategic theme, and the strategic issues of focus through trend analysis. The trend analysis covers (i) historic trends and the drivers of change; (ii) current status; and (iii) expected future trends.

The baseline assessment phase was the most demanding in terms of time and resources. It established the foundation and evidence base of the SEA. It was concerned with the collection and analysis of data related to the strategic themes and their issues. The SEA team reviewed and gathered datasets and GIS layers held by international, national and provincial agencies and organizations.

Stakeholder consultations formed a critical part of the baseline assessment. Consultation meetings were held with key stakeholders in Rayong Province, including from the Governor's Office, Provincial Office of Natural Resources and Environmental Policy and Planning, Rayong Provincial Energy Authority, Rayong Royal Irrigation Department, East Water, Provincial Office of Industry, and the Provincial Office of Town and Country Planning. The Industrial Estate Authority of Thailand (IEAT) website provided critical data on industrial estates and their environmental performance. IEAT is responsible for regulating factories in the estates and developing new estates throughout the country. Stakeholder meetings, augmented with data analysis, were key to developing a detailed understanding and evidence base for the strategic issues most important to the stakeholders. Information and data gathered through these meetings was validated and extended through examination of government records and reports, as well as reports from external agencies, non-government and international organisations.

2.4. Sustainability analysis

This sustainability analysis or impact assessment stage responds to the question: "What impacts will the Rayong Provincial Development Plan and its alternatives have on sustainability?" The sustainability analysis is presented in Volume 3 of the SEA reports.

The sustainability analysis (impact assessment), built on the business as usual (BAU) scenario that was defined during the baseline assessment. The purpose of the sustainability analysis was to assess the sustainability of (i) the BAU development scenario, which does not include implementation of the current Rayong Provincial Development Plan; (ii) a development scenario that assumes the current Rayong Provincial Development Plan is fully implemented and (iii) a sustainable development trajectory (Figure 2).

The choice of those three scenarios allowed a comparative analysis of future development pathways at a strategic level. The performance of each was assessed against the SD objectives identified during the scoping phase. This comparative assessment highlighted the different outcomes expected for the environmental, social and economic elements of each scenario, including projections for how each would change over time given the different drivers of change. In the detailed assessments, the specific issues of concern associated with each scenario could be identified as the focus for mitigating actions – ie what specific actions are needed to improve sustainability performance. The process provided a strong and transparent evidence base and justification for the SD pathway of measures recommended in the fourth stage of the SEA.

The BAU assumes the continuation of the baseline conditions. A cumulative impacts assessment of the BAU scenario was conducted to evaluate the combined impact of all development within Rayong by all sectors implemented and managed according to the baseline level of environmental management planning and enforcement. In order to define the BAU scenario, the team used the baseline prior to the implementation of the current Rayong Provincial Development Plan, which went into effect in 2015. The BAU was projected forward assuming that environmental and other management systems remain as they were to 2015.

The second scenario - full implementation of the Rayong Provincial Development Plan was assessed for its impacts and influence on improving sustainability in the Province. The assessed impacts of the BAU and Rayong Provincial Development Plan scenarios were compared for their sustainability performance, gaps and problems – as well as positive trends against the framework of sustainable development objectives defined for each theme during the scoping phase. The sustainable development objectives are a set of one or more objectives for each theme that provide the necessary direction for enhanced sustainability within that theme. More detail on sustainable development objectives is provided in Chapter 3 of this report.

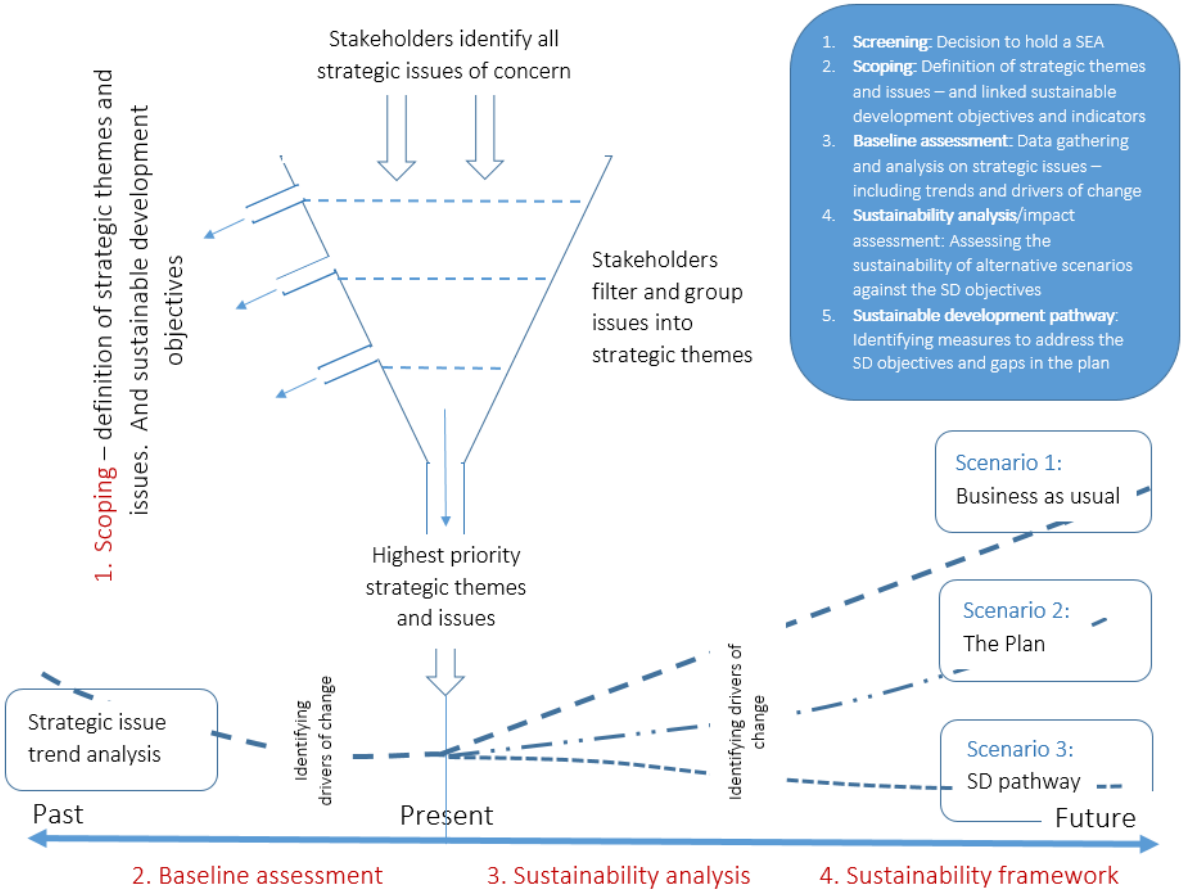
2.5. Sustainability pathways

The main question addressed at the Sustainable development pathway stage of the SEA is: “what measures under each strategic theme and issue will best meet the sustainable development objectives?” The sustainable development pathway report is the fourth and final volume of the pilot SEA set.

The sustainability pathway sets out the proposed sustainability measures to be integrated into the next iteration of the Rayong Provincial Development Plan. Uptake of the sustainability pathway will contribute to a revised Plan which enhances and maintains ecological processes and accounts for social well-being and equity in the future development of the province. It includes a framework of indicators for monitoring implementation of the sustainable pathway.

Figure 2 illustrates the main activities and elements of the SEA process and their linkages.

Figure 2: Activities and stages in the SEA process



3. THE SEA SCOPING PHASE

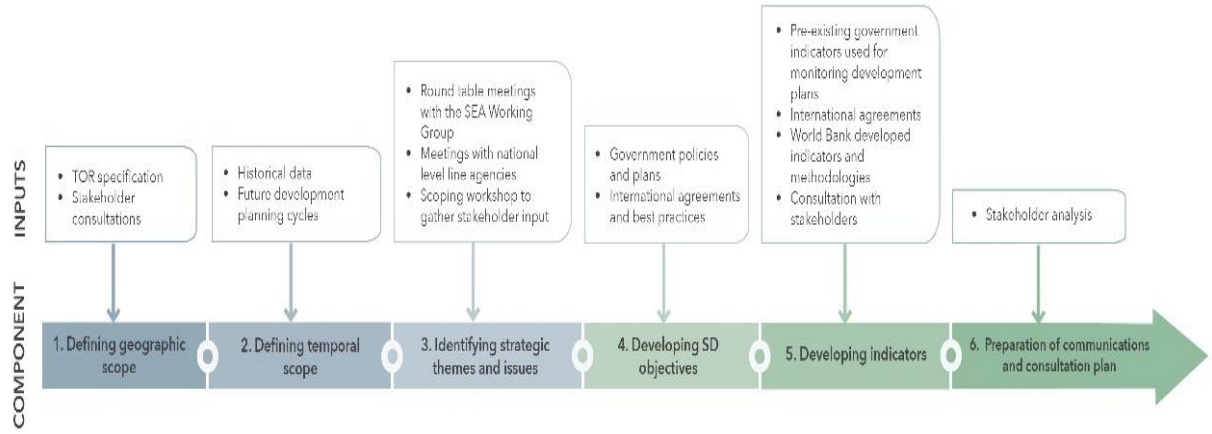
The pilot SEA scoping stage was an open and iterative process, with key stakeholders involved in (i) confirming the spatial and temporal boundaries of the SEA, (ii) defining the strategic themes, and (iii) under each theme, identifying key issues of strategic concern to sustainable development in Rayong. For each strategic theme, sustainable development objectives were defined drawing from existing Government policies and plans, international best practice as well as stakeholder input. In order to track progress towards the sustainability objectives indicators were defined as an initial framework for monitoring of the plan and uptake of SEA recommendations. The indicators help to describe and interpret in practical ways the strategic issues which are the focus for the SEA, and their development is described in more detail in section 3.5.

The scoping phase was also important for defining clearly how best to communicate and consult with stakeholders. With that aim in mind the SEA team undertook a stakeholder analysis and prepared a SEA consultation and communications plan, which appears as Annex 2.

The most important scoping activities occur at the commencement of the SEA. In part, the scope is defined by the SEA TOR which in this case was prepared by the NESDC (Annex 1). Much more detailed scoping took place with stakeholders during the initial weeks of the SEA. Also, the SEA substantive scope was sharpened and adjusted as the SEA proceeded and more information and views came to hand to help in improving the strategic focus of the assessment. That is a normal and desirable process. Scoping is not a one off exercise. The entire SEA is intended as a strategic process of focusing on priorities for sustainability, and for addressing the most important concerns of stakeholders.

Figure 3 shows the main components of the scoping phase, and how they are linked. The scoping phase processes and outputs are described in more detail in the sections to follow.

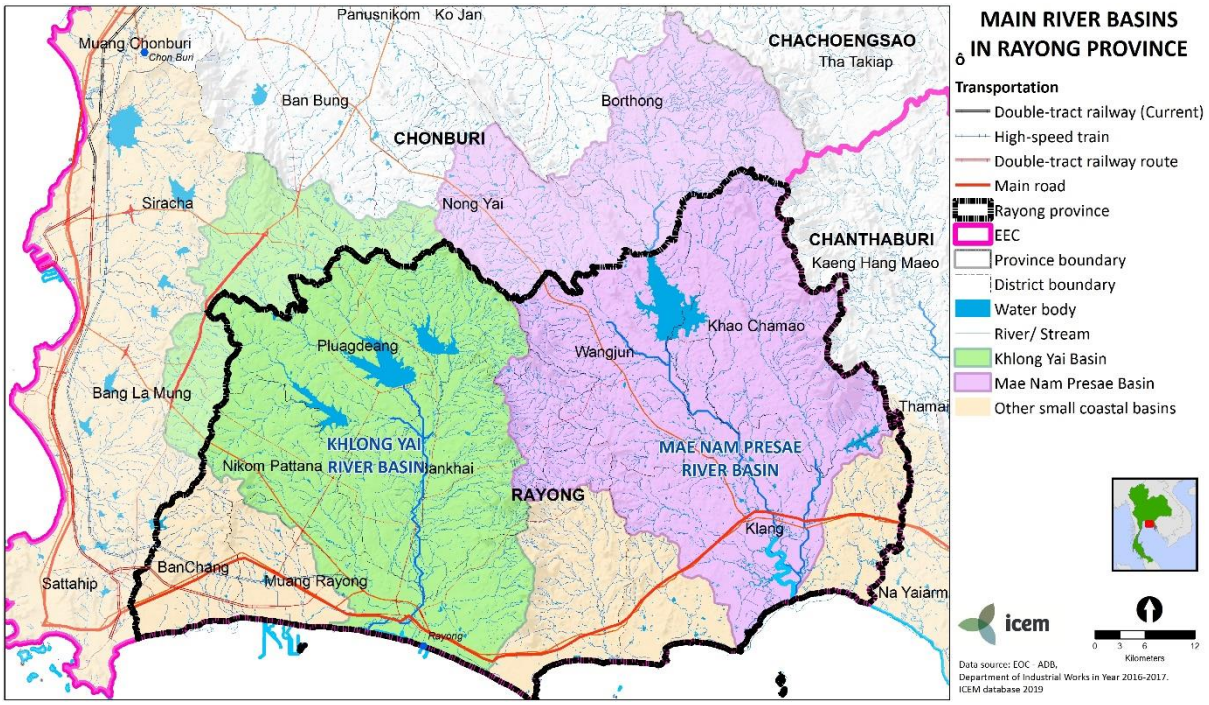
Figure 3: Main elements of the SEA scoping phase



3.1. Geographic scope

The TOR set out the geographic scope emphasising the Klong Yai River Basin within Rayong Province. The stakeholder consultations confirmed and added to that SEA focus by highlighting the socio-economic and environmental implications of existing and planned development within the province, the linked river basins – Klong Yai and Prasae, as well as the adjacent coastal and marine environment (Figure 3). The main geographic focus was defined as the Rayong Provincial boundary. It was recognized that the SEA would need to look beyond the provincial boundary when defining the key drivers of development and change within it. For example, national line agencies for power, industry and transport and regional bodies such as the EEC have a mandate to shape developments in the province.

Figure 4: The Geographic scope of the SEA



3.2. Temporal scope

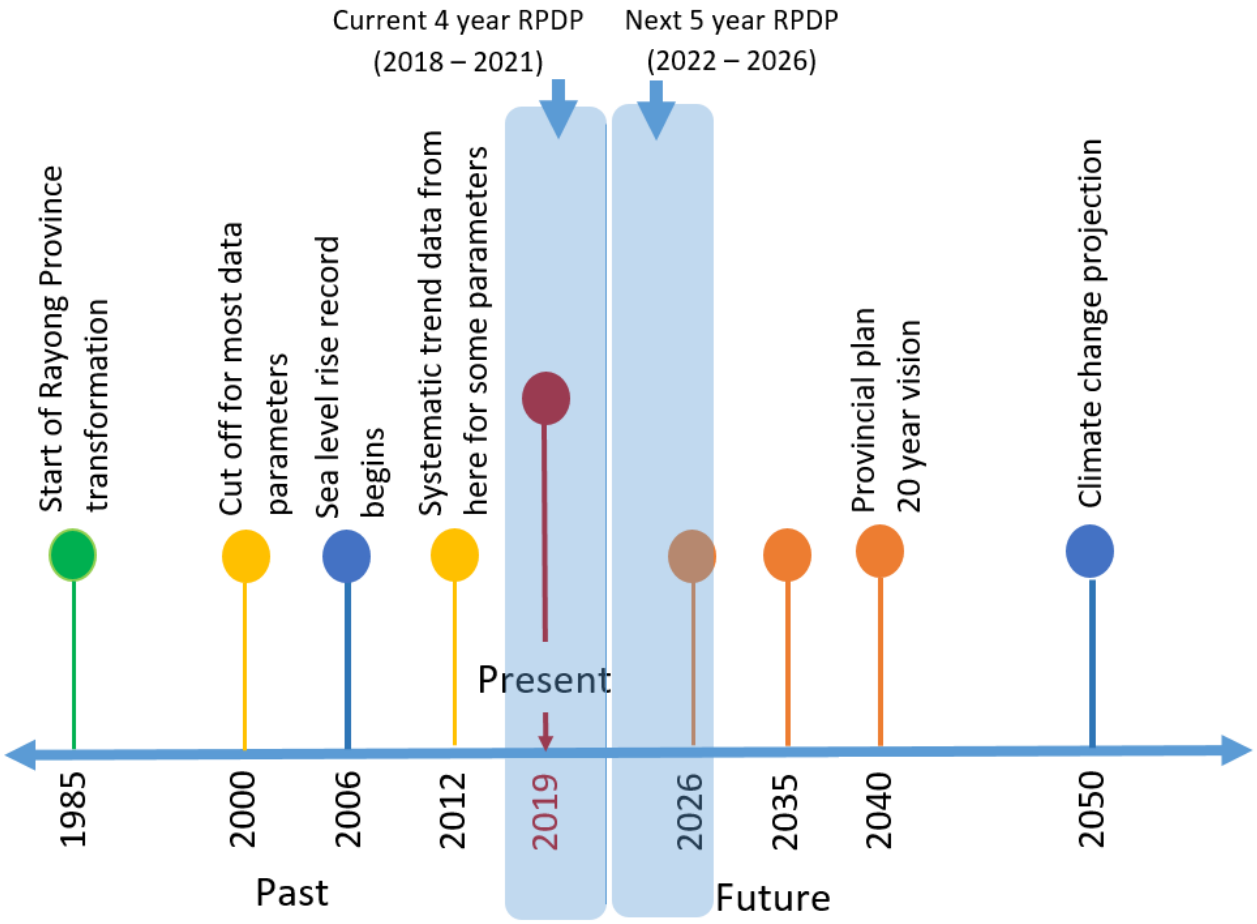
In terms of the temporal scope, the historical reach of the SEA was shaped by data availability with many fields only recently being treated systematically by responsible government agencies – for example registration and detailing of industrial developments, and environmental monitoring results and trends. To gain an historical perspective on development and social change the SEA examined up to 35 years of historical data (depending on data availability within each theme) to determine the trends and drivers related to, for example, industry, power and energy and urban expansion. For other sectors such as fisheries and tourism for example, data constraints confined analysis to shorter past time horizons.

The future perspective was shaped by the development planning cycle with horizons of 5, 10 and 20 years and from there to 2050 for climate change (Figure 4). Rayong's development planning cycle is driven by the national planning process. The four year duration of provincial plans has now been changed to five years to be in step with the five year cycle of national and sector planning. From 2022, the RPDP will have a five year life-cycle. The current four year plan is now being reviewed and a new plan will be prepared during 2020-2021. The RPDP formulation process is managed through a RPDP preparation working group with local government agency representation. It includes stakeholder consultation round tables and workshops and evaluation prior to approval and implementation.

Each RPDP is developed recognizing that provincial budgets themselves are insufficient to achieve the provincial development goals. Most of the planned expenditure in the RPDP relies on provincial authorities negotiating with national line agencies and other relevant bodies for budget allocation and implementation. For example, two thirds of the current RPDP budget is for transport infrastructure to support EEC development plans, with almost all of the 12 billion THB to come from the national line agency for transport. Because of its heavy reliance on other planning processes, including for example, the national power and transport development plans, the RPDP cannot be considered in isolation. It

needs to be viewed in terms of its relationships with other national, sector and regional planning processes.

Figure 5: The temporal scope of the SEA



3.3. SEA substantive scope - identifying strategic themes and issues

Overall the TOR and proponent (NESDC) required the SEA to

- Consider the hierarchy of development plans which influence and shape development within Rayong Province, with specific emphasis on the RPDP;
- Take an integrated approach to assessing the sustainability of development in key economic sectors including industry, water, transport, energy, tourism, agriculture and fisheries;
- Apply spatial planning tools and processes to analyse the availability of, and demands on natural resources such as water, forests, and marine environment,
- Project climate change for Rayong and integrate climate change impacts into the assessment;
- Take an ecosystems-based approach in assessing the implications of development on natural systems and environmental quality; and,
- Analyse demographic and socio-economic trends and impacts influencing, and being shaped by, development plans and population increases.

The specific strategic themes and issues which the SEA should address were considered at several round table meetings with the SEA Working Group at NESDC as well as at meetings with national level line agencies. A tentative list was prepared for consultation and modification with stakeholders at the SEA's first workshop in Rayong Province held April 2019.

3.3.1. Strategic themes defining the substantive scope

At the scoping workshop, stakeholders were introduced to the six strategic themes included in the current Rayong Provincial Development Plan:

1. Promote sustainable agriculture
2. Improve capacity of tourism
3. Promote industry with social responsibility
4. Conserve the natural environment
5. Improve the quality of life and participation of people's sector; and
6. Strengthen and increase capacity of commercial sectors.

Building on that strategic framework in the Plan and the initial consultations, twelve strategic themes were introduced and discussed as key to the past and future of the Province and its potential for sustainability. The strategic themes are:

Development themes

- Industry
- Water resources
- Agriculture
- Energy
- Transport
- Urban development
- Tourism
- Coastal and marine environment, including fisheries and aquaculture

Quality of life themes

- Social equity
- Forests and terrestrial biodiversity
- Environmental quality
- Climate change

3.3.2. Strategic issues within each theme

Participants were invited to each write down on a card the one issue that was of greatest concern to them for development of Rayong province. Each issue was read out and clarified in plenary then placed under one of the strategic themes. The issues of concern identified and strategic themes under which they were classified is shown in Table 1. Later in the workshop participants were asked to vote on the strategic theme and issues which they felt were most important. Each participant was given an opportunity to vote for three issues and for one strategic theme. A summary of the voting results is presented in Tables 1 and 2.

It was acknowledged during plenary discussion that the identification of issues of concern would vary according to the mix of stakeholders involved in the process. Yet, this initial listing provided a good set of concerns which the SEA needed to address. It was agreed with stakeholders that the list would be refined as the SEA progressed.

Stakeholders expanded on the listing making the following points:

- **Urban planning** needs to be a key focus so that there is a good foundation for future development. Zoning of industrial, residential, agricultural areas accompanied by comprehensive standards and development controls is an essential priority.
- **Water quality:** The province has experienced a change in water quality and quantity over the past decade, and the agricultural sector is concerned about the role of industry and its growing demand for water, and growing impacts on water quality.

- **Environmental quality**, specifically in terms of air, water and solid waste pollution from industry and negative public health impacts.
- **Water management in drought prone areas** and management of Prasae water storage facilities are priorities for maintaining ecosystems and agricultural livelihoods. The local population in those areas have not been effectively involved in water management planning.
- **Fishing:** The many challenges faced by the fishing industry include overlapping and unclear regulations, need for zoning in marine areas to designate industrial and fishery uses, and the restrictions on aquaculture and use of power generators.
- **A growing migrant population:** Many unregistered migrants have intensified competition for public services and use of local resources.

Table 1: Ranking of strategic themes in order of stakeholder concern

Theme	Score %
Environmental quality	32
Urban development	28
Climate change	9
Fishery	7
Biodiversity and forest	4
Water resources	4
Agriculture	4
Power and energy	4
Social and quality of life	4
Tourism and others	4
Transportation	0
Industry	0

The ranking of strategic themes of greatest concern to stakeholders sharply identified environment quality and urban expansion as the two most important followed by climate change and fisheries (Table 1). The more nuanced ranking of strategic issues shown in Table 2 identified (i) environmental quality, particularly relating to industrial development - 19%, (ii) social well-being, particularly "inequitable access to education" and "job competition with migrant workers" - 17%, (iii) water resource management issues - 16%, and (iv) urban development - 16% in particular "urban expansion with rapid economic development affecting environmental quality and social well-being" as the most outstanding themes and issues of concern.

Table 2: Strategic themes and issues of greatest concern to stakeholders

Theme	Issues of greatest concern to stakeholders	
Development themes		Score %
Power and energy	▪ Unstable power supply	1
Industry	▪ Industrial development leading to uncontrolled urban development	4
	▪ Lack of boundary management and clear industrial area control	0
	▪ Industrial development that is not environmentally friendly	2.5
	▪ Unsustainable resource use including water, land and by-products	
Transportation	▪ Traffic congestion due to population growth and poorly planned infrastructure and urban development	2.5
	▪ Inefficient public transport leads to increase in vehicles	2
Water resources	▪ Increasing water shortages	2
	▪ Lack of management in the balanced use of surface water and groundwater	1
	▪ Sustainable management of water during droughts	13
	▪ Management of floods	
Agriculture	▪ Lack of efficient production technology	5
	▪ Labour shortages through shifted to the industrial sector	
	▪ Excessive use of insecticides in orchards causing residual chemicals in fruits and the environment	1
	▪ Reducing quality of life of farmers	1
	▪ Adjustment and capacity problems from changing agricultural methods	1
Fishery – coastal and marine	▪ Unfair determination of the fishing boundaries	0
	▪ Lack of development control and zoning in coastal areas impinging on fisheries	1
	▪ Many/duplicating agencies responsible for fisheries management (e.g. shell cultivation)	1
	▪ Prohibiting the use of generators that exceed the designated size	3
Tourism and others	▪ Increasing demand for tourism and recreation facilities not being met	1
	▪ Environmental impacts of uncontrolled tourism numbers and development	
	▪ Conflict between tourism and industrial expansion priorities	
Urban development	▪ Inadequate land use planning and zoning in Rayong	3
	▪ Need for improved urban and industrial spatial planning with development controls and safeguards	1
	▪ Urban expansion with rapid economic development affecting environmental quality and social well being	12
Quality of life themes		
Social well being	▪ Uncertainty and inequity in population income	0
	▪ Increasing and unplanned resources use due to migrant workers	0
	▪ Inadequate public health facilities (i.e. staffing and medical treatment centres)	1

Theme	Issues of greatest concern to stakeholders	
	▪ Inequitable access to education	9
	▪ Impact on people's health resulting from the industrial development	1
	▪ Risk of cancer	2
	▪ Job competition with migrant workers	5
Environmental quality	▪ Change in water quality in reservoirs	4
	▪ Deteriorated water quality due to industrial growth	0
	▪ Inadequate solid and liquid waste management	6
	▪ Pollution from industrial plants and estates affecting quality of life of people living nearby	8
	▪ Deteriorating air quality	1
Biodiversity and forest	▪ Loss of forest area and quality	3
	▪ Diminishing area of green space	
Climate change	▪ Climate change due to industrial development affecting the environment and tourism	2
	▪ Smoke and dust causing climate change	0
	▪ Impact on water availability	0

3.3.3. Concluding discussion on substantive scope

The first phase of stakeholder consultation and workshop provided a strong foundation of priorities and issues for the SEA as its substantive scope. Yet, participants urged the SEA team to consult in more detail with other groups and gather more information so that themes and issues of concern can be defined from a broader base of stakeholders. The SEA team should not be constrained by the initial set of thematic and issue priorities but use them as a guide and starting point in gathering data to understand trends and the drivers of change.

Other guidance for the SEA team provided by participants in discussing the substantive scope results include:

- All economic activity has environmental impacts. Everything has a chain reaction, so all themes and issues and the relationships between are relevant and need to be considered in planning.
- Quality of life includes the standard of health, comfort and happiness experienced by an individual or groups within the Rayong community, how they people spend their lives, their history of association with an area, and security in their livelihoods. Quality of life needs to be a key consideration in the SEA.
- Water is very important to the sustainable future of Rayong. The SEA needs to consider the planning of this critical resource, especially as it relates to industrial development.
- Town planning is very important because it determines how development will proceed in so many of the main strategic themes such as energy, industry and transport.
- Yet, town and country planning mainly focusses on urban and industrial areas, but not beyond in terms of detailed development controls. The SEA needs to consider integrated planning and development across the entire province. Zoning has been a major issue that has come up in the workshop, both for land-use and marine use.
- Understanding budget allocation and the agencies and levels of government responsible is key to being able to achieve a sustainable vision for the province.
- Plans have been developed for additional water storage and distribution in Rayong, but it is important for the SEA to look at whether these plans are sustainable in the long term.

3.4. Identifying sustainable development objectives for the strategic themes

Once strategic themes and issues of concern to development in the sector or areas which are subject to the plan were identified with stakeholders, the SEA team defined sustainable development (SD) objectives linked to each strategic theme. Those SD objectives only related to the themes and issues identified by stakeholders through the scoping process. They provide the framework of sustainability against which the strategic assessment of alternative development strategies is conducted.

The main sources of sustainable development objectives were government policies and plans in the relevant sectors. Other sources were international agreements to which Thailand is a signatory and international best practice as reflected in reports from UN and other respected international technical agencies. The SD objectives are set out in Table 3 linked to the key themes. The issues for each theme were refined following further stakeholder consultations – they appear in final form in the Table. Also, identified in the table are indicators discussed further in the next section.

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Table 3: Framework of strategic themes, issues, SD objectives and indicators developed with stakeholders during the SEA scoping phase

Theme	Strategic Issues of Critical Concern for Sustainable Development in Rayong	Sustainable Development Objectives	Indicators
Macro-economics	Rapid economic growth and structural change	Ensuring the sustainable development of the economy	▪ GHG emissions intensity of provincial value-added (tons per THB of value-added) ▪ Water use intensity of provincial value-added (litres per THB of value-added)
	Distribution of benefits of Rayong's economic growth	Ensuring equitable distribution of economic benefits including long term support to vulnerable affected groups and areas	▪ Provincial gini co-efficient
Industry	Rapid industrial growth	Environmentally sustainable growth through the promotion of green industries using cleaner production technologies and resource efficient production	▪ Energy intensity of industrial value-added (kW per THB of value-added) ▪ Water intensity of industrial value-added (kW per THB of value-added) ▪ PM 2.5 emissions for industry (tons) ▪ GHG emissions from industry (tons)
	Increased generation of Industrial pollution	Use of best international practice in environmental technologies and management to prevent and moderate the discharge of industrial pollutants to water, air and land	▪ Proportion of waste-water from industry receiving suitable treatment ▪ Proportion of hazardous waste streams from industry receiving suitable treatment ▪ Proportion of solid industrial waste recycled
	Resource use in industry	Structural transformation increasing the capacity of local industry for value-addition, diversification, job creation and production in high-tech sectors	▪ Incremental capital-output ratio (ICOR) for industry ▪ Value-added per industrial worker ▪ Proportion of factories using green and low resource use technology for their processes
Water resources	Water demand and supply	Rehabilitate and manage river basins and water resources for ecological sustainability and environmental quality	▪ Funding for public water resource and river basin management authorities/groups (THB)
	Water quality (surface and ground water)	Provide a secure supply of clean water that meets demand in each sector, within ecological limits, without causing conflict between different user groups or with neighbouring provinces.	▪ Measure BOD (milligrams of oxygen consumed per litre of water in a five day period) ▪ Number of water shortage complaints
		Use water efficiently and equitably to eliminate wastage and reduce demand	▪ Measure total water use divided by provincial GPP

Theme	Strategic Issues of Critical Concern for Sustainable Development in Rayong	Sustainable Development Objectives	Indicators
Agriculture	Transformation of the agriculture sector, including land-use change and shortage of agricultural labour	Modernize the sector to international standards through sustainable production models for small-holders and commercial agriculture.	▪ THB invested in agricultural machinery per hectare of agricultural land
	Securing water supply for crop production	Farmers reduce environmental pollution, adopt sustainable land management practices and enhance biodiversity	▪ Proportion of farms involved in agricultural tourism operations ▪ Proportion of agricultural land area using organic principles
		Farmers build resilience to climate change through diversity in production and nature based solutions.	▪ Number and nature of complaints about water shortages in agriculture
Energy	Continued growth of decentralised power generation	Promotion of renewables and energy efficient generation technologies	▪ Share of RE in generation mix ▪ Fleet efficiency of power plants ▪ Share of electricity generated by prosumers
	Rayong as a strategic energy hub for Thailand	Affordability of energy supply to residents and businesses in the province	▪ Share of average household income used for electricity
	Environmental consequences of energy sector development	Reduce pollution emissions from energy supply to meet ambient and point source air quality standards and GHG emissions reductions targets	▪ PM 2.5 emissions from power generation in the province (tons) ▪ GHG emissions from power generation in the province (tons) ▪ Water use by power sector in province (lites) ▪ Water emissions by power sector in province (litres)
Transport	Expansion of transport infrastructure	Promote an equitable and safe transportation system, offering a choice of transport modes, and a geographical balance of development.	▪ Share of transport demand served by public transport ▪ Proportion of province population served by public transport
	Increasing air pollution due to increased transportation	Reduce transportation related emissions and resource use	▪ GHG emissions from transport (tons) ▪ PM 2.5 emissions from transport (tons)

Theme	Strategic Issues of Critical Concern for Sustainable Development in Rayong	Sustainable Development Objectives	Indicators
Urban development	Urban expansion	Urban areas are planned for energy and water conservation, transit oriented design and equity, emphasizing green infrastructure and nature based approaches.	▪ Average travel times and road ratio ▪ Urban transport energy use ▪ Area of sidewalks, cycle lanes, pedestrian areas ▪ Area of designated green space in urban areas ▪ Density of urban areas
	Waste management (solid and liquid)	Pollution and waste streams in urban areas are effectively managed, creating a pollution free environment.	▪ Share of municipal wastewater being treated to an acceptable standard ▪ Share of households/commercial establishments connected to municipal sewage system ▪ Share of solid waste being collected ▪ Share of solid waste reused or recycled ▪ Share of solid waste going to landfill ▪ Proportion of waste treated using green technology waste treatment processes
Tourism	Growth in tourist numbers and facilities	Promote ecological, community and agricultural tourism	▪ Proportion of tourism enterprises that are eco-based, community based or agricultural-based
	Environmental impact of tourism facilities	Ensure that tourism related solid waste and waste-water is treated properly	▪ Proportion of tourism generated solid waste treated properly ▪ Proportion of tourism generated waste-water treated properly
	Marine and coastal debris and pollution, especially plastics and petroleum products, threaten tourism		
Coastal and Marine Environment, including	Unsustainable fishing practices	Sustainably use marine and coastal resources	▪ Measures and in-shore fisheries catch off-shore fisheries catch
	Poor management of solid wastes and effluent discharges	Restoration, enhancement and protection of marine and coastal ecosystems and resources	▪ THB invested in protection and restoration of marine and coastal eco-systems

Theme	Strategic Issues of Critical Concern for Sustainable Development in Rayong	Sustainable Development Objectives	Indicators
fisheries and aquaculture	Limited environmental monitoring and reporting to support effective evidence-based management	Improve data collection on sea water quality and coastal morphology	▪ Number of installed and functioning sea water quality measurement stations ▪ Number of locations where coastal morphology data is collected at least monthly
Social equity	Registered and unregistered population growth	Strengthen community resilience and inclusive development based on the sufficiency economy philosophy and environmental sustainability including lower socio-economic groups receiving targeted capacity building support	▪ Poverty rate (% of population) ▪ Percentage of school starters graduating from secondary school
	Availability of infrastructure and services		▪ Waiting times for access to healthcare ▪ Cost of healthcare ($)
	Growing socio-economic inequality		▪ Number of people accessing welfare support
Forests and terrestrial biodiversity	Fragmentation of forests	Conserve, restore and enhance biodiversity in Rayong	▪ #/size of areas where forest connectivity has been restored ▪ Management Effectiveness of Protected Areas in Rayong ▪ # of visitors to national parks and their satisfaction rating
	Very low forest cover	Increased forest cover throughout the province with a target to contribute to the national goal of 40% forest cover	▪ Total forest cover of Rayong Province (Ha.)
Environmental Quality	Hazardous waste	Establish effective measures for the prevention, control and abatement of water pollution	▪ Proportion of hazardous waste disposed of in a controlled manner
	Solid waste	Hazardous wastes from industry, domestic and agricultural sources are identified, minimized and disposed without negative environmental impacts	▪ Proportion of waste disposed of in a controlled manner
	Water quality	Replace open dumping sites by sanitary landfills, green space, incineration and waste to energy and recycling schemes.	▪ Annual average BOD

Theme	Strategic Issues of Critical Concern for Sustainable Development in Rayong	Sustainable Development Objectives	Indicators
	Air Quality (emissions from transport and industry)	Establish and enforce point source air pollution standards, especially relating to the industry, energy and transport sectors.	▪ Proportion of point sources of air pollution monitored
Climate Change	Increased temperature and reduced rainfall in dry season leading to increased drought conditions	Enhance capacities to adapt to climate change	▪ Proportion of private and public sector budgets explicitly allocated to climate change adaptation and mitigation activity
	Increased flooding in wet season due to (i) increased intensity of rainfall and storm surge, and (ii) sea level rise	Rayong Province, the EEC and sector agencies operating in Rayong prepare climate change adaptation plans and allocate budget for their implementation	▪ Proportion of private and public sector water plans that include climate change considerations
	Increased number of hot days		
	Increased intensity of storms and winds		

The SD objectives for environmental quality, for example, reflect commitments in national legislation, policies and plans, such as the 20 years National Pollution Management Strategy and Pollution Management Plan - 2017 – 2021, as well as international best practice:

Establish effective measures for the prevention, control and abatement of water pollution
Hazardous wastes from industry, domestic and agricultural sources are identified, minimized and disposed without negative environmental impacts
Replace open dumping sites by sanitary landfills, green space, incineration and waste to energy and recycling schemes.
Establish and enforce point source air pollution standards, especially relating to the industry, energy and transport sectors.

Those environmental quality objectives are reinforced by the sector based SD objectives. For example, two objectives of the three for industry promote:

Environmentally sustainable growth through the promotion of green industries using cleaner production technologies and resource efficient production
Use of best international practice in environmental technologies and management to prevent and moderate the discharge of industrial pollutants to water, air and land

Those objectives reflect the vision and objectives of the current Rayong Province Development Plan which draws from a range of national policies and strategies beginning with the Ministry of Industry's 'green industry project' launched in 2010. The main policies in that project are now expressed through the Thailand 20-Year National Strategy Framework (2017–2036) which promotes green growth for sustainable development, and the 12th National Economic and Social Development Plan (2017–2021) reinforcing commitments to sustainable industrial development, ranging from formulating corporate environmental policies to stringent implementation of environmental management systems including energy conservation and energy management systems, the 3Rs (Reduce, Reuse , Recycle) and clean technology, eco-design, green/carbon labels and product life cycle assessments.

All of the sustainable development objectives in the SD framework set out in Table 3 are a reflection of various national, regional and for some, local level commitments. They are mutually reinforcing – so that effective implementation of one can have positive effects on meeting others. The challenge rests in their implementation.

3.5. Identifying indicators for monitoring progress in meeting the sustainable development objectives

The identification of indicators was based on the principle of building on what is already in place in Thailand, in the Southeast Asian region, and globally, while also acknowledging local capacities to use and report on them. The indicators used in this SEA were selected to meet the indicator criteria that are outlined in Thailand's 12th National Economic and Social Development Plan.[2] The following sources were prioritized for indicators and methodologies for ensuring their suitability:

- Thai Government indicators used for monitoring development plans (e.g. Marine Fisheries Management Plan of Thailand (2015 – 2019)[3])
- International agreements to which Thailand is a signatory (Indicators for the Sustainable Development Goals)[4]

[2] See http://www.nesdb.go.th/nesdb_en/ewt_w3c/ewt_dl_link.php?nid=4345
[3] See http://extwprlegs1.fao.org/docs/pdf/tha165156.pdf
[4] See https://sustainabledevelopment.un.org/content/documents/11803Official-List-of-Proposed-SDG-Indicators.pdf

- The World Bank development indicators and methodologies[5]

The indicators used in this SEA were developed by the SEA team through consultation with stakeholders as well as with a variety of Thai, regional, and global methodologies and indicators. For example, the indicators for the tourism theme, which were derived from work done by the Designated Area for Sustainable Tourism Administration, an organization that reports to the Office of the Prime Minister of Thailand, and which has responsibility for overseeing sustainable tourism in Pattaya and surrounding areas.[6] Transport indicators are in line with tracking of low carbon transport policy in Southeast Asia.[7] Indicators for other thematic areas came from global and international sustainability strategies and sustainability tracking methodologies. For example, energy indicators were sourced from collaborative UN and European work on sustainable energy indicators,[8] and urban development indicators were developed using methodologies published by the World Bank for urban sustainability monitoring.[9] Every indicator provided in this SEA has been assessed by the SEA team for suitability for Rayong province and its socio-economic and environmental context.

Table 4: Selection of indicators defined in the SEA, their sources, and how modified for Rayong

Theme	Example of source indicator	Modified indicator used in SEA
Water Resources	Annual freshwater withdrawals, total (% of internal resources)[5]	▪ Total water abstracted by all sectors as a proportion of total water available after taking into account environmental water requirements
Coastal and Marine Environment	Catch rate (e.g. kilogram/day)[3]	▪ Measures of inshore and offshore fisheries catch
	Trained local fishermen in Ecosystem Approach for Fisheries Management[3]	▪ Investment in protection and restoration of marine and coastal ecosystems
Energy	Renewable energy share in energy and electricity[8]	▪ Share of Renewable Energy in generation mix
	GHG emissions from energy production and use per capita and per unit of GDP[8]	▪ GHG emissions from power generation in the province
	Air pollutant emissions from energy systems[8]	▪ PM 2.5 emissions from power generation in the province
Terrestrial biodiversity	Forest area as a proportion of total land area[4]	▪ Total forest cover of Rayong Province
Urban Development	Proportion of urban solid waste regularly collected and with adequate final discharge out of total urban solid waste generated, by cities[4]	▪ Share of solid waste being collected ▪ Share of solid waste reused or recycled ▪ Share of solid waste going to landfill

3.6. Preparing the communications and consultation plan

A Consultation and Communications Plan was prepared during the scoping phase to guide stakeholder engagement in the SEA process (Annex 2). As a first step a stakeholder analysis was conducted which addressed issues such as:

[5] See e.g. http://datatopics.worldbank.org/world-development-indicators/themes/environment.html#land-use-and-productivity
[6] See http://cf.cdn.unwto.org/sites/all/files/pdf/thailand_0.pdf
[7] See https://dx.doi.org/10.3390/su9071217
[8] See https://www-pub.iaea.org/MTCD/publications/PDF/Pub1222_web.pdf
[9] See http://documents.worldbank.org/curated/en/339851517836894370/pdf/123149-Urban-Sustainability-Framework.pdf

- Who are the main stakeholders of the proposed plan?
- What benefits are they likely to gain?
- What impacts are they likely to bear?
- What role do they play in various development scenarios?

Stakeholders include government agencies, individuals, groups, organizations, institutes, communities or even individuals that may gain or lose from the Rayong Province Development Plan. The stakeholder analysis leads to the participation strategy and communication plan to be used throughout the SEA. Round table meetings with the SEA Working Group and the NESDC as the SEA proponent during earlier stages of the SEA and then in the planning of each consultative event and activity helped improve the consultation & communications plan and the detailed methodology for each activity.

Stakeholders were involved at each stage of the SEA – through specially convened workshops and round table meetings. The progressive reporting for stakeholder review and comment ensured that participants had an opportunity to shape and rectify facts, issues and viewpoints as the SEA moves forward.

There were challenges in defining and implementing the consultation and communications plan. The tendency in past environmental assessments in Thailand was to be all inclusive following the assumption that the more groups and people involved the greater will be the acceptance of outcomes. The other assumption is that the more stakeholders involved the more likely that inherent conflicts will be reduced and consensus gained. In practice neither of those assumptions hold true in all cases. In general, consultation in SEAs needs to be strategic – they are not EIAs in which all directly affected groups should be engaged.

In the first consultation workshop on scoping in Rayong the number of people involved was too many – more than 100 – while the duration of the event too short. There was not adequate time to conduct the intensive participatory exercises to arrive at a sharp set of themes and issues priorities – at least not in an entirely convincing way. The later events learned from that experience and were more strategic in participant selection aiming for around 60 people and of two day duration. Each of those later events were very successful with all participants remaining for the entire period.

Good communications is the life blood of an effective SEA – but like the consultation process and events, it is constrained by the available budget and timeframe. For example, a key objective for this SEA was to prepare reports at each stage – scoping, baseline, impact assessment and SD pathways – and to circulate those to all stakeholders for review and comment in a timely way – so that each could be finalized and distributed at the next major event. The approach ensures progressive ownership and acceptance of SEA findings. And helps in getting the facts and viewpoints right. That objective – although very important – was only partially met because of the short duration of the SEA process (aiming for six months) with each step overlapping with the next. Good practice was demonstrated in the baseline report which was broken down into a set of well-designed short briefs which facilitated review and feedback. The SEA still adhered to the important approach of preparing reports for each key stage. And those reports were reviewed in detail by the SEA Working Group and then revised by the SEA team, and resubmitted accompanied by comments and responses matrices so that the treatment of all comments could be tracked.

4. CONCLUSIONS

This report deals with the overall SEA methodology and sets out the results of the scoping phase. It is the first of four reports in the SEA set. The SEA relates to Rayong Province and the developments within the province using resources and shaping the environmental and social conditions. The Rayong Provincial Development Plan and its next iteration is the main focus of the assessment. The goal is to support the Rayong authorities in setting out the standards and measures within the plan which must be applied to enhance living conditions and ecological sustainability.

The scoping phase along with the baseline assessment phase which follows directly are the most important of any SEA. It is there that the SEA TOR is reviewed by stakeholders and detailed in a way which reflects their concerns, viewpoints and information. The foundations for SEA credibility and authority are established during this period. It is particularly important for feedback loops to be established with stakeholders, the proponent and the oversight body – in this case the cross sector SEA Working Group – so their influence in shaping the SEA coverage is transparent and significant.

Even so, the SEA team needs to keep in mind that it has been commissioned to provide expert advice and to design and implement a process which reflects international good practice. It is the responsibility of the team to bring their technical competence and expertise to bear on all the SEA outputs. They must listen to stakeholder viewpoints – and reflect them in SEA documentation – but ultimately they are responsible for the final products. On numerous occasions hard judgements will be required concerning content and process – the team needs to be able justify and explain those decisions.

In this SEA into a provincial plan, all sectors are covered within an integrated planning context in which relationships between them – and the trade-offs involved need to be made explicit. The winners and losers in the development process to date need to be described – and measures defined so that Rayong's development does most good – not just mitigates the negatives to do least harm.

SEAs need to be designed to meet the planning context and plan focus. The methods and steps should be selected from the common SEA tool box to fit the need. An SEA into an individual sector, a river basin or an island archaeology may need to select a difference range of tools and steps to address the development challenges effectively. In this case, a province plan was selected to bring all development sectors, along with affected groups, into a dialogue concerning what is the best sustainable development pathway for Rayong.

The pilot SEA followed a simple set of step. They can be applied to any strategic assessment commencing with scoping and baseline assessment, then moving to assess the impact of the Rayong Plan and various alternatives on sustainability. Stemming from that analysis of impacts of likely impacts, a framework of sustainability measures is defined for inclusion in the next iteration of the plan. It is the baseline phase which takes most time and consumes most resources. That is due to the challenges of gathering information in a data scarce environment requiring inputs from many sources, in many different forms, and of variable quality and depth. That is a common challenge for SEAs in all Mekong countries. The influence of SEAs rest on their ability to provide a convincing evidence base including fresh synthesis and analysis of baseline information and trends.

The SEA steps are straight forward. The selection of analytical methods from the SEA tool box is less so. It requires an experienced team to consider the target plan context and needs, team and proponent capacities, the time constraints and the budget. What strategic questions need to be addressed and what tools will enable the team to respond to them? In this case, the SEA needs to (i) cover all development sectors operating in the same geographic space and (ii) engage local stakeholders from the earliest stage. The *strategic themes and issues approach* is particularly well suited to stakeholder involvement and to creating a framework of priorities for assessment. From the outset, stakeholders identify the main areas of concern for development of the province.

The strategic themes and issues approach feeds directly to the next tool that was adopted – *trend analysis*. That method is also conducive to stakeholder engagement and enables government agencies to view the development situation and relationships between sectors in a new light. It draws from the available data and stakeholder opinion in defining past trends in the strategic issues of concern, and then allows for projections of those trends into the future under alternative development scenarios. The trend analysis tool is the core method for the baseline and impact assessment. Importantly, it allows for the analysis of effects of trends in one sector on another.

The other foundation tool in this SEA is the early definition of *sustainable development objectives* for each of the strategic themes. The SD objectives set the vision for the future – as an integral part of the next

plan – they say “this is where we want to go”. The impact assessment asks “how will each development scenario perform against the SD objectives?” The sustainable development pathways bring together those measures which perform best in meeting the SD objectives.

One final point. Qualitative methods of assessment can be sufficient for SEAs used to identify critical concerns in an existing development situation and plan and to suggest mitigation strategies. When the proponent requires consideration of different scenarios involving choices between alternatives quantitative methods are useful. In this SEA, the assessment of scenarios against the SD objectives was supported by a one to five scoring in multi criteria analysis. For this multi criteria analysis, each project included in the RPDP was scored with respect to the 31 sustainability objectives identified for the 13 SEA themes. The scoring process involved an initial evaluation of likely project effects, with scores ranging from -2 to +2. Subsequently the magnitude of the likely effects was considered to give an overall project rating. Further detail on the multi criteria analysis is included in the Sustainability Analysis Volume (Volume III) of this SEA.

5. REFERENCES

Department of Fisheries, Ministry of Agriculture and Cooperatives, Thailand. (2015). *Marine Fisheries Management Plan of Thailand - A National Policy for Marine Fisheries Management 2015-2019.* Department of Fisheries, Ministry of Agriculture and Cooperatives, Thailand. http://extwprlegs1.fao.org/docs/pdf/tha165156.pdf

Global Platform for Sustainable Cities, The World Bank. (2018). *'Urban Sustainability Framework' 1st ed.* World Bank, Washington, DC. http://documents.worldbank.org/curated/en/339851517836894370/pdf/123149-Urban-Sustainability-Framework.pdf

International Atomic Energy Agency (IAEA). (2005). *Energy Indicators for Sustainable Development: Guidelines and Methodologies*. International Atomic Energy Agency, Vienna, Austria. https://www-pub.iaea.org/MTCD/publications/PDF/Pub1222_web.pdf

Office of the National Economic and Social Development Board (NESDB). (2017). *The Twelfth national Economic and Social Development Plan (2017-2021)*. Office of the National Economic and Social Development Board, Office of the Prime Minister, Bangkok, Thailand. http://www.nesdb.go.th/nesdb_en/ewt_w3c/ewt_dl_link.php?nid=4345

Stefan, B., et al. (2017). *Low-Carbon Transport Policy in Four ASEAN Countries: Developments in Indonesia, the Philippines, Thailand and Vietnam*. Sustainability 2017, 9, 1217. https://dx.doi.org/10.3390/su9071217

The World Bank. http://datatopics.worldbank.org/world-development-indicators/themes/environment.html#land-use-and-productivity

UN Statistical Commission. (2016). *Final list of proposed Sustainable Development Goal indicators - contained in the Report of the Inter-Agency and Expert Group on Sustainable Development Goal Indicators (E/CN.3/2016/2/Rev.1)*. UN Statistical Commission, New York, United States. https://sustainabledevelopment.un.org/content/documents/11803Official-List-of-Proposed-SDG-Indicators.pdf

UNWTO. http://cf.cdn.unwto.org/sites/all/files/pdf/thailand_0.pdf

Annex 1: Pilot SEA of Rayong Province Development Plan Terms of Reference

TERMS OF REFERENCE

Strategic Environmental Assessment of the Rayong Province Development Plan and Revision of Thai Draft SEA Guidelines

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1. Background

1.1 The Thai Subcommittee on Strategic Environmental Assessment, under the National Committee on Sustainable Development, has made recommendations to Government and prepared draft guidelines to promote the systematic use of SEA as part of planning for major developments.

1.2 In support of those recommendations and to test and pilot their implementation, the SEA Subcommittee has proposed the preparation of a SEA pilot project in conjunction with experienced domestic and international agencies. The pilot SEA would seek to apply the Subcommittee guidelines and to demonstrate best practice for sector and area specific SEAs.

1.3 The Subcommittee advocates conducting SEAs as part of (i) sector development planning for transport, energy and mining; and (ii) area wide development planning for urban areas, river basins and coastal zones. Also, it advocates SEAs for (iii) special development areas/regions and industrial estates. The pilot SEA would satisfy those categories and provide insights for revising and completing the draft SEA guidelines.

1.4 The pilot demonstrates SEA as a key strategic planning tool in complex river basin and coastal development contexts to inform review and completion of the draft SEA guidelines. The pilot SEA will give special emphasis to recognized challenges in the basin and coastal environment, including rapid industrial development and population growth, constraints of water resources, and environmental degradation and pollution.

1.5 The pilot SEA will address environmental and socio-economic issues within Rayong Province and the Khlong Yai River basin and contiguous coastal and marine environment. The SEA will contribute to sustainability in planning at various levels, including addressing development within the context of EEC implementation programmes; existing planning processes at national, provincial and community levels; and key sector or thematic plans relating to, for example, infrastructure, industry, fisheries and tourism.

2. Project Objectives

This project addresses the following objectives:

2.1 To demonstrate a Strategic Environmental Assessment (SEA) of integrated development in Rayong Province of Thailand including the Khlong Yai (Rayong) River Basin, an area situated within the Eastern Coast River Basins (ECRB) and Eastern Economic Corridor (EEC)

2.2 To review and recommend revisions to the draft SEA guidelines prepared by the Thai national subcommittee on SEA convened by NESDB

2.3 To develop the training models based on the SEA process and report

3. The Study Area - The Khlong Yai River Basin

The pilot SEA will seek to enhance ecological sustainability and social equity of development plans within Rayong province and the Khlong Yai River basin, and the contiguous coastal and marine environment.

3.1 Rayong Province and the Khlong Yai River basin is part of the EEC and thus a focal point for socio-economic development. The basin has received significant attention regarding policy development, investment and economic growth across a broad range of sectors, especially transport, energy and mining. Further industrial development of the area is anticipated as part of the EEC development program. The EEC Development Plan, approved by the Thai National Legislative Assembly in February 2018, aims to develop the economies of the three eastern provinces of Chachoengsao, Chonburi and Rayong. Eight implementation areas of development are proposed including transport, water and energy infrastructure, targeted industries, new cities, agriculture, irrigation, and tourism.

3.2 Concerns have been raised about the environmental and social impacts of development in the EEC. Issues highlighted include water, land and air pollution; water resource depletion; population increases; land use conflicts; and negative impacts on livelihoods. Air and water pollution in Rayong Province have been described as serious. Though Rayong has a Pollution Reduction and Mitigation Action Plan, it has not been effectively implemented.

3.3 The Rayong Province and Khlong Yai River basin is already substantially developed and experiencing major challenges of competition over water and land use, including experiencing significant environmental quality issues and natural resource constraints. Both agriculture and industry, especially petrochemicals, are important sectors of the economy in Rayong province.

3.4 The Province's coastal environment has experienced a dramatic decline in fisheries suffering from overfishing and serious disputes between commercial and small-scale subsistence fishers. Over the last 50 years, mangrove wetlands have experienced considerable loss in coverage in the province.

4. Time Period

The project will be implemented over a period of 6 months from 1 February 2018 to 31 July 2019.

5. Pilot SEA Stages and Outputs

The pilot SEA will follow four main SEA stages (i) scoping, (ii) baseline assessment, (iii) impact assessment, and (iv) a mitigation and sustainable development framework.

5.1 Stage I: Scoping

1) The aim of this stage is to set the boundaries of the SEA from a spatial, temporal and substantive perspective. The scoping phase also defines the nature and extent of stakeholder involvement. It is a stage when the compilation of background information for the SEA commences. The data will be required relating to the boundaries of the study site, geography, natural resources, demographics, planning, and environmental conditions and activities and assets of the main economic sectors of interest.

2) During this stage of the project, the translation of the draft SEA guidelines from Thai to English will be completed. Consideration will be given to reviewing the draft SEA guidelines and providing initial recommendations on their improvement prior to completion of the pilot SEA to facilitate the formal revision and submission of final to

Government for approval. Any additional recommendations could be made once the pilot SEA is complete drawing from the piloting experience.

3) **Output:**

   (1) A pilot SEA consultation and communications plan

   (2) An introductory and scoping chapter in the SEA report

5.2 Stage II: Baseline assessment

1) The baseline assessment will provide a description of past trends and the status of economic activities, demographics and social issues, and environmental and natural resource issues. The trends in key parameters affecting economic, environmental and social conditions will be analysed, including those related to key sectors of energy, transport, agriculture, fisheries, tourism, and industry.

2) This baseline assessment will include documentation of past extreme natural events such as flooding, droughts, landslides, coastal erosion and subsidence, and their impacts on infrastructure, natural resources and communities. The baseline assessment will also include climate change projections and hot spot analysis. A climate change profile will be prepared for Rayong Province and the river basin. Socio-economic research will be conducted to define past and future trends to 2050 of population, water demand, industrial activities, tourism, and other themes of interest.

3) A stakeholder consultation workshop on the scoping and baseline assessment will be held during this stage of the SEA process.

4) **Output:**

   (1) An inception report including a summary of the stakeholder consultation workshop

   (2) A baseline assessment chapter in the SEA report

5.3 Stage III: Impact Assessment

1) The impact assessment will explore the implications of (i) a business as usual (BAU) development scenario and (ii) a sustainable development trajectory. An overview assessment will be conducted of the potential cumulative impacts of a BAU scenario where all planned projects under the various sectors will proceed and be managed according to the current level of environmental management planning and enforcement. This assessment is conducted to identify significant adverse impacts on basin processes and functions. This analysis assumes that BAU development will consist of all currently proposed and identified development projects over the next 30 years. A sustainable development trajectory will be assessed assuming ecological processes are enhanced and maintained and social values and concerns are accounted for.

2) A stakeholder consultation workshop on the impact assessment will be held during this stage of the SEA process.

3) **Output**:

   (1) Recommendations for revision of the draft SEA guidelines

(2) Mid-term progress report including a summary of the stakeholder consultation workshop

(3) An impact assessment chapter in the SEA report

5.4 Stage IV: Mitigation options and sustainable development framework (SDF)

1) The final stage in the pilot SEA process will bring together findings from earlier activities and define options for mitigation as part of a sustainable development framework for Rayong Province, the river basin and coastal zone. The SDF will be prepared to balance development with the retention and protection of important environmental and social functions and values. It provides an integrated planning framework for management of provincial and catchment resources, to provide guidance for ecologically sustainable and equitable development. The study area will be zoned based on the baseline and impact assessment, with safeguards linked to each zone.

2) This stage will also include a lessons learned workshop and stakeholder discussion to evaluate the pilot SEA experience as an input to the Subcommittee's recommendations and guidelines and as important input to the broader planned SEA of the EEC. At the lessons learned workshop a detailed review of the draft SEA guidelines will draw on pilot SEA experience leading to a final set of recommendations on guidelines improvement and completion.

3) **Outputs**:

(1) Final pilot SEA Report

(2) Training module on the pilot SEA as a case study

(3) Final set of recommendations for completion of the draft SEA guidelines

6. Reporting

The preparation of a short inception report, mid-term progress report and final SEA report as benchmarks in the SEA process will keep the SEA Subcommittee informed.

Annex 2: SEA of the Rayong Province Development Plan – SEA consultation and communications plan

STAKEHOLDER CONSULTATION AND COMMUNICATIONS PLAN

ADB TA-9204 THA: Strategic Environmental Assessment of the Rayong Province Development Master Plan and Revision of the Draft Thai SEA Guidelines

July 2019

Prepared by: ICEM - International Centre for Environmental Management
Prepared for: ADB - Asian Development Bank and NESDC – National Economic and Social Development Council

Abbreviations

ADB	Asian Development Bank
CDS	Committee for Sustainable Development
CSOs	Community groups and civil society organizations
DIW	Department of Industrial Works
DWR	Department of Water Resources
EEC	Eastern Economic Corridor
EECO	Eastern Economic Corridor Office
ESIA	Environmental and Social Impact Assessment
IAIA	International Association of Impact Assessment
MCRRDE	Marine and Coastal Resources Research and Development Center, Eastern Gulf of Thailand
MNRE	Ministry of Natural Resources and Environment
NESDC	National Economic and Social Development Council
ONWR	Office of National Water Resources
PNRE	Provincial Office of Natural Resources and Environment
RTG	Royal Thai Government
RIO 9	Regional Irrigation Office
SEA	Strategic Environmental Assessment
SEP	Stakeholder Engagement Plan

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1 Introduction

1.1 Background

TA-9204 THA Phase 2: Strategic Environmental Assessment (SEA) of Rayong Province Master Plan and Revision of the Thai Draft SEA Guidelines aims to demonstrate the use of a SEA as a key strategic planning tool in provincial development planning and to inform review and completion of the draft SEA guidelines. This TA will (i) demonstrate a SEA of integrated development in Rayong Province of Thailand, within the Eastern Economic Corridor (EEC), and (ii) review and recommend revisions to the draft SEA guidelines prepared by the Thai National Subcommittee on SEA convened under the National Committee for Sustainable Development (CDS) by the National Economic and Social Development Council (NESDC). The project will run over six months from February to July 2019.

The Subcommittee on Strategic Environmental Assessment has made recommendations to the Royal Thai Government (RTG) and prepared draft guidelines to promote the systematic use of SEA as part of development planning. In support of that goal this TA will demonstrate best practice for sector and provincial SEAs as the basis for proposing improvements to the draft SEA guidelines. A pilot SEA will be conducted into the Rayong Development Master Plan.

2 Stakeholder engagement

Stakeholder engagementcan be defined as “any process that involves stakeholders in problem-solving or decision-making and uses stakeholder input to make better decisions” (Baldwin and Twyford, 2006). This definition highlights that stakeholder engagement is a process or series of actions, impacts and outcomes and not one single activity (UNEP, 2007). The International Association of Impact Assessment (IAIA) has developed SEA performance criteria to achieve “Participative SEAs”, so that the process informs and involves interested and affected public (Partidario, 2012). The approach of this SEA recognizes the need for stakeholder involvement in its activities and phases so the process is inclusive, transparent and fair.

2.1 Objectives of the stakeholder engagement plan (SEP)

The objectives of this Stakeholder Engagement Plan (SEP) are i) to outline the stakeholder consultation and communication activities throughout each step of the SEA, ii) to identify the key stakeholder groups, and iii) to identify resources needed and length of time to achieve effective participation in each stage of the process. Stakeholder engagement will be delivered primarily through carrying out the following key consultation events:

- **Kick-off meeting**: Meeting with NESDC to introduce the SEA methodology and process.
- **Rayong Province consultations**: Meetings with different stakeholder groups at the provincial level to identify the issues and opportunities for development of the province.
- **Multi-stakeholder scoping workshop**: Determine priority issues for development in Rayong Province though participatory activities and stakeholder feedback.
- **Impact assessment workshop**: Review findings of the impact assessment play a role in framing the sustainable development pathway for Rayong Province.
- **Sustainability pathway workshop:** Review the proposed sustainability pathway in the draft SEA and provide comments and suggestions through group discussion and activities.

Further information on the design of the key stakeholder events is outlined in section 5. The key stakeholder consultation events were designed to engage key stakeholders through multiple visits to Rayong Province.

The SEP recognizes the dynamic nature of a SEA and consultations will also involve ongoing:

- Direct discussions with individual stakeholders;
- Roundtable meetings with specific stakeholder groups;
- Interaction with the Advisory Group and Rayong Provincial Government;

It is important to highlight upfront that the role of an SEA is to assess at a strategic-level, the cumulative impacts of multiple projects across within Rayong Province and needs to take into account the representative views of relevant stakeholder groups. However, the SEA cannot be compared to an environmental and social impact assessment (ESIA) which examines individual projects and affected communities in more detail. The SEA will engage directly with some local communities affected by current development in Rayong Province as a way of confirming and deepening understanding of community concerns and opinions. It is recognized that engaging directly with every stakeholder will not always be possible- in which case stakeholder representatives or "gate keepers" will be identified and consulted.

2.2 Stakeholder groups

The first step in the SEP is to identify the key stakeholders to be consulted and involved. The initial list of stakeholders was developed based on the TOR and updated following the kick-off Meeting in February through direct with NESDC and other stakeholders. The stakeholder groups to be engaged will be expanded and updated as the SEA evolves to identify additional groups which have an important stake in the development of Rayong Province. The initial list of stakeholders is categorized under the following stakeholder groups:

- National government agencies;
- Provincial and regional government agencies;
- River Basin Committee;
- Community groups and civil society organizations (CSOs); and
- Private sector.

One group that was not able to be consulted during the SEA was the Industrial Estate Authority of Thailand (IEAT). However, substantial data on industrial estates was able to be gathered through publicly available IEAT resources. For example, the IEAT website allowed analysis of growth in land area of industrial estates in Rayong, as well as the processes and procedures used for environmental and waste-management.

2.3 Stakeholder analysis

Stakeholder analysis is the process of identifying the stakeholder groups that are likely to affect or be affected by a proposed action, and sorting them according to their impact on the action and the impact the action will have on them. The following stakeholder analysis will be incorporated into the key steps of the SEA (Table 2).

Table 5: Stakeholder analysis for key steps of the SEA

SEA steps	Stakeholder analysis
Inception and baseline assessment	**Preliminary stakeholder analysis**: Desktop analysis to determine for each stakeholder group their potential role in the project and their degree of importance and influence. The term 'influence' refers to ability to sway decision-making, whereas 'importance' refers to the the degree to which a group may be affected by planned developments.
Sustainable development pathway setting and assessment	**Participatory stakeholder analysis:** Will be used during the impact assessment phase to determine which stakeholders will be most adversely affected by planned development in Rayong Province.
Avoidance, mitigations and enhancements	**Institutional and legal analysis:** to determine each stakeholder group's level of interest and influence over the sustainable development pathway and as well as for avoidance, enhancement and mitigation recommendations.

Stakeholder analysis is an ongoing process and will evolve as new stakeholders are introduced to the SEA process. The preliminary stakeholder analysis has identified the various interests of stakeholder groups and what influence might these groups may have on the SEA. The analysis also shaped the design of stakeholder consultation events and which stakeholders to engage and when. The following sections will be included for each stakeholder group:

1. **Stakeholder identification** - preliminary list of stakeholders
2. **Stakeholder analysis** - the potential roles, interests and influence related to the SEA
3. **Stakeholder engagement activities** - how and when the stakeholders will be engaged during the implementation of the SEA

2.4 Stakeholder groups

2.4.1 National Government Agencies

National Government agencies are key stakeholders for the SEA. Engagement with government agencies at the national level will serve two main purposes:

(i) involve ministries, departments and committees in each step of the SEA to build consensus and ownership of the findings;

(ii) gather data and information relevant to the baseline assessment, impact assessment, and sustainable development pathways for Rayong Province.

Table 3 maps out the anticipated interest and influence in the SEA for each of the stakeholders at the National government level when the mandate, history of involvement, resources and authority in development planning and decisions making considered.

Table 6: National government agency stakeholders

Stakeholder	Interest	Influence
NESDC	High	High
Ministry of Natural Resources and Environment (MNRE)	High	High
Office of National Water Resources (ONWR)	High	Medium
Department of Industrial Works (DIW)	High	Medium
Pollution Control Department	High	Low
Department of Water Resources (DWR)	High	Medium

The team will work closely with NESDC to implement the SEA and will encourage the technical advisors and focal points to participate in all stakeholder engagement activities. National level government agency representatives will be invited to participate in multi-stakeholder workshops.

2.4.2 Regional Government Agencies

In additional to national level government agencies, there are several departments and agencies which operate at a regional level. The agencies play a critical role in the planning and development of Rayong Province, including the provision of financial resources for the implementation of regional projects, such as roads and water supply/distribution. Regional level water resources management offices are particularly important, as all of the river basins in Rayong Province are transboundary waters across provincial borders.

Table 7: Regional government agency stakeholders

Stakeholder	Interest	Influence
Eastern Economic Corridor Office (EECO)	High	High
Regional Irrigation Office (RIO 9)	High	Medium
Protected Areas Regional Office 2 (Sriracha)	High	Low
Regional Environment Office 13 (Chonburi)	High	Low
Water Resources Regional Office 6 (Prachinburi)	High	Low
Office of National Water Resources 7 (Chanthaburi)	Medium	Medium
Provincial Electricity Authority (Regional Office in Chonburi)	Medium	Low
Marine and Coastal Resources Management Office 1 (Rayong)	Medium	Low
Marine and Coastal Resources Research and Development Center, Eastern Gulf of Thailand (MCRRDE)	Medium	Low
Eastern Coast River Basin Committee	Medium	Medium

Provincial Government Agencies

The SEA team plans to conduct stakeholder engagement activities in Rayong Provinceto better understand the history and future trajectory of development within the province, as well as to gain an understanding of the provincial planning process. Provincial level government agencies at the state and region levels are key stakeholders in provincial development as summarized below in Table 4.

Table 8: Provincial government stakeholders

Stakeholder	Interest	Influence
Governor's Office	High	High
Governor's Office of Strategy and Information for Provincial Development	High	High
Rayong Provincial Fisheries Office	High	Low
Rayong Provincial Office of Natural Resources and Environment (Rayong PNRE)	High	Medium
Rayong Provincial Waterworks Authority	High	Low
Department of Statistics and Planning, Rayong	Medium	Low
Rayong Provincial Office for Agriculture and Cooperatives	High	Low
Rayong Provincial Office for Livestock	High	Low
Rayong Provincial Office of Land Transport	High	Low
Rayong Provincial Employment Office	Medium	Low
Area Excise Office Rayong 1	High	Low
Office of Commercial Affairs, Rayong	Medium	Low
Tourism Authority of Thailand, Rayong Office)	Medium	Low
Rayong Provincial Industry Office	High	High
Provincial Electricity Authority of Rayong	Medium	Low
Rayong Provincial Forest Office	Medium	Low
Rayong Provincial Energy Office	Medium	Low
Rayong Provincial Office of Public Works and Town & Country Planning	High	High
Rayong Pollution Control Center (Part of Rayong PNRE)	High	Medium
Rayong Provincial Labour Office	Medium	Low
Map Ta Phut Municipality	Medium	Low
Rayong Highway District	High	Low
Bureau of Ground Water Resources Region 9	High	Low
Rayong Provincial Office for Social Development and Human Security	High	Low
Rayong Provincial Office of Local Administration	High	Medium
Rayong Provincial Office for Labour Protection and Welfare	High	Low
Rayong Provincial Office of Public Health	High	Low
Rayong Provincial Administrative Organization	High	Medium

Provincial government representatives will be included in the following stakeholder engagement activities:

- Direct discussion and roundtable consultation meetings
- Scoping multi-stakeholder workshops
- Impact assessment workshop
- Final sustainability pathway multi-stakeholder workshop

2.4.3 Civil Society and Community organizations

Many civil society and community organizations represent stakeholders or stakeholder interests which will be directly impacted by future development in Rayong Province.

Table 9: Preliminary list of community organization stakeholders

Provincial/Local level community organizations	• Small Scale/Artisanal Fisheries Association of Rayong Province • Small Scale/Artisanal Fisheries Associate of Prasae River Estuary • Working Group Committee of KlongYai Sub-basin • Working Group Committee of Prasae Sub-basin • Local Environmental Volunteers of Rayong Province		
Potential role in SEA		Interest	Influence
Participate in key consultation events, direct and roundtable meetings. Provide data and information for key themes and guidance on defining the sustainable hydropower development pathway.		High	Low

Representatives from civil society and community organization stakeholder groups will be invited to participate in key stakeholder events, including:

- Direct discussion and roundtableconsultation meetings
- Scoping multi-stakeholder workshop
- Impact assessment workshop
- Final sustainability pathway multi-stakeholder workshop

2.4.4 Private sector

Table 6: Preliminary list of private sector stakeholders

Private Sector Stakeholders	• East Water Group (Rayong Operations Center) • PTT Pb. Co. Ltd., Rayong Gas Separation Plant • SCG Chemicals Co., Ltd. • IRPC Pub. Co., Ltd. • Federation of Thailand Industry of Rayong Province • Thailand Tourism Council

Potential role in SEA	Interest	Influence
Provide technical information on current and past private sector development in Rayong Province. Provide input into the development of a balanced future scenario for Rayong Province which includes the private sector.	High	Medium

Industrial and other private sector representatives will be invited to participate in the following key stakeholder events:

- Direct discussion and roundtable consultation meetings
- Scoping Multi-stakeholder workshops
- Impact assessment workshop
- Final sustainability pathway multi-stakeholder workshop

3 Key SEA Consultation Events and Process

3.1 Key stakeholder consultation events

The kick-off meeting between the SEA Team, NESDC, ONEP, and other stakeholder groups was held in Bangkok in February, 2019. The purpose of this meeting was to confirm the SEA process and methodology, work plan and scheduling for the SEA. Table 7 shows the overall work plan for the TA.

Table 7: Key stakeholder consultation events

Key Events	Feb	Mar	Apr	May	Jun	Jul
Kick-off meeting with NESDC and TA Team						
Inception Meeting Teleconference						
Inception Meeting with NESDC						
Site visit to Rayong Province						
First Consultation meeting with NESDC						
Stakeholder consultation meetings in Rayong Province – first mission						
Second Consultation meeting with NESDC						
Stakeholder consultation meetings in Rayong Province – second mission						
Third Consultation meeting with NESDC						
Scoping workshop in Rayong Province						
Impact Assessment Workshop						

Key Events	Feb	Mar	Apr	May	Jun	Jul
Lessons-learned workshop						
Workshop to review Draft SEA Guideline Revisions with NESDC SEA Working Group						

The following sections of the SEP provides a summary of the key stakeholder consultation events to be carried out under the SEA.

3.1.1 Direct discussion and roundtable consultation meetings

Consultations with the identified stakeholders will take place during three missions to Rayong Province, including one in March, April, and May. These events are planned to assist the SEA team in compiling data and information from national and provincial government agencies as well as civil society, community organizations, and private sector located within Rayong Province. The purpose of the consultation meetings is to engage stakeholders early in the SEA process to:

- Present the SEA objectives and identify how stakeholders can engage with the process;
- Identify key issues and opportunities related to development in Rayong Province; and
- Collect relevant data for use in the development of the baseline and impact assessments

3.1.2 Scoping Multi-stakeholder Workshop

The team will conduct a multi-stakeholder scoping workshops in April 2019. The workshopwill be inclusive and open to representatives from all identifiedstakeholder groups to attend. NESDC will facilitate with the coordination of this workshop, including the translation of workshop invitation documents into Thai and sending letters of invitation to the stakeholders.

The scoping workshop will form the basis for the baseline assessments that will be carried out for all thematic areas identified by stakeholders during the workshop, and will support the SEA team's prioritization of the most important strategic issues in Rayong Province.

3.1.3 Impact Assessment Stakeholder Workshops

The SEA team will conduct an Impact Assessment workshop in June 2019 in Rayong. Stakeholder groups will be encouraged to provide comments on the findings of the baseline assessment and will participate in activities to identify the trends and drivers of development in Rayong Province under a "Business As Usual" scenario and a scenario where the Rayong Provincial Development plan is fully implemented. Through this work, the stakeholders will have a critical role in framing the sustainable development pathway based on the findings of the impact assessment.

NESDC will facilitate this workshop through identifying a key group of stakeholders for participation, and translating and sending out letters of invitation to those identified parties.

3.1.4 Final Sustainability Pathway Stakeholder Workshop

The final sustainability pathway stakeholder workshop will be a two-day workshop held in July 2019. This workshop will give participants the opportunity to contribute to define a framework of sustainable development principles and measures to guide Rayong Province in preparing the next master plan.

This workshop will allow stakeholder groups to review the draft impact assessments and provide comments and suggestions through group discussion and activities. A comment and response matrix will be prepared to ensure that all comments and suggestions are considered in preparing the final SEA.

4 Concluding comments on the consultation and communications plan

The SEA is a strategy development planning tool. It needs to be conducted in an efficient way so that its consultative processes and recommendations remain relevant to and can influence the on-going decision making process. SEAs take a broad approach in terms of geographic area, the planning horizons and the scope of planning and policy formulation. Rayong Province has been identified at the national level for its potential to develop rapidly, specifically in the industrial sector. For that reason, the SEA needs to take a strategic approach to stakeholder engagement. It will not be possible to consult with all potentially affective communities and groups.

It is crucial that the SEA reaches out to key provincial agencies to build engagement and commitment to a sustainable planning process for the future of Rayong Province. The SEA must also ensure involvement from the private sector and community organizations, and will work to enhance understanding between parties and build a shared vision for balanced development including economic development, environmental sustainability, and the health and well-being of communities. The approach the SEA is taking is to conduct multiple targeted consultation meetings with stakeholders, and to ensure their perspectives are considered in the final SEA. Particularly important is the inclusion of all comments and opinions expressed within the workshop settings into workshop reports, ultimately shaping the final SEA.

Through those various measures, the SEA will seek to maximize stakeholder involvement in each phase of the process recognizing it is a strategic tool and will work to establish avenues for continued engagement in the development planning process after this SEA has been completed.

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