Towards the Adoption of Strategic Environmental Assessment (SEA): Thailand's New Initiative

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A B S T R A C T

For several decades, Thailand has transformed its social and economic conditions in the process of development by exploiting natural resources and damaging environmental quality. It wasn't until 1978 that Thailand had environmental impact assessment (EIA) as the best available tool to safeguard the environment. Over the years since then, EIA has shown some limitations: (1) inability to address cumulative impacts; (2) inability to capture transboundary impacts; (3) requirement of project size creating a loophole for EIA avoidance; and (4) lack of alternatives for other development approaches. Strategic environmental assessment (SEA) is designed to overcome the EIA limitations. SEA is a structured and rigorous evidence-based tool that requires open and transparent participation to ensure the suitable outcome of any policy, plan or program. Conducting SEA consists of five basic steps: (1) screening; (2) scoping; (3) baseline assessment; (4) impact assessment; and (5) alternative development. In Thailand, SEA was initiated in 2007 in the tenth National Economic and Social Development Plan (NESDP). Thailand's first SEA Guideline was produced in 2009. However, for almost a decade, only thirty SEA studies have been conducted on a voluntary basis. In 2017, the voluntary effort in adopting SEA has been reviewed by the SEA Subcommittee under the National Committee on Sustainable Development (NCSD), which has been tasked to draft the legal framework and guideline of SEA for submission to cabinet for further approval. The future prospect of SEA in Thailand depends on three critical factors: (1) a legal framework that forces entities to conduct SEA; (2) a critical mass of SEA experts and practitioners; and (3) a conflict resolution system.

1. Introduction

Unintended consequences of development: Impacts on the environment and society

For several decades, Thailand has transformed its social and economic conditions towards a developed country since the first National Economic and Social Development Plan (NESDP) in 1961. Numerous development projects of diverse sizes and scales were implemented nationwide, ranging from infrastructure construction to agricultural extension. Some development projects have created various degrees of unintended impacts on both environment and public health. In the early stages of Thailand's development, abundant natural resources were exploited for economic progress, resulting in the degradation of environmental quality.

In 1974, Thailand's Constitution stated clearly the roles of government in environmental conservation and restoration, in response to the global movement on human and environment.[1] Consequently, Thailand's first environmental law was enacted in 1975, namely the Enhancement and Conservation of National Environmental Quality Act (ECNEQ Act 1975). There were only 17 articles in the ECNEQ Act (1975). The key milestone was establishment of the National Environment Board (NEB)[2], under the Office of the Prime Minister, as the highest policy making body for the environment.

EIA as an environmental safeguard tool

In 1978, an amendment of the ECNEQ Act (1975) gave rise to the ECNEQ Act (1978)[3], which adopted many key elements necessary for environmental management. For example, a number of environmental standards were established, including ambient environmental quality (for air and water) and emissions (i.e. water discharge, air pollution from certain sources, toxic substances) standards. Importantly, the ECNEQ Act (1978) laid down the foundation of Thailand's first environmental safeguard mechanism, namely environmental impact assessment (EIA).

Despite enforcement of the ECNEQ Act (1978), it took a few years to add adequate detail for effective action. In 1981, an Announcement of the Ministry of Science, Technology and Energy (MOSTE) identified 10 types of sectors and sizes for projects legally required to conduct an EIA. After the EIA reports were scrutinized and approved by Expert Committees[4], the NEB considered the EIA reports and endorsed them based on the recommendations of the Expert Committees. Then, the project owners were able to proceed and get the permits for construction and operation. For almost a decade, this EIA system was relatively effective as an environmental safeguard tool in Thailand.

In 1992, environmental concerns had gained more global support as seen in the United Nations Conference on Environment and Development (UNCED), also known as the Rio de Janeiro Earth Summit 1992. Likewise, Thailand had strengthened the ECNEQ Act (1978) by replacing it with the ECNEQ Act (1992). Following the ECNEQ Act (1992), the MOSTE Announcement enlarged the list of project types and sizes that were required to conduct an EIA from 10 to 36. This ECNEQ Act (1992) was enforced for more than two decades, with few minor amendments. Nonetheless, there were many conflicts and challenges stemming from enforcement of the ECNEQ Act (1992).

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[1] The United Nations Conference on the Human Environment was held in Stockholm, Sweden from June 5–16 in 1972.

[2] The bureaucratic organizations also had been established to serve as the secretariat of the NEB, which is the National Environment Board Office (NEBO) under the Office of the Prime Minister (OPM).

[3] NEBO had been moved to the Ministry of Science, Technology and Energy, as one function of the government.

[4] Many Expert Committees were set up in accordance with the sectors of the projects.

Limitations of EIA

Although Thailand had implemented EIAs since 1981, often there were conflicts between local communities and project proponents due to development projects for which EIA reports had been approved by the Expert Committees or even the NEB. These conflicts indicated the limitations of EIA in several aspects.

Cumulative impacts. Because EIA is conducted at the project level, there is no systematic way to incorporate the current impacts of the existing industrial establishments in surrounding areas. As a result, in some areas, the cumulative environmental and social impacts affected local communities seriously.

Size of the projects. According to the ECNEQ Act (1992), certain types and sizes of projects are required to conduct the EIA, while others are exempted. In reality, many project proponents deliberately selected project sizes marginally smaller than that required by law. In other words, the project size could be selected such that the need for an EIA can be avoided, resulting from a loophole in EIA application. Often, these smaller projects would have more than one phase of development, thus achieving the original intention, while avoiding the need for an EIA.

Transboundary impacts. Despite the need to set the clear boundary of the project, environmental impacts often respect no borders. Applying EIA is not able to cover the transboundary environmental impacts, especially where projects affect neighboring countries.

Limited or even lack of alternatives. For EIA, the environmental impacts of any project construction and operation are identified given selected alternatives or technologies. Generally, EIAs focus on mitigating and minimizing impacts of the project but do not consider "without project" alternatives, or alternative ways to achieve the same project objectives.

2. Strategic Environmental Assessment (SEA)

Overview of SEA

According to Loayza (2012)[5], Strategic Environmental Assessment (SEA) is a "set of analytical and participatory processes for incorporating environmental considerations, at early stages of decision making, into policies, plans, and programs that affect natural resources." In this sense, SEA is a structured and rigorous evidence-based instrument that requires open and transparent participation to ensure the sustainable outcome of any policy, plan or program.

Generally, the process of conducting a SEA consists of 5 basic steps. First, screening determines if SEA is necessary. Second, scoping identifies key issues that need strategic assessment. Third, a baseline assessment is conducted to gather data (evidence) in the related sector at the national or regional levels. Fourth, impact assessment is to define the anticipated impacts and their significance. Fifth, alternative development approaches and their assessments are based on a range of options with their associated consequences. Moreover, the key element that is embedded in almost all steps of SEA is public participation. However, the level of public participation might vary in each step, ranging from informing, consulting, involving, collaborating and empowering[6].

According to Loayza (2012), there are two approaches to an effective SEA depending on the context of development goals. The first is an impact-centered SEA approach, which puts the emphasis on the "physical and human impacts of proposed development plan." The other is

[5] Getting to Green – A Sourcebook of Pollution Management Policy Tools for Growth and Competitiveness (2012)

[6] IAP2, 2014

institution-centered SEA approach, which focuses on a “project’s managing body,” applying many techniques such as environmental economics, political science, and sociology.

Advantages and challenges of SEA adoption

Advantages of SEA adoption: SEA is an overarching tool that is useful in comprehensive and forward-looking assessment. Several advantages of SEA may overcome the limitations of EIA. First, typical SEAs have been undertaken at the early stages of the policy, plan and program cycle and have engaged various stakeholders in each step. Therefore, SEA can demonstrate and evaluate the cumulative impacts at the sector or regional level. Second, because SEA is not restricted by the size and type of project, avoidance of SEA is not possible. Third, SEAs can recognize the transboundary impacts of projects and recommend appropriate actions accordingly. Finally, the heart of SEA is to provide and assess a range of development alternatives proposed by stakeholders in the public participation process. When all parties are satisfied with their gains or reasonable compensation, selected alternatives should be achieved by iterative negotiations.

Challenges of SEA adoption: Although SEA has several advantages over EIA, adopting and implementing SEA is not simple. There is a number of challenges when implementing SEA. First, effective SEA implementation requires a legal foundation or strong leadership of policy makers. Second, high quality SEA needs extensive data, so that the analysis is based on empirical evidence. In Thailand and other developing countries, conducting SEA in certain sectors or areas might require specific research to generate the necessary information. Third, SEA could take time and be expensive. As the scope of SEA is broader than the project site, the analytical work could be far more complex and time consuming. Findings from SEA could be accurate only when it relies on specialist knowledge.

3. Thailand’s Initiative of SEA

Past efforts of SEA application

SEA is not new to Thailand. Since 2007*, the Tenth National Economic and Social Development Plan (the 10th NESDP) (2007-2011)* indicated that a SEA system should be established and applied when formulating development policy and plans to be consistent with harnessing the potential of each area. During the mid-term of the 10th NESDP, ONEP in collaboration with Mahidol University released the first Thailand SEA Guideline (2009). The 2009 SEA Guideline includes four main chapters: (1) introduction; (2) steps and techniques of SEA; (3) case studies of SEA in Thailand and other countries; and (4) SEA for Thailand. Additionally, the *11th NESDP (2012-2016)* further promoted the use of SEA nationwide, albeit voluntarily.

Nonetheless, during these years, only 30 SEA studies were undertaken in Thailand. Four of these studies were sector-based SEAs including electronics industry, potash mining, iron-steel industry, and copper and zinc mining. The rest of the SEA studies were area-based, such as SEA of Special Economic Zone in Chieng Rai, SEA of the Yom Watershed; and SEA of the Development of Thailand Southern Corridor (Surat Thani, Nakhon Sri Thammarat; Krabi, Phang-gna, and Phuket). Meanwhile, ONEP was faced with numerous conflicts between local communities and project proponents regarding EIAs. These conflicts created pressure on ONEP as the main authority responsible for both EIA and SEA.

In 2014, under the National Council for Peace and Order (NCPO) regime, the *National Reform Steering Council (NRSC)* was established. The NRSC recommended SEA as one of the key tools necessary for improving Thailand’s environmental management system. Then, *the 12th NESDP (2017-2021)* embraced the application of SEA, particularly stressing its use in the key watersheds. The *National Reform Plan on Natural Resources and Environment (2018-2022),* has

further articulated the establishment of the SEA system and institutional arrangements, which are in line with the *National Strategy (2018-2037),* the long term development direction of the country.

Present progress of SEA adoption

After almost a decade since the first Thailand SEA Guideline was released in 2009, a concrete institutional arrangement was shaped in 2017. Under the NCPO regime, the Subcommittee on Strategic Environmental Assessment was created under the National Committee on Sustainable Development (NCSD) in order to move SEA forward. The main secretariat of the SEA Subcommittee is the Office of the National Economic and Social Development Council (NESDC), with support from ONEP. Evidently, the leading role in putting SEA into action has been changed from ONEP to NESDC. As SEA involves an assessment that integrates all sustainable development components (social, economic and environmental), NESDC seems to be appropriate for the secretariat role of the subcommittee. While the key duty of ONEP focuses on the environment, NESDC's roles encompass all three pillars of sustainability.

In 2017, the SEA Subcommittee established two working groups: (1) SEA Development WG (SEA-DWG) and (2) SEA Guideline WG (SEA-GWG). The **SEA-DWG** has a clear mandate on (1) identifying the types of strategy, plans, and programs that require SEA; (2) recommending the clear process, criteria, and method of SEA; and (3) drafting the Regulations of the Office of the Prime Minister (R-OPM)[7] on SEA for submission to the NCSD and the Cabinet for approval. The **SEA-GWG** has complementary mandates on drafting the SEA Guideline that will be endorsed by the NCSD and the Cabinet. This SEA guideline will highlight the steps and process of SEA implementation. In 2018, these two WGs have brought their work to the NCSD's consideration for approval. To date, however, the whole package of the R-OPM on SEA and SEA Guideline has not been submitted to the Cabinet.

4. Conclusion

Prospect of SEA in Thailand

Although a draft of Regulation of the OPM on SEA and a draft of SEA Guideline have been finished, practical implementation of SEA seems far from reality due to few critical reasons.

First, the lack of understanding and experience is the foremost obstacle in putting SEA into practice. There are only a few experts who understand and can serve as consultants in conducting SEA. A small number of government officers have known and comprehended SEA sufficiently that they can produce the terms of reference (TOR) for SEA studies. Without the knowledge and experience about SEA methodology, the Government is unlikely to legally require SEA in practice.

Second, there is no established system of SEA review and quality control. Once the SEA studies are completed, there should be an entity that examines, suggests and approves the reports, similar to the Expert Committee for EIAs. This entity need not be the decision maker, which demands all government agencies to follow the recommendations of the SEA reports. Without such a system, SEA will remain ineffective.

Finally, there is a lack of skills related to public participation and conflict resolution. Because a quality SEA requires intensive public participation throughout the process, a limited number of practitioners to facilitate public participations will constrain the SEA practice. In addition, the legal

[7] R-OPM is quite a low hierarchy under the law, enacted by the cabinet resolution. Hence, it is part of administrative law.

framework of public participation in policy, plan and programs might be necessary to ensure the quality of SEA practices.

To overcome some of these obstacles, NESDC implemented two projects in 2019. The first project was to pilot a SEA study in selected areas of Rayong Province. This project was partially funded by the Asian Development Bank (ADB) to provide an international expert to lead the SEA practical steps as specified in the SEA Guideline. The project was to intended to provide hands-on experience for NESDC staff in conducting SEAs. Moreover, lessons learned from piloting the SEA would be used as an input for improving the SEA Guideline.

The second project was to create a SEA curriculum for a training course, train the trainers, and train general practitioners nationwide. The SEA curriculum was drafted and considered in several focus groups. Then, the training of the trainers was organized to create a cadre of SEA experts who would participate in the SEA mass training throughout the country. At least 700-800 participants took part in the SEA training course in 2019. This project was an effort to raise awareness and prepare central and local government agencies to be ready for the pending legal requirement of SEA.

Key success factors of SEA adoption

To turn SEA into practice, there are at least three factors critical to the success of SEA adoption in Thailand.

The first factor is the legal framework that forces entities to conduct SEA for certain policies, plans and programs. SEA would not be undertaken seriously without such legal requirements and penalties for violation. The legal framework will determine the structure and functions of the SEA system. For example, it should specify the entity to review and approve the SEA reports, ensuring that the SEA reports are of high quality. Moreover, the legal framework could set the date when SEA would be required progressively, starting from certain priority sectors.

The second factor is the critical mass of SEA experts and practitioners among all groups of stakeholders, ranging from consulting firms, academia, government agencies, and civil society organizations. It is important to create a SEA community of practice, comprising a range of stakeholders who understand the SEA concept and steps in line with the SEA Guideline. Additionally, public participation should be emphasized in the SEA process to reduce the risk of conflict. If stakeholders understand and accept the SEA Guideline and processes, the chance of conflicts over the results of SEAs should be minimized.

The third factor is a conflict resolution system which brings together all parties to settle issues in conflict. It is foreseeable that some SEA reports will be questioned and argued by stakeholders that stand to lose certain benefits. When such unsettled issues escalate to unresolved conflict, it is necessary to have a means to resolve this conflict such as neutral third-party intervention. For this reason, there is a need to explore all the possible means of conflict resolution.

Thailand has made considerable progress in applying environmental safeguard tools such as EIA. However, adopting the new tool like SEA and turning this tool to real implementation has been proven difficult. Putting SEA into practice is a learning process that requires step-by-step actions. It remains to be seen when Thailand will be able to implement SEA fully.

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