

Strategic Environmental Assessment in East and Southeast Asia: A Progress Review

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1. Context

Development context in the region

- Rapid economic growth
- Development opportunities and challenges
- On-going reforms to improve development policies, plans and programs (PPPs)
- Increasing recognition and applications of SEA
- Still weak capacity to mainstream environmental consideration.



World Bank Technical Assistance

- Supported SEA practice in the region through its technical assistance, lending, and training activities.
- Launched a regional TA program of SEA in EAP in 2005.
- Conducted a baseline review in 2005 and produced a report entitled “Environmental Impact Assessment Regulations and Strategic Environmental Assessment Requirements: Practices and Lessons Learned in East and Southeast Asia” (World Bank 2006).
- Sponsored a series of SEA pilots in China, Vietnam, Indonesia, etc.
- Created a website and an e-discussion listserv, www.worldbank.org/eapenvironment/sea-asia



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Strategic Environmental Assessment (SEA)

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Rapid growth and transformation in East Asia and Pacific Region (EAP) has mounted tremendous pressure on its natural environment. Virtually in all major EAP countries, environmental quality has deteriorated and natural resources have been degraded, often at alarming rates, over the past several decades. Given these environmental challenges, the World Bank has been actively assisting developing countries in EAP to protect natural the environment and promoting sustainable development. In particular, the World Bank is putting efforts to mainstream and enhance upstream environmental analysis in development process with the use of **strategic environmental assessment (SEA)** as an analytical tool to assist client countries in strengthening their environmental assessment and planning capacity.

Environmental Impact Assessment (EIA) and Strategic Environment Assessment (SEA) in EAP

Although the region as a whole has already had EIA practice at the project level for many years, the degree and quality of environmental assessment practices greatly varies from country to country. Hong Kong (China), Japan, and Korea, for example, have a well-established system and good record of applications at project, program, and plan levels. Cambodia, Lao PDR, and Mongolia, on the other hand, are at an earlier stage and trying to build their own basic capacity. Countries like China, Indonesia, the Philippines, Thailand, and Vietnam are in-between. They have established their legal systems requiring EIA for years but they often need external assistance to improve their EIA quality and strengthen capacity.


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Strategic Environment Assessment - Asia Listserv

The SEA-Asia e-discussion group (powered by ListServ) was created in response to the increasing demand for knowledge-sharing and information exchange on SEA. The SEA-Asia listserv is an online discussion forum for professionals interested in and/or working on SEA-related issues in Asia to share knowledge and experiences aimed at mainstreaming and advancing environmental concerns in development policies, programs, and plans in the Asian countries.



To join the listserv, please e-mail : join-sea-asia@lists.worldbank.org

Once your subscription has been confirmed, you can start posting messages to the listserv by e-mailing: sea-asia@lists.worldbank.org

To retrieve archived e-mails from the SEA Asia Listserv, go to the [Listserv Postings Archive](#). Please note that the views and comments posted by the community are not necessarily that of the World Bank and other sponsors.

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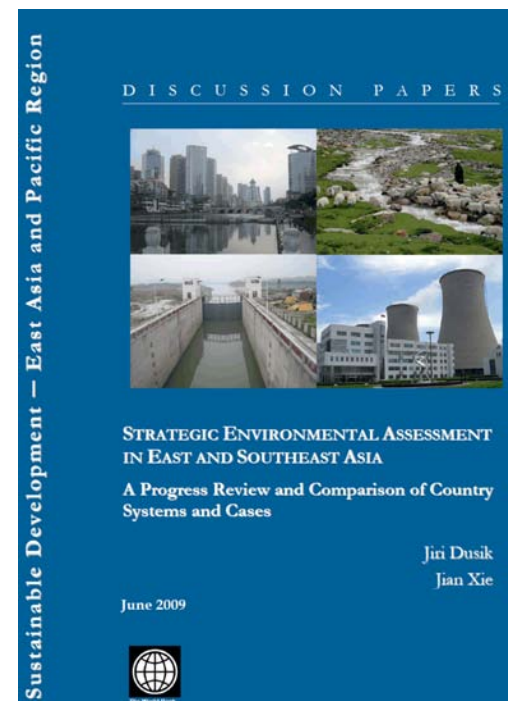
- At the time of the 2005 review, there were a very few SEA applications in developing countries in the region.
- But SEA has since been actively promoted in a number of countries and increasingly used in the region.
- A progress review was conducted in 2008 (3 years after the first review) to extend our understanding of the SEA systems and their implementation in the East and Southeast Asia Region since 2006.

2. Objective and Scope



Objectives of this review:

- Provide an overview of the latest development of SEA requirements and practice in developing countries in the region
- Document and review new SEA case studies
- Recommend actions for further promoting SEA



Study Scope

- 7 country systems in the Region (China, Indonesia, Lao PDR, Malaysia, Philippines, Thailand, and Vietnam). Developing countries only.
- 15 SEA case studies (among over 80 cases identified)
- Comparative overview and recommendations



Cases Reviewed

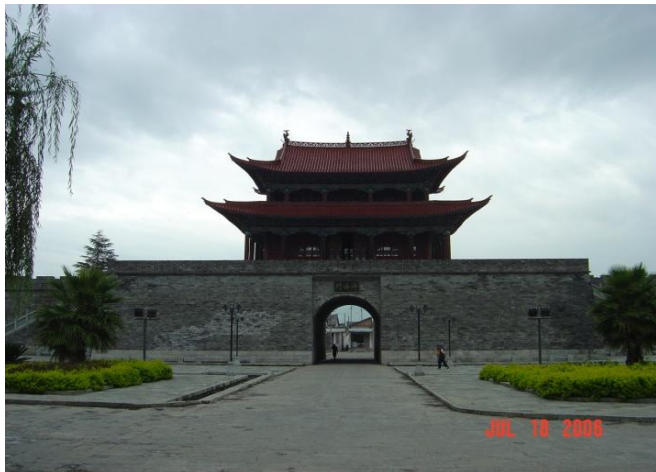
1. Cambodia: SEA of the Tourism Sector (2008)
2. China: Preliminary SEA of the Great Western Development Strategy
3. China: SEA of Tourism Development in the Guizhou Province (2007)
4. China: SEA of Hubei Road Network Plan (2008)
5. China: SEA of the Dali Urban Development Master Plan (2008)
6. Fiji: SEA of Tourism Development Plan (2003)
7. Indonesia: SEA Pilot Study at Ciayumajakuning, West Java (ongoing since 2007)
8. Indonesia: SEA for Spatial Planning in Papua Province (2008)
9. Lao PDR: Cumulative Impact Assessment and Strategic Impact Assessment for Nam Theun II Hydropower Development (2005)
10. Philippines: Regional Environmental Assessment for Manila Third Sewerage Project (2005)
11. Vietnam: SEAs of land use plans and economic zones (2006-2008)
12. Vietnam: SEA of the Quang Nam Hydropower Development Plan (2007)
13. Vietnam: SEA for Sustainable Hydropower Development (2008)
14. Vietnam: SEA for Socio-Economic Development Plan of Con Dao District (2007)
15. Vietnam: SEA for the Vinh Phuc Social Economic Development Plan 2006 – 2010 (2008)

Questions in mind

- What is the role of SEA systems?
- What is the relationship of SEA and decision-making?
- What issues are normally addressed in SEAs?
- What analytical approaches are used for conducting SEAs in the Region?
- Do SEA systems facilitate engagement of key stakeholders and public access to information?
- Are SEAs being used to improve administrative arrangements for integration of environmental issues in development planning?

3. Sample Case Studies

- SEA for the Dali Urban Development Master Plan of Dali City, China (2008)
- SEA for Socio-Economic Development Plan of Con Dao (Archipelago) District, Vietnam (2007)



SEA FOR THE URBAN DEVELOPMENT MASTER PLAN in Dali City, China

- Dali City is a regional hub in Yunnan Province, southwest China; 620k population and 38 km² built area; and a tourist destination with rich (mainly Bai people) minority cultural heritage.
- In 2007, Dali Municipal Government commenced the revision of its existing urban development master plan and simultaneously commissioned SEA for the master plan revision. Additional support from a provincial project



SEA FOR URBAN DEVELOPMENT in Dali (2)

- The purpose of the SEA was to assess the environmental impacts of the proposed urban development objectives, population and territorial expansion, spatial layout, and planned industrial developments in the municipality.
- Due to a delay in the formulation of the master plan, the SEA eventually ended up analyzing impacts of possible development scenarios and providing related recommendations to Dali Municipal Government and the planning team.

SEA FOR URBAN DEVELOPMENT in Dali (3)

- focused on environmental, social and economic issues: e.g. biodiversity, landscape, land use, water resources, air, domestic solid waste, GDP, industrial structure, minority cultures, etc.
- Trends were analyzed without the plan and with the proposed plan options. This was supplemented by analyses of carrying capacity for key water and land ecosystems.



SEA FOR URBAN DEVELOPMENT in Dali (4)

- An advisory committee comprising representatives from governments, local congress and local experts.
- Meetings and 4 workshops were held to review the SEA approach and methodology with international, national and provincial experts.
- Available data, on-site investigations, expert consultations and judgments, matrices, SWOT analysis, GIS and scenario building were used.
- Public opinions were collected through interviews and questionnaires of local citizens and tourists.

SEA FOR URBAN DEVELOPMENT in Dali (5)

- The SEA suggested changes to provincial and national policies that encourage expansion of the Dali municipality. It proposed instead to facilitate developments in satellite municipalities.
- A number of policy and institutional measures should be taken: limiting new industrial developments in Dali and encouraging industries to move to surrounding municipalities instead; involving other municipalities in integrated river basin management; and building up an integrated coordination mechanism for renovation of neighboring urban centers.

SEA for Socio-Economic Development Plan (SEDP) of Con Dao District, Vietnam



SEA for SEDP of Con Dao (2)

- Con-Dao Archipelago, Ba Ria – Vung Tau Province
 - 16 islands (total area 52 km²) in the East Sea, 185 km from the mainland
 - valuable biodiversity (forests, coral reefs, mangroves)
 - over 4,000 inhabitants, approx. 9,000 visitors per year
- Socio-Economic Development Plan (SEDP) until 2020, approved in 2005
 - general strategic development document for the district
 - stipulates main development goals and priorities focused mainly on the tourism development



SEA for SEDP of Con Dao (3)

- This SEA aimed to enhance consideration of environmental issues within the Socio Economic Development Plan of Con Dao District, which encompasses a national park and marine protected area.
- The Socio Economic Development Plan (SEDP) was approved prior to being subject to SEA. As the Plan could not be formally changed, the SEA broadened its original focus to provide recommendations for preparing future SEDPs and subsequent master plans.
- ex-post approach



SEA for SEDP of Con Dao (4)

- The SEA was carried out only over four weeks and did not include extensive stakeholder consultation (except for initial meetings, a round table and a workshop)
 - rapid assessment (1 month, by 2 experts)



SEA for SEDP of Con Dao (5)

- The SEA considered only environmental issues, such as air, soil, water, biodiversity and landscape, human health, waste management, energy management, transport, tourism and climate and climate change.
- Key aspects of SEA
 - trend analysis
 - cumulative effects
 - consultations with authorities

SEA for SEDP of Con Dao (6)

- Based on these evaluations, the SEA team proposed changes in development goals, suggested specific modifications of the SEDP, and provided recommendations for further planning and decision-making processes in the study area.
- Institutional issues were not explicitly addressed in this SEA. However SEA recommendations propose detailed arrangements for improved coordination between relevant institutions in charge of socio-economic development and environmental protection in the area.

4. Comparison of Country Systems and Cases

- Legal Requirements
- Role of SEA
- Timing and Links with Decision Making
- Focus
- Institutional Strengthening
- Stakeholder Engagement



Legal Requirements: Recent Progress by Country

- Established and implemented SEA systems: **China and Vietnam** have laws, guidance and increasing practice. Vietnam has made significant progress since the 2005 review;
- New SEA frameworks: **Indonesia** has just passed new Environmental Protection Laws with ambitious SEA requirements that aim to use SEA for considering sustainability of proposed PPP;
- SEA frameworks under preparation: **Malaysia** plans to issue a paper on undertaking SEA in 2009. **Thailand and Philippines**, have developed basic proposals for SEA frameworks that await formal adoption; and
- First SEA experiments with the support of donors: **Lao PDR, Cambodia and Fiji**.

Country Legal Systems: The Case of China

- *Environmental Protection Law* (1989) requires EIA for construction projects but no PPP.
- *Environmental Impact Assessment Law* (2002) requires development plans, both regional or sectoral, subject to environmental assessment (plan EIA)
- *National Regulation on Environmental Impact Assessment to Plans* (2009) further regulates plan EIA.
- *Rules for the Review of Plan EIA Report for Sector Plans* as well as the *Technical Guidelines for Plan EIA* (on trial) issued by the Ministry of Environmental Protection to guide plan EIA implementation.
- A number of provinces have issued local regulations, rules or documents on plan EIA.

Role of SEA

- Used as environmental safeguard check on already drafted PPPs before their adoption (China).
- Applied as a fully internalized planning tool to consider relevant environmental or sustainability concerns during PPP elaboration (Indonesia, possibly Malaysia).
- Mixed processes –used as a planning support but concluded by its formal review by environmental and other authorities (Vietnam, possibly Thailand)

Timing and Links with Decision-Making

- Few SEA reviewed within this study was prepared from the beginning of the planning process and completed together with the proposed PPP.
- At best, SEA was done after a PPP had been drafted and before its submission for decision-making.



Timing and Links with Decision-Making

(Note: xx -- primary focus; x - secondary focus; blank cell - not addressed)

| SEA Cases | Focus of the assessment | | | | |
|--|-------------------------|------------------------------|----------------------|-----------------------------------|-------------------|
| | Future PPP | Proposed PPP before adoption | Already approved PPP | Subsequent plans to implement PPP | Proposed projects |
| Cambodia: SEA of the Tourism Sector | x | xx | | | |
| China: Preliminary SEA of the Great Western Development Strategy | | | xx | | |
| China: SEA of Tourism Development in the Guizhou Province | | | xx | x | |
| China: SEA for Hubei Road Network Plan | | | xx | | x |
| China: SEA for Dali Urban Development Master Plan | x | xx | | | x |
| Fiji: SEA of Tourism Development Plan | x | | xx | | |
| Indonesia: Ciayumajakuning pilot SEA | xx | | | | |
| Indonesia: SEA for Spatial Planning in Papua Province | xx | | x | | |
| Lao PDR: CIA for Nam Theun II Hydropower Development | x | | | | xx |
| Lao PDR: SIA for Nam Theun II Hydropower Development | x | | | | xx |
| Philippines: REA for Manila Third Sewerage Project | | xx | | | |
| Vietnam: SEA of Quang Nam Hydropower Plan | | | xx | | |
| Vietnam: SEA for Sustainable Hydropower Development | xx | | x | | |
| Vietnam: SEA for Con Dao Socio-Economic Development Plan | xx | | x | | |
| Vietnam: SEA for the Vinh Phuc Social Economic Development Plan | xx | | x | | |
| Vietnam: SEMLA pilot SEAs | | x | xx | | |

Focus of SEA

- The proposed legal framework for SEA in the Philippines is mainly focused on environmental issues.
- SEA legislation in China and Vietnam include rudimentary, ad hoc requirements for assessment of certain social and economic impacts.
- Evolving SEA systems in Indonesia, Malaysia and Thailand aim to address relevant environmental, social or economic concerns.



Focus of SEA (Cont.)

- Out of 15 SEA cases, only about 1/3 focused on purely environmental issues. 1/3 of all cases partly addressed social or economic issues. 1/3 considered the full range of environmental, social and economic concerns.
- This shows importance of addressing especially social impacts, and sometimes also economic impacts (in those cases when PPPs may have unforeseen adverse economic impacts) in the region.
- Most cases addressed the implications of the proposed PPPs on developments in related sectors.

Institutional Strengthening

- No SEA frameworks in the Region have been reported to require analyses of institutional arrangements for managing adverse impacts of proposed PPPs.
- Despite the lack of legal obligations, all SEA cases reviewed in this study implicitly or explicitly used SEA to consider wider institutional issues in the environmental management of development planning.
- This reflects the need to enhance the existing administrative and procedural arrangements for managing environmental and social side-effects of ongoing developments in the Region.

Stakeholder Engagement

- Formal requirements for SEA in China, Vietnam include rudimentary provisions for public participation which are only partly being applied in the practice.
- Evolving SEA system in Indonesia is promoting extensive stakeholder consultations.
- Most of the SEAs reviewed facilitated involvement of relevant authorities. Except in Indonesia, marginal opportunities were given to participation of ordinary citizens.



Main Messages Derived

- Facilitating ownership of SEA by the planning and decision-making authorities;
- Using SEA for analyzing environmental, social or economic issues based on the needs of the decision-making authorities;
- Using simple and participatory assessment techniques that can operate even in situations of significant data gaps;
- Enhancing quality of inter-institutional consultations during SEAs.
- Considering institutional arrangements for managing major side effects of proposed developments within SEA; and

5. Conclusions and Recommendations



Conclusion 1: Promote SEA as a set of assessment activities that can be flexibly integrated into planning and decision-making

- Undertaking pilot projects that test first simple and second sophisticated approaches to undertaking SEA during the planning process.
- Gradually developing advisory technical guidelines for conducting SEAs in key sectors that suggest fully customized SEA approaches for key planning processes.

Conclusion 2: SEA should address environmental as well as social and economic concerns of decision-makers and relevant stakeholders

- SEA should allow for an integrated assessment of key concerns associated with a proposed PPP. SEA practice should not be constrained by stipulating rigid assessment requirements or inflexible reporting formats.
- Appropriate consultations with the relevant environmental authorities and other government agencies should be undertaken when determining the scope of issues to be addressed in each particular SEA and when reviewing the SEA findings.

Conclusion 3: Promote robust assessment approaches that can process information held by various stakeholders and can operate in face of data gaps

- Use simple assessment techniques that can process information provided by various stakeholders and can cope with information gaps.
- Promote regulatory reforms that facilitate free data sharing among authorities and provide for unrestricted access to all completed SEAs, EIAs and other studies prepared for the government for their use by any interested party.

Conclusion 4: SEA should address and evaluate institutional capacities and arrangements for environmental management and integration

- SEAs in the Region should increasingly consider institutional capacities for managing side effects of ongoing and proposed developments.
- Such considerations may examine practical opportunities for improved coordination between authorities, possible establishment of new regulatory, economic or administrative tools; and targeted capacity building for management in key institutions in charge of mitigation and enhancement measures.

Conclusion 5: Strengthen consultations and gradually improve transparency of SEAs for the public

- Promote unrestricted public access to environmental information to enable stakeholders to effectively participate in the SEA processes.
- Ensure that SEAs reports become publicly accessible and that citizens are given rights and basic opportunities to submit comments;

Conclusion 6: Promote the use of SEA by planning and implementing agencies through promotional and capacity building activities

- Undertake SEA awareness raising and training programs for key planning agencies and line ministries. Such trainings should ideally facilitate discussions on flexible SEA approaches that can be fully customized to planning realities in these agencies; and
- Specific attention should be given to surveying opinions of planning authorities and decision-makers about the benefits and costs of this process and their recommendations for its further application.

Conclusion 7: Promote regional cooperation on SEA matters

- Establish a regional network in the Region for knowledge sharing and information exchange. It may also be beneficial to stimulate SEA twinning arrangements between countries with similar requirements or common interests on specific SEA-related matters.
- Promote a regional cooperation between universities and research institutes with an interest in SEA research and training.
- Facilitate professional networking that enable discussions on SEA practice.

Concluding Remarks

- A growing interest in SEA has been observed in the region.
- SEA applications remain at a relatively early stage with few examples of fully operational processes or effective practice.
- The SEA pilots discussed here are varied and should be understood as largely initiated for learning, demonstration and capacity building purposes. They provide a snapshot of emerging and still evolving SEA practice and experience in the EAP region.
- The on-going trend is positive and encouraging. It is still too early to tell the effectiveness of SEA practice in terms of mainstreaming the environment in development decision-making.
- SEA process needs to be further operationalized and institutionalized. Continuous and strong government commitment is essential and external assistance is needed.

Issues for Future Studies

- Evaluating and strengthening the effectiveness of SEA practice in the region
- Integrating climate change (both mitigation and adaptation) and other global concerns into SEA





Thank You!

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