

Abstract Title: Strategic Environmental Assessment and AECEN

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Abstract Summary Statement: Use of SEA as an upstream environmental planning tool in the Mekong region as a useful compliance strategy for AECEN.

Abstract: Avoidance of environmental problems is the preferred modality in achieving compliance and enforcement of environmental standards. The Asian Environmental Compliance and Enforcement Network promotes compliance with environmental laws, regulations, and standards over strict enforcement. The use of strategic environmental assessment is a useful upstream planning tool, prior to environmental impact assessment. Experience in applying strategic environmental assessment in the Mekong region will be used as an example.

A. Introduction

The purpose of this paper is to link Strategic Environmental Assessment (SEA) with an urgent need for improved environmental compliance and enforcement in the Asian region, especially utilizing the Asian Environmental Compliance and Enforcement Network (AECEN), a regional network of environment agencies dedicated to promoting improved compliance with environmental legal requirements in Asia through regional exchange of innovative policies and practices.¹

AECEN members are national or sub-national environment agencies in Asia responsible for the development and/or implementation of environmental policies and laws. Members designate a National Coordinator (or a focal person in the case of a subnational agency) who will provide overall support to projects and work with in-country stakeholders. Members presently include 20 environmental agencies from: Cambodia, India, Indonesia, Japan, Korea, Lao PDR, Malaysia, Maldives, Mongolia, Nepal, People's Republic of China, Pakistan, the Philippines, Singapore, Sri Lanka, Thailand, and Viet Nam (as of May 2015). The Institute for Global Environmental Strategies (IGES) Regional Centre in Bangkok provides the Secretariat.

The United States Agency for International Development (USAID) provided initial principal funding support for AECEN. Other partners include: United Nations Environment Programme, Asian Development Bank, United States Environmental Protection Agency, IGES, World Bank, International Network for Environmental Compliance and Enforcement, and Organization for Economic Co-operation and Development.

B. Role of Strategic Environmental Assessment in Compliance and Enforcement

So why would a network concerned about strengthening compliance and enforcement of environmental pollution control be interested in SEA? To illustrate, let's examine a few cases that AECEN has been asked to assist with through South-South cooperation or "twinning".

¹ <http://www.aecen.org/>

Viet Nam – contaminated soil monitoring - To strengthen its policies and practices on soil contamination monitoring for application in Da Nang and other hotspots, the Ministry of Natural Resources and Environment (MoNRE) and the Korea Ministry of Environment established an AECEN twinning partnership with funding and coordination support from the USAID Environmental Cooperation-Asia (ECO-Asia) project. Through technical exchange and targeted training, the partnership enabled the transfer of knowledge and expertise leading to the development of Viet Nam's technical guideline on soil contamination monitoring, as well as enhanced technical capacity of MoNRE and other key agencies.

Thailand – river basin public participation - The Tha Chin River is recognized as one of the most polluted rivers in Thailand. Located in Thailand's central plain, the Tha Chin is a distributary of the Chao Praya River—Thailand's largest river system. With support from USAID's ECO-Asia, AECEN facilitated a "twinning" partnership in the context of the New Zealand - Thailand Closer Economic Partnership, signed in 2005. Through technical exchange and targeted training, the partnership enabled the transfer of knowledge and expertise to effectively promote community participation in management and rehabilitation of the Tha Chin river basin. A series of twinning activities include scoping mission visit to Tha Chin River Basin, observational program to Waikato region, and a consultation and capacity building workshop.

India – voluntary compliance in the sponge iron sector - As the world's largest producer of sponge iron, India generates approximately 10 million tons annually. Toxic pollution discharges from the more than 250 plants, however, result in thick black smoke, contaminated water, and reduced agricultural yields, all of which have significant impacts on human health and the environment. To address this challenge, the West Bengal Pollution Control Board decided to promote voluntary industry compliance with sector standards by establishing an environmental compliance assistance center dedicated to sharing information on available technologies and regulatory requirements. AECEN facilitated linkages with counterpart agencies in the Philippines, Thailand and the United States that have experience establishing and operating compliance assistance centers that have resulted in pollution reduction.

Thailand – soil contamination policy - In 2008, Thailand generated over 1.8 million tons of hazardous waste, and imported or produced nearly 30 million tons of hazardous chemicals. The Department of Public Health reported over 1,600 cases of patients seeking treatment for exposure hazardous substances and hazardous waste. AECEN established a twinning partnership between Thailand's Pollution Control Department (PCD) and Ministry of Environment Japan. With facilitation support from Japan's IGES, PCD led a national effort to establish a new framework for preventing soil contamination and rehabilitating contaminated land. PCD and IGES worked closely to coordinate a series of technical exchanges and consultative meetings that engaged a broad range of experts and stakeholders from government and the private sector.

Space prevents adding more examples, but it can be seen that much of AECEN's compliance and assistance work deals with polluted water, air, and soil, often as a legacy of poor industrial planning and management. Therefore, AECEN would like to become more involved in upstream planning to prevent environmental pollution before it occurs. One of the best available planning approaches in the environment domain to avoid such future problems is SEA, because it can address the environmental implications of development in a geographic area or a whole sector.

C. SEA in the Greater Mekong Subregion

Other speakers will address the range of pilot level SEAs conducted in the Greater Mekong Subregion (GMS) by the Asian Development Bank's GMS Environment Operations Center in Bangkok, including:

- Viet Nam - SEA of the national Power Development Plan for 2011–2020
- Viet Nam - SEA of the Quang Nam Provincial Land Use Plan 2011–2020
- Viet Nam - SEA support for Red River Basin planning in Viet Nam
- GMS - SEA of the Economic Cooperation Program's North-South Economic Corridor Strategy and Action Plan
- GMS - Golden Quadrangle tourism SEA

The SEA which the author was personally most involved in as Team Leader, however, was a SEA of the Tourism Sector in Cambodia (King *et al.* 2009). A team of international and local consultants was employed by the ADB for this assessment. Some of the lessons learned from this SEA have particular resonance with the work of AECEN.

Until recently, Cambodia was perceived as a dangerous place to travel to, with few tourism attractions, and suffering from the impacts of a protracted war. By 2006, visitor numbers had increased to 1.7 million, domestic tourists to 5.3 million, and revenues to in excess of \$1.5 billion. By 2014, international arrivals had increased to 4.5 million with revenues of over \$2.7 billion. Growth rates of 20-30% are now imposing pressures on the most popular destinations, necessitating a broad diversification strategy.

The SEA, *inter alia*, included detailed environmental assessment of (i) the draft Tourism Law; (ii) the draft national ecotourism policy and strategy; (iii) tourism development plans for the northeast triangle (Mondulhiri, Ratanakiri, Kratie and Stung Treng Provinces); and (iv) the K4 (Krong Kep, Kampot, Kampong Som [Sihanoukville], and Koh Kong provinces) coastal tourism strategy and plans.

At the national policy level one of the key findings was to define a "serious potential risk to the environment", in conjunction with the Ministry of Environment (MoE), as the basis for cancellation, suspension, or downgrading of a tourism license, along with subsequent processes to deal with the risk. In terms of compliance and enforcement, any laxity or loopholes in this definition would pose a serious risk of environmental damage. There was also a need to define the environmental standards and criteria to award a tourism license, again through cooperation between the Ministry of Tourism and MoE, which prior to the SEA seemed to have had very little contact with each other. Another important recommendation was to provide for an environmental guarantee fund, as part of the tourism license fees, to provide funding for an emergency clean up or rehabilitation of the environment as a result of a tourism-related incident. Together, these recommendations would make avoidance of environmental damage a lot easier to achieve.

In relation to the ecotourism policy, a key recommendation was to create a multi-stakeholder body for ecotourism with the mandate to tackle and resolve conflicts with other sectoral activities

such as mining and logging. These sectors are creating major conflicts in the country's national parks. While the environmental laws and regulations should be sufficient (if fully complied with), the reality is that powerful interests are involved in the mining and logging sectors and the Department of Nature Conservation and Protection, MoE could usefully use some additional counterweight support from the tourism industry.

In the northeast, the main environmental threats from tourism development were seen as “(i) continuing threats to the rare and endangered Irrawaddy dolphin, a major tourism attraction; (ii) road construction through forests and protected areas; (iii) proposed tourism developments inside protected areas (including trophy hunting); (iv) airport improvement; (v) liquid and solid waste management in sensitive areas; (vi) promotion of free zones for tourism development at border crossing points; and (vii) urban growth in tourism gateway areas, like Sen Monorom and Ban Lung”. Threats from other sectors include “(i) logging concessions, (ii) mining and mineral exploration, (iii) agricultural encroachment into forest areas, (iv) fishing (especially use of nets, poisons, explosives and electric fishing), (v) hunting and illegal wildlife and plant collection; (vi) hydropower development; and (vii) electricity transmission lines”.

In the southern coastal zone, threats from tourism development include “(i) border tourism development (such as casinos) on both the Thailand and Viet Nam borders; (ii) excessively rapid urban growth without adequate infrastructure or attention to climate change impacts; (iii) excessive development of offshore islands beyond their carrying capacity; (iv) beach resort development with exclusionary, private access to beaches; (v) highway development from Thailand to Viet Nam, with feeder roads to new tourism sites; and (vi) airport development”. Threats from other sectors include oil and gas development offshore, expansion of the container and other shipping ports, mining and forestry proposals, and construction of a thermal power plant at Koh Kong (to supply Thailand with electricity).

By identifying these environmental threats from the tourism sector as well as to the tourism sector from other national development activities, the MoE (and other stakeholders) can begin to recognize where baseline monitoring should be carried out and what kind of environmental parameters need to be monitored. For example, in the southern coastal zone, potential oil contamination of coastal mangroves and beach areas needs to be monitored; while in the northeast, fisheries and endangered species need to be monitored.

Some of the specific avoidance measures proposed include:

- Improved environmental management at border crossings including sanitary landfills for solid waste, safe and treated water supplies, wastewater treatment, and control of trade in toxic or hazardous waste materials and illegal wildlife;
- For airport development, banded aviation fuel tanks and aircraft repair facilities; and safe recycling or disposal of bitumen drums (used for tarmac sealing);
- Design of eco-tourism buildings to aim at zero net energy use, zero emissions, and 100% recycling of building materials);
- On offshore islands, solid waste collection and return to the mainland for disposal and/or recycling;
- Composting or waterless toilets in areas with minimal freshwater supplies;

- In mangrove areas, prohibiting commercial capture of juvenile fish and crabs in mangrove areas that serve as nurseries for young aquatic organisms;
- For beach areas environmental control measures proposed included “(i) installation of effective wastewater treatment systems in hotels, restaurants, residences, and public buildings close to the beach; (ii) protection of upland water supply sources and strict controls on exploitation of groundwater; (iii) litter control and beach grooming; (iv) zoning nearshore waters for various uses, so that swimming and power boats, for example, are not using the same areas; (v) an oil spill contingency plan, stockpiling equipment and chemicals, and training personnel; (vi) strict control of vendors, changing rooms and toilets, restaurants and other environmentally damaging activities on the beach, by beach inspectors employed by the local government; (vii) preventing linear development by preparing town development plans for all beach areas; and (viii) prohibiting private beaches and exclusive access to tourist resorts”.
- Institutionally, the SEA proposed coordinated monitoring programs and data collection for feedback into future tourism plans.

D. Conclusions

From the perspective of AECEN, as a network of government agencies interested in improved compliance and enforcement of environmental pollution controls, SEA provides the ideal planning approach for avoiding many of the environmental issues that could emerge from inadequate sector and area planning. From the Cambodian case study, the following conclusions can be drawn. First, the SEA is conducted sufficiently in advance of any specific project plan, thus avoiding a common problem of environmental impact assessments that are conducted after a firm decision has been made to implement a specific project. Second, the SEA process allows multiple agencies that rarely communicate with each other to sit together and jointly plan the environmental management of an economic sector or development area. Third, adequate public participation in the SEA can help to identify particular community concerns thus avoiding subsequent conflict between developers and the community. Fourth, the SEA can identify specific mitigation measures that may need some time to implement, such as new legislation, planning guidelines or zoning plans. Finally, the SEA can identify environmental monitoring requirements and help to put in place optimal baseline monitoring plans so that better information is available once development is undertaken in that area.

In general, AECEN welcomes the expansion of SEA in the Asian region and hopes that more governments in the region will undertake comprehensive SEAs as part of their normal socio-economic development planning.

References

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