

EIA LEGISLATION IN THE LOWER MEKONG BASIN

All of the countries of the Lower Mekong Basin (LMB) have existing environmental protection policies. However, the degree of protection actually provided by legislation and the types of regulations that exist vary greatly as evidenced by differences among environmental impact assessment (EIA) requirements in each of the LMB countries. Notwithstanding these differences, it is commendable that each of the countries has placed such a significant emphasis on environmental assessment. The EIA policies and processes of each LMB riparian country are compared and contrasted in the following sections.

CAMBODIA

Cambodia's Law on Environmental Protection and Natural Resource Management (1996) calls for the



protection and promotion of environmental quality and public health. The rational and sustainable development, conservation, management and use of the kingdom's natural resources are the foundations of the law.

The policy requirements for EIA are found in a subsequent 1999 Sub-Decree on Environmental Impact Assessment

Process. Two items of note characterize Cambodia's EIA requirements:

1. In addition to performing EIA on proposed new projects, EIA are required for existing activities whose impacts have never been assessed.
2. Project screening for EIA is intended to be based on project type and project size.

Screening requirements specifying projects requiring either an initial environmental examination or full-scale assessment are contained as an Annex to the 1999 Sub-Decree. Thresholds (i.e., only projects exceeding a certain size are subject to scrutiny) are established for a wide range of project and activity types including manufacturing industries, mining, agriculture, tourism and infrastructure.

Cambodia's environmental protection legislation could be strengthened by the addition of specific guidelines and procedures for preparation and review of EIA reports.

A challenge faced by Cambodia in the development and use of EIA will be in achieving good cooperation among the many government agencies whose activities affect the environment. Other potential constraints on the development and implementation of EIA in Cambodia may include:

- Lack of political will or awareness of the need for environmental assessment on certain types of development activities and projects
- Lack of an adequate legislative framework

- Insufficient personnel skilled in impact assessment or other technical areas
- Lack of sufficient scientific data and information
- Insufficient financial resources.

Another challenge will be to broaden EIA procedures to increasingly include assessment of the social aspects of environmental decisions, as well as cumulative and regional impacts. The development of an EIA process for Cambodia can also provide real opportunities for public involvement in the government's decision making.

Cambodia is making good progress in meeting its environmental protection goals. The government, with the technical and financial assistance of the World Bank, has developed the National Environmental Action Plan (NEAP) that is intended to guide the creation and implementation of the country's environmental protection strategy. One of the primary objectives of the NEAP is the integration of environmental considerations into Cambodia's economic and development decisions. The NEAP, coupled with existing EIA regulations, will do much to provide for sustainable management and the long-term protection of Cambodia's natural resources. Specifically, the NEAP focuses on six major concerns:

1. Multiple use and management of the Tonle Sap ecosystem
2. Commercial logging
3. Urban and industrial waste management
4. Energy development and the environment
5. Protected areas management

6. Management of exclusive economic zone.

LAO PDR

No specific EIA legislation currently exists in Lao PDR. The national constitution provides the basis for environmental protection, requiring that all organizations and citizens protect the natural environment and natural resources, including land, forests, fauna, water sources and air. A national Environmental Action Plan (EAP) was passed in 1993, and subsequently revised in 1995, pursuant to the mandate of the constitution. The EAP is a policy framework document that emphasizes environmental protection and wise resource management and focuses on key resources such as forests, land, water, biodiversity and fisheries.



The increasing awareness of environmental protection and natural resource management in Lao PDR has prompted the development of a draft Environmental Protection Law. It is this draft law that contains the provisions for environmental assessment. Proponents of major development projects are required to carry out an EIA study according to a Memorandum of Understanding (MOU) between the

proponent and the government. Requirements of this informal EIA process include:

- Investors must submit their proposed development plan to the Foreign Investment Management Committee (FIMC), which is part of the Committee for Planning and Cooperation.
- FIMC involves the Inter-Ministerial Working Group (IMWG) and prepares an MOU to negotiate with the project proponents. The MOU contains environmental responsibility clauses.
- After the MOU is signed, project developers submit a feasibility study report for the project, which includes an Initial Environmental Management study or an EIA report.
- In the absence of national standards, the reports are required to refer to international standards.
- The Science, Technology and Environment Agency (STEA) reviews this report and the project's environmental management plan. STEA solicits comments from IMWG to prepare its final recommendation to the government.
- FIMC then approves or rejects the proposed investment project. If approval is granted, a permit is issued which incorporates the conditions of the MOU.

The existing EIA procedure in Lao PDR could possibly be strengthened and refined, particularly concerning the listing of project types that require full-scale EIA. A clearer and more stringent EIA review process might also be considered. Perhaps most importantly, though, a compliance monitoring program could be developed to ensure

that the environmental conditions for approval have been met. STEA is currently developing specific guidelines for formal EIA that will be in accordance with the draft Environmental Protection Law. These guidelines will likely require an EIA report for all major projects affecting the environment, such as hydropower development. Means for effective public participation are also expected in STEA's environmental assessment guidelines.

Perhaps one of the most significant barriers to development and implementation of an effective EIA procedure in Laos is the lack of trained personnel. Additional capacity building is needed in EIA techniques, such as determining ecological and social impacts, to develop the necessary skills to minimize a proposed project's negative impacts and maximize its positive ones. In the long-term, STEA will also require a trained body of specialists with expertise in environmental assessment to provide the necessary oversight of development in Lao PDR.

THAILAND

Thailand was one of the first countries in Southeast Asia to develop and implement a national EIA process. Their environmental review process was initially adopted in 1981. Since then, the EIA process has undergone numerous amendments. Thailand's EIA process is now implemented under the Enhancement and Conservation of the 1992 National Environmental Quality Act (NEQA). Projects are screened according to project size and type, or by the nature of certain government agencies and private entities requesting project approval.



The requirement for EIA of development projects and activities is specified in Chapter 2, Part 4 of the NEQA. The Ministry of Science, Technology and Environment (MOSTE) screens proposed projects according to size and type of activity. There are now twenty nine project types listed that require an EIA report, including dam and reservoir construction, irrigation, commercial airport, hotel or resort, mass transit system and expressway, mining, and industrial projects. If the project requires an EIA, it is the proponent's responsibility to have a registered consultant (i.e., one recognized by the Office of Environmental Policy and Planning [OEPP]) prepare the report. Thailand's EIA process makes two main distinctions when determining applicable EIA procedures: private sector projects and public sector projects.

Private sector projects are those that are undertaken entirely by private companies or individuals, or those that are undertaken by a government agency or state enterprise (sometimes in partnership with a private enterprise) that do not require cabinet approval. Proponents must submit a report to the Environmental Impact Evaluation

Division (EIED) of the OEPP. The EIA report may be in the form of an initial environmental examination. The EIED examines the report to determine its adequacy. If the report is acceptable, the review process begins. An Expert Review Committee, which consists of people qualified in various technical disciplines, makes the final decision.

The Committee may approve or reject the report, or may request additional information or revisions. If the report is approved, the permitting agency grants the permit for the project with conditions of mitigation measures and monitoring programs. Figure 1 details the steps and time frames involved in review of private sector EIA reports.

Public sector projects or activities are undertaken by a government agency or state enterprise (sometimes in partnership with a private entity) and require cabinet approval. The public agency responsible for a project must prepare an EIA report as part of an overall pre-development feasibility plan. The EIA report is then submitted to the EIED of OEPP, and then to the Expert Review Committee for their comments. Next, the report goes to the National Environment Board for review and comment prior to its submittal to the Cabinet. The Cabinet may request any person or institution specialized in EIA to submit an opinion for consideration. Figure 2 details the steps involved in the EIA process for public sector projects. Note that limitations on the period for report review do not presently exist.

While Thailand's NEQA is among the more comprehensive pieces of environmental legislation in the LMB,

Figure 1 EIA procedure in Thailand for projects not requiring cabinet approval

Figure 2 EIA procedure in Thailand for projects requiring cabinet approval

some potential weaknesses in the areas of natural resources management and EIA procedures can be identified. The Act's primary focus is pollution control, while natural resource management issues receive much less attention. This is primarily because resource management tends to fall under a variety of sectoral legislation and agencies, while pollution control is handled strictly by the Pollution Control Department of MOSTE. Thus, one of Thailand's biggest challenges is in coordinating the efforts of various agencies under the mandates of the Act. Looking to the future, the country's EIA legislation will likely be amended to require the prescription and enforcement of additional emission and effluent standards. In addition, the need for further avenues for public and non government organization involvement in Thailand's EIA process have been identified. The Thai government recognizes the need for more detailed regulations to handle specific environmental issues and more effective enforcement and implementation of the existing laws to help the country to achieve sustainable environmental management.

VIETNAM

Environmental protection in Vietnam is primarily the responsibility of the National Environmental Agency, under the Ministry of Science, Technology and Environment (MOSTE). Vietnam's 1994 Law on Environmental Protection (LEP) is the primary framework environmental policy for the country, and Article 18 of the LEP mandates environmental impact assessment. In addition, a series of regulations have been passed that enable further implementation of EIA in Vietnam as summarized in Table 1.

The LEP calls for the analysis, evaluation and forecasting of the effects on the environment by socioeconomic development projects and plans, as well as for the proposal of appropriate solutions to protect the environment. Provided adequate enforcement power is in place, the LEP's environmental assessment mandate is potentially very powerful. Full-scale EIA reports must be prepared for both new project proposals and existing projects that fall within the prescribed screening requirements. Based on the findings of the EIA report, proponents of new projects and owners/operators of existing facilities must adopt appropriate remediation measures.

The document Instructions for Guiding Environmental Impact Assessment to the Operating Units details the types of facilities that are obligated to prepare an EIA report, and the extent of EIA review required. Essentially, the guidelines recognize four categories of operating units:

1. These units do not require any environmental impact review such as schools, banks, communication centres, and book/stationary shops.
2. These units, which we can call 'small-scale', require only preliminary environmental review. The findings of this review will be used to determine the type and extent of environmental protection measures. Operating units in this category may include small enterprises under local administration, chemical and pesticide stores, slaughter houses for local food consumption, bus stations and local hospitals, and inter-provincial ports.
3. Medium- and large-scale operating units are subject to a more rigorous

Table 1 Regulations governing EIA in Vietnam

TITLE	DESCRIPTION
<i>Regulations and Organization of the Appraisal Council on Environmental Impact Assessment Reports and Issuing of Environmental Licenses</i> , No. 1807 / QD-MTg, 1994	Provides for the establishment of EIA Review / Appraisal Councils. Also prescribes the composition of the Appraisal Council and the terms of reference for its decision making.
<i>Instructions for Guiding Environmental Impact Assessment to the Operating Units</i> . No. 1420 / QD-MTg, 1994.	Contains guidelines for existing industries and enterprises (referred to as "operating units") to submit EIA reports to local and provincial authorities.
<i>Decree on Providing Guidance for the Implementation of the Law on Environmental Protection</i> . No. 175-CP, 1994	Appendix 1.1: Contains the contents of the report for a preliminary environmental impact assessment. Appendix 1.2: Contains the contents for a detailed EIA report. Appendix 1.3: Contains the contents of an EIA report for the operating units.
<i>The Preparation and Appraisal of Environmental Impact Assessment Reports in Respect of Foreign Direct Investment Projects</i> . Circular No. 715 / QD-MTg, 1995.	Provides guidelines for foreign investors on the types of projects and proposals which require an EIA report, as well as on the format for preparation and submission of the report.
<i>Guidance for the Preparation and Appraisal of Environmental Impact Assessment Reports for Investment Projects</i> . Instruction No. 490 / 1998 / TT-BKHCHNT	Contains the latest requirements for the format and content of EIA reports, as well as the specific procedures for submission and appraisal of the reports.

environmental review. Operators of these facilities must submit a detailed EIA report to the appropriate national or local agencies. Types of projects that must submit detailed EIA reports to MOSTE include:

- Rubber and paint plants (all)
- Fertilizer plants (producing over 1,000 tonnes per year)
- Cement plant (producing over 40,000 tonnes per year)
- Aquaculture operation (producing over 100,000 tonnes per year)
- Radiation plant (all)
- Leather plant (over 1,000 tonnes per year)
- Mining (medium and large mines)

- Oil exploring and refining (all)
 - Construction materials factory (medium and large operations).
4. Units that were licensed before January 1994 but were not operational must submit EIA reports if they are of the following project types: master plans for regional development, foreign investment projects, or scientific, economic, medical, security and defense projects.

The Decree on Providing Guidance for the Implementation of the LEP provides information regarding the determination of environmental effects. Conditions for the technical adequacy of the EIA reports, which are based on proper environmental effects determination, are also included in this decree. Finally, the decree provides

considerable guidance on the required elements of a detailed EIA report. Impacts to the physical environment (water quality, air quality), natural resources (aquatic and terrestrial ecosystems), and social conditions (local economy and cultural traditions) must be presented for every aspect of a project's operation.

One apparent limitation of Vietnam's assessment regulations is that the EIA report is appraised only after the license for the project has been issued. Thus, the project site and scope are determined prior to the review of the EIA report. The EIA procedure is thus only relevant to the evaluation of mitigation measures and pollution abatement technologies. The decision on whether to approve the project or locate it elsewhere is essentially removed from the project approval process.

Another challenge in Vietnam is the abundance of existing industries using outdated technology and heavily polluting the environment. Legislation could be passed to outlaw older technology and require the installation of 'cleaner' technologies, but the expense for the new technology could be prohibitively high. If factories were to be closed, the employment issue of putting large numbers of people out of work would then have to be addressed. In response, Vietnam is undertaking environmental assessments of existing industries to determine how best to proceed.

Other problems hindering the implementation of EIA in Vietnam, as in other MRB riparian countries, include a lack of personnel and technical expertise in the field of EIA. In addition, current fines for failure to comply with existing EIA regulations are

possibly too low. These fines could be increased, otherwise polluters will consider them a relatively small cost of doing business and will have no real incentive to install cleaner technologies at their facilities.

Finally, MOSTE may wish to consider the development of more detailed EIA guidelines for specific projects. Problems have traditionally arisen because of a lack of detailed, industry-specific impact assessment guidelines. Industry- or project-specific EIA guidelines could focus on environmental impacts commonly associated with certain projects. For example, pulp and paper mill EIA guidelines could detail water quality/aquatic habitat effects frequently resulting from mill effluent discharges. In addition, the guidelines could give an overview of available treatment technologies and recommendations on the selection of pollution control technologies in order to mitigate some of the more common water quality impacts.