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## Challenges for environmental impact assessment in Sri Lanka

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### Abstract

Salient features in the environmental impact assessment (EIA) process in Sri Lanka have proven to be the provision for public participation, the requirement of alternative proposals, and the use of a prescribed list to identify projects that must undergo review. While EIA has been successfully introduced and over 500 projects have been reviewed, some significant shortcomings remain. Integrated government policies on the types of projects that are encouraged in various zones are needed. Environmental data and effluent standards are insufficient. A code of conduct for project-approving authorities and the EIA consultants is needed. The infrastructure to monitor and enforce environmental regulations is inadequate. Addressing these shortcomings will be challenging given the opposition to the EIA process and the limitations in resources. But it is all the more important so that EIA can become entrenched in project appraisal. © 2001 Elsevier Science Inc. All rights reserved.

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### 1. Introduction to Sri Lanka

Sri Lanka is an equatorial island of 65,536 km<sup>2</sup> that is located off South India. Its present population of 19 million has a literacy of 90% principally in Sinhala (used by 74%) and Tamil (used by 18%) languages. A minority of 10% uses

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English. An elected executive president governs the country and legislation is handled by a parliament.

About 44% of the adults of working age are employed in agriculture, 30% are employed in industry, and around 25% are employed in the service sectors. Some obtain their livelihood with fishery, spices, and gems. Twenty-two percent of the population in Sri Lanka lives below the poverty line (DCS, 1987).

Historical records attest to the existence of agriculture (irrigated, rain-fed, and swidden), fishery, hunting, and gathering starting from before 3000 BC. An extraordinary system of large-scale irrigation and metalworking attests to a flourishing civilization in Sri Lanka until the 15th century AD (Toynbee, 1960). Environmental protection was ensured by a combination of traditions, superstitions, royal decrees, and customary laws. Much of the traditional way of living would change after colonial rule by the Portuguese (1505–1658), Dutch (1658–1801), and British (1801–1848).

During the period of British rule, the pressure for land for coffee, rubber, and tea plantations led the forest cover to drop from 80% in 1820 to 43% in 1948. Land settlement, road construction, and irrigation projects by post-independence rulers and private forest clearing led to a further halving of forest cover from 43% in 1948 to 23% of late (NARESA, 1991).

Rapid industrialization by state and private sector entities also led to new forms of pollution. In addition, there were other alarming problems such as soil erosion, loss of wildlife habitat, coastal degradation, water pollution, waste disposal, urban air pollution, marine pollution, and hydrological and climate change. A growing awareness of the dimensions of environmental degradation led to demands for reinforcement of environmental regulations (NARESA, 1991).

The Stockholm Conference on Environment and Development in 1972 catalyzed a change in government posture regarding the environment. On that occasion, the Prime Minister directed that “although we do not have in our country the problems of highly industrialized countries, it would be prudent to act now to adopt such measures as are necessary to protect and improve the quality of our environment” (NARESA, 1991).

The Central Environmental Authority (CEA) was established in 1980. Environmental impact assessment (EIA) was made mandatory for high impact projects in 1988. Thereafter in 1990, the Ministry of Environment was established. The new ministry has formulated a National Environmental Action Plan and a report for the Earth Summit that was held in Rio de Janeiro in 1993. The progress in environmental conservation has been impeded by an ongoing internecine conflict in the northeast of the island for the last 15 years.

Of late, there has been a backlash against environmental regulation. Entrepreneurs complain that environmental review has become a bottleneck that holds up projects that are urgently needed to generate employment. Indeed, the government has attempted to simplify or dilute the legislation and procedures in response. Given the difficult circumstance of the introduction of EIA and its sweeping scope, the EIA process has been a success in Sri Lanka. It is argued

here that there are important shortcomings that should be addressed to preserve the EIA process and its integrity.

In the following sections, the history of environmental regulations in Sri Lanka is briefly reviewed and the legal basis of EIA is described. Thereafter, the EIA procedures in Sri Lanka are outlined and the shortcomings in its implementation are evaluated. Finally, suggestions are made to improve the EIA Process.

## **2. History of environmental regulation in Sri Lanka**

Sri Lanka has a history of environmental regulation spanning over two millennia that took the form of royal decrees and customary law (Weeramantry, 1997). From the 16th century, these laws were supplanted by the laws of Portugal, Netherlands, and Britain. At present, a complex mix of English common law, the Roman Dutch law, Sinhalese, Muslim, and Tamil customary laws are accepted.

Various environmental regulations introduced by the British rulers still continue to be used.<sup>1</sup> After independence, various legislation relevant to environment were enacted<sup>2</sup> and the state ratified a number of international treaties bearing on the environment.<sup>3</sup> In 1976, an expert from the United Nations Environment Programme concluded that environmental policies and laws were too fragmented and too often ignored by planners.

When a new constitution was enacted in 1978, environmental conservation was enshrined in its Article 18 (“It is the duty of every person in Sri Lanka to protect nature and conserve its riches”) and in Article 27(14) (“The state shall protect, preserve and improve the environment for the benefit of the community”). In 1980, the National Environment Act (NEA) was enacted to serve as the focal point of environmental protection (PS, 1980). Supplementary legislation such as the Coast Conservation Act (1981) and National Heritage and Wilderness Act (1987) augmented the environmental regulations.

The United States Agency of International Development (USAID) supported the government in the implementation of environmental regulation. USAID and the Sri Lankan government together conducted the Natural Resources and Environmental Policy Project from 1991 to 1997 to assist the setting up of the EIA process through foreign expertise and local training.

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<sup>1</sup> Among these were those relating to Nuisance (1862), Wells and Pits (1884), Forests (1907), Plant Protection (1924), Fauna and Flora Protection (1937), Factories (1942), and Mines, Quarries, and Minerals (1947).

<sup>2</sup> Felling of Trees Act (1951), Soil Conservation (1951), International Plant Protection (1951), and Protection of World Cultural Heritage (1972).

<sup>3</sup> Treaties on Biodiversity, Climate Change, Desertification, Endangered Species, Environmental Modifications, Hazardous Wastes, Law of the Sea, Nuclear Test Ban, Ozone Layer Protection, Ship Pollution and Marine Life Conservation, and Wetlands (signed but not ratified).

Apart from legislation, the government has produced various policy statements such as the Public Investment Plans and sectoral plans for land use, coastal zone management, energy generation, regional development, and water resources management.

### **3. Legal basis of EIA in Sri Lanka**

The NEA of 1980 recommended the adoption of EIA for development projects. In 1988, EIA was made mandatory for projects with a significant environmental impact through an amendment to the NEA.

The types of projects that need EIA are listed by gazette notification (GOSL, 1993). This list is needed to demarcate the applicability of the law and to ensure its enforceability. This legislation prescribes 31 categories of projects that need assessment such as extracting over half a million cubic meters of ground water per day, building hotels larger than a hundred rooms, construction of ports, high polluting industries, and hydroelectricity projects. In addition, all industrial projects that are to be located close to environmental, archaeological, or culturally sensitive areas require assessment.

The EIA has to report on viable alternatives to the project to ensure that environmentally less damaging options are considered too.

In addition to the EIA, industries that discharge effluents are required to obtain an environmental pollution license from the CEA. Unlike the EIA requirement, this license is required of existing industries, too. Local government authorities, under other legislation, examine projects that do not fall within the prescribed list. This article will confine itself to the EIA process.

### **4. EIA procedures in Sri Lanka**

The evaluation of environmental impact is delegated to various government bodies depending on the nature of the project.<sup>4</sup> The evaluating agency is referred to as the project-approving agency (PAA). The project proponent (PP) cannot perform the functions of a PAA. The Coast Conservation Department assesses projects that affect the coastal zone.

Once a project is initiated by a private or state agency, there are several stages in an EIA (CEA, 1995, 1996). These are the following.

- The PP provides preliminary information to the PAA.

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<sup>4</sup> These are the ministries having the portfolios of National Planning, Lands, Irrigation, Transport, Highways, Industries, Housing, Construction, Fisheries, Aquatic Resources, Agriculture, Plantation Industries and the Coast Conservation Department, Urban Development Authority, Board of Investments, Geological Survey and Mines Bureau, CEA, and Ceylon Tourist Board (CEA, 1995).

- Scoping is conducted by PAA to determine the environmental impacts in a preliminary fashion. The PAA solicits the participation of those affected, queries the PP for clarifications, and then decides whether an EIA is required or the less comprehensive initial environmental examination (IEE) would do. It will set the “Terms of Reference” for either of these.
- EIA or IEE report in any of the national languages is prepared and submitted by the PP. If there is a request from the public, these reports are translated to any of the other two national languages. The PAA is required to announce in national newspapers of all three languages, that the particular EIA is available for inspection by the public.
- The PAA and the CEA review the EIA report. Queries can be directed at the PP through the PAA. The public is allowed to submit queries and observations within 30 days. If the project is controversial, the PAA and CEA may decide to have public hearings.
- The PAA, in concurrence with the CEA, decides as to whether a project is to be allowed.
- If the project is rejected, an appeal by the PP is allowed.
- If the project is approved, the PP and the PAA should monitor the affected environmental characteristics as set out in the EIA.

Public participation is a novel feature introduced through EIA in project planning. The public can participate at the “scoping” stage, review the EIA for 30 days, request clarifications from the PP through the PAA and may, at the discretion of the PAA, participate at a public hearing.

## **5. Evaluation of EIA procedures in Sri Lanka**

On the whole, the introduction of EIA to Sri Lanka has been successful and robust. Over 500 EIA or IEE reports have been reviewed. The EIA process is well understood throughout the government and by the public. The courts have insisted on its proper adherence in important cases such as the recent Eppawela phosphate-mining project by American and Japanese corporations that sought to bypass the EIA regulations in conjunction with the Ministry of Industries (Shockman, 2000; SAELR, 2000). The government was not able to implement a cabinet decision to reduce the period for public comment from 30 to 14 days as yet (Amaratunga, 1996). Although, the government issued a gazette proclamation annulling EIA legislation for energy generation projects in 1999, the Minister of Power had to publicly proclaim that EIA would be conducted for a 300-MW coal power plant in Puttalam due to public protest (IESL, 2000). The EIA process has succeeded in introducing a mechanism for transparency and public review of projects.

The training programs conducted by the Ministry of Environment, CEA, and the University of Peradeniya has produced over 200 trained personnel in government, private sector, nongovernmental organizations, and academia. In

addition, EIA has been taught at postgraduate level in several universities. Notwithstanding these successes, there are loopholes in the laws, difficulties in the implementation, and inadequacies in the infrastructure needed to support the EIA process that are described below.

### *5.1. Loopholes due to the list of prescribed projects*

While a prescribed list is needed for legal enforceability, the use of a list of prescribed project scales has led to loopholes by which PPs circumvent EIA. Some entrepreneurs bypass EIA by constructing just below the threshold specified in the prescribed list. For example, some entrepreneurs have constructed 99 room hotels, which is below the 100-room threshold and immediately thereafter extended the hotels.

### *5.2. Consideration of multiple projects in one area*

The EIA legislation also does not have a mechanism to consider the cumulative impact of many projects on a region. For example, around Hambantota in Southern Sri Lanka, a refinery, a central tannery, a caustic soda processing plant, and prawn farm complex were all proposed in 1999 and were evaluated independently. The effluents from all of these enterprises led to a common estuary. The potential ecological damage to the estuary may not be evident when projects are considered in isolation.

### *5.3. Consideration of unreasonable alternatives*

The serious consideration of reasonable alternatives is a powerful feature in EIA evaluation. However, in some instances, the best alternatives were deliberately avoided. For example, the Upper Kotmale Dam and Hydropower proposal (CEB, 1994) would inundate a part of Talawakelle township and involve risky tunneling. As an alternative, a run of the river reservoir that would reduce the power capacity from 125 to 90 MW was not considered. Instead, other nonviable alternatives such as power generation with diesel and coal and energy conservation were cursorily examined and dismissed. Similarly, the EIA for a tannery in Southern Sri Lanka (CT, 1996) cursorily considered a few alternatives sites alone.

### *5.4. Conflicts of interests for the PAA*

The regulation that a PP cannot perform the functions of a PAA was tested in two instances. The Ministry of Highways evaluated the Colombo–Katu-nayake expressway project, which was proposed by an agency under its purview (RDA, 1992). Similarly, there was a conflict of interest when the PAA for the Upper Kotmale Project proposed by the Ceylon Electricity Board was its parent ministry. In the latter case, the chief authority of the PAA, the

secretary of the Ministry of Power, discarded the findings of the technical evaluation committee and indeed canvassed for the project. The CEA did not concur. The PAA appealed to the president of Sri Lanka to overrule the objections of the CEA.

Another difficulty with the breakup of project-approving agencies by sector is that the EIA becomes focused on the sector of the PAA. Thus, the EIA of the Upper Kotmale Project pays less attention to the irrigation, fisheries, and tourism aspects of the project.

### *5.5. Shortcomings in provisions for public participation*

The provision for public participation is a significant strength of the EIA process that has been well used in Sri Lanka. In light of its success, there are several ways in which it needs to be strengthened. Given the difficulties in communication, the period allowed for public comment of 30 days is insufficient particularly for complex projects. During these 30 days, copies of the EIA report are available at the local government office and in Colombo. In the ordinary course of events, the affected public often does not come to know of the project or the EIA report until it is too late.

The training of personnel, the guidelines, the discussions on EIA are usually in English. Quite often, the affected public is not adequately informed of the issues at hand or able to interpret the EIA reports. These difficulties are partially alleviated by public hearings where explanations can be provided face-to-face by the PP and EIA consultants. At public hearings regarding the Upper Kotmale Project and the Colombo–Katunayake expressway, discussions turn out to be in the vernacular. Even the EIA consultants express themselves more clearly. Hence, the limiting of public hearings to only a few projects is a serious drawback.

### *5.6. Lack of tolerance standards*

The tolerance standards prescribed by the CEA for the discharge of effluents are not comprehensive as yet. The quality of the discharged effluent is only prescribed in terms of concentration and color, but not volume. Thus, dilution of effluents seems to circumvent the need for treatment.

### *5.7. Problems with environmental data*

Frequently, the environmental data needed to prepare EIA is not available or is inaccessible. This has even led to the fabrication of data. Sometimes, the pretext of inadequacy of data is used by the PP to short-circuit the EIA process. To alleviate these difficulties, the relevant PAA should develop databases of environmental data and identify and obtain missing data that are required often.

### 5.8. *Inadequate post-EIA monitoring*

Quite often, EIA are approved on the basis of proposed mitigatory steps and monitoring. Post-EIA monitoring has been poorly implemented so far. Many of the environmental cells of the PAA do not have full-time staff, space allocation, funds, or equipment (SLAAS, 1995). Even the CEA is understaffed and does not have much of the technical resources that it needs.

### 5.9. *Apprehension of EIA violators*

Some developers bypass the entire EIA process. The majority of the prawn farms that dot the coastal region in the northwestern province are illegal (SLAAS, 1995). Due to a variety of problems, such as political interference and understaffing, the EIA legislation has not been used to arrest such illegal prawn farms. The spread of prawn farms without environmental safeguards led to the conditions under which disease spread among the prawns rapidly with severe losses to the entrepreneurs.

### 5.10. *Professional ethics for EIA consultants*

The EIA process relies heavily on the judgment of the EIA consultants for three reasons. First, the consultant works with a limited time frame and of necessity can consider only a few impacts seriously. Second, requisite environmental data are not available or are not readily accessible. Third, the adverse impacts of some of the environmental impacts may not be manifest immediately. A PP who is intent on obtaining a favorable report is able to stack the EIA team with particular types of specialists who are predisposed in favor of the project. At present, consultants are not taken to task for unethical work.

## 6. **Suggestions for improvement**

In Sri Lanka, the EIA process has succeeded in integrating environmental and other public concerns into the project planning process. The following legal, policy, administrative, and technological measures are recommended to the process.

- Most projects have been assessed for environmental impact far too late. It helps the PPs if environmental constraints are taken into account early in the project cycle rather than as an afterthought.
- The list of prescribed projects should be expanded, its thresholds reduced, and a mechanism to consider the cumulative impact of multiple projects should be incorporated.



- An overall planning framework should be developed to identify the types of projects that are to be encouraged in each region. In addition, the territory of Sri Lanka should be zoned identifying areas that are to be earmarked for conservation, culture, wildlife, industries, and agriculture.
- Many of the PAA and their EIA cells function without adequate funds, personnel, or wherewithal. Financial difficulties should be sorted out by levies, which make the proponent pay for essential services.
- The provisions in the NEA for multiple PAA in the case of multisectoral projects should be implemented. The officials in the EIA cells within ministries should be sensitized as to all environmental dimensions of project appraisal.
- The time given for public participation should be increased from 30 days particularly for complex projects rather than decreased.
- The available environmental data should be collated by the relevant PAA and made available. The CEA must highlight shortcomings in environmental data and take steps to obtain it. The PAA can work out a system of levies to cover costs and to fund further collection of data.
- The EIA regulations have to be expanded to provide more guidance on projects where the PAA has a conflict of interest. There should be safeguards such as increased transparency to ensure that the PAAs are not negligent or politically influenced.
- The priority in the field of enforcement is to make sure that those who bypass EIA review are apprehended.
- Unethical conduct of EIA consultants should be monitored. A code of conduct for EIA consultants should be established by the CEA in collaboration with professional bodies. Licensing of EIA consultants should be considered in the future.

While there are many shortcomings in the EIA process, given the shaky political support for the process, it will be prudent to address the least controversial shortcomings first.

## References

- Amaratunga GK. Address of chairman of CEA at EIA workshop at Randenigala. CES-News, Centre for Environmental Studies, University of Peradeniya, 1996.
- Central Environment Authority (CEA). Guidelines for implementing the EIA process. Colombo: CEA Publication, 1995.
- Central Environment Authority (CEA). Guidelines for scoping. Colombo: CEA Publication, 1996.
- Central Tanneries (CT). Bata-Atha Tanneries EIA report. Colombo: Ministry of Industries, 1996.
- Ceylon Electricity Board (CEB). Upper Kotmale Hydropower Project EIA report and addendum. Colombo: CEB, 1994.
- Department of Census and Statistics (DCS). Statistical pocket book of the democratic socialist republic of Sri Lanka. Colombo: DCS, 1987.

- Government of Sri Lanka (GOSL). Gazette of the Democratic Socialist Republic of Sri Lanka. Colombo: GOSL, 1993 (June 24).
- Institution of Engineers Sri Lanka (IESL). Proceedings of seminar on proposed coal power plant, IESL Auditorium, Colombo, July 8 IESL, 2000.
- Natural Resources, Energy and Science Authority of Sri Lanka (NARESA). Natural resources of Sri Lanka: conditions and trends. Colombo: NARESA, 1991.
- Parliament of Sri Lanka (PS). National Environmental Act. Colombo: PS, 1980.
- Road Development Authority (RDA). Colombo–Katunayake expressway EIA report. Colombo: RDA, 1992.
- Shockman D. The Eppawela judgement. Island Newspaper. (Colombo) <http://www.island.lk/2000/12/01/featur03.html>.
- South Asian Environmental Law Reporter (SAELR). Supreme Court of Sri Lanka Judgement on Eppawela — 2000-06-02, vol. 7, no. 2. Campbell Terrace, Colombo 10, Sri Lanka: Environmental Foundation, 2000.
- Sri Lanka Association for the Advancement of Science (SLAAS) Environment Committee. Proceedings of seminar on EIA and industrial development. Colombo: SLAAS, 1995.
- Toynbee A. In: A study of history, Somervell's abridgement, vol. 1. New York: Oxford University Press, 1960. p. 257.
- Weeramantry CG. Separate opinion, Gabcikovo-Nagymaros Project. International Court of Justice. The Hague, 25 September 1997. [http://www.icj-cij.org/icjwww/idocket/ihs/ihsjudgement/ihs\\_jjudgment\\_970925\\_weeraman.htm](http://www.icj-cij.org/icjwww/idocket/ihs/ihsjudgement/ihs_jjudgment_970925_weeraman.htm).