

Amendment of Environmental Laws and Policies to Respond to Environmental Impact Assessment (EIA) Can Be a Key to Improving Environmental Impact in Bangladesh

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Abstract: EIA is a planning and management tool that helps the government, decision-makers, proponents, and the affected community address the negative consequences or risks on the environment. The process assures the implementation of environment-friendly projects. Thus, it promotes environmentally sound and suitable development by identifying appropriate alternatives and mitigation measures. Some systematic procedures and processes aligned with the laws of the EIA are implemented. Developed countries worldwide are enjoying the benefits of EIA at present. Unfortunately, the application of the EIA is not yet satisfactory in Bangladesh as weak policies and laws hinder all desirable prospects, according to several investigations and reports. However, no empirical research has been conducted that can claim the significant drawbacks of implementing EIA in Bangladesh. This paper is an eye-opener for further investigation. This paper discusses the features of the EIA, procedures, and processes. It shows how amending inappropriate legal rules and policies to conserve the natural environment can lead to a more effective EIA implementation in Bangladesh, thereby promoting environmentally sound development and reducing the country's vulnerability to environmental risks.

Keywords: Amendment, Bangladesh, EIA, SDGs.

1. Introduction

According to the United Nations, the world is facing a triple planetary crisis of climate change, nature (biodiversity) loss, and pollution and waste, with the most egregious consequences felt by those least responsible. (1). Environmental risks resulting from environmental degradation are considered the greatest threats to attaining the Sustainable Development Goals (SDGs). Ecological risks affect every society, company, and individual (2). Bangladesh is a leading example and is well-known as one of the most vulnerable countries for its multifaceted hazard risks, projected to intensify under climate change (3). Therefore, implementing Environmental Impact Assessment (EIA) has been discussed worldwide and has long been one of the critical topics of experts. Its gradual development and improvement in achieving more accuracy of the predictions will be a crucial factor in preventing, reducing, or compensating environmental risks associated with the development. (4). However, evidence suggests that EIA has not yet evolved satisfactorily in Bangladesh in several aspects. (5). It is widely speculated that in Bangladesh, EIA remains an instrument for project approval and not a tool that can promote the project's environmental sustainability. (6). This article will find whether an amendment of laws and policies may effectively enactive the implication of EIA in Bangladesh.

2. EIA and ITS Application

Environmental Impact Assessment (EIA) is widely recognised as a process that assesses the possible effects of a proposed development before decisions and commitments are made. From the 1980s, EIA was introduced to developing countries (mainly Asia and Latin America) 'under pressure from development aid agencies' and to emulate the practice of Western counterparts. (7).

The objective of EIA is to identify, assess, and evaluate the

The environmental impact of development projects is to provide information to local/ political authorities on the ecological consequences for their decision-making to endorse secure and environmentally friendly development using suitable alternatives and mitigation processes (8).

Although EIA has been widely accepted, over time, the utility of a specific EIA will also change, potentially leading to the generation of new environmental pollution (9). EIA is only an assessment tool to ascertain the damaging effects of projects on the environment and alternative proposals for their mitigation; however, the final decision rests with political authorities who may consider the EIA report or turn it down in the name of better interests of society/country. Unfortunately, EIA has not proved to be a fully effective process as the developed countries are still undertaking unobstructed/ unopposed mega development projects best conforming to their better interests and developing countries like Bangladesh are still far behind in the apprehension of the necessity of EIA (8). Several socio-economic barriers affect the capacity and willingness of the actors to participate, including political influence, lack of human and financial capacity, gender gap, loss of community spirit, and lack of environmental and procedural awareness (10).

However, National legislation may include a statutory requirement that an EIA be done in a prescribed manner for specific development activities. Legislation lists projects for which EIA is a mandatory requirement, and the following diagram represents responsible agencies and technical committees that review the EIA and approve the project's implementation (11).

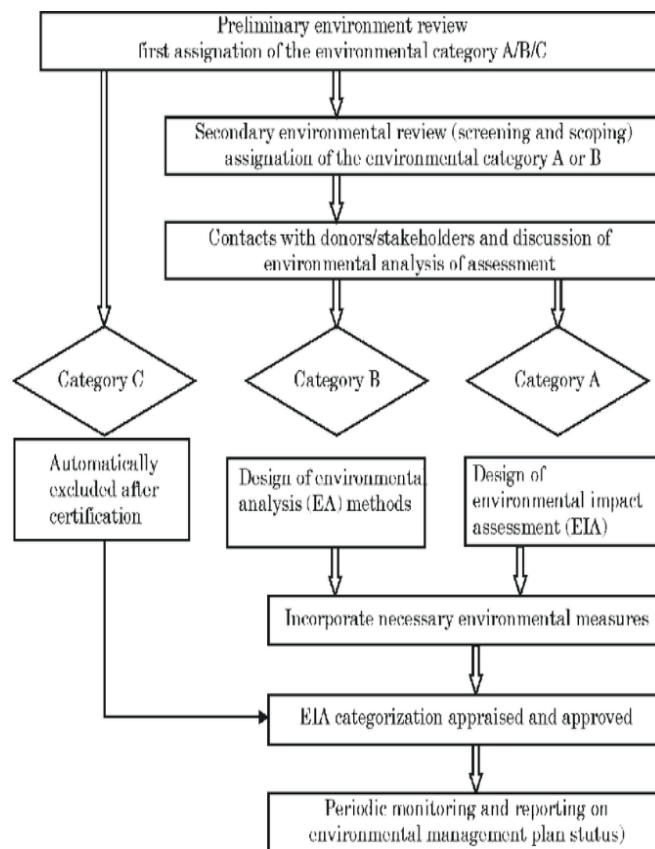


Fig 1: Brief description of the EIA process (11)

3. EIA Framework and Process in Bangladesh

The Supreme Court of Bangladesh has determined that the 'right to life' is a fundamental right, including the 'right to a healthy environment' [12]. In response to the United Nations Conference on Sustainable Development in Brazil, the Government of Bangladesh adopted a cross-sectoral National Environmental Policy

in 1992[13]. In 2002, a decade after the Earth Summit in Rio de Janeiro, the world's leaders met in Johannesburg for the World Summit on Sustainable Development (WSSD). The first legal mandate for EIA in Bangladesh was promulgated in 1995, followed by the ECR of 1997. The ECA codifies the country's commitment to protect the environment and ensure sustainable use of natural resources. Section 12 of ECA stipulates that 'no industrial unit or project shall be established or undertaken without obtaining an Environmental Clearance from the Department of Environment (DOE) in the manner prescribed by the rules [14].

The Department of Environment (DOE) is responsible for implementing and enforcing the EIA established in 1992 by the Ministry of Environment and Forest (MoEF). DOE's role is mandated by the power and function of the Director General of DOE, according to the ECA of 1995. DOE is the approval authority for EIA applications submitted by project proponents. DOE reviews applications of EIA and issues Environmental Clearance Certificates (ECC) to ensure that the proponents comply with ECC's conditions. In addition to EIA-related functions, the mandate of DOE is broadly to ensure the conservation of the environment, assessment, and improvement of environmental quality, as well as monitoring and mitigating pollution control [15].

Current EIA Procedures in Bangladesh

The main components of the Environment Conservation Act, 1995 are (GOB, 1995b, pages 613–621; Chowdhury et al., 1999, page 28): a. b. c. d. e. f. "Declaration of ecologically critical areas, and restriction on the operation and process, which can be carried or cannot be initiated in the environmentally critical area. Regulations should be implemented regarding vehicles emitting smoke, which harms the environment. Environmental clearance for all industrial units and projects. Regulation on the industries and other development activities — discharge permit. Promulgating air, water, noise, and soil quality standards for different purposes. Promulgation of standard limit for discharging and emitting waste.

g. Formulation and declaration of environmental guidelines.

h. Penal measures for non-compliance."

The primary requirements of the Environment Conservation Rules are (GOB, 1997, pages 1303–2346; Chowdhury et al., 1999, page 30):

- a. "National Environmental Quality Standards for ambient air, various types of water, industrial effluent, emission, noise, vehicular exhaust, etc.
- b. Requirements and procedures to obtain environmental clearance. c. Requirement for Initial Environmental Examination (IEE) and Environmental Impact Assessment (EIA) according to categories of industrial and other development interventions."

The EIA process in Bangladesh includes the following stages described in brief:

Screening

According to the Environmental Conservation Rules (ECR)-1997, all development projects are categorized based on their nature, type, and size for EIA. The projects are Green, Orange A, Orange B, and Red [16]. For the projects of the Orange A and Orange B categories, IEE is required, whereas full EIA is required for projects of the Red category. No IEE or EIA is required for Green category projects.

Review and Issuance of ECC

DOE has the absolute responsibility to take charge and review the EIA reports. The DOE review committee reviews the EIA report. The committee comprises DOE officials and is headed by the DOE's DG. However, DOE co-opts EIA experts and academics from outside as members of the review committee for any exceptional cases on an ad hoc basis. Based on the review reports, the DG of DOE accepts the EIS, asks for more information, or rejects the Environmental Impact Statement (EIS). If accepted, the DOE issues an ECC to the proponent outlining terms and conditions that the proponent is bound to comply with. The terms and conditions usually involve the proponents implementing the mitigation measures designed under the Environmental

Management Plan (EMP) correctly during the implementation and operation of the project. Also, the proponents must monitor the mitigation measures and communicate with the DOE regularly to ensure the project is not causing any environmental degradation.

However, based on the review, effectiveness can be divided into four categories: procedural, substantive, transactive, and normative (Table 1).

Table 1: Effectiveness Categories and Descriptions [18]

Category	Definition
Procedural Effectiveness	“Does the EA (environmental assessment) process conform to established provisions and principles?” (Sadler, 1996, p.39)
Substantive Effectiveness	“Does the EA process achieve the objectives set, e.g., support well-informed decision-making and result in environmental protection?” (Sadler, 1996, p.39)
Transactive Effectiveness	“Does the EA process deliver these outcome(s) at least cost in the minimum time possible, i.e. is it effective and efficient?” (Sadler, 1996, p.39)
Normative Effectiveness	“Examination of the purpose involves finding out what normative goals are realised” (Baker and McLelland, 2003, p.586)

Monitoring and feedback

After approving the EIA report and issuing the ECC, the proponents' responsibility is to implement the mitigation measures under the EMP during the project implementation and operation. DOE is also responsible for regularly checking and supervising whether the proponent implements the EMP correctly to protect the project's environmental impact. After the implementation of the project, a final evaluation of the EIA should be undertaken jointly by the DOE and the proponent. Lessons are learned from this evaluation and applied to improve the EIA's effectiveness for similar projects in the future.

One significant problem of EIA effectiveness assessment is visualizing the different scenarios with and without EIA. This is because it is difficult to assess which environmental parameters will improve with the help of EIA. The process becomes more complex as obscure terms like ‘sustainable development’ become the inherent goal of EIA, which is still ill-defined [18].

However, experiences in developing countries in Asia and elsewhere suggest that EIA laws may be conflicting, ambiguous, and inadequate [17] for effective EIA practice when new rules are designed for the first time. Bangladesh's EIA experienced the same situation. Bangladesh's EIA laws (ECA and ECR) were created over a decade ago. However, comprehensive revision, amendment, or reform of the regulations has yet to be done.

4. Methodology

This study produced a survey questionnaire based on previous articles and journals on EIA applications in Bangladesh. It was initiated to prepare crucial factors in the questionnaire to obtain experts' opinions about the loopholes in Bangladeshi laws and policies that prevent EIA from being effective.

As the context of the questions is sensitive and demands knowledgeable responses, about 100 experts, i.e., lawyers, government bureaucrats, environmental engineers, and journalists, are chosen to acquire answers from the structured questionnaire. The data was collected and analysed using MS Excel.

Seven basic questions were included in the questionnaire to identify which significant amendments are required to strengthen the laws and policies that may help Bangladesh successfully enact EIA.

5. Methods

For Questionnaire Survey

1. Prepare a questionnaire based on literature review
2. Searching for experts
3. Selection of experts
4. Conduction of survey through emailing
5. Data collection

Data cleaning

The collected data was cleaned after being scrutinized closely to determine whether discrepancies and incongruences were unfit for analysis.

Data analysis and findings

The data was analysed using seven questions. However, seven questions were considered seven factors in the questionnaire, and the responses were counted in percentages. MS Excel was used to obtain the desired results according to the research aim.

Table 2: Expert's responses on a regulation amendment

No.	Factors	Responses (%)
1.	Environmental policies and laws need to be organized.	30%
2.	Solid and transparent legal support is a prerequisite.	5%
3.	lack of explicit legal provisions	10%
4.	Biased legal instruments	7%
5.	Uncertainty and confusion about the policies increase project costs	13%
6.	Mal legislation framework	25%
7.	Basic arrangements are inadequate	5%

6. Results and Recommendations

The results are organized according to one primary theme: amendment of laws and policies in Bangladesh. However, seven factors were considered to identify the most significant factor that requires immediate amendment.

As 100 experts were sent the questionnaire, they expressed their thoughts considering the factors above. As a result, 30%, the highest percentage, reckoned that 'environmental policies and laws need to be organized' to make practical EIA applications. The second highest response highlighted 'mal legislation,' a barrier to EIA implementation. Though the rest of the reactions are not more prominent in percentage, they are also a matter of concern.

Understandably, amendments to regulations and policies are imperative, as per society's experts. Undoubtedly, bureaucratic initiatives and political interests are crucial to reforming the rules or guidelines. Therefore, in the first place, the country's conscious citizens need to push the government to take immediate action to amend the country's regulations so that we can get fruitful results out of EIA.

7. Conclusion and Recommendation

The outcomes of EIA provide decision-makers and stakeholders with relevant information to make informed decisions about the project. Before commencing a project, it is essential to investigate the probable impact on society, ecology, and the environment if any development projects begin. When local laws and regulations are fit to absorb EIA principles, they produce effective implementation results that remain in developed countries worldwide. However, in Bangladesh, although the government of Bangladesh adopted EIA for implementation in the 90s, yet there is no significant outcome visible. It has been observed that inadequate rules and policies are majorly liable for the failure in implementation.

A set of recommendations can be drawn where, at first, EIA procedures need to be incorporated into the present EIA legislation. A more comprehensive set of clear rules and regulations for the EIA is required to make the EIA effective in practice. The government of Bangladesh should take immediate action to reform the existing legal provisions of the EIA. This initiative will strengthen the EIA system and support improving EIA practices in Bangladesh. With this view, a set of recommendations are made here. The EIA rules have not mentioned the stages of the EIA process, such as scoping, impact prediction and assessment, analysis of alternatives, mitigation measures, and monitoring. At a minimum, explicit provisions should be made to consider these stages. However, the activities under each stage can be open and flexible. The ECR needs to include provisions for public participation at all stages of EIA, monitoring, and feedback mechanisms, including the responsibilities of proponents. Also, there should be provisions of penalties for the EIA consultants for providing false or misleading information in EIA reports. The duties of critical factors such as DOE, proponents, and EIA consultants should be clearly [outlined at each stage of the EIA process, particularly for the implementation of the Environmental Management Plan (EMP) and monitoring and feedback responsibilities. Environmental quality standards must be revised and updated according to Bangladesh's current environment.

Hence, reforming laws and regulations is necessary to enact the EIA for developing projects that may impact the environment.

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