Indian Environmental Impact Assessment Practice

Indian Environmental Impact Assessment Practice:

Insights and Learnings

By

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Dedicated to my significantly better half, Asha,

and

my professional fraternity.

Also, to you, the reader

in the hope that these

insights and learnings help you

understand and adhere to

good practice EIA.

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FOREWORD

I am pleased to write a foreword for the book "Indian Environmental Impact Assessment Practice: Insights and Learnings" by Prof. Dr. Arjun Kumar Rathi.

The book builds on a unique combination of the author's brilliant academic record, industrial development, environmental regulatory and teaching experience, assessment of many EIA consultants, research activities and his book "Handbook of Environmental Impact Assessment: Concepts and Practice". As a result, the book provides a broad perspective of the all-important, ever-evolving and ever-challenging field of environmental impact assessment practice. For the new generation of environmental impact assessment that is still evolving, policymakers, regulators, and project management and environmental impact analysis professionals worldwide can learn from previous experiences, find ways to address the shortcomings identified and make EIA practice a better and widely accepted tool for natural resource management and environmental protection and hence help achieve sustainable development.

Case study methods in academia are found to be practical tools for learning and are well-accepted globally. Moreover, these provide opportunities to learn from others' experiences. Thus, based on an India-specific in-depth study, this book should be helpful to all the countries in general and middle- and low-income countries in particular because of the underperformance of EIA. In addition, different EIA stakeholders, such as policy-makers, decision-makers, regulators, EIA professionals engaged in conducting EIA studies and preparing EIA reports, EIA reviewers and project management professionals and NGOs working in the field of environment and sustainability across geographies will find a wealth of information and knowledge to tap into here in their search for concrete and practical steps to help achieve the primary objectives of EIA and implement sustainable development systems.

The book will give a different perspective to environmentalists and learners of the EIA. Furthermore, it should provoke researchers to conduct empirical studies on the implementation of EIAs, evolve innovative methodologies to

evaluate different aspects of the EIA practice to improve EIA's efficacy and devise ingenious EIA review, EIA decision-making and EIA follow-up frameworks. Finally, it need not be emphasized that managerial ethics is central to responsible and objective EIA practice.

The book rightly brings out that environmental management hinders development is a wrong notion. Further, the author advocates good EIA practices, not the best, given that quality management systems are based on the philosophy that the best is yet to be achieved.

I applaud the author, Prof. Dr. Rathi, for his work in bringing together the shortcomings and learnings from EIA practices. It is my conviction that the book will be a valuable guide to policymakers, environmental practitioners, corporations, and NGOs and a reference book for students and researchers worldwide.

I commend the book to you, the reader.

Ahmedabad, India
Dr. Karsanbhai K. Patel
President, Nirma University and
Chairman, Nirma Group of Industries.
15 February, 2024

PREFACE

I find many books on Environmental Impact Assessment (EIA), describing theory and concepts but a few on the analysis of EIA practice. I could not find books dedicated to evaluating EIA practices, even though research papers in journals contain case studies on the different aspects of the EIA process and specific aspects of the EIA in different countries. Given this, I present the book, based on empirical studies for various features of the EIA practice in India as case analyses.

I am of the firm belief that the shortcomings observed in the Indian policy, as well as the implementation of the EIA process, cannot be unique to India. The learnings from the inadequacies discussed in the case analyses should, therefore, be valuable to the stakeholders in the EIA process, such as policy-making authorities, decision-making authorities, environmental regulators, environmental consultants, EIA professionals, development banking institutions, and corporates across geographies and help ensure that the primary objectives of EIA are achieved, and EIA efficacy is not negotiated.

Different components of the Indian EIA practice related to all four stages of the EIA process, viz. EIA report preparation; executive summary, consideration of alternatives, risk assessment, and environmental management programs in EIA reports; EIA review mechanisms, EIA decision making- environmental approval terms and conditions; and EIA regulations are critically examined in nine chapters and distilled good practices are discussed in the tenth chapter for good quality and effective EIA studies.

It is known that major developmental projects are proposed in developing countries in Asia, South America, and Africa, which lack robust EIA systems. It is, thus, essential that the EIA reports for such projects are prepared earnestly for the environmental protection and proper management of natural resources as stepping stones to achieving sustainable development. The book, consisting of ten chapters, will serve as a pointer to the drawbacks of the EIA process and EIA practices to caution the stakeholders and help them fill the gaps by adopting distilled EIA good practices.

The book should help turn around the “problem” areas in the environmental domain into “opportunities”, a win-win proposition for all the stakeholders in the long term.

I welcome remarks, comments, suggestions, and queries from readers. I can be reached by e-mail at *drakarathi@gmail.com.*

Ahmedabad, India
Arjun Kumar A. Rathi
12 February, 2024

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I sincerely appreciate and acknowledge the support and patience of my wife, Asha, whom I deprived of my time because of long work hours.

I express my gratitude to Dr. Karsanbhai K. Patel, President, Nirma University and Chairman, Nirma Group of Industries for his foreword.

I thank the EIA professionals who responded to my questionnaires for empirical studies. The help extended by several professionals, with whom I got opportunities to interact and learn, is thankfully acknowledged. In addition, gratefulness is expressed to several authors, agencies, and publishers whose references are cited in the book.

Ahmedabad, India
Arjun Kumar A. Rathi
19 February, 2024

CHAPTER 1

ENVIRONMENTAL MANAGEMENT IN THE INDIAN CONTEXTURE

Synopsis

Environmental management is integral to business management, and India has established a comprehensive set of regulations for managing and protecting the environment over and above constitutional provisions. The Courts have played a vital role in framing and enforcing environmental regulations. The basics of environmental management and its scope, the cost of environmental degradation, good management practices for environmentally sustainable development, the synergy between environmental management and financial management, and environmental regulations are discussed in the context of India. To reap maximum benefits, an organization must go beyond compliance management, understand and appreciate natural resources' limitations, preferred waste management hierarchy, pollution prevention vs. pollution control, environmental impacts, etc. A well-conducted EIA and a well-formulated environmental management program benefit the project proponent.

1.1 Introduction

Environmental management is integral to business management in an enterprise. While disciplines like project management, financial management, materials management, production management, marketing management, and human resource development form part of the core curricula at business management schools and are well-accepted agendas for the Board of Directors' meetings in business organizations, environmental management is yet to receive the attention it deserves. Certificates on compliance with the applicable environmental regulations from the concerned executives often suffice for the quarterly Board agenda and are formally noted without any discussion. Several organizations consider the environmental approval requirements for setting up

manufacturing, energy, and infrastructural projects and for operating these to be impediments to investments and the country's higher economic growth. The top corporate management, especially in developing economies, appears to be more concerned with profitability, net worth, and return on investment than the issues related to environmental sustainability in the long run.

Evolving suitable financial systems at the national level to promote environmentally sustainable development, recognizing technology as a driving force for improvements in environmental management, aligning the financial sector towards a green agenda, restricting investments in high pollution-potential sectors, and incentivizing private investments in green projects could help bring environmental management to the corporate agenda.

Under the existing management practices, managers are generally entrusted with the responsibility of financial, materials, and human resource management. However, optimal utilization of natural resources to sustain production in manufacturing and energy sectors lacks due consideration in many enterprises, especially the small and medium ones. Further, while financial and cost audits are well-accepted tools for financial management and are mandated to protect the interests of the shareholders, environmental audit lacks proper understanding and acceptability as a tool for improving resource management. On the contrary, environmental audits and safety audits are viewed to be financial burdens. A wide range of professional expertise is available to conduct financial and quality management systems audits and the practices are reasonably well established and regulated. However, environmental audits are yet to be found in a true sense in many enterprises in developing countries. Further, unlike financial and cost audits, environmental audits are not mandatory yet to protect the interests of society at large. It is not fully appreciated that an environmental audit report, among others, brings out inefficiencies in the usage of resources like raw materials, utilities, and energy and operating practices. If environmental auditors are encouraged to conduct the audits religiously and suggest effective corrective measures and proactive actions, such an exercise will be financially beneficial. Likewise energy (electrical and thermal) audits reveal inefficiencies, and hence the potential of saving power and fuel and larger benefits in terms of the improved environmental quality. Environmental and energy audits are important tools to improve resource management, ultimately leading to green productivity and improving the organization's bottom line besides environmental quality. Such good management practices, thus, offer a win-win opportunity for the industry (Rathi 2001a).

Guidelines are available to design management plans (USEPA 2002) or cultivate a reliable, responsible, and efficient environmental management program for small businesses.

The business experience in developed economies has shown that going beyond compliance helps accrue several benefits and enhances the bottom line. For example, increased profitability through cost reduction by adopting cleaner production practices improves the balance sheet of an enterprise. A better image as an environmentally responsible enterprise adds to the competitive advantage. Integrated environmental management (DEAT 2004a) needs to be infused into decision-making to integrate environmental resource management, which is linked with environmental protection, sustainability, and integrated landscape management. In the long run, a business benefits by achieving sustainability, and carbon neutrality, and minimizing future environmental liability risk. It is thus believed that it is only a matter of time before the corporate world and the shareholders of business enterprises in developing countries will also realize that there is a synergy between good environmental management and sound financial management.

1.2 Environmental Management

Environmental management is essentially internalizing the externalities arising from the developmental activities, *i.e.* internalizing an informed concern of the environmental consequences of the actions of an enterprise into the management's policies and procedures.

1.2.1 Definition

Environmental management can be defined as a set of activities through which an organization maintains awareness of and control over its interactions with the environment. It systematically approaches the organization's short-term and long-term environmental responsibility. The fundamental types of supporting activities must be adequate for sound environmental management, developing and maintaining awareness of the environmental performance of the matters important to an organization, and monitoring and improving environmental performance. Depending upon the business type and location, different organizations will have different environmental matters/issues that are important to them. For example, critical environmental issues for operating:

a. thermal power plants based on coal include air emissions and fly ash management
b. ceramic plants include air emissions and solid inert waste management
c. chemical and petrochemical plants include toxic emissions, wastewater, and hazardous waste management
d. ports include marine water quality, emissions and risks from handling, storage, and transportation
e. highways include vehicular emissions, noise and accidental risks
f. mines include overburden management, sediment transport, air quality and ecology

1.2.2 Sustainable Development

The bottom line for any organization is ensuring compliance with the applicable environmental regulations. The common goal is contributing to sustainable development, defined in Our Common Future (WCED 1987), also known as Brundtland Commission report, as "*development that meets the needs of the present without compromising the ability of the future generations to meet their own needs*." A robust and objective definition of sustainable development (Merkel 1998) is "*... using resources, no faster than they can regenerate themselves and releasing pollutants to no greater extent than natural resources can assimilate them*". The Supreme Court of India (1997), in its judgment in the case of Vellore Citizens Welfare Forum (VCWF) v/s Union of India and others observed that "*the traditional concept that development and ecology are opposed to each other is no longer acceptable. Sustainable development, defined by the Brundtland report is the answer*". The Apex Court was of the view that the *precautionary principle* and the *polluter pays principle* are essential features of sustainable development.

1.2.3 Environmental Degradation

Ambient air pollution is a public health crisis for South Asia, imposing high economic costs and causing an estimated 2 million premature deaths each year (WB 2023). Environmental degradation costs were estimated at 5–10% of GDP in South Asian countries (WB 2012), the largest share associated with environmental health impacts, accounting for 20% of the total disease burden. Further, this region is vulnerable to extreme climatic events, including more intense weather, floods, sea-level rise, cyclones, and drought. The Geneva-based Internal Displacement Monitoring Centre reported that extreme weather events, correlated with disasters, caused the

internal displacement of over 3.8 million annually in the last 5 years in India. The annual cost of environmental degradation in India was about Rs. 3.75 trillion ($80 billion), equivalent to 5.7% of its GDP (WB 2013). While 3% is attributed to the particulate matter pollution in the air resulting in substantial cardiopulmonary and chronic obstructive pulmonary disease mortality load among adults, 2.7% is attributed to a lack of access to clean water, sanitation, hygiene, and natural resources depletion resulting in water-borne diseases. The study further shows that 23% of child mortality in India could be attributed to environmental degradation. The need, importance, and serious consideration of environmental management at different levels could thus be sensed from these statistics.

1.2.4 Scope of Environmental Management

The scope of environmental management is not limited to aiming at compliance with the regulation. It is much broader to include integrated environmental assessment (EEA 1995), the interdisciplinary process of identification and analyzed appraisal of the relevant natural and human processes and their interactions that determine the current and future state of environmental quality and resources on appropriate spatial and temporal scales. It facilitates the framing and implementation of appropriate policies and strategies (Boersema and Reijnders 2009). For the operating manufacturing and fossil-fuel-based energy plants, environmental management needs to include devising systems (NRC 2003a) to meet long-term challenges, such as improving the understanding of structure-toxicity relations, biological and physic-chemical interactions in response to environmental stresses, fate and transport of anthropogenic chemicals, bio-geochemical cycles, gas-to-particle conversion in the atmosphere, functional genomics and the chemical processes that govern organism-environment relationships, chemical-gene interactions in the natural environment, and persistent organic products.

The new approaches of green chemistry and sustainable chemistry for new chemical processes require i) increased understanding of bio-geochemical processes and cycles, ii) advances in new industrial ecology attitudes about waste utilization, iii) development of environmentally-friendly materials, *e.g.* bio-degradable packaging for resource management, iv) new methods for pollution prevention and waste management, v) green chemistry and new chemical processes, vi) discovery of unknown environmental problems and identification of their underlying causes and mechanisms, and vii) developing improved modeling and simulation techniques contributing to a

fundamental understanding of the environment, remediation of the existing environmental problems, prevention of environmental problems in the future, and protection of the environment.

Thus, a systems approach is needed in several areas, including

a. actions that affect any of the three principal environmental sinks, *viz.* air, water, and soil media, and the biological systems with which they interact, where attempts to manage each of them separately will invariably transfer environmental problems from one medium to another rather than solving
b. spatial and temporal management of environmental impact sources where and when the impacts are generated in processing and manufacturing

1.2.5 Approach to Environmental Management

It may be recalled that the approach to environmental management, even in the developed economies, was limited to reacting to an environmental, rather pollution-related problem by adopting end-of-pipe control until the 1970s. Thereafter, environmental management gradually started an increased focus on proactive measures, such as anticipation and prevention, aspirational horizon from local to global, immediate and short term to the needs of the next generation, and environmental performance. The shift in the approach to environmental management was triggered by major disasters, including the Seveso explosion in 1976, the Bhopal tragedy in 1984, and the Exxon Valdez oil spill in 1989. Environmental management, especially for the conventional sources of power and manufacturing facilities, also includes cleaner production (Rathi 2001b, 2003), clean technologies (Rathi 2004), waste minimization, green chemistry, use of renewable energy, and enhancement of energy efficiency besides key sustainability principles like anticipating and preventing environmental consequences of an activity. It will thus be in the interest of the corporates to go beyond compliance with the applicable environmental regulations and concentrate on enhancing their environmental performance which will help enhance financial performance. The mandate of the Board of Directors level committee on environment, safety, and health (ESH) or environment, social, and governance (ESG) should include, among others, conserving natural resources (Rathi 2017c), carbon neutrality, sustainability, minimization of environmental pollution load, loss prevention, and occupational health.

An ever-increasing number of companies have started recognizing the need

to make their operations more sustainable. Governments, stock exchanges, markets, investors, and society in developed economies call on companies to be transparent about their operations' sustainability goals, performance, and impacts. Several companies do voluntary sustainability reporting by G4 sustainability reporting guidelines (GRI), and many more continue to join. There is a greater awareness of the importance and benefits of ESG in the business. BRSR reporting has become mandatory for Indian companies. A survey conducted by MIT (2012) revealed that sustainability started appearing on the management agenda of several organizations in 2000 and that several of these companies are profiting from sustainability activities.

1.3 Environmental Legislation

Agenda 21, finalized in the United Nations Conference on Environment and Development held at Rio de Janeiro, Brazil, on 3-14 June 1992, observed that "humanity was faced with a worsening of poverty, hunger, ill health and illiteracy, and the continuing deterioration of the ecosystems on which the well-being of humanity depends. Integrating environmental and development concerns and greater attention to them will lead to fulfilling basic needs, improved living standards, better protected and managed ecosystems, and a safer, more prosperous future. This requires a balanced and integrated approach to environment and development questions". Several international conventions and protocols followed the first Earth Summit, necessitating signatory countries to legislate regulations. Some developed countries also used some environment-related aspects as tariff trade barriers for the developing countries to pressure them to put in place and improve their environmental regulatory regime.

In addition to the constitutional provisions, India has established a comprehensive set of laws for the management and protection of the environment. The primary environment-related legislation in India (Acts, Rules, and Notifications) is compiled in Table 1.1. The courts play a vital role in framing and enforcing environmental regulations in democratic countries. The environmental management in India essentially has been responding to the environmental legislation notified from time to time by taking measures to meet compliance requirements. Conserving natural resources and improving environmental quality are the significant challenges, necessitating improved understanding and appreciation of the limitation of natural resources, preferred waste management hierarchy (Rathi 2009a), pollution prevention vs. pollution control, environmental impacts (Rathi 2016, 2017a), *etc*.

Table 1.1 Environmental Regulations in India

Component	Regulation
Air	• Air (Prevention and Control of Pollution) Act, Rules, and Amendments, 1981, 1982, 1983, 1987 • Atomic Energy Act, and Amendments, 1982, 2015 • Central Motor Vehicle Rules, 1989 • Energy Conservation Act, 2016 • Indian Boiler Act, and Amendments, 1923, 2017 • Motor Vehicles (Amendment) Act, 1988, 2019 • National Ambient Air Quality Standards, 2009 • Static and Mobile Pressure Vessels (Unfired) Rules, and Amendments, 1981, 2016 • The Gas Cylinder Rules and Amendment, 2004, 2016
Noise	• National Road Safety & Traffic Management Board Bill, 2010 • Noise Pollution (Regulation and Control) Rules, and Amendments, 2000, 2006, 2010
Water	• Coastal Regulation Zone Notification, and Amendments, 2008, 2011, 2019 • Environmental (Protection) Rules, 1991, 2019 • Indian Fisheries Act, 1897 • Inter-state Water Disputes Act, and Amendments, 1956, 2019 • Marine Fisheries (Regulation and Management) Act, 2019 • Merchant Shipping Act and Amendments, 1958, 1970, 2015 • Oil Fields (Regulations and Development) Act, and Amendments, 1948, 1969 • River Boards Act, 1956 • Water (Prevention and Control of Pollution) Act, Rules, and Amendments, 1974, 1977, 1978, 1988 • Water (Prevention and Control of Pollution) Cess Act, Rules, and Amendments, 1977, 1978, 2003
Hazardous substances	• Ammonium Nitrate Rules, and Amendments, 2012, 2018 • Explosives Act and Rules, 1884, 2008, 2019

	• Hazardous and Other Wastes (Management and Trans-boundary Movement) Rules, 2016 • Insecticide Act, and Amendments, 1968, 2019 • Manufacture, Storage and Import of Hazardous Chemical Rules, 1989, 1994, 2000 • Oil Mines Regulations 1984 (OMR) under the Mines Act, 1952 • Petroleum Act, 1934 • Petroleum and Natural Gas Rules, 1959 under Oilfields (Regulation and Development) Act, 1948 • Petroleum Rules, and Amendments, 2002, 2018 • Rules for the Manufacture, Use, Import, Export and Storage of Hazardous Microorganisms Genetically Engineered Organisms and Cells, 1989 • The Recycling of Ships Act, 2019
Waste	• Batteries Waste Management Rules and Amendment, 2001, 2020 • Bio-Medical Waste Management Rules and Amendment, 1998, 2013, 2015, 2016 • Construction and Demolition Waste Management Rules, 2016 • E-waste Management Rules and Amendment, 2011, 2018 • Fly Ash Notification and Amendments, 2009, 2015, 2016 • Solid Waste Management Rules, 2016
Flora and Fauna	• Biological Diversity Act, Rules, 2002, 2004 • Forest (Conservation) Act and Rules, and Amendments, 1980,1981, 2003, 2017, 2018 • Indian Forest Act and Amendment, 1927, 1984, 2017, 2019 • National Forest Policy (Revised), 1988 • Prevention of Cruelty to Animals Act, Rules and Amendment, 1960, 1978, 2001, 2017 • Protection of Plant Varieties and Farmers' Rights Act, 2001

	• Wildlife (Protection) Act, Rules, and Amendments, 1972, 1973, 1991, 1995, 2002, 2014
Land Use	• Environmental (Siting Industries) Rules and Amendment, 1999, 2016 • Industries (Development and Regulation) Act, and Amendments, 1951, 1987 • Model Regional and Town Planning and Development Law, 1985, and Provisions in State Acts on Town and Country Planning • The Airport Economic Regulatory Authority of India Act and Amendment, 2018, 2019
Mining	• Coal Mines (Conservation and Development) Amendment Act, 1985, 2020 • Coal Mines (Special Provisions) Act, 2015 • Granite Conservation and Development Rules, 1999 • Mineral Concession Rules and Amendment, 1960, 2016 • Mineral Conservation and Development Rules, 1988 • Mineral Laws (Amendment) Act, 2020 • Mines and Minerals (Regulation and Development) Act and Amendment, 1957, 1984, 2016 • Mines Rescue Rules, 1985 • Mines Rules, 1955 • National Mineral Policy, 2019 • The Mines Act, 1952
General	• Ancient Monuments and Archaeological Sites and Remains Act and Rules, 1958, 2010, 2017 • Disaster Management Act, 2005 • Electricity Act, 2003, 2020 • Environment (Protection) Act and Rules, 1986, 1991, 2019 • Environmental Audit Notification, and Amendments, 1992, 1993 • Environmental Impact Assessment Notification, and Amendments, 2006, 2015 • Environmental Standards Notification, and Amendments, 1993

	• National Environment Tribunal Bill,1995 • National Green Tribunal Act, 2010 • National Highway Act, and Amendments, 1956, 2017 • National Policy of Resettlement and Rehabilitation, 2007 • Public Hearing Notification, 1997 • Public Liability Insurance Act, Rules, and Amendments, 1991, 1992, 1993 • The Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996 • The Factories Act and Amendment, 1948, 1987, 2016

1.4 Environmental Management Decision Tools

Environmental management decision tools help identify, evaluate, and address the environmental consequences of an organization's activities to make well-informed decisions to improve environmental management within and around it. There are several tools with some differences as well as similarities. Some tools are complementary to each other. Petts (1999) described at length the decision-making context and characteristics of the following basic environmental management decision tools:

1. Environmental Impact Assessment (EIA)
2. Risk Assessment (RA)
3. Technology Assessment (TA)
4. Lifecycle Analysis (LCA)
5. Cost-Benefit Assessment (CBA)
6. Environmental Audit (EnA)
7. Strategic Environmental Assessment (SEA)

1.4.1 Environmental Impact Assessment

The US National Environmental Policy Act of 1970 represents the first formal incorporation of the impact assessment process in a legislative form. Historical developments of EIA are summarized by Rathi (2021a). In the 21st century, EIA is in flux and under pressure due to key sociological and policy challenges. The challenges (Bond and Dusik 2020) include a) formalizing technology assessment processes and the inclusion of emerging technologies within the scope of EIA processes, b) a shift towards legislated

substantive outcomes rather than enforcement of procedure only and c) framing of EIA goals based on societal definitions of sustainability.

Bice (2020) identified trends that would shape the future of EIA theory, policy, and practice. In addition to attending to broad trends and opportunities, EIA needs to simultaneously deal with fundamental challenges to the philosophical-political system from which it arose and the global decline in liberal democracy and its inevitable relevance to the fate of EIA (Bice and Fischer 2020). A revolution in EIA rather than an evolution is advocated by Jenkins (2020); the key differences being a) a focus on outcomes rather than on effects, b) a framework based on systems analysis rather than impact assessment, c) development led by strategy rather than project proponent, d) consideration of all the aspects, not just proposed actions, e) attention on incentives, not just regulation, f) monitoring and management of individual and cumulative outcomes rather than compliance with the terms and conditions for environmental approval and g) revamp of institutional mechanisms rather than banking on the current institutional mechanism. A revolution in the EIA system is needed so that it is able to effectively meet substantial challenges, such as biodiversity loss, a threat to freshwater sources, water quality, and marine resources, climate change, rising inequality, and human health issues.

1.4.2 Environmental Impact Assessment in the Indian scenario

The mandatory requirement for environmental approval of development projects in India came into being through a notification in 1994. The EIA regulation is not a full-fledged Act passed by the parliament but it is notified under the Environment Protection Act 1986. The notification was recast into a more comprehensive regulation in 2006. Given that many amendments were issued to the notification over more than 10 years, a draft notification was issued in 2020 to replace it but it faced much criticism from different corners.

Project proponents generally consider EIA to be an impediment to investments in development projects and continue to decline to cultivate EIA literacy. The Indian EIA process is referred to as the environmental clearance process, and a project proponent's focus is to obtain environmental clearance for the proposed project. Most of the project proponents lack appreciation of the contribution of EIA to the project design and its potential benefits, such as a) a well-analyzed consideration of alternatives to select an environmentally suitable project location and resource-efficient and low-waste technology, b) a well-designed project