

## ENVIRONMENTAL IMPACT ASSESSMENT POLICY AND LEGAL FRAME WORK OF INDIA

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### ABSTRACT

Environmental impact assessment (EIA) has evolved and become part of major project requirements in many countries, since its introduction in the United States in 1970. According to the principle 17 of Rio Declaration (1992), the concept of EIA has been adopted as an environmental management tool to minimize the potential adverse impacts on the ecology often caused by of any socio-economic developmental project. Under the Environmental (Protection) Act 1986, on 27th January 1994, the Union Ministry of Environment and Forests (MEF), Government of India, circulated an EIA notification which made Environmental Clearance (EC) obligatory both for expansion or modernization of every activity and for setting up new projects programmed in Schedule 1 of the notification<sup>4</sup>. Ever since there have been 12 amendments made in the EIA notification of 1994.

**KEYWORDS:** EIA, Rio Declaration, Ministry of Environment and Forest, environmental clearance.

### 1. INTRODUCTION

The quest to safeguard the environment from further degradation has been of global concern for many years now. Many countries have had long histories of environmental protection through indigenous local institutions, taboos, norms and cultural values (Appiah-Opoku, 2001; Appiah-Opoku and Mulamoottil, 1997). However, it is worth noting that environmental management is not achieved only through environmental laws but also through the application of various formal and informal administrative mechanisms (Appiah-Opoku, 1999). In January 1970, the US National Environmental Policy Act (NEPA) introduced the first formal requirements and procedure for EIA. Since then, governments in more than 100 countries (El-Fadel and El-Fadel, 2004) have adopted provisions for the implementation of EIA. The requirement of a state to conduct an environmental impact assessment (EIA) in respect of activities with the potential to significantly affect the environment is reflected in Principle 17 of the UN Conference on Environment and Development (UNCED) (United Nations, 1992). The UNCED recognized EIA as a key tool for environmental protection and sustainable development. It is worthy to note that India has passed its EIA policy in 1994 through EIA notification.

### 2. Evolution of EIA Worldwide

United States of America was the first country to assign mandatory status to EIA through its National Environmental Protection Act (NEPA) of 1969. A host of industrialised countries have since implemented EIA procedures. Canada, Australia, the Netherlands and Japan adopted EIA legislation in 1973, 1974, 1981 and 1984, respectively. In July 1985, the European Community (EC) issued a directive making environmental assessments mandatory for certain categories of projects (Wood, 1994).

Among the developing countries, Columbia was the first Latin American country to institute a system of EIA in 1974. In Asia and the Pacific region, Thailand and the Philippines have long established procedures for EIA. EIA was made mandatory in Sri Lanka in 1984. The EIA process in Africa is sketchy, although a number of nations including Rwanda, Botswana and Sudan have some experience of EIA (Wathern, 1988).

Bilateral and multilateral agencies have also recognized the value of EIA as a decision-making tool. The Organization for Economic Co-Operation and Development (OECD) issued recommendations on EIA to its constituent States in 1974 and 1979, and for development aid projects in 1986. OECD issued guidelines for good practices in EIA in 1992 (OECD, 1992). United Nations Environment Programme (UNEP)

in 1980 provided guidance on EIA of the development proposals (UNEP, 1980) and supported research on EIA in developing countries (Ahmad and Swamy, 1985). UNEP, in 1987, set out goals and principles of EIA for the member countries and provided guidance on basic procedures for EIA in 1988.

The World Conservation Strategy pinpointed the need to integrate environmental considerations with development in 1980 (IUCN, 1980). EIA became an integral part of World Bank policy in 1987 which states that environmental issues must be addressed as part of overall economic policy. In 1989, the World Bank issued the Operational Directive on Environmental Assessment (O.D. 4.00), which was revised and updated in October 1991 (O.D. 4.01). Asian Development Bank in 1990 published guidelines for EIA (ADB, 1990). Importance of EIA was echoed in the Brundtland Report (WCED, 1987), and at United Nations Earth Summit on environment and development held at Rio de Janeiro in 1992 (UNCED, 1992).

### 3. Evolution of EIA system in India

EIA in India was started in 1976-77, when the Planning Commission asked the then Department of Science and Technology to examine the river-valley projects from the environmental angle. Subsequently the Department of Environment (DoE) was established in India in 1980 and in 1985 it was renamed as Ministry of Environment and Forest (MoEF). MoEF christened Environmental Protection Act (EPA) in 1986, it is an umbrella act covering broad spectrum of environmental aspects. Under Section 3, rule 5 of the EPA, MoEF has passed a major legislative measure in January 1994 for Environmental Clearance (EC) known as —Environment Impact Assessment Notification, 1994. Ever since there have been 12 amendments made in the EIA notification of 1994.

The 1994 Notification (Schedule-I, MoEF, 1994), groups out 32 highly polluting activities as mandatory for carrying out EIA. The Notification defines the role of the MoEF in the whole EIA process, which comprises of various sets of guidelines, for: (a) preparation of the EIA report, involving scoping to documentation, (b) Public hearing procedure, (c) review of EIA reports and decision-making and (d) post project monitoring. It also outlines time schedule for each of the process.

In September 2006, the MoEF passed a new EIA legislation making it mandatory for various projects such as mining, thermal power plants, river valley, infrastructure etc. to get environment clearance<sup>5</sup>. Conversely, as against the EIA Notification of 1994, this new legislation placed the responsibility of clearing projects on the state government depending on the competence of the project. Certain activities acceptable under the Coastal Regulation Zone Act, 1991 also call for analogous clearance.

The Act contains provisions for imposing fines in case of non-compliance with specified clauses of the act and any of the subsequent rules and regulations. The fine may extend up to INR 100 thousand, with an additional fine extendable to INR 5 thousand per day during which contravention continues.

The EC process is also subjected to the stipulated standards in the Water (Prevention and Control of Pollution) Act, 1974; Air (Prevention and Control of Pollution) Act, 1981; Noise Pollution (Regulation and Control) Rules, 2000, to provide prescribed limit of the pollutants which a particular activity may release to the environment. The Hazardous Wastes (Management and Handling) Rules, 1989 and Forest (Conservation) Act, 1980, are the other major acts that have bearings on EC practice. In addition, state governments have stringent regulations based on their local conditions, but these should be in concord with national laws, regulations and standards. In addition to strong legal provisions, special judicial construct like National Environment Appellate Authority (NEAA) constituted under the NEAA Act, 1997 for grievances. Currently the EIA Notification, 2006 (MoEF, 2006) and its amendments are operational (Jitendra K. Panigrahi *et al.* 2012).

#### 3.1 Administrative set up for EIA in India

The responsibility for implementing the EIA Notification lies with the Ministry of Environment and Forest (MoEF), Government of India. MoEF head quartered (HQ) at New Delhi is the sole agency for EC to any developmental projects in the country. Impact Assessment (IA) division of MoEF is responsible for setting guidelines, questionnaires, and checklist for the preparation of EIA report in major sectors. It prepares and issues notifications and amendments pertaining to environmental law. As specified in EIA notification, IA constituted of multi-disciplinary expert committee known as Environmental Appraisal Committee (EAC) to carry out review to EIA reports submitted by various project proponents. There is an autonomous organization Central Pollution Control Board (CPCB) under the administrative control of MoEF.

Apart MoEF head quartered (HQ) at New Delhi, there are six Regional offices (RO) located at Bangalore, Bhopal, Bhubaneswar, Lucknow, Shilong and Ranchi for Post Project Monitoring (PPM). Similarly State Pollution Control Boards (SPCBs) and Union Territory Pollution Control Committees (UTPCCs) are working at province level. At state level SPCBs work under state Department of Environment having different structures for project appraisal (MoEF, 2003). Environmental matters of any state ranging from executions to formulation of guidelines are entrusted to state DoEs. IA has conferred the major responsibilities like issue of no objection certificates (NOCs) and public hearing to SPCBs (MoEF, 1997). The complete process of EC in India has various activities at central, state and district levels involving

many authorities and departments (Jitendra K. Panigrahi *et al.* 2012).

#### 4. EIA process and practice

The EIA process in India is made up of the following phases:

- i. Screening
- ii. Scoping and consideration of alternatives
- iii. Baseline data collection.
- iv. Impact prediction
- v. Assessment of alternatives, delineation of mitigation measures and EIS.
- vi. Public hearing.
- vii. Environment management plan (EMP).
- viii. Decision-making.
- ix. Monitoring the clearance conditions.

#### 5. Environmental Clearance Procedures

The Environmental Clearance procedure was thoroughly restructured through issuance of said Environmental Clearance Notification 2006 by MoEF, New Delhi for making the environmental clearance procedure more transparent, less time consuming and decentralized as much as possible. Under this restructured Environmental Clearance notification, the industrial / developmental activities, which may cause serious spatial and temporal environmental impacts, have been scheduled to obtain prior Environmental Clearance. And also it has been decided that such activities shall be classified as category A or category B type projects. The existing Expert Appraisal Committees at central level at Ministry of Environment and Forests, New Delhi, shall screen - scope - appraise category A projects. Each state shall constitute State Environment Impact Assessment Authority (SEIAA) and the State Expert Appraisal Committee (SEAC) for carry out similar environmental procedure at State level. The SEIAA shall grant or refuse Environmental Clearance to any B type project after screening - scoping - appraisal of Environmental Clearance applications at state level (MoEF, 2006).

The general process of environmental clearance for category-A projects is presented in Figs. 1. In case of Category-A projects the total time frame from request for ToR (Terms of Reference) by project proponent (PP) to approval of EC takes 210 days at Government of India level. Similarly for category-B projects start to end takes 90 days at state government level. MoEF comprises various expert appraisal committees for different category of projects. There are provisions to review the EIA based on quantitative and qualitative assessment of the documents.

#### 6. Documents required for obtaining the environmental clearance

- Filled in application form (as per Schedule II of EIA Notification).
- A summary of the project/feasibility report (1 copy).
- EIA (EIS)/EMP report (20 copies).

- Risk analysis on on-site emergency preparedness plan (20 copies) in case of projects involving hazardous substances.
- Site clearance from MOEF for site-specific projects mentioned in the EIA notification.
- Consent to establish from SPCB.
- NOC from the local authorities (e.g., District Collector).
- Commitment regarding the availability of water and electricity from the appropriate agencies.
- Approval of the Chief Controller of Explosives under the Petroleum Act and Rules for layout and storage of hazardous substances and from the Directorate of Industrial Safety and Health under the Factories Act and Rules.
- Comments/Observations/Recommendations of the Chief Wildlife Warden in case a wildlife habitat/migration path exists within 25 km of project site.
- Comprehensive summary rehabilitation plan, where displacement of more than 1,000 people is anticipated.
- Copy of the application forwarded to the state government, in case of diversion of forest land.
- Copy of the application forwarded to the state government in case the CRZ notification applies.
- Clearance from the Airport Authority of India, if applicable.
- Details of the public hearing conducted by SPCB and copies of the advertisements issued for public hearing.
- Filled-in environmental appraisal questionnaires issued by MOEF, along with the attachments (mentioned in the questionnaire).

MOEF has issued different questionnaires for different projects, and the law requires that the public must be informed and consulted on a proposed development after the completion of EIA report. Any one is entitled to have access to the executive summary of the EIA, and the affected persons such as bona fide local residents, local associations, environmental groups active in the area and any other person located at the project site/sites of displacement must be given an opportunity to make oral/written suggestions to the State Pollution Control Board (SPCB).

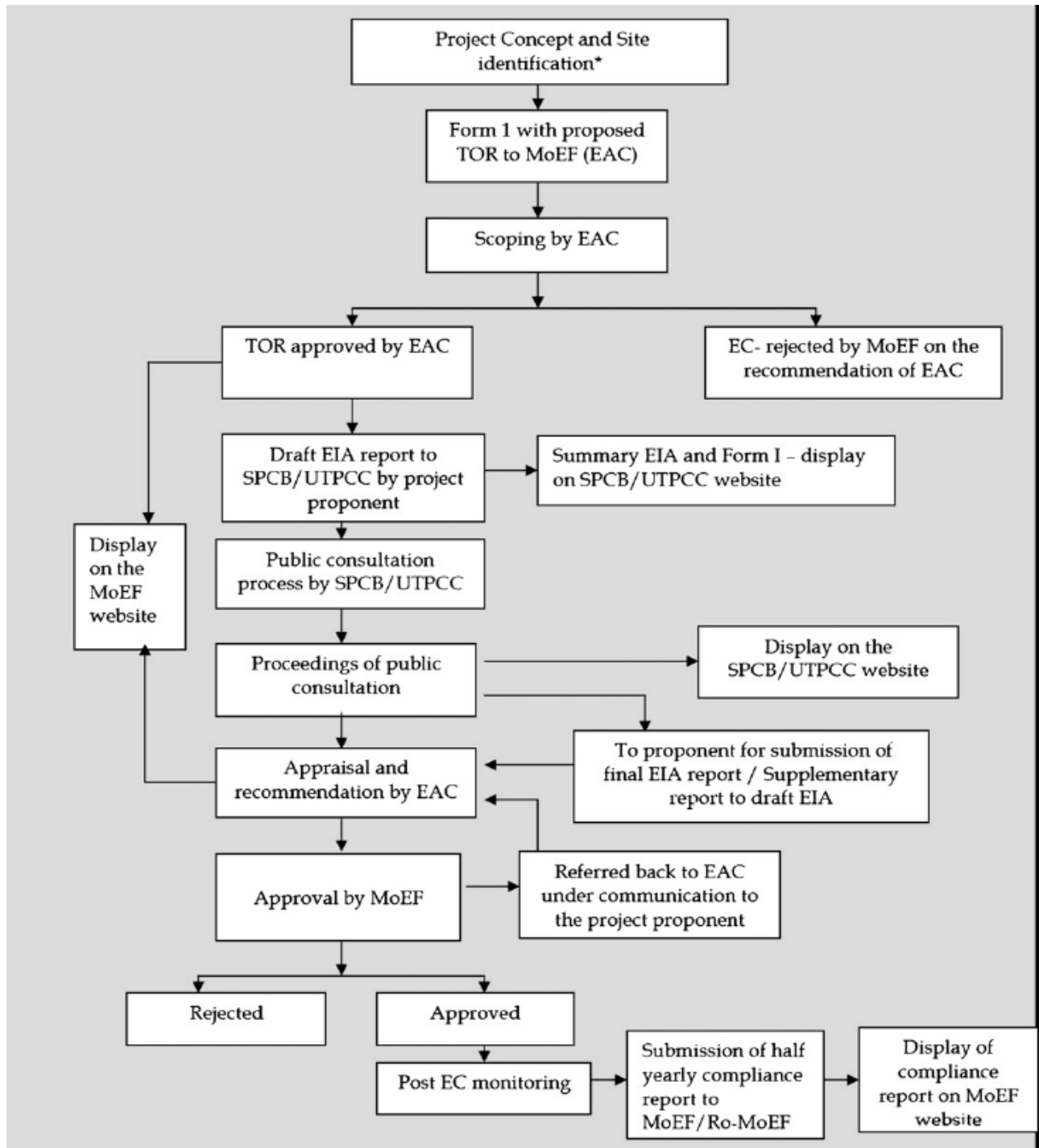
The decision-making process involves consultation between the project proponent (assisted by a consultant) and the impact assessment authority (assisted by an expert group, if necessary). The decision on environmental clearance is arrived at through a number of steps including evaluation of EIA and the environmental management plan (EMP). In India, the project proponent during the project planning stage decides the type of projects, i.e., new establishment, expansion or modernisation. Later, the project proponent prepares a detailed project report/feasibility report and submits to the authorities concerned the executive

summary containing the project details and findings of the EIA study, which is to be made available to the concerned public.

Where a proponent is required to obtain environmental clearance, the Impact Assessment Agency (IAA) evaluates and assesses the EIA report. In this process, the project proponent is given a chance to present his or her proposal. If a project is accepted, the IAA prepares a set of recommendations and conditions for its implementation based on this assessment. Environmental

clearance conditions and recommendations of IAA are made available to the public on request through SPCB and through a web site <<http://envfor.nic.in>>. During the implementation and operation of the project, the IAA is also responsible for the environmental monitoring process.

The EIA process now is well established in the country and EC is granted to approximately 300 projects (MoEF, Annual Reports, 1994–2010).



**Fig 1: Approval process for EIA of Category-A Projects.**

(source : J.K. Panigrahi, S. Amirapu / *Environmental Impact Assessment Review* 35 (2012)

## 7. CONCLUSIONS

EIA in India is steadily evolving with sound legal framework. Under the Environmental (Protection) Act 1986, on 27th January 1994, the Union Ministry of Environment and Forests (MoEF), Government of India, circulated an EIA notification which made Environmental Clearance (EC) obligatory both for expansion or modernization of every activity and for setting up new projects programmed in Schedule 1 of the notification. Ever since there have been 12 amendments made in the EIA notification of 1994.

## REFERENCES

1. ADB, Environmental Guidelines for Selected Industrial and Power Development Projects, Office of the Environment, Asian Development Bank, Bangkok, 1990.
2. Ahmad, Y. J. and Swamy G. K., Guidelines to Environmental Impact Assessment in Developing Countries, Hodder and Stoughton, London, 1985.
3. Appiah-Opoku, S. Environmental impact assessment in developing countries, the case of Ghana. *Environmental Impact Assessment Review*, 2001; 21: 59-71. [http://dx.doi.org/10.1016/S0195-9255\(00\)00063-9](http://dx.doi.org/10.1016/S0195-9255(00)00063-9)
4. Appiah-Opoku, S., and Mulamootil, G. Indigenous institutions and environmental assessment: The Case of Ghana. *Environmental Management*, 1997; 21(2): 159-171. <http://dx.doi.org/10.1007/s002679900015>
5. Canter, L.W., Environmental Impact Assessment, McGraw Mill, New York, 1977.
6. Clark, B.D., Chapman, K., Bisset, R., Wathern, P. and Barret, M., A Manual for the Assessment of Major Developments, HMSO, London, 1981.
7. Commission of European Communities, On the Assessment of Effects of Certain Public and Private Projects on the Environment, Official Journal, L175, 1985; 28.5.85.
8. El-Fadl, K., and El-Fadel, M. Comparative assessment of EIA systems in MENA countries: Challenges and prospects. *Environmental Impact Assessment Review*, 2004; 24: 553-593. <http://dx.doi.org/10.1016/j.eiar.2004.01.004>
9. Holling, C.S., Adaptive Environmental Assessment and Management, John Wiley and Sons, New York, 1987.
10. Htun, N., The EIA Process in Asia and Pacific Region in P. Wathern ed. *Environmental Impact Assessment: Theory and Practice*, UNwin Hyman, London, 1988.
11. Jitendra K. Panigrahi, Susruta Amirapu, An assessment of EIA system in India, *Environmental Impact Assessment Review*, 2012; 35(2012): 23-36.
12. Kulkarni V. S., Kaul, S. N., Trivedi R. K., Handbook of EIA, Scientific Publishers, India, 2001.
13. Kulkarni V and Ramachandra T V, Environmental Management, TERI Press, New Delhi, 2009.
14. MoEF. The environment impact assessment notification S.O.60 (E). New Delhi, India: Ministry of Environment and Forest, Government of India; 1994a.
15. MoEF. Annual reports. New Delhi, India: Ministry of Environment and Forest, Government of India; 1994-2010b.
16. MoEF. The environment (protection) act notification—regarding thermal power plant (delegation of power). S.O.319 (E). New Delhi, India: Ministry of Environment and Forest, Government of India; 1997.
17. MoEF. Environmental Impact assessment: a manual. Impact assessment division. New Delhi, India: Ministry of Environment and Forest, Government of India; 2001.
18. MoEF. Draft report on formulation of revised environmental clearance process—phased implementation: environment management capacity building project—EIA component.
19. <http://envfor.nic.in/divisions/iass/emcb/reportforecont.htm> prepared by ERM, Ministry of environment and Forest, New Delhi: India, 2003.
20. MoEF. The environment impact assessment notification S.O.1533 (E). New Delhi, India: Ministry of Environment and Forest, Government of India; 2006.
21. Published in the Gazette of India, Extraordinary, Part-II, and Section 3, Sub-section (ii) Ministry of Environment and forests, 1999.
22. UNCED, Rio Declaration, United Nations Conference on Environment and Development Rio de Janeiro, 1992.
23. United Nations. Report of the United Nations Conference on Environment and Development (Rio De Janeiro, 3-14 June 1992). Original Report A/CONF.151/26, 1992; Vol. I.
24. Wathern, P., The EIA Directive of the European Community in P. Wathern ed., *Environmental Impact Assessment: Theory and Practice*, Unwin Hymann, London, 1988.
25. WCED, Our Common Future, World Commission on Environment and Development Oxford University Press, London, 1987.
26. World Bank, Operational Directive 4.01, Environmental Assessment, The World Bank, Washington, D.C., 1991.