

ENVIRONMENTAL IMPACT ASSESSMENT: A REVIEW

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I. INTRODUCTION

With countries around the world running the rat race of development, the most tempting way to the finish line is through industrialisation. While governments of most developing countries around the world harp on industrialisation, somewhere along the way, these governments seem to have forgotten for whom they are developing the country. Besides industrialisation, there is a lot more to develop for the benefit of humans, significant examples being access to basic human rights and the protection of the environment. Using industrialisation as a tool for development can only give rise to incomplete and unsustainable development, without focusing on the people for whom it is meant.¹

Although provisions may exist in law whereby such aspects of development are recognized, it remains to be seen as to whether these are adequate. In the process of industrialisation, there is an enormous impact on the environment, which in most cases, is neither accounted for nor taken into consideration. However, there are laws in place which follow a preventive approach by taking *a priori* cognizance of the impact industrial projects have on the environment. These provisions are called Environmental Impact Assessments (EIA).

It is possible to define Environmental Impact Assessment as an activity that aims at establishing quantitative values for parameters which indicate the quality of environment before, during, and after the proposed activities.² It is submitted that though such an endeavour appears to be a step in the right direction, there are more complexities that arise in practice than those that may be cursorily identified.

In the eyes of those seeking industrialisation, EIAs are considered to be procedural hurdles to be overcome in order to proceed with building industries. With industrialisation being the order of the day, EIAs are not taken seriously and conducted in very short periods of time, so as to give the green signal to projects - blind to the fact

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1 "India's recent high growth accompanying the process of industrialisation answers unambiguously the question as to who is in charge of this process....In this context we are repeatedly reminded that industrialisation has its costs, but it is conveniently left unsaid that the cost must be borne by those who are least capable of bearing it, the poor and the most marginalised sections of the population.;" Bhaduri A., "Alternative in Industrialisation", http://sanhati.com/wp-content/uploads/2007/05/alternatives_in_industrialisation_amit_bhaduri2.pdf as last accessed on 10th July, 2007.

2 Leelakrishnan, P., "Environmental Impact Assessments: Legal Dimensions," (1992) 34 *J.I.L.I.*, 543.

that these projects may cause untold environmental damage.³

Besides environmental damage, these projects also affect human life in and around the project area. Ignoring these collateral effects can only lead to economic loss and a rise in safety and health concerns for the affected groups. Improper cognizance of these issues exposes major lacunae in these assessments.

In this paper, the author shall try and prove that these laws are not correctly implemented, and more importantly, how EIAs are normatively deficient with regard to the concerns of the affected members of society as it denies them the right of participation in the assessment procedure.

The paper has been divided into four segments. The first part deals with the procedural aspects of Environmental Impact Assessments and its inception in the country. The second part is concerned with the problems of implementation that plague EIAs. The next segment revolves around how the EIA structure is perhaps normatively deficient and comparisons are drawn with the impact assessment structures of other developing countries. The last part serves as a conclusion to the paper.

II. HISTORY OF EIA AND ITS PROCEDURAL ASPECTS

To begin with, it is best that we understand the origins of the concept of EIAs and what procedures are to be followed so as to get a basic understanding before criticizing it.

The concept of environment impact assessment started in the U.S.A., where the national Environment Protection Agency incorporated it under the National Environmental Policy Act (NEPA) enacted in 1969. In India, EIAs were introduced in 1980 when large industrial projects were made to undergo clearances from the environmental angle. Five years later, in the Guidelines for Environmental Assessment of River Valley Projects, the Department of Environment identified special studies for conducting environmental impact assessments.

In 1994 the first EIA Notification was issued.⁴ This notification was heavily influenced by a 1988 conference titled the *International Conference on Environmental Impact Analysis for the Developing Countries* held at New Delhi. The conference circulated the idea that

3 The rationale behind this argument emerges from the fact that environment protection is seen as a 'cost' to most industries. Therefore industrialists, banks, law firms, etc. try their best to identify means to reduce costs in environment protection. See also, Marcks, Eric, "Avoiding Liability for Human Rights Violation in Project Finance", (2001) *Energy L.J.* 301.

4 Dubey, S., "EIA-The Foundations of Failure", <http://www.indiatogether.org/2006/mar/env-eiafail.htm> as last accessed on 4th April, 2006.

when assessing impacts of new industries, social costs also have to be taken into account.⁵ The author will now focus on the procedure for the implementation of impact assessments in India and then examine the procedures followed in other developing countries.

1. Procedure for Implementation

Environmental impact assessments are conducted on the basis of technical and scientific information and data received and taken from the site of the industrial project. The procedure followed while conducting such impact assessments varies, depending upon local laws and practices. However, there is a generic format based on which such evaluations are carried out:⁶

- **Project Definition-** A project identification and definition exercise is undertaken, and based on this, an EIA clearance is sought to consider the feasibility of the project.
- **Screening-** At this stage, it is decided whether or not an EIA is to be conducted. If required, then the subsequent steps follow.
- **Scoping-** At this stage, a study is initiated by which areas of concern and impacts are identified. Agencies and representatives concerned with the project are consulted at this stage.
- **Data Collection-** Data is collected from primary and secondary sources to study the above areas of concern and impacts.
- **Identification of Impacts-** This is the most crucial stage where impacts of the project are deduced.
- **Management Plan-** With the identification of the impacts, mitigation measures in the form of modified basic alternatives have to be adopted in order to minimize adverse impacts.
- **Publication of Reports-** A complete EIA report is published, which is available to the public for giving inputs.
- **Formal Approval-** Thereafter, with the EIA report being approved, the project proposal is given the green signal to proceed with the project, subject to the conditions stated in the report.
- **Monitoring and Follow-up-** To ensure that the conditions and compliance with the provisions is being carried out, these projects are monitored. Besides, such monitoring is also conducted to gauge the accuracy of the predictions under the EIA.

5 Ibid.

6 "Environmental Impact Assessment- The Procedure", <http://coe.mse.ac.in/eiaprocc.asp> as last accessed on 9th July, 2007.

In India, the entire process is to be completed within a period of 90 days from the receipt of requisite documents to conduct the assessment. The decision shall be conveyed after 30 days of the completion of the assessment.⁷

III. IMPLEMENTATIONAL FLAWS

With the State anxiously pushing for industrialisation, environmental impact assessments, rather than being considered a boon, are considered more of a hindrance to industrialisation. A major problem with EIAs is that there is a lack of baseline information, and even if information exists, it is either not in a useful form or reliable.⁸ This not only delays the process of assessment of the impact of the proposed project but also increases the cost of conducting such assessments. Such problems only add to the lack of enthusiasm of the Ministry of Environment and Forests (MoEF) to conduct these assessments as they do the bare minimum to study the impacts of these proposed industrial projects.

This is evident from the fact that the original notification proposed that the comprehensive EIA be carried out from information gathered over a period of a year. However, subsequently, the MoEF amended this requirement, stating that a comprehensive EIA was not required for the clearance of such projects, but a diluted assessment where only data compiled over a single season would be adequate to compile a Rapid EIA. Further, a detailed report was not required to pass these clearances, but a summary report would be considered adequate.⁹ There is also the severely criticized notion of conditional clearance,¹⁰ which allows approval for most major projects despite the absence of ecological clearance.

Not only is this a very short term and blind way of looking at development, it also does not allow for equitable development for all sections of society. By paying no heed to the ecological impact of these projects, there is also a failure to recognize the impact these projects have on people who live in proximity of these projects or who are directly affected by the negative impacts on the environment in which they live in.

7 Clause 3 (5) of Schedule II of the Environmental Impact Assessment Notification, 1994 states: "The assessment shall be completed within a period of ninety days from receipt of the requisite documents and data from the applicant and decision conveyed within thirty days thereafter."

8 Chong C.K., Et al., "Review of Literature on Values of Inland Capture Fisheries and Dams Construction at the Lower Mekong and Ganga Basins", http://www.iwmi.cgiar.org/assessment/files_new/research_projects/Paper_Chong%20et%al_ICLARM.pdf as last accessed on 9th July, 2007.

9 Divan, S. and Rosencranz, A., *Environmental Law and Policy in India* (New Delhi: Oxford University Press, 2001), 418.

10 Conditional clearance is a concept whereby a project is given the green signal to continue with the project, provided that adequate measures are undertaken in the future to mitigate possible environmental damage. See also, XI Parliamentary Debates, Lok Sabha Session IV (Budget), 1997, <http://www.parliamentofindia.nic.in/lsdeb/ls11/ses4/2712059701.htm> as last accessed on 10th July, 2007.

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An appropriate illustration would be the case of the Sardar Sarovar Project (SSP) on the Narmada River. The Sardar Sarovar Project is the biggest and most ambitious river valley project to date and is also by far the most controversial. The project involves the construction of a dam approximately 111 metres high, creating a reservoir that will submerge lands in the three states of Gujrat, Maharashtra and Madhya Pradesh.¹¹ The dam will submerge a stupendous 37,000 hectares of land in these three states, and divert 9.5 million acre-feet of water from the Narmada River into a canal and irrigation system and deliver drinking water to drought-prone areas of Gujarat.¹² The aggregate length of the distribution network is 75,000 km.¹³ It will require approximately 80,000 hectares of land, more than twice as much land as the submergence area.¹⁴ Since the project covers such a large area, it will affect an enormous number of people. The worst hit segment of people will be the tribals in the area. More than 100,000 people from over 245 villages will be displaced by the project as their lands will be submerged. An additional 140,000 people will be displaced by the water distribution system.¹⁵ Another significant impact will be the absolute destruction of the ecological system of the Narmada River, destroying the habitat of many species of animals and migratory birds.¹⁶

Despite the potential of such an enormous negative impact, there has been no comprehensive EIA with respect to the Sardar Sarovar Project. Despite the fact that guidelines have been issued by the Central Water Commission (CWC) since 1975, that insist that all major hydro-electric and irrigation projects are to be subject to comprehensive EIAs, not one project in the last 31 years has followed the guidelines.¹⁷ A project of such magnitude has been granted a conditional clearance to go ahead with the project, without addressing the critical environmental issues of the project. If the country's largest river valley project, which will displace 240,000 people or more from their homes,¹⁸ for which they will not be adequately compensated and will leave them without a home or livelihood, is not subject to a comprehensive EIA, then it can

11 "Dams, Rivers and People", http://www.sandrp.in/drp/april_may2006.pdf as last accessed on 10th July, 2007.

12 Ibid.

13 "Dams, Rivers and People", http://www.sandrp.in/drp/april_may2006.pdf as last accessed on 10th July, 2007. See also Morse, B. Et al., "Sardar Sarovar: The Report of the Independent Review", (1992) *Resource Futures International*.

14 Sadler, B., Et al., "Environmental and Social Impact Assessment for Large Dams", <http://www.dams.org/docs/kbase/thematic/tr52main.pdf>. As last accessed on 2nd April, 2006.

15 Ibid.

16 Sadler, B., et al., "Environmental and Social Impact Assessment for Large Dams", <http://www.dams.org/docs/kbase/thematic/tr52main.pdf>. As last accessed on 2nd April, 2006.

17 Kothari, A., et al., "The Lack of an Environmental Impact Assessment", <http://www.narmada.org/ENV/eia1.html> as last accessed on 1st April, 2006.

18 Dubey, S., "EIA-The Foundations of Failure", <http://www.indiatogether.org/2006/mar/env-eiafail.htm>. As last accessed on 31st March, 2006.

safely be assumed that there is something gravely wrong with the implementation of EIAs in the country.

To problematise the issue further, let us see which section of the population benefits from these industrial projects. Since the people living in the vicinity of the project area do not receive much benefit, it is pertinent to note who the beneficiaries are. These projects seem to be made for people living in urban areas and faraway agricultural lands who derive benefit from energy generation and the water diversion.

A suitable example of this is the case of the Nagarjuna Sagar Dam in Andhra Pradesh, where irrigational facilities became available only after 40 long years!¹⁹ Countless people were rendered homeless and impoverished by the construction of the dam, whose objective was, for all practical purposes, never fulfilled.

It is the rural poor who are inevitably the worst hit of all the people affected. Having no property of their own, traditionally these communities depend upon open access resources²⁰ to eke out an existence for themselves.²¹ These industrial projects pollute the environment and upset the ecological balance- thereby causing immense harm to these open access resources, rendering them unusable. The net result is the denial of basic subsistence rights to the people dependent on these properties. Alongside displacement, affected groups are left without their traditional means of survival.

The Government's record in attempting to rehabilitate these people has been abysmal. Of all the people displaced because of dams in Orissa and Andhra Pradesh, only 27.69% and 25.85%, respectively have been rehabilitated.²² With the government unable to provide for the basic entitlements of the displaced people, the very basis for dams to be considered as 'the temples of modern India' is put under very serious scrutiny.

IV. NORMATIVE DEFICIENCIES OF EIA

However, the implementation drawbacks of environmental impact assessments are only one side of the story. How far do the people who are directly affected by the impacts of industrial projects have a right of participation in these assessments programs?

19 Bandopadhyay, J., "Draft Report on Policy Dialogue on Dams and Development," www.iimcal.ac.in/centers/cdep/Final%20ReportD_D.doc. As last accessed on 28th March, 2006.

20 It is possible to define the term open access resources as natural resources accessible to anyone, with no restriction on their use; <http://research.amnh.org/biodiversity/symposia/archives/seascapes/glossry.html> as last accessed on 10th July, 2007.

21 For further reading refer to Hardin, Gareth, "Tragedy of the Commons", (1968) Vol. 162, No. 3859, *Science*, 1243.

22 Bandopadhyay, J., "Draft Report on Policy Dialogue on Dams and Development," www.iimcal.ac.in/centers/cdep/Final%20ReportD_D.doc. As last accessed on 28th March, 2006.

1. Public Participation and EIA: Perspectives of Developing Countries

Prior to the advent of environmental impact assessments, there was a tendency to disregard social interests, leaving displacement and other relevant impacts to be dealt with by government institutions in charge of social assistance, public services and natural resource protection.²³

The concept of public participation was introduced into the EIA process to ensure communication between the EIA assessment team and the individuals likely to be affected by the project. The goals sought to be achieved by way of public participation revolved around the promotion of public understanding and acceptance by minimizing perceived impacts of the project through education and open discussion. In return, public feedback could be used as a constructive input in improving the project design. It therefore stressed on the importance of communication between the affected communities and the project planners.²⁴

In developed countries like the United States of America, legislation like the National Environmental Policy Act, 1969 ensured that active public involvement was the main feature of the environmental decision making process. This has evolved into the most powerful weapon in the hands of the public against any environmental assault.²⁵

While it has become a mandatory component of EIAs for most projects supported by the developed countries, the picture is not quite so rosy in developing or third world countries. The problem that arises with public participation is the assumption of an educated public. This fatal assumption made by developed countries causes impact assessment reports to be made in such a manner that it caters only to the educated sections of society.²⁶

In third world countries, in most circumstances, the affected people are uneducated or insufficiently educated to engage in efficacious dialogue with either the impact assessors or the people responsible with the project. The developed countries' notions of public

23 Verocai, I., "Environmental and Social Impact Assessment for Large Dams -Thematic Review from the Point of View of Developing Countries", <http://www.dams.org/docs/kbase/contrib/ins221.pdf>. As last accessed on 9th March, 2006.

24 "Asian Development Bank: EIA for Developing Countries," 35, http://www.adb.org/Documents/Books/Environment_Impact/default.asp. As last accessed on 3rd April, 2007.

25 Leelakirshnan, P., "Environmental Impact Assessments: Legal Dimensions," (1992) 34 *J.I.L.I.*, 545.

26 Verocai, I., "Environmental and Social Impact Assessment for Large Dams -Thematic Review from the Point of View of Developing Countries", <http://www.dams.org/docs/kbase/contrib/ins221.pdf>. As last accessed on 9th March, 2006.

participation can never succeed in such a scenario.

An apt example of this could be the case of the Bangladesh floods of 1988. With the aid of development agencies, the Government initiated the Flood Action Plan (FAP) whereby extensive embankments were to be created alongside the rivers for flood control.²⁷ This involved extensive land usage in one of the most densely populated countries of the world. The EIAs that were conducted under the scheme of the FAP came under heavy flak because of the lack of public participation. As a consequence, the locals did not fully understand why they had to give up ancestral farmlands and become unemployed, or why squatters were being asked to leave and made homeless.²⁸

This problem has been evident in India from the very beginning. In the conference which initiated EIAs into India, the discussion with regard to public participation was foregrounded, however there was no representation of the interest groups themselves at the conference.²⁹ This has unfortunately come to characterize the treatment of public participation in EIAs.

A pertinent illustration is the case of the Sethusamudram ship canal along the eastern coast of India. The Central Government passed this proposal, without adhering to any of the norms of public participation or consultation, knowing that the project would affect the lives of over 6,00,000 fishermen living along the coast.³⁰

In India, the inclusion of public participation into Environmental Impact Assessments was extremely inadequate. According to the procedure laid down in the 1994 EIA Notification, public participation came into the picture only at the stage of the publication of the report. The public was allowed to access and give opinions on the report. Such opinion could be accepted or ignored by the people assessing the prospective industrial project, at their discretion. The procedure did not allow public participation to be initiated in the phases of scoping where the identifications of impacts are carried out.

27 Selim, S., "Public Participation during Environmental Impact Assessment Studies," <http://www.alochona.org/magazine/2002/february/TOTM6.htm> As last accessed on 3rd April, 2007.

28 Ibid..

29 Dubey, S., "EIA-The Foundations of Failure", <http://www.indiatogether.org/2006/mar/env-eiafail.htm> as last accessed on 4th April, 2006.

30 Campaign for Environmental Justice in India: Why was a Death Certificate filed on the Ministry of Environment and Forests?," <http://www.phmovement.org/en/node/78>. As last accessed on 3rd April, 2006.

31 2.2 of Appendix IV of the EIA Notification, 2006 states- "The Applicant shall enclose with the letter of request, at least 10 hard copies and an equivalent number of soft (electronic) copies of the draft EIA Report with the generic structure given in Appendix III including the Summary Environment Impact Assessment report in English and in the local language, prepared strictly in accordance with the Terms of Reference communicated after Scoping (Stage-2). Simultaneously the applicant shall arrange to forward copies, one hard and one soft, of

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However, with the advent of the new EIA Notification in 2006, the scope of public participation evolved considerably for the better. As per Appendix IV of the Notification, the process of public participation was to be undertaken at the stage of scoping.³¹ The entire process entails a relatively wider scope for any member of the community to seek clarifications from the assessors and the assessees.

This may be contrasted with the Environmental Impact Assessments carried out in countries like Brazil where public participation is an essential to the entire process. A negotiation forum consisting of the developer, members of the local municipalities, representatives of the state and community representatives discuss the impacts together and by means of negotiation come to a consensus. This sort of public participation ensures the right to participate and guarantees that the concerns of the community are taken into consideration.³²

Like Brazil, high priority is given to public participation in impact assessments conducted in the Philippines. After fifteen years of EIA experience, the Philippines has recognized that most failures can be traced to a lack of communication and an inadequate regard for social, cultural and political factors of the affected people. Therefore, the EIA process now includes participation as a mandatory component. It also entails that such consultations should be initiated at the earliest stage possible and the inputs that are provided have to be incorporated into the project plan as a compulsory feature.³³

If one is to compare the EIA structures adopted in countries like Brazil to that of India, it can be observed that even with the new notification, India remains substantially behind. The public participation measures adopted in Brazil allow for indigenous people to negotiate with the representatives of the State over matters of grave importance to them.³⁴ This reflects proper notions of public participation, where the interest groups truly have a say, unlike India, where public participation merely involves the seeking of clarifications by affected parties. In order to achieve affective public participation,

the above draft EIA Report along with the Summary EIA report to the Ministry of Environment and Forests and to the following authorities or offices, within whose jurisdiction the project will be located:

- (a) District Magistrate/s
- (b) Zila Parishad or Municipal Corporation
- (c) District Industries Office
- (d) Concerned Regional Office of the Ministry of Environment and Forests."

32 "Campaign for Environmental Justice in India: Why was a Death Certificate filed on the Ministry of Environment and Forests?", <http://www.phmovement.org/en/node/78>. As last accessed on 3rd April, 2006.

33 "Asian Development Bank: EIA for Developing Countries," 36, http://www.adb.org/Documents/Books/Environment_Impact/default.asp. As last accessed on 3rd April, 2007.

34 Verocai, I., "Environmental and Social Impact Assessment for Large Dams -Thematic Review from the Point of View of Developing Countries", <http://www.dams.org/docs/kbase/contrib/ins221.pdf>. As last accessed on 9th March, 2006.

the potentially affected groups should be able to enter into dialogue with other interest groups and to negotiate and arrive at a mutually agreeable position.³⁵

In India, however, no such steps have been initiated. In fact, EIAs were introduced in the country by means of an executive order, without any legislation being passed or with the Parliament being involved. Subsequently, when changes were introduced in the notification, these changes were made furtively, without any public participation or notice.³⁶ In addition to all this, the MoEF also submitted an explanatory note stating that the reports of environmental impact assessments were to be only available to the 'bona fide' residents of the area in the form of summaries.³⁷ Also, such reports were only available in English, thus depriving large sections of this group of people from accessing the information. Further, the reports are full of technical jargon, remaining incomprehensible to the layman. This attitude adopted by the MoEF, seems to depict it as an agency created to help industries and developers overcome environmental regulations rather than safeguard the environment.³⁸

With the 2006 EIA Notification, these problems have been remedied to an extent. The reports are now mandatorily available in English and the local language for anyone seeking clarifications on the report.³⁹

It can be argued that the powers of public participation in countries like Brazil are purely *de jure* in nature and it may not really be effective at all. Problems of implementation cannot take away the fact that the scheme for EIAs in Brazil do not have to face problems of normative deficiency. It is a system where public participation is encouraged and is considered to be integral to the process. The success of the system goes beyond its normative scope into practical application.

35 Kandaswamy, S.V., "Public Participation within Environmental Impact Assessment in India", 63, <http://hdl.handle.net/1880/26325> as last accessed on 10th July, 2007.

36 "Campaign for Environmental Justice in India: Why was a Death Certificate filed on the Ministry of Environment and Forests?", <http://www.phmovement.org/en/node/78>. As last accessed on 3rd April, 2006.

37 Dubey, S., "EIA-The Foundations of Failure", <http://www.indiatogether.org/2006/mar/env-eiafail.htm>. As last accessed on 31st March, 2006.

38 Kothari, A., et al., "Why is the Government Systematically Undermining the Environment?", <http://www.kalpavriksh.org/fl/fl.3/document.20050711.0759347640/view?searchterm=environmental%20impact%20assessment>. As last accessed on 2nd April, 2006.

39 2.3 of Appendix IV of the EIA Notification, 2006 states- "On receiving the draft Environmental Impact Assessment report, the above-mentioned authorities except the MoEF, shall arrange to widely publicize it within their respective jurisdictions requesting the interested persons to send their comments to the concerned regulatory authorities. They shall also make available the draft EIA Report for inspection electronically or otherwise to the public during normal office hours till the Public Hearing is over. The Ministry of Environment and Forests shall promptly display the Summary of the draft Environmental Impact Assessment report on its website, and also make the full draft EIA available for reference at a notified place during normal office hours in the Ministry at Delhi."

However, the same cannot be said of the process adopted in India. Here, the concept of public participation is flawed as it does not encompass any real participation, whereby the interest groups can engage in proper dialogue and not merely involve seeking clarifications of the technical jargon of assessment reports. The EIA scheme in India needs to remedy its conceptually flawed system, before it proceeds to tackle issues of implementation.

V. CONCLUSION AND SUGGESTIONS

The notifications of 1994 and 2006 with regard to Environmental Impact Assessments are fairly inconclusive and need to be amended, for the EIA to fulfil its objective. The author would like to make a few suggestions as to how it may be improved.

First, there has to be increased participation of the people, involving those sections of society which face the brunt of the impact of these industrial projects. This can be incorporated by including responsible members of the community in different workgroups, making it compulsory for them to draft their opinions as per the views of the whole community. With the help of the Gram Panchayats, organizing meetings to discuss with the developers, in the presence of local representatives and a State officer.

Increasing the number and quality of technical officers of the MoEF, who will be willing to conduct such assessments and the creation of stronger clearance schemes and the abolition of conditional clearances will also be useful. Strengthening of the monitoring procedures which would take place every six months are another suggestion.

Amending the provisions of the EIA Notification to provide for access to full reports written in a way so that it is easy for the layman to comprehend in both English and the vernacular would be vital.

India may be a developing country, but clamouring for industrialisation may prove to be to her detriment in the long run. In order to provide for a more holistic growth of the country, claims of sustainable development simply cannot be sidelined. For the nation to forge ahead in this direction, the voices of the marginalized and the destruction of the environment must be taken seriously. And the only way to do this is to give Environmental Impact Assessment the due regard it deserves.

REFERENCES

- Bandopadhyay, J., "Draft Report on Policy Dialogue on Dams and Development,"
- www.iimcal.ac.in/centers/cdep/Final%20ReportD_D.doc. As last accessed on 28th March, 2006.

- Bhaduri A., “Alternative in Industrialisation”, http://sanhati.com/wp-content/uploads/2007/05/alternatives_in_industrialisation_amit_bhaduri2.pdf as last accessed on 10th July, 2007.
- Chong C.K., Et al., “Review of Literature on Values of Inland Capture Fisheries and Dams Construction at the Lower Mekong and Ganga Basins”, http://www.iwmi.cgiar.org/assessment/files_new/research_projects/Paper_Chong%20et%al_ICLARM.pdf as last accessed on 9th July, 2007.
- Divan, S. and Rosencranz, A., *Environmental Law and Policy in India* (New Delhi: Oxford University Press, 2001).
- Dubey, S., “EIA-The Foundations of Failure”, <http://www.indiatogether.org/2006/mar/env-eiafail.htm> as last accessed on 4th April, 2006.
- Hardin, Gareth, “Tragedy of the Commons”, (1968) Vol. 162, No. 3859, *Science*, 1243.
- <http://www.narmada.org/ENV/eia1.html> as last accessed on 1st April, 2006.
- Kandaswamy, S.V., “Public Participation within Environmental Impact Assessment in India”, 63, <http://hdl.handle.net/1880/26325> as last accessed on 10th July, 2007.
- Kothari, A., et al., “The Lack of an Environmental Impact Assessment”,
- <http://www.narmada.org/ENV/eia1.html> as last accessed on 1st April, 2006.
- Leelakirshnan, P., “Environmental Impact Assessments: Legal Dimensions,” (1992) 34 *J.I.L.I.*, 543.
- Marcks, Eric, “Avoiding Liability for Human Rights Violation in Project Finance”, (2001) *Energy L.J.* 301.
- Morse, B. Et al., “Sardar Sarovar: The Report of the Independent Review”, (1992) *Resource Futures International*.
- Sadler, B., Et al., “Environmental and Social Impact Assessment for Large Dams”,
- <http://www.dams.org/docs/kbase/thematic/tr52main.pdf>. As last accessed on 2nd April, 2006.
- Selim, S., “Public Participation during Environmental Impact Assessment Studies,”
- <http://www.alochona.org/magazine/2002/february/TOTM6.htm> As last accessed on 3rd April, 2007.
- Verocai, I., “Environmental and Social Impact Assessment for Large Dams - Thematic Review from the Point of View of Developing Countries”, <http://www.dams.org/docs/kbase/contrib/ins221.pdf>. As last accessed on 9th March, 2006.