Chapter 7
Concluding Observations

7.1 What Has the Study Accomplished?

This study on legal aspects of environmental impact assessment in India and Germany has examined an important policy instrument, EIA, designed to address adverse environmental and socio-economic impacts of developmental projects. The study has shown how EIA has emerged in a developed and highly industrialized country like Germany after a long history, and how it has emerged in a developing country India, which is experiencing a rapid economic growth in recent years. The study has examined the law and legal processes of EIA in both countries and has discussed a case study of EIA in each of the countries.

The study has examined the contexts of emergence of EIA in law and policy in both countries and compared two case studies to understand how the law is implemented. Though field visits and discussions have been held with stakeholders of the selected projects, no primary study has been conducted. This is because the focus of the study is on comparing the law and the legal processes of EIA in a developing country and a developed country. The field level feedbacks can be the area of research for the future.

7.2 Context of EIA

The two countries differ considerably in terms of their socio-economic context. In spite of being a highly industrialized country, Germany has the reputation of being one of the best managed countries in environment. This reputation can be attributed not only to its sincere adoption of the directives of the EU but also to its good environmental management. The pollution control standards in Germany are known to be better than the ones recommended by EU. Apart from this commitment of the government, public awareness and public pressures also play an important in the effective enforcement of EIA in Germany.

In the case of India, the context and socio-economic environment are significantly different. India is passing through a stage of economic growth when polluting industries and projects are dominating the economic scene. India is however committed to imposing some healthy environmental standards, at least on modern and
large projects. Obstacles seem to appear not only from project owners who consider environmental standards a cost increasing proposition, but also from the government that seems to be giving in to the demands from the private corporate sector. Enforcement of laws relating to environment in India therefore is a complex issue. The study shows how EIA related legal processes and EIA reports are designed, and the gaps in these processes.

7.3 EIA Law and Legal Processes

EIA has emerged out of the concern for the likely adverse impacts of developmental projects in a country. The legal framework of EIA, as evolved over the years, is a sound framework, and the bywords of this law are integration, precaution, participation, prevention, process orientation and sustainability. EIA laws have evolved as a means to give effect to the concept of sustainable development. EIA is a 'science' or a planning tool that has to deal with methodologies and techniques for identifying, predicting and evaluating the environmental impacts associated with particular development actions. EIA is also an 'art' or procedure for decision-making.

EIA legal processes are very well-defined in EIA laws in both developed and developing countries. The major stages of the EIA cycle are screening, scoping, impact analysis, mitigation, reporting, reviewing, decision-making and post monitoring. The role of each stage of the EIA cycle is well-defined in the literature.

Evaluation of the effectiveness of an EIA system is an important task. It primarily involves answering three basic questions: (1) Does the EIA law confirm to the established provisions and principles? (2) Does the enforcement of the EIA processes confirm to the established provisions and principles? (3) Does the EIA process deliver the expected outcomes in the minimum time possible?

7.4 EIA in EU and in Developing Countries

7.4.1 EIA in European Union

Environment policy began in EEC with the declaration of the Paris Summit in 1972. The European Community adopted its first five-year environmental action programme (1973-1977) thereafter setting out the principles and priorities that would guide its policies in the future. With the growing awareness about the adverse environmental impacts of development processes, a series of programmes and legal actions emerged gradually. The first EIA law developed during the 1980s and culminated in the EIA
Directive for the European Commission. The 1990s saw a firm commitment by the European Commission to systematic monitoring of EIA. The preamble to the EIA Directive states that "the best environmental policy consists in preventing the creation of pollution at source, rather than subsequently trying to counteract their efforts".

The EIA Directive has been amended a few times in the 1990s. A review of the directive, as conducted by EU, points out some strengths and weaknesses. The major strengths are that (1) it has recommended a database that allows systematic monitoring, (2) it incorporates all important environment related concerns in Europe, (3) the early scoping and early participation of the stakeholders makes EIA easily acceptable to them and (4) it gives public enough opportunities to participate in the EIA processes. However, there are a few weaknesses of this document, primarily in terms of non-inclusion of some of the provisions of the Directive by some member countries. There are also a few data gaps in the designing and implementation of EIA in several member countries.

In short, the scope for further improvement in EIA in EU is mainly in terms of improving the implementation of the EIA Directive of the European Commission in member countries.

7.4.2 EIA in Developing Countries

EIA law in developing countries is of relatively recent origin. In 1989, the World Bank directed that borrower countries should carry out EIA for major projects under the Bank’s supervision. These guidelines were revised in 1999. Several developing countries have gradually adopted these guidelines and passed an EIA Act. However, there are many gaps existing in the EIA Acts in developing countries. To start with, not all developing countries have a well-designed framework for EIA, as many of these countries have not enacted an EIA Act. There are also several inadequacies of the EIA Acts where the act has been passed. These weaknesses are pertaining to non-inclusion of some of the critical components of EIA.

7.4.3 Comparison between EIA in Developed and Developing Countries

There are some important differences between the EIA laws in developed and developing countries: Firstly, EIA laws in developing countries do not involve public participation from the beginning, with the result that people are neither aware nor effective in decision making regarding the concerned projects. Secondly, developing
countries do not include health related issues and issues related to well-being of people adequately. Thirdly, EIA in developing countries does not have enough scope for considering alternatives to address concerns of the population. It is mainly mitigation that is emphasized in the EIA process. Finally, the focus on economic growth in developing countries frequently makes policy makers and project owners give less importance to the clauses related to regulation and control under EIA laws.

7.5 Legal Processes of EIA in India

7.5.1 EIA Act in India

The first Act on environment was passed in India in 1986 with the Environment (Protection) Act 1986. The Ministry of Environment and Forests (MoEF) issued a Notification, the EIA Notification in 1994, under the Act making EIA mandatory for 29 categories of development projects. This notification is expected to take care of biophysical and resource use, social and cultural issues, health and safety of people, landscape and visual aspects as well as rights of indigenous people and of traditional areas.

The EIA cycle and procedures are very well-defined in India. The EIA cycle includes screening, scoping, collection of baseline data, impact assessment of alternatives, mitigation measures, public hearing, decision making and monitoring. All these stages are expected to be accomplished while implementing the EIA Notification.

7.5.2 Amendments in the EIA Notifications

One major feature of the implementation of EIA in India has been a large number of amendments made in the Notification. The amendments were made in 1997, 2002, 2003 (four amendments were made in 2003, in February, May, August and September), 2004, 2005 and 2006. These amendments have, over the years, diluted the content of the Notification of 1994 and made several concessions for promoting developmental projects. The amendment of 2006 is particularly important as it has made several major changes to meet the demands from the corporate sector. The dilution brought in this amendment is likely to hurt the interests of the environment as well as of civil society.
7.5.3 Amendment of December 2009

It will be important here to note the recent amendment of December 2009 in the EIA Notification. MOEF proposed one more amendment in the Notification in January 2009. This amendment primarily intends to dilute the EIA legal processes further in favour of big business and industry.

The Amendment has proposed a series of amendments to the EIA Notification of 2006 which would significantly weaken, even negate, the role of the Ministry and other statutory agencies in reviewing the environmental and social impact of a variety of high impact and polluting projects. For example, the EIA Notification of 2006 presently requires that projects (both green-field ventures and expansion projects) that cause pollution, destruction of natural resources, displacement and other significant impacts on the environment must go through a series of clearance steps as per the set standards and with the prior consent of statutory agencies, both at state and central levels, as applicable. The 2006 notification lays down procedures requiring project developers to comply with a variety of national legislations such as the Environment Protection Act, Forest Conservation Act, Water and Air (Control of Pollution) and a range of international treaties such as the Rio Declaration. It may be recalled that this Notification too was issued overriding massive public opposition to offering of various sops to polluting industries. Some large automobile companies, for instance, had successfully lobbied the Prime Minister’s Office to get the highly polluting automobile manufacturing sector out of the purview of the environmental clearance regime.

The proposal of January 2009 dilutes the already weak EIA Notification further. The most important feature of the proposed amendments is that it does away with critical regulatory and oversight mechanisms for three years. This is sought to be done by extending to applicants a relief in the form of ‘self certification’ that merely requires them to declare that their projects cause no additional pollution and thus open the gateway for self regulations. This concession is offered because, as the Ministry admits, it has failed to establish regulatory institutions such as State Environment Impact Assessment Authority and State Environment Appraisal Committee – key instrumentalities to implement the regulatory features of the EIA Notification 2006. This failure to discharge executive and regulatory power is now presented as a reason to provide blanket exemption to highly polluting industrial and infrastructure sectors.
Beneficiaries include shipping, port developers, building and construction sectors, area development projects, mining sector, petrochemical industry, modernisation of airports, and expansion of all sorts of manufacturing sectors. This is bound to increase displacement of urban; rural and forest dwelling communities while seriously compromising India's human and ecological security. In a country with an extremely weak environmental regulatory system that has failed to control pollution and protect the forests and natural resources, the current move only makes matters far worse. The proposed amendment is clearly violative of the spirit of the Constitution of India.

7.5.4 Final Comment on EIA Act

The EIA Act in India has a sound legal framework and includes all important EIA legal processes. However, it needs improvements in the areas of public participation (which comes late and is not adequate) and monitoring. Also, there is an urgent need to stop the process of the gradual dilution in the provisions in the EIA Notification. In fact, our study has clearly shown that the EIA Notification in India will help in achieving its goals only if the clauses related to core regulation are retained and strengthened.

7.6 Legal Processes of EIA in Germany

7.6.1 Emergence of EIA Law in Germany

The EIA was first introduced in Germany in the 1970s, with the promulgation of Basic Guidelines for the Assessment of the Environmental Compatibility in 1975. The EIA Directive was first issued in 1985 to take care of environmental concerns related to certain public and private projects. A comprehensive EIA Act was passed in 1990 by the federal government in Germany. This Act was replaced by a new act in 2001 to take care of environmental concerns comprehensively.

7.6.2 Important Legal provisions

In Germany the EIA legislation goes far beyond the environmental standards established by EU. Also, EIA is integrated with other procedures and responsibilities. For example, EIA has been integrated with the strategic procedures in regional planning and wastewater disposal planning; it is integrated with the project consent procedures such as plan approval procedures; and it is binding and integrated with land use planning.
7.6.3 Public Participation

Public participation is an important feature of the EIA Act in Germany. It is introduced in the EIA process right from the beginning so that people's concerns are addressed in the design of the project. Also, environmental impacts are to be assessed in the beginning and are to be addressed before the project work begins. Public has the power to question the impacts of the projects right from the beginning.

In short, EIA in Germany is a part of a complex decision making process. It cannot be seen as isolated from the legal and formal framework of policy making in the country.

7.7 Comparing the Legal Processes in India and Germany

Both India and Germany show a serious commitment to their respective EIA laws and to related policies. However, the German EIA Act is more comprehensive; is better integrated with the overall environment policy and development policies; gives adequate importance to public participation; addresses comprehensively all the likely adverse impacts of new projects; and is sincerely committed to mitigation measures. The Indian EIA Act not only lacks some of these features, it is getting diluted over the years making the regulation increasingly weaker.

7.8 EIA at Work: the Indian Case Study

The Indian case study on EIA is of the expansion and modification project of the Reliance refinery complex at Motikhadi in Jamnagar district in Gujarat State. This expansion project is aimed at (1) raising the crude refining capacity of the refinery from 27 MMPTA to 59 MMTA by de-bottlenecking and capacity expansion, (2) producing clean fuel of the international standards, (3) producing new products like MEG, Styrene etc and (4) generating captive power.

7.8.1 Sources of Data and Information

The sources of information for the Indian case study included the EIA report produced by RIL's consultants (NEERI), secondary data on natural resources and local economy, available studies, and field visits, and discussions with different stakeholders.

7.8.2 The EIA Report

The EIA report prepared by NEERI is comprehensive and covers in detail all the major components of EIA, such as project description, basic environmental status in
the region, baseline social-economic status, and the likely impact of the expansion project on the local environment and socio-economic life of people. It recommends measures for mitigation of the adverse impacts and presents an environmental management plan (EMP). It provides details about the environment monitoring cell at the Reliance refinery complex and suggests how it will have to expand to meet the new challenges.

7.8.3 Areas of Concern

Based on secondary data and available literature as well as discussions with stakeholders, some areas of concern have been identified in the study. It is observed that the EIA report lacks in some areas: (1) it does not provide any proof of the expertise of the EIA team by giving details of the qualifications and experiences of the EIA team members, (2) though it mentions that some of the old strategies will continue to control and mitigate adverse environmental impacts of the project, it does not provide any certificate (or details) of good performance of these strategies in the past, (3) it does not include details of public participation, and does not report whether it was adequate, (4) it does not provide adequate details on what kind of institutional mechanism will mitigate the adverse impacts and how, (5) it does not address the areas of concern expressed by people during the course of preparation of the EIA report and, (6) it does not provide satisfactory replies to the problems raised by the civil society organizations in the region. Also, in the absence of access to the mandatory six monthly compliance reports, it is difficult to say anything about the level of implementation of the EIA report.

7.9 EIA at Work: The German Case Study

The German case study is of a wastewater treatment plant. It is based on information collected and discussions organized with experts and stakeholders during my visit to Germany. The main objective of my visit was to understand EIA law and its implementation in Germany. Visits to plants also gave me an opportunity to meet experts from academic institutions, consultants in charge of preparing EIA, and other stakeholders, and to understand the major legal and other issues with respect to implementation of EIA in Germany.
7.9.1 EIA for Wastewater Treatment Plants

The EIA of the wastewater treatment industry in Germany is to be seen in the context of legal provisions for wastewater purification in Germany. The study shows that the German standards of water quality and water management norms are better than those under the EU legal system.

7.9.2 Sources of Data

The sources of the data for the case study are (1) the EIA report for the wastewater treatment industry, (2) visit to the wastewater plant in Berlin and discussions with some stakeholders and (3) discussions with experts, officials, technical persons and other stakeholders.

7.9.3 Main Observations of the Case Study

Some of the striking features of the EIA report are (1) detailed study on environmental impact of wastewater treatment on the region as well as the impact of the disposal of discharges on the environment, (2) a carefully designed plan for avoiding and mitigating the negative impacts (to be implemented before the construction starts), (3) public participation starting at an early stage, and (4) scope for paying compensation in case of adverse impact is observed.

7.10 Lessons for India from the Comparative Analysis of EIA in India and Germany

An important observation emerging from the comparative analysis is that India is not lagging behind in EIA. India has adopted EIA as a legal tool in its legal framework. This implies that along with the rapid growth of the economy, India has also moved towards adopting international norms of environmental regulation. India also has legal and technical expertise required to carry out environmental assessments. It is clearly ahead of several other developing countries in this respect.

India is, however, far behind Germany in the design of EIA law and in its implementation. As seen earlier, India has to strengthen its EIA Notification by the following measures:

- It has to give an early role and larger role to public participation
- It has to give priority to mitigation before the project starts
• It has to expand the scope of impact analysis under EIA by including concerns relating to health, well-being of population and socio-economic development of local population

• It has to incorporate more transparency in the EIA process as well in its monitoring.

• Another major requirement is to stop diluting the EIA Notification by giving in to the demands from private corporations, which consider environmental standards mainly as a cost raising proposition.

Another major lesson that India has to learn is with respect to the approach to implementation of the legal provisions of the EIA Notification. To start with, there is a need to view the Notification as a tool that benefits all – projects as well as the environment and socio-economic life of the people in the region, rather than as an obstacle to development. This will enable the authorities to scrutinize EIA reports from a wider perspective. For example, authorities will insist on quality of employment when EIA report mentions employment generation for local people under the project; they will question the validity of leaving occupation, health and safety of workers to contractors; and they will insist on awareness generation and on effective public participation. In other words, there is a need to change the mindset of the authorities towards the EIA Notification.

Secondly, there is a need to give due weight to monitoring of EIA. Though the project proponents (authorities) are bound to provide six monthly compliance reports, these are either not given or are not made accessible to people. There is a need to bring transparency in monitoring of EIA. Finally, the study has shown that there is need to view EIA in a wider perspective, as a component of a sustainable development strategy for the region. An EIA therefore needs to be integrated with the environmental and social-economic sustainability of the region. This also implies that there is need for looking at alternative solutions to problems under the EIA Notification.

While concluding the study, it can be observed that India has a long way to go to use EIA effectively as a tool that leads to sustainable development.
7.11 Alternatives to EIA

Several forms of impact assessments of projects, have emerged recently. One important form of assessment, namely, strategic environmental assessment (SEA), is worth noting.

SEA refers to systematic analysis of the environmental effects of development policies, plans, programmes and other proposed strategic actions. This process extends the aims and principles of EIA upstream in the decision making process, beyond the project level and when major alternatives are still open. SEA represents a proactive approach to integrating environmental considerations into higher levels of decision making.

SEA addresses several weaknesses EIA effectively. For example, SEA takes place in the early stages of decision making; it identifies environmental implications and issues relating to sustainable development; it considers a range of potential alternatives; it emphasizes meeting environmental objectives and maintaining natural systems; it focuses on sustainability agenda; and through all there characteristics, it gets at sources of environmental deterioration.

SEA is a relatively new development, emerging in the late 1990s. Several countries like Canada and Denmark have adopted it as a part of their policy. SEA is likely to expand further with its advantages observed at the ground level.

7.12 Future Research Areas

Future areas of research are mainly two:

- In-depth field-level study of EIA to understand the details of the impacts and mitigation of the projects, particularly with reference to environmental resources and socio-economic life of people

- Study of alternative approaches to EIA, particularly the conceptual and empirical study on SEA.