

# ENVIRONMENT IMPACT ASSESSMENT

## 1. What is an Environment?

### 1.1. In Pakistan:

Environment has been defined widely in various Environmental Protection Acts of Pakistan (Punjab, Balochistan, Sindh, KPK and Federal law has common definition)

“Environment” means:

- (a) air, water and land;
- (b) all layers of the atmosphere;
- (c) all organic and inorganic matter and living organisms;
- (d) the ecosystem and ecological relationships;
- (e) buildings, structures, roads, facilities and works;
- (f) all social and economic conditions affecting community life; and
- (g) the inter-relationships between any of the factors specified in sub-clauses (a) to (f)

### 1.2. Section1 of The British Environmental Protection Act, 1990

The environment consists of all, or any, of the following media, namely the air, water and land, and the medium of air includes the air within buildings and the air within other natural or man-made structures above or below ground.

### 1.3. In India:

#### U/Sec.2(a) The Environment Protection Act, 1986

“environment” includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.

### 1.4. According to the World Bank:

The environment is the complex set of physical, geographic, biological, social, cultural and political conditions that surround an individual or organism and that ultimately determine its form and the nature of its survival. The environment influences how people live and how societies develop. For that reason, people, progress, economic development and the environment are closely linked.

## 2. Concept/Definition of IEE/EIA by Different Schools of Thought:

### 2.1. IEE/EIA has been defined widely in various Environmental Protection Acts of Pakistan (Punjab, Balochistan, Sindh, KPK and Federal law has common definition)

**“environment impact assessment”** means an environmental study comprising collection of data, prediction of qualitative and quantitative impacts, comparison of alternatives , evaluation of preventive, mitigatory and compensatory measures, formulation of environmental management and training plans and monitoring arrangements, and framing of recommendations and such other components as may be prescribed;

**“initial impact assessment”** means a preliminary environmental review of the reasonably foreseeable qualitative and quantitative impacts on the environment of a proposed project to determine whether it is likely to cause an adverse environmental effect for requiring preparation of an environmental impact assessment.

- 2.2. **The International Association for Impact Assessment (IAIA)** defines an environmental impact assessment as "the process of identifying, predicting, evaluating and mitigating the biophysical, social, and other relevant effects of development proposals prior to major decisions being taken and commitments made."
- 2.3. An instrument to identify and assess the potential environmental impacts of a proposed project, evaluate alternatives, and design appropriate mitigation, management, and monitoring measures (**World Bank**)
- 2.4. "an assessment of impacts of a planned activity on the environment" (**United Nations**)
- 2.5. "the process by which information about the environmental effects of a proposed activity is collected, analyzed and presented to decision-makers" (**Institute of Chemical Engineering, UK, 1994**)
- 2.6. "a technique and a process by which information about environmental effects of a project is collected, both by the developer and from other sources, and taken into account by the planning authority in forming the judgment on whether the development should proceed" (**Department of Environment, UK, 1989**)
- 2.7. "EIA is the systematic, reproducible and interdisciplinary evaluation of the potential effects of a proposed action and its practical alternatives on the physical, biological, cultural and socio-economic attributes of a particular geographical area" (**USEPA, 1993**)
- 2.8. A study of probable changes in various socio-economic and biophysical characteristics and the environment, which may result from a proposed or impending action' (**Jain, Urban, Stacey, 1977**).

- 2.9.** An activity that aims at establishing quantitative values for selected parameters, which indicate the quality of environment before, during, and after the proposed activities' **Heer, Hagerty (1977)**.

### **3. Needs and Aims of EIA:**

Despite differences in individual EIA systems throughout the world, the EIA process shares certain aims:

- to provide decision-makers with analysis of the total environment so that decisions can be made based on as nearly complete and balanced information as possible at an early stage (planning);
- to assess and present intangible/unquantifiable effects that are not adequately addressed by cost/benefit analysis and other technical reports;
- to provide information to the public on a proposal;
- to formalize the consideration of alternatives to a proposal being considered, in order that the least environmentally harmful means of achieving the given objective can be chosen;
- to improve the design of new developments and safeguard the environment through the application of mitigation and avoidance measures;
- Integrity: The EIA process should be fair, objective, unbiased and balanced;
- Utility: The EIA process should provide balanced, credible information for decision making;
- Sustainability: The EIA process should result in environmental safeguards;
- EIA has been developed as a result of the failure of traditional project appraisal techniques to account for environmental impacts. Many development projects in the past were designed and constructed in isolation from any consideration of their impacts on the environment, resulting in:
  - higher costs,
  - failure of projects,
  - significant environmental change, and
  - negative social effects

### **4. Establishment and Evolution of EIA:**

EIAs began to be used in the 1960s as part of a rational decision making process. It involved a technical evaluation that would lead to objective decision making. In 1969, EIA was made legislation in the US in the National Environmental Policy Act (NEPA). It

has since evolved as it has been used increasingly in many countries around the world. EIA is one of the successful policy innovations of the 20th Century for environmental conservation. Thirty-seven years ago, there was no EIA but today, it is a formal process in many countries and is currently practiced in more than 100 countries.<sup>2</sup> EIA as a mandatory regulatory procedure originated in the early 1970s, with the implementation of the National Environment Policy Act (NEPA) 1969 in the US. Much of the initial development was in a small number of high-income countries, like Canada, Australia, and New Zealand (1973-74). However, there were some developing countries as well, which introduced EIA relatively early - Columbia (1974), Philippines (1978). The EIA process really took off after the mid-1980s. In 1989, the World Bank adopted EIA for major development project, in which borrower country had to undertake the EIA under the Bank's supervision.

#### **4.1. Development of EIA**

- **Pre-1970**
  - Project review based on the technical/engineering and economic analysis
  - Limited consideration given to environmental consequences
  
- **Early/Mid-1970s**
  - EIA introduced by NEPA in 1970 in US.
  - Basic principle: Guidelines, procedures including public participation requirement instituted.
  - Standard methodologies for impact analysis developed (e.g. matrix, checklist and network).
  - Canada, Australia and New Zealand became first countries to follow NEPA in 1973-1974. Unlike Australia, which legislated EIA, Canada and New Zealand established administrative procedures.
  - Major public inquires help to shape the process development.
  
- **Late 1970 and Early 1980s**
  - More formalized guidance
  - Other industrial and developing countries introduced formal EIA requirements (France, 1976; Philippines, 1977) began to use the process informally or experimentally ( Netherlands, 1978) or adopted elements, such as impact statements or reports, as part of development applications for planning permission (German states[lander], Ireland).
  - Use of EA by developing countries (Brazil, Philippines, China, Indonesia)
  - Strategic Environment Assessment (SEA), risk analysis included in EA processes.
  - Greater emphasis on ecological modeling, prediction and evaluation methods
  - Provision for public involvement
  - Coordination of EA with land use planning processes

- **Mid-1980s to End of Decade**
  - In Europe, EC Directive on EIA establishes basic principle and procedural requirements for all member states.
  - Increasing efforts to address cumulative effects.
  - World Bank and other leading international aid agencies establish EIA requirements.
  - Spread of EIA process in Asia.
- **1990s**
  - Requirement to consider trans-boundary effects under Espoo convention
  - Increase use of GIS and other information technologies
  - Sustainability principal and global issues receive increased attention.
  - India also adopted the EIA formally.
  - Formulation of EA legislation by many developing countries
  - Rapid growth in EA training

## 5. EIA Process:

The stages of an EIA process will depend upon the requirements of the country or donor. However, most EIA processes have a common structure and the application of the main stages is a basic standard of good practice.

The environment impact assessment consists of eight steps with each step equally important in determining the overall performance of the project. Typically, the EIA process begins with screening to ensure time and resources are directed at the proposals that matter environmentally and end with some form of follow up on the implementation of the decisions and actions taken as a result of an EIA report. The eight steps of the EIA process is briefly presented below:

**5.1. Screening:** First stage of EIA, which determines whether the proposed project, requires an EIA and if it requires EIA, then the level of assessment required.

**5.2. Scoping:** This stage identifies the key issues and impact that should be further investigated. This stage also defines the boundary and time limit of the study.

- **Steps to Carry Out Scoping:**
  - early step – begins once screening completed
  - open, interactive process – involves the public
  - lays the foundation of an EIA – by identifying:
    - boundaries of the EIA study
    - the information necessary for decision-making
    - key issues and significant impacts to be considered
- **Guiding Principles for the Conduct of Scoping:**
  - Scoping is a process, not an activity or event.

- Design the scoping process for each proposal.
- Start early, as soon as information permits.
- Prepare information package on what is expected.
- Specify the role of the public in decision-making approach should be systematic.
- Implementation should be flexible.
- Document the results to guide preparation of EIA.
- Respond to new information and issues as necessary.

- **Who Should be Involved in Scoping:**

- the proponent
- the competent authority
- the EIA administering body
- other responsible agencies
- EIA practitioners and experts
- key stakeholders (e.g. those affected by the proposal)
- the wider community

**5.3. Impact analysis:** This stage of EIA identifies and predicts likely environmental and social impact of the proposed project and evaluates the significance.

- **What is an Impact:** The impact of an activity is a deviation (a change) from the baseline situation that is caused by the activity.

**1.1.Baseline:** The baseline situation is the existing environmental situation or condition in the absence of the activity.

**1.2.Types of impacts:** The EIA process is concerned with all types of impacts as:

- Direct and indirect impacts
- Short-term and long-term impacts
- Adverse and beneficial impacts
- Cumulative impacts

**1.3.Attributes of Types of Impact:**

- Intensity
- Direction
- Spatial extent
- Duration
- Frequency
- Reversibility
- Probability

**5.4. Mitigation:** This step in EIA recommends the actions to reduce and avoid the potential adverse environmental consequences of development activities.

**5.5. Public participation:**

- Three pillars of public participation:
  - information;
  - participation in decision-making; and
  - access to justice.

[http://www.eiatoolkit.ewt.org.za/players/min\\_requirements.html](http://www.eiatoolkit.ewt.org.za/players/min_requirements.html)

**5.6. Reporting:** This stage presents the result of EIA in a form of a report to the decision making body and other interested parties.

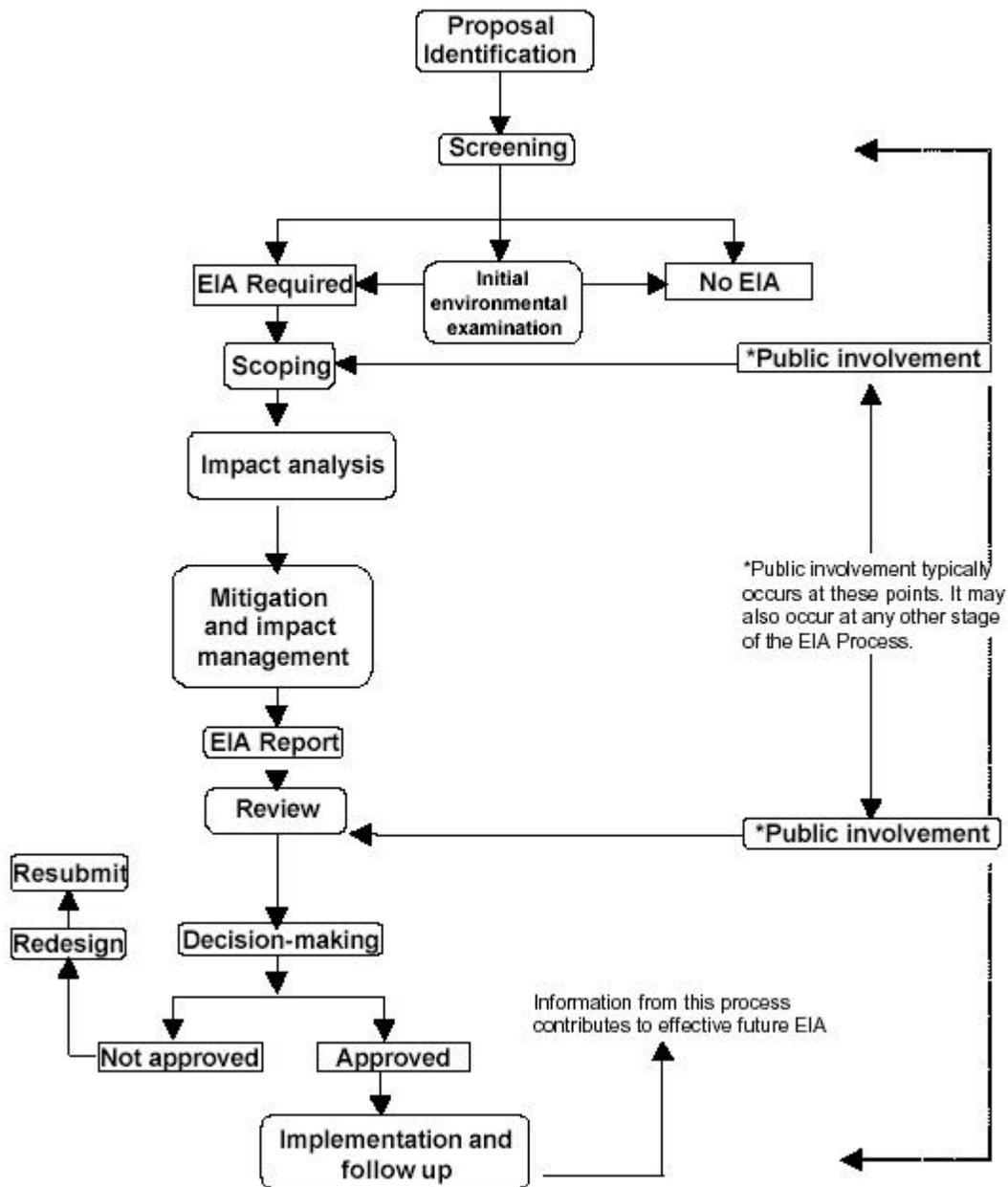
**5.7. Review of EIA:** It examines the adequacy and effectiveness of the EIA report and provides information necessary for the decision-making.

**5.8. Decision-making:** It decides whether the project is rejected, approved or needs further change.

**5.9. Post monitoring:** This stage comes into play once the project is commissioned. It checks whether the impacts of the project do not exceed the legal standards and implementation of the mitigation measures are in the manner as described in the EIA report.

Each stage of the EIA process has been described in detail subsequently. The overview of the EIA process is represented in figure 1.

**Figure 1: Generalized process flow sheet of the EIA process**



## 6. Different names for the same report

An EIA report may be known by several other names such as:

- Environmental impact assessment (EIA)
- Environment impact statement (EIS)

- Environmental statement (ES)
- Environmental assessment report (EA report)
- Environmental effects statement (EES)

## **7. Application of EIA in Different Countries:**

### **7.1. In Australian Capital Territory (ACT):**

EIA provisions within Ministerial Authorities in the ACT are found in the Chapters 7 and 8 of the Planning and Development Act 2007 (ACT). EIA in ACT was previously administered with the help of Part 4 of the Land (Planning and Environment) Act 1991 (Land Act) and Territory Plan (plan for land-use). Note that some EIA may occur in the ACT on Commonwealth land under the EPBC Act. Further provisions of the Australian Capital Territory (Planning and Land Management) Act 1988 (Cth) may also be applicable particularly to national land and "designated areas".

### **7.2. New South Wales (NSW):**

In New South Wales, the Environment Planning Assessment Act 1979 (EPA) establishes three pathways for EIA. The first is under Part 5.1 of the EPAA which provides for EIA of 'State Significant Infrastructure' projects. (From June 2011, this Part replaced Part 3A which previously covered EIA of major projects). The second is under Part 4 of the Act dealing with development control. If a project does not require approval under Part 3A or Part 4 it is then potentially captured by the third pathway, Part 5 dealing with environment impact assessment.

### **7.3. Northern Territory (NT):**

The EIA process in Northern Territory is chiefly administered under the Environmental Assessment Act (EAA). Although EAA is the primary tool for EIA in Northern Territory, there are further provisions for proposals in the Inquiries Act 1985 (NT).

### **7.4. Queensland (LD):**

There are four main EIA processes in Queensland. Firstly, under the Integrated Planning Act 1997 (IPA) for development projects other than mining. Secondly, under the Environmental Protection Act 1994 (EP Act) for some mining and petroleum activities. Thirdly, under the State Development and Public Works Organization Act 1971 (State Development Act) for 'significant projects'. Finally, Environment Protection and Biodiversity Conservation Act 1999 (Cth) for 'controlled actions.'

### **7.5. South Australia (SA):**

The local governing tool for EIA in South Australia is the Development Act 1993. There are three levels of assessment possible under the Act in the form of an environment impact statement (EIS), a public environmental report (PER) or a Development Report (DR).

### **7.6. Tasmania (TAS):**

In Tasmania, an integrated system of legislation is used to govern development and approval process, this system is a mixture of the Environmental Management and Pollution Control Act 1994 (EMPCA), Land Use Planning and Approvals Act 1993 (LUPAA), State Policies and Projects Act 1993 (SPPA), and Resource Management and Planning Appeals Tribunal Act 1993.

### **7.7. Victoria (VIC):**

The EIA process in Victoria is intertwined with the Environment Effects Act 1978 and the Ministerial Guidelines for Assessment of Environmental Effects (made under the s. 10 of the EE Act).

### **7.8. Western Australia (WA):**

The Environmental Protection Act 1986 (Part 4) provides the legislative framework for the EIA process in Western Australia.[12] The EPA Act oversees the planning and development proposals and assesses their likely impacts on the environment.

### **7.9. Canada:**

Main article: Canadian Environmental Assessment Act

The Canadian Environmental Assessment Act, 2012 (CEAA 2012) and its regulations establish the legislative basis for the federal practice of environmental assessment in most regions of Canada. CEAA 2012 came into force July 6, 2012 and replaces the former Canadian Environmental Assessment Act (1995). EA is defined as a planning tool to identify, understand, assess and mitigate, where possible, the environmental effects of a project.

- The purpose of CEAA 2012 is to:
  - Protect components of the environment that are within federal legislative authority from significant adverse environmental effects caused by a designated project;
  - Ensure that designated projects are considered and carried out in a careful and precautionary manner when the exercise of a power or performance of

a duty or function by a federal authority is required for the project to proceed;

- Promote cooperation and coordination between federal and provincial governments;
- Promote communication and cooperation with Aboriginal peoples;
- Ensure that opportunities are provided for meaningful public participation;
- Ensure that environmental assessments are completed in a timely manner;
- Ensure that projects proposed to be carried out on federal lands and projects that are outside of Canada that the federal government intends to carry out or fund, are considered in a careful and precautionary manner in order to avoid significant adverse environmental effects;
- Encourage federal authorities to take action in a manner that promotes sustainable development; and
- Encourage further studies of the cumulative effects of physical activities in a region and the consideration of the study results in environmental assessments.

#### **7.10. China:**

The Environmental Impact Assessment Law (EIA Law) requires an environmental impact assessment to be completed prior to project construction. However, if a developer completely ignores this requirement and builds a project without submitting an environmental impact statement, the only penalty is that the environmental protection bureau (EPB) may require the developer to do a make-up environmental assessment. If the developer does not complete this make-up assessment within the designated time, only then is the EPB authorized to fine the developer. Even so, the possible fine is capped at a maximum of about US\$25,000, a fraction of the overall cost of most major projects. The lack of more stringent enforcement mechanisms has resulted in a significant percentage of projects not completing legally required environmental impact assessments prior to construction. China's State Environmental Protection Administration (SEPA) used the legislation to halt 30 projects in 2004, including three hydro-power plants under the Three Gorges Project Company. Although one month later (Note as a point of reference, that the typical EIA for a major project in the USA takes one to two years.), most of the 30 halted projects resumed their construction, reportedly having passed the environmental assessment, the fact that these key projects' construction was ever suspended was notable. A joint investigation by SEPA and the Ministry of Land and Resources in 2004 showed that 30-40% of the mining construction projects went through the procedure of environment impact assessment as required, while in some areas only 6-7% did so. This partly explains why China has witnessed so many mining accidents in recent years. SEPA alone cannot guarantee the full enforcement of environmental laws and regulations, observed Professor Wang Canfa, director of the Centre to help environmental victims at China University of Political Science and Law. In fact, according to Wang, the rate of China's environmental laws and regulations that are actually enforced is estimated to be barely 10%.

### **7.11. Egypt:**

Environmental Impact Assessment (EIA) EIA is implemented in Egypt under the umbrella of the Ministry of state for environmental affairs. The Egyptian Environmental Affairs Agency (EEAA) is responsible for the EIA services. In June 1997, the responsibility of Egypt's first full-time Minister of State for Environmental Affairs was assigned as stated in the Presidential Decree no.275/1997. From thereon, the new ministry has focused, in close collaboration with the national and international development partners, on defining environmental policies, setting priorities and implementing initiatives within a context of sustainable development. According to the Law 4/1994 for the Protection of the Environment, the Egyptian Environmental Affairs Agency (EEAA) was restructured with the new mandate to substitute the institution initially established in 1982. At the central level, EEAA represents the executive arm of the Ministry. The purpose of EIA is to ensure the protection and conservation of the environment and natural resources including human health aspects against uncontrolled development. The long-term objective is to ensure a sustainable economic development that meets present needs without compromising future generation's ability to meet their own needs. EIA is an important tool in the integrated environmental management approach. EIA must be performed for new establishments or projects and for expansions or renovations of existing establishments according to the Law for the Environment.

### **7.12. EU:**

The European Union has established a mix of mandatory and discretionary procedures to assess environmental impacts. European Union Directive (85/337/EEC) on Environmental Impact Assessments (known as the EIA Directive) was first introduced in 1985 and was amended in 1997. The directive was amended again in 2003, following EU signature of the 1998 Aarhus Convention, and once more in 2009. The initial Directive of 1985 and its three amendments have been codified in Directive 2011/92/EU of 13 December 2011. In 2001, the issue was enlarged to the assessment of plans and programmes by the so-called Strategic Environmental Assessment (SEA) Directive (2001/42/EC), which is now in force. Under the EU directive, an EIA must provide certain information to comply. There are seven key areas that are required:

- Description of the project
- Description of actual project and site description
- Break the project down into its key components, i.e. construction, operations, decommissioning
- For each component list all of the sources of environmental disturbance
- For each component all the inputs and outputs must be listed, e.g., air pollution, noise, hydrology
- Alternatives that have been considered

- Examine alternatives that have been considered

### **7.13. The Netherlands:**

EIA was implemented in Dutch legislation on September 1, 1987. The categories of projects that require an EIA are summarized in Dutch legislation, the Wet milieubeheer. The use of thresholds for activities makes sure that EIA is obligatory for those activities that may have considerable impacts on the environment. For projects and plans that fit these criteria, an EIA report is required. The EIA report defines the proposed initiative, it makes clear the impact of that initiative on the environment and compares this with the impact of possible alternatives with less a negative impact.

### **7.14. Hong Kong:**

EIA in Hong Kong, since 1998, is regulated by the Environmental Impact Assessment Ordinance 1997. The original proposal to construct the Lok Ma Chau Spur Line over-ground across the Long Valley failed to get through EIA, and the Kowloon–Canton Railway Corporation had to change its plan and build the railway underground. In April 2011, the EIA of the Hong Kong section of the Hong Kong-Zhuhai-Macau Bridge was found to have breached the ordinance, and was declared unlawful. The appeal by the government was allowed in September 2011. However, it was estimated that this EIA court case had increased the construction cost of the Hong Kong section of the bridge by HK\$6.5 billion in money-of-the-day prices.

### **7.15. India:**

The Ministry of Environment and Forests (MoEF) of India has been in a great effort in Environmental Impact Assessment in India. The main laws in action are the Water Act (1974), the Indian Wildlife (Protection) Act (1972), the Air (Prevention and Control of Pollution) Act (1981) and the Environment (Protection) Act (1986). The responsible body for this is the Central Pollution Control Board. Environmental Impact Assessment (EIA) studies need a significant amount of primary and secondary environmental data. The primary data are those which need to be collected in the field to define the status of the environment (like air quality data, water quality data etc.). The secondary data are those data which have been collected over the years and can be used to understand the existing environmental scenario of the study area. The environmental impact assessment (EIA) studies are conducted over a short period of time and therefore the understanding of the environmental trends, based on a few months of primary data, has limitations. Ideally, the primary data has to be considered along with the secondary data for complete understanding of the existing environmental status of the area. In many EIA studies, the secondary data needs could be as high as 80% of the total data requirement. EIC is the repository of one stop secondary data

source for environmental impact assessment in India. The Environmental Impact Assessment (EIA) experience in India indicates that the lack of timely availability of reliable and authentic environmental data has been a major bottle neck in achieving the full benefits of EIA. The environment being a multi-disciplinary subject, a multitude of agencies is involved in collection of environmental data. However, there is no single organization in India which tracks the data available amongst these agencies and makes it available in one place, in a form and manner required by practitioners in the field of environmental impact assessment in India. Further, the environmental data is not available in value added forms that can enhance the quality of the EIA. This in turn adversely affects the time and efforts required for conducting the environmental impact assessments (EIAs) by project proponents and also timely environmental clearances by the regulators. With this background, Environmental Information Centre (EIC) has been set up to serve as a professionally managed clearing house of environmental information that can be used by MoEF, project proponents, consultants, NGOs and other stakeholders involved in the process of environmental impact assessment in India. EIC caters to the need of creating and disseminating of organized environmental data for various developmental initiatives all over the country.

EIC stores data in GIS format and makes it available to all environmental impact assessment studies and to EIA stakeholders in a cost effective and timely manner.

#### **7.16. Malaysia:**

In Malaysia, Section 34A, Environmental Quality Act, 1974 requires developments that have significant impact to the environment are required to conduct the Environmental impact assessment.

#### **7.17. Nepal:**

In Nepal, EIA has been integrated in major development projects since the early 1980s. In the planning history of Nepal, the sixth plan (1980–85), for the first time, recognized the need for EIA with the establishment of Environmental Impact Study Project (EISP) under the Department of Soil Conservation in 1982 to develop necessary instruments for integration of EIA in infrastructure development projects. However, the government of Nepal enunciated environment conservation related policies in the seventh plan (NPC, 1985–1990). In order to enforce this policy and make necessary arrangements, a series of guidelines were developed, thereby incorporating the elements of environmental factors right from the project formulation stage of the development plans and projects and to avoid or minimize adverse effects on the ecological system. In addition, it has also emphasized that EIAs of industry, tourism, water resources, transportation, urbanization, agriculture, forest and other developmental projects be conducted. In Nepal, the government's Environmental Impact Assessment Guideline of 1993 inspired the enactment of the Environment Protection Act (EPA) of 1997 and the Environment Protection Rules (EPR) of 1997(EPA and

EPR have been enforced since 24 and 26 June 1997 respectively in Nepal) to internalizing the environmental assessment system. The process institutionalized the EIA process in development proposals and enactment, which makes the integration of IEE and EIA legally binding to the prescribed projects. The projects, requiring EIA or IEE, are included in Schedules 1 and 2 of the EPR, 1997 (GoN/MoLJPA 1997). Progresses were made in the Environmental protection issue during the 8th five year plan (1992–1997). The following developments in Environmental protection were achieved during that time:

- Formulation of Environmental Protection Act 1997
- Establishment of Ministry of Environment
- Development of National Environmental Policies and Action Plan, EIA guidelines developed
- Consideration of environmental concerns in hydropower projects
- Development of industrial, irrigation and agricultural policies that undertook environmental concerns

**Source: Bhatta R. and Khanal S. 2010. African Journal of Environmental Science and Technology Vol. 4(9), pp. 586–594**

#### **7.18. New Zealand:**

In New Zealand, EIA is usually referred to as Assessment of Environmental Effects (AEE). The first use of EIA's dates back to a Cabinet minute passed in 1974 called Environmental Protection and Enhancement Procedures. This had no legal force and only related to the activities of government departments. When the Resource Management Act was passed in 1991, an EIA was required as part of a resource consent application. Section 88 of the Act specifies that the AEE must include "such detail as corresponds with the scale and significance of the effects that the activity may have on the environment". While there is no duty to consult any person when making a resource consent application (Sections 36A and Schedule 4), proof of consultation is almost certain to be required by local councils when making a decision about whether or not to publicly notify the consent application under Section 93.

#### **7.19. Russian Federation:**

Russia holds the world's largest natural gas reserves, the second largest coal reserves, and the eighth largest oil reserves. Russia is also the world's largest exporter of natural gas, the second largest oil exporter and the third largest energy consumer. As of 2004, the state authority responsible for conducting the State EIA in Russia has been split between two Federal bodies: 1) Federal service for monitoring the use of natural resources – a part of the Russian Ministry for Natural Resources and Environment and 2) Federal Service for Ecological, Technological and Nuclear Control. The two main pieces of environmental legislation in Russia are: The Federal Law 'On Ecological Expertise, 1995 and the

'Regulations on Assessment of Impact from Intended Business and Other Activity on Environment in the Russian Federation, 2000. In 2006, the parliament committee on ecology in conjunction with the Ministry for Natural Resources and Environment, created a working group to prepare a number of amendments to existing legislation in order to cover such topics as stringent project documentation for building of potentially environmentally damaging objects as well as building of projects on the territory of protected areas. There has been some success in this area, as evidenced from abandonment of plans to construct a gas pipe-line through the only remaining habitat of the critically endangered Amur leopard in the Russian Far East.

#### **7.20. Sri Lanka:**

Environmental Impact Assessments-One popular approach to assist in smart growth in democratic countries is for law-makers to require prospective developers to prepare environmental impact assessments of their plans as a condition for state and/or local governments to go for Environmental Impact Assessments. These reports often indicate how significant impacts generated by the development will be mitigated - the cost of which is usually paid by the developer. These assessments are frequently controversial. Conservationists, neighborhood advocacy groups and NIMBYs are often skeptical about such impact reports, even when they are prepared by independent agencies and subsequently approved by the decision makers rather than the promoters. Conversely, developers will sometimes strongly resist being required to implement the mitigation measures required by the local government as they may be quite costly. The importance of the Environmental Impact Assessment as an effective tool for the purpose of integrating environmental considerations with development planning is highly recognized in Sri Lanka. The application of this technique is considered as a means of ensuring that the likely effects of new development projects on the environment are fully understood and taken into account before development is allowed to proceed. The importance of this management tool to foresee potential environmental impacts and problems caused by proposed projects and its use as a mean to make project more suitable to the environment are highly appreciated.

#### **7.21. United States:**

The National Environmental Policy Act of 1969 (NEPA), enacted in 1970, established a policy of environmental impact assessment for federal agency actions, federally funded activities or federally permitted/licensed activities that in the U. S. is termed "environmental review" or simply "the NEPA process" and regulated it by creating a Council on Environmental Quality that codified the law's requirements under Code of Federal Regulations Title 40, Part 1501. Under United States environmental law an Environmental Assessment (EA) is compiled to determine the need for an Environmental Impact Statement (EIS). Federal or federalized actions expected to subject or be subject to significant environmental

impacts will publish a Notice of Intent to Prepare an EIS as soon as significance is known. Certain actions of federal agencies must be preceded by the NEPA process. Contrary to a widespread misconception, NEPA does not prohibit the federal government or its licensees/permittees from harming the environment, nor does it specify any penalty if an environmental impact assessment turns out to be inaccurate, intentionally or otherwise. NEPA requires that plausible statements as to the prospective impacts be disclosed in advance. The purpose of NEPA process is to ensure that the decision maker is fully informed of the environmental aspects and consequences prior to making the final decision.

[http://www.unescap.org/drrpad/vc/orientation/m8\\_1.htm](http://www.unescap.org/drrpad/vc/orientation/m8_1.htm)

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