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# Environmental impact assessment system and process: A study on policy and legal instruments in Nepal

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An efficient system of decision making for sustainable socioeconomic development, with an effective environmental management of the sources of environmental impact and effects of such impacts, need to be put in place in order to implement the government policy of environmental protection and safety at the regional level. To obtain such kind of results; Environmental Impact Assessment (EIA) tool has been followed by the developing countries enacting environmental policies or judicial system to introduce regulatory framework in EIA system and procedures. Sustainable development is the result of carefully integrating environmental, economic and social needs in the policy level to achieve both an increased standard of living in the short term, and a net gain or equilibrium among human, natural and economic resources to support future generations. This study is based on the review of the EIA system and process, policy, guidelines and legal instruments and consultation with concerned stakeholders by emphasizing the EIA reports of 100 different projects from 12 different developmental sectors in Nepal. Nepal has taken an initiative to integrate environmental aspects in the national policy and development plan conducting EIA of major development projects since 1980 - 1996. Enforcement of the Environmental Protection Act (EPA), 1996, and the Environmental Protection Regulation (EPR), 1997, formally implemented EIA system with participatory monitoring. In Nepal, EIA has been conducted for 100 development projects up to 2010. Among these, the highest (25%) is in the hydropower sector and the lowest (3%) is in each of the hotel and tourism development, irrigation and apartment buildings, respectively. It has been found that the implementation of mitigation measures, monitoring and auditing of EIAs, limits only (20%) on the large scale donor supported projects. The EIA system only limits screening, scoping and ToR, prediction and assessment and monitoring of impacts. However, there is no policy for EIS as well as post evaluation mechanism which could show some implications and constraints in the EIA system for an effective EIA system as in the international level.

**Key words:** EIA (Environmental Impact Assessment), EPA (Environmental Protection Act) EPR (Environmental Protection Regulation), EIS (Environmental Impact Statement), EIA system and process.

## INTRODUCTION

Man's impact on his environment and his efforts to prevent or mitigate this impact has a long history. In particular, countries with a long tradition of land-use planning have long been concerned with the prevention or reduction of detrimental impacts by means of planning permits or denial of such permits. Provisions related to EIA began appearing in developing countries' legislation during the 1970s, shortly after the United States enacted

the first national EIA law, that is, the National Environmental Protection Act (NEPA) of 1969. References to EIA were made in the environmental legislation of Malaysia, Ecuador and the Philippines. In addition, the Philippines promulgated supplemental legislation which set forth a more detailed EIA procedure.

Throughout the 1980s, more countries decided to establish EIA as an element of environmental policy and a legal requirement for the proposed development activities. Again, many countries choose to insert EIA provisions within their framework environmental legislation (for example, Algeria, Costa Rica, Cuba, Guatemala,

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India, Pakistan, Palau, Senegal, South Africa, Togo and Turkey), while others also elaborated EIA requirements within a complementary decree or regulation (Brazil, Congo, Indonesia and Mexico).

Since 1990, the pace of legislative activity on environmental issues has improved and the number of countries with EIA legislation has increased significantly. Recent framework environmental laws tend to address EIA in more detail (Albania, Belize, Bolivia, Bulgaria, Burkina Faso, Cape Verde, Chile, Colombia, Comoros, Egypt, Gabon, Honduras, Jamaica, Kazakhstan, Kyrgyzstan, Latvia, Mauritius, Peru, Seychelles, Slovenia, Tajikistan, Thailand, the Gambia, Ukraine, Vietnam and Zambia) and more countries have issued EIA laws, decrees and regulations (Czech Republic, Hungary, Mongolia, Nigeria, Paraguay, Russian Federation, Slovak Republic, Tunisia and Uruguay). However, one country (Zimbabwe) has now chosen to issue an EIA policy rather than to enact a binding legislation.

According to information collected by United Nations Environmental Programme (UNEP), EIA provisions now exist in the framework environmental legislation of 55 developing countries (Hartley and Wood, 2005). Public participation in environmental impact assessment—implementing the Aarhus Convention. *Environmental Impact Assessment Review*. 25 (2005). 319-340). In addition, at least 22 developing countries currently have specific laws, decrees or regulations which contain criteria or procedures applicable to EIA. Other decrees and administrative instruments provided sectoral EIA guideline related to mining, energy, transport, etc.

Many developing countries and countries with economies in transition are attempting to strengthen and consolidate their EIA systems (Lee and George, 2000). These reforms are part of broader trends in EIA, and take place against a background of political and economic change including processes of globalization through which trade, capital and investment flows are integrating national economies into a single world market. Globalization often accelerates economic growth and increases environmental deterioration in developing countries, and thus has important implications for the use and development of EIA. These effects and implications in turn differ across and within developing regions and countries depending on their level of development, dependence on natural resources and other factors. From the standpoint of sustainable development, the context and challenges confronting developing countries remain the same as those documented in Agenda 21, except that, in the ten years since Rio, environmental and social impacts have become more pressing.

The global environmental outlook and the disparity between rich and poor countries have worsened, in that one-quarter of the world's population continue to live in severe poverty. However, resource depletion and environmental deterioration are widespread in many developing countries (UNEP, 1999). If the present trends continue, the prospects for improving the status of the

world's poorest people will be undermined even further. Ways of making better use of EIA as a tool for poverty alleviation are being sought by international agencies (World Bank, 2001).

In this context, the links between environment, development and poverty emerged as the central theme of the 2002 World Summit on Sustainable Development (WSSD) (The World Summit on Sustainable Development (WSSD), Johannesburg (August 26-4 September 2002) held in Johannesburg, which reviewed the progress made on Agenda 21 since Rio. The summit focused on legal, financial, economic and regulatory mechanisms to accelerate development, improve health and provide better care for the environment. The WSSD plan of implementation calls for an integrated approach to EIA, including its growing use as a tool to promote environmentally sustainable development. It calls also for EIA to have a better link with economic and social appraisal tools on the one hand (prior to a development occurring) and environmental management tools (during the operational phase of development) on the other (Sadler, 2001).

Lesson learnt from the EIA process internationally has urged the government of Nepal to established the EIA system for developmental projects with the formulation of Environmental Protection Rules in 1997 as well as sectoral policy, laws and guidelines. Based on the formulated act, regulations and guidelines, the criteria for Initial Environmental Examination (IEE) and EIA development projects certainly require environmental assessment study as per the nature of the projects unless they cross the given threshold for the disruption of the environmentally sensitive areas and their natural environment. Leafing the policies and legal instruments of the country, the ongoing EIA system now has a big challenge towards environmental management and biodiversity conservation for sustainable development.

## METHODOLOGY

For this study, the evolution of the EIA system and process was reviewed from national and international data base, source books, journals, EIA training manuals and websites. The extensive review includes the policy level documents of Nepal such as EIA guideline 1993, EPA 1996 and EPR 1997, other sectoral policies and guidelines, etc. Comprehensively, review of the EIA reports and consultation with concern stakeholders were the recent sources of the study's data and information. The Ministry of Environment, a leading agency of the EIA system and process and constituted authority that approves the EIA reports in Nepal were the major source of data and information.

## RESULTS AND DISCUSSION

### EIA arrangement in Nepal (trends and status)

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.

The government of Nepal has endorsed the National Conservation Strategy (NCS)(IUCN and Government of Nepal (GoN/N, IUCN (1988) Formulated Conservation and Development Strategy; NCS in 1988) and the Master Plan for Forestry Sector (MPFS)( Ministry of Forest and Soil Conservation Government of Nepal with support from the Finnish International Development Agency (FINNIDA) and Asian Development Bank (ADB) had prepared Master Plan of Forestry Sector (MPFS) in 1988) for implementation and an EIA study was also carried out in 1987 to identify the likely environmental impacts of the activities proposed in the forestry Master Plan before its adoption. The NCS also emphasized the need to internalize the EIA system into Nepal's resource management and development planning; however, the government of Nepal continued its efforts to internalize the EIA system during the interim period (1990 - 1991). One of the basic policies of the interim government was to carry out the EIA prior to the implementation of any major development project and programmes. Consequently, the interim government issued directives to implement EIA in any project, which would have adverse affects on the natural balance.

The eighth plan period (NPC, 1992 - 1997) has made a contribution that is remarkable and notable in institutionalizing the EIA system in Nepal's development planning and administration. During this period, the government of Nepal adopted and implemented the National EIA Guidelines of 1993, GoN (1993). Two separate EIA guidelines for the forestry and industry sector were enforced in 1995 through administrative decisions. Additionally, continued preparation of the other sectoral EIA guidelines such as the mining sector, urban development sector, landfill sites 1995 and water resources, road and tourism sector in 1996 were underway. During the plan period of the government, the Environment Protection Act, 1996 and the Environment Protection Rules, 1997 were enacted and enforced.

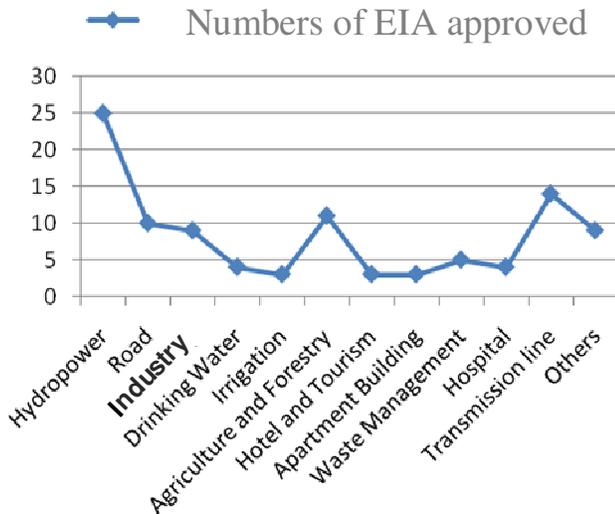
The ninth plan (NPC, 1997 - 2002) has adopted a policy of participatory EIA system and it emphasizes on

making necessary procedures for the involvement of local bodies, communities, private sector, non governmental organizations (NGOs) and government agencies, NPC (2002). The plan has also focused on the need for conducting EIA study in order to ensure biodiversity conservation while implementing development projects in remote areas, GoN (2002). The plan has realized the need for human resource development, research and studies, monitoring and evaluation, environmental auditing, and strengthening of the environmental resource centre and academic institutions in order to cater for skilled human resources in environmental management of the country.

Although the policy emphasized that EIA should be undertaken, the achievements were not satisfactory due to the lack of coordination amongst the related sectors, inadequate trained manpower as well as poor budget allocation for the environment activities. In the past, the implementation of EIA in the project planning used to be a closed door approach. However, with the enforcement of EPR, the opportunity for the involvement of stakeholders has increased, though Nepal has not introduced the concept of accrediting the experts and consulting firms to prepare the EIA report. Any person can prepare such a report and hence, the quality of EIA report is still in doubt. Influence of non-professionals in developing and enforcing the legal regime on EIAs and in preparing the EIA report prevail in many sectors. As a result of this, the benefits of the EIA tool have largely been boiled down to legal complications, and the effectiveness of this tool has been diluted in project planning and implementation. Furthermore, many of the developers consider that once the EIA report is approved, the environment is adequately managed. However, in many cases, EIA recommendations are not found properly implemented, due to the fact that the agencies responsible for environmental monitoring are not adequately addressed and the monitoring aspect is relatively weak.

In Nepal, 100 EIAs of 12 different sectors of developmental projects have been approved since 1997 after the enforcement of EPR. Among them, the highest number (25%) has been found in the hydropower sector and the lowest of (3%) each was found in hotel and tourism development, irrigation and apartment buildings, respectively. Besides, these approved EIAs of sectoral projects include transmission line (14%), road (10%) and industry (9%), waste management (5%), drinking water (4%), agriculture and forest (11%) and 12% others, respectively (Figure 1).

According to the Ministry of Environment, out of 100 projects, only two projects in the apartment buildings infrastructure sector had formally requested for monitoring from the Ministry as per the legal provision. Almost all approved EIA projects has no inspection and supervision from the Ministry level. However, 20% of the large scale donor supported projects that found effective implementation of monitoring and management of EIAs to



**Figure 1.** Approved EIA reports of 100 different projects from 12 different developmental sectors.

offset adverse impact and enhancement of beneficial impacts at the project level. Most of the projects have found their involvement and effectiveness only in the preparation of EIA reports and approved them to fulfill the legal requirement, Bhatta (2009). After the approval of the EIA reports, implementation of mitigation measures, monitoring and recommendations were then found in the shadow. There are no formal events for environmental auditing and post evaluation of the projects except large scale projects such as Kali Gandaki Hydroelectric Project, Melamchi Drinking Water Supply Project, Middle Marsyangdi Hydroelectric Project, etc.

### Implications of policy and legal instruments

The requirement of a nation to conduct environmental impact assessments with respect to activities that are likely to significantly affect the environment has been reflected in Principle 17 of the Rio Declaration on Environment and Development. Article 5 of the Legal Principle for Environmental Protection and Sustainable Development adopted by the experts group on Environmental Law of the World Commission on Environment and Development and in the 1987 Goals and Principle of Environmental Impact Assessment, developed under the auspices of UNEP by the Working Group of Experts on Environmental Law, were adopted by the UNEP Governing Council at its 14th session. This was commended to states to be considered for use as a basis for preparing appropriate national measures including legislation. Such a requirement in the context of transboundary impacts has also been incorporated in several regional agreements, for example, United Nations (UN)/ European Council of Environment (ECE)

Convention on Environmental Impact Assessment in a Transboundary Context (1991) and several Regional Agreements concluded under UNEP's regional seas programmes and resolutions of international bodies, for example, 1984 ECA Council Resolution on Environmental Development in Africa and 1984 EEC Council Directive on Assessment of the Effects of Major Public and Private Projects on the Environment.

Nepal's eighth plan, formulated after the participation in the Rio Earth Summit in 1992, was an important policy document. The eighth plan realized the need of EIA integration into economic development projects, and emphasized the formulation and implementation of the projects and programmes with the inclusion of environmental protection measures. The plan has also emphasized the adoption of the integrated approach and the sustainability concept, while formulating the environmental legislation. Furthermore, the plan had established the environmental section under the concerned ministries, develop indicators, set-up standards and implement working procedures in order to minimize likely environmental impacts of the development activities. The plan has shown a strong commitment to prepare EIA guidelines for big development projects such as road, hydropower, irrigation, industry, housing, drinking water, sewerage etc., and implement projects and programmes only after EIA study.

### EIA system and process: A legal requirement

In Nepal, the government's Environmental Impact Assessment Guideline of 1993 inspired the enactment of the Environment Protection Act (EPA) of 1996 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).

The EPA 1996, were allowed to prepare the EIA report on the proposed proposals and implement such proposals after the approval of the EIA report by the concerned agencies. The proposals have to implement necessary mitigation and monitoring measures as outlined and approved in the report.

The Act outlines the process for the submission and approval of EIA reports. The EPR, 1997 elaborates provisions to prepare and submit the scoping report, Terms of Reference (TOR) and the EIA report approval to include public consultation processes (Figure 2). The EIA report in general, should include detailed information on impacts and environmental protection measures, including implementation plan, monitoring and evaluation and environmental auditing. Public consultation has been

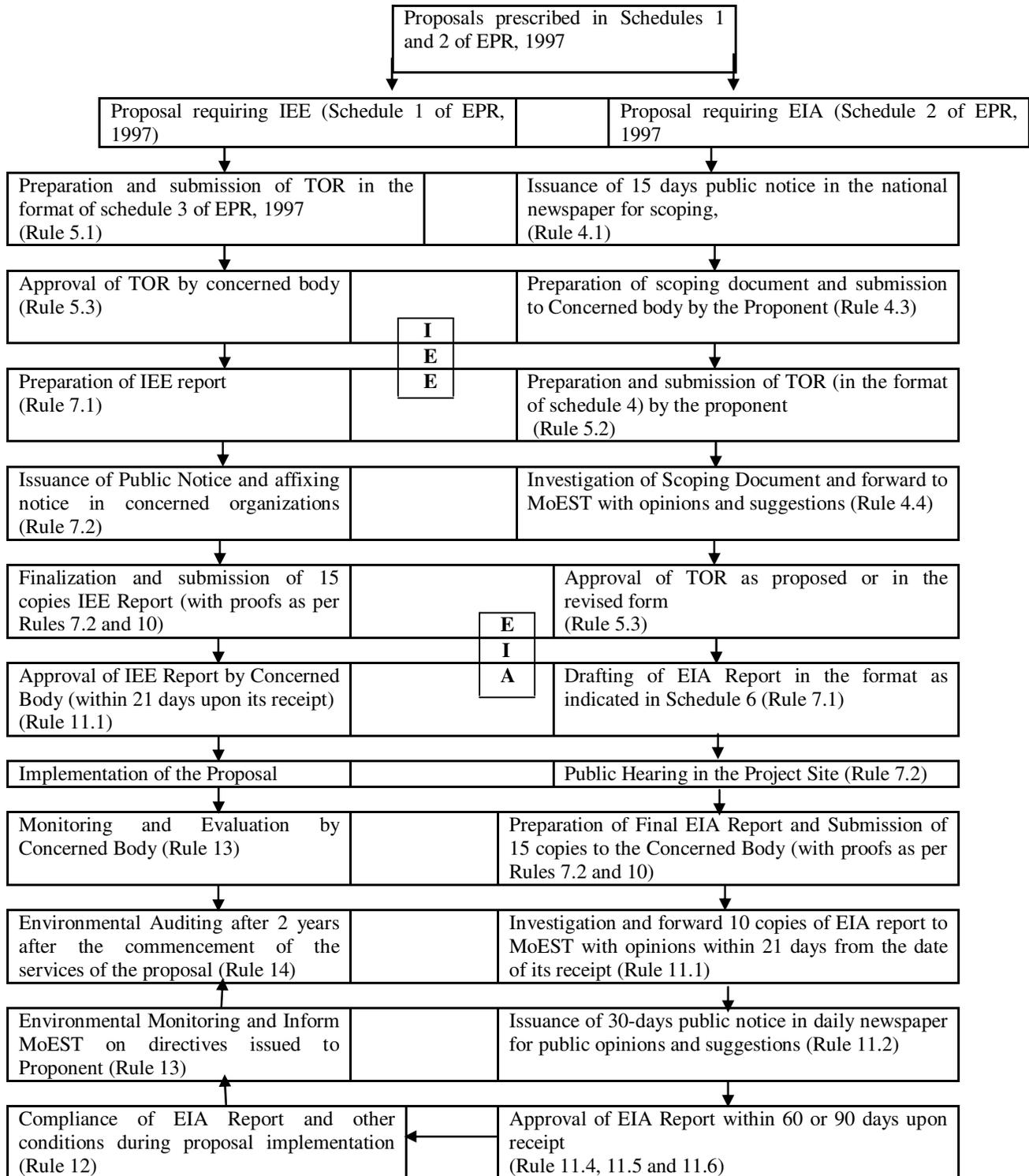


Figure 2. Present IEE and EIA report approval process in Nepal case. Source: MoEST (2006).

a pre-requisite in all the prescribed projects. The current system of the EIA process is cumbersome and it takes quite a long time for it to be approved. It may be due to the bureaucratic hurdles and lack of time limit

to get the approval of scoping report and TOR. Also, it may be due to the lack of professional (knowledge-based) manpower in the law enforcing agencies. However, delayed decision or unnecessary delay is

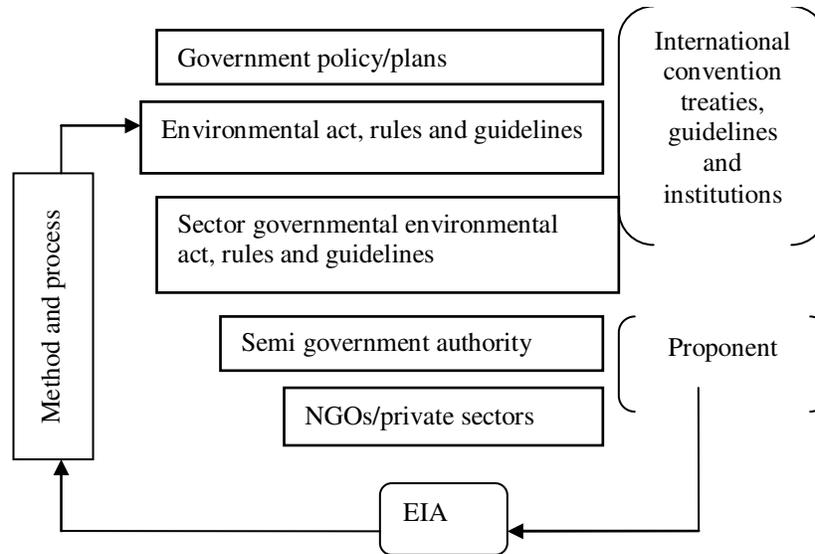


Figure 3. EIA implementation system in Nepal's policy level.

sometimes a bureaucratic culture. If the cost of delayed decision is understood and appreciated, this problem could be resolved.

Public consultation takes place at least three times in the entire period of making EIA. There are three major consultations, which are in the process of scoping, during field study for EIA and lastly in the EIA report approval process. However, public hearing is required in the draft stage of EIA report where a disclosure of the draft EIA report is undertaken (Figure 3).

### Responsible institutions in EIA implementation in Nepal

The concerned agency for the implementation of the environmental impact assessment in Nepal's case is the Ministry of Environment (Ministry of Environment in Nepal was established in 1995). The responsibility owned institutions in the environmental impact assessment process are Parliament, Parliamentary Committee on Environmental Management (PCEM), The Cabinet, National Planning Commission (NPC), Environmental Protection Council (EPC), Ministry of Environment (MOPE), Ministry and Associated Departments/Agencies, Local Governments, donor agencies and NGOs/private sector, governing the following responsibilities in the EIA process and system.

Even though EIA has become mandatory under the EPA, many private sector and governmental developers still escape their responsibility, in that many projects which were supposed to undergo EIA have not undertaken the process. National EIA requirements are only structurally complied in those cases where projects are to undergo EIA as per donor agency's requirement. In most

cases, the National EIA Guidelines 1993 are followed while conducting EIA, except for those matters which are covered by the EPR.

### Major constraints on implementation of the EIA system

The EIA legal frameworks established by individual countries also differ in their adequacy and integrity as judged against international standards and local needs. Some developing and transitional countries meet most internationally accepted standards and elements (Poland is one example), while others do not because of loopholes or omissions in EIA legislation. Commonly cited examples include inadequate specification of implementation, quality control and enforcement procedures, failure to assign responsibilities or lack of provision for meaningful public involvement (Briffet, 1999; Brito and Moreira, 1999; Rukuba-Ngaiza and Bekhechi, 2001). In certain countries, EIA legislation based on an imported framework can be inappropriate and dysfunctional.

This is a matter of concern in Africa (Kakonge, 1999). More generally, EIA legislation is recognized as needing adaptation for small developing countries, such as the Maldives (Annandale, 2001) and Lesotho (Mokehele and Diab, 2001). Some critics argue that international EIA systems, based on "western" legal principles and procedures, result in an inflexible, bureaucratic and overly negative approach that is unrelated to the needs of developing countries (for example, Biswas and Agarwala, 1992).

In Nepal's EIA system, National EIA Guidelines 1993 and Environmental Protection Act 1996 and its regulation 1997 are being used as policy level documents.

However, the sectoral policy has reflected EIA criteria to set up the government role and responsibilities towards the EIA system, considering master documents (Environmental Impact Assessment Guideline 1993, Environmental Protection Act and its Regulation 1997) of the environmental impact assessment.

The sectoral guidelines and policies lack precise methods and approaches to be adopted for the preparation of EIA reports, such as methods for collecting baseline information, analysis and prediction of impacts, public hearing and consultation, implementation of mitigation, environment management and monitoring plan, etc.

The Ministry should grant approval for implementation within 60 days of receiving the report (EPR rule 11.5). When there is special reason, the Ministry could concave also, additional 30 days for approval (EPR rule 11.6). In practice, approval of most EIA reports are done by 90 days. Occasionally, even the period of 90 days limit is exceeded. Although the proponent has a right to take MoE to court, such time-consuming action is never undertaken.

According to sub-section 4 of section 6 of the EPA, the Ministry of Environment may form a report review committee which in practice is also involved in reviewing the scoping report and TOR. However, this is done especially in large scale projects. The review committee is formed entirely on an ad hoc basis. Relevant experts of governmental and non-governmental organizations are called for review meetings at the last moment and they receive relevant information on the project only during the meeting. As such, they are not knowledgeable enough about the projects and its possible impacts on the environment. Furthermore, most of the participants lack adequate knowledge on EIA in general. Moreover, there are no review guidelines to assist them. As the EIA generally follow-up criteria under the EPA and EPR, there are no strong framework for the affected environment to maintain ecological and environmental integrity as the EIA is implemented superficially to fulfill the legal requirements, MoFSC (2002). Similarly, strong EIA implementation, management and monitoring of the project environment are inadequate, MoFSC (2002). There are no post evaluation methods or criteria defined nor a specific criterion mentioned for the regnerement human resources involvement in EIA, review and formulation of policy and implementation of plan and programs. All these constraints seriously impede the decision-making process.

Certainly, EIA is seen by many as being anti-developmental, because of its focus primarily on adverse biophysical impacts (Campbell, 1993). This is a matter of continuing debate from an international and national perspective. In practice, developing countries have addressed this issue by referring to internationally accepted legal and administrative frameworks but instituting them in unique national EIA systems, as indicated by the review of Latin-American and Caribbean countries conducted for the Inter-American Development

Bank (Alzina and Espinoza, 2001).

With appropriate modifications, principles and performances criteria for the design of EIA systems can be used to review the EIA arrangements that are in place in a developing country (Wood, 1999; Sadler, 1996). However, the political, economic and social conditions that are applied in a particular developing country will need to be taken into account. The legal and institutional adequacy of EIA systems cannot be divorced from wider issues of governance and the influence of cultural traditions (Boyle, 1998, Menom, 2000). Collectively, the transitional countries of Central and Eastern Europe (CEE) and the former Soviet Union have passed more than 100 EIA laws in the last fifteen years. Much of this burst flaw that is in making recently, displays regional trends and differences and offers lessons for other developing regions when introducing and reforming EIA systems.

The Nepali approach emphasized minimal dependency on outside experts and ensured that the EIA guidelines were tailored to local needs and conditions. It indicates how a self-supporting pool of indigenous environmental expertise can be built within the existing government, NGO and private sectors (Khadka et al.,2000). Nepal now has both the technical capacity and commitment to implement EIA legislation, which was one of the end products of the ECG process.

EIA legal and institutional frameworks established by developing countries should conform or correspond to internationally accepted principles and points of reference as described in this section. The specific detail and content of legislation should take into account, the policy and institutional values and realities in the country concerned.

The provision for EIA should be based on legislation, which is suppose to be clear and explicit as to the nature and scope of application and the type of approach to be taken. At a minimum, EIA legislation, together with any supplementary regulations, should specify the following:

- (i) Area and aspects to be covered: Which proposed actions and impacts shall be assessed?
- (ii) Requirements and procedures: How shall the EIA process be administered and applied?
- (iii) Responsibilities and duties: What must or may be done by proponents, competent authorities and decision-making bodies?
- (iv) Relationship to decision-making: How shall the EIA process be used in approval of the proposed actions subject to be reviewed?
- (v) Compliance and enforcement: What steps and measures are to be taken in the event where due procedure is not followed in carrying out the EIA or implementing the terms and conditions of approval? (Sadler, 1998).

## Conclusions

EIA has traditionally been considered effective when it

supports well informed decision making leading to environmental protection, but also when it delivers outcomes efficiently and cheaply. The early view of NEPA (National Environmental Protection Act 1969 USA) is related to the bringing of science into policy and administration and the forcing of agencies to share the scientific and technical information upon which they make judgments (Smith, 1993). EIAs inherent provision for public participation provides a significant opportunity for testing, influencing, refuting and checking assumptions and decisions. However, if EIA is not truly adaptive to the process, when dealing with changes and impacts that occurred unpredicted or which occurred differently from those predicted or with changing policy priorities and local environmental characteristics, it must be subjected to review and updating in the post development (Holling, 1978). The new international focus on environmental management systems for operational control provides a significant opportunity for integrating predevelopment and post development assessment and mitigation. The experiences show the evidences for sustainable development strategies in many meaningful ways with the key principle to anticipate and prevent, exercise precaution, remain within source and sink constraints, maintain natural capital at or near the current level, avoid conversion of land to more intensive users and make the polluter pay. There is no doubt that EIA can contribute to the achievement of these principles. However, it is only one policy instrument, if linked effectively with, and supportive of, other policy and planning instruments, that should contribute as a sustainability mechanism.

Nepal has enacted a number of regulatory measures for the consideration of the environmental aspects in the development project and programme. Various sectoral Acts contain "loose" provisions and provide opportunities to frame rules and by-laws to consider an integration of environment at the project level. Review on regulatory measures indicate that almost all the Acts enacted prior to the reinstatement of democracy in 1990, have neither included comprehensive provisions nor were they implemented to the desired extent. However, the Acts enacted or amended after 1992 included various provisions to encourage the government to frame and implement rules and guidelines on environment, WECS (2002). Such laws are still unclear in the intention and levels of sector-specific environmental improvement. Also, the legal measures have been developed based on a command-and-control philosophy and the regulatory measures for the market-based initiatives are yet to be developed. The basic consideration in Nepal's legal regime is to punish the individual if he/she violates the rules and regulations. In a case, where government activities damage the environment, it is very unclear how the legislation may be enforced. The fact is that, one government agency which has the legal power to enforce regulations may hesitate to punish the violators belonging to another sector. One of the reasons is that the legislation has not been enforced to the desired extent.

Another reason may be a lack of inadequate instruments such as guidelines, standards, norms, procedures, etc. to enforce the legislation. Furthermore, sector-specific agency tends to be super in their particular jurisdiction and attempts to encroach other working areas.

Generally, EIA implementation in developing countries appears to work best if legal and institutional arrangements have evolved gradually through an "organic" process, rather than one "imposed" from the outside. This approach will be most successful when it is based on pilot testing and experimentation to foster cross-sector familiarity with EIA, initially based on non-statutory procedure. In this way, a locally adapted EIA system can be developed that has support amongst those who will have to implement it. The result is an EIA system that has emerged from the "bottom towards the top" rather than from the "top towards the bottom". EIA clearance flow diagram for government projects in Nepal describes the process followed in Nepal to create both an EIA system and the commitment and capacity to implement it.

Among 100 projects of 12 developmental sectors, hydropower sector has been followed in the EIA system and process effectively rather than the other sectoral projects which have fulfilled legal provisions only. The monitoring system of EIA has found poor performance from the principle institutions of the EIA sector due to lack of manpower as well as effective implementation of existing policy, act and guidelines.

The EIA system and process in Nepal only limits for fulfillment of legal provisions and there is inconsistency in policy, reporting requirement, poor methodology and implementation mechanism. The lack of human resources, trained manpower and effective implementation of existing policy, guidelines and sectoral laws are the main drawbacks in the EIA system and process. However, there is no policy for EIS as well as post evaluation mechanism which could show some implications and constraints in the EIA system for an effective EIA system as in the international level. The monitoring, implementation of recommendation measures, auditing and evaluation in the EIA reports are inadequate, except for 20% of large scale donor supported projects.

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