# Study of Environmental Impact Assessment (EIA) Process in Scotland, Malaysia and Pakistan

S. Malik<sup>1</sup>, F. Tariq<sup>2</sup>, N. Maliki<sup>3</sup>

<sup>1,2</sup>School of Architecture & Planning, C-II Johar Town, University of Management & Technology, Lahore, Pakistan <sup>3</sup>School of Housing, Building & Planning, USM 11800 Penang, Malaysia <sup>1</sup>sana.malik@umt.edu.pk

Abstract-Environmental Impact Assessment, known by its abbreviation EIA, is a planning tool to sustain the natural environment in its outstanding place by evaluating the consequences of a planned activity before putting into practice. Today the developed countries as well as the developing countries are undertaking EIA as the precautionary measure to judge the aftereffects of new developments at the planning stage ensuring the wellbeing of ecosystems. The origin of EIA took place in 1969 in the form of a domestic law by United States through initiating National Environmental Policy Act. Over the time period of many years, now many countries including the third world countries have started following the US set example by incorporating the study of EIA into their officially authorized system. In addition to this, a number of researches have revealed that EIA can play important role in contributing sustainable environment by supporting the technical and scientific understanding and their improvement in different fields, providing guidance in design of development projects, enhancing the governance of system and most importantly by modifying the attitudes of the society. For this reason, the role of EIA in the social, physical and environmental sectors has become significant. This paper will look into the mechanism of three different nations as how they are implementing this concern in their institutions. The paper, therefore, concisely reviewed the substantive processes of EIA, in the cases of Scotland, Malaysia and Pakistan.

Keywords-Assessment, Environmental Impact, Malaysia, Scotland, Pakistan

#### I. INTRODUCTION

Environmental impact evaluations started formally in early 1960s, as part of increasing environmental awareness. "In the United States, environmental impact assessments obtained formal status in 1969, with performing National Environmental Policy Act" [i]. Now EIAs have been used gradually across the world. The development

projects, of macro and micro scales have different impacts before the execution and may have the strength to alter the environment by construction works involving digging the ground and concreting the soft lands, use of heavy automobiles, landfills causing soil erosion, noise pollution, hazardous emissions and effluents causing air and water causing air pollution and water respectively. In addition to this, unhealthy socio-cultural collisions also expected to take place.

To identify the potential threats and minimize the adverse aftereffects due to such development projects, the Environmental Impact Assessment (EIA) has been a mandatory for any project, which is subjected to cause any potential negative changes in the environment.

Developed and developing countries have formulated regulations requiring EIA as major consideration for any development project appraisal, which has created demand for specified environmental assessors. "Impact assessment frameworks are gaining increasing attention as a procedure to integrate sustainability concerns in national policy-making" [ii].

In addition to this, the regional affiliated countries have now high levels of awareness for environmental protection. In Asia, Pakistan is going through immense urbanization prospects due to current execution of China Pakistan Economic corridor (CPEC). Also, political competition has made public leaders to go beyond the set criteria of upgrading urban infrastructure and these studies of environmental impacts do not consider the realistic feasibility of such costs on such public projects. It would be interesting to compare the practice of EIA process in Pakistan with Scotland (one developed country) and Malaysia (a developing country with rapidly growing economy). An analytical review of EIA process has been carried out based on secondary data. Also, a comparative analysis is included as part of study to mention the insufficiencies in the EIA process of Pakistan.

#### II. ENVIRONMENTAL IMPACT ASSESSMENT

To understand the thorough framework of EIA, the first step to start with is to know the definition of this

terminology. Different scholars and researchers have defined EIA according to their own understanding. Few definitions of EIA have been stated as following:

- "EIA as a systematic tool that can be used in considering the possible impacts of a project specifically on the environment before decisions are taken by the respective authority on whether or not to accept the project proposal" [iii].
- "EIA as an efficient process of evaluating and documenting information on the potentials, capacities, and functions of natural systems and resources in order to facilitate sustainable development planning and decision making and at the same time, to anticipate and manage the adverse effects and consequences of proposed undertakings" [iv].

Hence, Environmental Impact Assessment is about shielding of the current environment from potential problems caused by a development project by determining the degree of expected alteration in environment.

#### A. Phases of EIA

The whole process of EIA is segmented into two phases based on preliminary and detailed modes of study.

#### Initial Environmental Examination (IEE)

IEE concerns about possible impacts on environment due to proposed project. The study of IEE is concise briefing of significant issues of environment on the basis of available information and can be used premature stage of project planning. IEE also gives suggestion for further deep studies to be taken into account at later stage.

#### Environmental Impact Statement (EIS)

An EIS is a deep study of possible important positive and negative effects, which a proposed development might have on the environment after execution. This document provides the findings of EIA study and often regulated through environmental laws to ensure the project proceeding. Usually, consultants specialized in field of EIA prepare EIS or EIA report considering the issues and problems related to decision-making process [v].

#### B. The Framework of EIA

#### Baseline study

The first step is to carry out baseline study involving essential facts and figures of scoped issues. The current condition of environment, which is expected to get affect adversely through the proposed project, is taken as basis of this first step.

#### Screening

Second step is the screening and it is an important

part of EIA process which involves the responsible authority to give permission for proposed projects to go for EIA procedure. This depends upon the nature, magnitude or location of the project considering the expected impacts on the environment.

#### Scoping

After the concluding on requirement of formal EIA, the next step is to identify the concerns and issues to be considered. This is called scoping, on which the effectiveness of EIA depends primarily. Local councils and authorities, public organizations and consultants may be involved at this stage, also the contribution of communities is also encouraging for identifying issues.

#### Terms of Reference (TOR)

Terms of Reference provide an appropriate direction for preparing EIA and it is preferable to include potential impacts spotted during scoping (Fig.1).

- A description of the project
- A list of the agencies or ministries responsible for overseeing the EIA process and making decisions
- The geographic area to be studied (also called the 'impact zone')
- EIA requirements in applicable laws or regulations
- Impacts and issues to be studied
- Mitigation and/or monitoring systems to be designed
- Provisions for public involvement
- Key stakeholders
- Timeframe for completing the EIA process
- Expected work product and deliverables
- Budget for the EIA

Fig. 1. Model for Terms of Reference (TOR) [vi]

#### Public Involvement

The best way to practice EIA successfully is to involve the public at various points during the whole process with mutual exchange of information and ideas. Public involvement can be achieved through meetings, public hearing and giving opportunity to their concerns about proposed development.

#### Complete EIA study

This step generates a full and complete report that considers the perspectives and comments of all the involved stakeholders incorporating the consideration of justifying measures to evaluate the act anticipated to check, evade or reduce definite or possible important adverse effects to be caused by the development project.

Review

Review is about judging the sufficiency of EIA prior to decision making and addressing its allegations for project execution.

Decision-Making

Decision – making is a significant step in EIA process which plays very important role in endorsing or refusing the proposed project. The decision-making may involve certain condition to be fulfilled like submitting a Environmental Management Plan.

Monitoring

The step of Monitoring in EIA involves observing the project execution and procedure and ultimately inspection of the development after being completed. Despite a legal prerequisite, monitoring takes place only in response of complaints. The reporting system or self-monitoring outlined in the environmental management plans (EMPs) is hardly adopted by project proponents.

# C. Benefits and Constraints of EIA The advantages of EIA include:

- Better design and scheme of project
- Knowledgeable decision making
- Environment-oriented approach towards decision making
- Improved degree of reliability and transparency of whole development process
- Less damage to the environment
- Better in coordinating and integrating of development projects into the respective social setting
- Efficient nature in regard of accomplishing objectives financially and socially
- Long-lasting working of projects
- Effective and comprehensive EIAs play important role in order to generate a balance between public sector, politicians and proponents of the projects and the environmentalists and conservationists' concerns

The EIA represents a constructive contribution towards achievement of sustainability in the environment. However, the study of EIA effectiveness revealed a variety of complications, although not relevant on universal basis.

Some of such noted constraints have been discussed below:

- EIA mostly considers biophysical issues as center of attention due to poor meager terms of reference. The EIA related aspects are not always focused in integrated manner when environmental, social and financial aspects are focused (International Institute for Environment and Development IIED, 2008).
- The small projects are often not included in many

- EIA structures even if they have a possibility of increasing impacts over period of time.
- Deficient methods for ensuring the EIA reports to be considered in decision-making process.
- Limited public participation.
- Partial knowledge of respective functions of baseline study and impact prophesy.
- Fragile connections between project execution, operation and recommendations of EIA study on alleviation and observation.
- Inadequate competence on technical and managerial level in most countries for implementing EIA [vii].

#### III. RESULTS & DISCUSSIONS

A. EIA Process - Case of Scotland

The legislative background of Environmental Impact Assessment – EIA states that it is introduced in Scotland due to strong instructional framework from European Community (EC). The conditions of EC instructions are transmitted into Scot law on the basis of regulations formulated by the Scottish Government. The EIA regulations assists the public authorities in process of decision making confirming the status of projects to carry on or revise their planning schedule to minimize the adverse effects on environment. This is carried out by providing the Environmental Statement or 'ES' accompanying with the constructive feedback from legal environmental associations and public.

A dramatic shift has been observed in the form of rejection of planning consents by the legal courts. As a result of this, football stadiums, industrial & farm buildings, power stations and many mega housing projects have been added to the list recently [viii]. This implies that over time, EIA has become very important tool for avoiding unwanted development contributing to the sustainable environment.

The EIA framework in case of Scotland contains various steps [ix]. These are discussed below:

- Screening Process
- Scoping process
- Preparation of Environmental Statement (ES)
- Prediction of environmental impacts
- Submission of EIA
- Consultations and Promotion
- Incorporating Additional Environmental
- Information and Modifications to the Project
- Decision Making Stage
- Implementation and Compliance

#### Screening Process

The relevant authorities 'screen' every project proposal and are responsible for giving consent to carry on with the project. The screening, as described earlier, depends upon scale, nature, location and type of significant impacts on the environment. It is the

deciding stage whether EIA is necessary or not. The proponents of project can request the authorities for the 'screening opinion' Scottish Ministers are empowered in this regard for issuing the 'screening direction'.

#### Scoping Process

This is the most important stage in the whole EIA process which has to be fulfilled by every project proponent by applying for a 'scoping opinion' to the competent authority. The scoping is issued normally after five weeks in Scottish framework of EIA. This step ensures that EIA process is relative to the project and its impacts on the current environmental condition.

#### Preparation of Environmental Statement (ES)

According to the Handbook the primary purpose of ES is to guide the decision makers of environmental obligations of the proposed project. ES is prepared by proposer of the project in accordance to the 'baseline information' and the preparation of ES is subjected to specific regulations for the content the statement. This step further involves the prediction of impacts through use of methodologies and models available and then assessment of significance of predicted impacts on rational basis taking into account of sensitivity towards transformation of environment.

## Submission of EIA

ES is required by capable authorities and the Scottish Ministers in cases, where proposed development is subjected to undergo EIA procedures. So after preparing the ES, it is then submitted to concerned authorities making beneficial for all stakeholders by introducing contact and liaison at the beginning. This makes the decision making a speedy process and EIA process more efficient.

#### Review of ES

After the ES submission, it is then reviewed by competent authority by considering all the environmental information and evaluates the scope of environmental statement to grant consent for carrying out EIA to proposed project. The response from EIA consultants is also integrated in reviewing ES at this stage. This forms basis for dialogue between consultants, authorities and project proposer which further improve the understanding of the project along with giving attention to public comments.

# Incorporating Additional Environmental Information and Modifications to the Project

After the review based on the recommendations and suggestions, the competent authority demands for further information to be added for positive modification of the project which has to be fulfilled by project proposer. It is then followed by advertisement and promotions under the provided regulations.

#### Decision Making Stage

Competent authorities carry out decision making by adopting the available knowledge and scientific information as precautionary measure for consideration of environmental impacts and fulfillment of government policies. Researchers have concluded that EIA is very powerful in deciding the future of projects [x].

"An analysis of studies of the outcomes of environmental impact assessment (EIA) indicates that its role in consent and design decisions is limited, due primarily to passive integration with the decision processes it is intended to inform. How much EIA helps sustainable development is largely unknown, but it is hypothesized that it is more than is typically assumed, through a plethora of causes, including emancipation of stakeholders and incremental change in the bureaucracy, companies and scientific institutions" [xi].

Though the influence of EIA on the projects has been significance. For example, a study analyzed how often did EIA impacted the decision making in UK and results showed that in 54% of the assessed projects did the EIA prevent environmental damage beyond without which would be achieved without assessment and in around 25% of the projects the EIA ensured that the development is placed on a sustainable basis.

# Implementation and Compliance

The endorsement of compliance and implementation is to be issued by the competent authority has control to implement compliance. However, the degree of monitoring the fulfillment of EIA with terms and conditions is judged on the nature of different cases and varies accordingly. The individual nature of every case is the fundamental principle for checking the compliance of rules & regulations. However, the conservation of environment is ensured through planning of every project proposal.

# B. EIA Process - Case of Malaysia

In the year 1998, Malaysia launched the Environmental Impact Assessment (EIA) as obligatory legislative prerequisite through Environmental Impact Assessment Order (DOE 1987). The law has empowered the Director General of the Department of Environment (DOE) to improve and secure the quality of environment. The objective was to get an idea about the advantages and adverse impacts from development projects to the Malaysians. Being a highly resourceful country with abundant woodlands in tropical region, Malaysia is facing many environment-oriented problems, for instance, deforestation, land deprivation, water pollution, haze, solid waste management issues. For this reason, Malaysian government has been active in enacting various laws for environmental conservation, of which the most significant is EIA for identifying the expected positive and negative outcomes from proposed physical development.

Practice of EIA in Malaysia

The practice of EIA in Malaysia largely follows the internationally developed process. However, two categories have been adopted by Malaysian government: namely preliminary and detailed assessment. Preliminary EIA is required in every project application and decision will be made by Department of Environment (DOE) whether the next stage of detailed assessment is required or not on the basis of future impacts of development on environment. The chief objectives of Preliminary EIA is to choose the most suitable option for project, to integrate moderating measures into planning and to spot important environmental impacts for ensuring detailed assessment. Ramli, Mohamed, & Zahari (2012) discussed the three main steps adopted in carrying out EIA [xii]. A brief account of them has been given below:

#### Preliminary Assessment

It involves the primary assessment of impacts based on prescribed activities of proposed development. The pre-feasibility stage of any project should be accompanied by preliminary assessment at the beginning. For identifying the potential outstanding environmental impacts, expertise can be hired from public or private agencies to prepare preliminary report which is to be reviewed by technical committee of DOE.

#### Detailed Assessment

After the preliminary assessment assured the significance of environmental impacts to undergo further study, then detailed assessment steps in the ideal placement for carrying out in-depth assessment is during the feasibility phase when approval has been issued by respective government (Federal or State) for executing the project. After this, the detailed EIA is then submitted to Director General of Environmental Quality for approval. The DOE Director General then selects review panel which carries out the detailed assessment according to particular Terms of Reference (TOR). The last step is the preparation of the EIA Report after the review from authorized Review Panel.

#### Review

After examining the EIA reports in the Review Phase, the Ad-hoc Review Panel puts forward recommendations and suggestions based on the review and evaluation which are then passed on to the relevant development project. This allows authorities to make considerations for final decision on the project. Normally, the time duration is one month in reviewing the preliminary assessment report and two months for detailed assessment report.

## Effectiveness of EIA

In case of federal government, the legal restriction

of EIA processes on its jurisdictions is relative to managing the environment, which puts significant constraint on its effectiveness. In fact, the authority of each Malaysian state to pass laws extends the resource management system beyond the reach of Environmental Quality Act (EQA) and the function of Department of Environment (DOE). This is one of the major reasons for making government decisions on State level as politically-oriented decisions for allocating and managing natural resources and eventually Federal government has to keep cautious vision to avoid interfering situations into State affairs. The case of Borneo States of Sarawak and Sabah in East of Malaysia is one such example has been documented in 163 where special considerations were made in the Constitution to becoming members of Federal Parliament on the basis of distinctive ethnicity.

Moreover, to some extent the inclusion of public participation is given due consideration for ensuring effective EIAs. Integration of developmental and environmental objectives in decision-making by using tools such as EIA is certainly now becoming important. For example, the new 2400MW Bakun hydroelectric project was evaluated under new Sarawak EIA procedures and it was noted that, public participation is explicitly provided in the federal guidelines, and a valid EIA assessment cannot be prepared without some form of public participation [xiii].

## C. EIA PROCESS – Case of Pakistan

Pakistan, like many other developing countries, is now implementing environmental protection laws and regulations to avoid adverse effects in environmental as well as social sectors. In 1983, the Environmental Impact Assessment, has been first launched by Pakistan Environmental Protection Ordinance (PEPO). Before introduction of EIA in the country, Initial Environmental Examination (IEE) of the proposed projects was compulsory requirement by the Ordinance to identify the necessity and scope for EIA report. In 1997, the Pakistan Environmental Protection Act (PEPA) replaced the ordinance and within the same year environmental assessment plan was also released which comprises of following guidelines:

- Preparation and evaluation of environmental reports
- Public Participation
- Applying to sensitive and crucial areas
- Developing particular sectors including roads, industrial estates, study of oil and gas etc.

#### EIA Process

According to Pakistan Environmental Protection Ordinance (PEPO), before conducting an EIA, the Ordinance required an initial environmental examination (IEE) to be carried out to assess the need and scope for an EIA. The PEPO defines IEE as, "Initial environmental examination means 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" [xiv]. Thus, IEE was supposed to supplement the screening and scoping mechanisms. According to Pakistan Environmental Protection Act 1997 the project proposer, whether a public or private organization, is obliged to undertake on EIA whenever project has the possibility to affect environment adversely; if so, EIA is mandatory for the review and consent of the project prior to execution. However, in reality after the execution of project started, EIA is carried out after repetitive calls from concerned EPA. "Reasons behind preparation and approval of EIA after the initiation of public sector projects is the role of Planning and Development Departments (P&Ds) in screening and political pressure to expedient EIA clearances" [xiv].

In 2000, review of IEE/EIA regulations were disseminated, which contain compulsory requirements and procedures for the public hearing [xv].

Government of Pakistan declared The Executive Committee of National Economic Council (ECNEC) as authorized body for of the conceding financial approval to public mega-development projects on 27th July, 2004 stating that Pakistan is now taking EIA report of mega projects as a compulsory part to get approval. For development projects with implications of environmental impacts (minor or major), submission of EIA report is now mandatory in addition to project file for getting approval [xvi]. The project proponents and local authorities were not practicing IEE and EIA, during 2000-2004 Fig. 2.

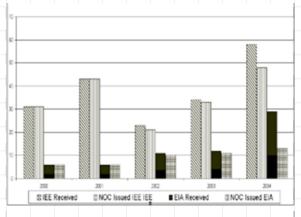


Fig. 2. IEE and EIA evaluations during 2000-2004 [xvii]

There is a huge shift in trend in implementing IEE and EIA processes as shown in Fig. 3.

Year	EIA	IEE	General	Total
2013	72	625	595	1492
2014	95	961	653	1709
2015	49	466	362	877
2016	21	154	531	706
2017(uptill September)	101	680	581	1362
Grand Total	338	3086	2722	6146

Fig. 3. IEE and EIA evaluations during 2013-2017 Source: Punjab EPA, 2017

The EIA process and practice in Pakistan is comprised of following steps:

- Specification of screening categories
- Screening
- Scoping
- Consideration of alternatives
- Specification of EIA report contents
- Review of EIA report
- Public participation
- Decision-making and approval
- Environmental management plans
- Mitigation of impacts
- Requirement for monitoring of impacts

#### Screening

The step one in EIA process involves environmental screening and for this purpose, the Pakistan Environment Protection Agency has categorized development projects into two schedules.

Development projects including agricultural activities, livestock, fisheries, manufacturing, mega building and city planning projects, water supply and water disposal plants, transportation, dams, industrial projects are mandatory to have Initial Environmental Examination (IEE).

Projects including the same list as of Schedule I but apart from agriculture, livestock and fisheries and projects based on environment wise critical areas have compulsion to carry on complete and in-depth EIA report. The screening step is the deciding factor at the beginning of the environmental studies, based on financial scope and capacity of proposed project, to go for in-depth EIA or carry on with the project execution by going through IEE only.

#### Scoping

In Pakistan, the determination of scope for either IEE or EIA is a derivation of sectoral guidelines, which are accessible for projects like industrial estates and roads etc. This step also involves the meetings among the potential stakeholders along with information collected from relevant departments to discuss considerable alternatives and to examine the knowledge gaps.

Reviewing the EIA Reports

The project proposer is advised by the relevant Environment Protection Agency (EPA) to fulfill the condition of satisfactoriness of EIA report within time period of 10 days after receiving acknowledgment receipt from EPA. EPA carries out the review process within three months after confirming the competence of the EIA report. However, the EIA process in Pakistan is not accompanied by audit for true value of EIA due to which the EIA process has still not gained strength in its framework.

#### Public participation

The participation of communities through conducting meetings and public hearings is necessary only during the review of EIA report. However, in Pakistan the project proponents are not obliged to

engage the public for preparing EIA report.

"Public participation is mandatory under section 12 (3) of the Pakistan Environmental Protection Act (PEPA) of 1997 needs to take place during the competent authority review stage of EIA" [xviii]. "Furthermore, the Pakistan Environmental Protection Agency (Review of IEE and EIA) Regulations 2000, required that the public notice or invitation for participation to be published in an English or Urdu national newspaper and a local newspaper for general circulation in the project affected areas 30 days before the hearing" [xiii]. "The public notice is also required to contain information on project type, location, name and address of the proponent and the places at which the EIA report can be accessed. Formal public consultation does not generally take place during EIAs, except on socio-economic impacts of projects, taking the form of an opinion survey. The competent authority normally carries out EIA review in-house" [xix].

Mitigating Measures and Monitoring of Impacts

Introducing Mitigating measures and monitoring is the last step to be followed in EIA process which is still not adequate in terms of its working through implementing Environmental Management Plans (EMP) in case of Pakistan. On getting approval for project execution after submitting EIA report, the project proposers are least concerned to undertake mitigation measures, however in some cases they do go for mitigating of impacts cannot manage to do it properly due to insufficient equipment. While Monitoring is mostly carried out only in cases of criticism and objections

#### Case of Orange Line Metro – Lahore

Orange line metro is mega mass transit project in Lahore city of Pakistan, started two years back. EIA reports were submitted before executing the project. In prospect of this, the concerned department of Environment (EPA) is anxious about environmentalfriendly implementation of project and is in

consultation with experts for execution [xx] Major plantation has been cut during the construction works throughout the route. The promise of planting 6200 trees as a green substitute is mentioned in the report [xxi]. However, it has not been implemented after the project construction started. In addition to protection of natural environment, built heritage has also needed to be considered for EIA study of such projects. It is major expectation of the project proposal that two significant monuments namely Chauburji and Shalamar Gardens will lose their grandeur due to blockage of views [xx]. This shows that a project can immensely affect the environment either it comes under built or natural scope. The lack of concern among different stakeholders of the project can also be one of the major reason for not implementing the safety measures which were mentioned in the EIA report of Orange line Metro project of Lahore.

#### IV. CONCLUSIONS

The EIA preparation and review processes of all the three countries namely Malaysia, Scotland and Pakistan have been summarized in the following table to highlight the common similarities and distinguished features of each process.

TABLE I
COMPARATIVE ANALYSIS OF EIA PREPARATION AND
REVIEW PROCESSES IN MALAYSIA, SCOTLAND AND
PAKISTAN

	TAKISTAN					
	EIA-Malaysia	EIA Scotland	EIA Pakistan			
		Screening Process	Screening			
	Preliminary assessment Preparation of TOR Preliminary assessment Review by DOE	Scoping process	Scoping			
		Preparation of Environmental Statement (ES)	Requirement for consideration of alternatives			
		Prediction of environmental impacts	Specification of EIA report contents			
	Detailed assessment Brief by review panel of DOE Preparation of document Public comments Review by review panel	Submission of EIA	Review of EIA reports			
		Consultations and Promotion	Public participation			
		Incorporating Additional Environmental Information and Modifications to the Project	Decision making and approval			
	Approving authority	Decision making stage	Public participation			
	Project implementation & monitoring	Implementation and compliance	Mitigating measures and monitoring			

Some of the limitations of the EIA processes of Scotland and Malaysia are as follows;

- The plurality is problematic when considering theory advancement and evaluative research: firstly, a decision must be made concerning the philosophical construct on which to base EIA theory; and, secondly, the term effectiveness cannot be reduced to simplistic statements of purposes and outcomes because its definition varies among individuals.
- The amalgamation with decision, with the EIA report, has significantly reduced its functional outcomes.
- Comparatively minute consideration has been given to the liaison between sustainable development and EIA;
- Simplifying assumptions employed to reduce the concept of sustainable development have ignored the wider institutional framework within which EIA has to operate.

Following weaknesses in EIA process of Pakistan can be highlighted:

- Poor organizational set up
- Limited public concern
- Insufficient screening and scoping
- Limited vision for review of EIA reports
- Weak synchronization between stakeholders including EIA consultants, relative authorities, project proponents, EPAs
- Little practice of mitigation measures and Monitoring
- A limited allocation of money and time by the proponents for conducting EIA
- Absence of baseline information or data
- Inadequate technical experience of EIA consultants
- Limited involvement of the stakeholders during preparation of EIA reports
- Heavy reliance on qualitative analysis of impacts significance
- Inadequate consideration of project alternatives [xxii].

Pakistan is facing serious environmental issues of noise and air pollution due to neglected implementation of EIA process in comparison to Malaysian and Scotland. It is surprisingly to observe that Malaysia and Scotland, has managed to regulate and implement EIA process for urban projects to greater extent. Pakistan is can also carry out EIA process in the right direction with implementation of some legal restrictions on some mega projects. Intense interest is needed to protect and conserve the environment of megacities of Pakistan. Projects like orange line metro have provided detailed EIA documentation and conducted public hearings. Still, the implementation is needed to be regulated on more practical grounds.

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