

*FEDERAL DEMOCRATIC REPUBLIC
OF ETHIOPIA*

*ENVIRONMENTAL PROTECTION
AUTHORITY*



*ENVIRONMENTAL IMPACT ASSESSMENT
PROCEDURAL GUIDELINE Series 1*

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TABLE OF CONTENT

1. Definitions of terms	1
2. ENVIRONMENTAL IMPACT ASSESSMENT - AN OVERVIEW	3
3. Legal and policy context.....	4
4. EA Objectives and Principles	6
4.1. Objectives	6
4.2. Principles and values	6
4.2.1. Core values of EA	6
4.2.2. Guiding Principles of EA	6
4.2.3. Operating principles	7
4.2.4. Benefits of EA includes:	7
5. Environmental Impact Assessment Process and Requirements.....	8
5.2. Comprehensive description of the EA Process	8
5.2.1 Pre-screening consultation	8
5.2.2 Screening	9
5.2.3.Scoping	9
5.2.4 Environmental Impact Study	10
5.2.5 Reviewing	12
5.2.6. Decision Making	13
5.2.7. A systematic EA follow-ups	14
6. Roles and responsibilities	14
6.1. Environmental Agency.....	14
6.1.1. EPA as a Federal Environmental Agency is responsible for:.....	15
6.1.2 Regional Environmental Agencies:.....	16
6.2 Proponent	17
6.3. A Consulting firm	18
6.4. Interested and Affected Parties (IAPs)	19
6.5. Licensing Agency.....	19
7. List of Annexes.....	21
Annex I. Environmentally Sensitive areas and ecosystems*	21
Annex II. Aspects of Potential Environmental Impacts	22
Annex III. Schedule Of Activities:.....	23
Schedule 1. List of Projects that require full EA.	23
Schedule. 2.List of Projects require a preliminary environmental impact study.	29
Schedule 3. Lists of Projects that may not require environmental impact assessment ..	30

1. DEFINITIONS OF TERMS

Terms In Use

Alternative

A possible course of action that might be adopted in lieu of the proposal or activity or in terms of site, design, input, process, including the "no action" alternative.

Audit

The process through which how well compliance with policy objectives and regulatory requirements is met and the fidelity of the implementation of conditions attached to an approved environmental impact assessment report is examined.

Competent Agency

Any federal or regional government organ entrusted by law with a responsibility related to Environmental Impact Assessment.

Cost-Benefit Analysis

Objective, careful, and explicit analyses of the costs and benefits of a proposed action. Such an analysis should also determine social discount rates for both costs and benefits.

Cumulative Impact

An impact that may in itself not be significant but the combination of one or more impacts that can have a greater effect than the sum of the individual impacts.

Environment

The physical, biological, social, economic, cultural, historical and political factors that surround human beings. It includes both the natural and built environments. It also includes human health and welfare.

Environmental Assessment

The methodology of identifying and evaluating in advance, any impact positive or negative, which results from the implementation of a proposed action.

Environmental Impact Assessment Report

A report containing sufficient information to enable the Environmental Agency to determine whether and under what conditions a proposed action should proceed.

Environmental Management Plan

An action plan that addresses the how, when, who, where and what of the environmental mitigation measure aimed at optimizing benefits and avoiding or

mitigating adverse potential impacts of proposed operation or activity. It encompasses mitigation, monitoring, rehabilitation and contingency plans.

Environmental Management System

Is the means of ensuring effective implementation of an environmental management plan or procedures and compliance with environmental policy objectives and targets.

Environmental policy of an organization

A statement by the organisation of its intentions and principles in relation to its overall environmental performance that provides a framework for action and for the setting of its environmental objectives and targets

Environmental Protection Organs

Refers to The Authority, the Council, the Sectoral and Regional environmental agencies.

Impact

Any change to the environment or its component that may affect human health or safety, biophysical conditions, or cultural heritage, other physical structure with positive or negative consequences.

Integrated Environmental And Development Management

A code of practice for ensuring that environmental considerations are fully integrated into all stages of the development process in order to achieve a desirable balance between conservation and development and promote environmentally sustainable use of resources.

Interested and Affected Parties

Individuals or groups concerned with or affected by an activity and its consequences. These include local communities, work force, customers, or consumers, environmental interested groups and the general public.

Licensing agency

Any organ of government empowered by law to issue an investment permit, trade or operating license or work permit or register business organization as a case may be.

Mitigations

Measures taken to reduce or rectify undesirable impacts of a particular activities when an environmental evaluation process deems the impact is adversely significant.

Monitoring

The repetitive and continuing observations, measurements and evaluation of changes that relate to the proposed activity. It can help to follow changes over a period of time to assess the efficiency of control measures.

Project

Any activity enlisted in the Annex here in and includes any new development activity,

major expansion or alteration of any existing undertaking, or any resumption of work that has been discontinued.

Proponent/ Developer

Any organ of government, if in the public sector or any person if in the private sector that initiate a project or a public instrument.

Public instrument

Means a policy, a plan, a strategy, a program, a law or an international agreement.

Rehabilitation

Restoration of an environmental component, social service or system that has been affected by an activity to more or less its former states.

Regional Environmental agency

Any regional government organ entrusted by that Region, with a responsibility of the protection or regulation of the environment and natural resources.

Reviewing

The determination of whether or not the environmental impact study report meets the approved Terms of Reference and provides satisfactory information and analysis that is required for decision-making.

Scoping

The identification and “narrowing down” of potential major environmental impacts based on which a detail impact assessment will be conducted.

Screening

The process that decides whether or not a project requires assessment, and the level of assessment that may be required.

Strategic Environmental Assessment

The assessment used to identify the potential impacts of the proposed public instruments and the design of their containment.

2. ENVIRONMENTAL IMPACT ASSESSMENT - AN OVERVIEW

In the past the environment failed to feature in holistic manner in the development endeavors

of the country, since project evaluation and decision-making mechanisms were unwarrantedly made to focus on short-term technical feasibility and economic benefits.

For this reason, past development practices fell short of anticipating, eliminating or mitigating potential environmental problems early in the planning process.

This state of play resulted, among others, in situation where the country is plagued with seriously degraded environment. Further development along this line has to be cut short, as efforts in reversing the damage to the environment at a later time is usually costly or even irreversible.

In order to ensure sustainable development, it is essential to integrate environmental concerns into development activities, programs, policies, etc. Environmental Impact Assessment as one of environmental management tools facilitates the inclusion of principles of sustainable development aspiration well in advance.

The EA procedural guideline series aim at in particular towards:

- ensuring the implementation of the EPE and compliance of EA related legal and technical requirements,
- providing a consistent and good practice approach to EA administration in Ethiopia,
- assisting proponents and consultants in carrying out their environmental assessment related tasks,
- assisting Interested and Affected Parties, especially communities in realizing their environmental rights and roles,
- assisting Environmental Protection Organs, Competent and Licensing agencies in discharging their roles and responsibilities, and
- establishing partnership and networking among and between key stakeholders in EA administration.

This document is the first series of the procedural guideline and contains legal ad policy elements, core values, guiding principles, basic requirements and schedules of activities.

3. LEGAL AND POLICY CONTEXT

The concept of sustainable development and environmental rights are enshrined in article 43,44 and 92 of **the Constitution of FDRE**.

In Article 43: The Right To Development, where peoples' right to:

- improved living standards and to sustainable development,
- participate in national development and, in particular, to be consulted with respect to policies and projects affecting their community, and
- the enhancement of their capacities for development and to meet their basic needs, are boldly recognized.

Similarly, in article 44: Environmental Rights, all persons are entitled to:

- live in a clean and healthy environment,
- Compensation, including relocation with adequate state assistance.

Moreover, in article 92: Environmental objectives it is declared that,

- government shall ensure that all Ethiopians live in a clean and healthy environment,
- programs and projects design shall not damage or destroy the environment,
- peoples have the right to full consultation and expression of views, and
- government and citizens have the duty to protect the environment.

"Environmental Protection organs Establishment proclamation (proc.no.295/2002)" has stipulated the need to establish a system that enables to foster coordinated but differentiated responsibilities among environmental protection agencies at federal and regional levels. The proclamation has also required the establishment of Sectoral and Regional Environmental, Units and Agencies, respectively. This shows that institutionalizing and mainstreaming environmental concerns has a legal foundation.

The Environmental Impact Assessment Proclamation (Proc. no. 299/2002) has made EA to be a mandatory legal prerequisite for the implementation of major development projects, programs and plans. This proclamation is a proactive tool and a backbone to harmonizing and integrating environmental, economic, cultural, and social considerations into a decision making process in a manner that promotes sustainable development.

The **"Environmental Pollution Control Proclamation (Proc. no. 300/2002)"** is promulgated with a view to eliminate or, when not possible to mitigate pollution as an undesirable consequence of social and economic development activities. This proclamation is one of the basic legal documents, which need to be observed as corresponding to effective EA administration.

The **Environmental Policy of Ethiopia (EPE, 1997)**, provides a number of guiding principles that indicate and require a strong adherence to sustainable development. In particular EA policies of EPE includes, among other things, the need to ensure that EA:

- considers impacts on human and natural environments,
- provides for an early consideration of environmental impacts in projects and programs design,
- recognizes public consultation,
- includes mitigation plans and contingency plans,
- provides for auditing and monitoring,
- is a legally binding requirement,
- is institutionalize, etc

4. EA OBJECTIVES AND PRINCIPLES

4.1. Objectives

The primary purpose of EA is to ensure that impacts of projects, policy and programs, etc are adequately and appropriately considered and mitigation measures for adverse significant impacts incorporated when decisions are taken.

Consequently, an EA serves to bring about:

- administrative transparency and accountability,
- popular participation in planning and decision taking on development that may affect the communities and their environment, and
- sustainable development.

4.2. Principles and values

4.2.1. CORE VALUES OF EA

Core values of EA are:

- ❖ **Sustainability** ----- the EA process should result in sustainable development by establishing long-term environmental safe guards.
- ❖ **Integrity** ----- the EA process will confirm to agreed and established requirements.
- ❖ **Utility** -----the EA process will provide balanced, credible information for decision making.
- ❖ **Equity**----- that EA ensures fairness in the distribution costs or benefits.

4.2.2. GUIDING PRINCIPLES OF EA

The basic principles that underlie the objective are: -

- ❖ **Early application**--- proactive consideration and integration of environmental concerns at the earliest stages of the conceptualization of the projects, programs or policies.
- ❖ **Participation** --- appropriate and timely access and opportunity to the process for all interested and affected parties.
- ❖ **Issues based** - the focus of an EA is on the resolution of major issues of significant impacts.
- ❖ **Consider alternatives** - all feasible options to a project, policies, programs or its components like site, processes, products, raw materials etc. including the “no go” option should be considered.
- ❖ **Accountability** - refers to answerability of a proponent, consultant and environmental agencies for their respective roles and responsibilities.
- ❖ **Flexibility**--the assessment process should be able to adapt to deal efficiently

with changing circumstances and decision making situation.

- ❖ **Credibility-** assessments and reviews are undertaken with professionalism and objectivity.
- ❖ **Time and Cost-effectiveness-** the assessment process, its outcomes and decision taking will ensure environmental protection at the least cost and within reasonable time to society and developer alike.
- ❖ **Transparency-** all assessment decisions, and their basis, should be open and accessible to the public.
- ❖ **Supportive-** the review and decision making process should enhance and support sustainable development and environmentally friendly investment efforts.
- ❖ **Conservation based-** the EA process should strive to promote conservation based development. Integrating conservation elements in the development planning that extend beyond conventional impact fixation approach can do this.
- ❖ **Practicality---** the information and outputs provided by the assessment process are readily usable in the decision -making and planning,

4.2.3. OPERATING PRINCIPLES

EA is undertaken to:

- ❖ modify and improve design,
- ❖ ensure efficient resource use,
- ❖ enhance social aspects,
- ❖ identify measures for monitoring and managing impacts,
- ❖ promote sustainable productivity within the natural and social system capacity,
- ❖ meet environmental requirements and make continuing improvement in environmental performance,
- ❖ provide accurate and appropriate information for sound decision,

4.2.4. BENEFITS OF EA INCLUDES:

- ❖ more environmentally sustainable design,
- ❖ better compliance with standards,
- ❖ saving in capital and operating costs,
- ❖ reduced time and costs for approval,
- ❖ avoids later plan adaptations,
- ❖ reduces health costs,
- ❖ increased project acceptance,

5. ENVIRONMENTAL IMPACT ASSESSMENT PROCESS AND REQUIREMENTS

5.1. GENERAL DESCRIPTION AND PERMIT REQUIREMENTS

An environmental impact assessment is used to predict and manage the environmental effects which a proposed development activity may entail and to decide on the permission, modification or conditions of management or termination of the project and thus to help bring about the intended development with out unacceptable adverse impacts.

1. What is Environmental Impact?

Environmental impact refers to any change to the environment or to its components that may affect human health or safety, flora, fauna, soil, air, water, climate, natural or cultural heritage, other physical structures, social, economic or cultural conditions.

2. Who should undertake an environmental impact assessment?

The proponent is responsible for undertaking an environmental impact assessment (EIA) and for submitting the study report (EIS).

3. Which projects require EIA?

Those projects, listed in the guidelines prepared by EPA, that are likely to entail significant adverse environmental impacts require EIA.

4. To Whom Shall the EIS Be Submitted?

When the project is federal or trans-regional, its EIS shall be submitted to the Federal EPA. Otherwise, it shall be submitted to the appropriate regional office.

5. When should an EIA be carried out?

Undertaking an EIA should begin at the time when the project site selection commences.

6. What shall be the content of an EIS?

- a) An EIS shall contain sufficient information to enable the determination of whether and under what conditions the project shall proceed.
- b) as a minimum, a description of:
 - (i) the nature of the project, including the technology and processes to be used and their physical impacts;
 - (ii) the content and amount of pollutants that will be released during implementation as well as during operation;
 - (iii) source and amount of energy required for operation;
 - (iv) characteristics and duration of all the estimated direct or indirect, positive or negative impacts on living things and the physical environment;
 - (v) measures proposed to eliminate, minimize, or mitigate negative impacts;
 - (vi) a contingency plan in case of accidents; and
 - (vii) procedures of internal monitoring and auditing during implementation and operation.

7. When should an EIS be submitted?

The EIS must be submitted before commencing any construction or any other implementation of the project.

8. How can a proponent speed-up the authorization process?

A proponent shall, in electronic and hard copies, submit a brief statement that summarizes the EIS in non-technical terms as well as indicate the completeness and accuracy of the information given. Annexes attached to the study report shall include:

- (a) site plan of the project,
- (b) a description of the participation process and comments of interested and affected stakeholders, especially local communities, and
- (c) testimony of concerned local authorities on the involvement of stakeholders, as well as on the correctness of the information to the extent they can, and
- (a) detailed technical information.

9. What is expected from Licensing Agencies?

Any licensing agency shall, prior to issuing a trade or an operating license for any project, ensure that an EIS of the project has been approved.

10. What is expected from the public?

- (a) to submit comments on proposed project,
- (b) to actively engage in ensuring the sustainability of the proposed development.

5.2. Comprehensive description of the EA Process

The various stages involve in the EA include the following:

5.2.1 PRE-SCREENING CONSULTATION

Pre-screening is not normally taken as a part of a stage in the EA process. However, its application is recommended in recognition of its importance to enhance the overall effectiveness of the EA System.

Pre-screening is a stage where the proponent and the respective environmental or sectoral

agencies establish contact and hold consultation on how best to proceed with the EA.

The undertaking of a pre-screening consultation is advisable for it saves time and fosters a mutual understanding about the requirement.

5.2.2 SCREENING

Screening is the processes of determining whether or not a proposal requires EA and the level at which the assessment should occur.

At this stage a proponent initiates the process by submitting the project profile or an initial environmental examination report after undertaking an initial environmental assessment, to the relevant environmental agency.

This project profile is normally called **screening report** or Initial Environmental Examination report, that may describe,

- ♣ the proposed activities and its potential impacts,
- ♣ characteristics of the location (sensitivity of the area),
- ♣ size (small, medium and large scale),
- ♣ degree of public interest,
- ♣ institutional requirement, Environmental enhancement and monitoring considerations,

The outcome of screening could be one of the following:

- *No EA required*
- *Preliminary Assessment (PA)* – preliminary assessment is applied to:
 - ◆ Projects with limited impacts,
 - ◆ Projects in which the need of EA is unclear, and
 - ◆ Proposals with inadequate information
- *Full scale EA* – when there is sufficient ground for detail assessment.

5.2.3. SCOPING

The scoping stage is the process of interaction. It aims at identification of:

- boundaries of EA studies,
- important issues of concerns,
- significant effects and factors to be considered,

The purposes of scoping are to:

- involve potentially affected groups,
- consider reasonable alternatives,
- evaluate concerns expressed,

- understand local values,
- determine appropriate methodologies,
- establish the terms of reference,

The outcome of scoping is a scoping report or Terms of Reference for undertaking full scale EA. Both of them require passing through reviewing process.

Scoping report should include as a minimum:

- a brief description of the project,
- all alternatives identified,
- issues raised by IAPs
- description of the public participation,

Outline of a Term of Reference:

- ♣ background to the proposal,
- ♣ setting the context of the problem,
- ♣ consideration of alternatives,
- ♣ institutional and public involvement,
- ♣ required information regarding project and location, etc.,
- ♣ analysis of impacts,
- ♣ mitigation and monitoring, and
- ♣ conclusions and recommendations,

5.2.4 ENVIRONMENTAL IMPACT STUDY

Purpose of EA

The purpose of undertaking Environmental Impact Study is to generate sufficient information on significant impacts that enable the preparation of an Environmental Impact Study report, which will be used to determine whether or under what conditions a project should proceed.

Environmental Impact Study Involves:

- Impact Prediction
- Impact analysis
- Consideration of alternatives
- preparation of management plan (mitigation, monitoring activities)
- preparation of contingency plan

Assessing impacts characteristics should:

- ♣ be carried out with well defined values of significance,
- ♣ compare all feasible alternatives,
- ♣ document the values and beliefs on which judgments are based, and
- ♣ based on acceptable methodology, research and experimental findings.

Impact significance criteria include:

- ❖ ecological importance,
- ❖ social importance,
- ❖ environmental standards,
- ❖ statistical significance,
- ❖ experimental findings, etc

Design Of Mitigation Measures:

Mitigation seeks to:

- ❖ find better ways of doing things,
- ❖ minimize or eliminate negative impacts,
- ❖ enhance benefits, and
- ❖ protect public and individual rights to compensation,

Mitigation options:

- ❖ alternative ways of meeting the needs,
- ❖ changes in planning and design,
- ❖ improving monitoring and management,
- ❖ monetary compensations,
- ❖ performance bond,
- ❖ replacing, relocating, rehabilitating, etc.

Impact management plan should:

- ❖ state policy and standards,
- ❖ indicate environmental effects, the issue and activity required to address it,
- ❖ define responsibilities, provide a schedule of tasks,
- ❖ include a system of reporting,
- ❖ include a system for monitoring and auditing,

- ❖ indicate resources required for completion and where relevant actual costs, including training and equipment needs,
- ❖ describe the proposed mitigation measures,
- ❖ contain a contingency plan, etc.

5.2.5 REVIEWING

The purpose of review is to examine and determine whether the EIA-report is an adequate assessment of the environmental effects and of sufficient relevance and quality for decision-making.

Five hard copies and an electronic copy should be submitted to the relevant reviewing authority or agency as the case may be.

Reviewing conducted at various stages in the EA processes.

This include reviewing of:

- ❖ screening report;
- ❖ scoping report;
- ❖ Terms of Reference (TOR)
- ❖ Environmental impact assessment report, and
- ❖ Performance (monitoring or audit) reports at different stages in the project cycle.

Reviewing may include considerations of the adequacy of:

- ❖ compliance with the "approved TOR",
- ❖ required information,
- ❖ the examination of alternatives, assessment of impacts, appropriateness of mitigation measures and monitoring schemes as well as implementation arrangements,
- ❖ the use of scientific and analytical techniques,
- ❖ the extent of public involvement and reflection of IAPs concerns, and
- ❖ presentation of the information to decision makers at Regional, Sectoral, and Local levels.

NB. Reviewing will be made based on reviewing guidelines prepared by EPA. For detail information and requirements consult this guideline.

5.2.6. DECISION MAKING

EIA is an on going process of review, negotiations and incremental decision-making at various levels of the project cycle, about whether or not the proposal is to proceed, and under what conditions. Decision-making should be consultative, participatory and influence others to behave responsibly and sustainably.

It should also acknowledge and implement mandates and responsibility.

The guiding principles of approval procedure are, that:

- full scale assessment is required where the project is known to have significant adverse environmental impacts,
- preliminary EA is required where the project may have environmental impacts,
- EA is not necessary where the project is unlikely to cause significant environmental impacts,
- there is a need to adhere to precautionary principle. When determining the impacts of a project if both beneficial and detrimental effects are on balance, only slightly or arguably beneficial, it should be decided as it is likely to entail a negative significant impact,
- all projects contravening government policies or other legal obligations should be rejected from the outset.
- decisions are to be made in a step wise manner upon a successful implementation of environmental requirements based on stages in EA process and corresponding stages in the project cycle,

Possible decisions include:

- ❖ request for supplementary, or new EA report;
- ❖ approval of the EA report or performance reports at various stages in the project cycle;
- ❖ approval of the implementation of the proposal with or without conditions;
- ❖ approval subject to ongoing investigation;
- ❖ rejection;

Important considerations of decision making :

- ❖ a summary of evaluation is made available to the public;
- ❖ reasons for decision and conditions of approval are made public;
- ❖ there is the right of appeal against decision;
- ❖ approval can be reversed or permit can be revoked on the advent of changing circumstances,

- ❖ approval of a proposal can not immune the proponent from being accountable of the occurrence of adverse significant impacts in the course of the implementation of the project, and

Approval of an EIA report is only mark a simple agreement to the proposal. The culmination of the approval procedure will be the issuance of an Environmental Clearance Certificate upon the satisfactory trial operation phase.

5.2.7. A SYSTEMATIC EA FOLLOW-UPS

Systemic follow-ups activities are needed:

- ♣ to ensure that the anticipated impacts are maintained within the levels predicted,
- ♣ to see that the unanticipated impacts are managed and or mitigated before they become problems,
- ♣ to realize and optimize the benefits expected, and
- ♣ to provide information for a periodic review and alteration of impact management plan and enhance environmental protection through good practice at all stages of the project.

It is therefore necessary that:

- Environmental Management System, including internal monitoring schemes established,
- External audit conducted,
- Mechanism for regular risk communication designed, etc.

6. ROLES AND RESPONSIBILITIES

The multitude of division of functions and variability of responsibilities inherent in the EA process calls for the clear definition and spell out of roles and tasks of different stakeholders.

Therefore, defining the roles and responsibilities of each party would enable to harmonize the various interests and foster cooperation in a manner that averts duplication of efforts and promote efficiency.

Potentially, EA involves all members of society. For convenience and, above all in recognition of the common but differentiated roles each may manifest, the different actors are categorized in to the following five major groups:

6.1. Environmental Agency

An Environmental Agency is either EPA or Regional Environmental Body that are mandated by a proclamation provided for the establishment of Environmental protection organs (proc. no.295/2002) and Environmental Impact Assessment proclamation (proc.no.299/2002) and

other relevant laws to oversee and facilitate the implementation or administration of EA.

In general, An Environmental Agency has responsibility to make sure that:

- the necessary system that contains procedural and technical guidelines is prepared and implemented,
- the public, especially affected communities are given meaningful opportunity in the EA process,
- views, concerns and position of IAPs are taken into account during assessment, reviewing ,auditing and at all stages of decision making,
- All processes in EA administration is made in transparent, participatory and accountable manner,
- the proponent's right to appeal and understanding of the process is respected at all times,
- incentives structures are prepared to incite and encourage environmentally friendly practices,
- EA audits are conducted at various stages in EA process and at the corresponding levels in the project cycle and a step wise approval is done.
- liaison with relevant licensing agencies is maintained.
- activities' schedules are continuously updated,
- appeals and grievance are entertained and decisions are communicated in good time,
- proponents are provided with advice that help them best comply with EA requirements,
- decisions are made without unnecessary delay and within the time frame stipulated in the relevant laws and in a manner that improve effectiveness and efficiency,
- appropriate support is made available to build capacity and create awareness on EA, etc.

6.1.1. EPA AS A FEDERAL ENVIRONMENTAL AGENCY IS RESPONSIBLE FOR:

- the establishment of a required system for EA of public and private sector projects, as well as social and economic development policies, strategies, laws, and programs of federal level functions;
- reviewing and pass decisions and follow-up its implementations of Environmental Impact Study Reports of projects, as well as social and economic development programs or plans where they are,
 - subjects to federal licensing, execution or supervision,
 - Proposed activities subjects to execution by a federal agency,

- likely to entail inter or transregional, and international impacts
- notifying its decision to the concerned licensing agency at or before the time specified in the appropriate law or directives,
- auditing and regulating the implementation of the conditions attached to the decision,
- provide advice and technical support to the regional environmental agencies, sectoral institutions and the proponents,
- making its decisions and the EA report available to the public,
- resolving all complaints and grievances in good faith and at the appropriate time,
- develop incentive or disincentive structures required for compliance of RA requirements,
- pave the way and involve in EA awareness creation, etc.

6.1.2 REGIONAL ENVIRONMENTAL AGENCIES:

In the Environmental Impact Assessment Process the regional environmental agencies or their equivalent Competent Authority are responsible to:

- ❖ adopt and interpret federal level EA policies and systems or requirements in line with their respective local realities,
- ❖ establish a system for EA of public and private projects, as well as social and economic development policies, strategies, laws, or programs of regional level functions;
- ❖ inform EPA about malpractices that affect the sustainability of the environment regarding EA and cooperate with EPA in compliant investigations,
- ❖ administer, oversee, and pass major decisions regarding impact assessment of:
 - project subjects to licensing by regional agency
 - project subjects to execution by a regional agency
 - project likely to have regional impacts

Regarding projects and activities under the jurisdictions of federal EPA, regional agencies should write an endorsement letter verifying or confirming that:

- the biophysical and socio-economic baseline conditions are adequately and truly described,
- during scoping major issues are well defined and explicitly indicated in the Term of Reference (TOR),
- interested and especially the affected parties or their true representatives are provided with all means and facilities (e.g. notice, assembly holes,

reasonable time, understandable language) that enable them to adequately air their views and concerns,

- IAPs have agreed to and satisfied with the terms of compensations and the appropriateness of the EMP,
 - the environmental monitoring activities are undertaken in appropriate time with the involvement of the IAPs and regular reporting is made in good faith and time to all concerned,
 - the proponent/consultant fulfill the local and regional legal and policy requirements and obtain the necessary permits,
 - the envisaged benefits to that communities and the regions are tangible,
 - the monitoring plan are logical and allows the participation of relevant bodies in the region,
 - the strategy for impact communication and reporting was understandable and appropriate at regional level stakeholders,
 - the minutes of the consultation process reflects the true and unbiased accounts of the opinions and interests of the IAPs at the local level.
- establish the necessary condition for the creation of awareness on EA,
 - develop the necessary incentive and disincentive system, etc.

6.2 Proponent

A proponent is any person that initiates a project, policy or program, that is, if in the public sector an organ of government, and the private sector an investor.

A proponent is required to:

- proactively integrate an environmental concerns into its social and economic development project, program, policy, plan or strategic initiative as per the requirements of relevant environmental laws and directives,
- ensure that positive effects are optimized and strive to promote conservation based development and work with objectives of continuous improvement,
- initiate the EA process and create the necessary ground for undertaking EA,
- appoint an eligible independent consulting firm who shall seek to undertake EA ,
- cover all expense associated with the Environmental Impact Assessment. This may include the costs of :
 - ❖ undertaking EA,
 - ❖ public participation process,
 - ❖ reviewing EIA report as the need arise,
 - ❖ preparation and implementation of EMP, that include both mitigation and monitoring measures and the associated institutional and human resources,

- ❖ closure plan as the case may be,
 - ❖ Environmental Management System,
 - ❖ contingency plan,
 - ❖ reporting, environmental education, etc.
- submit to EPA or the relevant regional environmental agency an EIA report together with the necessary documents requested both in an electronic and hard copies,
 - observe the terms and conditions of authorization and work in partnership and cooperation with all responsible and interested parties,
 - provide the necessary reports for stepwise decisions required for approval of the proposal,
 - involve all interested and affected parties, and to that effect take all reasonable and practical measures to notify the latter in good time,
 - establish environmental units to monitor the environmental performance of the project in a proactive manner to ensure sustainable development,
 - consult relevant government institutions as the case may be,
 - report on a regular bases about its environmental performance,
 - establish database and network with all concerned parties, and respect local values and interests,
 - develop standardize environmental management system
 - be familiar with the pertinent EA related stipulations, etc.

6.3. A Consulting firm

A consulting firm is an institution that can command the required qualified professional working group that has demonstrated the ability to undertake the EA, and meets the requirements specified under the relevant law.

The firm that will be appointed to work on behalf of a proponent is expected to:

- have the expertise in environmental impact assessment and management commensurate with the nature of the proposed activity and legal requirements,
- make available an interdisciplinary team, having solid technical skills and legal know-how, and local knowledge,
- manage the participation of interested and affected parties in acceptable manner,
- have the facility to produce readable reports that are thorough and informative,
- declare and ensure at all times that has no vested interest in the proposed activity and observe all ethical values of the calling,
- familiar itself with legal and technical requirements of all the concerned bodies, and be able to include :

- statements from the regional environmental agencies,
 - certificates and recommendations from the sectoral agencies,
 - statements of local administration approval as the case maybe, and
 - an endorsed minutes of public consultation process by appropriate local authority, as the verification of the truthfulness of all information contained in the EIA-report as well as fairness of the process,
- provide additional detailed information related to the environmental impact study report as may be requested,
 - ensure that Interested and Affected Parties are provided with all means and facilities (e.g. notice, assembly holes, reasonable time, understandable language, fair representation, etc.) enabling them to adequately air their views and concerns,
 - fulfill that they are legally registered and licensed to conduct the task,
 - capable of presenting an authentic complete CV of experts to be employed for the task,
 - present a true, pragmatic, analytical, understandable, and impartial account of the proposed activity, etc.

6.4. Interested and Affected Parties (IAPs)

Interested and Affected Parties are individuals or groups concerned with or affected by the proposed activity or its consequences. These may include local communities, the work force, customers and consumers, environmental interested groups and the general public.

Interested and Affected Parties are expected to:

- provide comments at various stages of EA with reasonable time frame,
- work in partnership with Environmental Agencies and proponents,
- act and lobby in good faith, knowledge, reason and in a cooperative manner and use all means and facilities to ensure fairness in EA administration,
- follow and monitor changes and inform the environmental and sectoral agencies and local administration the occurrence of adverse incidence or any other grievance in the course of implementation of a project or public instruments,
- advocate and uphold the principle and values of environmentally sustainable development, etc.

6.5. Licensing Agency

Licensing Agency is any organ of government empowered by law to issue an investment permit, trade or operating license or work permit or register business organization as a case may be.

Licensing agencies are required to:

- ensure that prior to issuing their respective licenses and permits, have legal duty to require proponents to submit authorization, a letter of approval or Environmental

Clearance Certificate awarded by the appropriate Environmental Agency,

- ensure that environmental performance criteria are included in their respective sectoral incentive or disincentive structure,
- ensure that renewal or additional permits issuance should also considers integration of environmental concerns,
- to seek advice or opinion from the appropriate environmental agency, etc.

7. LIST OF ANNEXES

*Annex I. Environmentally Sensitive areas and ecosystems**

1. Areas prone to natural disasters (geological hazards, floods rain storms, earthquakes, landslides, volcanic activity, etc.).
2. Wetlands: -
(flood plains, swamps, lakes, rivers etc.) water bodies characterized by one or any combination of the following conditions.
 - (a) Tapped for domestic purposes; brick making
 - (b) Within the controlled and /or protected areas;
 - (c) Which support wildlife and fishery activities
 - (d) Used for irrigation agriculture, livestock grazing
3. Mangrove swamps characterized by one or any combination of the following conditions;
 - (a) With primary pristine and dense growth;
 - (b) Adjoining mouth of major river systems;
 - (c) Near or adjacent to traditional fishing grounds;
 - (d) Which act as natural buffers against shore erosion strong winds and storm floods
4. Areas susceptible to erosion e.g.
 - (a) hilly areas with critical slopes
 - (b) Unprotected or bare lands
5. Areas of importance to threatened cultural groups
6. Areas with rare/endangered/or threatened plants and animals.
7. Areas of unique socio-cultural history archaeological, or scientific importance and areas with potential tourist value
8. Polluted area.
9. Areas subject to desertification and bush fires.
10. Coastal areas and Marine ecosystems:-
 - Coral reef
 - Islands
 - Lagoons and estuaries
 - Continental shelves
 - Beach fronts etc.
 - Intertidal zones

11. Areas declared as:
National parks, Watershed reserves, forest reserves, wildlife reserves and sanctuaries, sacred areas, wildlife corridors, hot - spring areas
12. Mountainous, water catchments and recharge areas of aquifers.
13. Areas classified as prime agricultural lands or range lands
14. Green belts or public open spaces in urban areas
15. Burial sites and graves

*The above list to be reviewed periodically.

Annex II. Aspects of Potential Environmental Impacts

The potential adverse impacts of concern during the screening process are as follows:

- ◆ **Socio-economic impacts:** falling living standards, particularly of the poor, could risk the start of a vicious circle that could produce further environmental degradation. Living and working conditions may deteriorate as a result of such processes as resettlement, cultural shock, risk to health and safety, the intrusion on sight, sound and smell, etc. Impacts on men and women may be very different, impacts will also vary between social groups, especially where rights to land and other natural resources are differentiated. In-migration related to project development could cause important social changes.
- ◆ **Degradation of land and aquatic environments:** major changes in land-use, deforestation, watershed degradation, loss of biodiversity, soil erosion, dry land degradation and overgrazing, salinization, water logging and land-based pollution are all impacts of concern.
- ◆ **Water Pollution:** pollution of water courses, aquifers, water bodies and coasts can result from uncontrolled wastewater/sewage discharge from human settlements, industrial effluent, agricultural chemicals, etc.
- ◆ **Air pollution:** pollution of the air may be caused by urban traffic, pollutants may be odour, smell, dust, sulphurdioxide, oxides of nitrogen, ammonia or even storage of volatile liquids, routine industrial emission, upset industrial conditions, etc.
- ◆ **Noise and/or vibration:** noise and vibration will be caused by any rotating or reciprocating machinery, but will also be associated with blasting, excavating equipment, road traffic, entertainment, etc
- ◆ **Damage to wildlife and habitat:** impacts that affect biodiversity, ecosystems, rare or endangered species or flora/fauna having economic or scientific importance.

- ◆ **Alterations to ecological processes:** e.g. energy transfer bio-accumulation, etc.
- ◆ **Effects on cultural, religious, historic, archaeological and scientific resources:**
including the effects of in-migrants or tourists
- ◆ **Climate, especially the hydrological cycle.**
- ◆ **Impacts on human health.**

Annex III. SCHEDULE OF ACTIVITIES:

SCHEDULE I. LIST OF PROJECTS THAT REQUIRE FULL EA.

1. Agriculture

- water management projects for agriculture (drainage, irrigation)
- large scale mono- culture (cash and food crops)
- Pest control projects
- Fertilizer and nutrient management
- Land development schemes covering an area of 500 hectares or more to bring forest land into agricultural production
- Agricultural programmes necessitating the resettlement of 100 families or more.
- Development of agricultural estates covering an area of 500 hectares or more
- Construction of dams, man-made lakes, and artificial enlargement of lakes with surface areas of 200 hectares or more.
- Drainage of wetlands wildlife habitat or of virgin forest covering an area of 100 meters or more.
- Introduction of new breed, species of crops, seeds or animals
- Surface water fed irrigation projects covering more than 100 hectares
- Ground water fed irrigation projects more than 100 hectares
- River diversions and water transfers between catchments

2. Livestock and Range management

- Large Scale livestock movement
- Introduction of new breeds of livestock
- Introduction of improved forage species
- Large scale open range rearing of cattle, horses, sheep etc
- Large scale livestock production in Urban area
- Large scale slaughter house construction
- Ectoparasite management (cattle dips, area treatment)
- Intensive livestock rearing units

3. Forestry activities

- Timber logging and processing
- Forest plantation and afforestation and introduction of new species

- selective removal of single commercial tree species
 - pest management
 - Conversion of hill forest land to other land use
 - Logging or conversion of forest land to other land use within the catchments area of reservoirs used for municipal water supply, irrigation or hydropower generation or in areas adjacent to parks
 - Logging with special emphasis for endangered tree species
 - Large scale afforestation/reforestation, mono-culture forest plantation projects which use exotic tree species
 - Conversion of forest areas which have a paramount importance of biodiversity conservation to other land use
 - Resettlement programs in natural forest and woodland areas.
4. Fisheries activities
- Medium to large scale fisheries
 - Artificial fisheries (Aqua-culture for fish, algae, crustaceans shrimps, lobster or crabs).
 - Introduction of new species in water bodies commercial fisheries
5. Wildlife
- introduction of new species
 - wildlife catching and trading
 - hunting
 - wildlife ranching and farming
 - zoo and sanctuaries
6. Tourism and Recreational Development
- Construction of resort facilities or hotels along the shorelines of lakes, river, islands and oceans
 - Hill top resort or hotel development
 - Development of tourism or recreational facilities in protected and adjacent areas (national parks, marine parks, forestry reserves etc) on islands and in surrounding waters
 - Hunting and capturing
 - camping activities, walk ways and trails etc.
 - sporting and race tracks/sites
 - Tour operations
7. Energy Industry
- Production and distribution of electricity, gas, steam and hot water
 - Storage of natural gas
 - Construction of off shore pipelines in excess of 50 km in length
 - High power transmission line
 - Construction of combined cycle power station
 - Thermal power development (i.e. coal, nuclear)
 - Hydro-electric power

- Bio-mass power development
- Wind -mills power development
- Solar (i.e. Impact due to pollution during manufacture of solar devices, acid battery spillage and improper disposal of batteries)
- Nuclear energy

8. *Petroleum Industry.*

- Oil and gas fields exploration and development, including Construction of offshore and onshore pipelines
- Construction of oil and gas separation, processing, handling and storage facilities.
- Construction of oil refineries
- Construction of product deposits for the storage of petrol, gas, diesel, tar and other products within commercial, industrial or residential areas.
- Transportation of petroleum products

9. Food and beverage industries

- manufacture of vegetable and animal oils and fats
- oil refinery and ginneries
- processing and conserving of meat
- manufacture of dairy products
- brewing distilling and malting
- fish meal factories
- slaughter - houses
- soft drinks
- tobacco processing
- caned fruits, and sources
- sugar factories
- other agro-processing industries

10. Textile in industry

- cotton and Synthetic fibres
- dye for cloth
- ginneries

11. *Leather Industry*

- tanning
- tanneries
- dressing factories
- other cloth factories

12. Wood, Pulp and Paper Industries

- manufacturing of veneer and plywood
- manufacturing of fiber board and of particle - board
- manufacturing of Pulp, Paper, sand-board cellulose – mills

13. Building and Civil Engineering Industries.

- industrial and housing Estate
- major urban projects (multi-storey building, motor terminals, markets etc)
- tourist installation
- construction and expansion/upgrading of roads, harbours, ship yards, fishing harbours, air fields(having an air strips of 2,500m or long) and ports, railways and pipelines
- river drainage and flood control works.
- hydro - electric and irrigation dams
- reservoir
- storage of scrap metal.
- military installations
- construction and expansion of fishing harbours
- developments on beach fronts

14. Chemical industries

- manufacture, transportation, use and storage of pesticide or other hazardous and or toxic chemicals
- production of pharmaceutical products
- storage facilities for petroleum, petrochemical and other chemical products (i.e. filling stations)
- production of paints, vanishes, etc.

15. Extractive industry

- extraction of petroleum
- extraction and purification of natural gas
- other deep drilling - bore-holes and wells
- mining
- quarrying
- coal mining
- sand dredging.

16. Minerals extraction and processing

- Metallic minerals such as Iron, Lead, Copper, Nickel
- Industrial minerals such as kaolin, diatomite,
- Construction Minerals
- Mineral Water
- Thermal Water
- Extraction of salts from brines.

17. Non-metallic industries (Products)

- manufacture of cement, asbestos, glass, glass-fibre, glass-wool

- processing of rubber
- plastic industry
- lime manufacturing, tiles, ceramics

18. Metal and Engineering industries.

- manufacture and assembly of motor - vehicles
- manufacture of other means of transport (trailers, motor-cycles, motor-vehicle bicycles-cycles)
- body - building
- boiler - making and manufacture of reservoirs, tanks and other sheet containers
- foundry and Forging
- manufacture of non - ferrous products
- iron and steel
- electroplating

19. Waste treatment and disposal

(a) *Toxic and Hazardous waste*

- construction of Incineration plants
- construction of recovery plant (off-site)
- construction of waste water treatment plant (off-site)
- construction of secure land fills facility
- construction of storage facility (off - site)
- collection and transportation of waste.
- installation for the disposal of industrial waste

(b) *Municipal Solid Waste*

- construction of incineration plant
- construction of composting plant
- construction of recovery/re-cycling plant
- construction of Municipal Solid Waste landfill facility
- construction of waste depots.
- collection and transportation

(c) *Municipal Sewage*

- construction of waste water treatment plant
- construction of marine out fall
- night soil collection transport and treatment.
- construction of sewage system

20 . Water Supply

- canalization of water courses
- diversion of normal flow of water

- water transfers scheme
- abstraction or utilization of ground and surface water for bulk supply
- water treatment plants
- Construction of dams, impounding reservoirs with a surface area of 100 hectares
- Ground water development for industrial, agricultural or urban water supply of greater than 4000 m³ /day
- Drainage Plans in towns close to water bodies

21. Transport

- Major urban roads
- Rural road programmes
- Rail infrastructure and railways
- Trans-regional and International high way
- Upgrading or rehabilitation of major rural roads
- Airports with basic runway

22. Health projects

- vector control projects (malaria, bilharzias, trypanosomes etc)

23. Land Reclamation and land development

- rehabilitation of degraded lands
- dredging of bars, greyones, dykes, estuaries etc.
- spoil disposal.

24. Resettlement/relocation of people and animals

- resettlement plan
- establishment of refugee camps

25. Multi-sectoral Projects

- Agro-forestry
 - ◆ dispersed field - tree inter-cropping
 - ◆ alley cropping
 - ◆ living fences and other linear planting
 - ◆ windbreak/shelterbelts
 - ◆ taungya system
- Intergrated conservation and development programmes e.g. protected areas.
- Integrated Pest Management (e.g. IPM)
- Diverse construction - public health facilities schools, storage building, tree
- Nurseries, facilities for ecotourism and field research in protected areas, enclosed latrines, small enterprises, logging mills, manufacturing furniture carpentry shop, access road, well digging, camps, dams, reservoirs.
- River basin development and watershed management projects
- Food aid, humanitarian relief

26 .Trade: Importation and Exportation of the following

- hazardous Chemicals/Waste
- plastics
- petroleum products
- vehicles
- used materials
- wildlife and wildlife products
- pharmaceuticals
- food
- beverages
- GMOs and GMOs based products

27. Public instruments

- decisions to change designated status
- family planning
- technical assistance
- development strategies
- urban and rural land use development plans eg master plans,
- structural adjustment,
- national budget
- Policies and Programmes formulations, etc

28. All projects in environmentally sensitive areas should be treated as equivalent to Schedule 1 activities irrespective of the nature of the project.

SCHEDULE. 2. List Of Projects That Require A Preliminary Environmental Impact Study.

A List Of Small - Scale Activities And Enterprises

- Fish culture
- Bee-keeping
- Small animal husbandry and urban livestock keeping
- Horticulture and floriculture
- Wildlife catching and trading
- Production of tourist handicrafts
- Charcoal production
- Fuel wood harvesting
- Wooden furniture and implement making
- Basket and other weaving
- Nuts and seeds for oil processing
- Bark for tanning processing
- Brewing and distilleries
- Bio-gas plants
- Bird catching and trading

- Hunting
- Wildlife ranching
- Zoo, and sanctuaries
- Tie and dye making
- Brick making
- Beach sailing
- Sea weed Farming
- Salt pans
- graves and cemeteries
- Urban Livestock Keeping
- Urban agriculture.
- Fish landing stations.
- Wood carving and sculpture
- Hospitals and dispensaries, Schools, Community centre and Social halls, play grounds
- Wood works e.g. boat building
- Market places (livestock and commodities).
- Technical assistance
- Rain water harvesting
- Garages
- Carpentry
- Black smith.
- Tile manufacturing
- Kaolin manufacturing
- Vector control projects e.g. Malaria, Bilharzia, trypanosomes
- Livestock stock routes
- Fire belts.
- Tobacco curing kilns
- Sugar refineries
- Tanneries
- Pulp plant
- Oil refineries and ginneries
- artisanal and small scale mining
- Rural road
- Research having the potential to affect ecosystems functions, use, or the health and welfare of the society.
- Rural water supply and sanitation
- Land drainage (small scale)
- Sewerage system

SCHEDULE 3. Lists Of Projects That May Not Require Environmental Impact Assessment

1. Social infrastructure and services
 - Educational facilities (small scale)
 - Audio visual production

- Teaching facilities and equipment
 - Training
 - Medical centre (small scale)
 - Medical supplies and equipment
 - Nutrition
 - Family planning
2. Economic infrastructure and services
- Telecommunication
 - Research, small scale
3. Production Sector
- Irrigation
 - Surface water fed irrigation projects covering less than 50 hectares
 - Ground water fed irrigation projects covering less than 50 hectares
 - Agriculture
 - All small scale agricultural activities
 - Forestry
 - Protected forest reserves (small scale)
 - Productive forest reserves (small scale)
 - Livestock
 - Rearing of cattle (<50 heads); pigs (<100 heads), or poultry (<500 heads)
 - Livestock fattening projects (small scale)
 - Bees keeping projects (small scale)
 - Fisheries

- Artesian fisheries (small scale)
 - Industry
 - Agro industrial (small scale)
 - Other small scale industries having no impact to the environment
 - Trade
 - All small scale trades except trade in endangered species and hazardous materials
 - Financial assistance
 - Programme assistance
 - Non-project or special country support
 - Food aid not involving GMOs based food
 - Emergency Operations
 - Assistance to refugee returned and displaced person
4. All projects involved in environmental enhancement programs