



Environmental Impact Assessment in Rwanda

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Presentation Outline

- What is Environment, Social and Economic Impact Assessment?
- Objectives and Principles of EIA
- EIA background & regulations
- Stakeholders involved in EIA
- EIA Process
- Types of environmental impacts
- Public Involvement
- Institution framework
- Tools available
- Challenges encountered

What is Environment?

- Environment is defined as a diversity of things made up of natural and artificial environment. It includes chemical substances, biodiversity as well as socio-economic activities, cultural, aesthetic, and scientific factors likely to have direct or indirect, immediate or long term effects on the development of an area, biodiversity and on human activities.

What is Environmental Impact Assessment?

- Environmental Impact Assessment (EIA) is a systematic identification and evaluation of the potential impacts or effects of proposed projects, plans, programs, or legislative actions relative to the physico-chemical, biological, cultural, and socio-economic components of the total environment.

What is Social Impact Assessment?

- Social impact assessment includes the processes of analyzing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change or processes invoked by those interventions.
- Its primary purpose is to bring about a more sustainable and equitable biophysical and human environment.

What is Economic Impact Assessment?

- Economic impact assessment is usually shown by the feasibility study of a development project, and concerns the economic benefits or deficits that can be encountered throughout the implementation of the project.
- It is mostly associated with social impact assessment as both are related to the human environment.
- Nowadays in developed countries, Social impact assessment and Economic impact assessment are being introduced as separate documents depending on the importance of the project.

Purposes and Objectives of EIA

- The main purpose of EIA is
 - ✓ To provide information for decision-making on the environmental consequences of proposed actions; and
 - ✓ To promote environmentally sound and sustainable development through the identification of appropriate enhancement and mitigation measures.
- The objectives of EIA are divided in 2 parts: direct objectives and long terms objectives

Short-term objectives are:

- To improve the environmental design of the proposal;
- To ensure that resources are used appropriately and efficiently;
- To identify appropriate measures for mitigating the potential impacts of the proposal; and
- To facilitate informed decision making, including setting the environmental terms and conditions for implementing the proposal.

Long-term objectives:

- To protect human health and safety;
- To avoid irreversible changes and serious damage to the environment;
- To safeguard valued resources, natural areas and ecosystem components; and
- To enhance the social aspects of the proposal.

EIA historical background

- EIA emerged in 1969 in USA under National Environmental Policy Act (NEPA)
- In EU, it started in 1985 under the EIA directive
- In Rwanda, the organic Law determining the modalities of protection, conservation and promotion of environment was published in May 2005.

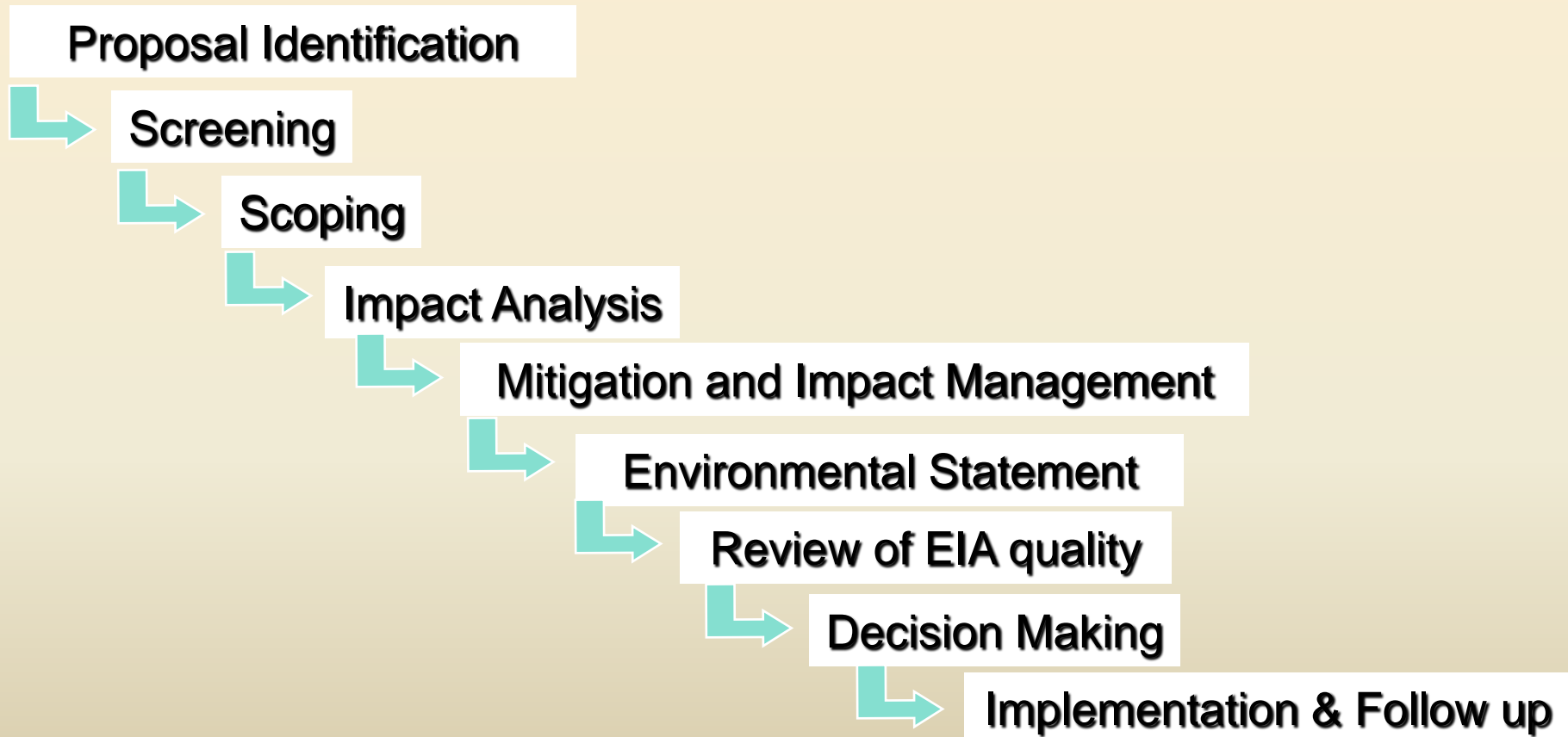
Key International development in EIA law, policy and Institutional arrangements

- Rio Declaration on Environment and Development: Calls for use of EIA as an instrument of national decision-making (Principle 17);
- UN Conventions on Climate Change and Biological Diversity(1992): Cite EIA as an implementing mechanism for environmental protection;
- EIA procedures of development banks and donor agencies before providing loans and implementing projects in developing countries.
- European Directive (1997)on EIA required all member states to be in compliance by 1999;

Types of Stakeholders involved in EIA

- The people – individuals, groups and communities – who are affected by the proposal;
- The proponent and other project beneficiaries;
- Government agencies;
- NGOs and interest groups; and
- Others, such as donors, financials, the private sector, academics etc.

EIA Process



EIA Process (cont'd)

- **Proposal Identification:** proposal defining in details the project: objectives, main activities of the projects and outcomes from the project.
- **Screening:** to decide whether or not a proposal should be subjected to EIA process and if so, at what level of detail.
- **Scoping:** to identify the key issues and the impacts that are likely to require further investigation and to prepare the Terms of Reference for the EIA study.

EIA Process (cont'd)

- **Impact Analysis:** to identify and predict the likely environmental and social effects of the proposal and evaluate their significance.
- **Mitigation and Impact Management:** to develop measures to avoid, reduce, or compensate for impacts, making good any environmental damage.
- **Environmental statement :** to describe the results of the EIA for decision- makers and other interested parties.
- **Review of EIA quality:** to examine the adequacy of the EIA report to see if it meets the terms of reference and provides the information necessary for decision- making.

EIA Process (cont'd)

- **Decision making:** to approve or reject the proposal and set the terms and conditions under which it can proceed. The decision-maker also has the option to defer approval (e.g. until certain conditions are met or to require a proponent to redesign the project so that the environmental effects are minimized);
- **Implementation and follow up:** to check on the implementation of the terms and conditions of approval during the construction and operation phases; to monitor the impacts of the project and effectiveness of mitigation measures; to take any actions necessary to ameliorate problems; and as required to undertake audit and evaluation to strengthen future EIA applications.

EIA Process

Screening

- Screening is the first key decision of the EIA process
- The purpose of screening is to determine whether a proposal requires an EIA or not.
- The conduct of screening thus involves making a preliminary determination of the expected impact of a proposal on the environment and of its relative significance.

EIA Process

Scoping

The purpose of EIA Scoping is to identify:

- The important issues to be considered in an EIA;
- The appropriate time and space boundaries of the EIA study;
- The information necessary for decision-making; and
- The significant effects and factors to be studied in detail.

Scoping-2

ToRs elaboration

Concluding the scoping process, there is preparation of Terms of Reference (ToRs) for the EIA

- the studies to be carried out (e.g. approach, time & space boundaries);
- the requirements for mitigation and monitoring;
- the information and data to be included in the EIA report;
- the timeframe for completion of the EIA process; and
- the means for making changes to the ToR if necessary.

Impact Analysis

The most common methods used to identify the impacts are:

- Checklists;
- Matrices;
- Networks;
- Overlays and geographic information systems (GIS);
- Expert systems; and
- Professional judgement

Impact Analysis

Social Impact Analysis

- Social impacts include changes that affect individuals, groups, communities and populations as well as the interactions between them.

Impact Analysis

- Social impacts are divided into 4 groups:
 - *demographic impacts* such as changes in population numbers and characteristics (such as sex ratio, age structure, in-and-out migration rates and resultant demand for social services, hospital beds, school places, housing etc);
 - *cultural impacts* including changes to shared customs, traditions and value systems (e.g. language, dress, religious beliefs and rituals) archaeological, historical and cultural artifacts and to structures and environmental features with religious or ritual significance;

Impact Analysis

- *community impacts* including changes in social structures, organizations and relationships and their accompanying effect on cohesion, stability, identity and provision of services; and
- *Socio-psychological impacts* including changes to individual quality of life and well being, sense of security or belonging and perceptions of amenity or hazard.

Impact Analysis

Health Impact Analysis

- Usually included in the social impacts.
- They can be beneficial or adverse; for ex.: A water infrastructure project can eradicate or reduce the occurrence of malaria, diarrhea, and other gastrointestinal diseases.
- Can be from changes of environment such as from exposure to pollutants with the risk of causing diseases.

Environmental Impacts

- Type
 - ecology
 - water quality
 - Social
 - Economic
- Nature
 - Positive
 - Negative
 - Direct
 - Indirect
 - Cumulative
- Magnitude & severity
 - high,
 - moderate
 - low
- Extent
 - local
 - regional
 - transboundary
- Timing
 - immediate / long-term

Environmental Impacts (cont'd)

- Duration
 - temporary
 - permanent
- Uncertainty
 - low likelihood
 - high probability
- Reversibility
 - reversible
 - irreversible
- Significance
 - unimportant
 - important

EIA Process

Mitigation measures and Impact management

- Purpose: to prevent adverse impacts from happening and to keep those that do occur within an acceptable level.
- Objectives of mitigation measures are to:
 - Find better alternatives and ways of doing things;
 - Enhance the environmental and social benefits of a proposal;
 - Avoid, minimise or remedy adverse impacts; and
 - Ensure that residual adverse impacts are kept within acceptable levels .

Mitigation measures and Impact management

Environmental Management Plan (EMP)

- is an impact management plan, usually prepared as part of EIA reporting ;
- is an EIA report which contains predictions about the environmental impacts of proposals and recommendations for their mitigation and management.
- It will then form the basis for impact management during project construction and operation.

Mitigation measures and Impact management Environmental Management Plan

Main components of an EMP are:

- Summary of the potential impacts of the proposal;
- Description of the recommended mitigation measures;
- Statement of their compliance with relevant standards;
- Allocation of resources and responsibilities for plan implementation;
- Schedule of the actions to be taken;
- Programme for surveillance, monitoring and auditing;
and
- Contingency plan when impacts are greater than expected.

EIA Process

Review EIA quality

- The purpose of EIA review is to assure the completeness and quality of the information gathered in an EIA
- Key objectives of EIA review are to:
 - Assess the adequacy and quality of an EIA report;
 - Take account of public comment;
 - Determine if the information is sufficient for a final decision to be made; and
 - Identify, as necessary, the deficiencies that must be addressed before the final submission of the report .

Public Involvement

- Purposes of Public Involvement are to:
 - inform the stakeholders about the proposal and its likely effects;
 - canvass their inputs, views and concerns; and
 - take account of the information and views of the public in the EIA and decision making.

Public Involvement (cont'd-2)

- Objectives of Public Involvement are to:
 - obtain local and traditional knowledge that may be useful for decision-making;
 - facilitate consideration of alternatives, mitigation measures and tradeoffs;
 - ensure that important impacts are not overlooked and benefits are maximised;

Public Involvement (cont'd-3)

- reduce conflict through the early identification of contentious issues;
- provide an opportunity for the public to influence project design in a positive manner (thereby creating a sense of ownership of the proposal);
- improve transparency and accountability of decision-making; and
- increase public confidence in the EIA process.

EIA Institutional set up

- REMA by law is the one in charge of examining and approval of EIA reports.
- A cabinet decision was made in 2008 which led to the shift of EIA Unit to RDB in order to facilitate investors.
- REMA is currently in charge of monitoring the implementation of EIA conditions and EA
- Local Authorities where the project is being implemented are also expected to monitor the EIA conditions implementation.

Tools in place to facilitate the EIA process

- General guidelines of the EIA process are available
- Sector specific guidelines e.g:
 - Housing construction
 - Wet lands management
 - Hydro power construction
 - Mining sector
 - Waste management
 - Road construction
 - Industrial Processing

Challenges encountered

- The law regulating EIA practitioners not yet in place. This affects the quality of studies conducted.
- EIA certification
 - Open ended certificates i.e no time limit on the certificate
 - Low or no ownership of developers of the entire EIA study
 - Some projects are given an EIA certificate but they are never implemented.

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