DEPARTMENT OF ENVIRONMENT

ENVIRONMENTAL IMPACT ASSESSMENT

GUIDELINES AND PROCEDURES

DRAFT

2009

TABLE OF CONTENTS

DEFINITIONS

- **Environment**

In the context of this document, Environment means whole set of natural or biophysical and man-made or socio-cultural systems, in which man and other organisms live, work and interact.

- **Environmental Audit**

This is the systematic, documented, periodic and objective evaluation of how well environmental organization, management and equipment are performed in conserving or preserving the environments.

- **Environmental Impact Assessment**

This is a process for systematic examination or evaluation of a proposed project or activity including its alternatives, objectives and its effects on the environment including mitigation and management of those effects. The process extends from the initial concept of the project/activity through implementation to completion and, where appropriate, decommissioning.

- **Environmental Impact Statement (EIS)**

This is a report prepared by the proponent after the conduction of Environmental Impact Assessment (EIA) to present the case for the assessment of the proposed project/activity as part of the EIA process.

- **EIS Review Report**

This is a report prepared by the reviewing team following the review of the contents of an Environmental Impact Statement (EIS) to provide environmental advice on the proposed project/activity to decision-makers to facilitate decision making.

- **Environmental Monitoring**

This is the continuous or periodic determination of actual and potential effects of any project/activity on the environment whether short or long terms.

- **Initial Environmental Report (IER)**

This is a report prepared by the proponent that provides detailed information of the proposed project/activity to facilitate screening process.

- **Project or Activity**

This is the development, work or investment, plan or programme whose implementation may have a significant environmental and/or social impacts. Also includes modification, extension, abandonment, demolition or rehabilitation of project or activity.

- **Proponent**

Any individual person or group of persons or government or non-government institution who carry out or proposing to carry out a project/activity.

- **Public**

These are stakeholders including affected and interested parties who are impacted by the project or activity either directly or indirectly.

- **Screening Report**

This is a report prepared to document the outcomes of the screening exercise of a particular project/activity.

- **Strategic Environmental Assessment (SEA)**

This is a similar technique to environmental impact assessment (EIA) but normally applied to policies, plans, programmes and groups of projects. Strategic environmental assessment (SEA) provides the potential opportunity to avoid the preparation and implementation of inappropriate plans, programmes and projects and assists in the identification and evaluation of project alternatives and identification of cumulative effects.

PREFACE

Since 1990s Zanzibar has been witnessing expansion of development projects and activities in the sector of tourism, construction, communication, agriculture, etc. which have implications in natural resources, environments and social welfare. The Revolution Government of Zanzibar realizes the need of put in place tools that will govern those activities to be performed in environmentally friendly for sustainable development.

National Environmental Policy was formulated in 1992 which advocate mainstreaming of environmental norms into the development projects and activities. I996 the Environmental Management for Sustainable Development Act (EMASUDA) was enacted. Section 65 of the Act requires issuing of environmental guidelines in various areas to facilitate implementation of various aspects in the Act including conduct of environmental impact assessment (EIA). This document therefore is the environmental impact assessment guidelines which outline detailed steps and procedures to be adhered in EIA process from registration of the projects to decommissioning.

Part one of this guidelines document provides general introductory information on EIA process including purpose, scope, necessity and procedures.

Part two provides detailed guidelines for different reports writing and requirements such as initial environmental report (IER), screening statement, scoping report and EIA report which also know as environmental impact statement (EIS). The part further elaborated in depth review guidelines, criteria and process for various environmental reports especially EIS. Monitoring guidelines, environmental auditing and decommissioning for the projects are also described.

This guideline also attached with a number of Annexes which provide for lists of projects or activities that require and not require EIS, and checklists for project sites verification and determination of industry, urban development, agriculture, aquaculture and hotel projects whether are environmentally viable.

ACRONYMS

CBOs – Community Based Organizations

CVs – Curriculum Vitae(s)

EIA – Environmental Impact Assessment

EIS – Environmental Impact Statement

EMASUDA – Environmental Management for Sustainable Development Act of 1996

ESMP – Environmental and Social Management Plan

IER – Initial Environmental Report

MACEMP – Marine and Coastal Environmental Management Project

NGOs – Non-Government Organisations

SEA – Strategic Environmental Assessment

ToR – Terms of Reference

USA – United States of America

SECTION ONE: INTRODUCTION

1.0   Background

In many countries the use of Environmental Assessments, such as Environmental Impact Assessment (EIA) and Strategic Environmental Assessment (SEA) is to assess the impacts on development activities to the natural environment has been dramatically increased. This type of assessment is aimed at minimizing the adverse impacts of plans, programmes and projects to their surrounding environment. Historically, the application of EIA worldwide started since 1969 by the United States of America (USA). In 1986, the World Bank committed itself to include EIA planning and decision making tool in its project appraisal processes, thereby it followed by other bilateral and multilateral agencies. In 1989, the European Community ordered the member states to incorporate Environmental Impact Statement (ElS) for the proposed development plans, programmes and projects.

In Zanzibar the application of EIA is gaining momentum since launched of the National Environmental Policy in 1992, which advocate for mainstreaming of environmental norms into the development projects, plans and programmes. However, for effective implementation of the EIA process, proper arrangement needs to be emphasised and prompted so as to minimise the existing challenges, which include low level of public awareness, inadequate defined EIA procedures and guidelines. Therefore, this guideline aims to facilitate proper application of EIA process in Zanzibar for attaining sustainable development programs.

1.1   Policy and Legal Framework for EIA in Zanzibar

1.1.1   The National Environmental Policy and Programme for Zanzibar

The National Environmental Policy for Zanzibar was prepared in 1990 and launched in 1992. The primary objective of the Policy is to protect and manage the country's environmental assets in such a way that the capacity to sustain development is unimpaired and Zanzibar's rich environmental endowment is available for future generations to enjoy.

Environmental Impact Assessment (EIA) is described in the Zanzibar National Environmental Policy as one of the major tools to be used in examining the development project. Statement 19 of the Policy states that "*it is the policy of the Zanzibar Government to "incorporate Environmental Impact Assessment (EIA) into procedures for design of development projects*". Therefore application of EIA process in Zanzibar is among the required parameter by the Zanzibar National Environment Policy.

1.1.2 The Environmental Management for Sustainable Development Act, 1996

The Environmental Management for Sustainable Development Act of 1996 is the umbrella legislation for environment. The Act makes ample reference to long-term conservation, management and sustainable use of natural resources by providing regulatory measures that can be enforced by the institution responsible for Environment.

Part five of the Act is describing requirements for EIA activities in Zanzibar. "*Section 38(1) of the Act stipulates that no person shall undertake any activity which is likely to have a significant impact on the environment without an EIA certificate issued under this Act*". Moreover, section 38 (2) emphasizing that no licensing institution shall issue a license, permit, certificate, or other forms of approval for an activity which is likely to have a significant impact on the environment unless an EIA certificate has been issued for the activity. It is therefore, application of EIA process in Zanzibar has legal bases for optimizing project benefit as well as conserving and protecting environment for the benefit of all generations.

1.2 EIA Process in Zanzibar

Main steps of EIA procedure are as follows:

- **Registration** - the proponent is required to register his/her activity by submitting dully filled in EIA application form to the Institutional Responsible for Environment.
- **Initial Environmental Report** - This will be prepared by proponent or consultant to address nature and characteristics of project to facilitate screening process. This report will be prepared as per stipulated guidelines.
- **Screening** – this is the classification stage to determine either EIA is needed or not.

- *Scoping* – if the screening indicates that an EIA is required, scoping will be done to develop Term of Reference to guide the EIA.

- *Impact Assessment* - The preparation of EIA follows after approval of ToR. Impact assessment aims to identify likely impacts, assess and evaluate their severity and magnitude and proposed mitigation measures to minimise potential negative impacts and enhance positive benefits. An EIA report includes an environmental management plan as well as a monitoring plan that outlines monitoring and management of anticipated impacts, especially those, which affect local communities. Public consultation is mandatory when conducting an EIA and at a minimum the proponent must meet key stakeholders to solicit their views.

- *Review* – Once the proponent has submitted an EIA report (EIS), the Institution Responsible for Environment will call for review of EIS.

- *Environmental decision-making* - The outcome of the review could be "EIS approval, disapproval or request for further information". In case of acceptance the EIA certificate will be issued with conditions.

- *Appeals* – If there is dissatisfaction of the decision reached, the proponent or licensing institution has the right to appeal to the Minister Responsible for Environment.

- *Monitoring and auditing* – Monitoring include the verification of impacts, adherence to approve plans, mitigation measures and general compliance of terms and conditions. Environmental audits should be undertaken to provide feedback on the EIA process and effectiveness of the management plan.

- *Decommissioning* – this is end of the project life. The decommissioning report shall be prepared by the proponent at the project phasing period and submitted to the Institution Responsible for Environment.

1.3   The Purpose, Scope and Advantage of EIA

i.   *The Purpose of EIA*

The purpose of Environmental Impact Assessment is to:

- Investigate and predict the effects of a development project on the environment of an area before any decision is made to go ahead with the development;
- Introduce changes into the design process of a development project;
- Ensure that everyone involved - the developer, people living and working in the area and the decision takers - understands the likely effects of the development; in this way it ensures that the final decision on the development project is taken with full knowledge of the environmental consequences.

Generally, an Environmental Impact Assessment should provide answers in plain, simple language to such questions as:-
- What will be the key impacts on the environment?
- Who will be affected by them and by how much?
- How should the development be modified to remove or reduce these impacts?

ii. *Scope of EIA*

In principle, EIA should apply to all actions likely to have a significant environmental effect. The potential scope of a comprehensive EIA system is considerable and could include the appraisal of policies, plans, programs and specific projects. EIA as it has developed in many countries involves a number of procedures and stages:
- Identification of projects requiring EIA, sometimes known as screening;
- Identification of the key issues to be addressed in an EIA, called scoping;
- Impact assessment and evaluation;
- Impact mitigation and monitoring;
- Review of the completed EIS and;
- Public participation.

iii. *The Advantage of EIA*

The advantages of Environmental Assessment are that it can lead to positive gains for the public, for the environment and for the developer. This is because it provides a good means of:-
- Increasing knowledge and understanding of the environment;

- Resolving conflicts between developer and public;
- Considering wider policy and resource issues;
- Investigating alternatives;
- Achieving a more effective development project.

1.4   Why EIA is Necessary in Zanzibar?

An EIA is necessary in Zanzibar to ensure that projects have minimal environmental and social impacts. It is well known that as an Island, Zanzibar is very fragile with limited natural resources that are needed for supporting the daily life of the present and future generations. Many of these resources also form the basis of development projects. EIA allows for decision making at all levels of project planning and execution. The practice of EIA is aimed at:

i.   Protecting and managing the environment of Zanzibar for sustainable development.

ii.   Integrating environmental management and economic decisions at an early planning stage so as to ensure that potential negative impacts are avoided, or that they can be mitigated as far as possible.

iii. Predicting the consequences of a proposed undertaking in terms of environmental, social, economic and cultural concerns and to develop plans that will mitigate adverse impacts, enhance positive ones and resolve conflicts

iv.   Comparing the various alternatives that may be available for any particular activity and to determine the optimal integration of environmental and economic costs and benefits

v.   Providing avenues for the involvement of the public, project proponents, private and government agencies, interested and affected parties in the assessment and review of the proposed undertakings in an open, transparent and participatory manner

1.5   The EIA Procedures for Zanzibar

After screening process being determined and discovered that the EIA is necessary, then the proponent will be advice to contact the Institution Responsible for Environment for the details and advice. The bellow table 1 is highlighting the detail EIA process in Zanzibar.

Table: I: Procedures for Conducting EIA in Zanzibar

No	Step	Timeline[1]	Responsibility
1	Registration for EIA This compulsory step gives notice to the Institution Responsible for Environment of the intent of the proponent to embark on the EIA process, and enables both the proponent and the Institution to keep track of timelines as set out in this document.	At the start of the process	Proponent
2	Screening The decision reached will be one of the following • EIA required • More information requested • Project Proposal Rejected (Stop) • Approved activity (EIA not required)	Will be conducted within 10 working days of Registration for EIA	Institution Responsible for Environment.
3	**Screening Statement** will be produced to reflect the results of screening.	Will be produced within 10 working days after Screening	Institution Responsible for Environment
4	**Scoping** If an EIA is determined to be necessary,	Will be done within 6 months after issuance of	Institution Responsible for Environment and/or proponent.

---

[1] The timelines noted here presents maximum periods necessary to conduct steps, but in most cases will be completed in a much shorter timeframe as it is the policy of the Institution Responsible for Environment to complete the EIA process in a short as possible timeframe.

	then a Scoping will need to be undertaken to determine issues and scope of the assessment and produce draft Terms of Reference (ToR).	the Screening Statement.	
5	Approval and submission of final ToR to Proponent (applicant)	Within 10 working days from the date of submission of draft ToR	Institution Responsible for Environment
6	Submission of 3 Consulting firms and CVs of Team of Experts.	Will be done within 10 working days after receipt of the ToR	Proponent to the Institution Responsible for Environment
7	Letter of Approval of Experts	Will be done within 10 days after receiving the submission of team of experts	Institution Responsible for Environment
8	Production of EIS	Should be done within 6 months	Proponent
9	Display and Circulation of EIS to the Public and other institutions	Start not more than 5 working days from the date of submission	Institution Responsible for Environment
10	Comment period	Shall be done not less than twenty (20) and not more than thirty (30) working days after submission of EIS.	Institution Responsible for Environment
11	Review of the EIS	Will be done within thirty (30) working days after the comment period has ended.	Institution Responsible for Environment
12	Further information may be	Within 5 working days	Institution Responsible for

	requested	after the review	Environment
13	Further information is submitted to the Institution Responsible for Environment	Within 20 days after the request	Proponent
14	Decision making on EIA certification	Within 10 working days after review	Institution Responsible for Environment

SECTION TWO: EIA GUIDELINES

2.0   An Overview

This section provides basic guidelines for the key stage of EIA process in Zanzibar, which includes the guideline for Registration, Screening, Scoping, impact assessment, review, monitoring, environmental audit and decommissioning.

2.1   Registration Guidelines

Registration is a simple administrative procedure, which requires project proponents to officially declare the intention to engage in a particular project. It is the first step in the EIA process. During registration the proponent or consultant fills in registration form attached (Annex I). The proponent shall pay a registration fee to the Institution Responsible for Environment as may be determined from time to time.

2.2   Screening guidelines

Screening is the process of classifying a proposal to determine whether a proposed development should be subjected to impact assessment and the level of assessment that will be necessary. It is the first stage conducted in the impact assessment process after registration of a project proposal.

2.2.1   Objectives of Screening

The objectives of screening are:

- To ensure that all projects with potential significant impacts are subjected to EIA
- To avoid unnecessary expenses of conducting full EIA for projects that have no potential for significant adverse impacts

2.2.2   Screening Methodologies

Screening makes use of information provided in the registration form and initial environmental report. Basically projects are screened using a combination of the different methods and tools as follows:

i. *Classification Checklist:* This will provide list of projects/activities that are mandated for undertaken an EIS and those do not require an EIS (Annex II).

ii. *Site Verification:* This will be done so as to capture environmental and social characterises. Site verification checklist (Annex III) will be used to collect all relevant information of the project.

iii. *Initial Environmental Report (IER)*: This will be prepared by proponent or consultant and submitted to the Institution Responsible for Environment together with the filled in registration forms to support screening process. The general and specific guidelines for preparing IER are given in Annex IV.

iv. *Public Concern:* Controversial issues which raise public concern as a result of type and scale of the project/activity, sensitivity of site location, technology used conflict of interest in land uses and any other factor related to a particular project may render the undertaking to detailed scrutiny and assessment.

2.2.3 Outcome of Screening Process

Screening statement will result one of the following:

i. The proposed project has no potential adverse impacts thus **"No EIA is required".** Therefore an EIA certificate will be issued.

ii. The proposed project has potential adverse impacts on environment and or social aspects thus **"Full EIA is required"** the investor should undertake detailed studies following appropriate and approved guidelines.

iii. The proposed project contradicts with existing national legislations or the adverse impacts can not be managed thus **"the project proposal is rejected".**

iv. More information requested so as to undertaken further screening of the proposed project.

2.2.4   Screening Statement

The contents of the screening statement will include the following:-

- Project background
- Methodology of the screening process used
- Screening decision made with reasons

- Recommendations on further actions.

2.3 Scoping guidelines

Scoping is a process, which used to identify main concerns/ issues, alternatives, and likely impacts and data requirements. This is a consultative procedure that culminates in the determination of the extent and approach to an Impact Assessment study.

2.3.1 Objectives of scoping

The objectives of scoping are as follows:

i. To provide an opportunity for the proponent, his or her consultants, the relevant authorities, interested and affected parties in a project area to exchange information and express their views and concerns regarding the proposal before an Impact Assessment are undertaken.

ii. To focus the study on reasonable alternatives and relevant issues to ensure that the resulting Impact Assessment is useful to the decision-maker and address the concerns of interested and affected parties.

iii. To facilitate an efficient assessment process that saves time and resources and reduces costly delays, which could arise where consultation had not taken place.

iv. To determine the Terms of Reference (TOR) and boundaries of the EIA study.

2.3.2 Responsibility for scoping

Institution Responsible for Environment undertakes Scoping, consultants may be invited to undertake the Scoping. The cost for undertaking Scoping exercise will be covered by the Proponent. A Scoping program prepared by those responsible should indicate the following:

i. The authorities and public that are likely to be concerned (i.e. stakeholders)

ii. How will the stakeholders be notified

iii. What methods will be used to inform them of the proposal and solicit comments

iv. At what stage of the assessment process opportunities will be provided for public input.

2.3.3 Methodology

Several activities take place during scoping focusing on issues and concerns that are important in the EIA study as listed below:-

    i.   Stakeholder Involvement

This involves developing a communication plan which among other things:

- Identify all stakeholders;
- Ensuring adequate, transparent and participatory public consultations are done in order to obtain opinions from concerned stakeholders.
- Find out what issues stakeholders are concerned about.

    ii.   Information Requirement

This involves developing a strategy for information requirements

- Undertaking review of literature (reports, policies, plans, legislation, guidelines etc)
- Collecting all relevant information (social, cultural, economic, biological and physical issues) through both primary and secondary data.

    iii.   Field visit

This will be done so as to get clear picture of the project site with surrounding environment and obtain the opportunity to meet with relevant affected parties.

2.3.4 Results of Scoping

    i.   Scoping Report

The contents of the scoping report will include *inter-alia the following*:-

- Outline of how scoping exercise was undertaken
- Stakeholder analysis
- Identification and description of key issues and problems
- A summary of potential positive and negative impacts
- Identification of project alternatives considered and those earmarked for further examination during impact assessment.

- Define methods to be used in the impact assessment (Checklists, Past experiences, Cause and effect diagrams, Mathematical Models, Matrixes, Networks etc
- Recommended experts to form the particular EIA study team (by discipline)
- Draft Terms of Reference (ToR) for the EIA study

If the scoping exercise is conducted by the hired consultant, the Scoping report must be submitted to the Institution Responsible for Environment for review and approval taking into accounts the adequacy of the report. The report will serve as a guide for the impact investigation, as well as an important record for use during EIS review session.

ii.   Terms of Reference (ToR) for the EIA

The Terms of Reference for carrying out an EIA study will be prepared by Institution Responsible for Environment or Consultant. If the ToR is prepared by Consult shall be submitted to the Institution Responsible for Environment for approve. In all cases the Institution Responsible for Environment shall issue the final Terms of Reference (ToR) for carrying out an Environmental Impact Assessment to the proponent. The Terms of Reference should be able to provide clear guidance to the EIA practitioners, on when and how the EIA report should be prepared and submitted. Some of the issues that should be addressed in the ToR include the following:

- Introduction: description/profile of the developer, project proposal, need and purpose of the undertaking the study.
- Project information: description of projects and alternatives to the project itself and project areas.
- Stakeholder involvement and analysis: indicate who are they, where are they, why they are important in this project, which issues are critical to them and how they will be involved in the EIA study
- Description of the present environment that would be directly or/and indirectly affected by the proposed development.
- Analysis of both positive and negative impacts on natural resources, humans and their ecosystems. Impact analysis should clearly address cumulative impacts, transboundary impacts and reversibility of adverse impacts, based on their significance.

- Specify mitigation measures, monitoring and environmental management plans and decommissioning requirement
- *Time:* the duration and schedule for undertaking and reporting on the EIA process
- Specific requirement for EIA team (specialization)
- Specific reporting requirements
- Tentative format and main heading for the final EIA report
- Conclusions and Recommendation.

2.4 Report Writing Guidelines and Requirements

The objective of these guidelines is to provide a report format as well as the aspects, which should be covered in the Initial Environment Report (IER) and Environmental Impact Statement (EIS) prepared by developers or proponents. The basic aim of this report format can be summarized as to:-

- Produce easily administered reports.
- Create a uniform and flexible set of requirements for Environmental Impact Statements.
- Accommodate the variability of proposals and creativity of consultants.

2.4.1 Initial Environmental Report Writing Requirements

The objective of this initial report is to assist the institution responsible for environment to determine the project whether have significant impact or not. This report is among tools to be used to facilitate Screening Process. The elements necessary for inclusion in the Initial Environmental Report would therefore be:-

- Name or title of proposal
- Name and address of the Proponent
- The nature of the activity
- The activity to be undertaken including a description of the production process where applicable
- Proposed location (size of site, description, current uses, use of adjacent areas)

- Quantity of raw materials and other input required, including water requirement and chemicals to be used
- The number of people to be employed
- Anticipated product and by product
- Anticipated waste product (solid, liquid, gaseous), quantity of each, proposed method of treatment and disposal
- Any other matters as may be described

2.4.2 Report Writing Requirements for Environmental Impact Statement (EIS)

The Environmental Impact Assessment (EIA) Report also termed Environmental Impact Statement (EIS) is intended to be used by all the interested and affected parties which include:-

- the developer or proponent
- the proponent's consultants
- the affected public
- the authority that determines the adequacy of the report (i.e. Review Authority)
- the approving authority
- the development partners

Typical elements of an EIA report include the following:-

- A non-technical executive summary (English and Swahili version)
- A description of the proposed activity, its purposes and rationale including raw materials
- A description of the local environment (site description) and baseline conditions including socio-economic, biophysical and cultural aspects
- Identifications, prediction and assessment of potential impacts from environmental, social, economic and cultural perspective for different phases of developments
- Analysis of those impacts as they relate to human health
- Consideration of alternatives and mitigation measures including commitment to mitigation
- Environmental management plan, monitoring and auditing program
- How public consultation in respect to the undertaking was implemented

- Any other necessary information to assess the proposed activity
- Decommissioning or closure plan
- Conclusions and recommendations

The following details emphasize the general structure of EIA report:-

i. Cover Page

Must display important information prominently and facilitate referencing. It would therefore contain information such as:-
- Title of proposed project (development)
- Location of proposed development
- Proponents
- Lead Consultant(s) (EIA Coordinators)
- Contact Addresses – post office box number, fax and phone numbers, and email
- Reviewing Authority
- Approving Authority
- Date of completion of the report

ii. Page of Contents

The page of contents assists the reader to locate specific sections of interest in the report. The page of contents should contain the following:-
- List of major sections of the report
- List of Tables
- List of figures (including maps, graphs and plates)
- List of appendices
- Page numbers of the report

It is worth noting that, for complex reports, it is advisable to have separate contents list for each chapter. But, for easy reading, it might be necessary to number the pages consecutively.

iii.   List of acronyms

iv.   Definitions of technical terms

v.   A non-technical Executive Summary

The executive summary is extremely important as it provides a brief and concise overview of the report, highlighting the major findings and recommendations. Since the summary may be the only document to be read by higher authorities, it can be produced as a standalone document. The executive summary will have a Swahili version, if the report is written in English.

vi.   Introduction Section

The objective of the introduction section should be to provide background to the study to introduce the proposal and show how the report is generally structured. The following elements shall therefore be among those considered to appear in the introduction section;

- Background information
- Justification for the EIA
- An outline of the proposal showing objectives, location, proposed activities, duration of construction, and life span of development
- An outline of the structure of the report

The outline of the structure of the report should show how it is organized in terms and location of different chapters, ToR, Summary, Conclusions and Recommendations.

vii.   Terms of Reference (ToR)

The ToR is important as it provides guidelines for undertaking the EIA according to agreements made during the scoping stage. ToR, will vary from one development proposal to another. As such, it is quite difficult to stipulate standard requirements for them.

Where additional information not required by ToR is found to be necessary for inclusion, then consultants have to take legal responsibility for such information. Typical ToR must indicate *inter-alia* the following:-

- A description of the proposed undertaking and an analysis of the need/reason for the undertaking
- the objective of the undertaking
- other options for carrying out the undertaking
- alternatives to the undertaking
- a description of the present environment that would be affected, directly, or indirectly
- the impacts that may be caused to the environment by the undertaking
- proposed measures to prevent or mitigate all adverse impacts
- an evaluation of opportunities and constraints to the environment of the undertaking
- a proposal for environmental monitoring and auditing
- a proposal for an environmental management programme to cover constructional, operational and decommissioning stages of the undertaking
- proposals for a programme of public information

viii.   Approach to the Study

This section is intended to provide a description of the approach that is adopted in the study for instance the methodology used in the scoping exercise, in the EIA study, in the involvement of stakeholders, etc.

ix.   Assumptions and Limitations

In this section, the objective is to indicate the circumstances, and limitations under which the study was carried out and their possible implications to the overall assessment.

Nevertheless the presentation of limitations and assumptions should not be allowed to be reason for producing generalized or tentative reports. Normally, a good scoping process would avert the possibility of these limitations, since they would be incorporated in the planning stage. The items that have to be included in this section would be:-

- At what stage the planning and decision making process the report was produced (and any decisions that may already have been taken)
- Availability of baseline information

- Financial Constraints
- Time Constraints
- Confidentiality Constraints
- The implications for the study, of the limitations and constraints identified

    x.   Administrative, Legal and Policy Requirements

The objective of this section is to show compliance with existing policies, laws and administrative conditions. Details, which may include the relevant actions of the legislation, may be included as Annexure. Specifically, the section should include:-

- Indication of the planning and administrative procedures followed and the relevant legislation.
- Indication of how compliance has been achieved with respect to other legislative provisions.

    xi.   The Project Proposal Section

The objective is to show an outline of the project proposal i.e. the details that give a general idea of what the project will entail.

Since the details can be lengthy for some types of projects, it is advisable to focus on project details that are linked to anticipated impacts. The use of diagrams, maps or photographs of the project or of similar projects elsewhere, may assist to clarify processes or actions. Many elements can be considered under this section. A few of them would include:-

- Nature of development
- Surface area to be covered
- Area of land to be influenced by the project e.g., by noise, emissions or visual impacts
- Density and layout
- Architectural character
- Phasing of development (Construction, Operation, maintenance and decommissioning)
- Volumes and concentrations of effluent
- Removal and disposal of waste

- Support Services

- Personnel

- Location maps and lay-out plans

- Overall project costs

- Overall environmental management costs

xii.   The Affected Environment

Under this section, a brief description of the environment that will be affected by the development is given. The environment to be affected must be based on the broad definition of the term that would include biophysical, socio-economic, cultural, historical and even political factors.

According to reviewed EIS, the intention is to include everything on the environment, including those factors, which have minimal chance of being affected by the development. The advice here is that only those environmental factors necessary to understand the impact of the development, should be considered. The inclusion of encyclopedic details can make the report un-readable. In order to facilitate an analysis of potential impacts, it is important to show the linkages between various environmental elements and their relationship. This would assist the determination of secondary and indirect impacts. Other current and proposed projects in the area have to be taken into account in order to predict cumulative or synergistic impacts. An example of elements to be included in this section would therefore be of the following type:-

- Location for example regional context, physical constraints, land tenure, surrounding land uses, direction and distance to neighboring towns, local infra-structure etc

- Boundaries like of the development and of the environmental effects

- Biophysical environment such as climate, soil, geology, hydrology, topography, flora and fauna

- Socio-economic environment like demography and socio-economic activities

- Cultural and historic environment such as sites of architectural ad cultural interest, visual impact

- Interested and affected parties
- Other aspects of particular significance or value
- Reference to relevant reports

xiii. Assessment Section

The objective is to make a synthesis and analysis of information relevant to the environmental impacts of a proposal. Two important elements are considered under this section, namely: an outline of methodology used and the systematic assessment of impacts.

xiv. Methodology
- This should include an outline of the methods used to identify, assess and evaluate impacts
- Public participation

This section should include public participation methods employed in the process including such issues as a synopsis of who were contacted, when, where and what was actually said. Information regarding dissemination points (such as public libraries, notice boards and other information centers) for information relating to the project has to be given under this section.

xv. Assessment of Impacts

The following considerations should be included for each identified impact:-
- Statement of impact or effect
- Brief description of the impact or effect
- Group(s) affected, including land owner(s)
- Statement of criteria for determining significance (could include magnitude, geographic extent, duration, frequency, risk or uncertainty, size of group affected).
- Significance of or effect without mitigation
- Suggested measures for mitigation or optimization
- Significance of impact with mitigation or optimization measures

On describing impacts, it is important to refer to specialist reports, if information has been derived from there. Additionally, the description of impacts should be able to state whether the impacts are:-

- Positive or negative
- Direct, indirect or secondary
- Short term or long term
- Reversible or irreversible
- Remain Static or vary with time
- Will be felt locally, regionally or nationally
- Controversial
- Trans-boundary

Where mitigation of impacts is not feasible or cost effective this should be indicated. Compensatory measures, including trade-offs or measures to enhance the positive effects of the project, should be explored. As the most important part of the EIS, Assessment must be presented in a form which allows quick reference and comparison. Use of tables, also to appear in the executive summary, to present major impacts for each alternative, is recommended. It is also important, in this section to include information on residual effects in terms of quantities and types of materials, after identification of suitable mitigation measures. Together with residual impacts, a consideration of cumulative and synergistic impacts where there are other development projects has to be included.

xvi.   Mitigation

This section will show how the proponent is committed to implementing the mitigation measures proposed against the identified impacts. Responsibility for carrying out monitoring by other independent institutions or firms has to be shown under this section as well.

xvii.   Evaluation of alternatives

In order to weigh the available information and to determine which alternative is in the best interest of the community at large, an evaluation has to be carried out. Under this section, the following elements should be considered and included:-

- Method of evaluation. This could be based on expert opinion or other techniques such as panel evaluation cost - benefit analysis
- Comparison of alternatives
- Recommendations

xviii.   Incomplete or unavailable information

This section is essential. It should provide an insight of the adequacy or scarcity of information which could have been essential for the assessment such as uncertainty and lack of information about the effect of new technology. Specific issues to be included under this are:-
- Identification of gaps in knowledge or unavailable information
- Reasons for inadequacy or incompleteness of information
- Implications for the decision making process
- Provision of evidence on the application of the technology elsewhere

xix.   Conclusions and Recommendations

The objective is to highlight key conclusions and present recommendations arising from the whole study. Some of the elements that should be included in this section are:-
- A brief discussion of the key issues
- Indication of the major positive and negative impacts; and the mitigation measures
- Statement of any serious risk associated with the project in general
- Identification of any management and monitoring needs
- Additional recommendations

xx.   Definitions of Technical Terms

The objective is to assist interested but non-specialist readers. A glossary of terms, with their explanations in simple language should be provided.

xxi.   List of Consultants

The objective is to keep records and traceability of the consultant. The following details should be provided for each consultant:-

- Name and qualifications
- Current Position and the contribution to the study

xxii.   References

The objective of this section is to indicate source of information used in the report. This section is extremely important because some of the material used as background information may be in unpublished form; and yet it may be necessary that these are available during the review process.

xxiii.   Personal communications

Information obtained through personal communications should also be recorded under this section or separately. This type of information could come from both interested parties and specialists.

xxiv.   Appendices

Appendices are essential as they provide support to the recommendations made in the main report and they contribute towards its overall quality. Examples of documents that may be provided as appendices are:-

- Detailed planning proposal
- Policy guidelines
- Outline of scoping and public involvement process
- Technical reports prepared in conjunction with the proposed development
- Records of the meetings with various stakeholders and the list of organizations and persons consulted

It should be noted that the objectives of these appendices are among others, is to provide additional information necessary for decision making process. It is therefore not advised to

include irrelevant information that would only delay the process of decision-making. Only essential information has to be included.

3.5 Review Guidelines

The main aim of review is to provide an evaluation of the strengths and weakness of assessment EIS. Reviewers assess the content, comprehensiveness and adequacy of reports, as well as the organizational and presentation qualities. The review also identifies the issues not covered, inaccuracies of information, problems with logic or any conflicts apparent in the assessment process. On the basis of the review, a decision is taken as to whether the proposal should be accepted or not.

3.5.1 The review process

Institutional responsible for environment in Zanzibar shall facilitate the EIA review. The proponent shall submit 15 hard copies and a soft copy of respective report to the institutional responsible for environment. In addition to the review guidelines, other relevant tools that aid the review process to arrive at a proper decision include:-

- site verification visits and discussion with local officials and residents
- use of scoping report and approved terms of reference
- report writing guidelines and environmental check list of characteristics for a particular project.
- initial environmental report

(i) Review team

Institutional responsible for environment shall appoint review team consists of not less than 15 members from relevant institutions for the purpose of reviewing EIS. The review team will reach the consensus on discussion notes, and finally prepare review report together with terms and condition for the proposed project/activity.

(ii) Additional Information Required

While reviewing the EIS, the institution may require a detailed analysis of certain significant environmental impacts or any other information that may be required to adequately assess the proposal. The request for additional information will generally focus on those issues of primary concerns. It may require additional fieldwork, public consultation and detailed analysis of potential impacts, their severity and significance of the residual impacts both negative and positive, especially those directly affecting individuals and communities. The additional information is subject to further review by the review team, or depending on the complexity and scope of the activity by an independent review panel.

(iii) Public review

There will be a disclosure to solicit comments on EIS from the public. This will involve putting up notices in newspapers, radio and public places on the intended project. Their reactions will be collated by the institution responsible for environment and will assist in making the final decision.

3.5.2 Review criteria of EIS

The review criteria of EIS are as following:-

Review area 1: Description of the development, local environment and baseline conditions

(i) Description of the Development:

The purpose and objectives of the development should be explained. The description of the development should include the physical characteristics, scale and design as well as quantities of material needed during pre-construction, construction and operational phases. The types and quantities of waste matter, energy and residual materials and the rate at which these will be produced should be estimated. The methods used to make these estimations should be clearly described, and the proposed methods of treatment for the waste arising and residual materials should be identified. Waste should be quantified wherever possible.

(ii) Site Description

The area of land affected by the development should be clearly shown on a map and the current land uses of this area clearly demarcated. The affected site should be defined broadly enough to include any potential effects occurring away from the construction site such as dispersal of pollutants, traffic, changes in channel capacity of water courses as a result of increased surface run of etc.).

(iii) Baseline Conditions

A description of the environment as it is currently and, as it could be expected to develop if the project were not to proceed. Some baseline data can be adhered from existing data sources, but some will need gathering and the methods used to obtain the information should be clearly identified. Baseline data should be gathered in such a way that the importance of the particular area to be affected can be planned into the context of the region or surrounding and that the effect of the proposed change is predicted.

Review area II: Identification and analysis of key impacts

(i) Identification of Impacts:

The methodology used to define the project specification should be clearly outlined, including details of consultation with expert bodies (e.g. Planning Authorities, Institutions, Local Authorities, Ministries, Departments, Regulatory Agencies etc.) and the public, and reference to panel of experts, guidelines, checklists, matrices, previous best practice examples of Environmental Impact Assessments on similar projects (whichever are appropriate). Consideration should be given to impacts which may be positive or negative, cumulative, short or term, permanent or temporary, direct or indirect. The logic used to identify the key impacts of the development on human beings, flora and fauna, soil, water, air, climate, landscape, material assists, cultural heritage, or their interaction, should be considered.

(ii) Prediction of Impact Magnitude

The magnitude of each impact should be determined as the predicted deviation from the baseline conditions, during the pre-construction and construction phases and during normal operating

conditions and in the event of an accident when the proposed development involves materials that could be harmful to the environment (including people). The data used to estimate the magnitude of the main impacts should be clearly described.

(iii) Assessment of Impact Importance

The importance of all those impacts which remain after mitigation should be assessed using the appropriate national and international quality standards where available. Where no such standards exist, the assumptions and value systems used to assess significance should be justified and the existence of opposing or contrary opinions acknowledged.

Review area III: Alternatives and mitigation

(i) Alternatives

Alternative sites should have been considered where they are practicable and available to be developed. The main environmental advantages and disadvantages of these should be discussed and the reasons for the final choice given. Where available alternative processes, designs and operating conditions should have been considered at an early stage of project planning and the environmental implications of these outlined.

(ii) Mitigation

All significant adverse impacts should be considered for mitigation and specific mitigation measures put forward where practicable. Mitigation methods considered should include modification of the project, compensation and the provision of alternative facilities as well as pollution control. It should be clear to what extent the mitigation methods will be effective. Where the effectiveness is uncertain or depends on assumptions about operating procedures, climatic conditions etc. Data should be introduced to justify the acceptance of these assumptions.

(iii) Commitment to Mitigation

Clear details of when and how the mitigation measures will be carried out should be given. When uncertainty over impact magnitude and/or effectiveness of mitigation over time exists

monitoring programs should be proposed to enable subsequent adjustment of mitigation measures.

Review area IV: Communication of results

(i) Presentation

The report should be laid out clearly with the minimum amount of technical terms. An index, glossary and full references should be given and the information presented so as to be comprehensible to the non-specialist. Also maps, diagrams, tables etc., where appropriate, should complement text. Technical information should be provided in the appendix.

(ii) Non-technical Executive Summary

There should be a non-technical executive summary outlining the main conclusions and how they were reached. The summary should be comprehensive, containing at least a brief description of the project and the environment, the identified impacts of the proposed development, an account of the main mitigating measures to be undertaken by the developer, and a description of any remaining or residual impacts. A brief explanation of the methods by which these data were obtained and an indication o f the confidence which can be placed in them should be included.

3.5.3 Overall assessment of EIS

At the end of the review process the EIS may be classified by the institution responsible for environment according to the following overall rating/grades for the report:-

▪ A	(81% – 100 %)	Excellent, no task left incomplete	
▪ B	(71% – 80%)	B - Good, only minor omissions and inadequacies	
▪ C	(61% – 70%)	Satisfactory despite omissions and inadequacies	
▪ D	(51% –60%)	Parts are well attempted but must as a whole be considered just unsatisfactory because of omissions and/or inadequacies	
▪ E	(41% – 50 %)	Poor, significant omissions or inadequacies	
▪ F	(<41%)	Very poor, important tasks poorly done or not attempted	

If overall performance is below C, then revision should be done. Normally, a brief summary of the key factors which determine the overall rating is provided as shown in table no 2.

Table 2:   Summarized Review Report Form

Review areas		Review criteria	Weighted Rating	Remarks
1	Description of the Development Local Environment and Baseline conditions	• Description of the Development • Local Environment and • Baseline conditions.	15	
2	Identification and Evaluation of key impacts	• Identification and Evaluation of key impacts • Residual Impacts • Cumulative impacts • Prediction of Impact Magnitude • Assessment of Impact Significance	30	
3	Alternatives, mitigations, ESMP, and commitment	• Alternatives • Mitigations • ESMP • Commitment	40	
4	Stakeholder participation and communication of results	• Stakeholder participation • Presentation • Balance • Non-technical summary	15	

	Total	**100**	

3.5.4 Approval terms and conditions

An EIA Review Report is then compiled which summarizes the EIA reports quality in terms of:-

2.6 Monitoring Guidelines

Monitoring is among the important factors for environmental management within the EIA context. It provides a mechanism for checking whether mitigation measures have been carried out and whether predictions were accurate. Monitoring therefore not only ensure that what has been stated within the environmental impact statement (EIS) actually takes place, but also to ensure effective management of impacts.

2.6.1 Objectives of Monitoring

i. Ensure that mitigation actions recommended in the EIA are incorporated in project design and implementation

ii. Ensure that mitigation measures are maintained through the operational life and where appropriate the decommissioning of a project

iii. Identify corrective measures or redesign mitigation measures if they are not sufficiently effective

iv. Improve initial screening, environmental appraisal and EIA procedures.

v. Increase the knowledge base of environmental effects of development activity

vi. Monitoring should therefore include; verification of potential impacts; adherence to approved plans and compliance to any terms and conditions.

2.6.2 Methods

Monitoring methods shall involve the following:

i. Planning of monitoring programme

ii. Collection of samples

iii. Analysis and Interpretation of data

iv. Reporting of data (documentation and presentation of monitoring findings)

v. Site visit verification

vi. Review of compliance reports e.g. environmental and social management plan, audit report

2.6.3 Responsibility for monitoring

Monitoring is the responsibility of the institutions that are indicated in the Monitoring Plan with the Environmental Impact Assessment Report. The common institutions in Zanzibar that will be engaged to conduct Environmental Monitoring are the Institution Responsible for Environment, the responsible sector institutions based on the nature of the project, project proponent, NGOs/CBOs and the concerned community at large.

2.6.4 Key parameters to be included in a monitoring programme

Environmental Impacts Assesssment Report identifies the key issues that could be considered for environmental monitoring. The issues for monitoring are normally depends on the types of the project, project sites, processing technology etc. The Environmental Monitoring shoud be focusing in all phase of the project e.g. pre – construction (baseline conditions), construction and operation phases.

2.6.5 Presentation of Monitoring Results

The reporting of monitoring programme depends on the type and parameters used. Where different types and methods of monitoring have been carried out, the comparability and quality of data sets may need to be addressed and reported. Reports should be in simple language and to appropriate technical standards. The contents of the Environmental Monitoring shall be as follows:

  i. Introduction

 ii. Name of Project, Proponent and location of the project

iii. Objectives of the Monitoring

 iv. Methodology applied for monitoring

  v. Key issues monitored

 vi. Results and discussion

vii.   Conclusion and Recommendation

Monitoring reports are essential for feedback to both the developer and regulatory Authority. The developer submits monitoring reports to the regulatory authority whilst the authority prepares a written response on reports and submits to the developer for feedback.

2.7   Environmental Audit

The Environmental Audit report will be prepared by the proponent and submitted to the Institution Responsible for Environment for evaluation.   The Institution Responsible for Environment shall prepare the consultative Terms of Reference (ToR) for undertaking the Environmental Audit. Environmental Audit is subjected to:

- All project fall under schedule 2 of Annex 1that executed without EIS
- All project fall under schedule 2 of annex 1 with EIS but have been in operation for period of 10 years.
- The Audit will be undertaken every 10 years of the project operation.

The proponent shall meet all costs of the environmental audit. Format of the environmental audit report shall be same as that of EIS.

2.8   Decommissioning

This is the end of the project life.   The decommissioning report including restoration or rehabilitation activities shall be prepared by the proponent and submitted to the Institution Responsible for Environment for record. Should there be need for continued environmental monitoring; the proponent shall bear the costs.