Malawi – EIA Guidelines

Acronyms

CUR	Coordination Unit for the Rehabilitation of the Environment
DEA	Director of Environmental Affairs
EAD	Environmental Affairs Department
EAT	Environmental Appeals Tribunal
EIA	Environmental Impact Assessment
EMA	Environmental Management Act
EMP	Environmental Management Plan
MIPA	Malawi Investment and Promotion Agency
NCE	National Council for the Environment
NEC	National Economic Council
NGO	Non Governmental Organisation
PCP	Project Concept Proposal
PDD	Project Design Document
PSD	Project Submission Document
PSIP	Public Sector Investment Programme
SEA	Strategic Environmental Assessment
SNEC	Secretary for National Economic Council
TCE	Technical Committee on the Environment
ToR	Terms of Reference

Glossary of Terms

Developer; Any person who has proposed or has undertaken to implement a project in the public or private sector.

Director; The Director of Environmental Affairs appointed under Section 9(1) of the Environmental Management Act (1996)

Environment; The physical factors of the surroundings of the human being including land, water, atmosphere, climate, sound, odour, taste and the biological factors of fauna and flora and includes the cultural, social and economic aspects of human activity, the natural and built environment.

Environmental Appeals Tribunal; The Environmental Appeals Tribunal as created under section 69 of the Environmental Management Act.

Environmental Audit; Means the systematic documentation and periodic and objective evaluation of protection and management of the environment and the conservation and sustainable use of natural resources.

Environmental impact; The effects a project has on the environment and natural resources. These effects may be positive or negative, which could produce costs or benefits.

Environmental Impact Assessment (EIA); The systematic evaluation of a project to determine its impact on the environment and natural resources.

Environmental Impact Assessment (EIA) Report; The written product of an environmental impact assessment required under section 25(1) of the EMA (1996).

Environmental Management Plan; An Action Plan or Management Strategy for the implementation of mitigation measures identified in an EIA

Environmental Planning; Means planning that takes into account environmental issues;

Environmental Monitoring; Means the continuous or periodic assessment of the actual and potential impact of any activity on the environment;

Lead Agency; Means any public office or organisation including every Ministry or Government department which is conferred by any written law with powers and functions for the protection and management of any segment of the environment and the conservation and sustainable use of natural resources.

Licensing authority; Any person on whom is conferred power under any written law to issue licences in respect of anything or activity required under that written law to be done or carried out otherwise than in accordance with a licence. It could be any agency of the government responsible or authorised to regulate, permit or licence specific or aspects of development projects.

Minister; The Minister responsible for environmenta1 affairs.

National Council for the Environment; A Council established under section 10(1) of EMA

Project; A development activity or proposal which has or is likely to have an impact on the environment. This encompasses polices, plans and programmes or strategic environmental assessment as well as technology and other categories of activities.

Prescribed project; A project subject to EIA as specified in the notice published by the Minister in the Gazette in accordance with Section 24 of the EMA (1996).

Project Brief*;* An information document produced after screening on which a determination of the need for a detailed EIA study is made.

Proprietary information*;* Means any proprietary information protected by law by any international treaty or convention to which Malawi is a party.

Residual impacts*;* Those negative environmental impacts which could not be eliminated during project design.

Scoping; The process of establishing the principal issues to be addressed in an environmental impact assessment.

Screening; The process of determining if a project should be subjected to a detailed EIA. The main considerations being project type, size and the environmental sensitivity of project location.

Stake-holder*;* Individuals, communities, government agencies, private organisations, non-governmental organisations or others having an interest or "stake" in both the EIA process and outcomes of the projects.

Technical Committee on the Environment (TCE)*;* The inter-agency committee established under section 16 of the Environmental Management Act. (1996).

CHAPTER ONE

1. INTRODUCTION

1.1 Purpose of the Guidelines

The purpose of these Guidelines for Environmental Impact Assessment (EIA) in Malawi is to facilitate compliance with Malawi's EIA requirements by Government, project developers, donors and the general public. The guidelines will help to integrate environmental concerns in national development and will be applicable to all types of projects, in the public and private sectors, for which EIA studies may be or are required. It is expected that sectoral guidelines for specific types of projects (e.g. dams, roads, industrial parks) will be produced in due course by the responsible line agencies and donors in consultation with the Environmental Affairs Department.

1.2 What is an Environmental Impact Assessment?

EIA is both a process and a tool for project planning and decision making. Its purpose is to:

1.2.1 integrate environmental considerations in development planning thereby promoting sustainable livelihoods;

1.2.2 ensure that the environmental and socio-economic costs and benefits of economic development projects are properly accounted for;

1.2.3 ensure that unwarranted negative impacts are avoided or mitigated at an early stage in the planning process;

1.2.4 ensure that potential benefits are identified and enhanced;

1.2.5 carry out environmental and socioeconomic studies of projects in parallel with analyses of technical and economic feasibility;

1.2.6 ensure that decision makers are provided with information on a project's environmental costs and benefits to complement information on its technical and economic feasibility at key decision points in the development of the project;

1.2.7 ensure that all the affected and interested groups (grass-roots communities; government authorities, developers, investors, NGOs, donors etc.) participate in the process;

1.2.8 set up a machinery to carry out mitigation and monitoring;

1.2.9 promote inter and intra-sectoral linkages and

1.2.10 conserve the social, historical and cultural values of people and their communities.

In principle, these guidelines are more applicable to EIAs for projects and their implementation. The word "project" under the Environmental Management Act (1996) assumes a wide meaning and include "a development activity or proposal which has or is likely to have an impact on the environment". Increasingly project level EIA is becoming recognized as a very useful but limited tool. This is because projects are proposed within policies, programmes and/or plans which, themselves, may not have been investigated for their environmental consequences. Such policies, programmes

and plans however require a high level of analysis called strategic environmental assessment (SEA). This gives room for timely corrective measures to avoid or mitigate adverse impacts at project level. Government will from time to time prescribe kinds of activities which will benefit from SEA.

1.3 Prerequisites for EIA

A number of factors influence whether or not a nation will have successful environmental policies in order to better manage and conserve its environment. The following are major factors:

1.3.1 Political Will

Political support and endorsement are vital if EIA procedures are to be accepted. The commitment of political leadership to create an enabling environment for sustainable development is a pre-requisite for successful environmental policies and other associated activities. This requires the integration of environmental concerns in all major economic and social policies, plans and decision making.

1.3.2 Legal Framework

A legal framework is essential for introducing and managing an EIA process. The Malawi Government has introduced an environmental law within which EIA is a legal requirement for any prescribed project under Section 24 (1) of the EMA. The law will be amended as and when necessary, to be in line with current scientific, technological knowledge and environmental social needs.

1.3.3 Human Resources Development

EIA capacity and awareness are low in Malawi. To enhance this, a network of Environmental Focal Points has been established involving various institutions in the public, private and non-governmental organization. Government will design programs of training in EIA within local institutions.

1.3.4 Funding for EIAs

Funding of EIA studies is an obligation of the project developer. This should be included as part of project costs.

1.3.5 Environmental Management Plan

Each detailed EIA should have an environmental management plan which provides details of the work programme or schedule. These may include technical control measures, an integrated management scheme, monitoring, contingency measures, operating practices, project scheduling, joint management with affected groups, mitigation costs and value judgements

1.3.6 Popular Participation

For any successful development activity it is important to have popular participation right from the grassroots. This allows for accommodating views of those who will benefit or be affected by the proposed activity. In recognition of this, the EMA calls for public consultation in the EIA process. Public participation should ensure that women and children are actively involved since they are the major resource users and managers. This is crucial to ensure environmentally sustainable development.

1.3.7 Institutional Set Up

The EIA process requires the establishment and strengthening of competent national environment authorities through an Act of Parliament. A central authority must coordinate and advise on all environmental issues, including EIA procedures and requirements. In Malawi, the Environmental Affairs Department (EAD) is such an authority. The Environmental Affairs Department should collaborate with existing institutions and help strengthen and improve their competence in carrying out EIAs. Details of roles of different institutions are given in Chapter 2 of these guidelines.

1.3.8 Formal Development Approval System

A formal project development approval process is in place. Public sector development projects

require approval of the National Economic Council prior to the start of the project. For private sector projects, although there is no need for approval from the National Economic Council different stages do need licences from licensing authorities.

1.4 Statutory Basis for EIA

The application of EIA in Malawi is based upon the requirements of the 1992 *Rio Declaration on Environment and Development and the Environmental Management Act.*

1.4.1 By signing the *Rio Declaration on Environment and Development,* Malawi committed herself, among other things, to Principle 17 concerning EIA:

1.4.2 *Environmental impact assessment, as a national instrument, shall be undertaken for proposed activities that are likely to have a significant adverse impact on the environment and are subject to a decision of a competent national authority.*

The *Environmental Management Act* outlines an EIA process for Malawi and require project developers to comply with that process. The process is managed by the Director of Environmental Affairs (DEA) in the Environmental Affairs Department. The Act specifies that the types and sizes of projects subject to EIA be prescribed and gazetted. Secondly, guidelines be published to assist compliance with EIA requirements, and that non-compliance is an offense. It also specifies that any project subject to EIA requirements cannot be licensed and implemented until a satisfactory EIA study has been completed and the project has been approved by the Director of Environmental Affairs. Project developers are required to implement any terms and conditions which the Director may attach to his approval. The full text of the relevant sections of the Act is given in Appendix A.

Thus, EIA is a statutory requirement in Malawi and the Act provides for penalties for noncompliance. At the same time, the Environmental Affairs Department recognizes that legal sanctions have limited usefulness and that the quest for environmentally-sustainable development will only succeed if there is society-wide support for achieving its objectives.

1.5 Integrating EIA into the Project Cycle

Any project moves through a number of phases in the course of being transformed from an idea into an operating concern. Typically, a project begins as a concept then moves through pre-feasibility and feasibility studies before a detailed design and then implementation. During implementation, monitoring and evaluation are conducted. This contribute to subsequent development of new project concepts, thus completing the Project cycle".

Malawi's EIA process is specifically designed to integrate EIA requirements within the project cycle. This integration is essential for the EIA study to provide timely environmental information at key stages in the project cycle. Thus, early results from an EIA may indicate practical design changes, which would avoid or reduce negative environmental impacts, or better capture environmental benefits. The project developer may then adopt these changes into the project plan, and the final EIA document would be based upon the revised plan and describe both reduced impacts and more modest needs for impact management. Similarly, Government has the opportunity to review and comment upon a project as it is formulated and, where necessary, require changes to avoid or reduce adverse environmental impacts before irrevocable project decisions are made. Thus, the EIA process proceeds in several stages (Figure 1.1), not all of which may be required on any particular project.

At the start of the EIA process there is screening and scoping stage that result into the production of a Project Brief. The project brief is received and reviewed by Government at the project concept to early pre-feasibility and feasibility study phase.

If an EIA is deemed necessary, it is timed to coincide with feasibility studies and detailed design when the detailed information it provides is most useful to project planners. The purpose of designing EIA requirements in this way is to encourage project developers to include the "EIA team" within the broader project development team and to make constructive use of EIA findings as they are generated. The result is that EIA studies should be useful both to project developers as a planning tool in designing more environmentally sustainable projects and to Government as an evaluation tool in fulfilling its environmental and natural resources management responsibilities. The integration of EIA into existing project planning and approval processes in Malawi is discussed in Chapter 3 of these guidelines

1.6 Who are these guidelines addressed to?

These guidelines are intended for use by
1.6.1 government ministries and departments;
1.6.2 project developers;
1.6.3 the general public;
1.6.4 politicians;
1.6.5 consultants;
1.6.6 NGOs and environmental pressure groups

CHAPTER TWO

EIA Process, Roles and Responsibilities

2.1 INTRODUCTION

The EIA process is managed by the Director of Environmental Affairs, Environmental Affairs Department. EIA requirements apply to both public and private-sector development projects, which are, prescribed under Section 24 of the Environmental Management Act (EMA) and listed in Appendix B of these guidelines.

As provided for in Section 26 of the EMA, a prescribed project cannot receive the required authorization to proceed from the relevant licensing authorities unless and until the Director has issued a certificate stating that an EIA is not required or, on the basis of an EIA report he/she has approved the project. Under the EMA, the Director is empowered to require changes to a project to reduce its environmental impact and to reject a project if, in his/her view, it will cause significant and irreparable injury to the environment. Decisions of the Director may be appealed to the Environmental Appeals Tribunal (EAT), established under Section 70 of the EMA.

All formal EIA submissions are made to the Director with appropriate scrutiny fee in accordance with section 29. The preparation of EIA submissions is the responsibility of the developer. There are two types of formal submissions which represent sequential stages in the EIA process. They are a Project Brief, and an EIA report. A Project Brief is an information document that focuses on critical issues and is used by the Director to determine whether an EIA is required or not.

The EAD provides procedural and technical advice to developers, as required, on how best to comply with EIA requirements. It maintains a directory of local, regional and international consultants capable of carrying out EIA studies. The EAD also maintains a register of all projects currently being appraised under the EIA requirements of the EMA.

While the EAD has statutory responsibility for ensuring compliance with EIA requirements, it relies substantially upon the expertise and advice of the inter-agency Technical Committee on the Environment (TCE) established under Section 16 of the EMA. The TCE has a rotating chairperson and the EAD provides secretarial support to it. Through the TCE, member agencies are informed about projects being appraised under the EIA requirements; participate in reviews of Project Briefs, EIA ToRs and EIA reports; develop project approval terms and conditions; develop and monitor project auditing programmes; and recommend courses of action to the Director. The Director acts on the advice of the TCE but is not bound by it.

2.2 THE EIA PROCESS

The EIA process involves several stages or procedures. As depicted in Figure 2.1, it begins with a determination by a licensing authority as to whether a proposed project is prescribed under the EMA. If not, no further action concerning EIA requirements need be undertaken. If it is, then a Project Brief must be submitted to the Director. Following are stages of the EIA process:

Screening; a process of determining what projects should be subject to EIA requirements

Scoping; establishes the principle issues to be addressed in an EIA. This is performed by a project preparation team comprising of the developer and a multi-disciplinary team of experts. The team should ensure that there is public participation in the EIA process.

EIA study: Five major stages and the report

1. *Identification*	what will happen as a result of the project?
2. *Prediction*	what will be the extent of the change brought about by the project?
3. *Evaluation and Interpretation*	do the changes matter?
4. *Mitigation*	what can be done about the changes?
5. *Monitoring and Management*	what are the monitoring and management plans?
6. *Report*	how can decision makers be informed of what needs to be done, given the various alternatives?

2.2.1 Project Brief
A Project Brief is a document informing the Director that a project is being considered. Guidance on preparing Project Briefs is given in Appendix C of these guidelines.

For public-sector projects, the Project Brief corresponds to the *Project Submission Document (PSD)* used by the National Economic Council (NEC) for internal pre-appraisal. The PSD would be submitted to the Director at the completion of Stage 2 of NEC's project appraisal process.

When the Director receives a Project Brief, he refers it to the TCE for advice. Based on information in the Project Brief and established project screening criteria (Appendix D), the TCE assesses the need for an EIA and recommends a course of action to the Director. The Director then determines whether or not an EIA is required. The following guiding time frames, in maximum number of working days, will be observed starting with the date the Director receives the document:

2.2.1.1 Determining the need for an EIA once a Project Brief is received by the Director	15 days
2.2.1.2 Review of each draft of EIA terms-of-reference submitted to the Director	10 days
2.2.1.3 Review of first draft of an EIA report	50 days
2.2.1.4 Review of second and subsequent drafts of an EIA report	25 days

If an EIA is **not** required, the project is exempted from further compliance with the EIA requirements. In such instances, the Director issues a certificate to that effect and advises the developer and relevant licensing authority of the exemption with, if appropriate, recommendations for environmental management of the project. If an EIA is required, the Director informs the developer and/or appropriate government authorities that an EIA must be undertaken and an EIA report prepared.

2.2.2 Environmental Impact Assessment
An EIA is a comprehensive assessment of the environmental impacts of a project and is based on terms-of-reference (ToR) prepared by the developer and approved by the Director. Guidance on preparing EIA reports is provided in Appendix C of these guidelines. EIA should be undertaken during pre-feasibility or early feasibility studies of a project. For public-sector projects, this will be during Stage 3 or 4 of NEC's project appraisal process.

Before EIA terms-of-reference are prepared and approved, the issues to be covered in the study, and specified in the ToR are generally identified through scoping discussions between the DEA and the developer. Scoping is vital to ensure that all potentially significant impacts are included in the study that evidently insignificant concerns are excluded and, thus that resources are conserved and used wisely. The Director may, on the advice of the TCE, require that a more formal scoping exercise be undertaken, perhaps involving consultations with the public, before terms-of-reference are approved.

Guidance on preparing EIA terms-of-reference is given in Appendix E of these guidelines. A model ToR for EIA is given in Appendix F.

Public consultation is mandatory when undertaking an EIA. At a minimum, the proponent must meet with the principal stockholders to inform them about the proposed activity and to solicit their views about it. More problematic activities should involve more extensive consultations. The methods and results of these consultations must be documented in the EIA. Detailed guidance on public consultation is given in Appendix G of these guidelines.

When a draft EIA is received by the Director, he initiates a review and refers the EIA to the TCE. This review is led by EAD staff with the assistance of members of the TCE who have an interest in the project or expertise needed to complete the review. Depending on the complexity and scope of the project, individual outside experts or an independent review panel may be retained to advise the EAD/TCE. Guidance on evaluating the adequacy of an EIA is given in Appendix H of these guidelines.

EAD staff and/or TCE members may also meet with non-governmental stockholders to verify or extend the proponent's public consultations. The EIA is also made available for public comments. If considered necessary by the TCE, the Director may also call for a public hearing (s) on the EIA to solicit direct comments from people who may be affected. Such hearings are provided for under section 26 of the EMA.

When the reviews are complete and consolidated, the Director meets with the developer and /or licensing authority to discuss the draft EIA and, if considered necessary by the TCE, require that corrections and/or additions be made before it is finalized. Subsequent drafts of the EIA are also reviewed by the TCE until a satisfactory report is produced.

The time periods within which reviews of first and subsequent drafts of EIA should be completed are outlined in these Guidelines.

Based on the review and the advice of the TCE, the Director determines:

2.2.2.1 that the project must be redesigned to eliminate or reduce adverse impacts, and/or to enhance environmental benefits, and that the EIA report must be redone and re submitted for the revised project; or

2.2.2.2 that there is reasonable cause to believe that, even if it redesigned or more detailed EIA studies are undertaken, the project will cause significant and irreparable injury to the environment, and that the project is rejected; or

2.2.2.3 that the project will not result in significant injury to the environment and it is approved.

If the project is approved by the relevant licensing authorities, the Director requests the TCE to develop and implement a government audit programme to ensure the project complies with the results of the EIA process. Such programmes are provided for in Section 27 of the EMA. The compliance with the terms and conditions of the EIA results is discussed under 2.2.4 below.

2.2.3 Ensuring coordination among different institutions in the EIA process.
Coordination is ensured through the secretarial services provided by the Director to the NCE which reports through the chair to the Minister. The TCE will provide technical assistance to the NCE.

2.2.4 Managing Compliance with EIA Results
Compliance with the terms and conditions of project approvals under the EMA is managed through project audits developed by the TCE and approved by the Director.

It must be emphasized that the EAD's primary role in project auditing is to facilitate the development and implementation of audit programmes, and not to over-take the responsibilities of the licensing authorities.

The EAD relies upon the normal regulatory functions of licensing authorities with jurisdiction over different aspects of project implementation to carry out the bulk of the auditing work in accordance with their statutory responsibilities.

In developing an audit programme? It is expected that the TCE will employ practices and procedures to:

2.2.4.1 assign lead audit responsibilities to licensing authorities with primary responsibility for the regulation of projects;
2.2.4.2 organize technical and logistical support for audit programmes from among the TCE members;
2.2.4.3 prescribe schedules of reports from developers and lead agencies to the TCE;
2.2.4.4 monitor and report on project audits to the Director; and,
2.2.4.5 where required, make recommendations to the Director for corrective action and/or penalties where developers are not complying with the environmental terms and conditions of project approvals.

2.2.5 Follow-up of EIA process
The participation of lead agencies in the follow up to the implementation of the EIA is important and for this reason an environmental management and monitoring plan should form part of the EIA Report to facilitate the monitoring and/or following up of the EIA process. Details of what needs to be done by whom and when are contained in this section of the report.

2.3 EIA ROLES AND RESPONSIBILITIES

EIA activities involve the participation of a number of actors with varying responsibilities. These actors and their responsibilities include:

2.3.1 Environmental Affairs Department
2.3.1.1 facilitating the EIA process
2.3.1.2 ensuring compliance with EIA provisions in the EMA
2.3.1.3 managing the production and updating of guidelines on EIA practice and procedures
2.3.1.4 assisting line agencies in the preparation of sector-specific guidelines on EIA practice and procedures
2.3.1.5 updating the list of prescribed projects
2.3.1.6 secretariat to the TCE
2.3.1.7 maintaining a register of projects being appraised under the EIA process
2.3.1.8 maintaining a central library of EIA reports
2.3.1.9 maintaining a directory of local, regional and international consultants capable of carrying out EIA studies. Criteria used in selecting the consultants will be outlined at the beginning of the directory.

2.3.2 Technical Committee on the Environment
2.3.2.1 evaluating Project Briefs, EIA terms-of-reference and EIA reports
2.3.2.2 developing project approval terms and conditions
2.3.2.3 reviewing and monitoring project auditing programmes
2.3.2.4 recommending courses of action to the Director.
2.3.2.5 reporting to NCE

2.3.3 Functions of the TCE
2.3.3.1 Functions are provided in appendix A

2.3 4 Functions of the NCE
2.3.4.1 Functions are provided in appendix A.

2.3.5 National Economic Council
2.3.5.1 determining if public-sector projects are prescribed under the EMA and referring PSDs to the Director of Environmental Affairs
2.3.5.2 assisting the EAD and TCE in updating the list of prescribed projects (ea. adding or deleting project types, establishing size thresholds for project referral to the Director)
2.3.5.3 participating on the TCE
2.3.5.4 working with the EAD and TCE to develop and streamline their working relationship on EIA activities

2.3.6 Sectoral/Line Ministries
2.3.6.1 ensuring that their own projects prescribed under the EMA adhere to the EIA requirements
2.3.6.2 ensuring that private-sector projects over which they have jurisdiction adhere to the EIA requirements
2.3.6.3 participating on the TCE
2.3.6.4 providing information and advice to project developers
2.3.6.5 advising project developers on regulations and monitoring requirements related to licensing their projects
2.3.6.6 incorporating DEA approval terms and conditions in project licences
2.3.6.7 ensuring that project licensing terms and conditions are met, including those specified by the Director of Environmental Affairs

2.3.7 Malawi Investment Promotion Agency/Chamber of Commerce/Local Authorities
2.3.7.1 review project beefs from the private sector
2.3.7.2 make recommendations to the DEA
2.3.7.3 monitoring compliance by investors

2.3.8 Local Training Institutions
2.3.8.1 developing and executing short-term training programmes on EIA
2.3.8.2 institutionalize environmental education

2.3.9 Non Governmental Organizations
2.3.9.1 monitoring compliance with EIAs
2.3.9.2 identifying projects with potential adverse environmental effects
2.3.9.3 participating on the TCE

2.3.10 Project Developers
2.3.10.1 preparing Project Briefs and EIA terms-of-reference and statements and where they are not able to do so, they should seek the services of the DEA.
2.3.10.2 implementing terms and conditions attached to DEA project approvals
2.3.10.3 reporting on compliance with terms and conditions of DEA approval to the DEA/TCE and licensing authorities

2.3.11 Public
2.3.11.1 contributing information and advice to EIA studies
2.3.11.2 commenting on the content of EIA reports
2.3.11.3 advising project developers and the DEA/TCE on practical approaches for avoiding, minimizing or compensating for adverse environmental impacts

2.3.12 Environmental Appeals Tribunal
2.3.12.1 special interest groups
2.3.12.2 sensitize public on benefits of EIA
2.3.12.3 lobby for compliance of EIA
2.3.12.4 provide information to the affected communities

2.4 PUBLIC CONSULTATION AND ACCESS TO INFORMATION

Public consultation is an integral component of the EIA requirements as indicated in sever; places above. The principal elements are:

2.4.1 Developers are required to conduct public consultation during the Project brief and EIAs.

2.4.2 The Director of Environmental Affairs may, on the advice of the TCE, conduct his or her own public consultation to verify or extend the work of a developer.

2.4.3 Formal EIA documents are made available for public review and comment. Documents to which the public has access include Project Briefs, EIA terms-of-reference, draft and final EIA Reports, and decisions of the Director of Environmental Affairs regarding project approval. The Director on the advice of the TCE will develop practices and procedures for making these documents available to the public.

It is very unusual that an EIA need contain proprietary or market-sensitive information (e.g. technological, financial), which a developer would prefer remain confidential. Unless public knowledge of such information is crucial to project review, and as provided for under Section 25(5) of the EMA, the Director will comply with requests that such information does not appear in an EIA.

2.4.4 Certificates, approving projects will be published by the developer and displayed for public inspection.

CHAPTER THREE

Integrating EIA into Existing Project Planning and Approval Process

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3.1 PUBLIC-SECTOR PROJECTS

The planning, evaluation and approval of public-sector projects in Malawi is administered by the National Economic Council. NEC's Project Planning Manual identifies a number of key stages in their approval process. Although the need to examine environmental impacts is indicated, clear guidelines and procedures for doing so are absent. Thus, it is vital that NEC's approval process and the EIA process be effectively integrated so that EIA contribute materially to the development of public-sector projects without hindering the approval process.

The relationship between the two processes, and the complementarily of their information and documentation requirements, was indicated in Chapter 2 above and is elaborated below. This relationship is in the early stages of its development and it must be recognized that as experience with EIA in Malawi grows, the modalities of the relationship will become better developed and streamlined through practice. Thus, it is expected that future editions of these guidelines will provide more detailed and "field tested" procedures for ensuring that EIA contributes effectively to the planning and approval of public-sector projects.

The relationship of the two processes is discussed below by describing the stages of NEC's process, in italics, and the relationship with the EAD's EIA process.

Stage 1: Identification and Submission

This stage involves identification of a project idea and the preparation of an initial Project Concept Paper (PCP) by the executing agency. After internal approval, a Project Submission Document is prepared and an internal pre-appraisal is carried out by the executing agency's planning unit. Once approved, the PSD is submitted to NEC for pre-appraisal.

During the preparation of PCPs and PSDs, executing agencies should consider the possible environmental effects of their projects, measures to avoid or minimize those effects, and whether a project is prescribed under the EMA. If necessary, a "Mini EIA" might be considered for some projects before the PSD is prepared and submitted to NEC. Early consultations with DEA will help to clarify potential EIA needs for projects.

Stage 2: Pre-appraisal and Entry to the PSIP

NEC conducts a pre-appraisal of the project based on the PSD and a decision is made to:
(a) reject the project, in which case the proposal lapses;
(b) refer the PSD back to the executing agency for further preparatory work and re-submission to NEC;
(c) fund a pre-feasibility study, at which point the project moves to Stage 3; or
(d) include the project in the Public Sector Investment Programme (PSIP) for a feasibility study, at which point the project moves to Stage 4.

If the decision is (c) or (d), and the project is on the list of prescribed projects, the Secretary for NEC (SNEC) refers the project to the Director of Environmental Affairs to satisfy the latter 's requirement for a Project Brief. The Director determines whether an EIA is required for the project and conveys

his/her decision to the SNEC and the executing agency.

Stage 3: Pre-feasibility Study

A pre-feasibility study is carried out if the project is large and/or complex, and difficult to appraise from the PSD. Typically, such projects have several possible modes of implementation, each with widely different costs and implications. The project is re-evaluated by NEC based on the findings of the pre-feasibility studies. The project is then either:
(a) rejected; or
(b) referred back to the executing agency for further preparatory work and re-submission to NEC; or
(c) included in the PSIP for a full feasibility study/design with the expectation of being implemented, at which point the project moves to Stage 4.

If the project requires an EIA, it is carried out concurrently with the pre-feasibility study and the EIA report is submitted to the Director. The Director 's decision on the EIA and project is conveyed to the executing agency and the SNEC.

NEC's re-evaluation of the project takes into account both the pre-feasibility and EIA reports, and the Director's decision based on the EIA report. If the Director has decided:

(a) that the project is rejected or must be redesigned and the EIA redone, NEC either rejects the project or refers it back to the executing agency for further work on both the pre-feasibility study and the EIA; or

(b) That the project is approved, NEC includes the project in the feasibility study, it instructs the executing agency to take full account of the EIA approval terms and conditions in the feasibility study and, when the project is implemented, to incorporate them into the appropriate licences.

Stage 4: Feasibility Study
A feasibility study gives a detailed analysis of the technical and financial viability of a project, leading to the development of a Project Design Document (PDD). The executing agency conducts an internal appraisal of the PDD before submitting it to NEC for appraisal.

Stage 5: Appraisal
NEC appraises the project proposal based on the PDD. A decision is then taken to:
(a) reject the project; or
(b) refer the PDD back to the executing agency for further preparatory work and resubmission to NEC; or
(c) implement the project.

In practice, it is unusual for a project to be dropped from the PSIP at this stage.

NEC's appraisal of the project is based on the PDD, and EIA report and the Director's decision, including any approval terms and conditions. If the Director has decided:

(a) that the project is rejected or must be redesigned and the EIA redone, NEC either rejects the project or refers it back to the executing agency for further work on both the feasibility and EIA studies; or

(b) that the project is approved, NEC approves the project for implementation, it instructs the executing agency to incorporate the Director's approval terms and conditions into the project plan and appropriate licences.

When NEC approves the project for implementation, the Director requests the TCE to develop and implement a government project audit and monitoring programme.

Stages 6, 7 and 8: Implementation
These stages involve:
(a) negotiating financing
(b) pre-implementation activities (e.g. hiring staff, preparation of construction documents, surveying)
(c) implementation (investment, development)
(d) monitoring and evaluation

The TCE monitors the implementation of the government project audit programme, facilitate its success, and reports on its progress to the Director.

3.2 PRIVATE-SECTOR PROJECTS

Even though private sector projects have certain distinct characteristics from those of the public sector, the life cycle is quite similar. The EIA process shall be integrated in their cycle as in Figure 1.1 of these guidelines. In principle these projects will follow the same EIA procedures as defined in Figure 2.1 of these guidelines.

A developer will prepare a project brief for submission to the Director through a licensing authority. If, in view of the licensing authority, there is no EIA requirement for the project, the authority should submit a copy of the license and brief to the Director for record and monitoring purposes.

The time frames and tasks that will apply in the approval process are given in Section 2.2 of these guidelines. The specific EIA process for the private sector projects shall be as follows:

Stage 1: Identification and Submission
This stage will involve preparing a project brief to be submitted to a licensing authority. The developer should consider possible environmental effects and considerations of the proposed project at this early stage.

Stage 2: Pre-appraisal
The licensing authority will review the project brief paying particular attention to the possible environmental effects. The licensing authority will then submit its comments to the Director. The Director shall respond to the developer within the time frame for the EIA process as determined in Section 2.2 of these guidelines. In the case where no EIA will be required, the licensing authority will still submit the brief to the Director including a copy of the licence.

Stage 3: Feasibility Study
Private sector projects will often combine the pre-feasibility and feasibility stages of the cycle. Should the Director determine that a project requires to go through the EIA process, he/she shall advise whether an EIA be undertaken concurrently with the feasibility study. He/She shall further advise the developer to prepare an Environmental Management Plan (EMP). The decision procedures will then follow through the EIA review process as in Figure 2.1.

Stage 4: Appraisal
This stage will be carried out by different institutions for different clients. Some of these will be financing institutions such as development banks and investment promotion institutions like MIPA.

The EAD should develop an audit programme based on Stage 3 above.

Stages 5 and 6: Activation, Implementation and Monitoring
At these stages, the private developer is arranging for financing and other necessary activities to start

implementation. During implementation of the project the EAD should put up a team of monitors as determined by the EMP in Stage 3.

The EAD and TCE will work with MIPA and the licensing authorities (e.g. local authorities) to ensure
(1) that all know about the EIA requirements,
(2) that the appropriate authorities will withhold approval of prescribed projects until the investor has a certificate from the Director indicating that an EIA is not required or that the project has received his approval, and
(3) that the process of moving private-sector projects through the EIA process is managed efficiently and effectively.

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Appendix A

EIA Provisions of the Environmental Management Act

EIA provisions in the Environment Management Act are found in
Sections 24, 25, 26, 27, 29 and 63, 69 and 76:

A.1 Projects for which an Environmental Impact Assessment may be required
S-24.
(l) The Minister may, on the recommendation of the Council, specify, by notice published in the Gazette, types and sizes of projects, which shall not be implemented unless an environmental impact assessment is carried out.

(2) A developer shall, before implementing any project for which an environmental impact assessment is required under subsection (1), submit to the Director, a project brief stating in a concise manner-

a. The description of the project;
b. the activities that shall be undertaken in the implementation of the project;
c. the likely impact of those activities on the environment;
d. the number of people to be employed for purposes of implementing the project;
e. the segment or segments of the environment likely to be affected in the implementation of the project;
f. such other matters as the Director may in writing require from the developer or any other person who the Director reasonably believes has information relating to the project.

(3) Where, upon examining the project brief, the Director considers that further information is required to be stated in the project brief before an environmental impact assessment is conducted, the Director shall require the developer, in writing, to provide, such further information as the Director shall deem necessary.

A.2 Environmental Impact Assessment Reports
S-25.
(1) Where the Director considers that sufficient information has been stated in the project brief under Section 24, the Director shall require the developer, in writing, to conduct, in accordance with such guidelines as the Minister may, by notice published in the Gazette prescribe, an environmental impact assessment and to submit to the Director, in respect of such assessment, an environmental impact assessment report giving-

a. a detailed description of the project and the activities to be undertaken to implement the project;
b. the description of the segment or segments of the environment likely to be affected by the project and the means for identifying, monitoring and assessing the environmental effects of the project;
c. the description of the technology, method or process to be used in the implementation of the project and any available alternative technology, method or process, and reasons for not employing the alternative technology, method or process;
d. the reasons for selecting the proposed site of the project as opposed to any other available alternative site;
e. a detailed description of the likely impact the project may have on the environment and the direct, indirect, cumulative, short-term and long-term effects on the environment of the project;

f. an identification and description of measures proposed for eliminating, reducing or mitigating any anticipated adverse effects of the project on the environment;
g. an indication of whether the environment of any other country or of areas beyond the limits of national jurisdiction is or are likely to affected by the project and the measures to be taken to minimize any damage to the environment;
h. an outline of any gaps, deficiencies and the adverse environmental concerns arising from the environmental impact assessment and from the compilation of the environmental impact assessment report;
i. a concise description of the method used by the developer to compile the information required under this section.

(2) The environmental impact assessment report shall be open for public inspection provided that no person shall be entitled to use any information contained therein for personal benefit except for purposes of civil proceedings brought under this Act or under any written law relating to the protection and management of the environment or the conservation or sustainable utilization of natural resources.

A.3 Review of Environmental Impact Assessment Reports
S-26.
(1) Upon receiving the environmental impact assessment report, the Director may invite written or oral comments from the public thereon, and where necessary may-

a. Conduct public hearings at such place or places as the Director deems necessary for purposes of assessing public opinion therein;
b. require the developer to redesign the project or to do such other thing as the Director considers desirable taking into account all the relevant environmental concerns highlighted in the environmental impact assessment report, any comments made by the public and the need to achieve the objectives of this Act;
c. require the developer to conduct a further environmental impact assessment of the whole project or such part or parts of the project as the Director may deem necessary, or to revise the information compiled in the environmental impact report;
d. recommend to the Minister to approve the project subject to such conditions as the Director may recommend to the Minister.

(2) In considering whether or not to recommend to the Minister the approval of any project or of any condition, the Director shall take into account any likely impact of the project on the environment and the actual impact of any existing similar project on the environment.

(3) A licensing authority shall not issue any licence under any written law with respect to a project for which an environmental impact assessment is required under this Act unless the Director has certified in writing that the project has been approved by the Minister under this Act or that an environmental impact assessment is not required under this Act.

A.4 Environmental Audits
S-27.
(1) The Director shall, in consultation with such lead agency as he may consider appropriate, carry our or cause to be carried out periodic environmental audits of any project for purposes of enforcing the provisions of this Act.

(2) For purposes of subsection (1), the Director, may require a developer to keep such records and submit to the Director such reports as the Director may deem necessary.

(3) A developer shall take all reasonable measures for mitigating any undesirable effects on the environment arising from the implementation of a project which could not reasonably be foreseen in the process of conducting an environmental impact assessment and shall, within a reasonable time, report to the Director such effects and measures.

A.5 Monitoring Existing Projects

S-28.

The Director shall take such measures as are necessary for ensuring that the implementation of any project commenced before the coming into force of this Act complies with the provisions of this Act.

A.6 Fees

S-29.

The Minister may, by notice published in the Gazette, prescribe such fees as may be necessary for covering reasonable costs for scrutinizing environmental impact assessment reports and for the subsequent monitoring of a project which has been approved for implementation under this Act.

A.7 Offences Relating to Environmental Impact Assessment

S-63.

Any person who contravenes Section 24 (3) or fails to prepare an environmental impact assessment report or knowingly gives false information in an environmental impact assessment report contrary to Section 25 shall be guilty of an offence and be liable, upon conviction, to a fine of not less than K5,000 and not exceeding K200,000 and to imprisonment for two years.

A.8 Closure of premises

S.76.

(1) Where the Director believes, on reasonable grounds, that this Act or any regulations made thereunder have been contravened, the Director may, subject to subsection (2), order the closure of any premises by means of, or in relation to which the Director reasonably believes the contravention was committed.

(2) The closure of any premises shall cease after the provisions of this Act or any regulations made thereunder have been instituted in respect of the contravention, in which event the premises shall remain closed until the proceedings are finally concluded.

Appendix B

List of Prescribed Projects

As prescribed under Section 24 (1) of the Environmental Management Act, the types of projects for which an environmental impact assessment may be required:

LIST A

List of projects for which EIA is mandatory

Al. AGRICULTURE /AQUACULTURE PROJECTS

1. Agricultural drainage projects of more than 1 ha.
2. Irrigation schemes designed to serve more than 10 ha.
3. Land development for the purposes of agriculture on greater than a 20 ha land holding.
4. Agricultural projects necessitating their resettlement of 20 or more families. Any change form one agricultural land use to another on greater than a 20 ha land holding.
5. Use of more than 1 tone of fertiliser per hectare per annum on greater than a 20 ha landholding except for lime applications
6. Use of the following concentrations of pesticides on greater than a 5 ha holding:
    - more than 5 l/ha of ultra low volume pesticides per application; or
    - more than 1 l/ha of aerial application of pesticides; or
    - more than 20kg/ha for each application of granular pesticides.
7. Construction of fish-farming or ornamental pond(s) where the capacity is greater than 100 cubic metres or where there is any direct discharge from a fishpond to a receiving water body.
8. Any proposal to introduce fish species in an area where they do not presently exist.

A2 PROJECTS IN THE FOOD AND BEVERAGE PRODUCTION INDUSTRY

1. Construction of new abattoirs or slaughtering houses with a capacity of greater than 100 animals/day and expansions to existing abattoirs or slaughtering houses to a capacity of greater than 100 animals/day
2. Construction of new canning and bottling operation with work space of greater than 5000 square metres or expansion to an existing canning or bottling operation to a work space of greater than 5000 square metres
3. Construction of new breweries and distilleries with a production capacity of greater than 25,000 litres per day, or expansions to existing breweries or distilleries to a production capacity of greater than 25,000 litres per day
4. Construction of new sugar production operations or expansions to existing sugar production operations by greater than 10%
5. Construction, or expansions to, tea or coffee processing industries.

A3 WATER RESOURCES DEVELOPMENT

1. Construction, or expansion of, ground water utilisation projects where the utilisation will be greater than 15 1/s or where the well is 60 m or deeper
2. Construction of new water pipelines or canals longer than 1 km, or expansion to existing water pipelines or canals by longer than 1 km, where the cross-sectional area is greater than 20 square metres and the volume of water to be carried will be greater than 50 cubic metres per second.

3. Water pumping stations adjacent to lakes, rivers, and reservoirs which withdraw more than 2 cubic metres per second
4. Drinking water supply schemes to serve a population of greater than 10,000 people, or expansions of existing schemes to serve such a population, or water reticulation networks with more than 10 kilometres of pipeline
5. area of greater than 100 ha, or expansions of existing reservoirs by greater than 500,0001 or greater than 100 ha.
6. Construction or expansion of dams with a height of 4.5 m or higher.

A4 INFRASTRUCTURE PROJECTS

1. Construction of new sanitary sewerage works, or expansion of existing sanitary sewerage works, to serve a population of more than 5,000 people.
2. Construction of new storm sewerage works, or expansion of existing storm sewerage works, to drain an area of greater than 10 ha.
3. Any new sewerage outfall to a receiving water body or location of sewerage systems or septic tanks within 1 km of a water body.
4. Construction or expansion of septic tanks servicing more than 100 people or 20 homes or which receive more than 100 cubic metres per day of waste water.
5. Construction of new highways and feeder roads or expansion of existing highways and feeder roads.
6. Construction of new airport and airstrips or expansion of existing and airstrips and their ancillary facilities.
7. Construction of hospitals with a bed capacity of greater than 200 beds, or expansions of existing hospitals to a capacity of greater than 200 beds.
8. Construction of new, or expansions to existing, railway lines
9. Construction of new, or expansions to existing port or harbour facilities.
10. Establishment or expansion of industrial estates.

A5 WASTE MANAGEMENT PROJECTS

1. Establishment, or expansion, of any of the following hazardous waste management facilities:
    1. incineration plant
    2. off-site recovery plant
    3. off-site waste disposal facility
    4. off-site storage facility
    5. landfill site
2. Establishment, or expansion, of any of the following municipal solid waste management facilities serving a population of greater than 1,000 people:
    1. landfill site
    2. incineration facility
    3. composting facility
    4. recovery/recycling facility
    5. waste depots/transfer stations
3. Establishment, or expansion of, on-site waste treatment facilities.

A6 ENERGY GENERATION, TRANSMISSION AND STORAGE PROJECTS

1. Construction or expansion of electrical generating facilities designed to operate at greater than 4 MW or, in the case of hydro-electric generating facilities, where the total head is greater than 20 m or where there is a firm flow of 100 cubic metres per second.
2. Construction of electrical transmission facilities operating at a voltage of 132 kv or greater
3. Construction or expansion of oil and gas pipelines longer than 1 km.
4. Construction or expansion of storage facilities (excluding services station) for oil, gas, petrol or diesel located within 3 kilometres of commercial, industrial or residential areas and with a storage capacity of 500,000 litres or more

5. All activities associated with nuclear power development

A7 INDUSTRIAL PROJECTS

1. Construction of, and expansions to, industries involving the use, manufacturing, handling storage; transport or disposal of hazardous or toxic chemicals as regulated under the hazardous chemicals regulation under the Environment Management Act.
2. Construction of, or expansion to, any of the following industrial operations:
    1. tanneries
    2. pulp and paper mills
    3. lime plants
    4. cement plants
    5. all types of smelters
    6. soap and detergent plants
    7. fertiliser manufacturing operations
3. Construction of textile manufacturing operations (including carpet-making) which consume greater than 5,000 square metres of surface area, or expansions to existing textile manufacturing operations to a capacity of more than 5000 square metres

A8 MINING AND QUARRYING PROJECTS

1. All mining of minerals, expansions to mines, mining exploration activity, minerals prospecting activity, quarries, gravel pits and removal of sand or gravel from shore lines, except for those activities which have received a project specific exemption under subsection 26 (3) of the Environment Management Act signed by the Director for Environmental Affairs and co-signed by the Director of Mines
2. Explosives manufacturing
3. Extraction of top soil or the expansion of such an operation, when the operation or the expansion is greater than 0.5 ha or when the depth of a pit to burn bricks from the top soil is deeper than 3 m

A9 FORESTRY PROJECTS

1. Establishment or expansion of logging operations covering an area of greater than 50ha.
2. Establishment of, or expansions to existing, logging operations on hill sides with a slope of greater than 10% covering an area of greater than 10 ha or any conversion of forested land with a slope of greater than 10% to another land use on greater than 10 ha.
3. Establishment of logging or conversion of forested land to another land use within the catchment area of reservoirs
4. Establishment of forest plantations of greater than 50 ha.

A10 LAND DEVELOPMENT, HOUSING AND HUMAN SETTLEMENT PROJECTS

1. Establishment of, or expansion to an existing; housing development of a Si7^ greater than 5 ha or where more than 500 people are intended to be housed.
2. Resettlement programmes for 500 or more people or the creation of refugee camps intended to shelter 500 or more people.
3. Filling in water bodies for the purposes of land development where the surface area of gross fill deposit is greater than 50 ha
4. Land reclamation projects greater than 100 ha.

A11 REMEDIAL FLOOD AND EROSION CONTROL PROJECTS

1. Construction of breakwaters, seawalls, jetties, dikes and groins of greater than 2 metres in height or 1 km in length to remedy shoreline erosion or flooding
2. Construction of dams or weirs with a height of greater than 2 metres, or which divert more than 20 cubic metres per second, or any bypass channels or channel realignments to remedy riverine erosion or flooding .
3. Shoreline stabilisation projects where the shoreline involved is greater than 50m.

A12 TOURISM DEVELOPMENT PROJECTS

1. Construction of resort facilities and hotels with a capacity of more than 50 people, or expansions to existing facilities by a factor of greater than 50 people.
2. Construction of safari lodges and operations with a capacity of more than 50 people, or expansions to existing facilities by factor of greater than 50 people.
3. Construction of marine facilities with more than 10 boat slips, or expansion of existing marine facilities by more than 10 boat slips.
4. Development of tourism master plans which have several projects associated with them.

A13 PROJECTS IN PROXIMITY TO OR WHICH HAVE THE POTENTIAL TO AFFECT:

1. areas of unique historical, cultural, scientific or geographical significance or which have received some kind of world heritage designation .
2. national parks, game reserves and protected areas
3. wetlands
4. water bodies
5. flood zones
6. major sources of drinking water, including communal wells
7. cemeteries or ancestral shrines
8. residential, school and hospital areas, as designed in local planning documents.

A14 MAJOR POLICY REFORMS
For example:

1. Degazettement of Forestry Reserves
2. Changes to Zoning Plans.
3. Proposed introduction of exotic species.

Appendix B

List of projects for which EIA may be required

B.1 Agriculture/aquaculture schemes

B.2 Drainage and irrigation

1. large-scale irrigation or drainage schemes
2. drainage of wetland or wildlife habitat

B.3 Forestry and logging schemes

B.4 Industry

1. large-scale industrial plants
2. industries involving the use, manufacture, handling, storage, transport or disposal of hazardous or toxic materials
3. breweries
4. tanneries
5. agro-industries
6. pulp and paper mills
7. lime plants
8. cement plants
9. smelters other than iron and steel
10. iron and steel smelters
11. petrochemical plants
12. chemical plants

B.5 Infrastructure

1. industrial estates
2. major roads and highways
3. major railway lines
4. ports, harbours and lake structures
5. airports and airport facilities

B.6 Land development

1. reclamation and new land development
2. refugee and resettlement schemes
3. housing developments (large-scale)
4. darns and man-made lakes
5. urbanisation

B.7 Mining

1. mineral prospecting
2. mineral mining
3. ore processing and concentrating
4. quarrying
5. brick-making

B.8 Energy generation, transmission and use

1. thermal power stations
2. hydropower schemes
3. high voltage transmission lines
4. major oil and gas pipelines
5. biomass burning

B.9 Tourism

1. major resort facilities and hotels
2. marinas
3. safari lodges and operations

B.10 Waste treatment and disposal

1. municipal sewage: waste treatment plants, out-falls into aquatic systems, effluent water irrigation schemes
2. municipal solid waste: landfill and incineration facilities, composting and recycling plants.
3. toxic and hazardous waste: incineration plants, recovery plants (off-site), waste water treatment plants (off-site), landfill facilities, storage facilities (offsite)

B.11 Water supply

1. ground water development for industrial, agricultural or urban water supply
2. water withdrawals from rivers, lakes or reservoirs
3. major water pipelines and canals
4. cross-drainage water transfers

B.12 Health and population
B.13 Areas protected under legislation

1. Forest Reserves, Game Reserves.
2. National Parks
3. Monuments and declared historical sites

B.14 Areas containing rare or endangered flora and fauna
B.15 Areas containing unique or outstanding scenery
B.16 Tribal habitats

1. Cemeteries
2. Ancestral shrines

Appendix C

Preparing EIA Submissions

There are two sequential types of formal EIA submissions which represent progress reports to meet the requirements of Malawi's EIA process. These are Project Briefs, and EIA Reports.

C.1 PROJECT BRIEF

A Project Brief is a short report informing DEA that a prescribed activity is being considered. Its sole purpose is to provide sufficient information to allow DEA to determine the need for an EIA based on screening criteria discussed in Appendix D of these guidelines. Thus, a Project Brief must contain the information needed by DEA to evaluate the report against the screening criteria.

Unless a project is likely to have evidently significant environmental impacts, project developers should be able to prepare a Project Brief with little or no assistance from environmental specialists. Since projects and their stage in the project cycle varies widely, detailed guidelines for the content of a Project Brief are not possible. However, Section 24 of the EMA requires that a Project Brief should at least state:

1. the nature of the project;
2. the activities that shall be undertaken;
3. the possible products and by-products anticipated;
4. the number of people the project shall employ;
5. the area of land, air or water that may be affected; and
6. any other matters as may be prescribed. More generally, a Project Brief should also contain:

    1. A basic description of the project purpose, size, location and preliminary design, including any alternatives which are being considered (ea. site, technology, construction and operation procedures, handling of waste).
    2. The stage of the project in the project cycle.
    3. A location map of the project site or site alternatives, and a site plan as it is currently known. Maps and plans should conform to the standards discussed below.
    4. A discussion of which aspects of the project are likely to cause environmental concerns, and of proposed environmental management measures.

C.2 GENERAL REQUIREMENTS OF AN EIA REPORT

Section 25 of the EMA contains a specific list of topics that must be covered in an EIA report. The intention of this appendix is to elaborate on those topics to give a fuller appreciation of what an EIA report should contain. Additional topics are also discussed to fill out the contents of the highest quality of report.

1. Quality Standards: Project developers and their EIA teams should be mindful that an EIA will be evaluated by EAD using standard, comprehensive evaluation criteria discussed in Appendix H of these guidelines. Thus, the criteria embodied in these guidelines represent quality standards which EAD expects project developers to meet in preparing an EIA report.

2. Terms of Reference: The terms of reference under which the EIA was prepared should be included in the report, usually as an appendix.

3. Identification of the EIA Team: An EIA report should contain a listing of all the team members involved in preparing the report, their qualifications in summary, and an overview of what each member contributed to the report preparation.

4. Discussion of EIA Methods: The methods used in carrying out an EIA should be documented in an EIA report to assist reviewers in understanding the results and how they were obtained. These methods include those for identifying potential impacts (ea. checklists, interaction matrices), for collecting data and information (ea. field surveys, public consultation), and for analyzing impacts and assessing their significance.

   It is especially important in EIA to make the distinction between the severity of an impact (ea. its magnitude, a real extent, duration, frequency and reversibility) and its significance. This is a fundamental distinction which is often overlooked. Assessing the significance of an impact involves combining information about its likely severity and about the importance of the environmental feature being affected. In other words, impact analysis deals with the question What's so?" or is likely to be so. Impact significance deals with the question "so what?". Decision-makers need to know the answer to both questions. When methods are unclear and the distinction between severity and significance are blurred, the usefulness of EIA results to decision-makers is substantially diminished.

5. Public Consultation: The methods and results of consulting the public should be documented.

6. Information and Mapping Standards: All sources of data and information used in an EIA should be suitably documented. Secondary sources should be acknowledged and properly referenced. Where the relevance of the information for EIA purposes may be debatable, the EIA should justify its use with a discussion of its quality, currency and precision. The EIA should also identify data and information gaps and analyse their effect on the study results and reliability.

   Other than small-scale location maps, all maps presented in an EIA Report should be at 1:50,000 or larger scale. All maps must be drawn to scale with the scale given. Thematic information (ea. roads, streams, and vegetation types) should be mapped using standard symbols identified in a legend.

C.3 STRUCTURE OF AN EIA REPORT

The typical elements of an EIA report are presented below. While the discussion refers to "sections" of a report, those that prepare an EIA should not feel constrained by the suggested structure but use one which best communicates the project and the EIA results. In terms of content, however, an EIA report should contain material discussed below.

1. Executive Summary: This is a short but comprehensive summary of the report, with an emphasis on expected impacts and management measures. In most cases, the summary should be no more than two or three pages long.

2. Introduction: The introduction will identify the type of project proposed (ea. a multi-purpose dam), its location (or location alternatives) and if the project is part of a larger proposal. The project developer must be clearly identified as must be the team which carried out the ELA. It will outline the background to the project and the reasons or necessity for it.

3. Project Description: The project description will indicate the status of the project in the project cycle -- e.g. pre-feasibility, feasibility, detailed engineering and design -- so that the level of detail and available planning or design options can be understood by reviewers of the report. The description of the project and its alternate sites, designs and implementation strategies will be given in only enough detail so that impact forecasts and management measures can be understood and appreciated. Detailed descriptions of aspects of the project irrelevant to the forecasting and management of impacts must be omitted. In most cases, it is not necessary to include detailed process or market-sensitive information which a developer might want to remain confidential. In most cases, the description will include:
    1. inputs (raw materials), outputs (products), processes and major types of equipment;
    2. maps, flow diagrams and photographs where necessary; and
    3. a summary of technical, economic and environmental features essential to understanding the project.

The possible project options available within the existing economic, technical and environmental constraints will be discussed and compared. These could be options in terms of size, site, technology, layout, raw materials, energy sources and even products. The principal features of each option will be given and the economic, technical and environmental advantages and disadvantages of each option will be discussed and evaluated. Reasons for selecting the preferred option(s) will be given.

4. Environmental Planning and Design: The report includes a discussion of the environmental planning that has gone into the project. All the issues that have been taken into account for avoiding or minimizing impacts, for capturing potential benefits, for compensating for residual impacts, and for impact management are discussed.

   The design management features to which the developer is committed are highlighted as these form a key part of the project design on which impact analysis is carried out. The design process should pay particular attention to human health issues.

5. Public Consultation: The report discusses the objectives, methods and results of public consultations during the EIA.

6. Environmental Setting: Most importantly, the report contains a description of the environmental setting. This is given in only enough detail to allow for an understanding of the analysis and assessment of impacts. It describes at least the following:
    1. the spatial and temporal boundaries within which the environmental setting was considered;
    2. the existing condition of the physical, biological and human environments of the project area, as well as trends and the anticipated future environmental conditions should the project not go ahead; and
    3. environmentally-sensitive areas of special or unique biophysical, socio-economic or cultural value.

7. Assessment of Environmental Impacts: A description of how beneficial and adverse impacts, both direct and indirect, are expected to occur is necessary for each feature of the environment identified as important during the scoping of the study requirements. Possible cumulative and synergistic effects are highlighted. In each case, the report discusses:
    1. the source(s) or cause(s) of the impact;
    2. the severity of impact (i.e. its magnitude, areal extent, duration, etc.) as well as the likelihood of its occurring as forecast;
    3. the assessed significance of the impact; and
    4. possible measures for avoiding or mitigating the impact

It is imperative that the analysis of impacts be based upon a comparison of future environmental conditions with and without the project. Comparison of project-induced changes to existing conditions only is not acceptable.

The section includes a discussion of the analytical methods used to forecast impacts, of how environmental data was gathered, and of the methods and criteria used to judge impact severity and significance.

This section of the report concludes with a summary of those impacts considered to be of greatest significance and measures proposed to avoid, reduce and/or manage them. It also discusses the distribution of-adverse and beneficial impacts locally and regionally. It identifies which impacts the developer is committed to managing during project implementation and which are residual impacts -- i.e. those which cannot be avoided or minimised.

8. Environmental Management Plan: This section summarises the earlier discussion of the planning and design measures that have been adopted into the project plan to reduce or eliminate potential impacts. It presents a plan for monitoring and managing impacts during project implementation, and outlines which activities will be undertaken by the proponent and which should be the responsibility of government.

9. Resound Evaluation: Where possible, the report includes an economic evaluation of the environmental costs and benefits of the project, and identifies those which cannot be evaluated in monetary terms. The distribution of costs and benefits (i.e. Who benefits? Who pays?) is also discussed.

10. Summary and Recommendations: Appropriate conclusions should be drawn in each section of the EIA report. It is useful to have the conclusions summarised in a series of brief statements referring to relevant sections of the report. The section focuses on significant impacts, the measures recommended for avoiding or minimising them, and the impact management proposals during project implementation.

11. Appendices: Appendices contain information not directly useful in the text of the report but needed for reference or detailed review by technical experts. These could include:
    1. The terms-of-reference for the EIA.
    2. Sources of data and information. All individuals and agencies consulted for specialist information or knowledge used in the report are referred to in the text and documented here. Written opinions received from outside specialists may also be appended. Field data collection programmes completed during the EIA are also described.
    3. Detailed data reduced for use in the main body of the EIA report.
    4. Detailed technical analyses of particular impacts (e.g. pollution dispersion, soil erosion, projections of demands for social services).
    5. A summary of the programme for consulting the public in project planning and assessment, plus a complete record of all parties consulted.
    6. Names, qualifications and roles of the team members who carried out the study.

Appendix D

Project Screening Criteria

Once a Project Brief has been received and reviewed by DEA, a prescribed project is exempted from further compliance with EIA requirements if all of the following conditions are satisfied:

1. The project will not substantially use a natural resource in a way that pre-empts the use, or potential use, of that resource for any other purpose.

2. Potential residual impacts on the environment are likely to be minor, of little significance and easily mitigated.

3. The type of project, its environmental impacts and measures for managing them are well understood in Malawi.

4. Reliable means exist for ensuring that impact management measures can and will be adequately planned and implemented.

5. The project will not displace significant numbers of people, families or communities.

6. The project is not located in, and will not affect, any environmentally-sensitive areas such as:
    1. national parks
    2. wet-lands
    3. productive agricultural land
    4. important archaeological, historical and cultural sites
    5. areas protected under legislation
    6. areas containing rare or endangered flora or fauna
    7. areas containing unique or outstanding scenery
    8. mountains or developments on or near steep hill-slopes
    9. dry tropical forests (e.g. Brachystegia woodlands)
    10. development near Lake Malawi or its beaches
    11. development providing important resources for vulnerable groups such as fishing communities along the lake-shore
    12. developments near high population concentrations or industrial activities where further development could create significant environmental problems
    13. prime ground-water re-charge areas or areas of importance for surface run off of water

7. The project will not result in and/or:
    1. policy initiatives which may affect the environment such as changes in agricultural pricing subsidies or the tobacco liberalization
    2. major changes in land tenure
    3. changes in water use through irrigation, drainage promotion or dams, changes in fishing practices

8. The project will not cause:
    1. adverse socioeconomic impact

2. land degradation
3. water pollution
4. air pollution
5. damage to wildlife and habitat
6. adverse impact on climate and hydrological cycle
7. air pollution
8. creation of by-products, residual or waste materials which require handling and disposal in a manner that is not regulated by existing authorities.

9. The project will not cause significant public concern because of potential environmental changes. The following are guiding principles:
    1. Is the impact positive, mainly benign or harmful?
    2. What is the scale of the impact in terms of area affected, numbers of people or wildlife?
    3. What is the intensity of the impact?
    4. What will be the duration of the impact?
    5. Will there be cumulative effects from the impact?
    6. Are the effects politically controversial?
    7. Have the main economic, ecological and social costs been quantified?
    8. Will the impact vary by social group or gender?
    9. Is there any international impact due to the proposed projects?

10. The project will not necessitate further development activity which is likely to have a significant impact on the environment.

Appendix E

Scoping and Preparing EIA Terms-of-Reference

E1. EIA Scoping

1. Definition: Procedure for determining the extent of and approach to an EIA It is carried out at an initial stage of project planning after completion of screening. It involves the following tasks:
    1. involvement of relevant authorities and interested and affected parties
    2. identification and selection of alternatives
    3. identification of significant issues to be examined in the EIA
    4. Determination of ToR for the EIA

2. Aim of scoping: The main aim of scoping is:
    1. to provide an opportunity for the developer, consultant, relevant authorities and interested and affected parties to exchange information and express their views and concern regarding a project proposal before an EIA is undertaken,
    2. to focus the EIA study on reasonable alternatives and only relevant issues so as to ensure that the EIA is useful to decision makers and addressees the concerns of the stake holder and,
    3. to facilitate an efficient assessment process that saves time and resources and reduces delays
3. Scoping responsibility and methods: The developer is responsible for scoping. It may be appropriate to appoint a multi disciplinary team or advisory group to guide the scoping process. The selection of the group members should be to the satisfaction of the EAD. The group should represent a wide range of interests points of view and fields of relevant expertise to project The group should be responsible for a scoping plan or programme which should indicate:
    1. the authorities and public that are likely to be concerned
    2. how they will be notified
    3. what methods will be used to inform them of the proposal and solicit comments
    4. at what stage of the EIA opportunities will be provided for public input.
4. Scope of EIA: Determine the scope of the EIA involves input from interested and affected parties on:
    1. identification and selection of alternatives
    2. identification of significant issues to be addressed
    3. identification of appropriate mitigating measures and
    4. determination of specific ToR for EIA
5. Scoping Report for the EIA: A written report of the results of the scoping exercise should be prepared by the developer for record purposes to the interested affected parties.

    The report should at least indicate:

    6. how scoping was undertaken
    7. the authorities represented and affected parties consulted
    8. alternatives which should be examined in EIA the issues of concern
    9. the specific guidelines/ToR) for EIA studies

It is recommended that there should be an opportunity to object to the scoping procedure. The scoping document, now the EIA ToR, thus many be available for public and authority review before investigations are too for advanced. The objections would come in if key parties were not consulted in the scoping or where significant alternatives or issues were omitted from the investigations. This will reduce unnecessary appeal relating to the adequacy of the EIA at a late stage. Model ToR for an ELA

are given in Appendix F. The model should only be used as a guide since projects, their status in the project cycle and proponent needs vary widely. ToR contents cannot be standardized. Nonetheless, the minimum contents of ToR are:

E.2 EIA ToR:

1. An introduction which presents the developer, the project proposal, its stage in the project cycle, and the purpose and objectives of the ELA.
2. Project-related information. The project proposal and any alternatives being considered should be described in sufficient detail to guide the development of a study proposal. Available background reports and studies concerning the project and its environment should be summarized to provide an indication of the kinds of information available for the study. Project-related policy, legislation and rules should be outlined, as well as planning and implementation approvals which will be needed from central and local government authorities.
3. Specific EIA requirements should be identified in a ToR, especially the particular environmental concerns to be examined as defined through scoping. These concerns will have been identified through discussions with government and, perhaps, people who may be affected by the project.
4. The need for the EIA to address measures for avoiding, mitigating and managing impacts should be clearly stated. In particular, an environmental management plan for construction, operation and decommissioning phases of the project should be required.
5. The ToR should require that costs be estimated for all measures recommended to deal with anticipated impacts, including the implementation of an environmental management plan. These should include capital, operating and training costs.
6. The ToR should require a detailed work plan describing the overall study strategy, the specific tasks to be undertaken, the EIA team members and their responsibilities, the time schedule for carrying out the work, and the expected outputs.
7. The nature of the relationship among the EIA team, the proponent, government ante public should be addressed. To maximize the opportunity for good environmental planning and design, the ToR should specify that the EIA teamwork in close collaboration with the proponent's engineering team. Thus, the EIA team should be given the mandate to participate in project planning as well as impact assessment.
8. The ToR should indicate who should be consulted during the work from both the public and private sectors. Most importantly, the proponent's expectations for the extent of public consultation should be emphasized. The ToR should require that a consultation strategy be clearly presented (e.g. consultation objectives, list of stakeholder or audiences, methods to reach audiences, scheduling of consultation activities, how consultation results will be analyzed). Guidance on public consultation is given in Appendix G of these guidelines.
9. Some ToRs indicate the format of the EIA. This is a useful guide for the team preparing the ELY but, as a minimum requirement, the EIA should contain the information discussed in Appendix C of these guidelines.
10. Expectations for meeting EAD requirements (e.g. report contents, number of copies of the report, responding to review comments) should be specified.

Appendix F

Model EIA Terms-of-Reference

Following are model ToRs for an EIA. They assume the project developer is soliciting proposals from consultants to carry out the work. Thus, the ToRs inform the consultant about the developer's intentions as well as about what work is expected. Where project-specific text needs to be inserted by the developer, it is shown in italics.

1. INTRODUCTION

(Name of developer) requests proposals from qualified consultants to carry out an EIA for the (name of project) in accordance with the requirements of Malawi's EIA process. (Name of developer) intends that this project will incorporate all practical, cost-effective measures for avoiding or minimizing negative environmental impacts, for capturing environmental benefits and, overall, for ensuring sound environmental management. Thus, the purpose of the study is twofold:

1. To provide (developer's name) with advice on how the project design or plan may be changed or adapted to avoid or mitigate negative impacts and to better capture anticipated environmental benefits; and
2. To prepare an EIA acceptable to the Director of Environmental Affairs.

(The developer, the project proposal and its stage in the project cycle are described in general terms.)

2. PROJECT DESCRIPTION

(lee project proposal and any alternatives being considered are described in sufficient detail to inform the preparation of a study proposal. Available background reports and studies concerning the project and its environmental setting are summarized to provide an indication of the kinds of information available for the study. Project-related policy, legislation, regulations and rules are outlined, as well as planning and implementation approvals which will be needed from central and local government authorities. If it exists, the developer 's corporate environmental policy is included.)

3. ENVIRONMENTAL CONCERNS TO BE ADDRESSED IN THE EIA

In Consultation with the Director of Environmental Affairs, the following biophysical, resource use and socioeconomic concerns were identified as the key issues to be addressed in the EIA (The agreed upon concerns are listed.)

While the study is to be focused on the above issues, the consultant may, in the course of his work, identify further concerns which should be addressed. These will be brought to the immediate attention of (developer's name) for consideration and possible inclusion in the study after consultation with the Director of Environmental Affairs.

4. ENVIRONMENTAL MANAGEMENT

The consultant will pay particular attention to identifying and recommending measures or practices for avoiding, mitigating or managing negative impacts of the project, and for capturing or enhancing potential environmental benefits. As potential measures or practices begin to be identified, the consultant will bring them to (developer's name)'s attention for possible inclusion in the project plan.

In particular, the consultant will prepare an environmental management plan forge construction, operation and decommissioning of the project. The consultant will estimate the costs of implementing this plan, including all capital, operating and training costs.

5. RELATIONSHIP OF EIA TO PROJECT PLANNING AND DESIGN

To maximize the opportunity for good environmental planning and design of the project, the consultant will work closely with (developer's name)'s engineering team. As appropriate, the consultant will offer suggestions on how the project design or plan may be changed to improve its environmental performance. Any changes accepted by (developer's name) will be incorporated into the project plan and will revise the basis upon which the consultant forecasts impacts and recommends environmental management measures, practices and costs.

6. PUBLIC CONSULTATION

(Developer's name) intends that all concerned public and private stake-holder in the project have adequate input to its planning and design, and that the project will be well-received by them. Thus, in addition to the usual government liaison, the consultant will propose an adequate programme of consulting the public during the EIA. The purpose of the programme will be to assist (developer's name) to both inform all interested parties about the project and solicit their views about it. Specifically, the consultant will propose an effective, comprehensive public consultation strategy which includes at least its objectives, an initial list of stake-holder or audiences to be consulted, methods for reaching these stakeholder/audiences, the scheduling of consultation activities, and how the consultation efforts will be analyzed. In devising a public consultation programme, the consultant will pay close attention to the guidance provided in the Guidelines for Environmental Impact Assessment (Appendix G) published by the Environmental Affairs Department

7. CONTENT OF THE EIA REPORT

At minimum, the ELA report produced by the consultant will contain the information outlined in the Department's Environmental Impact Assessment (Appendix C). The consultant will ensure that the report can be readily evaluated against the Department's review criteria (Appendix H of the guidelines)

8. REPORTING REQUIREMENTS

The consultant will submit monthly progress reports on the work to (developer's name).

The consultant will submit (number) copies of the draft EIA report to (developer's name) within (number) weeks of signing the study contract. When (developer's name) has reviewed the report and the consultant has made any mutually agreed upon changes, the consultant will submit (number) copies of the final draft report to (developer's name). (Developer's name) will submit the desired number of copies to the Director of Environmental Affairs.

The consultant will make himself available for subsequent discussions about the EIA report with the Environmental Affairs Department and Technical Committee for the Environment. He will make any additions, clarifications or changes to the EIA Report agreed upon by both (developer's name) and the Director of Environmental Affairs.

9. EIA TEAM MEMBERS

The consultant and team members should be recognized by the Minister. At the same time, the consultant is expected to meet the EIA quality standards expected by the Director of Environmental Affairs as outlined in Appendix H of the Guidelines for Environmental Impact Assessment.

10. CONSULTANT PROPOSAL

The consultant will submit a technical and cost proposal in response to these terms-of-reference to (name and address of developer's representative) by (time and date). The technical proposal will describe the proposed overall study strategy and detailed work-plan of the specific tasks to be undertaken, the study team members and their qualifications and responsibilities, the time schedule for carrying out the work, and the expected outputs. It will include evidence that the consultant, through past experience and training, is qualified to carry out the work to the satisfaction of (developer's name) and the Director of Environmental Affairs. Curriculum vitae of all principal team members are to be submitted.

The cost proposal will be based on daily fee rates for each team member and the number of days they will be involved. Proposed field subsistence rates will be given and reimbursable expenses will be estimated. All expenses will be billed at cost.

Appendix G

Consulting the Public

G.1 WHY CONSULT THE PUBLIC

The EIA process typically involves consultations with members of the public-individuals, community and business leaders, elected officials, and non-governmental organizations, for example. These people are consulted because they are usually "stakeholders" in that, in a number of ways, they can have a "stake" in a project. For example, a project may provide opportunities for employment and sales of goods and services, it may displace them from their homes, or it may create noise and pollution which can affect their health.

Who is consulted during EIA activities, when, how and by whom will var. considerably from project to project, depending on project needs, but there are a number of reasons why this consultation is important:

1. A project creates change. Irrespective of whether it is good or bad, change is usually upsetting. When people are informed about a project, their anxiety and concerns tend to be reduced and the project developer finds that his proposals are more readily accepted by people and government authorities.
2. When people are informed, they are better able to appreciate the opportunities a project will have for them such as a job or a market for their goods and services.
3. People in a project area have a wealth of knowledge and information about local conditions which can be valuable to those carrying out an EIA or more general project planning.
4. Consultations can help avoid EIA omissions and mistakes. Local people can point out issues of concern to them, and what they value most in their environment, so these can be incorporated into an EIA
5. Local people can easily have suggestions not readily apparent to outsiders on ways to avoid or minimise adverse impacts, to capture potential benefits, or to resettle displaced families in a humane manner.
6. In democratic societies like Malawi, people expect to be consulted about activities which will affect their families, livelihoods, communities or historical, cultural or favourite recreational sites. Failure to consult them can result in problems for government and delays for project developers.

G.2 METHODS OF PUBLIC CONSULTATION

There are a number of distinct methods for consulting the public (Figure G.1) but it is essential to note, at the outset, that no one method Is usually sufficient by itself: An effective public consultation programme typically incorporates two, three or more methods which complement each other in ensuring adequate input to the EIA process.

1. Press conferences, information notices & brochures/ fliers: Typical methods used to disseminate public information about a project. The sole objective of these methods is to inform the public so, strictly speaking, they are not genuine consultation. They are one-way communication "with" no attempt made to solicit people's views about the project. However, using information programmes can play the very useful purpose of letting people know what is going on and of stemming the proliferation of incomplete and inaccurate information via rumours and false reports. Public information methods are most useful if there are a series of information releases as a project moves through the project cycle, timed to coincide with major planning stages and decision points.

Genuine public consultation goes beyond issuing information to using two-way communication methods which allow the public both to be informed and to express their views about a project. Open dialogue is considered to be the best way to share information and views, and to resolve issues, in a mutually satisfactory manner. The full range of consultation methods should be considered in the design of an appropriate public consultation programme. These methods include interviews, questionnaires, polls, open houses, community meetings, advisory committees and public hearings. Generally, more complex or sensitive situations require a more thorough consultation effort.

2. Overviews, questionnaires and polls: Useful for soliciting information about an environmental and socio-economic setting for use in an EIA. They assist in gathering the views of the public about the project proposal, its desirability, and how it might best fit into the local community.
    1. Interviews: Generally conducted individually with a selected group of people, hopefully representative of the range of "stakeholders" in a project. They tend to be unstructured Conversations' guided by some general questions, in which the interviewer seeks key information about a project and responses to it.
    2. Questionnaires and polls: The methods seek more specific information from a broader sample of people. They are not simple "instruments" to design and implement. The questions must be carefully crafted to avoid ambiguity and "leadings the respondent to a particular reply. Both "closed" and "open" questions can be asked, the first presenting a set range of replies for the respondent to choose from, and the second allowing the respondent to say anything. The two types are often used together to cover the same topic and provide the opportunity for unexpected answers. Questionnaires and polls mum be pre-tested before implementing them in the field to ensure that difficulties in wording and presentation are eliminated. They are always implemented with a sample of the population large and diverse enough to get an accurate picture of the entire population -- i.e. they are not a census. The design of questionnaires, polls and sampling strategies is a complex subject, particularly if statistically valid results are desired.

3. Open houses: Informal forums where project sketches, maps and other information is displayed, hand-outs are available, and developer representatives are present to answer questions. Visitors come and go as they please. Open house events can be scheduled for different days, time periods and venues to be convenient to all stakeholders. It is often helpful to provide a questionnaire or comment sheet to assist visitors in providing feedback.

4. Community meetings: More structured gatherings where the developer, stakeholders and, perhaps, government representatives exchange information, views, concerns and suggestions. Open and genuine dialogue can be very beneficial for all concerned but it must be handled with great care to avoid degenerating into open conflict and polarised positions. In particular, any hint that the consultation is not genuine will undermine the effectiveness of a meeting. Moreover, all participants must be clearly aware of what their role is and the extent of their ability to influence the project being discussed.

5. Advisory committees: Normally comprised of a cross-section of affected people, groups and organisations. They are often employed in more complex project situations with a greater potential for conflict but can also be very effective in simpler situations. Their purpose is to provide a forum for the ongoing exchange of information and views between stakeholders and the proponent throughout the project cycle, and for the timely identification of problems and solutions as project planning and implementation unfolds. In establishing

committee membership, a balance of interests should be maintained to promote broad thinking and creative solutions. Terms-of-reference should clearly state the committee's mandate and guide its work (ea. will recommendations be made and to whom, will the committee have any authority to make binding decisions?). Advisory committees require time, effort and money to be effective but can contribute substantially to achieving acceptable results for all concerned. A proactive developer may well consider this method from early in the project cycle to enhance the chances for smooth project planning, approval and implementation.

6. Public hearing: Formal meetings are usually held to consider the official of an EIA or of an entire project. They are structured proceedings, presided over by an administrative authority, in which testimony is given and examined, arguments for and against approval are heard, and a decision is made concerning approval or not. Depending on the jurisdiction, public groups may or may not have "standing'' in the proceedings - i.e. have the right to participate. Where standing does exist, some jurisdictions provide "intervenor funding" so that public groups can participate meaningfully when lack of funds is a significant constraint. Thus, public hearings provide an opportunity for stakeholders to challenge a proposal but little opportunity for the constructive exchange of information and ideas which other forms of public consultation are intended to achieve. To ensure that such hearings are efficient and effective, it is best if they are preceded by other methods of public consultation.

G.3 GUIDELINES FOR PUBLIC CONSULTATION

When considering the extent of public consultation needed for a project, one must consider the reasons why public consultation is important (Section G.1 above). Obviously, some consultation is desirable, if only to gather local information for project planning and to produce an acceptable EIA report. However, as discussed above, public consultation can take many forms and range from a limited to a very comprehensive and extended programme. Because project needs and local sensitivities will vary widely, what will be desirable for a particular project cannot be generically specified. Both Government and developers will need to be adaptive, responsive and willing to learn from experience before more prescriptive guidelines can be designed.

Most importantly though, public consultation should not be conceived as a "one-time" exercise but as a programme extending throughout the project cycle. In general, the programme should:

1. be started as early as possible in the project cycle. This will ensure that information is given and received in a timely fashion to expedite the EIA and to dispel unfounded rumours and suspicions which may make project planning and implementation more difficult.

2. be continued at some level throughout the project cycle. A sustained programme will contribute to better project planning, to enhanced public confidence in a project, and to timely notice should difficulties with public acceptance of a project begin to develop.

3. have its major elements timed to coincide with significant planning and decision making activities in the project cycle. In terms of Malawi's EIA process, public consultation could be undertaken during:
    1. the preparation of EIA terms-of-reference
    2. the carrying out of an EIA

3. government review of an EIA report
4. the preparation of environmental terms and conditions of approval

4. Make substantial efforts to overcome evident constraints to public consultation in a developing country such as poverty, the dispersed nature of rural populations, illiteracy, cultural characteristics which might inhibit participation by some people (e.g. women, minority groups), and the dominance of interest groups. Information and consultation approaches need to be appropriate to both a project and its social setting.

5. Ensure that it reaches all important stakeholders in a project area and both informs them about a project and gathers their views on its costs and benefits and how these can best be managed.

In terms of informing the public, the developer should at least place advertisements in national and project area newspapers, and perhaps on the radio, letting people know when a Project Brief, an EIA report has been submitted to the EAD; where they can review the document; and who they should contact if they want further information.

The objectives, methods and results of consulting the public during an EIA must be documented in the EIA report. Lists of individuals, groups and organizations which were consulted should be included as an appendix to the study report.

Appendix H

Evaluating the adequacy of an EIA Report

An EIA should be able to assist;

a. PROJECT DEVELOPERS

to plan, design and implement their projects in a way that minimizes adverse impacts on the biophysical and socioeconomic environments, and captures potential environmental benefits;

b. GOVERNMENT OR LICENSING AUTHORITIES

to decide whether or not a project should be approved and, if so, under what terms and conditions; and

c. THE PUBLIC

to understand a project and its environmental effects, and to make informed and substantive comments in the process of project review and approval.

To serve these purposes, an EIA must perform a number of distinct tasks. The objective of evaluating reports is to determine whether the tasks are adequatEIA performed.

H.1 BASIC GUIDELINES

For an EIA report to be useful, it has to disclose all relevant environmental considerations associated with a project and also provide information needed by decision-makers to assess the acceptability of the environmental consequences. Thus, the reviewer asks a number of basic questions before coming up with conclusions on the effectiveness of the report:

1. Has the EIA report addressed all the important issues in the terms-of-reference? Does it analyze all the relevant environmental issues associated with the project?
2. Is it suitably focused on the key questions that need to be answered to make a decision about the proposed project?
3. Are the methods used to gather and analyze information both scientifically and technically sound?
4. Is the EIA report clearly and coherently organized and presented so that it can be understood, especially by the lay public and decision-makers?
5. Does the EIA report provide the information needed by decision-makers to assess whether or not the environmental consequences are acceptable?

H.2 REVIEW TOPICS FOR EVALUATING AN EIA REPORT

Standard, comprehensive review topics are presented below to assist reviewers of an EIA Report to answer the above basic questions in a consistent, systematic and consistent manner. While this is their primary purpose, the review topics should also be usefi'1 to project developers in drafting terms-of-reference for an EIA report and in appreciating what the Environmental Affairs Department expects from an EIA report. They should also be useful to the public to guide their own reviews of an EIA report and focus their comments on salient issues. The review topics are designed to alert

reviewers to areas of weakness or omission in an EIA Report. These most often occur when certain tasks are omitted; unsuitable or ad hoc methods are used; biased or inaccurate supporting data are introduced; or the rationale or justification for conclusions is not given. In this way, sources of weakness can be identified and, if necessary, becomes the subject of revision or further specialist investigation.

The review topics are organized into four Review Areas:

1. Description of the development, the local environment and the baseline conditions;
2. Identification, analysis and assessment of impacts;
3. Consideration of alternatives and impact mitigation; and
4. Communication of the results.

Each Review Area contains a number of Review Categories (the numbered items) with more detailed Review Criteria (the bulleted items). By considering the integrity of an ELL report for each set of Review Criteria, a reviewer can make a judgement about its adequacy in the Review Category. Overall, the effectiveness of the EIA report in the four Review Areas contribute to judging the value of the EIA as whole. Review topics which should be treated satisfactorily for an EIA report to meet the minimum requirements generally expected of such reports are printed in bold.

The review topics are arranged, so far as is possible, to reflect the order in which tasks should be performed in carrying out an EIA. This is important because many of the later tasks (topics) require information which will only be available if earlier tasks have been adequately performed. The comprehensive treatment of mitigation measures, for example, will only be possible if all significant impacts have been correctly identified and analyzed. The reviewer should be alert to these interactions and take them into account in his/her evaluations. Thus, in using the review topics, it is best to work through the four Review Areas in order.

Reviewers should bear in mind that a review topic is properly handled if there is sufficient information to allow a decision-maker to make an informed decision without having to seek further advice. Also, the information needed to consider any particular topic may not be located all in one place, and may be implicit in the treatment of other topics rather than explicitly provided.

Finally and most importantly, use of these review topics assist a reviewer to make a judgement as to whether or not an EIA report does a good job of assessing the impacts of a development project. They do not assist in determining whether or not these impacts are acceptable. This distinction is important because an EIA report should provide information to support decision-makers in carrying out their responsibilities, and not try to carry out their responsibilities for them. Report reviewers have the saline task. It is their role to analyze an EIA report, determine if it does a proper job or needs revision or further study, and then advise decision-makers of the results so that decisions can be considered and made about the project being reviewed.

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

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1.1 Description of the development: The purpose(s) of the development is described as well as its physical characteristics, scale and design. Quantities of materials needed during construction and operation are included and, where appropriate, a description of the production processes.

1. The purpose(s) and objectives of the development are clearly explained.
2. The design, size or scale of the development, and the nature and duration of construction and operation activities, are clearly described. There is a proper indication of the physical presence or appearance of the completed development within the receiving environment. Diagrams, plans, charts, maps and/or photographs are used effectively for this purpose.

3. The report describes the environmental planning that went into the design of the project to minimize negative environmental effects and capture potential benefits.
4. Important design features, especially those for environmental and socio-economic management (ea. pollution control, waste management, erosion control, handling of toxic or hazardous materials, worker services) are highlighted.
5. The nature and quantities of materials needed during both the construction and operational phases are described as well as, where appropriate, the nature of the production processes.
6. The number of workers involved with the project during both construction and operation are estimated.

1.2 Site description: The on-site land requirements of the development are described as well as the duration of each land use.

1. The land area taken up by the development site is well defined and its location clearly shown on a map.
2. The uses to which this land will be put are described and the different land use areas demarcated.
3. Where alternate plans, designs or sites are being considered, each is adequately discussed in detail.

1.3 Residuals: The types and quantities of residual and/or waste matter and energy created are estimated, the expected rate of production given, and the proposed disposal routes to the environment defined.

1. The types and quantities of waste matter, energy and residual materials, and the rate at which these will be produced, are properly estimated. Uncertainties are acknowledged and ranges or confidence limits given where possible.
2. The ways in which it is proposed to handle and/or treat these wastes and residuals is indicated, together with the routes by which they will eventually be disposed of to the environment.

1.4 Bounding the study: Appropriate boundaries to the study area and time horizon are identified.

1. The environment expected to be affected by the development is delimited with the aid of suitable scale map(s).
2. The affected environment is defined broadly enough to include any potentially significant effects occurring away from the immediate project site(s). These may be caused by, for example, the dispersion of pollutants, off-site infrastructure requirements, etc.
3. The time horizon of the study is defined and long enough to account for delayed effects.

1.5 Baseline conditions: A description of the affected environment as it is currently, and as it could be expected to develop if the project were not to proceed, is presented.

1. The important components of the affected environments are clearly identified and described. The methods and investigation undertaken for this purpose are disclosed and are appropriate to the size and complexity of the assessment task. An appropriate amount of field work was done. Uncertainties are indicated.
2. Existing data sources were searched and, where relevant, used. These include local authority records and studies carried out by, or on behalf of, government and private-sector organisations.
3. Local land use and development plans were consulted and other data collected as necessary to assist in the determination of the probable future state of the environment, in the absence of the project, taking into account natural fluctuations and human activities.

Review Area 2: Identification, analysis and assessment of Impacts

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2.1 Identification of impacts: All potentially significant impacts are identified. Key impacts are also identified and the main investigation centred on these.

1. All important issues identified in the EIA terms-of-reference are included in the report. Deviations and exclusions are properly accounted for.
2. Direct and indirect impacts are identified using a systematic methodology (e.g. project-specific checklists, interaction matrices, impact networks, expert judgement, and extensive consultations). A brief description of the impact identification methods is given along with the rationale for using them.
3. Due attention is paid to environmentally-sensitive areas; to off-site, time delayed or recurring (ea. seasonal) impacts; and to cumulative or synergistic effects with existing and anticipated developments.
4. Consideration is not limited to effects which will occur under design operating conditions. Where appropriate, impacts which might arise from non-standard operating conditions, or due to accidents, are also included.
5. All phases of the project are considered -- e.g. pre-construction, construction, operation and decommissioning.
6. Key impacts were identified and selected for more intense investigation. The scoping methods are described and their use justified.

2.3 Analysis of impact seventy: The likely impacts of the development on the environment are analyzed and described in as precise terms as possible.

1. Impacts are analyzed as the deviation from baseline conditions, i.e. the difference between environmental conditions expected if the development were not to proceed and those expected as a consequence of it.
2. The data used to estimate the severity of impacts is sufficient for the task and clearly described. Any gaps in the required data are indicated and accounted for.
3. The methods used to predict impact severity are described and are appropriate to the size and importance of the projected disturbance. The assumptions and limitations of the methods used are explicitly discussed.
4. Descriptions of impact severity encompass the appropriate characteristics of impact (e.g.. magnitude, areal extent, duration, frequency, reversibility, likelihood of occurrence).
5. Where possible, estimates of impacts are recorded in measurable quantities with ranges and/or confidence limits as appropriate. Qualitative descriptions, where necessary, are as fully defined as possible (e.g. minor means not perceptible from more than 100 metres).

2.4 Assessment of impact significance: The expected significance that the projected impacts will have for society are properly assessed. The sources of quality standards plus the rationale, assumptions and value judgements used in assessing significance are fully disclosed.

1. The significance of all impacts which will remain after mitigation are described and clearly distinguished from impact severity.
2. The significance of impacts is assessed using appropriate national and international quality standards where available. Explicit account is taken of the values placed on affected environmental features locally, nationally and (where appropriate) internationally.
3. The choice of standards' assumptions and value systems used to assess significance are justified and the existence of opposing or contrary opinions acknowledged.
4. Wherever possible, economic values are attributed to environmental costs and benefits.
5. Individuals' groups, communities and government agencies affected by the project are clearly identified.

Review Area 3: Alternatives and Mitigation

3.1 Alternatives: Project alternatives are considered. These are outlined, the environmental implications of each are presented, and the reasons for their adoption or rejection briefly discussed.

1. Alternate sites, processes, designs and operating conditions are considered where these are practicable and available to the developer. The main environmental advantages and disadvantages of these are discussed and the reasons for the final choice given.
2. Where possible, alternate construction strategies (e.g. timing, local versus imported labour) are considered and assessed for their environmental and socioeconomic implications.
3. For public-sector proposals, alternate means of achieving project goals are considered (e.g. energy efficiency investments versus dams for energy supply). If not, the report discusses why this was not done.

3.2 Scope and effectiveness of mitigation measures: All significant adverse impacts are considered for mitigation. Evidence is presented to show that proposed impact management measures will be appropriate and effective.

1. Concerned stake holder (e.g. individuals, groups, communities, government agencies) have been adequately consulted and their views accounted for in the development of mitigation measures.
2. The mitigation of all significant adverse impacts is considered. Wherever possible, specific mitigation measures are defined in practical terms (e.g. costs; manpower, equipment and technology needs; timing).
3. Any residual or unmitigated impacts are discussed and justification offered as to why these impacts should not or cannot be mitigated.
4. It is 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 is introduced to justify the acceptance of these assumptions.
5. An effective environmental monitoring and management plan is presented to deal with expected, possible but uncertain, and unforeseen impacts caused by the project. Training needs are identified. The costs of the programme are estimated. Developer and government responsibilities are distinguished and reporting procedures are specified.

3.3 Commitment to mitigation: The project developer clearly expresses his/her commitment to, and capability of, carrying out the mitigation measures.

Review Area 4: Communication

4.1 Public consultation: There were genuine and adequate consultations with concerned project stake holder to appraise them of the project and its implications, and to obtain their views on key issues to be investigated and managed. The objectives, scope and results of the public consultation programme are clearly documented the report.

4.2 Layout: The layout of the report enables the reader to find and assimilate information easily and quickly. External data sources are acknowledged.

1. There is an introduction briefly describing the project, the aim of the environmental impact assessment and how this can be achieved.
2. Information is logically arranged in sections or chapters and the whereabouts of important data is indicated in a table of contents or index. Terms-of-reference and data used in the assessment are included in appendices. The study team members are identified.

3. When data, conclusions or quality standards from external sources are introduced, the original source is acknowledged at that point in the text.. Fir reference is included in a footnote or in a list of references.

4.3 Presentation: Care is taken in the presentation of information to make sure that it is accessible to the (...to be corrected)
(...to be corrected)

1. The report is presented as an integrated whole. Data presented in appendices is fully discussed in the main body of the text.

4.4 Emphasis: Information is presented without bias and receives the emphasis appropriate to its importance in the context of the project.

1. Prominence and emphasis is given to all potentially significant impacts, both adverse and beneficial, in a balanced manner.
2. The report is unbiased and does not argue for any particular point of view.

4.5 Non-technical summary: There is an adequate non-technical summary outlining the main conclusions and how they were reached.

1. There is an adequate non-technical summary of the analysis and main findings of the study. Technical terms, lists of data and detailed explanations of scientific reasoning are avoided.
2. The summary is comprehensive, containing at least a brief description of the project and its environmental setting, an account of the main impacts and mitigation measures to be undertaken by the developer, and a description of any remaining or residual impacts. A brief explanation of the methods by which information and data were obtained, and an indication of the confidence which can be placed in them, is also included.

ANNEX I

List of Sectoral Legislation with Environmental and Natural Resources Provisions

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1. LAND RESOURCES LEGISLATION

1. LAND ACT (CAP 57.01) - customary, public and private land, use of land, trespass and encroachment.
2. REGISTERED LAND ACT (CAP 58.01) - registration of title, land and dwellings on registered land.
3. CUSTOMARY LAND (DEVELOPMENT) ACT (CAP 59.01) - rights and interests in customary land including land allocation; aim to promote better land development
4. LILONGWE AGRICULTURAL DEVELOPMENT AREA BORDER customary land borders in Lilongwe.
5. LOCAL LAND BOARDS ACT (CAP 59.02) - establishment and power of Local Land Boards - control of land transactions.
6. LAND SURVEY ACT (CAP 59.03) - land surveys, licensing and control of land matters.
    1. LAND SURVEY REGISTRATION BOARD advise on Act
    2. LAND SURVEY RULES - provisions on survey methods
7. PLANNING SUB DIVISION CONTROL ACT (CAP 59.04) - subdivision of land outside town planning areas.
    1. Advised by CONTROL BOARD
    2. Supported by TOWN PLANNING COURT under Town and Country Planning Act

2. WATER RESOURCES LEGISLATION

1. WATER RESOURCES ACT (CAP 72.03) - control and use of water resource: water rights, pollution of public water: can designate controlled areas to protect water supplies.
2. WATER (WATER POLLUTION CONTROL) REGULATIONS control of water pollution discharge of effluent into public water: analysis of water and effluent
3. WATER WORKS ACT (CAP 72.01) - establishment of water boards and water areas; injury pollution of water and earth.
4. INLAND WATERS SHIPPING ACT (CAP 72.01) - survey, registration, licensing and safety of vessel agreements with other countries.
5. INLAND WATERS SHIPPING (HARBOUR) REGULATIONS - Carriage of materials
6. BLANTYRE WATER WORKS ACT (CAP 72.02) - administration of Blantyre water area and water board.
7. LILONGWE WATER BOARD ACT (CAP 72. 04) - administration of Lilongwe water area and water board.

3. PLANTS ANIMALS LEGISLATION

1. FISHERIES ACT (CAP 66.05) - regulation and control of fishing, prohibits use of explosives and poison.
2. Supporting legislation on various aspects and fishing methods
3. CROCODILES ACT (CAP 66.06) - control and protection of crocodiles.
4. FOREST ACT (CAP 63.01) - control and regulation of forest products, declaration of forest reserves: protection, control and management of forest products tree planting and enterprises.
5. FOREST RULES - regulations in forest areas reforestation, felling, etc.
6. PLANT PROTECTION ACT (CAP 64.01) - eradication of pests and diseases, export and importation of plants.
7. NOXIOUS WEEDS ACT (CAP 64.02) - eradication of noxious weeds

8. SPECIAL CROPS ACT (CAP 65.01) - controls development and marketing of crops, flue cured tobacco, cashew nuts, cotton, groundnuts, tea.
9. TOBACCO ACT (CAP 65.02) - production, manufacture and marketing of tobacco.
10. COTTON ACT (CAP 65.04) - production, marketing and processing of cotton
11. COUNCIL FOR NATIONAL HERBARIUM AND BOTANIC GARDENS OF MALAWI ACT (CAP 41.SC) - development and management of herbarium and botanical gardens.
12. NATIONAL PARKS ACT (CAP 66.07) - establishment of national parks, preservation of animals vegetation and objects of special interest in parks.
13. GAME ACT (CAP 66.03) - preservation and control of game in controlled areas arid game reserves.
14. CONTROL AND DISEASES OF ANIMALS ACT (CAP 66.02) - control of animals/diseases.

4. MINERALS CHEMICALS AND POLLUTION LEGISLATION

1. MINES AND MINERALS ACT (CAP 61.01) - regulates the search and ruining of minerals protection of the environment and natural resources
2. PETROLEUM (APPLICATIONS) REGULATIONS (CAP 61.02) - regulates the search and production of petroleum, provides for protection of the environment, exploration, licensing.
3. EXPLOSIVES ACT (CAP 14.09) - regulation control etc.
4. FERTILIZERS, FARM FEEDS AND REMEDIES ACT (CAP 67.04) - registration of fertilizers farm seeds, etc.

5. INDUSTRIAL INFRASTRUCTURE AND URBAN DEVELOPMENT

1. INDUSTRIAL DEVELOPMENT ACT (CAP 51.01) - controls the orderly development and promotion of industry.
2. FACTORIES ACT (CAP 55.07) - regulation of employment conditions, health, welfare and safety in the work place.
3. ELECTRICITY ACT (CAP 73. 01.) -establishment of Electricity Supply Commission of Malawi (ESCOM) - gives power with respect to generation, supply and use of electricity relevant for clearing of land and transmission lines.

6. OTHER ACTS

1. TREATIES AND CONVENTION PUBLICATIONS ACT (CAP 16.02) provision for international treaties.
2. MONUMENTS ACT (CAP 29.01) - protection of places of distinctive natural beauty and of sites, buildings etc.
3. PUBLIC ROADS ACT (CAP 69.02)- provides for matters relating to public roads, construction and maintenance including compensation for land taken under roads construction .
4. ROAD TRAFFIC ACT (CAP 69.01) - road traffic and vehicles
5. LOCAL GOVERNMENT (URBAN AREAS) ACT (CAP 22.01) - powers to acquire land and by laws on agriculture, forestry health, sanitation and water supplies in urban areas.
6. BLANTYRE SANITATION AND EFFLUENT BY - LAWS - disposal of domestic wastes
7. TOWN AND COUNTRY PLANNING ACT (CAP 23.01) - town and country planning; development control, acquisition of land compensation and development land by.
8. PUBLIC HEALTH ACT (CAP 34.01) - preservation of public health: prevention of infectious diseases, sanitation and housing, sewerage and drainage.
9. MALAWI HOUSING CORPORATIONACT (CAP 32.02) - establishes the Malawi Housing Corporation.
10. RAILWAYS ACT (CAP 69.03) - regulates the construction, control, management and operation of railways.