

# Revised Decentralized Environmental Management Guidelines



Ministry of Local Government and Rural Development

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### **Cover Page Illustrations**



- I. Herd of cattle in Phalombe by Welton Phalira
- 2. Chancellor College Student during tree planting in Zomba Mountain Forest Reserve by Welton Phalira
- 3. Construction works at Chancellor College by Welton Phalira
- 4. Malingunde Dam by Dalitso Kafumbata

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### ACRONYMS

ADC	Area Development Committees
AIDS	Acquired Immune Deficiency Syndrome
AIM	Action Impact Matrix
BOD	Biological Oxygen Demand
CAADP	Comprehensive Africa Agriculture Development Programme
CBNRM	Community Based Natural Resources Management
CBNRMC	Community Based Natural Resources Management Committees
CC-ENRM SC	Climate Change, Environment & Natural Resource Management Steering Committee
CCNRE	Cabinet Committee on Natural Resources and Environment
CDC	Community Development Committee
CSO	Civil Society Organization
DAT	Development Advisory Team
DDC	District Development Committee
DDP	District Development Plan
DDPF	District Development Planning Framework
DDPS	District Development Planning System
DEAP	District Environmental Action Plan
DEC	District Executive Committee
DEMG	Decentralized Environmental Management Guidelines
DEMM	Decentralized Environmental Management Manual
DESC	District Environmental Sub-Committee
DPSI	Drivers Pressures State Impacts
DPSIR	Drivers Pressures State Impacts Responses
DSEOR	District State of Environment and Outlook Report
DTT	District Training Team
EAD	Environmental Affairs Department
EAP	Environmental Action Plan

EDO	Environmental District Officer
EMA	Environmental Management Act
ENRM	Environment and Natural Resources Management
EOR	Environment Outlook Report
ESCF	Environmental Sustainability Criteria Framework
ESP	Environment Support Programme
GoM	Government of Malawi
HIV	Human Immuno-deficiency Virus
IEA	Integrated Environmental Assessment
LA	Local Authority
LEAD-SEA	Leadership for Environment and Development-Southern and Eastern Africa
LGA	Local Government Act
MDG	Millennium Development Goals
MDPC	Ministry of Development Planning and Cooperation
MEAs	Multilateral Environmental Agreements
MEF	Monitoring and Evaluation Framework
MEGS	Malawi Economic Growth Strategy
MGDS	Malawi Growth and Development Strategy
MNREE	Ministry of Natural Resources Energy and Environment
MPEI	Malawi Poverty and Environment Initiative
MPRS	Malawi Poverty Reduction Strategy
NAPA	National Adaptation Programmes of Action
NBSAP	National Biodiversity Strategy and Action Plan
NCE	National Council for the Environment
NEAP	National Environmental Action Plan
NEP	National Environmental Policy
NEPAD	New Partnerships for African Development
NGO	Non-Governmental Organization
NLTPS	National Long-Term Perspective Studies

NSSD	National Strategy for Sustainable Development
PCANR	Parliamentary Committee on Agriculture and Natural Resources
PIC	Project Implementation Committee
SEP	Socio Economic Profile
TCE	Technical Committee on the Environment
UNCBD	United Nations Convention on Biological Diversity
UNCCD	United Nations Convention to Combat Desertification
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nation's Framework Convention on Climate Change
VAP	Village Action Plan
VBC	Village Beach Committee
VDC	Village Development Committee
VHSC	Village Health and Sanitation Committee
VNRC	Village Natural Resources Committee
WSSD	World Summit on Sustainable Development

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#### PREAMBLE

The Malawi Growth and Development Strategy (MGDS), recognizes the decentralization process as the strategy for facilitating poverty reduction. Decentralization will not be sustainable unless there is meaningful economic development in the Local Assemblies.

Concurrently, climatic change, natural resources and environmental management has emerged to be one of the key priority areas in the MGDS. In this vein, the Government has attached great prominence in this area in order to ensure robust social and economic development of the country. Critical to this, is the integration of climatic, natural resources and environmental management issues into key policy and planning processes to which the District Development Plans (DDPs) figure centrally.

The District Development Planning System (DDPS) is an integral part of the decentralization process and focuses on a systematic bottom-up approach to development planning. The District Development Plan (DDP) hence, serves as a blue print and reference for implementing and monitoring of activities and utilization of funds in the district. It outlines development endeavours encompassing a programme of activities to be implemented in a fiscal year. The process of preparing a DDP succeeds the production of the Socio Economic Profile (SEP) and the District Development Planning Framework (DDPF). It is against this background that the Ministry of Local Government and Rural Development engaged a consultant to review the Decentralized Environmental Management Guidelines which will be an integral integration input in the DDP.

Most of the policies and regulatory frameworks in Malawi including the National Environmental Policy (NEP) (1996) and the Environment Management Act (EMA) (1996) preceded the Decentralization Policy (1998) and the Local Government Act (1998). Whereas the National Environmental Policy and the Environmental Management Act are critical to promoting coordinated environment and natural resources management, the Decentralization Policy and the Local Government of development processes, including planning, implementation, monitoring and evaluation. This justified the development by EAD of sector specific guidelines since 2002 and Decentralized Environmental Management Guidelines in 2002; to assist district councils with integration of environment and natural resources planning and implementation in the District Development Planning System (DDPS).

Malawi has had the following documents guiding decentralized environmental management since 2002:

Decentralized Environmental Management Manual (DEMM), Volume 1: Modules and Tools - A Guide to State of Environment Reporting, Environmental Action Plan and Micro-Project Preparation;

Decentralized Environmental Management Manual (DEMM), Volume 2: Data Capture Tools for State of Environment Reporting; and Strategy for the Decentralization of Environmental Management. In the context of the District Development Planning System (DDPS), the current Environment and Natural Resources Management (ENRM) does not seem to offer much prospect for efficient data collection and addressing emerging and crosscutting issues such as climate change and HIV and AIDS. The previous guidelines did not cover these emerging issues. Additionally, there were inconsistencies in policies relating to decentralization and environmental management. Furthermore, there was a time lag between preparation of DDP and the DEAP. The previous guidelines also had several tools mostly Participatory Rural Appraisal (PRA) that were isolated from the decentralization structure.

The key challenges confronting government are how to promote effective ENRM within the context of contemporary policies and legal and institutional reforms. The revised guidelines will address the gaps and inconsistencies from the previous guidelines and help ensure that Councils include emerging and critical environmental issues in the preparation of district plans and actions. The Decentralized Environmental Management Guidelines (DEMG) will guide various stakeholders to manage the environment and natural resources in a sustainable manner.

The guidelines were revised through a participatory process involving stakeholders at district and national levels, as well as extensive desk research. This revised tool, comprising consolidated sector guidelines, is arranged in four sections as follows:

Section 1: Policy, Legal and Institutional Framework

Section 2: Village/Neighbourhood State of Environment Reporting and Environmental Action Planning

Section 3: District State of Environment and Reporting

Section 4: Scenarios Development

The users of these guidelines include:

- Academic and research institutions
- Area Development Committees (ADC)
- Area Executive Committee (Front line staff)
- Central planning organizations/agencies
- Civil Society Organizations
- Development Advisory Team/District Training Team members
- Development Partners
- District Executive Committees (DEC)
- Faith Based Organizations
- Line Government Ministries and Departments
- Local Authorities (LA)
- Non-Governmental Organizations (NGOs)
- Parastatal organizations
- Politicians
- Private sector

• Village Development Committees (VDC)

It is hoped that the DEMG will offer District Councils with easy to use tools in natural resources management as well as help Malawi achieve its goals of sustainable development and poverty alleviation while empowering local communities using the decentralized structures.

## **SECTION 1:**

## POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

#### **1.1 INTRODUCTION**

This section introduces the policy, legal and institutional framework for the decentralized environment and natural resources management. It outlines the current policy, legal and institutional framework for environmental management and highlights functions of various institutions and their related structures as provided by legislation.

#### **1.1.1 Objective of this Section**

The objectives of this section are:

 $\Box$  To guide public and private sectors, individuals, organizations and agencies that are involved in community based environmental management actions within the District Development Planning System (DDPS);

 $\Box$  To introduce institutional structures as stated in the key Policies and Acts at district and subdistrict levels that would facilitate environment and natural resource management;

 $\Box$  To enable users of these guidelines know their mandates and responsibilities concerning environment and natural resource management.

#### **1.2 POLICY AND LEGAL FRAMEWORK FOR THE ENVIRONMENT**

The National Environment Policy (2004), developed from the National Environmental Action Plan (NEAP) (1994), established the central principles of Environment and Natural Resource Management (ENRM) policy. The Environment Support Programme (1998) also grew out of the NEAP and was established to integrate environmental concerns into socio-economic development of Malawi. In 1998, Malawi embarked on the National Decentralization Program following adoption of the Decentralization Policy and the enactment of the Local Government Act (1998). The decentralization process aims at enhancing community participation in governance and development by devolving political and administrative authority to the district level. The process also empowers communities to participate fully in environment and natural resources management. The Environmental Affairs Department (EAD) has been instrumental in developing a Decentralized Environmental Management (DEM) strategy devolving Environmental Natural Resource Management (ENRM) to local authorities in line with the Local Government Act (1998). This is supported by the Community Based Natural Resources Management (CBNRM) strategy that empowers communities in sustainable natural resource management consistent with the National Land Resources Management Policy and Strategy (2000).

Whereas implementation has been constrained in part by the governance system which has, to a large extent, dictated the delivery style of environmental management services, decentralization principles have been integrated into other Policies, Acts and strategies relevant to ENRM such as

the Land Policy (2002), Water and Sanitation Policy (2005), Parks and Wildlife Policy (1998), Forestry Policy (1996), Fisheries and Aquaculture Policy (2001), Science and Technology Policy (2001), and the National Biodiversity Strategy and Action Plan (2006). A full list of key environmental policies and acts is given in Annex II. Guidance for environmental governance is founded in the Malawi Constitution (1995) and is duly reflected in the Malawi Growth and Development Strategy (2006) as summarized below.

#### **1.2.1** Malawi Constitution (1995)

The Malawi Constitution (1995) has defined the role of the State in environment management through Chapter III – Fundamental Principles - section 13, in subsections (d) and (e).

"The State shall actively promote the welfare and development of the people of Malawi by progressively adopting and implementing policies and legislation aimed at achieving the following goals -

(d) To manage the environment responsibly in order to -

Prevent the degradation of the environment;

Provide a healthy living and working environment for the people of Malawi;

Accord full recognition to the rights of future generations by means of environmental protection and the sustainable development of natural resources; and

Conserve and enhance the biological diversity of Malawi.

To enhance the quality of life in rural communities and to recognize rural standards of living as a key indicator of the success of Government policies."

And the principles and objectives of local government are established in chapter XIV, section 146, of the Malawi Constitution as follows:

"There shall be local government authorities which shall have such powers as are vested in them by this Constitution and an Act of Parliament".

#### 1.2.2 Malawi Growth and Development Strategy (MGDS) (2006)

Malawi adopted the MGDS in 2006 as an overarching medium-term operational plan to guide development in Malawi over the period 2006-2011. The MGDS is built around five thematic areas, namely: sustainable economic growth; social protection; social development; infrastructure development and improved governance and is the implementing tool for the eight United Nations' Millennium Development Goals, which include goal 7: *ensuring environmental sustainability*. Based on limitations of financial and human resources, the country identified six "priorities within priorities" which could pull Malawi out of the "poverty trap". These include Agricultural Development and Food Security; Irrigation and Water Development; Transport and

Communication Infrastructure Development; Energy and Power; Integrated Rural Development and Management and Prevention of HIV and AIDS (GoM, 2007).



Integrating environmental considerations in infrastructure development ensures sustainability (Photo: Wovwe Power plant by Sosten Chiotha)

Environmental management is a crosscutting issue that affects achievement of targets in each of these priority areas. Government concedes that active participation of all stakeholders is critical in sustaining social and economic growth and makes a special call for involvement of rural communities in management of the environment and natural resources and this is in line with the principle of subsidiarity, which requires that resources be managed as close as possible to the resource users. The Decentralization Policy (1998) and recent revisions in all environment and natural resources related policies in Malawi incorporate this principle.

#### 1.3 INSTITUTIONAL SET-UP FOR ENVIRONMENTAL MANAGEMENT

The existing national institutional framework for coordination in environmental management is illustrated in Figure 1. The roles and functions of these institutions, as summarised below, are guided and regulated by provisions of the various environment and natural resource management legislation and policies.



**Figure 1 Institutional Framework for Environmental Management** 

#### **1.3.1** Cabinet Committee on Natural Resources and Environment

The Cabinet Committee on Natural Resources and Environment (CCNRE) is the highest environmental policy and decision-making body. Its objective is to advise the Cabinet on the protection, conservation and sustainable utilization of renewable and non-renewable natural resources and the environment to ensure equitable and enhanced socio-economic development of the people of Malawi. In relation to decentralization, the CCNRE specifically advises Cabinet on institutional strengthening for decentralized environment and natural resource management.

#### **1.3.2** Parliamentary Committee on Agriculture and Natural Resources

The Parliamentary Committee on Agriculture and Natural Resources (PCANR) is a forum for discussing environmental issues at the legislator level. Its role in decentralized environmental management is to promote the participation of local communities especially women and youth in the management and conservation of natural resources and the environment, based on principles of democracy and good governance.

#### 1.3.3 Ministry of Natural Resources, Energy and Environments

The Ministry of Natural Resources, Energy and Environments (MoNREE) is mandated to protect and foster management, development and sustainable utilization of natural resources and environment. This mandate is implemented through its specialized departments of Environmental Affairs, Energy Affairs, Climate Change and Meteorological Services, Forestry, Geological Survey and Mines.

#### **1.3.4 Environmental Affairs Department**

The Environmental Affairs Department (EAD) is charged with co-ordination of environmental activities in order to promote the sustainable utilization of the environment and natural resources. The EAD's long-term vision is to provide excellent services in cross-sectoral coordination, monitoring, overseeing compliance, and facilitating integration of environmental concerns into sectoral policies, plans and programs to ensure sustainable development. The Department has district offices that oversee implementation of environment and natural resources programmes at district and sub-district levels. These offices are manned by Environmental District Officers who are supported by the District Environmental Sub-committee (DESC), a sub-committee of the District Executive Committee (DEC).

#### **1.3.4.1** National Council for the Environment

The National Council for the Environment (NCE) membership consists of all Principal Secretaries, private sector and NGOs. The President appoints the chairperson on recommendation from the Minister of Natural Resources and Environmental Affairs. Membership also includes the Secretary to the President and Cabinet or his representative and others as spelt out in the Environment Management Act (EMA) Article 10 (1a to i). The Environmental Affairs Department is the Council's Secretariat. The NCE serves to advise the Minister responsible for environment on integration of environmental considerations in economic planning and development as well as harmonisation of activities, plans and policies of lead agencies and NGOs.

#### **1.3.4.2** Technical Committee on the Environment

The Technical Committee on the Environment (TCE) is the technical arm of the NCE and consists of more than 18 members in accordance with the Environment Management Act article 17 (a, b, and c). The Environmental Affairs Department is the committee's secretariat. The TCE makes technical recommendations to the Minister on the basis of scientific inquiry. It also recommends criteria, standards and guidelines for environmental control and regulation including EIAs.

## **1.3.5 Climate Change, Environment & Natural Resource Management Steering Committee**

The Climate Change, Environment & Natural Resource Management Steering Committee (CC-ENRM SC) is a forum for effective policy dialogue on frameworks, priority setting, and ways and means of facilitating investment, capacity building and transfer of technology related to climate change, environment and natural resource management mainstreaming initiatives in the country. It also enhances collaborative project development and implementation, with a view to optimizing the contribution of climate change adaptation and mitigation programmes. The committee is also responsible for mainstreaming poverty reduction, environmental programmes and sustainable development into implementation of the MGDS and achievement of the MDGs.

#### 1.3.6 Linkage between Central Government and Local Authorities

The Decentralization Policy, among others, stipulates that line ministries will retain responsibility over the following areas: policy formulation, policy enforcement, and inspectorate; establishment of standards, training, curriculum development and international representation. These guidelines provide policy guidance on matters of environment and natural resources at district and sub-district level in line with decentralization process. The implementation of the guidelines falls under the existing local governance structures as provided for in the Local Government Act (Amended 2009).

#### **1.3.7** Linkage between DEMG and environmental planning at local level

DEMG provides guidance for all sectors such as water, forestry, agriculture, health, education, fisheries, industry and civil society to come up with an integrated DEAP, which are further developed into ADPs and VDPs as illustrated in Figure 2.



Figure 2 How DEMG Relates to District Environmental Action Planning

#### 1.4 DECENTRALIZED ENVIRONMENTAL MANAGEMENT

#### **1.4.1 Decentralization Policy (1998)**

The policy:

- a) Devolves administration and political authority to the district level;
- b) Integrates governmental agencies at the district and local levels into one administrative unit, through the process of institutional integration, manpower absorption, composite budgeting and provision of funds for the decentralized services;
- c) Diverts the centre of implementation responsibilities and transfers these to the districts;
- d) Assigns functions and responsibilities to the various levels of government; and
- e) Promotes popular participation in the governance and development of districts.

Specifically, the Decentralization Policy seeks to achieve the following objectives:

- a) to create a democratic environment and institutions in Malawi for governance and development at the local level which will facilitate the participation of the grassroots in decision making;
- b) to eliminate dual administrations (field administration and local government) at the district level with the aim of making public service more efficient, more economical and cost effective;
- c) to promote accountability and good governance at the local level in order to help Government reduce poverty; and
- d) to mobilize the masses for socio-economic development at the local level.

The Decentralization, Policy among other things, provides for provision of environmental services such as refuse disposal, sewerage removal and disposal, environmental reclamation, and environmental education. These are some of the devolved functions that these guidelines have addressed in the implementation of decentralized environmental management within the District Development Planning System (DDPS).

#### 1.4.2 The Local Government Act (Amended 2009)

The Local Government Act provides for the formulation of development plans for local authorities including environmental development. Specifically, it stipulates that:

"6.-(1) The Assembly shall perform the following functions:

(c) to promote infrastructural and economic development through the formulation, approval and execution of district development plans";

"21.-(1) An Assembly shall have a duty to draw up plans for social, economic and environmental development of the area for such periods and in such form as the Minister may prescribe.

(2) Development plans shall be prepared in conjunction and consultation with other agencies having a public responsibility for or charged with producing plans for development whether generally or specifically and affecting the whole or a substantial part of the Assembly".

#### 1.4.2.1 Local Government Structures and their Functions

The Local Government Act provides for local governance structures through which these guidelines should be implemented. The Act establishes local government areas for administration of local government such as district, town, municipality and city assemblies (amended as district, municipality and city councils). The Act stipulates that:

"4.-(1) For the administration of local government, there shall be local government areas which shall comprise the areas respectively described in the first column of the First Schedule".

The Act mandates the councils, in addition to other functions, to undertake environmental protection services, as stated in Second Schedule "Additional Functions of the Assembly" as follows:

2.-(1) An Assembly may:

(a) establish, maintain and manage services for the collection and removal and protection treatment of solid and liquid waste, and the disposal thereof whether within or without it its area and may compel the use of its services by anybody of persons to whom the services are available;

(b) compel and regulate the provision, construction, use, maintenance and repair of drains, latrines and receptacles for solid and liquid waste and. the connection of any premises with any public sewer or drain;

(c) require the use of any sanitary service under its control and regulate the methods of dealing with night soil or solid or liquid waste of any description whatsoever: Provided that nothing in this paragraph shall require an Assembly to accept for disposal any solid or liquid waste which in the opinion of the Assembly are hazardous or are likely to be deleterious to the operations of any sewage treatment, plant or land fill site or which may contaminate any ground water.

The Act also provides for establishment of committees and sub-committees (Section 15(1)) at district and sub-district levels as illustrated in Figure 3. Those of particular importance to the implementation of these guidelines are discussed further below.



**Figure 3 District Level Structures for ENRM** 

#### (a) District Executive Committee

The District Executive Committee (DEC) is the technical arm of the District Council composed of representatives from all government ministries and departments, NGOs represented at the district and co-opted members. It is responsible for implementation of all aspects of the District Development Planning System (DDPS). The District Commissioner or in his absence the Director of Planning and Development chairs this committee.

The functions of DEC are to:

- Provide technical advice to the District Council on socio-economic development of the district;
- Facilitate the mobilization of resources for socio-economic development;
- Appraise community project proposals;
- Monitor and co-ordinate the implementation of community projects;
- Produce the Socio Economic Profile for the district in which the State of Environment Report is a chapter;
- Produce the District Development Plan where Environmental Action Plans are integral;
- Build awareness on development issues at both district and community levels
- (b) District Environment Sub-Committee

The District Environment Sub-Committee (DESC) is the DEC focal point on issues of the environment. It acts as a multi-disciplinary forum for environmental management and comprises environmental and NRM sector district officers. The Director of Planning and Development chairs the DESC with secretarial services provided by the Environmental District Officer. The functions of DESC are as follows:

- Assess and analyze the status of the environment and produce the SOER and DEAPs for the District Council.
- Provide technical advice to the District Council on issues of the environment and natural resources
- Appraise micro-projects and facilitate their development.
- Conduct awareness campaigns on environmental and natural resources management.
- Develop capacity on sustainable environmental management at community level so that issues of environment are integrated into decision-making process and planning systems.

#### (c) The Development Advisory Team

The Development Advisory Team (DAT) is responsible for supervising the implementation of projects and programmes. Its functions are to:

- Co-ordinate activities of all projects assigned to the team.
- Conduct monitoring and on-going evaluation visits for all projects and project sites.
- Recommend technical modifications to projects as may be required.
- Submit regular reports to the DEC/District Council regarding the project status.

#### (d) District Training Team

The District Training Team (DTT) is responsible for conducting all training required at the district. Its functions are to:

- Co-ordinate training activities assigned to the team;
- Assess district training requirements; and
- Submit regular reports to the DEC/District Council regarding the project status.

#### (e) Area Development Committee

Area Development Committee (ADC) under the current (ongoing) institutional structure, decision-making institutions are located at area level (at the level of the Traditional Authority). Development decision-making bodies comprise the Area Development Committee (ADC).

The composition of ADC includes:

- Traditional Authority
- Group Village Headmen

- Sub Traditional Authority
- Members of Parliament
- Councillors
- District Council representatives

The ADC has the following environmental management tasks:

- Responsibility for SOER and EAP processes at area level
- Identification and prioritisation of environmental issues that need immediate mitigation actions.
- Development of EAPs (at TA level) and subsequent micro-projects.
- Facilitate formation of VDC Environmental working groups.
- Collate and approve VDC EAPs.
- Mobilize community resources and solicit funds.
- Monitor SOE and implementation of EAPs.

#### (f) Village Development Committee/Community Development Committees

Village Development Committees (VDCs) are at the village levels (i.e. at the level of the Group Village Headman). The advisory executives are the front line staff at VDC level.

The VDC has the following environmental management tasks:

- Organize NRM meetings in the villages;
- Lead the EAP process at village level;
- Co-ordinate CBNRM activities with the ADC and communicate feedback from ADC; Formulation of micro-projects addressing environmental issues and solicit funding for such activities through the DDP;
- Facilitate the mobilization of community resources for CBNRM self-help projects;
- Supervise and monitor SOE and implementation of NRM micro-projects at VDC level.

In cities and municipalities the functions undertaken by VDCs are done by Community Development Committees (CDCs) under one neighbourhood led by an elected chairperson.

#### (e) Area Executive Committee

The Area Executive Committee (AEC) is the technical body of the ADC. It comprises frontline staff (FLS) and plays the advisory role to the ADC. As executive body, it is responsible for day-to-day technical advice on projects within the area and even lower to the VDC.

The AEC has the following environmental management tasks:

- Facilitate the SOER and EAP processes at area level.
- Facilitate the process to develop micro-projects.

#### (f) Community Based Natural Resources Management Committees

At community level environment and natural resources management is done by several community based natural Resources management committees (CBNRMCs) some of which include Village Natural Resources Management Committees (VNRMCs), Beach Village Committees (VBCs), Catchment Protection Committees, Water Point Committees and Village Health and Sanitation Committees (VHSC), Civil Protection Committees.

#### (g) The Project Implementation Committee

Project implementation committees (PICs) are project specific committees responsible for overseeing implementation of projects at district and sub-district levels.

#### **1.5 MONITORING AND EVALUATION**

The implementation of these guidelines shall follow the existing M & E systems in the local authorities. The data and information generated from decentralized environmental management shall feed onto the existing district monitoring and evaluation system. The local authority M&E officers shall be responsible for management of information in consultation with the DESC and Environmental District Officers (EDOs).

## **SECTION 2**

## VILLAGE NEIGHBOURHOOD/ STATE OF ENVIRONMENT REPORTING AND ENVIRONMENTAL ACTION PLANNING

#### 2.1 INTRODUCTION

At a local level, in both rural and urban contexts, the environmental action plans will be developed during the village/neighbourhood action planning process as part of environmental assessment. This will be based on the community perceptions of a state of environment and will include the participatory identification of environmental 'hot spots' and specific actions to improve the environmental situation.

The preparation of environmental action plans (EAPs) at community level will have a strong impact on empowering the communities to deal with key environmental issues, in analyzing environmental problems and identifying local solutions. This will also assist communities in taking ownership for local initiatives, within the village action planning process to address particular environmental problems.

#### 2.1.1 Objectives of the Section

The objective of this section is to facilitate the process of analyzing the environmental situation during VAP. In rural areas, village development committees (VDCs) will play a major role in the process, while in urban areas; this will be undertaken by urban Community Development Committees (CDCs). A participatory approach, which focuses on the active involvement of local communities, is envisaged.

#### 2.2 ENVIRONMENTAL SCREENING AND STATE OF ENVIRONMENT

The development of SOE will be done during village action planning (VAP) process. It is within the VAP process that the environmental situation at community level will be assessed. The assessment will enable the VDC/CDC to have a general picture of the state of their environment. Guided by the process outlined in the VAP manual the facilitator will thoroughly, with the community, go through environmental screening process (refer to Table 1) in order to isolate key environmental issues in the area and environmental 'hot spots'. This will permit the identification and selection of locations for immediate intervention and assistance through projects.

#### 2.3 VILLAGE ENVIRONMENTAL ACTION PLANS AND SAFEGUARDS

The development of EAP will be done during village action planning process as well. The planning process will use the information generated in Table 1. At the beginning of the process, the facilitator will help the communities to elaborate the issues and possible solutions identified during the situation analysis. The objective of this is to enable local communities to solve some

of the problems identified through transforming issues into solutions/actions, which can be undertaken by local people themselves.

The EAP will be part of the village action plan (VAP) (or neighbourhood development plan in urban areas) and will provide actions for addressing environmental issues in the area. The VAP process will result in several development projects. Prior to implementation all projects identified they should further be subjected to environmental screening in order to come up with appropriate environmental safeguards e.g. construction of school blocks. Project specific environmental management plans should be developed using Table 2. The environmental safeguards should also be done on environment and natural resources management projects such as tree planting.

### 2.4 IMPLEMENTATION OF ENVIRONMENTAL ACTION PLANS AND SAFEGUARDS

Appraisal, implementation and monitoring of environmental action plans and safeguards will follow the District Development Planning System. The District Development Plan which the EAPs are part of shall be the guiding instruments through which the EAPs and safeguards will be implemented and monitored. In this regard, any changes in the planning processes at local level in line with decentralization shall be applicable to these guidelines.

#### TABLE 1 ENVIRONMENTAL SITUATION ANALYSIS

Category of Baseline Information	Brief Description
LAND RESOURCES	
• Topography (landscape) of the area (e.g. hilly, flat plain,	
undulating plain)	
• Soils of the area (e.g. clay, loamy, sandy)	
Main land uses and economic activities	
• Key environmental issues in land resources and their	
trends e.g. Number of gullies over time.	
• Areas most affected, Possible solutions	
• Existing interventions in land resources	
• Who is spearheading the interventions	
WATER RESOURCES	
• Water sources and use (e.g. rivers, boreholes, etc)	
• Key issues in water resources	
• Areas most affected, Possible solutions to water issues	
• Existing interventions in water resources	
• Who is spearheading the interventions	
SEASONAL WETLANDS (MADAMBO)	
• Available wetlands (names, and location)	
• Major activities in the wetlands	
• Key environmental issues in wetlands	
• Major sections of the wetland most affected, Possible	
solutions to wetland issues	
• Existing interventions in wetland management	
• Who is spearheading the interventions	
WILDLIFE RESOURCES	
• Flora (plants) (include threatened/endangered/endemic species)	
• Fauna (animals such as fish, birds, mammals etc) (include	
threatened/endangered/endemic species)	
• Sensitive habitats including protected areas e.g. national	
parks and forest reserves	
• Key environmental issues and their trends	
Areas most affected, Opportunities	
<ul> <li>Solutions to environmental issues</li> </ul>	
• Existing interventions in biological resources	
• Who is spearheading the interventions	
CLIMATE	
Temperature pattern	
Rainfall pattern	
• Climate related disasters and their trends e.g. drought,	
floods, strong winds etc.	

Category of Baseline Information	Brief Description
Areas most affected, Possible adaptation and mitigation	
measures	
• Existing coping strategies; adaptation and mitigation	
interventions	
• Who is spearheading the interventions?	
FOREST RESOURCES	
• Types of forest (e.g. exotic plantations, indigenous forests)	
including ownership (e.g. government, private, village	
forest)	
• Major species (e.g. Gmelina, Blue gum, Acacia etc)	
<ul> <li>Forest products (woody and non woody)</li> </ul>	
Opportunities in forestry	
• Key forestry issues and their trends	
• Areas most affected, Proposed solutions to forestry issues	
<ul> <li>Existing interventions in forest resources</li> </ul>	
Who is spearheading the interventions	
FISHERIES RESOURCES	
• Main sources of fish e.g. lakes, rivers, fish ponds	
Common fishing methods	
• Common types of fish (e.g. Chambo, Usipa, Mlamba,	
Mbuna)	
Opportunities of fisheries	
• Key issues in fisheries and their trends	
• Areas most affected, Possible solutions to fisheries issues	
• Existing interventions in fisheries resources.	
Who is spearheading the interventions	
WASTE AND SANITATION	
• Type of waste generated (Solid, liquid)	
Major sources of waste	
Common waste collection methods, Common waste	
disposal methods	
• Available sanitary facilities e.g. latrines	
• Common sanitary and waste diseases and their trends e.g. Bilharzia	
• Areas most affected Existing interventions in waste and	
sanitation.	
Who is spearheading the interventions	

#### TABLE 2 ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

### (Adapted from Ministry of Finance, 2008)

	Areas of Impact			Impact Evaluation						Potential	
				Extent or coverage (on site, within 3-5km or beyond 5km)			Significance (Low, Medium, High)			Mitigation Measures	
1.0	Identification of Environmentally sensitive areas										
	Is this sub-project site/activity within and/or will it affect the following environmentally sensitive areas?	No	Yes	On Site	Within 3-5 km	Beyond 5 km	Low	Medium	High	Mitigation	
1.1	National parks and game Reserves										
1.2	Wet-lands										
1.3	Productive traditional agricultural /grazing lands										
1.4	Areas with rare or endangered flora or fauna										
1.5	Areas with outstanding Scenery/tourist site										
1.6	Within steep slopes/mountains										
1.7	Dry tropical forest such as Brachsystegia species										
1,8	Along lakes, along beaches, riverine										
1.9	Near industrial activities										
1.10	Near human										

	settlements									
1.11	Near cultural heritage sites									
1.12	Within prime ground water recharge area									
1.13	Within prime surface run off									
1.14	Will the sub-project use international water sources?									
2.0	Screening Criteria for	Imp	acts d	uring	implemen	itation and	d Oper	ation	-	
	Will the implementation and operation of the sub- project within the selected site generate the following externalities/ costs/impacts?	No	Yes	On Site	Within 3-5 km	Beyond 5 km	Low	Medium	High	Mitigation
2.1	Deforestation									
2.2	Soil erosion and siltation									
2.3	Siltation of watercourses, Dams									
2.4	Environmental degradation arising from mining of construction materials									
2.5	Damage of wildlife species and habitat									
2.6	Increased exposure to agro-chemical pollutants									
2.7	Hazardous wastes, Asbestos, PCBs,									

	pollution from unspent PV batteries									
2.8	Nuisance - smell or noise									
2.9	Reduced water quality									
2.10	Increase in costs of water Treatment									
2.11	Soil contamination									
2.12	Loss of soil fertility									
2.13	Salinization or alkalinisation of soils									
2.14	Reduced flow and availability of water									
2.15	Long term depletion of water resource									
2.16	Incidence of flooding									
2.17	Changes in migration patterns of animals									
2.18	Introduce alien plants and Animals									
2.19	Increase the use of pesticides and fertilizers									
2.20	Increased incidence of plant and animal diseases									
3.0 S	creening Criteria for So	ocial a	and E	conom	ic Impact	ts	-		-	
	Will the	No	Yes	On	Within	Beyond	Low	Medium	High	Mitigation
	implementation and			Site	3-5 km	5 km				
	project activities									
	within the selected									
	site generate the									
	following socio- economic									

	costs/impacts?					
3.1	Loss of land/land acquisition for human settlement, farming, grazing					
3.2	Loss of assets, property, houses, Agricultural produce etc					
3.3	Loss of livelihood					
3.4	Require a RAP or ARAP					
3.5	Loss of cultural sites, graveyards, monuments 1/					
3.6	Disruption of social fabric					
3.7	Interference in marriages for local people by workers					
3.8	Spread of STIs and HIV and AIDS, due to migrant workers					
3.9	Increased incidence of communicable diseases					
3.10	Health hazards to workers and communities					
3.11	Changes in human settlement patterns					
3.12	Conflicts over use of natural resources e.g.					
	water, land, etc					
------	---	--	--	--	--	--
3.13	Conflicts on land ownership					
3.14	Disruption of important pathways, roads					
3.15	Increased population influx					
3.16	Loss of cultural identity					
3.17	Loss of income generating capacity					
4.0	Consultation ( comments from Beneficiaries)					

# **SECTION 3:**

# DISTRICT STATE OF ENVIRONMENT AND OUTLOOK REPORTING

#### 3.1 INTRODUCTION

At district level the state of environment and outlook report will be developed during the formulation of the socio economic profile (SEP) as an integral part of district development planning system (DPPS). This will elaborate the state and trends of environmental change in the district. The process shall include identification of environmental issues and 'hot spots' and specific actions for improving the environmental situation.

To test the robustness of the proposed actions for addressing environmental issues, scenarios will be developed in order to enable Councils anticipate how pressures on environment and natural resources will continue and affect future development paths. In other words, an environmental assessment needs an 'outlook' component that addresses the possible range of future problems and opportunities. This will help in shaping anticipatory policy instruments. These scenarios will contain different assumptions about how current trends will unfold, how critical uncertainties will play out, and what new factors will come into play in the future. They are intended to illustrate the role of human agency in shaping the future, and in determining the links between issues, in order to provide better policy- or decision-support– as well as to stimulate engagement in policy.

An assessment of policy instruments shall be conducted to synthesize available policy instruments and their relevance to ensuring good environmental management, existing policy gaps and interrelations in order to identify appropriate actions that can address the issues identified.

#### 3.1.1 Objective of the Section

The objective of this section is to facilitate the process of analyzing the environmental situation during SEP. At district level, District Environment Sub-Committees will play a major role in the process guided by the Environmental District Officer or his or her representative where not available.

#### **3.2 THE PREPARATION PROCESS**

The development of DSEOR will be part of SEP process. The assessment will enable the DESC to have a general picture of the state and trend of environmental changes in the district. Guided by the process outlined in the DDPS hand book the facilitator will thoroughly, with the DESC, go through key questions identifying the issues (refer to steps 1 to 3 below) in order to isolate key environmental issues in the district and environmental 'hot spots'. This will permit the identification and selection of locations for immediate intervention and assistance through

projects. An integrated assessment (IEA) approach will be used following a Driver-Pressure-State-Impact Response (DPSIR) analytical framework.

### Step 1: What is happening to the Environment and Why?

### 3.2.1 What are the priority environmental issues?

In groups carry out the following tasks:

- a) Discuss and note key specific environmental issues related to the state-and-trends of the environment in your district (can be based on your experiences or knowledge on the issues or on the DPSIR framework).
- b) Assign specific environmental issues to general categories (following the table 3).
- c) How many distinctly different themes did your group identify? How many specific stateand-trends of the environmental issues did you identify? Can some of the specific issues under a given theme be expressed as a separate issue?

In plenary, carry out the following tasks:

- a) Combine the work of all groups into one table (e.g., using flip charts or overheads).
- b) Determine the general themes for the overall group; organize all specific state-and trends of the environment issues according to those themes.
- c) Combine related specific issues as appropriate.

Time: 20 minutes for group work, 30 minutes plenary.

#### **Prioritization of Issues**

Further selection is necessary even after a comprehensive set of state-and-trends of the environment themes and specific issues has been identified. This is because the list which emerges from this process is often longer that can be reasonably accommodated in a district IEA reporting process, given the constraints of time, and human and financial resources. It is, therefore, necessary to prioritize both themes and specific issues.

Priority environmental issue	General theme

### Exercise 1:

Using the themes and issues identified in the previous exercise, rank the priority of each issue using a three-point scale (low, medium and high). Compile the results in plenary, and establish a priority ranking of the issues (i.e. how many high, low and medium rankings each receive).Complete the following worksheet (Table 4) for your district.

Time: 10 minutes individually, 20 minutes plenary.

What is the general theme?	What is the environmental issue?	What is the geographical scale/coverage of the problem?	What priority should be given to the problem?		
			Low	Medium	High

#### TABLE 4 THREE POINT SCALE RANKING

## **3.2.2** What are the specific STATE-and-TRENDS of the environment for each priority issues?

Priority environmental issues as identified above are often quite general (e.g., water quality, air quality, biodiversity). As we go forward, it is important to be more specific with regard to each priority environmental issue. This will make it much easier to identify what is happening to the environment and why.

Consider water quality for example. This issue is sometimes specified in an aggregate form (e.g., biological oxygen demand (BOD). To conduct an integrated analysis it is necessary to think of water quality in a more spatially defined context. For example, a certain river and lake system might be particularly problematic at the time you are developing your IEA.

## **3.3 WHAT ARE THE DRIVERS AND PRESSURES CAUSING ENVIRONMENTAL CHANGE?**

The purpose of identifying drivers and pressures is to establish an integrated story of likely causes of the observed changes in the state of the environment. The analysis begins with identifying a pressure, which is readily recognizable as a cause of the environmental change. For example, sewage discharge from upstream communities represents a pressure causing changes in water quality in a borehole or river. A driver behind this particular pressure could be rapid population growth in the upstream communities. Examples of types of pressures and drivers are provided in Table 5.

Types		
DRIVERS Consumption and production patterns		
	Population demographics	
	Science and technological innovation	
	Economic demand, markets and trade	
	nstitutional and socio-political frameworks	
	Distribution patterns.	
PRESSURE	Sectors	
	agriculture, fisheries and forestry	
	transport and housing	
	finance and trade	
	energy and industry	
	security and defence	
	science and education	
	culture	
	Human influence	
	Pollution	
	land use	
	resource extraction	
	modification and movement of organisms	

#### TABLE 5 EXAMPLES OF DRIVERS AND PRESSURES (UNEP,2007)

## Exercise 2:

In groups, select a specific environmental state for the exercise.

Use the following DPSI Story Sheet to record the environmental STATE that is the focus of your issue.

Identify PRESSURES and DRIVERS that influence the environmental state you have selected. Draw lines between the pressures and drivers that are linked.

Complete the worksheet for discussion in plenary. Note that impacts will be identified in a subsequent exercise.

Time: 25 minutes for group work, 15 minutes in plenary.

Drivers	Pressures	State-and-Trends (only one)	Impacts
		Environmental state	
Draw arrows to connect specific driving forces to specific pressures			

#### TABLE 6 THE DPSI STORY SHEET

An integrated story must not stop at understanding the causality chain for just one specific issue. Integrated environmental assessment looks for linkages among environmental issues. A direct or an indirect driver identified for one issue could be having an effect on other environmental issues. This combination of inter-linkages is described in Figure 4.



Figure 4 Inter-linkages among Environmental Issues

For example, you might have a concern about the state of water quality in a river, and might identify sewage discharge upstream as a direct pressure on this state. In that example, are there other environmental states for which this sewage discharge might be serving as a pressure? It is possible that the discharge affects the state of air quality (e.g., odour) in communities around the sewage discharge. Additionally, the driver of rapid population growth could cause increased agricultural activity, which in turn could cause an increase in deforestation.

#### Exercise 3:

Identifying inter-linkages among environmental issues

In groups from the DPSI Story Sheet above, transfer the environmental state, key pressure and associated drivers to the inter-linkages table below.

Starting from the driver, identify two other pressures and then other environmental states that could change as a result of each pressure. Note the multiple linkages among pressures and environmental states.

What impacts on the environment and human health are associated with changes in the various environmental states?

Complete the diagram and discuss in plenary.



Figure 5 Analysing Drivers Pressures State and Trends

Time: 20 minutes for group work, 15 minutes in plenary.

## **3.4 WHAT ARE THE APPROPRIATE INDICATORS OF ENVIRONMENTAL STATES, PRESSURES AND DRIVERS?**

With environmental state issues, direct pressures and indirect drivers identified for each issue, an additional layer of information is now required in order to tell the integrated story in a quantitative and qualitative manner. Indicators are commonly used to illustrate and substantiate statements made in assessments. The choice of indicators determines the kinds of data needed for an IEA, helping to structure and guide data collection. When choosing an indicator, it is important to select one that both demonstrates something important about the themes and issues, and one that can be clearly communicated.

To avoid selecting indicators haphazardly, selection criteria is used. For example, indicators should:

- Be developed within an accepted conceptual framework
- Be clearly defined and easy to understand

- Be subject to aggregation
- Be objective
- Have reasonable data requirements
- Be relevant to users
- Be limited in number
- Reflect causes, processes or results.

Indicators selected should also be SMART:

- Specific
- Measurable
- Achievable targets
- Relevant
- Time-bound

#### 3.4.1 Identifying and explaining trends

Once you have developed potential indicators, and have collected relevant data, it is possible to begin to analyze those data to identify and demonstrate trends. Further, there is need to analyze the indicator in order to identify correlations, and to explain key temporal and spatial patterns. Table 7 below shows cholera trends for a hypothetical village XYZ for a period of 11 years. Figure 6 shows the trend of cholera cases plotted on a graph and Figure 7 shows the spatial location of cholera cases.

Year	Cholera cases in XYZ Village
1990	10
1991	20
1992	25
1993	30
1994	40
1995	55
1996	60
1997	65
1998	70
1999	85
2000	95

#### TABLE 7 CHOLERA CASES IN XYZ VILLAGE





Figure 6: Cholera Case Graph



Figure 7: Spatial Distribution of Cholera Cases in Relation to other Issues

Step 2: What are the consequences for the environment and people?

#### **3.5 BASIC ANALYSIS - IDENTIFYING IMPACTS**

The basis analysis is based on the sustainable development concept as popularized by the World Commission on Environment and Development (1987) and says that economic, social and environmental conditions are inherently interrelated—that is, it is not possible to change the condition of one of the three dimensions without affecting the other. Changes in a particular state variable have an impact on other aspects of the environment and on the well-being of people. Many of the important impacts can be identified through the experience and knowledge of participants in an IEA.

In addition, the concept of sustainable development tells us that actions to meet our needs today should not compromise the ability of future generations to meet their needs. Therefore, as a basic guideline for analyzing impacts, sustainable development helps us think in four dimensions: economic, social, environmental and temporal. It also helps to reflect on environment/development linkages.

For example, a change in forest cover for a particular area can have an impact on biodiversity of that area. An impact on biodiversity could mean that a species particularly valuable as an ecotourism resource no longer survives in the area. This could impact the ability of local residents to earn a livelihood based on ecotourism. The loss in biodiversity could also mean that a particular plant species upon which local residents relied upon for food or medicine resource can no longer thrive.

#### Exercise 4: Basic (use DPSI story sheet table)

In your groups, identify potential impacts for the changes in environmental states your group selected previously. Use the concept of sustainable development to help you identify impacts.

Complete your DPSI Story Sheet using the template provided in Table 6.

Time: 20 minutes for group work, 15 minutes in plenary.

#### 3.5.1 Intermediate Analysis

The approach identifies impacts using the concept of ecosystem services and human well-being. Ecosystem services are benefits that people obtain from ecosystems, in the form of provisioning services, cultural services, and regulating and supporting services. Table 8 provides a list of ecosystem services and their descriptions.

#### TABLE 8 ECOSYSTEMS SERVICES FOR HUMAN WELLBEING

Category	Service	Description
	Food and fibre	This includes the vast range of food products derived from plants, animals and microbes.
	Fibre	Materials such as wood, jute, hemp, silk and many other products derived from ecosystems.
	Fuel	Wood, dung and other biological materials serve as sources of energy.
	Genetic resources	This includes the genes and genetic information used for animal and plant breeding and bio technology.
Provisioning	Biochemicals, Natural chemical and Pharmaceuticals	Many medicines, Biocides and food additives such as alginates and biological materials are derived from ecosystems.
	Ornamental resources	Animal products such as skins and shells and flowers that are used as ornaments, although the value of these resources are often culturally determined.
	Fresh water	Freshwater is an example of linkages between categories, in this case between provisioning and regulating services.
	Air quality	Ecosystems both contribute chemicals to and extract chemicals from the atmosphere, influencing many aspects of air quality.
	Climate Regulation	Ecosystems influence climate both locally and globally for example at a local scale, changes in land cover can affect both temperature and precipitation. At the global scale, ecosystems play an important role in climate by either sequestering or emitting greenhouse gases.
	Water Regulation	The timing and magnitude of runoff, flooding and aquifer recharge can be strongly influenced by changes in land cover, in particular alterations that change the water storage potential of the system such as the conversion of wetlands or the replacement of forests.
Regulating	Erosion control	Vegetative cover plays an important role in soil retention and the prevention of landslides.
	Water purification and waste treatment	Ecosystems can be a source of impurities in fresh water, but also can help to filter out and decompose organic wastes introduced into inland waters and coastal and marine ecosystems.
	Regulation of human diseases	Changes in ecosystems can directly change the abundance of human pathogens, such as cholera, and can alter the abundance of disease vectors, such as mosquitoes.
	Biological control	Ecosystem changes affect the prevalence of crop and livestock pests and diseases.
	Pollination	Ecosystem changes affect the distribution, abundance and effectiveness of pollinators.
	Storm protection	The presence of coastal ecosystems, such as mangroves

		and coral reefs, can dramatically reduce the damage caused by hurricanes or large waves.
	Cultural Diversity	The diversity of ecosystems is one factor influencing the diversity of culture
	Spiritual and religious values	Many religions attach spiritual and religious values to ecosystems or their components
	Knowledge	Ecosystems influence the types of knowledge systems
	systems	developed by different cultures.
	Educational values	Ecosystems and their components and processes provide the basis for both formal and informal education in many societies.
	Inspiration	Ecosystems provide a rich source of inspiration for art, folklore, national symbols, architecture and advertisement.
	Aesthetic values	Many people find beauty or aesthetic value in various aspects of ecosystems, as reflected in the support for parks, scenic drives and the selection of housing locations.
Cultural	Social relations	Ecosystems influence the types of social relations that are established in particular cultures. Fishing societies, for example, differ in many aspects in their social relations from nomadic herding or agricultural societies.
	Sense of place	Many people value "sense of place" that is associated with recognized features of their environment, including aspects of ecosystem.
	Cultural heritage values	Many societies place high value on the maintenance of either historically important landscapes (cultural landscapes) or culturally significant species.
	Recreation and eco-tourism	People often choose where to spend their leisure time based in part on the characteristics of the natural or cultivated landscapes in a particular area.
	Supporting services are those that are necessary for the production of all other ecosystem services	These services differ from provisioning, regulating and cultural services in that their impacts on people are either indirect, or occur over a very long time, whereas changes in the other categories have relatively direct and short- term impacts on people. Some examples of supporting service are primary production, production of atmosphere oxygen, soil formation and retention, nutrient cycling, water cycling and provisioning of habitat.

To illustrate how impacts on various types of ecosystem services can be identified through an environmental state indicator, consider an example of water quality degradation in a borehole. An indicator of water quality could be faecal coliform counts, one of the parameters indicating status of a borehole. This example could be linked to impacts on ecosystem services.

#### Step 3: What is being done, and how effective is it?

After analysing what is happening to the environment and why, and what the impacts are, the third step in the IEA is to perform a retrospective analysis of what has been and is being done to maintain and enhance the environment and human well-being. This information paves way for forward-looking policy analysis. These actions include government policies, plans and programmes, as well as actions of civil society and business through such interventions as science and technology. Responses can have an effect on many facets of an environmental issue, including the state of the environmental issue (e.g. afforestation actions affect the state of forests), pressures (e.g. housing construction), drivers (e.g. actions which help communities adapt to lack of forest cover, such as alternative fuel or building material sources).

#### **3.6 IDENTIFY POLICIES AND POLICY ACTORS**

#### **Exercise 5: In your groups:-**

For the environmental issue you previously identified, name one policy or policy instrument, which is currently the most influential or the most talked about?

Which actors are aligned with the goals of the policy, and which are not?

#### **3.7 POLICY COMMITMENT REVIEW**

This step in the integrated policy analysis involves taking a high level look at environmental commitment in effect in the jurisdiction of the District State of Environment Report. Environmental commitments can take different forms. Some are tied to Multilateral Environmental Agreements, regional or bilateral agreements, or expressed through national legislation, strategies, political declarations or bye-laws. Not all commitments have the same force, and the review should focus on those where commitments require action and inaction has potential consequences.

Issue	Goal and target	Strategy or action plan	Status of implementation
Land Resources state: Loss of soil fertility.	Reduce from 60% to 20% the number of households that run out of food stocks by 2015.	Increase access to farm inputs by small-holder farmers	Some policy instruments being implemented successfully, e.g. subsidized farm inputs have increased crop yields.

TABLE 9 ANALYSIS OF COMMITTMENT UNDER DISTRICT DEVELOPMENT PLAN

#### Exercise 6:

This exercise requires completing an analysis of commitments for selected priority environmental issues (Table 9).

In your groups carry out the following tasks:

- 1. Select two priority environmental issues from those listed by members of your group.
- 2. Complete the analysis of commitments for each issue, making sure to cover the following:
- 3. Name of the issue and the specific environmental state that the issue focuses on.
- 4. Any goals or targets that have been established for the issue
- 5. The name of a strategy or action plan for achieving the goal and target.
- 6. The status of implementation in terms of progress in implementing policy instruments and progress in achieving the goal and target set for the issue.

Time: 20 minutes group, 10 minutes plenary.

#### **3.8 POLICY INSTRUMENT SCAN**

While the analysis of commitments provides a big picture of the policy landscape for an environmental issue, a policy instrument scan can provide details. This more detailed picture includes the mix of policies having an effect on your environmental issue, and an assessment of effectiveness of these policies in achieving positive change.

The policy instrument scan is designed to help you identify the mix of specific policy instruments that are having an influence on your environmental issues. For any given issue, policy instruments will be having an affect (positive or negative) on the entire causal chain, including indirect drivers, direct pressures, the environmental state itself and the impacts of changes in the environmental state.

#### **Exercise 7: In groups carry out the following tasks:**

Using impacts identified in the Ecosystems Services table above, identify policy instruments that are having a significant impact on the policy/policies:

- Reducing the extent of environmental change via drivers, pressures and state(s).
- Helping society adapt to the impacts of environmental change.

Make sure you do not limit your attention to certain types of policy instruments only (e.g. market based) while ignoring others (e.g. regulatory, expenditure and institutional instruments). Try to define policy instrument in specific terms.

Identify performance criteria for the indicator that describe the environmental state indicator and the indicators for the key drivers, pressures and impacts. Be as specific as possible.

How does the indicator trend compare to the performance criteria? How do actual trends and performance criteria compare?

Present your results in plenary. Time: 45 minutes group, 15 minutes plenary.

### **3.9 POLICY GAP AND COHERENCE ANALYSIS**

With a mix of policy instruments identified for a particular environmental state, and the related pressures, drivers and impacts, and the effectiveness of these policies assessed, based on some form of performance criteria, the policy analysis can be taken to a more informative and pragmatic level.

If the policy effectiveness assessment reveals that the mix of policies has not resulted in adequate improvement in the state of the environment or has not facilitated adaptation, then one must begin to explore why this is the case. Or alternately, if progress has been made on these two fronts, it is important to better understand why successful performance was achieved. Two methods to gain this better understanding are:

- Identifying gaps in the policy mix.
- Assessing policy coherence.

## 3.9.1 Policy Gap analysis

#### Exercise 8:

In groups, carry out the following tasks in relation to one driver-pressure-state-impact chain used in the previous exercises above:

Characterizing the policy mix

Copy the descriptions of your drivers-pressures-state-impacts chain from the previous exercise to the first row of the policy mix matrix. Using shorthand or code, transfer policies influencing the driving force, pressure, state and impact from previous table to the appropriate cell in the policy mix matrix.

Can you think of any additional policies to add to the table that you did not identify previously?

Estimating the policy effect

Working with the results of the table just completed, indicate your perceived effect of the policy on the given environmental issue, based on existing information, by placing the appropriate symbol in the cell representing the policy. You could use a scale similar to the following:

Highly positive effect: +++ Moderately positive: ++ Slightly positive: + Neutral: 0 Slightly negative effect: -Moderately negative: - -Highly negative: - -Policy effect unclear: ?

In plenary, carry out the following analysis of policy gaps:

- 1. Identify policy types that appear to be over-or under-represented.
- 2. Note if there are policies directed at each part of the issue chain (driving force, pressure, state and impact).
- 3. Identify policy types and/or specific policies that are currently absent, but might have significant potential for positive effect.
- 4. Discuss opportunities and barriers for optimizing the policy mix, either by adding new or discontinuing existing policies or policy types.

Time: 45 minutes group, 30 minutes plenary.

	Driver	Pressure	State	Impact	
Description of DPSI	High population growth rate	Cultivation of marginal areas e.g. hill slope or river banks	Gullies, thin soils siltation	Loss of water quality Reduced food productivity	
Economic Instruments e.g. high commodity prices	Population continues to grow due to low investment in family planning interventions	Farm inputs prices will continue to increase and communities will continue to cultivate on marginal lands	More gullies ,more soils loss due to low investments in soil and water conservation	Chronic food shortages and increased prices for the available food	
Regulatory Instruments e.g. marriage age 16 yrs	Population will increase due to early marriages	Reduced land holding sizes due to high population growth rate	More and more gullies and encroachment of protected areas	More food shortages and degradation of life supporting natural resources	
Expenditure Instruments					
Institutional Instruments					

#### TABLE 10 POLICY MIX MATRIX

#### 3.9.2 Policy Coherence Analysis

Analysis of policy effectiveness focuses on comparing the actual and expected performance of a given policy, based on relevant performance criteria. As neither environmental issues nor policies can exist in isolation, any given environmental trend will be a combined result of interacting policies and natural factors, some of which are outside the control of human decision making.

For example, increased application of inorganic fertilizer may increase food security over a short term but may have implications on water quality and overall soil structure over long term. It may well be that a given policy deals well with one particular type of environmental impact, but fares poorly with another.

One tool for assessing these types of combined effects is an action-impact matrix (AIM) or Policy mix matrix. An example of the matrix is illustrated in Table 10. The matrix lists specific policy instruments in the first column, then assesses the effect of the policy, intended and unintended, on a range of environmental issues. Through such a thought process it is possible to identify inter-linkages among policy effects, many of which will not be intuitive. In some instances, the positive effect of one policy might be completely neutralized by the negative effect of another policy.

#### **Exercise 9:**

In plenary, choose two key policies/actions from among those identified in your policy instrument scan. Additionally, select two other environmental issues in your district. Develop a Policy Mix Matrix similar to the example in Table 10.

Time: 30 minutes.

The policy narrative sheet – summarizing policy failures and successes

The final step in the policy analysis approach is to develop a policy narrative that summarizes the results of the policy analysis. The purpose is to develop credible statements regarding the adequacy of past and current policy responses for restoring and maintaining the state of the environment, and facilitating adaptation to impacts. The policy narrative sheet should have components similar to those illustrated in Table 10.

#### Exercise 10:

Using the policy analysis information from Steps given, prepare (individually) a policy narrative sheet similar to the one shown in Table 10. Share your results with your workgroup. Select one policy narrative sheet from among your group to share in plenary.

Time: 30 minutes group, 15 minutes plenary.

#### Step 4: Where are we heading?

The purpose of this section is to elaborate the possible futures of the district in order to test the robustness of policy options that must be taken now for sustainable future. In doing this scenarios are used.

#### 4.1 WHAT ARE SCENARIOS?

Scenarios are descriptions of journeys to possible futures. They reflect different assumptions about how current trends will unfold, how critical uncertainties will play out and what new factors will come into play (UNEP 2002). It is now generally accepted that scenarios do not predict. Rather, they paint pictures of possible futures, and explore the differing outcomes that might result if basic assumptions are changed (UNEP 2002).

This section continues from the first three steps by answering additional two questions:

- 1. Where are we heading?
- 2. What actions could be taken now for a more sustainable future?

#### 4.2 PURPOSE OF SCENARIOS

Scenarios support informed action by providing insights into the scope of the possible. They also illustrate the role of human activities in shaping the future, and the links among issues. In the process of helping to clarify possible future developments and their effects, scenarios often are a source of inspiration for creative ideas.

Scenarios can be used for multiple purposes, including to:

- aid in recognition of "weak signals" of change;
- avoid being caught off guard "live the future in advance;"
- challenge "mental maps;"
- understand the world better, and make better decisions;
- raise awareness;
- test strategies for robustness using "what if" questions;
- provide a common language; and
- Stimulate discussion and creative thinking.

The ultimate aim, in most cases, is to provide better policy or decision support and stimulate engagement in the process of change.

#### 4.3 DEVELOPING SCENARIOS – A COMPLETE PROCESS

The steps of the scenario process can be grouped as follows:

1. Identification of Key Drivers

In your groups, identify key drivers using the issues and themes identified in the previous session. Examples of drivers or environmental change are provided in the Table10 below.

2. Selecting Critical Uncertainties

The purpose of this exercise is to select critical uncertainties (CU), and use these to define the scenario framework. The expected outputs of this step are critical uncertainties, selected from among the drivers developed in the step above. A critical uncertainty is a driver that is especially important in determining how the future evolves, but whose future development is highly unpredictable.

For each driving force:

- 1. Consider each driver in turn, and recall the range of possible ways it could evolve.
- 2. Consider the degree of uncertainty in each driver. How much variation is there in the range of possible ways it could evolve? Is there a great deal of uncertainty, or relatively little?
- 3. Consider the relative impact/importance of each driver into the future. Does the way that it evolves make a major difference in the overall vision for the future, or does it make a relatively minor difference?
- 4. Plot each driver on the chart of impact/importance versus uncertainty. (In Figure 8, each circle represents a particular driver.) The farther to the right, the greater the uncertainty in how that driver could develop. The farther upward, the more significant is the impact of that driver.
- 5. Identify the drivers (usually two) that are highest impact and highest uncertainty. (In Figure 8 the two drivers that have the combination of the highest importance and highest uncertainty are labelled CU1 and CU2.).



Figure 8: Critical Uncertainty Analysis

#### Exercise 11

In small groups for each of the themes discussed above, take the list of drivers and categorize them using Table 10. Present the diagrams in plenary and discuss the drivers that fall in the category "high importance and high uncertainty.

Driver	Specific Details
Economy	Sector based production( Agricultural Production, Mining, tourism, fisheries etc) Infrastructure development GDP Globalization Markets and prices Growth rate Economic dev goals (Poverty reduction, Privatization) International Cooperation Foreign investors
Demography (Population)	Population growth, Population density Population Distribution Rate of urbanization Fertility rate Population structure (Age, Gender) Migration patterns Life expectancy
Culture and Tradition	Beliefs – forest protection Traditional ceremonies and practices Traditional dances – use of natural resources Tribal heritage Customary land tenure Extraction of Medicinal plants Religion Free ranging
Technology	Indigenous Knowledge Systems (IKS) Information Communication Technology Clean Development Mechanism Green economy Agrochemicals, Agro forestry Land management technologies Use of machinery Construction industry tech
Environment and Climate Change	Land degradation (erosion, deforestation, salinization) Pollution (chemical waste, water air, sound pollution, loud noise) Climate change Desertification Extreme environ hazards (floods, drought)
Social Change	Education (adult, formal, informal, non formal) Consumption patterns Brain drain, brain gain Improvement in health systems

#### TABLE 11 EXAMPLE OF DRIVERS/ENVIRONMENTAL CHANGE

	Refugees
Governance	Regional treaties and conventions Multilateral environmental agreements Decentralization Political will Democratization process Economic policies Public awareness, local participation in environmental management.

Notes:

For those drivers that are:

in the "low importance, low uncertainty" quadrant: these will not figure prominently in the scenario analysis because outcomes are clear, or the issues are not thought to be particularly influential in the future;

in the "low importance, high uncertainty" quadrant: these will not figure prominently in the scenario analysis because they are not of sufficient significance;

in the "high importance, low uncertainty" quadrant:, these should figure prominently in the scenario analysis, but their future evolution should not differ significantly across the scenarios, reflecting the low level of uncertainty; in this way they can be considered 'inevitable' and in the "high importance, high uncertainty" quadrant: a subset of these should figure prominently in the scenario analysis by defining the key underlying distinctions between the scenarios as described in next step. The others will also figure prominently, and their future evolution may very well differ across the scenarios.

#### **Creating a Scenario Framework**

The purpose of this activity is to establish the scenario framework using the critical uncertainties. The expected output from this is a set of clearly defined scenario bases.

#### Steps

Picture two clearly dominant critical uncertainties (say, CU#1 and CU#2, Figure 8), each of which could evolve in two distinct ways. Define a scenario grid as shown in Figure 8. This framework reflects the four possible combinations of how CU#1 and CU#2 can evolve, and thus four possible future worlds.

#### 4.3.1 Elaborating the scenario narratives

The purpose of elaborating scenarios is to compile a detailed, compelling description of the scenario using the Scenario Framework.

For each scenario, consider 5 areas:

Current state: Aspects of today's world that represent characteristics of the scenario being developed.

End picture: The end vision of the scenario, assuming that critical uncertainties have been resolved.

Timeline: Connect the current state to the end picture through a plausible historical route.

Create a coherent narrative using current state, end picture and timeline.

Add detail and texture. Create a name for each scenario that captures the essence of the scenario and differentiates it clearly from others. Example is provided in Figure 9.



Figure 9 Four Possible Futures Define the Scenario Framework from Two Critical Uncertainties

Select a thematic area, and for each scenario, describe the main assumptions underlying the scenario by completing Figure 10.

Daiwa (Cara ania	Qualitative/Quantitative Assumption on Future Trends			
Driver/Scenario Issue	Scenario 1 Mkaka Ndi Uchi	Scenario 2 Penda Penda	Scenario 3 Wafa Wafa	Scenario 4 Ndaonera Momwemo
Demography				
Economy				
Governance				
Environment and Climate Change		$\sim$		
Social Change				
Technology				
Culture and Tradition				

## Figure 10 Scenario Framework

|--|

Driver	Assumption(s)	Implication to the thematic area
Population	Rising steadily	There will be increasing demand for water resources and
		per capita water supply will decline.
Social	Significant	Better understanding of the importance of sustainable
Change		environmental management
Economic	Rising	Rising demand for water in all sectors; However, systems
Development		are put in place for efficient water use;
		There will be pollution of water resources but due to good
		governance, this will be abated. Levels of pollution in river
		systems are monitored and a strong enforcement policy is in
		place against water pollution.
Culture	Maintained	Cultural practices and traditions are included in the overall
		management of water and other natural resources putting
		emphasis on combining science and IKS
Environment	Sustainably	Sustainably managed environment will maintain regular
& Climate	managed/mitigation	river flows and promote groundwater recharge. There will
Change	measures in place	be significant negative impacts on water resources but there

		would be adaptation strategies and coping mechanisms to mitigate these impacts.
Technology	Advancing	Advancing technology would enrich better understanding of water resources through research and facilitate better management of river basins. However, technology may in this social state, lead to rising pollution and depletion of groundwater resources arising from technological ware which through good governance, is curbed by enforcement of policy.
Governance	Good	The executive, legislature and judiciary are strong proponents of environmental management and stand firm against its degradation; Water resources are in their pristine state, river basins are sustainably managed, users get equitable share of the resource including the environment.

#### Comment on the plausible trends in TWO priority issues in the thematic area

Under this scenario, it should be accepted that population will continue to increase and as a result, there will be a steady decline in the annual per capita water availability since the resource is finite. Secondly, good governance will mean that every Malawian is aware, and if not, is informed that social welfare, better livelihoods, economic development and growth, all are dependent on the natural resources base and it is therefore important to sustainably manage the environment. This will guarantee water availability for all uses.

#### Assess the performance of one current policy on theme by discussing the following

Policy: National Water and Sanitation Policy (2005)

Policy intent

The government's main policy goal promulgates sustainable management and utilisation of water resources, so as to provide water of acceptable quality and of sufficient quantities, and ensure availability of efficient and effective water and sanitation services that satisfy the basic requirements of every Malawian and for the enhancement of the country's natural ecosystems (Malawi Government, 2005).

Actual policy achievement in this scenario

Under this scenario, Malawi's river basins would be sustainably managed and water resources would be readily available in equitable quantities and of acceptable quality to all users. As a result, of better management of ecosystems, there would be enhancement of biodiversity populations and improvement in habitats.

Any policy review, reform and changes needed to address gaps in this scenario

Government should promote extensive research in water resource at the basin level in order to improve understanding in resource availability, quality, use, and management and future trends in these parameters. This should also be extended to capacity building in disaster mitigation and coping mechanisms. The desire to ensure water availability to every Malawian must be based on this understanding.

Assess the implication (practice and effectiveness) of some selected development goals strategies in this scenario.

MDGs -High achievement rate

MGDS - High achievement rate

Vision 2020 -High achievement rate

Other goals relevant for the theme

The regional international instruments of cooperation, regional protocols and global conventions will be well administered.

Key Messages for policy makers

Life forms revolve around water. High levels of economic development and growth and improved standards in people's livelihoods depend on a health natural resource base. Depletion of these resources and the resultant degradation of the environment would reverse development and growth rates and people's welfare.

#### **REPORT STRUCTURE**

Using the data and information generated during the integrated assessment in section above the author should put up the report in such structure as outlined in Annex 1. The district councils are free to modify the themes of the report based on the issues identified in their districts.

## **SECTION 4**

## DISTRICT ENVIRONMENTAL ACTION PLANS AND SAFEGUARDS

#### **4.1 DEAP AND SAFEGUARDS**

The development of DEAP will be done during district development planning process. The planning process will use the District Development Planning System (DDPS). The DEAP will be part of the District Development Plan (DDP) and will provide actions for addressing environmental issues in the district. The DEAP process will result in several projects for addressing environmental issues in the district. Prior to implementation all projects identified they should further be subjected to environmental screening in order to come up with appropriate environmental safeguards e.g. construction of school blocks. Project specific environmental management plans should be developed using Table 2. The environmental safeguards should also be done on environment and natural resources management projects such as tree planting.

#### 4.1.1 Objectives of the Section

The objective of this section is to facilitate the process of analyzing the environmental situation during the SEP. At district level, district environment sub-committees will play a major role in the process guided by the Environmental District Officer or his or her representative where not available.

## **4.2 IMPLEMENTATION OF THE DISTRICT ENVIRONMENTAL ACTION PLANS AND SAFEGUARDS**

Appraisal, implementation and monitoring of environmental action plans and safeguards will follow the District Development Planning System. The District Development Plan, of which the DEAPs are part, shall be the guiding instruments through which the DEAPs and Safeguards will be implemented and monitored. In this regard, any changes in the planning processes at district level in line with decentralization shall be applicable to these guidelines.

## **ANNEX 1 DSEOR REPORT FORMAT**



## NAME OF DISTRICT COUNCIL

## STATE OF ENVIRONMENT AND OUTLOOK

Add a Theme e.g. Environment for Sustainable Development

Date

#### **DSOER REPORT STRUCTURE**

Acknowledgements Foreword Preface Editorial and Production Team Acronyms Table of Contents List of Figures List of Tables

### **BACKGROUND AND INTRODUCTION**

Profile: Location, Area size, population density, arable land, relief, average annual temperature and rainfall, major economic activities, major environmental problems in the country. Include map of District to show major environmental issue/indicator.

*State of Environment and Outlook Reporting* Process (Context and Process-objective of SOE/EO; mandate; when the process started; the new approach and who is involved (stakeholders (e.g. public institutions, private sector, NGOs including technical support and financing of the process), and Methodology e.g. DPSIR, source of data; format and content of the report; and references.

## PART 1: ENVIRONMENT, PEOPLE AND DEVELOPMENT

#### **Chapter 1: Poverty, Environment and Economic Development**

Background: The level of poverty in the district; link of the livelihood to the environment and natural resources (the kind of benefits accrued from natural resources); the link of the economic activities in the district to the environmental change; Prices of commodities that have bearing on environment, budget allocations for environment and natural resources management (level of sector devolution) and ecological footprint.

Poverty and Environment: Link between poverty and major causes of poverty in the district.

Conclusion and Recommendations

References

#### **Chapter 2: Population and Human Settlements**

Population Characteristics in the District: population size, growth rate, population density, age, fertility level (No. of children per woman), household composition and size (provides information on shared infrastructure, economic resources available per dwelling house, education level.

Human Settlement: State of Human Settlement in the District: Settlements and access to services cross boarder issues, housing status, Waste management, sanitation.

Strategies to improve settlements and human welfare

Conclusions and Recommendations

References

#### **Chapter 3: Industry and Mining**

State of Industry and Mining in the District: Industrial and mining activities in the District and impacts of these activities on the environment.

Strategies to for sustainable mining and industrial development

Conclusions and Recommendations

References

#### **Chapter 4: Environmental Health**

Prevalence of environmental related diseases in the District: Sanitation related diseases. Human contact diseases, Vector borne diseases, occupational health and Safety related diseases, Neglected diseases, etc. and their indicators.

Strategies to improve Health Status in the District

Conclusions and Recommendations

References

#### **Chapter 5: Environmental Education and Public Awareness**

Overview of Environmental Education and Public Awareness in the District: Formal (literacy levels), non-formal (school environmental clubs, VNRMCs, lead farmers) informal (e.g. radio listening clubs), adult literacy, public awareness campaigns, etc.

Strategies to improve Education and Public Awareness

Conclusions and Recommendations

References

#### **Chapter 6: Land and Agriculture**

Overview of Land and Agriculture in the District:

Highlight agricultural practices

Crop and livestock production

State of Land and Agricultural Development in the District: land cultivated, farming systems, pasture and fallow, woodlots, changes in crop distribution (Irish potatoes), agricultural productivity, etc.

Key environmental issues associated with the Agricultural Sector: Population density, soil erosion, overgrazing, inadequate extension (number of staff), climatic shocks, etc.)

Strategies to improve Agricultural production in the district

Conclusions and Recommendations

References

#### **Chapter 7: Biodiversity**

Current State of Biodiversity: Ecosystems and habitats, species diversity (Flora and fauna), conservation of biodiversity,

Opportunities provided by Biodiversity: economic and livelihood support (e.g. horticulture in District), Tourism opportunities, Research and medicinal purposes

Threats to Biodiversity: Habitat loss, loss of genetic resources, Invasive alien species etc.

Strategies to improve District's Biodiversity: Policy and institutional framework, public awareness and education

Conclusions and Recommendations

References

### **Chapter 8: Forestry Resources**

Current Status of Forestry Resources in the District: Forest Cover, Protected areas, forest types (natural or artificial)

Opportunities from Forest Sector: energy, agriculture, wood supply, non-timber forest products, Tree planting for carbon sequestration.

Threats to Forestry Resources: Bush fires, charcoal production, encroachment, invasive species etc.

Strategies for Sustainable Management of District's Forestry Resources: Policy, legal and institutional framework, environmental public awareness and education, existing initiatives e.g. community based forestry management etc.

Conclusions and Recommendations

References

## **Chapter 9: Water Resources**

Current Status of Water Resources in the District: Rivers, water availability and use (ground water, surface water), domestic water use, agriculture water use, status of wetlands (types of wetlands), value of wetlands and their role in economic development,

Opportunities from Water Resources: irrigation, fisheries (fish farming), agriculture etc.

Threats to Water Resources: land use practices, stream abstraction/diversion, pollution (chemicals), invasive species, conflicting policies.

Strategies for Sustainable Management of District's Water Resources: Policy and institutional framework, public awareness and education etc.

Conclusions and Recommendations

References

#### **Chapter 10: Fisheries Resources**

Current Status of fisheries Resources in the District: Fish farming, species of fish, etc

Opportunities from fish Resources: Integrated fish farming, water availability etc

Threats to fish Resources: degradation of catchment areas, invasive weeds, etc

Strategies for Sustainable Management of District's fish Resources: catchment mgt, public awareness (fencing, invasive weeds) and education etc.

Conclusions and Recommendations

References

#### **Chapter 11: Climate Change**

District's Climate: Temperature, Rainfall, etc.

Climate Change in the District: Variability in temperature, variability in rainfall, vulnerability to natural disasters (droughts, floods, landslides etc.

Mechanisms to reduce Vulnerability to Disasters: Adaptation to climate change: integrated water resources management, early warning system, introduction of resistant varieties etc. refer to the disaster risk mgt plan.

Conclusions and Recommendations

References

## Chapter 12: Exploring the Future of the District Using Scenarios

Scenario Building Process

Scenario Structure and nomenclature

Exploring District environmental futures

Conclusions and Recommendations

References

#### **Chapter 13: Policy Analysis and Options for Action**

Environment and economic development: Issues, Outlook, Possible policy actions, responsible sector/institution, timeframe

Land use and Agriculture: Issues, Outlook, Possible policy actions, responsible sector/institution, timeframe
Atmosphere and Climate Change: Issues, Outlook, Possible policy actions, responsible sector/institution, timeframe

Biodiversity: Issues, Outlook, Possible policy actions, responsible sector/institution, timeframe

Water Resources: Issues, Outlook, Possible policy actions, responsible sector/institution, and timeframe

Forests and Woodlands: I Issues, Outlook, Possible policy actions, responsible sector/institution, timeframe

Population and Human Settlements: Issues, Outlook, Possible policy actions, responsible sector/institution, timeframe.

## ANNEX II

## Policies and Acts related to Environmental Management in Malawi

Act/Policy	Year	Description
Malawi Constitution	1995	Chapter 3, Section 13(d) in the Constitution calls upon the State to manage the environment responsibly in order to prevent degradation of the environment. Section 13(e) calls upon the state to enhance the quality of life in rural communities and to recognize rural standards of living as a key indicator of the successes of Government policies.
Malawi Growth and Development Strategy	2006, Revised in 2009	The MGDS is the over-arching medium term strategy for achieving socio-economic growth and development priorities for Malawi.
		MGDS has six priorities, namely; Sustainable economic growth, social protection, social development, management and prevention of nutrition disorders and HIV and AIDS, infrastructure development and improved governance.
		The revised MGDS (2009) revised MGDS has three additional priority areas; namely,
		Climate Change, Natural Resources and Environment Management and these addresses environmental issues directly.
Vision 2020	2000	Vision 2020 is a policy framework for Malawi's development towards a middle income economy by 2020. The vision is that by 2020 Malawi will be secure, democratically mature and environmentally sustainable. It promotes self –reliance with equal opportunities for all, social services, a vibrant culture, religious values and technological advancement.
National Environmental Policy	2004	The overall goal of the NEP is to promote sustainable social and economic development through sound management of the environment and natural resources.
National Land	2002	The Malawi National Land Policy of 2002 provides an enabling environment for investment in housing. It recognizes

Policy		the need for equitable access to land in rural and urban areas, arrests growth of unplanned settlements and regularizes land tenure. The Land Policy proposes transfer of the administration of urban land leases to respective local governments in line with the Decentralization Policy to improve development control and land allocation to reduce illegal development.
National Water Policy	2005	The National Water Policy is meant to address all aspects of water including resource management, development and service delivery. The policy has articulated a new water sector vision of 'Water and Sanitation for All, Always.' The Policy comprehensively covers areas of water resource management and development, water quality and pollution control, water utilization, disaster management and institutional roles and linkages.
National Sanitation Policy (Draft)	2008	The aim of the National Sanitation Policy is to provide a framework for development of programmes and initiatives that shall address sanitation and hygiene challenges. These programmes will contribute to improving the health and quality of human life, a better environment and a new way for sustainable wealth creation. The mission of the policy is to ensure that all people in Malawi own and have access to improved sanitation facilities, practice safe hygiene, and practice safe recycling of liquid and solid waste for sustainable environmental management and socio economic development.
National Parks and Wildlife Policy	1998	The National Parks and Wildlife Policy's goal is to promote conservation and management of wildlife resources in order to provide for sustainable utilisation and equitable access to the resources. It also encourages granting of user rights to communities who legitimately use the land on which wildlife occurs, and recognises the importance of equitable distribution of benefits and revenues derived from sustainable use of wildlife resources.
Forestry Policy	1996	The Forestry Policy of 1996 aims at sustainable management of forests in Malawi and it recognises the problem of deforestation and its effect on the environment and people's

		livelihoods.
Fisheries and Aquaculture Policy	2001	The Fisheries and Aquaculture Policy aims at maximising the sustainable yield from the National waters of Malawi and man-made water bodies. The Policy also looks at improving the efficiency of exploitation, processing and marketing of quality fish products.
Decentralisation Policy	1998	The Decentralisation Policy devolves administration and political authority to the district level and promotes popular participation in the governance and development.
Biodiversity Strategy and Action Plan	2006	The Biodiversity Strategy and Action Plan presents a number of strategies and action plans that aim at improving awareness of the importance of biodiversity and community participation in biodiversity conservation. It is also aimed at harmonising natural resources sectoral policies, legislation, strategies and programmes.
Environment Management Act	1996	The Environment Management Act (1996) recognizes the need for living in a clean environment and therefore stipulates enforcement against non-compliance. It defines the rights and responsibilities of individuals pertaining to ownership and management of natural resources and the environment.
Forestry Act	1997	Forestry Act of 1997 provides an enabling environment and mechanism for managing trees and forest on customary and public land whilst mainstreaming a rights-based and livelihood approaches for all stakeholders.
Irrigation Act	2001	The Irrigation Act aims at sustainable management of irrigation, including establishment of an irrigation fund, involvement of communities in irrigation development, encroachment issues, application of harmful chemical and substances in irrigation and establishment of national irrigation board.
National Park and	2004	The National Park and Wildlife Act related to conservation of selected examples of wildlife communities in Malawi,

Wildlife Act		protection of rare, endangered and endemic species of wild
		of conflict between human beings and animals, control of
		import and export of wildlife species and protection and
		management of protected areas.
Local Government	1998	The Local Government Act promotes local level management
Act		of development processes, including planning, implementation
		and monitoring and evaluation.

## **Further Reading**

Decentralisation Policy (1998) Decentralized Environmental Management Manual (2002) Volumes 1, 2 Development Planning System Handbook for District Assemblies District Databank System **District Socio Economic Profiles** District State of Environment and Outlook Reports EIA Guidelines for Malawi (1997) Environment Support Programme (1998) Environmental Management Act Environmental Sustainability Criteria Framework (2008) Forestry Standards and Guidelines (2005) Local Government Act (1998) Mainstreaming Poverty-Environment Linkages into Development Planning: A Handbook for Practitioners (2009) Malawi Economic Growth Strategy (2004) Malawi Poverty Reduction Strategy (2002) MGDS Malawi Growth and Development Strategy (2006; 2011) National Adaptation Programmes of Action (2006) National Biodiversity Strategy and Action Plan (2006) National Environmental Action Plan (1994) National Environmental Policy (2004) National Fisheries and Aquaculture Policy (2001) National Forestry Act (2007) National Forestry Policy (2006) National Irrigation Act (2001) National Land Policy (2002) National Parks and Wildlife Act (Amended: 2004) National Parks and Wildlife Policy (1998)

National Sanitation Policy (2008) National State of Environment and Outlook Report National Strategy for Sustainable Development (2004) National Water Policy (2005) Strategy for Decentralised Environmental Management 2002, EAD Village Action Planning Manual