



GOVERNMENT OF MALAWI



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Foreword

The Government of the Republic of Malawi is still increasingly concerned about the deterioration of the country's natural resources and the environment. The biggest environmental and developmental challenge is how to narrow the gap between the degradation of the natural resources and the environment on one hand and sustainable production and economic growth on the other.

The Government of Malawi adopted a National Environmental Policy in 1996 to provide guidance and set standards for development of sector policies in environment and natural resources. It provided an overall framework against which relevant sectoral environmental policies were revised and adopted to ensure that these are consistent with the principles of sustainable development. More specifically, the National Environmental Policy sought to: -

- (a) promote the efficient utilization and management of our natural resources;
- (b) facilitate the rehabilitation and management of essential ecosystems and ecological processes;
- (c) enhance public awareness of the importance of sound environmental management; and
- (d) promote cooperation between Government, local communities, and women groups, non-governmental organizations and the private sector in the management and sustainable utilization of the natural resources and the environment.

It is now almost (8) years since the National Environmental Policy was adopted. Although the Government has already taken significant steps to implement the provisions of the National Environmental Policy, a lot more needs to be done. Many sectoral environment and natural resources policies and legislation have been adopted and enacted since then and experience has revealed that there are policy gaps, conflicts and duplications which adversely affect effective implementation of the policies. In addition, new national economic instruments and strategies have been developed and implemented which have significant impacts on environment and natural resources management. These developments and experiences have prompted Government to revise the National Environmental Policy to ensure that it remains current, responds to new challenges and incorporates lessons learned.

Among other matters, the Revised National Environmental Policy recognizes the importance of creating an enabling policy and legal framework for cross sector coordination, participation of non state sectors, strengthening the enforcement machinery and decentralizing natural resources and environmental management and governance. It therefore calls for development of mechanisms for cross sector management; facilitating active participation of local communities and other stakeholders in enforcement of legislation; and integration of environmental

planning, management and institutional frameworks into the decentralized structure.

The National Environmental Policy is a key instrument and standard for environment and natural resources policies and legislation and should act as a guide for all sector activities at all levels. It is therefore my sincere hope that this revised National Environmental Policy will be a useful instrument to all stakeholders in the country for integrating environmental considerations into Malawi's social and economic development programmes thereby promoting sustainable development.

Dr. Bingu wa Mutharika
PRESIDENT

List of Acronyms

CBNRM	Community Based Natural Resources Management
CBO	Community Based Organization
CDM	Clean Development Mechanisms
DEAP	District Environmental Action Plan
EIA	Environmental Impact Assessment
EMA	Environment Management Act
ESP	Environment Support Programme
GIS	Geographic Information Systems
GMO	Genetically Modified Organisms
IEC	Information Education and Communication
NCE	National Council for the Environment
NEAP	National Environmental Action Plan
NEP	National Environmental Policy
NGO	Non Governmental Organization
TCE	Technical Committee on the Environment
WEHAB	Water, Energy, Health, Agriculture and Biodiversity

1.0 Preamble

- 1.1 Malawi is endowed with a diversified natural resource base, which includes some of the most fertile soils for agricultural use in Southern Africa. The country has closed forest resources covering about 30 percent of the land area, abundant water resources and a remarkably diverse flora and fauna, of which the uniquely rich and diverse fish resources stand out. It has a tropical climate characterized by variable temperature, rainfall and relative humidity, which impact on various sectors in various ways. If properly utilized, these resources can provide the basis for sustainable socio-economic development of the country. However, these resources are subject to increasing pressure. There is alarming degradation of the environment causing significant loss of soil fertility, soil erosion, serious deforestation, water depletion, pollution and loss of biodiversity.
- 1.2 The above problems are exacerbated by the high population growth and low level of environmental awareness, which contribute considerably to the vicious cycle of poverty and are compounded by the HIV/AIDS pandemic. They also highlight the critical challenges between economic growth on one hand and environmental conservation and management on the other. These challenges provided the catalyst for Government to develop a National Environmental Action Plan (NEAP) upon which the National Environmental Policy (NEP) is based. The Environment Management Act (EMA), 1996 provides the legislative support.
- 1.3 The Malawi Government, through a participatory approach, produced a NEAP, which was formally launched on 6th December 1994. The NEAP describes the existing environmental conditions in Malawi and recommends a set of actions that should be taken in order to redress the aggravating environmental degradation and facilitate sustainable utilization and management of natural resources. To operationalise the NEAP, the Government embarked upon an Environmental Support Programme (ESP) to integrate environmental concerns into the socio-economic development of the country and provide for the initial high priority interventions.
- 1.4 The mandate for environmental policy is derived from the Constitution of Malawi, 1995. Section 13 (d) provides the principles of national policy and states the environment principles as follows; "To manage the environment responsibly in order to: -
 - i. prevent the degradation of the environment;
 - ii. provide a healthy living and working environment for the people of Malawi;
 - iii. accord full recognition to the rights of future generations by means of environmental protection;
 - iv. conserve and enhance the biological diversity of Malawi."
- 1.5 Malawi is a party and adheres to internationally accepted principles of the 1972 Stockholm Declaration, the 1992 Rio Declaration and the WEHAB (Water, Energy, Health, Agriculture and Biodiversity) principles of 2002 as adopted by the United Nations Conferences. Malawi is also a signatory to a

number of international environmental conventions and protocols such as the Convention on International Plant Protection; Convention on Wetlands of International Significant; Convention Concerning the Protection of the World Cultural and Natural Heritage; Convention on the Conservation of Migratory Species of Wild Animals; Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES); African Convention on Conservation of Nature and Natural Resources; FAO International Undertaking on Plant and Genetic Resources; United Nations Convention on the Law of the Sea; the Vienna Convention and Montreal Protocol for Protection of the Ozone Layer; Convention on Biological Diversity; Convention on Climate Change; and the Convention on combating Desertification. Malawi is also a party to a number of regional protocols relating to environment and natural resources management. These include the SADC Protocols on shared watercourses, wildlife management and law enforcement, energy, mining, forestry and fisheries. The nation will continue to accede to and abide by internationally acceptable conventions and protocols.

- 1.6 The NEP was adopted in 1996 and is now almost seven years old. In addition, since its adoption a number of important developments, initiatives and lessons learned have taken place, which should inform the revision of the NEP. A number of sector policies related to environment have been developed and implemented. These sector policies include forestry, fisheries, water, land use and management, wildlife, irrigation and tourism. A Decentralization Policy and a new Local Government Act, 1998 were adopted and enacted setting the stage for a new grassroots governance system intended to devolve political and administrative system for services to the local level. These policies have introduced new concepts, institutional frameworks and insights that need to be aligned to the NEP.
- 1.7 In addition to these environment and natural resources related policies and governance frameworks, Malawi has developed strategic frameworks to improve economic performance and management and focus on future programs and prospects. These include the Vision 2020 and the Malawi Poverty Reduction Strategy adopted. Each Government Department is under obligation to ensure that these instruments are reflected in its policies, programs and projects. Finally, the World Summit on Sustainable Development, Johannesburg, 2002 provided new insights and priorities in its WEHAB principles that have significant bearing on environment and natural resources management policies. These need to be fully and effectively integrated in national policies and programs and specifically in the NEP.
- 1.8 The NEP is an overarching framework instrument. It does not usurp powers and responsibilities of sectoral ministries, but instead reinforces them and highlights areas of high priority for the nation. The institution responsible for environmental affairs will play a facilitating, coordinating and advisory role in ensuring its implementation, setting and enforcement of relevant and acceptable standards. The NEP objectives should be seen as addressing the

broad range of environmental problems facing Malawi at the present time. These problems and their relative importance may change over time. For this reason, the Policy will be reviewed and updated every five years.

2.0 Policy Goals and Guiding Principles

2.1 Overall Policy Goal

The overall policy goal is the promotion of sustainable social and economic development through the sound management of the environment and natural resources.

2.2. Specific Policy Goals

The policy seeks to meet the following goals:

- 2.2.1 Secure for all persons, now and in the future, an environment suitable for their health and well being.
- 2.2.2 Promote sustainable utilization and management of the country's natural resources and encourage, where appropriate, long term self-sufficiency in food, fuel wood and other energy requirements.
- 2.2.3 Facilitate the restoration, maintenance and enhancement of the ecosystems and ecological processes essential for the functioning of the biosphere and prudent use of renewable resources.
- 2 2.4 Promote the ecosystems management approach so as to ensure that sectoral mandates and responsibilities are fully and effectively channelled towards sustainable environment and natural resources management.
- 2.2.5 Enhance public education and awareness of various environmental issues and public participation in addressing them.
- 2.2.6 Integrate sustainable environment and natural resources management into the decentralized governance systems and ensure that the institutional framework for the management of the environment and natural resources supports environmental governance in local government authorities.
- 2.2.7 Promote local community, Non-Governmental Organisations (NGO) and private sector participation in environment and natural resources management.
- 2.2.8 Promote the use and application of local knowledge and norms that facilitate sustainable environment and natural resources management.
- 2.2.9 Promote co-operation with other Governments and relevant regional and international organizations in the management and conservation of the environment.
- 2.2.10 Develop and regularly update environmental information systems to facilitate planning and decision-making at local, national and international levels.

2.2.11 Facilitate development and regular review of policies and legislation to promote sustainable management of the environment and natural resources.

2.2.12 Facilitate development of mechanisms for management of conflicts in the environment and natural resources sector.

2.3 Guiding Principles

Underlying these broad policy goals are certain key principles, which will guide policy development and implementation strategies:

- a) Every person has a right to a clean and healthy environment and a duty to maintain and enhance the environment.
- b) It is the obligation of every person to take measures to promote sustainable utilization and management of the environment and natural resources, including taking legal action against any person whose activities or omissions have or are likely to have adverse effects on the environment.
- c) Children and the youth should be sensitised in environmental issues to facilitate their participation in the conservation, protection and management of the environment as future custodians.
- d) Women should effectively participate in policy, program and project design and implementation to enhance their role in natural resource use and management activities.
- e) While sectoral environment and natural resources management is inevitable, there is need for effective co-coordination mechanisms so as to promote an ecosystems management approach.
- f) The use of renewable natural resources should be sustainable for the benefit of the present and future generations.
- g) Malawi's economy is highly dependent on natural resources. If these are depleted or degraded, long-term food security and sustainable economic growth will be seriously affected.
- h) The participation of the private sector, NGOs, and Community Based Organizations (CBOs), is critical to improved protection, conservation, management and sustainable utilization of Malawi's natural resources.
- i) Community-based management and revenue sharing from the sustainable utilization of natural resources on customary and public lands will be encouraged.

- j) Regulations will be complemented by social and economic incentives to influence behaviour for individuals or organizations to invest in sustainable environment and natural resources management.
- k) Regular and accurate assessment, monitoring, and dissemination of information on environmental conditions will be facilitated through appropriate legislative instruments.
- l) Tradeoffs between economic development and environmental degradation will be minimized through use of environmental impact assessment and natural resource monitoring.
- m) Rational and secure tenure over land and resources is a fundamental requirement for sustainable natural resource management.
- n) Environmental management principles should be incorporated in development planning and decision-making processes at all levels.
- o) Conflict management is essential for sustainable environment and natural resources management.
- p) Some of Malawi's natural resources such as Lake Malawi, National Parks and Wildlife Reserves and Forest Reserves are shared with and are very much affected by the activities of her neighbours and those of the region at large. This calls for concerted efforts in preparation of policies and plans for their utilization, management and conservation to ensure sustainable national and regional development.

3.0 Economic Policy Issues and Instruments

3.1 Alleviation of Poverty Objective:

Objective:

To improve human welfare and sustainable environment and natural resources management.

Guiding Principles:

- a) Natural resources and the environment are the bedrock of the country's wealth, livelihood and prosperity. Unless sustainably managed and equitably and fairly distributed, they can be sources of conflicts, resentment and consequently environmental degradation and unsustainable utilization of natural resources.
- b) Poverty is one of the root causes of environmental degradation in Malawi and is at the core of the government's development agenda for the foreseeable future. Its alleviation is critical to natural resource conservation, protection and sustainable utilization.

Strategies:

- 3.1.1 Enhance agricultural productivity for smallholder farmers in order to promote sustainable use of natural resources.
- 3.1.2 Improve and expand human resources through increased public expenditures for education, health and other social services.
- 3.1.3 Expand employment opportunities and private sector investment through promotion of entrepreneurship skills and appropriate incentives.
- 3.1.4 Improve capacity for local level management of natural resources for sustainable livelihoods including conservation and sustainable use and management of biodiversity.

3.2 Economic Incentives for Sustainable Environmental Management

Objective:

To ensure that individuals and economic entities are given appropriate incentives for sustainable resource use, conservation and environmental management.

Guiding Principles:

- a) Economic incentives can often induce changes in the behaviour of people and economic entities more effectively than law enforcement.
- b) Priority shall be given to establishing an enabling economic environment in which market prices provide appropriate incentives for sustainable natural resource use and environmental protection.
- c) Implementation strategies shall focus more on establishing an appropriate economic environment to promote sustainable natural resource use and less on traditional government-run development projects.
- d) Prices should reflect opportunity costs and externalities.
- e) Market failure with regard to the pricing of natural resources will be corrected through economic valuation of natural resources and proper assessment of user fees and taxes or the use of tax reductions and other incentives.
- f) Government departments and local communities shall have the right to revenue generated from sustainable utilization of natural resources on public and customary lands in order to provide positive incentives and self-finance for such continued use.
- g) Once the private sector has acquired land, they shall be subject to appropriate regulatory mechanisms to ensure sustainable utilization of natural resources on such land.

Strategies:

- 3.2.1 Establish the economic values of natural resources so that incentives can be introduced to equate market prices or user fees with these economic values.
- 3.2.2 Develop mechanisms to ensure that the opportunity cost of using natural resources and the economic values of conserving natural resources are reflected in market prices or non-market mechanisms used to allocate or regulate their use and conservation.
- 3.2.3 Offer land users (private sector, government departments and local communities) a reduction on their land or property taxes or rents for soil and water conservation methods, agro-forestry techniques, good husbandry practices, development and maintenance of tree plantations or woodlots, or use of appropriate livestock stocking rates.
- 3.2.4 Provide for tax incentives for production or importation of environmentally friendly products and disincentives for production or importation of products that pollute or have adverse effects on the environment.

- 3.2.5 Improve the capacity of the tax and land administration to effectively collect land rents and property taxes and to handle the proposed incentives.
- 3.2.6 Develop the capacity in all public sector institutions for natural resource management to formulate and implement a pricing policy that equates the market prices or user fees for natural resources to their economic values (opportunity costs).
- 3.2.7 Determine the price of inorganic fertilizer, by carefully weighing the trade-off between its contribution to soil fertility and effects on the environment.
- 3.2.8 Establish and manage an Environmental Fund generated from sustainable utilization of natural resources and any other sources, and utilize the Fund to facilitate environmental management.
- 3.2.9 Prescribe penalties for violation of environmental legislation and non-sustainable use of natural resources that exceed the financial benefit accruing to the user.
- 3.2.10 Define and regulate property rights and responsibilities over natural resources on all types of land.

4.0 Cross-Sectoral Policy Objectives, Principles and Strategies

4.1 Institutional Framework

Objective:

To create and strengthen the institutional mechanisms needed to implement a National Environmental Policy.

Guiding Principles:

- a) Environmental management needs a powerful voice not only for advocacy for environmental protection and conservation, but also to ensure effective cross-sector coordination. This can best be achieved through establishment of a high level institution within the government administrative structure.
- b) The role of an environmental affairs institution as a co-coordinating body should be limited to policy formulation and review, coordination, overseeing compliance and provision of technical and information services to relevant users.
- c) An environmental affairs institution should avoid implementing activities that can be implemented by sector departments and institutions.
- d) The environmental affairs institution shall be a professional body whose decisions are beyond political or business interference or manipulation.
- e) Sectoral policy formulation and implementation shall ensure proper separation of powers between users and regulators of environment and natural resources goods and services so as to promote impartiality, fairness and transparency in environment and natural resources management.
- f) Any sector dealing with cross-sector environment and natural resource issues which are not its core function shall comply with mechanisms provided to deal with those issues through joint planning and management, outsourcing of required services as well as adequate liaison and consultation with a relevant lead agency.
- g) Consideration should be given to creating an autonomous professional body that can compel lead agencies to comply with their mandates and enforce cross-sector environment and natural resources policies. Such a body should be appointed by and report to the highest political office to ensure political visibility and authority.
- h) There is need to operationalise the Environmental Appeals Tribunal provided for under the EMA so as to provide a specialist judicial forum for

legal interpretation and enforcement of environmental legislation, regulation and standards.

- i) Local communities whose livelihoods depend on natural resources shall take a leading role in identifying, planning and implementation of community based natural resources management (CBNRM) activities and appropriate legal and institutional frameworks shall be facilitated to ensure that local communities take responsibility for and benefit from sustainable management of natural resources.
- j) Legislation shall provide clear definition of natural resources user groups, their rights benefits and responsibilities including actual boundaries within which these shall be exercised.

Strategies:

- 4.1.1 Provide the environmental affairs institution with the necessary resources to carry out its mandate to facilitate the implementation of the NEP through the following actions:
 - 4.1.1.1. In close collaboration with line ministries and other stakeholders, advise Government on all environmental matters;
 - 4.1.1.2. In close collaboration with line ministries and other stakeholders, facilitate the review and formulation of environmental policies and strategies for consideration by Government;
 - 4.1.1.3. Assist sector ministries and institutions to integrate environmental considerations into their sector strategies;
 - 4.1.1.4. Develop institutional linkages, coordinate and liaise with line ministries, local government authorities, local communities, the private sector, the NGO community, and international and bilateral development partners;
 - 4.1.1.5 Assist line ministries and agencies to develop legislation, regulations and guidelines for sustainable environment and natural resources management;
 - 4.1.1.6 Advise concerned ministries, agencies or otherwise duly authorized institutions in enforcement of environmental legislation, regulations and standards;
 - 4.1.1.7 Monitor compliance with environmental legislation and facilitate arbitration of environment-related conflicting interests;
 - 4.1.1.8 Monitor compliance with international treaties and agreements, and provide relevant information and advise the concerned ministries or agencies regarding new regional or international agreements on environmental issues;

- 4.1.1.9 Enhance national capacity for environmental management through the promotion and coordination of environmental training, formal and non-formal education;
- 4.1.1.10 Enhance environmental awareness among all sectors of the society;
- 4.1.1.11 advise and support government initiative on decentralization as it relates to the environment through strengthening district capacity for environmental management, enforcement of standards, community environmental activities, and extension.
- 4.1.1.12 ensure that sectoral policies and supporting legislation to be implemented by line ministries, departments and other institutions are consistent with and support the guiding principles and specific provisions of the NEP.
- 4.1.1.13 conduct feasibility studies and formulate budget for consideration by Government on the establishment of the Environmental Appeals Tribunal, and promulgate its procedures; and
- 4.1.1.14 conduct feasibility studies to consider the establishment of an environmental protection agency and make recommendations for the consequent and necessary amendments to the EMA.
- 4.1.2 Strengthen the capacity and review the membership of the National Council for the Environment (NCE), and Technical Committee on the Environment (TCE) which are responsible for advising the government through the head of the environmental affairs institution on issues of policy and facilitating the coordination and harmonization of the policies, plans and activities of Government departments, local government authorities, NGOs, the private sector and individual actors in the environment and natural resources fields.
- 4.1.3 Facilitate the establishment and maintenance of Village, Area and District Environmental Committees for the management of environment and natural resources, in accordance with the National Decentralization Policy and the Local Government Act, 1998 and the EMA in order to ensure co-ordination at the local level and effective public participation in environmental decision-making processes and implementation.
- 4.1.4 Ensure that all line ministries and other institutions establish environmental focal points in order to achieve strong linkages on environmental concerns and close working relationships with the environmental affairs institution.
- 4.1.5 Ensure that appropriate mechanisms are established to deal with cross-sector issues over which more than one lead agency has mandate so as to eliminate gaps, conflicts and overlaps in policy implementation arrangements.

- 4.1.6 Develop coordinated sectoral strategies that will facilitate local community empowerment to enable them effectively engage and negotiate with Government, local authorities, the private sector and NGOs in CBNRM activities.
- 4.1.7 Revise and, where necessary, develop environment and natural resources legislation to ensure that it facilitates community empowerment and effective legal and institutional frameworks for CBNRM.
- 4.1.8 Develop and implement appropriate monitoring and evaluation tools for assessing the impact of CBNRM activities and utilize lessons learned to improve its performance.

4.2 Legislation

Objective:

To create a legal framework for the implementation of the NEP and sustainable environment and natural resources management.

Guiding Principles:

The law will:

- a) Be formulated within the political, social, cultural and economic framework prevailing in the country and will not compromise the principles of sustainable development;
- b) Ensure that all people living in the country have the fundamental right to an environment suitable for their health and well-being;
- c) Provide for access to environmental information, environmental justice and effective public participation in environmental decision making;
- d) Provide a framework for formulating, reviewing, and updating sectoral laws on the management of natural resources and the environment;
- e) provide a broad framework for both punitive and incentive measures;
- f) Incorporate customary law norms that promote sustainable utilization and management of the environment and natural resources into framework and sectoral legislation;
- g) Foster regional and international cooperation through agreements, conventions and treaties on sustainable utilization of natural resources and environmental management;

- h) Provide a framework for encouraging maximum participation of individuals, communities and the private sector in the development of policies, laws and plans for the management of the environment; and
- i) Strengthen the legal framework for the institution responsible for environmental affairs.

Strategies:

- 4.2.1 regularly review the EMA which provides the legal framework for the regulation and establishment of guidelines for the conservation and management of all environmental concerns in Malawi, including:
 - 4.2.1.1 empowering the environmental affairs institution to oversee, coordinate and facilitate implementation of the environment policy;
 - 4.2.1.2 ensuring that an Environment Fund is established that will enhance implementation of environmental programmes;
 - 4.2.1.3 supporting development and implementation of a mechanism for application of Environmental Impact Assessment and environmental audits in all development projects;
 - 4.2.1.4 making provision that enables government to declare environmentally sensitive sites/areas as protected areas;
 - 4.2.1.5 providing for legislative framework for promoting public access to environmental information, environmental justice and mechanisms for effective public participation in environmental decision making;
 - 4.2.1.6 ensuring that sectoral and cross-sectoral legislation are consistent with the provisions of the EMA;
 - 4.2.1.7 facilitating the integration of environment and natural resources related policies into planning, management and implementation of development programs of local authorities;
 - 4.2.1.8 recognising and supporting participation of Malawi in regional and international treaties and conventions on natural resources and environment.
 - 4.2.1.9 providing for the practice and procedures of the Environmental Appeals Tribunal through appropriate subsidiary legislation.
 - 4.2.1.10 providing a broad rule of legal standing (*locus standi*) to empower persons or institutions to take legal action even if they can not show injury or loss to them arising from the subject matter of the action.

4.3 Environmental Planning

Objective:

To ensure that national and district development plans integrate environmental concerns, in order to improve environmental management and ensure sensitivity to local concerns and needs.

Guiding Principles:

- a) The NEAP shall be the key instrument for national environmental planning and the implementation of development programmes.
- b) The NEAP shall be regularly reviewed to ensure that it remains current and effectively responds to critical environment and natural resources implementation issues.
- c) District Environmental Action Plans (DEAPs) shall take into consideration local concerns and needs and be disseminated to the public.
- d) Ensure that the DEAP is consistent with the NEAP.
- e) The EMA shall be revised to ensure that each local government authority is under legal obligation to formulate a DEAP every five (5) years in accordance with the EMA and integrate the DEAP in its development planning and implementation.

Strategies:

- 4.3.1 Carry out regular review of the NEAP whose purpose shall be to:
 - 4.3.1.1 identify and assess the principal environmental problems facing the country;
 - 4.3.1.2 provide a framework for integrating environmental concerns into development plans and programmes;
 - 4.3.1.3 identify strategies for preventing, controlling, mitigating and adapting any adverse impacts on the environment;
 - 4.3.1.4 assist in the determination of priorities for action in respect of the environment; and
 - 4.3.1.5 develop a national awareness programme of the importance of the efficient, sustainable and equitable use and management of the environment and natural resources.
- 4.3.2 develop and review environmental plans at the district and national levels.
- 4.3.3 review and, where necessary, revise the EMA to align it with the National Decentralization Policy and the Local Government Act, 1998.

4.4 Environmental Impact Assessment, Audits and Monitoring

Objective:

To develop, regularly review and administer guidelines for Environmental Impact Assessment (EIA), audits, monitoring, and evaluation so that adverse environmental impacts can be eliminated or mitigated and environmental benefits enhanced.

Guiding Principles:

- a) EIAs will be required as deemed necessary to ensure that public and private sector development options are environmentally sound and sustainable and that any environmental consequences are recognized early and taken into account in project design, and implementation.
- b) EIAs will consider not only biophysical impacts but will also address environmental impact in terms of existing social, health, economic, political and cultural conditions including HIV/AIDS impact.
- c) Environmental Mitigation and Management Plans shall be required for all activities where the EIA has determined a negative environmental threshold. These plans shall cover and provide for post-construction impacts of development projects.
- d) Environmental Audits, including inspections, record-keeping and updating, and monitoring shall be required for activities as determined by the mitigation plans or otherwise.
- e) Environmental Impact Assessments and Statements shall be made public and public comments on them invited and taken into consideration.
- f) EIA procedures should be cost effective, appropriate, reasonable and commensurate with the size, scope and relative impacts of the project or programme in question.
- g) Persons and organizations whose activities adversely affect the environment shall have a duty to regularly monitor their environmental performance.

Strategies:

- 4.4.1 Develop and review sector-specific guidelines and set standards for EIAs, audits and environmental management plans.
- 4.4.2 Gazette and regularly review the types and sizes of all projects for which environmental impact assessment may be required.
- 4.4.3 Require that any person, private or public organization desiring to develop a project must submit a project brief upon which a decision to carry out an EIA may be based.

- 4.4.4 Prescribe guidelines and regulations concerning the conduct of EIAs and the preparation of Environmental Impact Statements, audits, monitoring and evaluations.
- 4.4.5 Review Environmental Impact Statements and take necessary actions to ensure that no projects proceed that may cause significant and irreparable damage to the environment.
- 4.4.6 Develop and gazette appropriate formulae or schemes for determining EIA processing fees.
- 4.4.7 Prohibit development projects, which have or are likely to have adverse effects on the environment unless an EIA has been undertaken and appropriate mitigation or management plans have been provided for.
- 4.4.8 Require that persons or organizations whose activities adversely affect the environment shall regularly monitor their environmental performance and submit requisite reports to the environmental affairs institution.

4.5 Environmental Education and Public Awareness

Objective:

To increase public and political awareness and understanding of the need for sustainable environmental protection, conservation and management.

Guiding Principles:

- a) Sustainable environmental management requires political and public support and understanding of its importance.
- b) Environmental education shall be taught on a multi-disciplinary basis and integrated into on-going curriculum review at the pre-school, primary, secondary and tertiary levels.
- c) Environmental education and awareness shall be promoted through formal and non-formal education channels by all government institutions, NGOs, and the private sector.
- d) An environmental education and public awareness programme shall be targeted at all those in public and private sectors whose activities affect the environment in one-way or another as well as the general public.

Strategies:

- 4.5.1 Develop a national plan for carrying out public awareness through non-formal and formal environmental education programmes, which will include the following:

- 4.5.1.1 intensified awareness programmes publicizing the scarcity and vulnerability of the natural resources of the country aimed at the general public.
- 4.5.1.2 incorporate an environmental component in the adult literacy materials so that the programme can facilitate public awareness and community participation in natural resource management.
- 4.5.1.3. establishment of environmental education associations and clubs.
- 4.5.1.4. mandatory environmental education in all formal and non-formal education institutions.

4.6 Private Sector and Community Participation

Objectives:

- (a) To mobilize initiatives and resources in the private sector, NGOs and CBOs to achieve sustainable environmental management and;
- (b) To involve local communities in environmental planning and actions at all levels and empower them to protect, conserve and sustainably manage and utilize the nation's natural resources.

Guiding Principles

- (a) Natural resource conservation, protection and sustainable utilisation can only be enhanced if community participation, empowerment and social and economic benefits from the natural resources are assured.
- (b) Public participation in environmental decision making helps to build consensus and strengthen public support for environmental decisions and programmes;
- (c) Government Ministries and Departments shall move towards becoming supervisory and regulatory bodies which provide enabling policy and legislative frameworks for resource management activities.
- (d) Implementation strategies will focus more on establishing an enabling environment to promote sustainable natural resource use and less on traditional Government managed development projects.

Strategies:

- 4.6.1. Train and re-orient extension officers in all line ministries and NGOs to facilitate community participation in natural resource management.

- 4.6.2. Return a significant portion of the benefits from sustainable utilization of natural resources on public and customary lands to the local communities whose collaboration is needed to conserve the resources.
- 4.6.3. Integrate local representatives into the decision-making process in order to empower local communities in the management of natural resources.
- 4.6.4. Provide incentives to the private sector to encourage their involvement in natural resource management.
- 4.6.5. Mobilize private sector resources to achieve environmental objectives through attractive pricing policy, contracts, leases and concessions.

4.7 Environmental Human Resource Development and Research

Objectives:

- (a) To provide training needed to implement a national programme of environmental protection, conservation and management; and
- (b) To carry out basic and applied, demand-driven research needed to support sustainable management of the environment.

Guiding Principles:

- (a) Both basic and applied environmentally related research will be promoted.
- (b) Research on the environment and natural resources shall be regulated to ensure that it provides benefits to the nation and facilitates transfer of technology.
- (c) Adequate capacity building is critical in environmental management, planning, impact assessment, monitoring, evaluation and review in the core ministry and other relevant sectors.

Strategies:

- 4.7.1. Encourage and finance research programmes on environmental management.
- 4.7.2. Develop and regularly update an appropriate legal and institutional framework for benefits sharing and technology transfer in research activities.
- 4.7.3. Include an environmental component to the training offered at all training institutions.

4.7.4 Provide training in specialized areas of environmental management such as planning, environmental economics and law, environmental information systems, for example, GIS and related technology, environmental quality monitoring, waste management, environmental engineering, environmental pollution and toxicology.

4.7.5 Build capacity on sustainable livelihood systems.

4.8 Gender, Youth and Children

Objective:

To integrate gender, youth and children concerns in environmental planning decisions at all levels to ensure sustainable social and economic development.

Guiding Principles:

- (a) Women, men, children and the youth should play a key role in the sustainable utilization of natural resources and other development programmes.
- (b) Basic training in environment and natural resource management will include gender analysis methodologies and tools.
- (c) Training, research and programme implementation should incorporate and address gender issues.
- (d) Developing an environmental awareness programme among youth and children is essential to environmental sustainability now and in the future.

Strategies:

- 4.8.1. Ensure that public awareness campaigns on environmental management include and specifically target women, men, children and the youth.
- 4.8.2. Facilitate women's participation in population and environment decision-making, resource ownership and management.
- 4.8.3. Collect and disaggregate by gender, information related to the environment.
- 4.8.4. Recognize the importance of gender roles and gender analysis in environmental management in all training programmes, at all levels.
- 4.8.5. Tailor public awareness campaigns, formal and informal education, and extension services in environment and natural resource management to the different roles and priorities of men and women.

4.8.6. Develop and implement an environmental education programme for the youth and children, and functional literacy program for women and men, including their participation in environment and natural resources projects.

4.8.7 Develop close links, including establishment of environmental focal points, between the environmental affairs institution and the institutions responsible for gender, children and the youth.

4.9 Demographic Planning

Objective:

To ensure that population growth does not lead to environmental degradation.

Guiding Principles:

- (a) It is advisable to encourage family planning although it is the right of each individual and couple to decide for themselves the number of children they wish to bear.
- (b) The annual growth rate of the Malawian population should be reduced substantially so that the growth of the population is more consistent with that of the economy.
- (c) Information, Education and Communication (IEC) is vital in creating increased demand for family planning services and therefore IEC activities must be well coordinated to ensure that the messages of all agencies involved are synchronized.
- (d) Population education in schools and colleges will make a major contribution to the implementation of the national population programme.
- (e) In order to ensure effective family planning delivery, it is also necessary to improve maternal and child health, provision of safe drinking water and adequate sanitation, educational services, opportunities of productive employment and increased agricultural productivity.
- (f) Success in achieving the objective of population policy crucially depends on changing negative traditional attitudes and practices as they impinge on the present disadvantaged status of women in Malawi.
- (g) It is essential that responsibility for coordinating population policies and programs be entrusted to a relevant institution.

Strategies:

- 4.9.1. Strengthen programmes, which increase awareness of the population problem and benefits of small family sizes and facilitate free access to information about family planning methods.

- 4.9.2. Integrate population and environmental education in the formal school system and other institutions of learning.
- 4.9.3. Undertake operational, social, cultural, economic and demographic research that will assist the implementation, monitoring and evaluation of population policy.
- 4.9.4 Prepare appropriate population policy messages for specific audiences and disseminate them through various means.
- 4.9.5 Strengthen family planning services through provision of community based family services, rather than facility based.
- 4.9.6 Include women in the design, management and implementation of public and private sector /NGO population-influencing programmes.

4.10 Human Settlements and Health

Objective:

To promote urban and rural housing planning services that provides all inhabitants with a healthy environment and sustainable human settlements.

Guiding Principles:

- (a) Urban and rural planning and development activities should incorporate human settlement and health concerns.
- (b) Human settlements should incorporate environmental concerns as well as disaster preparedness.

Strategies:

- 4.10.1 Develop sanitation master plans and provide environmentally friendly services to district, town and city assemblies.
- 4.10.2. Improve water borne sanitation systems and solid waste disposal using appropriate technology as well as proper design, selection and licensing of disposal sites and routes.
- 4.10.3. Enforce existing policies and laws through strengthening institutional capacity and mechanisms for compliance.
- 4.10.4. Facilitate adoption of systems that sort industrial, clinical, domestic and other waste at source in order to facilitate recycling of materials wherever possible.
- 4.10.5. Facilitate privatisation of waste management.
- 4.10.6. Educate the public and local experts on best systems for design and implementation of sanitation projects.

- 4.10.7. Strengthen the health inspectorate for urban and rural areas in order to assess the risks and consequences of environmentally related health problems.
- 4.10.8. Ensure that all hospitals, clinics, public places and residential areas have appropriate sanitation and waste and effluent disposal systems.
- 4.10.9. Strengthen inspections of work environments and improve knowledge of occupational hazards and safety measures.
- 4.10.10 Promote efficient water use.
- 4.10.11 Enforce fire safety measures in all settlements, transport systems and public places.
- 4.10.12 Formulate and implement building standards and regulations for urban and rural housing and ensure that all stakeholders including local government authorities adopt complementary by-laws in line with those standards and regulations.
- 4.10.13 Promote the development, adoption and use of cost effective technologies for building works to prevent deforestation and land degradation arising from brick making and other building activities.
- 4.10.14 Develop pollution control and disaster management mechanisms to protect communities from disasters.

4.11 Air Quality and Climatic Change

Objective:

To minimize the adverse impact of climate change and variability to reduce air pollution and greenhouse gas emissions.

Guiding Principles:

- (a) Air pollution should be reduced in order to provide a healthy and sustainable environment for social and economic development.
- (b) Greenhouse gas emissions must be reduced and Greenhouse gas sinks should be enhanced in order to prevent interference with the climate system.
- (c) It is necessary to control localized air pollution, especially in the urban environment, so as to reduce incidences of airborne diseases and other health risks.
- (d) The climate is a valuable natural resource, which, if not well managed, can become a serious constraint to socio-economic development.
- (e) Bush fires must be controlled to reduce air pollution and environmental hazards.

Strategies:

- 4.11.1 Develop a data base on air pollution through the establishment of a sound air quality monitoring system.
- 4.11.2. Develop and promote alternative energy sources to fuel wood and technologies in order to reduce the use of fuel wood and enhance carbon sinks.
- 4.11.3. Enact a Clean Air Act.
- 4.11.4. Develop and enforce regulations regarding air emissions.
- 4.11.5. Strengthen the existing national climate/meteorological database and monitoring networks.
- 4.11.6. Assess and monitor the potential impact of climate change on the functioning of ecosystems, vegetation patterns and net carbon sinks.
- 4.11.7 Use climate data to help guide land-use and economic development decisions.
- 4.11.8. Promote adequate regional and international cooperation for the effective exchanges of climate information and control of trans-boundary atmospheric air pollution.
- 4.11.9. Reduce gas emissions from the transport sector, and the manufacturing industry.
- 4.11.10. Maintain a National Ozone Protection Unit in order to promote use of ozone friendly technologies.
- 4.11.11. Enact appropriate legislation to support the mandate of the National Ozone Protection Unit.
- 4.11.12. Conduct awareness campaigns on the dangers of uncontrolled bush fires and its management in accordance with the Climate Change Convention.

4.12 Conservation of Biological Diversity

Objective:

To manage, conserve and utilize sustainably the country's biological diversity, (ecosystems, genetic resources and species) for the preservation of national heritage.

Guiding Principles:

- (a) Conservation of biological diversity is a form of natural resource management whose primary goal is the maintenance of biological

resources to meet the needs and aspirations of both present and future generations.

- (b) Biodiversity has an intrinsic value and is vital for agricultural, medicinal, scientific, research, tourism and other socio-economic developments.
- (c) As custodians and users of biological diversity, local communities have accumulated knowledge, skills and information relating to conservation and management of biodiversity, which can be utilized to promote sustainable management of biodiversity. At the same time it is important to check traditional practices that promote unsustainable use of biodiversity.
- (d) Indigenous knowledge systems provide important knowledge in the agricultural, medical and pharmaceutical industries that has provided a significant proportion of modern technologies and products. This knowledge needs to be protected by appropriate *sui generis* legislation.
- (e) The conservation of biodiversity both within and outside protected areas is critical to environmental sustainability together with other policies such as land use and sustainable agriculture policies.

Strategies:

- 4.12.1. Identify valuable areas of biodiversity, particularly outside of protected areas, and in consultation with local communities, explore means of protecting such areas, including gazetting as protected areas, and purchasing of land-use rights or of conservation easements.
- 4.12.2. Promote biodiversity conservation programmes undertaken by sectors such as forestry, fisheries, and wildlife that protect biodiversity and provide benefits to local communities so that they are motivated to conserve the resources and use them in a sustainable manner.
- 4.12.3. Promote Eco-tourism both as a means of conserving biodiversity and of earning income.
- 4.12.4. Provide a mechanism for fair distribution of costs and benefits deriving from protected areas between central and local governments and local communities.
- 4.12.5. Foster public support and encourage private investment in biodiversity conservation through public awareness campaigns and appropriate incentive schemes.
- 4.12.6. Establish and develop biodiversity networks, both national and international for information exchange and consultation.
- 4.12.7. Promote and strengthen activities of the National Gene Bank.
- 4.12.8. Provide alternative income generating activities as a means of assisting the conservation of biodiversity.

- 4.12.9. Adhere to and implement international biodiversity treaty obligations that are relevant to Malawi's situation.
- 4.12.10 Develop legislation to promote and protect indigenous knowledge systems for conservation and sustainable management and utilization of biodiversity.

4.13 Land Tenure and Land Use

Objective:

To promote sustainable use of the land resources of Malawi, primarily, but not exclusively, for agricultural purposes by strengthening and clearly defining security of tenure over land resources.

Guiding Principles:

- (a) The provision of security of tenure for smallholder farmers against estate expansion is important for sustainable resource-based production systems (including trees).
- (b) Empowering CBOs to regulate resource management on common property in their respective areas should be given high priority.
- (c) Customary rights to land and resource use will be recognized and protected, or alternatives provided, including the opportunity to convert to leasehold.
- (d) A comprehensive land policy should encompass not only property rights to land but also other natural resources (e.g. trees, water, fisheries, wetlands, minerals, rangelands and wildlife).
- (e) Land use planning and classification is essential for sustainable environment and natural resources management.

Strategies

- 4.13.1 Develop and regularly update a land use policy to guide and ensure sustainable land utilization and development.
- 4.13.2. Review information on land resources, use, occupation and ownership, and establish a computerized land information database to provide up-to-date information for current and future planning.
- 4.14.3. Empower local communities to manage common property resources in an environmentally sustainable manner.

- 4.13.4. Review existing land laws in relation to all land tenure systems. Where necessary, new legislation will be introduced for customary, leasehold, freehold and public lands, including that providing for the introduction of land taxes to safeguard the productivity of land resources.
- 4.13.5. Develop and implement a national programme to rehabilitate highly degraded land.
- 4.13.6. Strengthen the land resources and conservation capacity in the ministries responsible for Agriculture and Lands in order to cater for improved land use and compliance of the lease covenants relating to sustainable land use and management practices.
- 4.13.7. Establish a civic education committee to inform the public about the central role of land in political, economic and social development and also about current and impending legislation and procedures.
- 4.13.8. Increase incentives/penalties to promote sustainable productivity of leasehold land, including the increase of rents to reflect the land's market value or opportunity cost.
- 4.13.9. Improve co-ordination between ministries, other institutions and the environmental management institution with respect to land use and improved cultivation practices. This encompasses improvement at both the policy-making and field officer levels.
- 4.13.10. Promote an enabling environment for the development of a land market.
- 4.13.11. Promote security of tenure for tenants over land resources vis-à-vis estate owners.
- 4.13.12. Promote land conservation and utilization based on applicable instruments such as EIAs, environmental audits and land use plans.

5.0 Sectoral Policy Objectives, Principles and Strategies

5.1 Agriculture and Livestock

Objective:

To promote environmentally sustainable agricultural development by ensuring sustainable crop and livestock production through ecologically appropriate production and management systems, and appropriate legal and institutional framework for sustainable environmental management.

Guiding Principles:

- (a) Increased agricultural production will be based on improved, appropriate and recommended farming techniques and increased security of land tenure, on currently allocated land rather than on expansion of cropland.
- (b) Agricultural policy, planning and implementation will involve local communities, private and public sectors and NGO participation at all levels.
- (c) Agricultural policy, planning and implementation will be closely coordinated with those of land use, water, and natural resources.
- (d) The use of water, land and other natural resources for agriculture, livestock and irrigation purposes shall be subject to the regulatory frameworks adopted and or enacted by relevant sectors.
- (e) Agricultural policy and planning should incorporate the environmental costs of soil erosion and loss of soil fertility as well as pests and diseases.
- (f) Watershed management activities will be accorded highest priority to conserve water, prevent further soil degradation and to improve soil fertility.
- (g) Land husbandry and rehabilitation interventions have to be implemented on a catchment and community basis.
- (h) Appropriate use of organic and inorganic fertilizers shall be promoted taking into consideration their contribution to soil fertility, water quality and budgetary requirements.
- (i) Appropriate legislation and institutional framework is necessary for sustainable agricultural development.
- (j) Agricultural policy and planning should take special recognition of the disadvantages such as women, youth and children and the physically challenged.

- (k) Fragile and marginal areas should be protected from environmental degradation.
- (l) Research and technology transfer are essential for sustainable agricultural practices and attainment of food security.

Strategies:

- 5.1.1 Intensify production on most suitable lands to avoid expansion into marginal/fragile areas.
- 5.1.2 Integrate environmental awareness and education in participatory community agricultural extension and research programmes.
- 5.1.3. Train both research and extension staff on the participatory approaches to promote sustainable environment and natural resources management.
- 5.1.4. Prevent or minimize the environmental impact of cultivation and other development on marginal lands (steep slopes, 'dambos', swamps and areas susceptible to flooding) through improved cultivation of agricultural production.
- 5.1.5 Ensure observance of buffer zones along watercourses such as rivers, streams, lakes or dambos so as to prevent siltation, scouring and pollution of water bodies.
- 5.1.6. Review, evaluate, and develop agricultural policies and legislative and institutional framework on a regular basis for the purpose of incorporating environmental concerns.
- 5.1.7. Review and enact legislation to protect environmentally fragile areas from agricultural encroachment.
- 5.1.8. Embark on intensive education/extension and mass awareness programmes to promote community participation in soil conservation measures and integrated land use systems.
- 5.1.9. Promote research into appropriate and sustainable soil and water conservation techniques.
- 5.1.10. Promote proper animal husbandry practices to curb overgrazing and environmental degradation.
- 5.1.11. Ensure that trade policies on agricultural commodities and inputs encourage environmentally sustainable production systems.
- 5.1.12 Review and implement the Pesticide Act.

5.1.13 Introduce appropriate technologies including fertilizers, seed varieties and conservation.

5.1.14 Regulate development and use of modern biotechnology including Genetically Modified Organisms (GMOs) in order to enhance Biosafety.

5.1.15 Promote activities of the gene bank to promote conservation of biodiversity.

5.2 Forestry

Objective:

To sustainably manage forestry resources so as to maximize benefits to the nation.

Guiding Principles:

- (a) Deforestation is an important contributing factor to soil erosion, siltation of lakes, rivers, and reservoirs and other water bodies, loss of biodiversity and climate change.
- (b) The participation of the private sector, NGOs and local communities in forestry is essential for sustainable management, conservation and utilization of forest resources.
- (c) Privatisation of forestry plantations shall be promoted through concessions granted on competitive basis,
- (d) Private forestry shall be promoted.
- (e) Community-based participation in the management of Forest Reserves and forests on customary lands shall be promoted.
- (f) Local communities that participate in the management of indigenous forest resources shall benefit from the sustainable utilization of such resources.
- (g) Inventorying and monitoring is essential to sustainable forestry management.
- (h) An ecosystem approach to forestry management shall be encouraged so as to promote sustainable management and utilization of forestry resources such as water and wildlife.

- (i) Sustainable forest resource management and control of deforestation should best be enhanced on the basis of appropriate research, forestry development and extension.
- (j) Bush fire is detrimental to sustainable forest management.
- (k) Appropriate indigenous knowledge and norms for sustainable conservation and utilization of forest resources should be promoted.
- (l) Appropriate legislation and regulations are essential to effective implementation of forestry policy.

Strategies:

- 5.2.1 Provide an enabling framework for promoting the participation of local communities, NGOs and the private sector in forest conservation and management.
- 5.2.2 Provide appropriate incentives that will promote effective contribution of forest resources to the alleviation of poverty, sustainable economic development and environmental protection.
- 5.2.3 Provide economic incentives and the necessary legal framework and technology to encourage and facilitate rural communities and fuel wood using sectors to be self-sufficient in fuel wood requirements.
- 5.2.4. Promote development and dissemination of agro-forestry practices.
- 5.2.5. Promote dissemination of indigenous knowledge about the medicinal and other properties of indigenous forest resources and where possible assist in marketing and protection of such knowledge for the benefit of the custodians of the knowledge.
- 5.2.6. Introduce marketing and pricing policy reforms that provide industrial wood fuel users with incentives to invest in tree planting and woodland management.
- 5.2.7. Promote the sustainable utilization of forest resources by practicing conservation in the use of forest products, improving specifically the efficiency of fuel wood conservation, recycling paper through incentives and regulations and substituting fuel wood with alternatives such as paraffin, solar energy, biogas, electricity and coal where feasible.
- 5.2.8. Promote and support the conservation and protection of forest ecosystems and the growing of trees by individual companies, estates, local communities and authorities, including the integration

of forests and trees into farming systems, soil conservation activities and land-use systems.

- 5.2.9. Tender forestry concessions on competitive basis through the normal government procurement procedures.
- 5.2.10 Monitor and evaluate the performance of forestry concession holders and, where necessary, take measures to enforce compliance of the provisions of the concession including cancellation of such concessions.
- 5.2.11. Facilitate the participation of local communities in forestation and rehabilitation of bare or fragile areas.
- 5.2.12. Assist communities to set up appropriate management institutions to control the use of forestry resources on sustainable basis.
- 5.2.13. Promote forestry conservation measures for civil works, including minimal tree destruction when constructing roads, prohibiting encroachment of protected areas, and empowering traditional and local authorities to punish wanton tree felling in settlement areas.
- 5.2.14. Provide, in collaboration with relevant sectors, alternative income generating activities that will reduce pressure on forestry products.
- 5.2.15 Develop, in consultation with relevant sectors, forest management plans that incorporate the conservation and sustainable management of resources such as water and wildlife.
- 5.2.16 Conduct research programmes or adapt exogenous technologies to local conditions in order to generate usable technologies for the sustainable management of planted and natural forest resources.
- 5.2.17 Regulate forestry based research to ensure that it benefits the nation.
- 5.2.18 Revise and update the National Forestry Policy and the Forestry Act in order to strengthen and facilitate coordination with related policies and legislation.
- 5.2.19 Establish an enabling legal and institutional framework to empower traditional and local authorities to enforce forestry legislation.
- 5.2.20 Subject activities that have adverse effects on forestry activities to EIA in accordance with the EMA.
- 5.2.21 Promote use of appropriate indigenous knowledge and norms for sustainable forest resource use and management.

5.2.22 Enhance the conservation and management of gazetted forestry reserves and prohibit encroachment into protected areas.

5.2.23 Prevent and control bush fires.

5.2.24 Promote cooperation with neighbouring states to enhance sustainable management of forests that lie on international boundaries.

5.3 Fisheries

Objective:

To manage fish resources for sustainable utilization and conservation of aquatic biodiversity.

Guiding Principles:

- (a) Research must be conducted to identify and quantify under-utilised fish resources.
- (b) The participation of the private sector, NGOs and local communities is essential to sustainable management, conservation and utilization of fisheries resources.
- (c) Opportunities for expanding existing and new aquatic resources must be explored.
- (d) The roles of law enforcement and extension should be separate.
- (e) Inventorying and monitoring is essential to sustainable fisheries management.
- (f) An ecosystems approach to fisheries management should be adopted.
- (g) Public access to beaches to conduct the fishing, fish processing and trading shall be guaranteed.
- (h) Specific attention shall be paid to the development and sustainable management of aquaculture so as to reduce pressure on captured fisheries.

Strategies:

- 5.3.1. Contain over-exploitation and destruction of habitat through strengthened research efforts and adequate planning, controls and monitoring.

- 5.3.2. Promote aquaculture development as a means of raising incomes, increasing the supply of fish, and decreasing pressure to capture fisheries.
- 5.3.3. Undertake a program of research to identify and quantify under-utilised fish resources and to encourage the appropriate exploitation of such fish resources. .
- 5.3.4. Promote international co-operation in fisheries matters on all shared watercourses to minimize duplication of resources and obviate over-exploitation.
- 5.3.5 Regulate fisheries research to ensure that it benefits the nation.
- 5.3.6. Subject all proposed introduction of exotic species into water ecosystems to detailed ecological impact studies.
- 5.3.7 Prevent and reverse the process of catchment degradation in order to conserve rivers as breeding habitat for endemic fish.
- 5.3.8 Empower local communities to manage fisheries resources.
- 5.3.9 Facilitate the establishment and promotion of local community-based fisheries management institutions and integrate them into the decentralized governance institutional framework.
- 5.3.10 Accord greater attention to enforcement of fisheries laws and regulations, combined with a separate fisheries extension service, which will collaborate with NGOs and other extension officers to promote community participation in fisheries resources management.
- 5.3.11 Ban use of non-sustainable fishing technology.
- 5.3.12 Regularly review the Fisheries Conservation and Management Act to provide the necessary legal framework for achieving the objectives and implementation of these strategies.
- 5.3.13 Establish an enabling legal and institutional framework to empower traditional and local authorities to enforce fisheries legislation.
- 5.2.14 Subject activities that have adverse effects on fisheries to EIA in accordance with the EMA.
- 5.3.15 Inventory and monitor all the species (taxonomy) that exist in the lakes and other waters of Malawi.

5.3.16 Develop, in consultation with relevant sectors, plans for integrated pollution control as to enhance the quality of fish habitats.

5.3.17 Prepare, in collaboration with other ministries and local communities, programme of enforcement of access to lake and contiguous beaches and riparian areas.

5.4 National Parks and Wildlife

Objective:

To manage and conserve wildlife resources in National Parks, Wildlife Reserves and those outside protected areas in such a way as to ensure their protection, sustainable utilization, and reduction of people/wildlife conflicts.

Guiding Principles:

- (a) Local communities within and adjacent to National Parks and Wildlife Reserves shall participate in their planning and management.
- (b) There shall be a fair distribution of the benefits and revenue from sustainable utilization of wildlife resources between central government, local authorities and local communities.
- (c) Inventorying, research and monitoring are essential to sustainable management and utilization of wildlife.
- (e) Research activities of various stakeholders shall be regulated and monitored so as to ensure that research benefits the people of Malawi. Measures shall be introduced and enforced in all research agreements and wildlife concessions to ensure that wildlife research benefits the nation.
- (f) An ecosystems approach to the management of wildlife resources is essential and should be promoted.
- (g) In order to promote sustainable use and management of wildlife resources, including the development of wildlife based eco-tourism, commercialisation of wildlife resources shall be promoted through grant of concessions to the private sector or NGOs.

Strategies:

5.4.1. Undertake appropriate programmes of research and monitoring in relation to the sustainable utilization of resources and the minimization of the negative impacts of wildlife.

5.4.2. Manage, protect and conserve National Parks and Wildlife Reserves in accordance with management plans.

- 5.4.3. Provide economic incentives and the necessary policy and legal framework to encourage the private sector to invest in revenue generating activities based on the sustainable utilization of National Parks and Wildlife Reserves.
 - 5.4.4. Provide benefits to local communities from National Parks and Wildlife Reserves by facilitating their planning, management and administration, and by returning a certain percentage of revenues to local communities.
 - 5.4.5 Develop mechanisms and policy frameworks to promote wildlife based ecotourism.
 - 5.4.6 Tender, through the normal government procedures, the grant of concessions for the management of National Parks and Wildlife Reserves with specific commitments on the winner to promote sustainable use and management of wildlife.
 - 5.4.7 Regulate research activities in National Parks and Wildlife Reserves to ensure that it benefits the nation
 - 5.4.8. Train local communities in law enforcement including management of problem animals in National Parks and Wildlife Reserves.
 - 5.4.9 Improve the law enforcement and extension capability of the Department of National Parks and Wildlife.
 - 5.4.10. Design and implement mechanisms for managing conflicts between wildlife and the local communities around National Parks and Wildlife Reserves.
 - 5.4.11 Provide an enabling legal and institutional framework to empower local communities around National Parks and Wildlife Reserves to participate in law enforcement.
 - 5.4.12 Develop and implement, in consultation with relevant sectors, management plans to facilitate management of wildlife outside National Parks and Wildlife Reserves.
 - 5.4.13 Establish close links with regional and international organizations to promote research, training and sustainable management of wildlife.
 - 5.4.14. Strengthen co-operation with counterpart institutions in the neighbouring states so as to better manage Malawi's National Parks and Wildlife Reserves that lie on international borders.
 - 5.4.15 Establish a Wildlife Fund for sustainable management of wildlife
- 5.5 Water

Objective:

To manage and use water resources efficiently and effectively so as to promote its conservation and availability in sufficient quantity and acceptable quality.

Guiding Principles:

- (a) All people should have access to clean potable water in order to reduce the incidence of water borne diseases and reduce the time devoted by individuals to water collection.
- (b) All programmes related to water should be implemented in such a manner that mitigates environmental degradation and at the same time promotes enjoyment of the asset by all beneficiaries.
- (c) In planning and providing water supply services, consideration should be given to safe disposal of the resultant wastewater.
- (d) The development of strategies for the efficient allocation, investment and pricing require a common approach to the value of water.
- (e) Water has social, economic and environmental value, both at the point of use, and at its source.
- (f) Water is an important habitat for a number of natural resources such as forests, fisheries, wildlife and other aquatic biodiversity and has considerable bearing on climate change. It is necessary therefore that its management should follow an ecosystem approach.
- (g) The responsibility for water-borne sanitation should be integrated in the water sector.
- (h) Maximum use should be made of market-determined prices for water allocation and water demand management practices must be promoted at all levels.
- (i) The participation of all stakeholders in water management must be promoted to a sense of ownership of projects and programmes.
- (j) The construction of small dams and diversion of water in rivers for development of irrigation shall take into account catchment protection measures.
- (k) The precautionary approach to water quality management shall be pursued with a focus on pollution minimization and prevention.
- (l) Water utilization and management shall incorporate applicable regional and international instruments.

- (m) The polluter pays principle shall be incorporated in water policy and legislation so as to ensure that costs of unsustainable water utilization and management are borne by the party responsible for such acts.
- (n) Integrated watershed management practices are essential for water conservation at all levels of management.

Strategies:

- 5.5.1. Strengthen the Water Resources Board as a high level body responsible for the management of the water resources.
- 5.5.2. Develop an integrated approach that will guide the allocation of water, investment and the pricing of water services.
- 5.5.3. Develop and implement, in consultation with relevant sectors, management plans for integrated water management to ensure that utilization of water resources does not lead to its depletion or pollution.
- 5.5.4. Promote and devise methods of harvesting rain water using cost effective technologies which can be easily managed and maintained by local communities.
- 5.5.5. Promote the development of small-scale beneficiary managed irrigation schemes with an emphasis on efficient water management, while ensuring and maintaining environmental integrity.
- 5.5.6. Review existing information on wetlands and 'dambos' and, where necessary, undertake further studies in order to develop guidelines for their proper utilization.
- 5.5.7. Develop master plans for the conservation and utilization of water resources including solid and liquid waste management on land and water bodies.
- 5.5.8. Undertake a comprehensive national study of the potential dam sites on rivers and combine the evaluation of suitable dam sites with catchment conservation.
- 5.5.9. Rehabilitate catchment areas, boreholes and gravity-fed water supplies as a safeguard to reduce the impact of supply shocks from droughts.
- 5.5.10. Expedite implementation of the programme to contain/eradicate water weeds such as the hyacinth.
- 5.5.11. Promote effective water pollution monitoring and prevention programmes based on enforceable water quality guidelines and standards.
- 5.5.12. Compile hydrological information required for determining sustainable surface and groundwater yields.
- 5.5.13. Promote efficient water use.
- 5.5.14. Empower local communities to participate in the maintenance of water supplies.
- 5.5.15. Domestic provisions of regional and international instruments on integrated water resources management.

- 5.5.16 Promote integrated watershed management practices for water conservation at all levels of management.

5.6 Energy

Objective:

To meet national energy needs with increased efficiency and environmental sustainability.

Guiding Principles:

- (a) Environmental externalities of all energy sources shall be identified and incorporated into policy design and project costing.
- (b) Sustainable fuel wood production may not only be economically efficient, but can also make a contribution to the arrest of global warming.
- (c) Dependence on petroleum products as a source of energy shall be minimized.
- (d) Safe and efficient use of local coal resources shall be encouraged.
- (e) Alternative energy systems to fuel wood shall be developed for both rural and urban communities.
- (f) The provision of infrastructure for rural electrification is a social service since it can make a significant contribution to the reduction of deforestation and the improvement of the quality of rural life.
- (g) Private sector participation in the energy sector development shall be promoted.

Strategies:

- 5.6.1. Strengthen the coordination of energy sector developments and improve the energy planning capability of those agencies involved in energy matters.
- 5.6.2. Promote energy saving and renewable energy technologies.
- 5.6.3. Optimise use of thinning from forests and more efficient technologies for the production of charcoal.
- 5.6.4. Explore means to make electricity more affordable and accessible in order to reduce the dependency on fuel wood.

- 5.6.5 Develop indigenous coal resources and implement an oil exploration programme so long as these are economically viable and provide incentives for private sector investment in such projects.
- 5.6.6. Revise any legislation that gives a monopoly on the supply of electricity in order to encourage competition.
- 5.6.7. Promote private and commercial enterprise in electricity generation and distribution and other sources of energy.
- 5.6.8. Explore ways to increase the percentage of ethanol in petrol and the possibility of blending ethanol and paraffin in order to reduce dependency on non-renewable resources.
- 5.6.9 Promote environmentally friendly energy technologies to reduce greenhouse gas emitting fuels.
- 5.6.10 Increase rural electrification programmes to provide electricity to rural areas as to reduce pressure on fuel wood.
- 5.6.11 Subject all energy projects to stringent EIA in accordance with the provisions of the EMA.

5.7 Industry

Objective:

To ensure that industrial activities conform to sustainable management and utilization of the environment and natural resources.

Guiding Principles:

- (a) Industrial development needs pollution control measures.
- (b) Safe waste disposal is key to environment management in industrial development.
- (c) A safe and healthy operating environment is essential for industrial production.
- (d) Use of environmentally friendly and energy saving industrial technologies enhances sustainable development.
- (e) Clean technologies involving the Clean Development Mechanism (CDM) framework is essential for sustainable industrial development.

Strategies:

- 5.7.1. Adopt and implement industrial policies that are consistent with sustainable management and conservation of natural resources and the environment.
- 5.7.2. Develop plans for development/construction of industrial sites that have adequate and appropriate waste disposal.
- 5.7.3. Enact or revise industrial legislation to enhance the prevention of environmental pollution and maintenance of ecological balance.
- 5.7.4. Promote development of industries that are based on domestic raw materials and use of technology that is appropriate for the local environment.
- 5.7.5. Provide information on products that can be made from locally available natural resources.
- 5.7.6. Provide incentives to industries locating in rural parts of the country.
- 5.7.7. Adopt product quality and standards that conform to environmental conservation in order to enhance competitiveness in international markets.
- 5.7.8. Provide incentives to encourage the adoption of environmentally friendly technologies in industry, incorporating energy saving, reduction of health hazards, pollution control and safe disposal of waste.
- 5.7.9. Prohibit imports of environmentally harmful substances.
- 5.7.10. Promote the use of cement blocks in construction in order to decrease use of burnt bricks to curb deforestation
- 5.7.11. Promote use of environmental guidelines and EIA before industrial sites are developed and ensure application of a monitoring and auditing system for operating industries.
- 5.7.12. Promote clean technologies involving CDM frameworks for sustainable development.

5.8 Mining

Objective:

To ensure that the development of the country's mineral resources takes place within a framework of sustainable utilization of natural resources and management of the environment and the mining industry contributes to the country's economic growth and poverty reduction program.

Guiding Principles:

- a) Mining can significantly assist the country in its poverty reduction program and reduce the country's dependence on agriculture.
- b) Stringent EIA will be required for all mining projects to ensure sustainable environment and natural resources management.
- c) The polluter pays and the precautionary principles shall be used in the design, implementation and monitoring of mining projects.
- d) Mining development needs environmental protection measures.
- e) Safe waste disposal is key to environment management in mining development.
- f)** A safe and healthy operating environment is essential for mining production.
- g)** Use of environmentally friendly and energy saving mining technologies enhances sustainable development.

Strategies:

- 5.8.1 Revise the Mines and Mineral Act to harmonize it with the NEP and other relevant sector policies and legislation and make it more investor friendly.
- 5.8.2 Develop a minerals policy in accordance with the NEP and other relevant sector policies.
- 5.8.3 Formulate and implement sector-specific guidelines for EIA with special regard to pollution control and waste management.
- 5.8.4 Provide mining firms and entrepreneurs' access to information and facilitate public participation in EIA processes.
- 5.8.5 Facilitate and promote small-scale mining.
- 5.8.6 Adopt product quality and standards that conform to environmental protection in order to enhance competitiveness in international markets.
- 5.8.7 Provide incentives to encourage the adoption of environmentally friendly technologies in mining, incorporating energy saving, reduction of health hazards, pollution control and safe disposal of waste.
- 5.8.8 Promote use of environmental guidelines and EIAs before industrial sites are developed and ensure application of a monitoring and auditing system for operating industries.

5.8.9 Provide incentives for use of mining technologies that are environmentally friendly.

5.8.10 Build capacity in the mining sector.

5.9 Tourism

Objective:

To sustainably manage and conserve tourist attractions.

Guiding Principles:

- a) Conservation of the environment is essential for tourism.
- b) Local communities shall participate in the management and share revenues of eco-tourism in order to enhance environmental sustainability.
- c) Land use planning and tourism developments should ensure that aesthetic and scenic features of tourist sites are conserved.
- d) Tourism should facilitate maintenance of biodiversity and protection of cultural heritage.
- e) Health regulation and compliance is essential to sustainable tourism.
- f) There is need for strong linkage between the department responsible for tourism and environmental affairs to ensure that the promotion and development of tourism is sustainable.

Strategies:

- 5.9.1 Develop plans for tourism management and promotion that address environmental sustainability.
- 5.9.2 Prepare and disseminate environmental guidelines, including EIA procedures for tourism development.
- 5.9.3 Promote fair access to tourism market opportunities for all potential participants through encouragement of partnerships.
- 5.9.4 Develop and implement an eco-tourism training programme for all potential participants including local communities.
- 5.9.5. Monitor compliance with tourism laws and ensure that health regulations are strictly adhered to at all tourism sites.

5.9.6 Promote tourism that protects, conserves and manages the environment and natural resources of the country in a sustainable manner.

5.9.7 Establish environmental focal point in the institution responsible for tourism that will constantly liaise with the environmental affairs institution.

5.10 Other Sectors

Objective:

To ensure that all sectors of the economy optimise use of environmentally friendly technologies and undertake mitigation measures to address adverse environmental impacts.

Guiding Principles:

- a) All sectors shall institute policies and programmes that support the overall policy goal of sustainable social and economic development through the sound management and conservation of the environment.
- b) Involve all stakeholders in planning, implementation and monitoring of development programmes.

Strategies:

- 5.10.1. Promote transport and other infrastructure that is environmentally friendly through proper site selection, choice of technology, and the application of conservation measures along and within the infrastructure areas.
- 5.10.2. Encourage the use of less polluting technologies in all sectors.
- 5.10.3. Ensure periodic review of sectoral policy, legislation and training in order to support and improve environmental management.
- 5.10.4 Conduct sector consultation meetings to address policy and legislation failures and plan sector specific activities to deal with emerging problems.