

THE REPUBLIC OF UGANDA

NATIONAL ENVIRONMENT ACTION PLAN (NEAP)

THE NATIONAL ENVIRONMENT  
MANAGEMENT POLICY

MINISTRY OF NATURAL RESOURCES

MARCH 1995

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## FORWARD

### Our Future. Which Way?

THE country is facing serious environmental degradation which is eroding her natural resource base. Consequently our development process is threatened. We have an enormous task as to how best we should manage our resources while ensuring development. Poverty and high population growth rates, among others, have led to increased pressures on the environment.

WHILE we would like to improve the standard of living of our people and at the same time conserving the resource base, inadequate planning and management capabilities, coupled with inappropriate technology and shortage of financial and human resources constrain any long term investments being made.

WE cannot continue walking in the path of wide spread environmental degradation and wanton depletion of resources and endanger our own well being and that of the future generations.

VIEWED within this context, the Government through the NEAP process, has provided a policy strategy for integrating environmental concerns into the national socio-economic development planning process. The importance of integrating environmental concerns in the socio-economic development planning of the country need not be over emphasized since the linkage between development and environmental management is fundamental for attaining sustainable development. The most critical issues we face are strongly interlinked, and our actions must be mutually supportive and aimed at a common goal.

THE strategic environmental planning undertaken in the NEAP process is an important and dynamic one. As a result, a National Environment Management Policy has been developed. This policy builds on and strengthens existing sectoral policies.

THE strategies in the policy are intended to provide and assist decision makers and resource users in determining priorities in the national context and also at the sectoral, private sector and individual levels.

THE policy presents wide ranging strategies for the kind of development Uganda needs to guide us on the path of improving the quality of human life and at the same time conserving the vitality and diversity of our resources.

THE high quality and wide ranging recommendations contained in this policy clearly demonstrates the advantages of consultation, wide participation and focused thought in the preparation. Similarly, implementation of these recommendations requires involvement and participation of everyone and will enhance our ability to foresee and/or mitigate the negative environmental impacts. This will foster sustained socio-economic development of our people. The policy therefore, provides policy makers with a framework for determining priorities; and resource users with viable options for sustainable utilization of resources.

CHANGE is inevitable in the development process. Priorities and strategies will have to change with time as new challenges and issues emerge; and new options become available. For this reason, the principles and strategies presented are described in broad terms. They are to be interpreted and adopted correctly by all implementors.

WHILE today it may not be feasible to implement some of the strategies provided, they are attainable with time.

DUE to the dynamic nature of environmental issues, Government with the participation of the population, will continuously monitor, review and update the policy to reflect current challenges, new and emerging issues and available options.

I wish to extend Government's special gratitude to the international community particularly the USAID, World Bank, SIDA, UNSO, IUCN and UNDP for the financial and technical support rendered, so far.

I also wish to thank all those who contributed in one way or another to the preparation of this Policy.

TO our country men and women, I heartily and sincerely urge you to implement the recommendations contained in this important policy document for the sustenance of our future. It is for the benefit of all of us and generations to come.

Henry Muganwa Kajura

MINISTER OF NATURAL RESOURCES

#### LIST OF ACRONY

EA	Environmental Audit
EIA	Environmental Impact Assessment
EIS	Environmental Impact Statement
ELU	Environmental Liaison Unit
EO	Environmental Officer
GIS	Geographic Information Systems
M&E	Monitoring and Evaluation
NEAP	National Environment Action Plan
NEMA	National Environment Management Authority
NGO	Non-governmental Organization
PA	Protected Area

## EXECUTIVE SUMMARY

UGANDA is endowed with a rich natural resource base and a generally favourable climate. The majority of the population depends on agriculture for its livelihood.

Despite the high natural resource potential, factors such as population growth, economic reforms, the desire for a steady increase in per capita income, and other pressures of the development process are putting severe strain on natural resources and consequently the environment. This strain is characterized by, inter alia, increased soil degradation, deforestation, loss of biodiversity, reduced rangeland carrying capacity, fuelwood shortages, increasing pollution, and increased incidence of environmentally-related diseases.

The inadequacy of existing policies and legislation combined with a lack of inter-sectoral coordination and cooperation have also contributed to the degradation of the environment and depletion of the country's natural resources. Poverty, low levels of environmental awareness, inadequate information, low levels of technology and a lack of managerial and technical expertise in resource management exacerbates the problems.

This complexity of environmental problems requires a comprehensive and coordinated environmental management policy and legislation. Thus, there is a clear need to re-orient national and local efforts to address environmental problems in a more comprehensive and integrated manner. This strategy will constitute the fundamental basis for achieving overall policy goal of sustainable socio-economic development which maintains and enhances environmental quality and resource productivity to meet the needs of present and future generations.

In this context, the National Environment Management Policy seeks to:

- set the overall goal, objectives and key principles for environment management;
- provide a broad policy framework for harmonization of sectoral and cross-sectoral policy objectives, principles and strategies;
- transform existing environmental management system to establish an integrated and multi-sectoral approach to resource planning and management by creating a National Environment Management Authority (NEMA);
- promote positive behavioral/attitudinal change in resource use;
- provide the basis for the formulation of a comprehensive environmental legal framework;
- integrate environmental concerns in all development policies, plans and activities at national, district and local levels;

- provide a mechanism for integrating environmental costs and benefits in national economic planning and development;
- ensure public participation and gender integration in environmental management processes;
- preserve, conserve and/or restore ecosystems and maintain ecological processes and life support systems;
- establish an effective monitoring and evaluation system as well as an environmental impact assessment process and standards mechanism; and
- provide for an effective information management system to facilitate collection, storage, analysis and dissemination of environmental information, among others.

To achieve the above, four key initial actions are needed. These include: (i) the creation and establishment of an appropriate institutional (i.e., NEMA) and legal framework; (ii) the development of a new sustainable conservation culture; (iii) revision and modernization of sectoral policies, legislation and regulations; and (iv) the establishment of an effective monitoring and evaluation system to assess the impact of policies and actions on the environment, the population and the economy.

The National Environmental Management Policy provides the framework to guide these actions and is the cornerstone of the country's commitment to social and economic development that is environmentally sustainable and which will bring the benefits of a better life to all Ugandans.

# THE NATIONAL ENVIRONMENT MANAGEMENT POLICY

FOR

UGANDA

1994

CHAPTER I

BACKGROUND

OVER 90% of Uganda's population depends directly on natural resources for their livelihood. Despite the country's high natural resource potential, factors such as population growth, economic reforms, the desire for a steady increase in per capita income, and other pressures of the development process are putting severe strain on the environment and natural resources.

THIS strain has resulted in a number of problems: soil degradation is becoming more pronounced particularly in the highland areas; deforestation is widespread and the loss of biodiversity is increasing; wetlands are being drained extensively for agriculture particularly in the southwest and east of the country; fish populations are under serious threat from over-exploitation; over-stocking in the drier areas has caused a decline in the quality of rangelands resulting in reduced carrying capacity; fuelwood shortages have reached critical levels in some areas of the country; air and water pollution is increasing with urban environments particularly at risk; and finally, environmentally-related diseases such as schistosomiasis and guinea worm are becoming increasingly prevalent.

THE absence of comprehensive and coordinated environmental policies and inadequate environmental legislation has also contributed to the depletion of the country's natural resources and the degradation of the environment. While some policies and legislation on natural resource management exist, for the most part they are outdated, sectoral and rarely implemented or enforced.

INSTITUTIONAL conflicts, rivalry and the lack of effective cooperation and coordination both within and outside government have resulted in ineffective implementation of programs geared towards sustainable resource management and reversing environmental degradation. Inadequate information on the environment and the natural resources of the country combined with a lack of trained specialists in resources management exacerbates the problems.

IN its effort to revive the economy, Government is spearheading a vigorous campaign to attract investment; privatizing public enterprises to encourage private management and the public service is being restructured and rationalized to increase efficiency. The restructuring process has included the decentralization of services and devolution of powers to the districts and local levels to encourage the public to manage their own resources.

WITH more development programs implemented and industries established, there is a need to direct national development efforts to ensure that plans aimed at improving the standard and quality of life take due consideration of environmental concerns. The improvement of natural resource management and the maintenance of a healthy environment are crucial to the socio-economic development of the country.

TO achieve efficiency of resource use - and to tackle the major issues of soil degradation, deforestation, loss of biodiversity, energy inadequacy and inefficient use, and pollution, among others - appropriate and timely actions are necessary to pave the way for significant investment to be made. The first of these actions will be the creation and establishment of an appropriate institutional and legal framework, transformation of existing environmental management systems, evolution of a new conservation culture, revising and up-dating laws, and establishing an effective monitoring and evaluation system.

REALIZING that national economic and social prosperity depends on the maintenance of a high quality environment, there is a clear need to re-orient national and local efforts and address the environment in a more holistic and integrated manner. The National Environmental Management Policy is the cornerstone of the country's commitment to social and economic development that is environmentally sustainable and which will bring the benefits of a better life to all.

THE National Environmental Management Policy is meant to be broad and flexible so as to be able to meet changing circumstances. It should be made known to all people, and espoused by all projects and programs, public and private, and by all resource managers and land-users as a charter for a better Uganda. It should be the goal on which everyone sets his/her sights and pursues to the best of his/her ability. In brief, it should be the foundation of sustainable socio-economic development.



## CHAPTER II

### POLICY GOALS AND PRINCIPLES

#### 2.1 The Overall Policy Goal.

The overall policy goal is sustainable social and economic development which maintains or enhances environmental quality and resource productivity on a long-term basis that meets the needs of the present generations without compromising the ability of future generations to meet their own needs.

#### 2.2 Key Policy Objectives.

Specifically, the policy seeks to meet the following objectives:

- Enhance the health and quality of life of all people in Uganda and promote long-term, sustainable socio-economic development through sound environmental and natural resource management and use;
- Integrate environmental concerns in all development policies, planning and activities at national, district and local levels, with full participation of the people;
- Conserve, preserve and restore ecosystems and maintain ecological processes and life support systems, especially conservation of national biological diversity;
- Optimise resource use and achieve a sustainable level of resource consumption;
- Raise public awareness to understand and appreciate linkages between environment and development; and
- Ensure individual and community participation in environmental improvement activities.

#### 2.3 Key Principles.3

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

- (i) Every person should have a constitutional right to live in a healthy environment and the obligation to keep the environment clean;
- (ii) The development of Uganda's economy should be based on sustainable natural resource use and sound management;
- (iii) Security of land and resource tenure is a fundamental requirement of sustainable natural resource management;
- (iv) Long-term food security depends on sustainable natural resource and environmental management;
- (v) The utilization of non-renewable resources should be optimized and where possible their life extended by recycling;
- (vi) Environmentally friendly, socially acceptable and affordable technologies should be developed and disseminated for efficient use of natural resources;
- (vii) Full environmental and social costs or benefits foregone as a result of environmental damage or degradation should be incorporated in public and private sector planning and minimised where possible;
- (viii) Social and economic incentives and disincentives should complement regulatory measures to influence people's willingness to invest in sustainable environmental management;
- (ix) The enforcement capacity of environmentally related laws should be taken as a priority for sustainable natural resource and environmental management;
- (x) Priority should be given to establishing a social and economic environment which provides appropriate incentives for sustainable natural resource use and environmental management;
- (xi) An integrated and multi-sectoral systems approach to resource planning and environmental management should be put in place;
- (xii) Regular monitoring and accurate assessment of the environment should be carried out and the information widely publicized;
- (xiii) Conditions and opportunities for communities and individual resource managers to sustainably manage their own natural resources and the environment should be created and facilitated;
- (xiv) Effective involvement of women and youth in natural resource policy formulation, planning, decision making, management and program implementation is essential and should be encouraged;

- (xv) Increased awareness and understanding of environmental and natural resource issues by Government and the public should be promoted;
  - (xvi) Social equity, particularly when allocating resource use should be promoted;
- and
- (xvii) Sub-regional, regional and global environmental interdependence should be recognized.

## CHAPTER III

### CROSS-SECTORAL POLICY OBJECTIVES, PRINCIPLES AND STRATEGIES

Creating an integrated and multi-sectoral systems approach to planning and management of resources and the environment is fundamental to sustainable socio-economic development. To accomplish this, policies are needed which address cross-sectoral environmental management issues. The following cross-sectoral policies, objectives and strategies are prioritized based on three criteria: (i) the seriousness or urgency of the problem the policy is to address; (ii) the potential contributions of the policy to the economy and social well-being; and (iii) the policy's potential for solving the problem.

#### 3.1 Land and Resource Tenure.

The land tenure system prevailing in the country involves a mixture of customary tenure, private mailo land, freehold and leasehold. This system fails to provide security of tenure needed for sustainable socio-economic development.

##### Objective:

To promote improved land stewardship by rural and urban land users by better defining and strengthening land and resource tenure rights.

#### Guiding principles:

- A comprehensive land and resource tenure policy should encompass not only property rights to land but also other natural resources; (e.g. trees, both planted and natural, water, fisheries, wetlands, minerals, rangelands and wildlife);
- Land tenure policy should provide for security of tenure in support of sustainable agricultural production systems (including forestry);
- The regulation of resource management on common property in different areas should be the responsibility of traditional community institutions (formal and informal), but it should be compatible with national policies and regulations on common property ownership and use; and
- Customary rights of land and resource use should be recognized, and protected where possible, or alternatives, including the opportunity to convert to freehold status should be provided;

in pastoral areas, pastoral groups should be provided with secure access and user rights to traditional grazing areas and water sources to the extent feasible.

#### Strategies are to:

- (i) Support recommendations of the Technical Committee on Land Tenure Reform of the Agriculture Policy Committee which relate to sustainable land use practices;
- (ii) Provide mechanisms for improved and sustainable management of common property resources;
- (iii) Require new leases of public lands to carry conditions which prohibit environmentally unacceptable land-use practices; and
- (iv) Subject public land leases to the environmental impact assessment process.

### 3.2 Land Use Policy and Planning.

Given the high rate of population growth which is exerting increasing pressure on the land, rational landuse planning is essential for achieving sustainable socio-economic development. At present, there is no comprehensive national landuse policy and in its absence inappropriate landuse activities have led to serious environmental degradation.

#### Objectives:

To provide a coordinated, national approach to sustainable land use and planning; and

To prepare national and local land-use plans to help guide land-use decisions in an environmentally sound, economically sustainable and socially acceptable way.

Guiding principles:

- Land use decisions should be based on both biophysical factors (carrying capacity, soil types, vulnerability to degradation, wetland values, biodiversity impact, pollution potential), as well as socio-economic criteria;
- National and district land use plans should be the implementation instruments of land use planning. The land use plans should be strategic and indicative and should provide broad guidelines rather than setting binding regulations for land use;
- The plans should be accompanied by the establishment of management guidelines for specific resources located in specific agro-ecological zones and farming systems;
- District land use guidelines and plans should enable parish and village authorities to develop their own land use plans and land and water management agreements; and
- The formulation of strategic land use plans and guidelines should be done in maximum consultation with and reviewed by local district councils and the affected people (including women).

Strategies are to:

- (i) Review the existing legislation as part of the planning process;
- (ii) Develop a comprehensive national land use policy, and an enhanced land-use planning system based on appropriate technical systems, such as Geographic Information Systems (GIS);
- (iii) Develop technically appropriate, socially acceptable and environmentally sound rural and urban land use plans, capability classification and guidelines for sustainable resource use;
- (iv) Utilise the land use plans and the national land use policy and legislation to enable the districts to develop district-level land use guidelines and bye laws; employ a combination of enforcement and incentive measures to facilitate/ensure compliance at all levels; and
- (v) Provide for continuous monitoring of land use at national and district levels.

### 3.3 Environmental information

Sustainable management of environmental resources and the need to continuously anticipate new and emerging challenges, requires availability of timely, up-to-date and accurate information.

#### Objective:

To collect, analyze, store, and disseminate on a continuous basis, reliable information relating to environmental management issues including biodiversity, soil conservation, fuelwood supply and demand and pollution control.

#### Guiding principles:

- The right to live in a clean and healthy environment should carry a right to be informed about environmental issues;
- Environmental information of an unclassified or non-proprietary nature in all sectors should be available to all interested users;
- Legal and institutional guidelines on information management should be well-defined;
- Information generation should be based on user needs;
- The introduction of new information technologies should be appropriate to the information needs of the country;
- All data collection, analysis and information dissemination on existing and emerging environmental issues should be coordinated and standardized;
- The development of district and sub-district monitoring and evaluation capabilities is critical to improvement of environmental information management; and
- The primary institutional responsibility for specialized data collection should remain with the concerned sector or ministry but a centralized system for data storage and analysis is essential.

#### Strategies are to:

- (i) Provide clear legislation and guidelines on environmental information specifying what environmental information is freely available to users and what may be regarded as classified or proprietary;

(ii) Create a centre for information on the environment in the National Environment Management Agency (NEMA) and give it the mandate and means necessary to coordinate, standardize environmental information and to act as the central depository for environmental information;

(iii) Strengthen specialized information units within sectoral institutions through training and logistical support, and formally link them to the national environmental information network to be operated by the information centre; and

(iv) Document, evaluate, store, disseminate and utilize existing indigenous knowledge and practices with regard to environment and natural resource management.

### 3.4 Conservation of Biological Diversity.

Uganda possesses some of the world's greatest diversity of flora and fauna and ecosystems. The conservation of biological diversity in both outside and inside protected areas is a critical environmental issue because of the actual and threatened extinction of many species and the degradation of habitats. The present rate of plant and animal life depletion as a result of unsustainable socio-economic activities is alarming.

#### Objective:

To conserve and manage sustainably the country's terrestrial and aquatic biological diversity in support of national socio-economic development.

#### Guiding principles:

- Biodiversity should be considered at the species, genetic and ecosystem levels;
- Conservation of biodiversity is a form of natural resource management which has as its primary goal the maintenance of national biological resources to meet the needs and aspirations of present and future generations;
- The conservation of biodiversity outside the Protected Areas (PA) system is critical to policy success and will depend on a wide range of individuals and institutions; in particular, it should be linked with land use, sustainable agriculture and crop production policies;
- PAs are the cornerstone of national efforts to protect biological diversity;
- Some specific habitats (e.g., fish breeding grounds, wildlife dispersal areas) both within and outside the PA system may require special protection to ensure the long-term survival of critical species;
- Tourism, eco-tourism and non-consumptive biodiversity uses should be promoted as both a means of conserving biodiversity and earning income;

- Pricing policies should be conducive to conserving biodiversity and sustaining natural resources; prices paid by resource users should reflect the cost of resource replacement or rehabilitation;
- Protected areas should include as wide a range of ecosystems and habitats as possible and be linked by corridors of suitable habitat along which species can disperse and survive; and
- Local community involvement in the planning and management of PAs and in the sharing of benefits derived from these areas is crucial for the conservation of biological diversity.

Strategies are to:

- (i) Develop comprehensive and coordinated policies, strategies and actions for biodiversity conservation;
- (ii) Enact and/or reactivate legislation on the management of natural resources to provide for conservation of biodiversity in its widest sense, including areas outside the PA system;
- (iii) Develop a policy framework and guidelines for the identification and management of buffer zones and buffer areas in and around PAs to help reduce conflicts between multiple uses and users (e.g., livestock and wildlife);
- (iv) Establish a mechanism for collaboration between Protected Area management and the neighbouring communities in order to resolve potential conflicts through the involvement of local people in the planning, management and decision making process, and ensure that a portion of benefits from the Protected Area system is offered to the local communities;
- (v) Bring sectoral institutions concerned with biodiversity conservation - particularly Forestry, Game, National Parks and Fisheries - together under a common management authority to enhance coordination and eliminate duplication and conflict; incorporate all three levels of biodiversity conservation into this institution's policies and programs;
- (vi) Re-assess priorities in Protected Area management and rationalize the Protected Area system to maximize its cost effectiveness in the conservation of biological diversity;
- (vii) Identify valuable areas of terrestrial biodiversity outside of protected areas, and in consultation with local communities and land owners, explore means of protecting such areas, including gazettement as protected areas, purchase of land-use rights or conservation easements;
- (viii) Identify and map valuable areas and sensitive habitats of aquatic biodiversity, particularly breeding, nesting and feeding areas, and in consultation with traditional and commercial fisheries, explore means of protecting such areas, including gazettement, the purchase of fisheries use rights, or conservation easements;



(ix) Foster public support for intended biodiversity actions and encourage private investment in tree planting and wildlife conservation by placing greater emphasis on increasing public awareness on biodiversity values;

(x) Re-institute methods of adoptive management and continue the process of sustainable resource management techniques, based on research results and monitoring programs;

(xi) Strengthen links to international biodiversity conventions, e.g., CITES, Ramsar, World Heritage Sites, etc.;

(xii) Cooperate in the conservation of shared biological resources with other countries; and

(xiii) Integrate and coordinate in situ and ex situ methods of genetic and species conservation, e.g., seed and sperm banks, botanical gardens, orphanages and captive breeding sites.

### 3.5 Water Resource Conservation and Management.

Water is a major factor in the socio-economic development of Uganda. The rapid growth in population and increased agricultural and industrial production require adequate and safe water supply. The development of adequate domestic and industrial water supply is hampered by inadequate resources, accessibility to safe water supply points, scattered settlements and inadequate education and awareness on hygiene.

#### Objective:

To sustainably manage and develop the water resources in a coordinated and integrated manner so as to provide water of acceptable quality for all social and economic needs.

#### Guiding principles:

- The "drainage basin" should be the basic planning and development unit. Priority should be given to watershed management to control, conserve and regulate the water balance in the catchment regions and water courses;
- Water resources should be sustainably managed at the lowest appropriate institutional or community level;
- Water resource users, particularly women, should be involved in the design, implementation, monitoring and evaluation of water policies, programs and projects;

- Water management guidelines should be developed and provided to the appropriate institutions and communities to enable them manage water resources efficiently;
- Surface and groundwater uses should be planned on the basis of water quantity and quality, and allocations to domestic, industrial and agricultural uses should not exceed the sustainable supply;
- The amount of water used for irrigation should be kept at the minimum required to maintain soil conditions conducive to the growth of the crop in question, and control of health hazards should be taken into account in design criteria;
- Ecosystems are fundamental in regulating water quality and quantity and this concept should be integrated into water resources conservation and management;
- Cross-sectoral mechanisms and institutions for integrated water management (e.g., linkages between land and water management, irrigated agriculture, forestry, fisheries, environmental quality) should be developed and encouraged; and
- The protection of the interface between water bodies and the land (i.e. lake shores, river banks and wetlands) is important for the sustainable management of water resources.

Strategies are to:

- (i) Develop a National Water Action Plan which will establish an appropriate institutional and legal framework, water quality and standards and management guidelines for different users based on ecosystem structures and functions;
- (ii) Develop local capacity for community management and maintenance of water resources (with particular attention to the role of women) and institute measures to prevent environment degradation around water points;
- (iii) Increase the level of community awareness on the importance of water particularly with regard to hygiene;
- (iv) Promote an integrated approach by concerned government agencies and Non-governmental Organizations (NGO) in the implementation of water conservation and protection measures in catchment areas to control soil erosion, siltation and maintain productive soil and water environments;
- (v) Strengthen the capacity to measure and to continuously assess and monitor the quality and quantity of water resources;
- (vi) Promote regional cooperation in the development, management and equitable utilization of shared water resources; and
- (vii) Subject major water conservation and management projects to the Environmental Impact Assessment (EIA) process and include the costs and benefits of protecting watershed forests, wetlands and other key ecosystems in the economic analysis of such water projects;

### 3.6 Wetlands Conservation and Management.

The importance of wetlands arises from the fact that they provide socio-economic and ecological values and functions. However, wetlands are currently threatened with degradation as a result of being drained mainly for agricultural production, brick-making and industrial expansion.

#### Objective:

To promote the conservation of wetlands to sustain their ecological and socio-economic functions for the present and future well-being of the people.

#### Guiding principles:

- Wetlands are important and productive natural resource systems which should be sustainably managed;
- Management guidelines for wetland resources should be provided to local administrators, communities and wetland users;
- Local authorities/users should be involved in wetland resource planning and management;
- Any future proposed alienation of wetlands should require an environmental impact assessment before being granted;
- Wetlands identified as having a significant national biodiversity value should be fully protected;
- Any wetland serving as a source of water supply and/or as an "effluent filter" for human settlement should be protected from encroachment; and
- Traditional uses of wetland resources by local people, under locally developed guidelines and bye-laws compatible with national guidelines and policy, should continue.

#### Strategies are to:

- (i) Expedite and finalize the wetlands policy;
- (ii) Carry out a full inventory of major wetlands to determine their location, status, ecological and socio-economic values, as well as their capacity to perform their various functions on a sustainable basis;
- (iii) Develop wetlands management guidelines and management plans, in consultation with wetlands users, and enact appropriate national legislation;
- (iv) Enable districts to pass appropriate bye laws which incorporate both socio-economic and environmental concerns;

(v) Require preparation of an EIA before major alteration of wetlands are permitted; and

(vi) Establish full protection status for wetlands of significant biological diversity.

### 3.7 Environmental Economics and Macro-economic Policy.

Direct and indirect economic measures have potential effects on environmental resource use. Unfortunately for Uganda, the effects of indirect and direct economic measures on the environment are not considered and integrated in the national socio-economic development planning process.

#### 3.7.1 Environmental Accounting.

Objective:

To integrate environmental costs and benefits into economic planning and development at all levels of government in order to reflect the true costs and benefits of development.

Guiding principles:

- Sustainable natural resource use and environmental protection are the means to ensure that the economy has the resources necessary to enhance and sustain economic growth now and in the future;
- Environmental costs and benefits, including benefits foregone, should be included in the development planning and reporting process;
- Environmental costs and benefits should be accounted for using the best available information and methodologies given that the estimation of environmental costs and benefits is often imprecise due to lack of accurate information and uncertain monetary values of non-marketable environmental goods and services;
- Depletion or degradation of natural resources should enter the national accounts as depreciation of capital assets. Utilization of renewable natural resources beyond the capacity of the resource to renew itself should be recognized as a reduction of capital assets, rather than revenue; and
- The costs and benefits, both economic and environmental, of major development activities and those which involve sensitive resource issues should be explicitly considered.

Strategies are to:

- (i) Develop capacity in environmental economics in the Ministry of Finance and Economic Planning, other line ministries and institutions, to review project proposals and resource allocation;
- (ii) Incorporate the EIA process into the Ministry of Finance and Economic Planning and other government agencies as an additional criteria for reviewing and approving investment programs;
- (iii) Develop a capacity in the Ministry of Finance and Economic Planning to prepare satellite environmental accounts as part of national accounting procedures;
- (iv) Initiate a pilot project on the development of national indicators and the application of environmental accounting in Uganda, within the framework of the new United Nations (or other) guidelines on national environmental accounting;
- (v) Integrate environmental economics and accounting into the national development planning process; and
- (vi) Structure accounting and financial management systems to facilitate analyses of benefits/achievements and costs.

### 3.7.2 Correct Market Failures with Appropriate Pricing Policy.

#### Objective:

To incorporate the cost of producing or maintaining natural resources into the costs incurred by (and benefits derived from) resource users through use of appropriate management mechanisms such as leases, management contracts, users fees, concession agreements, and similar pricing mechanisms.

#### Guiding principles:

- Government agencies should assess user's fees or taxes on natural resources whose market price does not accurately reflect the social value of the resource;
- One of the priority roles of government should be to help correct market failures by establishing prices which serve the needs of society; and
- Whenever possible, the costs of producing and/or maintaining a natural resource should be incorporated into the costs and benefits of resource users.

#### Strategies are to:

- (i) Build the capacity of government agencies to establish the social values of the resources for which they are responsible;

(ii) Develop policies and procedures to assess appropriate user fees or rights of access in the areas of land use, water use, sewerage use, pollution, fishing and forestry, and/or to incorporate the costs of producing and maintaining a resource into the costs and benefits of the resource users; and

(iii) Explore the possibility of using concessions or other mechanisms to grant exclusive rights to use a specific delimited natural resource as a mechanism to both assess user fees and to incorporate the costs of resource management into the costs of the user.

### 3.7.3 Financial and Economic Sustainability.

Objective:

To mobilize increased private sector resources to achieve environmental conservation and management objectives.

Guiding principles:

- Government agencies roles should be supervisory and regulatory setting policy, contract conditions, and correcting market failures, rather than be implementing agencies for resource management activities;
- The responsibility for sustainable resource management should be integrated into management contracts, joint-ventures, concessions, production sharing agreements and leases which regulate resource use by the private sector;
- Implementation strategies should focus more on establishing an appropriate economic environment to promote sustainable natural resource use, and less on classic government-run development projects; and
- Whenever possible, Government programs and projects should be or be able to become self-financing.

Strategies are to:

(i) Develop a mechanism to reduce the implementation responsibilities and financial requirements of government agencies by involving local communities, NGOs and the private sector in natural resource management;

(ii) Develop criteria for prioritising requests for government funding in the area of natural resource management and environmental protection; and

(iii) Mobilize private sector resources to achieve environmental conservation and management objectives, through the use of incentives, management contracts, leases, concessions, joint-ventures, and production sharing agreements.

### 3.7.4 Use of Economic Incentives and Disincentives to Change People's Behaviour.

Objective:

To ensure that individuals, groups, businesses and other economic entities have appropriate incentives and disincentives with regard to sustainable resource use and environmental protection.

Guiding principles:

- Regulatory measures should be complemented by social and economic incentives and/or disincentives including pricing to influence behaviour for individuals or organizations to invest in sustainable environmental management;
- The enforcement responsibilities of many government agencies should be reduced to a critical set of regulations which can be effectively enforced; and
- The tax structure should provide incentives for socially desirable activities and disincentives for actions which compromise social welfare;

Strategies are to:

- (i) Develop the capacity to analyze the impact of user fees, incentives and disincentives in government agencies responsible for natural resource management, policy formulation and regulation;
- (ii) Improve the capacity of the tax administration at national and local levels to effectively collect land and/or property taxes and to handle the proposed tax deductions; and
- (iii) Where appropriate and feasible, offer land users a reduction on their land or property taxes for: soil and water conservation methods, agroforestry techniques, good husbandry practices, development and maintenance of tree plantations or woodlots, or use of appropriate livestock stocking rates.

### 3.8 Environmental Impact Assessment.

Development activities and land use practices have impacts on the environment and therefore their assessment and evaluation is essential. Although Environmental Impact Assessment is not an entirely new thing in Uganda, its use has not yet been fully understood and appreciated by policy makers and resource users. The low cost of preventing environmental damage compared to the high cost of repairing such damage is a sound economic justification for instituting and carrying out Environmental Impact Assessments.

Objective:

To provide a system of Environmental Impact Assessment (EIA) and environmental monitoring so that adverse environmental impacts can be foreseen, eliminated or mitigated.

Guiding principles:

- Public and private sector development options should be environmentally sound and sustainable; any environmental consequences should be recognized early and taken into account in project design;
- EIAs should consider not only biophysical/environmental impact but address the impact on existing social, economic, political and cultural conditions;
- EIAs for all public and private sector development activities should be required in order to determine the "environmental threshold" of a particular activity;
- Environmental Impact Statements (EISs) should be required for all activities where the EIA has determined a negative environmental threshold;
- Environmental Audits (EAs), including inspections and record-keeping, should be required for activities as might be determined by the EIS; and
- The environmental impact assessment process should be administered by NEMA in consultation with line ministries, departments and the private sector.

Strategies are to:

- (i) Create by law an EIA process which requires, as appropriate, environmental impact assessments, environmental impact statements and environmental audits for all private and public development projects;
- (ii) Lodge the EIA oversight function in the National Environmental Management Authority (as approved) but leave implementation to the relevant line ministries and departments; and
- (iii) Develop EIA capacity/capability in sectoral ministries and departments.

### 3.9 Control of Pollution and Management of Domestic and Industrial Waste and Hazardous Materials.

Economic activities of industrial production, mining, agriculture, health, transport and education services, among others, are the main sources of pollution in the country. Environmental standards and laws on pollution management are still inadequate and/or non-existent in some areas. In addition, Uganda like most other developing countries does not yet have in place adequate waste disposal facilities.

Objective:



To control the pollution of water, land and air from domestic, industrial and other emissions and discharges, and promote environmentally sound management of wastes and hazardous materials.

Guiding principles:

- Discharges of substances that can be harmful should be minimized and where possible prevented;
- Pollution minimisation and prevention should be coordinated by a single agency;
- The "polluter pays" principle should be adopted whereby polluting industries and municipalities should pay a fee based on the location, nature, volume and chemical composition of the effluent which they discharge;
- Clear linkages to other sectoral policies including those on water resources, human settlements, health and disaster prevention and preparedness, should be established; and
- Adequate regulation of agricultural (crops and livestock) chemicals and other hazardous materials should be established and enforced.

Strategies are to:

- (i) Establish environmental standards for permissible levels of pollution;
- (ii) Strengthen institutional and technical capacities for waste management and enhance institutional coordination;
- (iii) Develop and institute specific safety and health codes of practice and guidelines based on the hazard levels of various industry types;
- (iv) Encourage better understanding of the effects of hazardous materials through provision of information in a form understandable to users; provide information on the appropriate methods and technologies for the treatment and disposal of wastes;
- (v) Formulate a national strategy on medical waste management and disposal and in particular carry out urgent rehabilitation of medical waste incinerators;
- (vi) Establish a system for monitoring compliance with water, land and air pollution control standards and regulation;
- (vii) Develop and strengthen technical capability for the monitoring and control of hazardous materials;
- (viii) Develop a national emergency/disaster preparedness plan and programs;
- (ix) Promote efficient waste minimisation including the efficient recycling of wastes;

- (x) Train and encourage farmers and extension workers in the safe use of agro-chemicals;
- (xi) Prepare environmental guidelines/legislation for the management of hazardous installations;
- (xii) Require waste generators to pretreat their effluent according to established standards before discharge;
- (xiii) Establish safe limits for the location of water wells, boreholes and dams in the vicinity of major sanitary landfill sites;
- (xiv) Maintain an up-to-date register of toxic, hazardous and radioactive substances;
- (xv) Prescribe minimum standards of environmental safety of mining operations, including the development of mine contingency plans;
- (xvi) Stipulate procedures for the reclamation and restoration of land, top soil and vegetation of mined out areas and monitor the recovery of such areas;
- (xvii) Prescribe regulations for the disposal of mine tailings and dumps in approved sites; and
- (xviii) Maintain regular environmental audits to ensure the adoption of environmentally sound practices.

### 3.10 Climate .

Climate is a vital natural resource necessary for socio-economic development. The influence of climatic variability on agricultural production, among others, cannot be over-emphasized. Although droughts, floods and local changes in climate are continuously being experienced in many parts of the country, there is no comprehensive mechanism/strategy to contain their effects.

#### Objective:

To monitor the climate and atmosphere of the country in order to better guide land-use and economic development decisions, and better manage air pollution and greenhouse gas emissions.

#### Guiding principles:

- Climate is a vital natural resource which should be properly harnessed (or effects mitigated) for socio-economic development;
- The utilization of the climatic and atmospheric information is critical in agriculture and the efficient management of the environment;

- Resource users (particularly farmers) should be involved in the monitoring and dissemination of climatic information;
- The promotion of international cooperation for smooth exchange of climatic information and control of trans-boundary atmospheric air pollution is important in the management of the resource; and
- Access to climatic data/information should be guaranteed on terms determined by the relevant authority.

Strategies are to:

- (i) Improve coordination and exchange of meteorological information among producers, managers and users;
- (ii) Decentralize the monitoring and dissemination functions of the Department of Meteorology through the creation of regional or district meteorological communication networks, and involve resource users in the collection of climatic data;
- (iii) Strengthen the existing national meteorological monitoring networks and data processing capabilities;
- (iv) Where feasible, improve the flow of climatic information to the users by involving extension workers, local official communication channels, as well as traditional methods of communication;
- (v) Improve awareness among potential users and decision makers of climatic and atmospheric information including establishing demonstration projects in selected areas;
- (vi) Enact appropriate legislation for the management of the country's atmospheric environment, particularly with respect to climate and air pollution monitoring;
- (vii) Strengthen the manpower development program through increased training of personnel; strengthen the National Meteorological Training Centre in the short term, and in the medium to long-term, introduce climate and meteorological studies at institutions of higher learning;
- (viii) Strengthen the Early Warning Information System for food security and put in place disaster preparedness response measures to extreme climatic events or accidental hazardous emissions into the atmosphere; and
- (ix) Strengthen international cooperation so as to take full advantage of the global and regional climate and weather management facilities; strengthen the cooperation of the Nile Basin countries in management of hydrometeorological monitoring stations.

### 3.10 Population, Health and Human Settlements.

While the environment provides the resource base necessary for nurturing and sustaining the human population, man's activities and needs greatly affect and influence the quality of the environment. The continued high fertility rates and dependant population require an efficient and sustainably managed environment. Therefore, it is prudent to balance population growth, agricultural production and environmental quality.

#### Objective:

To manage population growth, settlements, distribution and health in such a way as to match people and resources in an economically productive, socially acceptable and environmentally sound manner.

#### Guiding principles:

- Family size should be balanced with available resources;
- National population policy should emphasize the fundamental role of women and the relationship of population to other environmental issues;
- District and local plans and development activities should incorporate population, health and human settlement concerns; and
- An approach to human settlements which balances man-made and natural resources should be encouraged and promoted to achieve a healthy and sustainable habitat for human beings.

#### Strategies are to:

- (i) Increase access to family planning and maternal and child health care programs, targeting both men and women, in order to balance the population growth rate with available resources and social services;
- (ii) Improve access to health facilities;
- (iii) Develop and promote the wider application of appropriate technologies for infrastructural development such as for building materials, energy production and use, and water supply and sanitation/hygiene facilities (e.g., prefabricated materials, recycling of solid waste, improved cookstoves, and recycling of waste waters for agricultural and industrial use);
- (iv) Undertake rural and urban land use planning/urban renewal for integrated and sustainable rural and urban development and improved environmental quality;

(v) Promote income generating programs which aim at the alleviation of poverty especially among women and lower income groups; and

(vi) Facilitate women's participation in population and environment decision making, resource ownership and management, as well as improve their access to inputs including better access to credit.

### 3.11 Gender Integration.

It is essential to analyse and understand the relevancy and implications of gender roles in environmental and natural resource management. The exclusion of women, at various levels of decision making, project design and implementation, is probably contributing significantly to the degradation of environmental resources.

#### Objective:

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

#### Guiding principles:

- Collection of gender desegregated data should be a first priority given the need of such information for effective environmental management;
- Popular participation and public education should include both men and women;
- Gender analysis should indicate how the impacts of a proposed program or policy would affect men and women differently;
- Basic training in environmental and natural resource management should include methodologies and tools for gender analysis;
- Basic research on gender roles should be carried out throughout the country.

#### Strategies are to:

- (i) Integrate gender concerns in existing and proposed policies and programs;
- (ii) Collect gender desegregated information related to the environment including the human factors;
- (iii) Include gender roles and analysis in environmental management training programs at all levels;
- (iv) Facilitate participation of both men and women in formal and informal education, training, public awareness campaigns and decision making in environmental and natural resource management;

(v) Establish an institutional mechanism to review existing and proposed programs to integrate gender issues; and

(vi) Carry out research on the local knowledge and use of natural resources.

### 3.12 Environmental Education, Human Resource Development and Research.

Environmental education and public awareness is an essential component of sustainable development and environment protection. To ensure that the population is fully involved in environmental planning and management, there is need to draw up and implement a comprehensive environmental education and public awareness program.

#### Objectives:

To increase awareness and understanding among the politicians and the public of the need for sustainable environmental management;

To develop skills needed to implement national programs of environmental management; and

To carry out local demand-driven research needed for proper management of the nation's environmental resources.

#### Guiding principles:

- Environmental education should be taught on a multi-disciplinary basis and integrated into ongoing curriculum, and not as a separate or additional subject;
- Environmental education and public awareness programs should be targeted to all those in public and private sectors whose activities significantly affect the environment;
- Awareness and behaviour which will result in improved environmental management should be strengthened;
- Institutional and/or individual awareness and capacity should be increased to improve future ability to evolve with and provide for a sustainable income under increasing land and resource pressure;
- Demand-driven basic and applied research programs are critical for environmental management, and these programs should be prioritized; and
- Training programs in environmental and natural resource management should be coordinated and strengthened.

Strategies are to:

- (i) Develop a national strategy for carrying out public awareness through non-formal and informal environmental education programs for the public and private sector, especially policy makers, politicians, administrators, bankers, industrialists, transporters, farmers and all other natural resource users;
- (ii) Develop environmental teaching materials initially for primary schools and eventually for all training institutions;
- (iii) Train trainers in the use of environmental educational materials for example teacher trainers;
- (iv) Make environmental education mandatory in all formal education institutions;
- (v) Strengthen existing higher level institutions to offer more programs tailored to produce environmental economists, planners, trainers, lecturers, lawyers and enforcement officers;
- (vi) Provide in-service training in specialized areas such as environmental planning, economics, law, information systems, impact assessment, pollution control and waste management;
- (vii) Establish an environmental research fund to support research programs in environmental management; and
- (viii) Facilitate better understanding of factors affecting resource use by promoting and supporting research programs on environmental concerns and develop appropriate technologies for sound environmental management and resource use.

### 3.13 Public Participation in Environmental Management.

Participation of the people in resource management and environment protection is intended not only to enlist their support but also to influence change in behaviour and attitudes and act as an incentive to sustainable resource use.

Objectives:

To involve land and resource users in environmental planning, implementation, monitoring and evaluation at all levels and empower them to manage their natural resources;

To bring resource management decisions and accountability closer to the land and resource users; and

To vest resource ownership rights in resource stakeholders (e.g., individuals and communities).

#### Guiding principles:

- Resource user cooperation and participation should be sought for all phases of environment planning, implementation, monitoring and evaluation; a local approach to management of resources is crucial;
- Resource users should be assisted in identifying untapped resources and mobilized to utilize them;
- Administrative and political skills relevant to environmental natural resource management should be strengthened;
- Deliberate efforts should be made to involve women and the youth in environmental planning and decision-making;
- Existing local institutional mechanisms, skills and knowledge should be built upon where possible rather than replacing them with new ones; and
- Benefits from protected areas should be shared with local communities to provide an incentive for the local communities to conserve the resource in question.

#### Strategies are to :

- (i) Develop guidelines on public participation in environment/natural resource management to be applied by resource managers in their development programs and projects;
- (ii) Strengthen extension programs in natural resource management enlisting the assistance of local NGOs wherever possible;
- (iii) Design programs that involve and benefit the most disadvantaged groups, particularly women, children and disabled;
- (iv) Widen experience and opportunities for public participation in natural resource management, including co-management and benefit sharing in protected areas management;
- (v) Decentralize environment management to enhance public participation; and
- (vi) Bridge the information gap between the central government and the local communities/resource users by developing a two-way mechanism for information collection and dissemination.

## CHAPTER IV

### SECTORAL POLICY GOALS, OBJECTIVES AND STRATEGIES

Day-to-day implementation of environmental management activities will, for the most part, be carried out by sectoral ministries, departments and other public and private sector institutions. Each ministry/institution will operate under sectoral policies developed within the framework of the cross-sectoral policies described above.



As with the cross-sectoral policies, the following suggested sectoral objectives and strategies have been prioritized using three criteria: (i) the seriousness or urgency of the problem the policy is to address; (ii) the potential contributions of the policy to the economy and social well-being; and (iii) the policy's potential for solving the problem.

#### 4.1 Agriculture and Farming Systems.

Agriculture is the back-bone of the national economy and domestic food supply. The high population growth rate, poor agricultural practices and past economic and social instability have put severe stress on this sector and consequently on the environment.

Objective:

To promote farming systems and land-use practices that conserve and enhance land productivity in an environmentally sustainable way.

Guiding principles:

- Increased agricultural production should be based on improved farming systems and security of land tenure, rather than on expansion of agricultural land;
- Agricultural policy and planning should involve local community participation and be based on national, district and local land use plans, including up-to-date soils surveys and mapping;
- Agricultural policy and planning should incorporate the environmental costs of soil degradation in the economic analysis of agricultural development programs and projects;
- Agricultural policy and planning should build on viable traditional farming systems;
- Agricultural policy and planning should be closely coordinated with other resource use policy and planning; and
- Incentives should be considered as a viable mechanism to implement soil and water conservation and good husbandry practices.

Strategies are to:

- (i) Enhance and strengthen the environmental concerns in the agricultural extension system, including research and training for extension workers, NGOs and land-users;
- (ii) Place greater emphasis on environmentally friendly means of increasing agricultural production;

(iii) Undertake a national soils survey and mapping program and formulate a National Soils Policy;

(iv) Where appropriate and practicable, offer land users tax incentives for soil and water conservation and good husbandry practices;

(v) Support research to develop farming systems that combine optimum production with land resources conservation and which are compatible with the socio-economic conditions of the target population; and

(vi) Review the existing bye laws and where appropriate introduce new ones and ensure their enforcement.

#### 4.2 Forest Conservation and Management.

Although Uganda is endowed with a rich diversity of forestry resources, these resources are highly threatened by over-exploitation and inadequate implementation of policies and laws.

##### Objectives

To manage sustainably forest resources in Protected Areas, public and private land; and.

To promote increased forest production by the private sector and communities.

##### Guiding principles:

- Uganda's Tropical Forests are among the most biologically diverse ecosystems on earth, and the conservation of this diversity within the country's gazetted tropical forest reserves is of high national and international priority;
- The protection of critical water catchment areas, such as forest reserves, must continue to receive high priority in order to sustain economic development activities;

- Uganda's forests provide a wide range of environmental services and values such as the amelioration of climate, stabilisation of soils etc., which are critical to national development, but difficult to quantify in terms of short-term market economics;
- The role of the Forestry Department should continue to be supervisory and regulatory;
- Local community involvement in the planning and management of PAs and in the sharing of benefits derived from these areas is crucial for the conservation of forest resources;
- PAs serve a wide range of functions and the management of individual forest reserves under the Protected Area system should be planned and implemented according to particular local needs;
- Multi-sectoral collaboration is necessary in both the classification and management of all levels of protection in the PA system;
- Private forestry should be encouraged by appropriate incentives, extension services, marketing assistance and increased security of land and tree tenure;
- Introduction of exotic species should be subject to the environmental impact assessment process; and
- Prices paid for forest products should reflect their true value.

Strategies are to:

- (i) Develop a coordinated Protected Area system by bringing institutions concerned with biological diversity conservation and management - in particular, Forests, Parks, Fisheries and Game - under a common agency to enhance coordination and eliminate duplication, conflict and rivalry;
- (ii) Revise and strengthen the Forest Act with particular regard to gazetting and degazetting, collective responsibility in management, revenue sharing and local community participation in PA management;
- (iii) Improve local capacity to manage protected and gazetted forest reserves by encouraging people's participation in forest planning and management;
- (iv) Address the issue of tree-tenure outside reserves and put in place adequate mechanism to clearly specify resource rights on trees and other forest products;
- (v) Review financial management systems particularly with regard to the relationship between revenue and forest management costs;
- (vi) Provide economic incentives and the necessary legal framework and technology to encourage and facilitate rural communities, woodfuel using industries and institutions, and the private sector to be self-sufficient in forest product requirements;

- (vii) Encourage agro-forestry practices for farm communities;
- (viii) Enhance adaptive research and monitoring capacity in all areas of forest management;
- (ix) Develop and disseminate scientific and technical information conducive to more efficient utilization of forest resources;
- (x) Explore innovative methods of collecting forest user fees, particularly through annual licensing fees on concessions; include harvest rights and the integration of forest management costs and responsibilities into such concessions;
- (xi) Encourage and promote production and export of value added timber products in line with the principles of sustainable use;
- (xii) Subject the introduction of exotic species to the environmental impact assessment process and develop institutional capacity to carry out this process;
- (xiii) Monitor and control if necessary the spread of invasive exotic vegetation;
- (xiv) Encourage non-destructive use of forests such as eco-tourism;
- (xv) Revise the forestry training curriculum to enhance the environmental and socio-economic aspects of forest management;
- (xvi) Provide for the total protection of identified key areas of biodiversity preservation inside PAs and disseminate information to facilitate protection of those areas; and
- (xvii) Enhance local community participation in the management of PAs, where feasible, through the development of Forest Management Advisory Committees, cooperative co-management agreements, and parish and sub-county workshops, and provide more direct benefits to local communities from Protected Area activities including the return of a percentage of revenue to them.

#### 4.3 Wildlife Conservation and Management.

Uganda is well endowed with a diversity of animal and plant species. However, over the years, the status of wildlife resources has become threatened with extinction and degradation mainly as a result of inadequate policies and laws, poor management, poaching and illegal trade in endangered species.

##### Objective

To conserve and manage sustainably wildlife resources in Protected Areas, public and private lands.

## Guiding principles

- Uganda's wildlife resources are among the most biologically diverse on earth, and the protection of those resources within the country's Protected Area system is of high national and international priority;
- The concept of wildlife conservation and management should underscore the importance of biological diversity at the species, genetic and ecosystem levels;
- Multi-sectoral collaboration is necessary in both the classification and management of all levels of protection in the PA system;
- The role of the proposed National Parks and Wildlife Service should be supervisory and regulatory for the management of wildlife in the country;
- Protected areas should include as a wide range of ecosystem and habitat as possible and be linked by corridors of suitable habitat along which species can disperse and survive;
- Local community involvement in the planning and management of PAs and in the sharing of benefits derived from these areas is crucial for the conservation of wildlife resources;
- Environmental Impact Assessment should be required for any activities which might affect wildlife resources, both inside and outside the PA system;
- Tourism in PAs should be promoted, encouraged and regulated, and be based on long-term planning in order to develop a coordinated PA system and tourism development plans;
- PAs should contribute to sustainable economic development at both the national and local levels;
- The involvement of private land owners, both customary and freehold, in regulated wildlife utilization (e.g., game ranching, private parks/reserves) outside the PA system should serve an important role in wildlife conservation;
- The availability of timely and reliable scientific and technical information from the field is essential for the effective management and conservation of wildlife and the development of individual protected management plans for protected areas; and
- The mobilisation of financial and other resources from donors, non-governmental organizations and the private sector is essential for wildlife resources management.

Strategies are to:

- (i) Develop a coordinated Protected Area system by bringing institutions concerned with biological diversity conservation and management - in particular, Forests,

Parks, Fisheries and Game - under a common agency to enhance coordination and eliminate duplication, conflict and rivalry;

(ii) Merge Uganda National Parks and the Game Department into a single parastatal organization to increase coordination and maximize cost effectiveness of wildlife resources management;

(iii) Revise and strengthen the National Parks Act and the Game Act with particular regard to gazetting and degazetting, collective responsibility in management, revenue sharing and local community participation in PA management;

(iv) In consultation with district authorities and local communities, identify additional areas which could be gazetted as wildlife protected areas to ensure adequate protection of major ecosystems and key species and habitat as part of national biodiversity conservation and planning;

(v) Enhance local community participation in the management of PAs through the development of Parks Management Advisory Committees, parish and sub-county workshops, etc., and provide more direct benefits to local communities from Protected Area activities including the return of a percentage of revenue to them;

(vi) Access wildlife and other resources of the wildlife protected areas to identify buffer zones and appropriate peripheral areas for multiple land use by local communities;

(vii) Develop a policy framework and guidelines for the identification and management of buffer zones and buffer areas in and around PAs to help reduce conflicts between multiple uses and users (e.g., livestock and wildlife);

(viii) Reactivate the management capabilities of institutions involved in the management of protected wildlife resources through training and logistical support;

(ix) Establish concessions, management contracts, joint ventures and production sharing agreements to develop tourism where appropriate, and charge fees commensurate with the value of the resource;

(x) Revise the wildlife training curriculum to enhance the socio-economic aspects of wildlife management;

(xi) Promote the rehabilitation and establishment of appropriate infrastructure for tourism industry while ensuring that all infrastructural development relating to Protected Area system is subjected to the environmental impact assessment process;

(xii) Conduct research on and inventories of wildlife species which are of significant ecological, economic or cultural importance; add such species to the scheduled list of protected wildlife;

(xiii) Promote the sustainable use of wildlife resources through private sector activities such as game ranching, crocodile farming, etc.;

(xiv) Maintain the ban on trade in endangered species and monitor and control trade in non-endangered wildlife and wildlife products; and

(xv) Subject the introduction of exotic wildlife species to the environmental impact assessment process.

#### 4.4 Livestock and Rangelands Management.

Although Livestock and Rangeland sectors play an important role in national socio-economic development, over-grazing, poor stocking methods, inadequate disease control and social and cultural practices, among others, have greatly contributed to the general decline in these sectors.

Objective:

To manage the nation's rangeland resources within the capacity of the land to support both livestock and wildlife.

Guiding principles:

- Grazing areas should be based on scientific studies of rangeland carrying capacities;
- Rangeland/livestock policy and policies for wildlife management should be closely coordinated and harmonized;
- Rangeland management policies whose central objective is the production of livestock and/or wild animals in a balanced ecosystem should be formulated; and
- Wildlife ranching should be considered as a financially and ecologically viable supplement to livestock ranching in some areas of Uganda.

Strategies are to:

- (i) Develop a comprehensive policy on livestock and range management to include pasture, compatible crop production practices, water supply, stocking, tsetse fly, tick and disease control;
- (ii) Where feasible, use tax incentive for ranchers to respect appropriate stocking rates;
- (iii) Improve marketing outlets in order to control stocking rates;
- (iv) Strengthen livestock extension efforts to encourage efficient management of rangeland resources by all rangeland users and managers;

(v) Address the practice of communal grazing with a view to developing a definite breeding and ranching policy which is culturally and environmentally acceptable;

(vi) Educate farmers about the value of keeping fewer but more productive animals instead of large unproductive herds;

(vii) Encourage establishment and management of buffer zones and buffer areas around protected areas to help reduce land-use conflicts between livestock and wildlife; and

(viii) Study the potential for wildlife ranching as a supplement for livestock ranching.

#### 4.5 Fisheries and Other Aquatic Resources Conservation and Management.5 Fisheries and Other Aquatic Resources Conservation and Management24.5 Fisheries and Other Aquatic Resources Conservation and Management

Fisheries and other aquatic resources constitute an important resource and contribute greatly to the nutritional welfare of the people while providing employment to thousands. This sector also makes significant contribution to the national economy. Unfortunately, fisheries and other aquatic resources are threatened by introduction of exotic species, pollution of the water bodies, and over-exploitation, among others.

##### Objectives:

To conserve and manage sustainably fisheries and other aquatic resources for sustainable production.

##### Guiding principles:

- Sustainable production of fisheries resources and the maintenance of aquatic biodiversity depend in great part on increasing the availability of artificial breeding, fish farming and restocking;
- The management and conservation of fisheries resources and aquatic biodiversity should be based on scientific research and information;
- The demarcation of fishing grounds for the commercial trawler fisheries and artisanal fisheries is essential;
- The successful management of fisheries resource is dependent on a clear demarcation of enforcement and extension roles; and
- The involvement of the local community is essential for effective management of the fisheries resources.



Strategies are to:

- (i) Compile inventories of aquatic biodiversity resources, species distribution and role in aquatic systems for all waters;
- (ii) Separate the roles of enforcement and extension and involve NGOs, among others, in implementation and extension;
- (iii) Update and enforce the Fish and Crocodiles Act 1964 to allow for comprehensive management of fisheries resources, including provisions for fish culture, processing and marketing;
- (iv) Give local communities better control over the management of fisheries resources and strengthen local management capacity;
- (v) Expedite implementation of the program on water hyacinth control and eradication;
- (vi) Increase knowledge on the role of non-fish aquatic life in aquatic ecosystem dynamics and develop safeguards to ensure their protection and sustainable use;
- (vii) Contain over exploitation, the destruction of habitat and control of species introduction through strengthened research efforts and better planning and monitoring;
- (viii) Identify and map critical and sensitive habitats and take appropriate steps (gazetting) to minimize damage and disturbance to breeding, nesting, aestivation and feeding areas of all aquatic species;
- (ix) Put in place mechanisms, including research, planning and monitoring, to encourage the revival of endangered fish species in the waters and ensure sustainable utilization;
- (x) Regulate the disposal of water and wastes from fish processing areas, plants and other industries;
- (xi) Increase training opportunities, develop more appropriate curricula and develop better local capacity in the fisheries manpower sector; and
- (xii) Collaborate and participate with the neighbouring countries to harmonize the management and development of shared aquatic resources.

#### 4.6 Energy.

The vital role of the energy sector in national socio-economic development cannot be over-emphasized. Woodfuel, petroleum products, electricity, new and renewable sources are the main sub-sectors. Each of these sub-sectors were seriously affected by the economic decline of the 1970s and early 1980s characterized by deforestation, inadequate maintenance, low investment, distorted pricing mechanisms and environmentally unsustainable policies and laws.

Objective:

To meet the national energy needs through increased use of hydropower, improved efficiency of energy use, increased use of alternative energy sources, increased production of (plantation and on-farm) trees and promotion of exploration and production of fossil fuels.

Guiding principles:

- Where feasible, incentives should be provided to complement industries and institutions which utilize large amounts of fuelwood to have their own woodlots or contract for their fuelwood supplies;
- Where appropriate, Government should promote private woodlots, especially in wood deficit areas, and technical assistance should be provided to private producers of fuelwood and other forest products;
- Private sector involvement in energy exploration, development and distribution including hydroelectric power and fuelwood (including peri-urban) plantations should be encouraged;
- The provision of incentives for the use of non-woodfuel and the application of efficient technologies is one of the best means for conserving woodfuel;
- Energy planning should be decentralised to district and local levels to take into account local needs and opportunities;
- The potential benefits of greater utilization of other biomass sources such as grassroots, papyrus, banana leaves and coffee husks as alternative sources of energy should be weighed against the potential cost of decreasing soil fertility; and
- The decision making process on fuelwood utilization and conservation should be participatory and include all users, especially women.

Strategies are to:

- (i) Develop a comprehensive energy policy which adequately addresses issues related to shortages and inefficient use of fuelwood;
- (ii) Link energy policy more closely to forestry policy; focus extension programs on rural tree planting and reforestation;
- (iii) Acquire or develop, test and disseminate appropriate alternative energy technologies as well as increase efficiency of conversion in fuelwood utilization (e.g., improved cookstoves, charcoal kilns, brick ovens, etc.);
- (iv) Improve local capacity to manage woodlands by encouraging peoples' participation in forest planning and management;

(v) Encourage the private sector to generate and distribute hydro-electricity by removing the monopoly in generating, transmitting and distributing electricity by the Uganda Electricity Board;

(vi) When feasible, provide economic incentives for private and institutional fuelwood plantations;

(vii) Encourage environmentally sound exploration, development, production, distribution and use of traditional sources of energy by both the public and private sector;

(viii) Encourage the private sector to establish institutional energy plantations and peri-urban woodlots and where feasible provide economic incentives for private and institutional fuelwood plantations;

(ix) Encourage environmentally sound exploration, development, production, distribution and use of conventional sources of energy by both the public and private sector; and

(x) Encourage industries/institutions using furnace oil to switch to hydro energy.

## CHAPTER V

### POLICY IMPLEMENTATION

Policy implementation will involve the successive detailing of policy from the level of intent (as expressed in the above policy statements) through the structuring of actions required to achieve intended policy outputs and impacts. The first of these actions is to create and establish an appropriate institutional and legal framework. Once these actions are undertaken, a monitoring and evaluation system should be developed to assess the impact of policies and actions on the environment, the population and the economy.

#### 5.1 Environmental Legislation.

Most of the existing legislation is sectoral, outdated and inadequate. It is therefore out of phase with current environmental issues facing the country. These deficiencies have had a significant negative impact on natural resources and environment management.

##### Objective:

To create a legal framework for the implementation of the National Environmental Management Policy.

### Guiding principles:

- Environmental legislation should provide for sustainable development which entails sustainable utilization of environmental resources to meet society's needs for present and future generations;
- The legislation should be made to suit the political, social, cultural and economic framework of the country;
- All people in the country should be assured the fundamental right to an environment adequate for their health and well-being;
- A legal framework should provide a mechanism for formulating, reviewing, and updating of sectoral laws and district bye-laws related to the management of the environment including a framework for environmental standards, the EIA process and polluter pays principle;
- The legal framework should strengthen rather than take away the sectoral competencies, capabilities and responsibilities;
- A broad framework for both punitive and incentive measures should be provided;
- The framework should provide a mechanism for popular participation of the people in the development of national and local policies, laws and plans on environmental management; and
- Regional and global cooperation should be fostered through agreements, conventions and treaties on sustainable utilization of natural resources and environmental management.

### Strategies are to:

- (i) Establish an institutional framework, the National Environment Management Authority (NEMA), as the principal national agency for the coordination of the management of the environment;
- (ii) Enact legislation on the management of the environment which will, among others, create rights and responsibilities for individuals to bring action to prevent and/or stop activities likely to affect the environment;
- (iii) Create a right of access to environmental information and protect proprietary information;
- (iv) Establish a framework for environmental monitoring and assessment which will require a prior environmental assessment process of activities which are likely to affect the environment or use of natural resources;
- (v) Establish district and local environmental committees to be responsible for monitoring, coordinating, planning and advising the district and local authorities on matters

pertaining to wise management of the environment including compliance to relevant district bye-laws;

(vi) Establish a broad framework for environmental planning including guidelines for management of cross-sectoral and sectoral components of the environment;

(vii) Review and update sectoral laws and policies in conformity with the principles, strategies and actions of sustainable resource management and development;

(viii) In collaboration with sectoral agencies, establish a framework for environmental related standards including establishment of standard criteria for the management of hazardous materials and toxic chemicals;

(ix) Provide a system for the minimisation and control of pollution and introduce a flexible but appropriate pollution licensing system;

(x) Ensure that the true and total costs of environmental pollution are borne by the polluter in accordance with the "polluter pays principle";

(xi) Create a mechanism for access to environmental resources for all and where the environment has been damaged provide for restoration;

(xii) Ensure that environmental education and awareness is integrated in the education system at all levels; and

(xiii) Where appropriate, enact domestic legislation to enable the enforcement of regional and international treaties, agreements and conventions related to the environment.

## 5.2 Institutional Framework.

Environmental concerns, being cross-sectoral, require an integrated multi-sectoral management approach which provides for a comprehensive institutional mechanism that ensures wide and active participation and interaction of everybody.

Objective:

To create the institutional mechanisms needed to implement a National Environmental Management Policy for Uganda.

Guiding principles:

- Environmental management needs a "powerful voice" to ensure cross-sectoral coordination and management;
- The formulation of overall environmental management policies should be done at the highest level of government and hence above the level of sectoral ministries in order to harmonize the various conflicting interests;

- An environmental management and coordinating institution should avoid implementing activities that can be implemented by sectoral departments and institutions. Broadly, it should limit itself to coordination and advisory roles, overseeing compliance and providing technical support services;
- The institution should develop close links and liaison with line ministries, including the ministries responsible for finance and economic planning, local authorities, NGOs and the private sector;
- Environmental management requires political support for effectiveness at national, district and community levels;
- The coordinating institution should be a professional agency that is universally respected and accepted among government departments and other institutions;
- The institution should be able to respond quickly and decisively to changing circumstances;
- The institution should have power to seek legal redress for non-compliance of environmental standards; and
- Government officials should be committed and equipped to undertake administrative and technical action necessary to implement the National Environmental Management Policy.

Strategies are to:

- (i) Establish the National Environmental Management Authority (NEMA), to become the agency responsible for coordinating, monitoring and supervising all activities in the field of the environment;
- (ii) Locate NEMA, a semi-autonomous institution, under the Ministry responsible for Natural Resources;
- (iii) Establish a Policy Committee on the environment, composed of Ministers or Ministers of State from relevant Ministries;
- (iv) Establish a Board of Directors to oversee NEMA's operations;
- (v) Ensure full staffing of the Authority;
- (vi) Establish Technical Committees on environmental management;
- (vii) Create Environmental Liaison Units in line ministries to provide the links with NEMA;
- (viii) Establish a centre for information on the environment and locate it in NEMA;

(ix) Establish district environment committees and lower committees in the districts to act as the link between the local authorities and communities and NEMA on environmental issues;

(x) Ensure that the Policy is implemented at the grassroots level by assisting the districts in developing their own environmental action or work plans; and

(xi) Enlist the support and participation of local people by strengthening districts' abilities to collect, process and disseminate environmental information.

### 5.3 The Role of NGOs in Environmental Policy Implementation.3 The Role of NGOs in Environmental Policy Implementation

Non-Governmental organisations provide a pivotal role in mobilising and sensitizing the masses about environmental issues. They therefore supplement the efforts of the public sector and help in ensuring that the concerns of the underprivileged are incorporated in the national development process.

Objective:

To promote increased involvement of NGOs capable of assisting in grass-root's implementation of the National Environment Management Policy.

Guiding principles:

- Sectoral ministries and local authorities should be encouraged to utilize the capabilities of local NGOs in the implementation of environmental activities, taking into account the capabilities of the particular NGO and the specific situation;
- Particular attention should be directed to those NGOs which provide support and opportunities to the more disadvantaged groups, such as women, the aging and youth;
- NGOs should be kept informed of and be involved in the NEAP process, especially in the decentralization of NEAP implementation.

Strategies are to:

(i) Provide training opportunities for NGO field staff in relevant areas such as plantation establishment and management, agro-forestry and tree planting techniques, as well as office and financial administration and management;

(ii) Provide regular opportunities for discussions between district environmental and natural resource officials and NGOs through workshops, seminars and field demonstration activities to further support and strengthen the village-level programs of local NGOs; and

(iii) Consider, where appropriate, local NGOs as partners in the management of eco-tourism facilities or concessions, or in the management of specific wildlife resources

providing that the NGOs meets necessary skills, qualifications and other requirements for undertaking the project or activity.

#### 5.4 Regional and International Cooperation.

Due to the complexity and transboundary nature of environmental issues, there is increased concern for a regional and global approach to redressing these issues. This concern forms an important operational basis for enhancing sound management and conservation of environmental resources. Unfortunately, some regional and international conventions and protocols on environmental management have not been implemented.

Objective:

To actively participate in the development and implementation of regional and global initiatives/efforts for enhancement of conservation of environmental resources to achieve sustainable socio-economic development.

Guiding principles:

- Environmental issues/problems do not respect national or regional boundaries;
- Uganda should actively participate in regional and global efforts geared to redressing environmental issues and improving the quality of life.

Strategies are to:

- (i) Participate actively in regional and international efforts towards sound management and conservation of environmental resources especially in the areas of water quality, biodiversity conservation, control of movement of hazardous materials, climate change, etc;
- (ii) Ratify appropriate and relevant regional and international conventions and protocols on environment;
- (iii) Enact domestic legislation to implement the above conventions and protocols;  
and
- (iv) Promote awareness about regional and global environmental issues and concerns to the policy makers and the general public.

#### 5.5 Monitoring and Evaluation.

In order to know and assess the impact of the above policies and strategies on the environment, constant and progressive monitoring and evaluation will have to be done. These policies and strategies will require fine tuning or modifications for them to respond to changing circumstances in the future. Furthermore, it is important that measures of progress and effectiveness of the proposed strategies are evaluated as the investment in NEMA and



environmental programs are carried out. In this context, an internal monitoring and evaluation system is fundamental to the efficient and effective operation of NEMA.

Objective:

To determine the impact of the proposed policies and strategies, ascertain their progress and effectiveness of the investment in NEMA and environmental programs.

Guiding principles:

- To be effective, a monitoring and evaluation (M&E) system, including an internal M&E system for NEMA, should be able to track the progress and evaluate the effectiveness of the institution to carry out its functions, and assess the impact of those functions on the environment, the economy and the population;
- The effectiveness of NEMA as an advisory and coordinating institution should largely hinge on its ability to access, co-ordinate the use of information;
- The Environmental Liaison Units (ELUs) should play an important role of ensuring co-operation by managing the flow of information to and from line ministries;
- The Environmental Officers (EOs) are the key points in NEMA's information system, situated at the strategic junction linking NEMA with the districts and the districts with local levels. It is essential that the linkage between NEMA and the EOs is interactive and operates in both directions;
- Most changes in environmental management should be produced by activities undertaken below the district level; and
- Monitoring programs and impact levels should be closely related to annual targets on a multi-year operational plan.

Strategies are to:

- (i) Develop an internal monitoring and evaluation system within NEMA;
- (ii) Ensure that all programs and activities of NEMA have well defined information systems with adequate and timely supply of data and information;
- (iii) Establish progress indicators for all programs and activities, and where possible, set targets on annual and multi-year plans;
- (vi) Require that all environmental investment programs spell out the methodology for monitoring and evaluation; select certain minimum indicators for this purpose to show improvements or deterioration of the environment after a given time;
- (vi) Develop environmental monitoring guidelines and a standardized reporting system to assist districts in monitoring and data collection and reporting;

- (vii) Strengthen district and community monitoring and evaluation capabilities;
- (viii) Undertake continuous and periodic evaluation of all aspects of the environment including production of district environmental profiles; and
- (ix) Produce and publish periodically national and district state of the environment reports.