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ON

NATIONAL WETLANDS CONSERVATION AND MANAGEMENT

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FORWARD

Wetlands in Kenya continue to support a wide array of wildlife, including some of the most unique assemblages of waterfowl the world over such as flamingos. They also support livelihoods of many communities. Wetlands are utilised for fishing, hunting, cultivation and grazing, and as sources of water and materials for building and crafts. In particular, marine and inland fisheries are heavily dependent on the integrity of wetlands.

However, due to a lack of effective management mechanisms and proper appreciation of their true worth, wetlands are often depicted as “wastelands” and have continued to be degraded through unplanned and unsustainable exploitation of their resources, encroachments, pollution, and inappropriate landuse activities in their catchments.

Over the past twenty years, attention has been increasingly focused on wetlands particularly with the coming into force of the Convention on Wetlands (Ramsar, 1971). Studies on wetland values and functions have revealed the need to take greater care with their management. The Kenya government has recognized the importance of wetlands and in 1997, it embarked on a consultative process with all stakeholders to develop a comprehensive policy for the future conservation and sustainable management of wetlands.

The Government has ratified this National Wetland Policy in recognition of the vital ecological functions and socio-economic services that wetlands provide, and in order to address the threats, concerns and activities related to wetlands within a national context. The Policy seeks to ensure that the plans and activities of the government and wetland stakeholders promote conservation and sustainable/ wise use of wetlands, in order to enhance their ecological functions and provision of benefits for the present and future generations. It provides a framework for actions to improve institutional and organizational arrangements, address legislation and government policies, increase knowledge and awareness of wetlands and their values, review the status of and identify priorities for wetlands in a national context, and address problems at particular wetland sites.

The development of this Policy was also in response to the government’s responsibilities under the Ramsar Convention. It is not developed in isolation but takes cognizance of broader national environmental frameworks, particularly the National Environment Action Plan (NEAP) process and the National Biodiversity Strategy and Action Plan (NBSAP), both of which put great emphasis on the need to take proper care of the country’s wetlands. The National Environment Management and Coordination Act (EMCA 1999), the country’s premier framework environmental law, also provides for the conservation and management of wetlands.

The Government is committed to the implementation of this Policy, and acknowledges that development of implementation plan(s) and mechanisms for cross-sectoral coordination will be critical in ensuring the usefulness of the policy in wetland conservation and management.

Hon. Stephen Kalonzo Musyoka
Minister for Environment and Natural Resources.

EXECUTIVE SUMMARY

Wetlands in Kenya cover about 3-6% of the land surface and provide many ecological and socio-economic goods and services. These include water supply, food production, construction materials, and products for the cottage industry, tourism and recreation. The ecological services comprise flood control, water recharge and discharge, water filtration, nutrient storage and re-cycling and wildlife habitats. But despite their valuable functions, they are often regarded as “wastelands” and are continually being degraded and lost through conversion for agricultural uses, settlement and industrial development. Wetlands have suffered degradation induced by pollution, overexploitation and catchment destruction. In addition, lack of awareness and appreciation of the values of wetlands has contributed to their loss and mismanagement.

In recognition of their importance and values, the threats facing them and the need to take concrete steps to safeguard their functionality for posterity, the Government of Kenya has adopted the National Policy for the Conservation and Management of wetlands to ensure that they are sustainably managed and used wisely for the benefit of the present and future generations.

The policy spells out clearly eight objectives to achieve its aim. These are;

- i.** Establish an effective and efficient institutional and legal framework for integrated management and wise use of wetlands which will provide an enabling environment for the participation of all stakeholders.
- ii.** Enhance and maintain functions and values derived from wetlands, protect biological diversity and improve essential processes and life-support systems of wetlands.
- iii.** Promote communication, education and public awareness among stakeholders to enhance their participation in wetland conservation.
- iv.** Carry out demand driven research and monitoring on wetlands to improve scientific information and knowledge base.
- v.** Enhance capacity building within relevant institutions and for personnel involved in conservation and management of wetlands.
- vi.** Establish a national wetlands information management system and database including tools and packages to targeted groups.
- vii.** Promote innovative planning and integrated management approaches towards wetlands conservation and management in Kenya
- viii.** Promote partnership and cooperation at regional and international levels for the management of transboundary wetlands and migratory species.

In pursuing these objectives, four basic principles will apply;

- I. Wetlands contribute significantly to the health and well being of people and are an important element of Kenya's natural biodiversity, as such they should be integrated into national economic planning for sustainable development, wealth creation and environmental management (*wise use*)
- II. Where information is inadequate for decision making, the precautionary principle will apply. Lack of full scientific certainty should not prevent implementation of measures to minimise/ manage wetland degradation (*precautionary principle*)
- III. An integrated approach to wetland conservation and management should involve stakeholders at all levels including; government, local community, civil society and the private sector.
- IV. The global dimension of environmental impacts of actions and policies should be recognised and considered

Strategies on how to achieve these objectives are highlighted. It is also envisaged that relevant administrative and legislative mechanisms will be put in place to ensure the effective implementation of the policy.

1.0 INTRODUCTION

Wetlands are highly productive ecosystems and provide many important benefits. In Kenya, wetlands are defined as **“areas of land that are permanently or occasionally water logged with fresh, saline, brackish, or marine waters, including both natural and man-made areas that support characteristic biota.”** This definition includes swamps, marshes, bogs, shallow lakes, ox-bow lakes, river meanders and floodplains, as well as riverbanks, lakeshores and seashore where wetland plants grow. It also includes marine and intertidal wetlands such as deltas, estuaries, mud flats, mangroves, salt marshes, seagrass beds and shallow reefs. The definition has been adapted from the Convention on Wetlands (Ramsar, 1971) to which Kenya is a contracting party.

Globally, wetlands occupy about 6% of the earth’s surface. In Kenya, they cover about 3-6% of the land surface and provide many ecological and socio-economic goods and services. These include water supply, food production, construction materials, products for the cottage industry, tourism and recreation. The ecological services comprise flood control, water recharge and discharge, water filtration, nutrient storage and re-cycling and wildlife habitats.

Despite their valuable functions, wetlands are often regarded as “wastelands” and are continually being degraded and lost through conversion for agricultural uses, settlement and industrial development. Wetlands have suffered degradation induced by pollution, overexploitation and catchment destruction. In addition, lack of awareness and appreciation of the values of wetlands has contributed to their loss and mismanagement.

Further, the absence of a national integrated wetland management strategy has led to inter-sectoral policy contradictions resulting in unsustainable management of wetland resources. The agricultural policy on food production, which has led to conversion of wetlands to farmlands, is an example of the contradictions.

In order to mitigate the loss and degradation of wetlands and to give prominence to wetland values and functions in decision-making, this national policy for conservation and management of wetlands is a priority. The policy aims at enhancing conservation and wise use of wetlands as well as promoting recognition of wetlands as an integral component of the environment and natural resources. Furthermore, the policy ensures that wetlands contribute to sustainable development and improvement of livelihoods at local and national levels.

The national wetlands conservation and management policy complements the other sectoral policies on environment and development. Adoption of the policy also fulfills Kenya’s obligations under the Ramsar Convention and other relevant Multilateral Environmental Agreements and Protocols.

2.0 IMPORTANCE, SIGNIFICANCE AND VALUES OF WETLANDS

Wetland ecosystems are hugely diverse. But they all share one fundamental feature: the complex interaction of their basic components - soil, water, animals and plants - that fulfils many ecological functions and provides many products and services that have sustained humans over the centuries. River valleys and other wetland systems have been critical to the development and survival of human communities. This reflects the key role that water and wetlands have played throughout human life.

2.1 Ecological Functions and Services

2.1.1 Flood Control and Soil Erosion Prevention

Wetlands act as storage for excess amounts of water during heavy rainfall, thereby ensuring flow regulation/ flood control and soil erosion prevention. Floodwater can be stored in the soils or retained as surface water, thereby reducing floodwater volumes downstream. In addition, wetland vegetation slows down the flow of floodwater resulting in silt and sediment retention and riverbank protection. Besides reduction of flooding events downstream, this process also ensures river flows are maintained for longer periods. Furthermore, the vegetation shields the soil from damage by strong waves and wind.

2.1.2 Water Discharge and Recharge

Wetlands discharge and recharge both surface and ground water resources respectively. The impeded drainage allows the water to stay in one place long enough to maximize infiltration, enhancing recharge of groundwater and aquifers. Excess water in wetlands and aquifers discharges into springs, rivers and other water bodies. Aquifers also play a complementary role by the recharging wetlands during dry spells.

2.1.3 Water Purification, Nutrient and Toxic retention

Wetland vegetation absorbs nutrients and toxic substances from inflowing water thereby improving the quality of water downstream. Nutrients and toxic substances originate from agricultural, domestic and industrial sources. The materials eroded in the watershed are filtered by the wetland vegetation resulting in water purification. The sediment retained in the wetland protects downstream resources, such as dams, farmlands, rivers and lakes from silting. Sediment retention in the flood plains benefits agriculture by renewing nutrients and soil.

2.1.4 Carbon Storage

Wetlands are among the most effective ecosystems for carbon storage. The wetland vegetation takes up carbon from the atmosphere and converts it into plant biomass during the process of photosynthesis. In many wetlands, waterlogged soil conditions prevent decomposition of the plant material thereby retaining carbon in the form of un-decomposed organic matter. The long retention of carbon in wetlands prevents excessive amounts of atmospheric carbon, thereby reducing global warming.

2.1.5 Wildlife Habitats and Reservoirs/ Centers of Biodiversity

Wetlands are natural habitats for a variety of plants and animals some of which are of conservation significance including endemic, endangered and migratory species. Wetlands are also *in-situ* banks for genetic resources. Thus, the management of wetlands for biodiversity conservation is critical.

2.1.6 Prevention of Saline water Intrusion

Wetlands are essential for maintaining a buffer zone between freshwater and saline water. The destruction of wetlands due to over-extraction or drainage reduces the influx of freshwater and hence increases the intrusion of saline water. Intrusion of saline water deprives people, agriculture, industry, and ecological communities of valuable freshwater.

2.2 Socio-Economic Values

2.2.1 Water Source

Wetland ecosystems have the capacity to absorb, act as reservoirs and purify water which is released downstream, making water available.

2.2.2 Fish Production

Wetlands sustain commercial and subsistence/ artisanal fisheries in many areas. Their importance as fish nursery grounds and for replenishing natural stocks is recognised for over 70% of fish species globally. Fish farming within wetland areas is increasingly becoming an important alternative to natural production.

2.2.3 Wetland Soil and Mineral Products

Wetlands are major sources of clay products such as bricks and ceramics. They are also essential sources of minerals such as sand and salt.

2.2.4 Wildlife products

Wetlands provide a number of wildlife resources and products. These include reptile skins and ornamental (aquarium) fish. Many communities are increasingly harvesting these resources to enhance and improve their livelihoods.

2.2.5 Natural Plant Products

Wetland plants are harvested to provide materials for construction and thatching, the cottage industry, canoes, fishing baskets and traps. Wetland plants are also used for medicinal purposes and as a food source.

2.2.6 Tourism and Recreation

The naturalness and serenity of wetlands makes them important ecotourism and recreation centres. The presence of a wide range of wildlife species as well as their aesthetic value makes them a unique attraction for tourism, which is an important foreign exchange earner at the national level and source of livelihood for local communities.

2.2.7 Grazing

Wetlands are important sources of water and pasture for livestock and wildlife particularly during the dry season. Some wetland soils contain essential minerals necessary for animal health and are natural salt licks.

2.2.8 Energy Production

Wetlands provide energy in various forms, the most important being hydropower generation and plant biomass. Several hydroelectric power plants have been constructed especially on the upper reaches of the Tana River, Kerio River and Sondu Miriu River. Reeds such as *Papyrus* sp. and *Phragmites* sp. are harvested and dried to provide a source of fuel.

2.2.9 Research and Education

Many wetlands are important sites for scientific research and education. They are often used to study long term global environmental status and trends. Research areas within wetlands include ecology, archaeology, ornithology, hydrology, geology, pollution control, medicine, agriculture, climatology, and paleolimnology.

2.2.10 Transport and Communication

In many wetland areas, water transport is a common means of carrying goods and people. It is efficient and cost effective compared to other modes of transportation.

2.2.11 Religious and Cultural Significance

Wetlands are important historical sites that comprise important components of Kenya's cultural heritage. Local communities have strong attachments to the sites because of their social, cultural and spiritual importance. The communities also promote indigeous knowledge and practices on environmental functions and values that are essential for their survival.

3.0 PRINCIPLES, GOALS, AND OBJECTIVES

The challenges affecting wetlands are impacting negatively on their ability to function optimally, thereby impeding their sustainable use and contribution to socio-economic development. In order to address the challenges, the National Wetlands Conservation and Management Policy is guided by the following principles .

3.1 Principles

- I. **Wise use:** Wetlands contribute significantly to the health and well being of people and are an important element of Kenya's natural biodiversity, as such they should be integrated into national economic planning for sustainable development, wealth creation and environmental management
- II. **Precautionary principle:** Where information is inadequate for decision making, the precautionary principle will apply. Lack of full scientific certainty should not prevent implementation of measures to minimise/ manage wetland degradation
- III. **Collaborative and participatory approach:** An integrated approach to wetland conservation and management should involve stakeholders at all levels including; government, local community, civil society and the private sector.
- IV. **The global dimension:** the global dimension of environmental impacts of actions and policies should be recognised and considered

3.2 Goal

The goal of the National Wetlands Conservation and Management Policy is to ensure wise use and sustainable management of wetlands in order to enhance sustenance of their ecological and socio-economic functions for the present and future generations of Kenya.

3.3 Objectives

- i. Establish an effective and efficient institutional and legal framework for integrated management and wise use of wetlands which will provide an enabling environment for the participation of all stakeholders.
- ii. Enhance and maintain functions and values derived from wetlands, protect biological diversity and improve essential processes and life-support systems of wetlands.
- iii. Promote communication, education and public awareness among stakeholders to enhance their participation in wetland conservation.

- iv.** Carry out demand driven research and monitoring on wetlands to improve scientific information and knowledge base.
- v.** Enhance capacity building within relevant institutions and for personnel involved in conservation and management of wetlands.
- vi.** Establish a national wetlands information management system and database including tools and packages to targeted groups.
- vii.** Promote innovative planning and integrated management approaches towards wetlands conservation and management in Kenya
- viii.** Promote partnership and cooperation at regional and international levels for the management of transboundary wetlands and migratory species.

4.0 CHALLENGES AND STRATEGIES IN WETLAND CONSERVATION AND MANAGEMENT

While wetlands have the potential of contributing significantly to the socio-economic development of Kenya, they face diverse and severe threats. These threats include inappropriate human activities (both within the catchments and in the wetlands), lack of coordinated policy, and climate change. The threats have induced changes that have eroded the ecological and socio-economic values and services derived from wetlands. The underlying threat remains lack of recognition of the importance of wetlands and the roles they play.

The following issues have been identified as critical in addressing the challenges of wetland conservation and management.

4.1 Ownership of Wetlands

Problem Statement:

Wetlands fall into the three systems of land tenure in Kenya namely, Government, private (freehold and leasehold) and trust land. Ownership of unalienated land is vested in the state as government land while trust land is held by local authorities in trust for the local communities. Under freehold, the absolute ownership of that land is vested in the person together with all rights and privileges.

Due to the different tenure systems, wetlands have been subjected to diverse uses and management regimes some of which have affected them adversely.

Policy statement:

Ownership of natural wetlands will be vested in the state while recognizing legitimate rights of users who depend on them for their livelihoods. Natural wetlands under private ownership will be subject to regulations.

Implementation Strategies

- (a) All natural wetlands based on size, functions and biodiversity value will be declared a public resource.
- (b) Those wetlands in private ownership meeting the criteria set in (a) above will be the subject of compensation.
- (c) Appropriate buffer zones will be delineated within which human activities will be controlled.
- (d) Wetlands under private ownership will be managed subject to guidelines and rights of user granted by the policy or national law.
- (e) Cultural and traditional practices for use of wetland resources will be permitted.
- (f) Any land resulting from receding of wetlands shall continue to remain inalienable state land and be regarded as riparian land and shall not be allocated as private land.
- (g) Newly forming wetlands shall be protected based on their characteristics and subject to environmental easement.

- (h) Communal ownership of wetlands shall be encouraged.
- (i) Artificial wetlands shall remain under private ownership but shall be subject to (d) above.
- (j) Wetlands depend on inflows and catchment integrity, and therefore land use in the catchment shall take due consideration of the wetland(s) downstream.

4.2 Reclamation and Conversion of Wetlands

Problem Statement:

Drainage and reclamation of wetlands for agricultural development, human settlement and industrial development is one of the biggest threats to wetland conservation and management. In the past, wetlands have been regarded as “wastelands”, which harbour disease vectors. This has led to large-scale drainage and conversion for alternative uses without regard to ecological and socio-economic values.

Policy Statement:

Drainage and reclamation of wetlands will not be allowed and will only be considered in cases where a greater public interest is demonstrated.

Implementation Strategies

- (a) Any alteration of a wetland for the public interest shall be subject to Environmental Impact Assessment (EIA), cost benefit analysis, and wide consultations.
- (b) Any conversion should be in harmony with the integrity of the wetland, and maintain the functions of the wetland.
- (c) Undesirable plant species that negatively impact the hydrology of the wetland shall be disallowed, and where already introduced, shall be replaced with appropriate wetland plants.
- (d) Uncontrolled burning of wetland biomass will be disallowed.

4.3 Over-Exploitation of Wetland Resources

Problem Statement:

Increasing human populations and change from subsistence to commercial exploitation of wetland resources continue to exert increasing pressures on limited wetland resources, resulting in a decline of services and biodiversity.

Policy Statement:

Exploitation of goods and services from wetlands shall be regulated to ensure the integrity of wetlands is maintained.

Implementation Strategies

- (a) Sustainable production capacities of the different goods and services provided by the wetlands shall be established and periodically reviewed.
- (b) Safe extraction levels for different resources including water, fish and plant products, shall be based on established capacities.

- (c) Limits shall be set for non-consumptive uses of wetland resources to maintain the health and functioning of the system.
- (d) Priority shall be given to subsistence and environmental needs before considering commercial interests.
- (e) Site-specific participatory Management Plans shall be developed to guide the use of wetlands resources with due consideration of existing traditional practices and management systems.

4.4 Establishment of Wetland Conservation Areas

Problem Statement:

Many critical wetland areas that provide vital services such as biodiversity reservoirs, water sources and cultural values have not received adequate protection.

Policy Statement:

Wetlands providing vital biodiversity services and other unique benefits will be accorded protection and conservation status necessary for the maintenance of their functions. For such important wetland areas, consumptive uses shall be prohibited.

Implementation Strategies

- (a) Fragile wetland ecosystems will be identified based on biodiversity significance, hydrological value, and historical cultural values.
- (b) Identified sites shall be designated as conservation areas to be protected as wetland reserves.
- (c) No consumptive uses shall be allowed in wetland reserve areas.
- (d) In designating such sites the representative nature of different services of wetlands shall be taken into consideration.
- (e) Appropriate management plans shall be developed and implemented through a consultative process for wetland reserves.

4.5 Restoration and Rehabilitation of Wetlands

Problem Statement:

Many wetlands have been degraded through drainage, pollution, sedimentation, introduction of exotic species, catchments degradation, over exploitation of resources, upstream damming and diversion among others. The benefits derived from these wetlands have therefore been lost or reduced.

Policy Statement:

Restoration and rehabilitation programs shall be developed and implemented for degraded wetlands

Implementation strategies

- (a) In restoring degraded areas the indigenous vegetation and other biodiversity shall be given priority.

- (b) Where feasible natural regeneration shall be allowed for degraded wetlands as part of the restoration process.
- (c) Locally available appropriate technology and involvement of local communities shall be employed where possible.
- (d) Rehabilitated wetlands will be monitored to ensure maintenance of integrity and functions.
- (e) Catchment developments and land uses will be coordinated to ensure sufficient inflows and reduced pollution and siltation.

4.6 Pollution, Eutrophication and Salinisation

Problem Statement:

The quality of many water sources in Kenya is declining as a result of municipal, agricultural and industrial wastes/ discharges. These have negatively impacted water quality and biodiversity within the wetland ecosystems thereby reducing their values. Increased nutrient loads have led to eutrophication and episodes of algal blooms in wetlands near major settlements. In certain areas excessive abstraction of fresh waters, diversions, and catchment degradation, have led to increased salinity.

Policy Statement:

Effluent discharges into wetlands and (excessive) abstraction of water will be strictly regulated and will require meeting laid down standards and regulations. This will require enhanced coordination of all leading agencies dealing with natural resource management, including local authorities and agriculture.

Implementation Strategies

- (a) Appropriate measures shall be taken to protect riverbanks and lakeshores.
- (b) Dumping of waste in wetlands shall be disallowed and disposal sites close to wetlands shall be subjected to EIA.
- (c) Any effluent discharged into wetlands shall be treated to meet appropriate wastewater standards beforehand.
- (d) Environmentally friendly farming techniques that reduce nutrient, silt and pollutant loading in the wetlands shall be promoted.
- (e) Public awareness on proper management of waste including reduction, reuse and recycling shall be promoted.
- (f) Coordination and enforcement of sectoral laws shall be enhanced

4.7 Alien Invasive species

Problem Statement:

Wetlands are highly vulnerable to invasive species. Many wetlands have in the past been affected by the introduction of alien invasive species that have altered the biodiversity characteristic and diminished the services provided by wetlands. For example the introduction of Nile perch nearly eliminated the indigenous fish species of Lake Victoria while water hyacinth, *Salvinia sp*, and *Typha sp*. have affected numerous

wetlands. Introduced species easily occupy new niches due to lack of competition and predators.

Policy Statement:

Introduction of alien and potentially invasive species without due appraisal of their potential impacts in wetlands will be prohibited. Mechanisms shall be set up to eliminate and minimize the threat and effects of alien invasive species, and to control and manage those already in the wetlands

Implementation Strategies

- (a) All the necessary steps shall be taken to prevent the introduction of harmful alien species and to manage the environment in order to eliminate the conditions that are conducive for the establishment and proliferation of invasive species.
- (b) Guidelines, regulations and procedures shall be developed to control introductions of alien and genetically modified organisms.
- (c) Public education and awareness campaigns on the dangers of alien species shall be carried out, and stakeholders shall be involved in the management of wetlands threatened by invasive species.
- (d) Research on alien species shall be conducted to develop strategies and actions to manage them.

4.8 Artificial Wetlands

Problem Statement:

Artificial wetlands have gained prominence worldwide as alternative technologies in wastewater treatment, food production and aesthetics uses. In Kenya the use of these types of wetlands has been minimal despite their huge potential for affordable wastewater treatment.

Policy Statement:

Promote the use of artificial wetlands in the relevant sectors such as industries, municipalities, hotels, communities among others, as way of reducing pressure on natural wetlands.

Implementation Strategies

- (a) Demonstration and training sites shall be established to promote the use and benefits of constructed wetlands.
- (b) Establishment of fishponds for food production in local communities will be promoted as part of the National food security program.
- (c) Resource use in hydro power reservoirs will be diversified.
- (d) Artificial wetlands will be promoted as a source of water for increased agricultural production.

4.9 Poverty

Problem Statement:

As a result of poverty and poor land use practices, some riparian communities engage in activities such as destructive farming practices, draining of wetlands, and cutting of trees to make charcoal, among others. These activities negatively impact wetlands. The immediate survival needs of the population conflict with the long-term conservation and management of wetlands. As a consequence, poverty and issues of maintenance of wetlands are intertwined and need to be addressed simultaneously.

Policy Statement:

Sustainable management of wetlands should take into account the interaction of the poor with the environment, which has contributed to loss and/or degradation of wetlands. Economic valuation of wetlands will be promoted to enhance the exploitation of the many economic opportunities within wetlands. .

Implementation Strategies

- (a) Undertake economic valuation of wetland functions and assess opportunities for sustainable product development and economic investments.
- (b) Devolve decision making to promote participation and empowerment of local communities and other stakeholders especially the private sector in the conservation and management of wetlands.
- (c) Develop and implement programmes that improve living standards as well as promote equity.
- (d) Promote alternative sources of livelihood that involve non-extractive ways of utilizing the wetlands.
- (e) Empower the wetland communities through education.
- (f) Promote resource user rights that safeguard traditional patterns.

4.10 Inventorying, Monitoring and Information Systems

Problem Statement:

Currently a comprehensive monitoring system for wetlands is virtually non-existent and as a result decisions affecting wetlands are based on inadequate information. The data necessary for informed decision-making is either unavailable, incomplete or unreliable and most often presented in an unusable format.

Policy Statement:

Wetland conservation and management must be based on sound scientific principles. It is essential that all wetlands within the country should be inventoried and monitored in order that they may be managed effectively. The information acquired must be made available to the wetland managers and local communities in a form that they can utilize.

Implementation Strategies

- (a) A full inventory of all wetlands in Kenya shall be carried out to determine their location, type, status, values and threats.

- (b) Monitoring protocols and data management shall be standardized
- (c) An accessible central wetlands information center shall be set up.
- (d) Indigenous knowledge shall be documented and incorporated in decision-making.
- (e) Capacity for local communities to be involved in wetland monitoring shall be enhanced.

4.11 Education and Public Awareness

Problem Statement

Wetlands are often degraded because the public is either not fully aware or does not appreciate the diversity of their functions and values. Education and public awareness is essential to create commitment and positive attitudes towards conservation and sustainable utilization of wetland resources.

Policy Statement

It is essential to promote education and public awareness on wetland resources to encourage understanding and participation of the public, private sector, local authorities, NGOs and other interested persons.

Implementation Strategies

- (a) Incorporate wetland conservation and management issues into the national environmental education strategy and other available and relevant systems
- (b) Utilize all information dissemination channels for public awareness campaigns on the importance of wetlands including development and circulation of guides for all levels of wetland users
- (c) Develop wetland demonstration projects to give local communities, government officials and students a better understanding of sustainable wetland conservation issues and their importance.
- (d) Monitor public response on the need to conserve wetlands in Kenya.

4.12 Legal and Institutional Arrangements

Problem Statement

Lack of holistic institutional framework has affected wetland management in Kenya. Wetlands have often been marginalized and regarded as “wastelands” and this neglect has contributed to massive wetland loss and degradation.

Policy Statement:

Since wetlands are a cross-sectoral resource, there is need to create and establish an appropriate national institutional mechanism and coordination framework for their conservation and management.

Implementation Strategies

- (a) A national institution shall be established to advise on matters relating to the conservation and management of wetlands in harmony with the Environmental Management and Coordination Act and other laws.
- (b) Establish a specific mechanism for reviewing Environmental Impact Assessments (EIA) on proposed development projects in wetland areas.
- (c) Develop wetlands conservation and management guidelines, regulations and procedures.
- (d) Establish management committees made up of adjacent communities to conserve and manage their respective wetlands.
- (e) Develop stakeholder management plans with clearly defined management regimes centered on local community participation.

4.13 Human Resource Development

Problem Statement:

One of the reasons for the degradation of wetlands has been the inadequate human capacity to manage, understand and give appropriate guidance on wetland management. There are inadequacies in the number of personnel knowledgeable in the effective management of wetland resources.

Policy Statement:

Measures shall be implemented to enhance the capacity for inventorying, monitoring and management of wetlands. This will be in physical infrastructure, human resources, communication and availability of information. Empowerment and education of local shall be promoted as it is the cheapest and most effective method of inventorying and monitoring.

Implementation Strategies

- (a) A framework to build capacities for wetlands conservation and management at the local and national level in all sectors that have a bearing on wetlands management shall be developed.
- (b) Capacity for carrying out Environmental Impact Assessments (EIA) procedure on proposed wetland development projects shall be strengthened.
- (c) Training institutions shall be encouraged to develop and implement wetland-training curricula.
- (d) Infrastructure for inventorying, monitoring and management of wetlands shall be improved.

4.14 Promoting International Cooperation and Actions

Problem Statement:

Kenya has a number of trans-boundary wetlands that pose management challenges. National policies of neighboring states have not been standardized and thus a harmonized regional approach is needed for sustainable management. Many wetlands

serve as habitats for migratory birds or globally endangered species, and therefore require international management approaches.

Policy Statement:

Active cooperation in management of wetlands at regional and international levels shall be promoted taking into account the national interest. Kenya will endeavour to implement its obligations under the international conventions relating to wetlands and promote regional cooperation.

Implementation Strategies

- (a) Kenya shall promote and actively participate in regional and international efforts to conserve and sustainably utilize wetlands, and promote cooperation with other countries especially in regard to trans-boundary wetlands.
- (b) Kenya shall actively participate in and domesticate the relevant International Conventions such as the Ramsar Convention.

4.15 Resources Mobilization

Problem Statement:

Financial resources have remained the principal impediment to promoting sustainable development and environmental protection. National budgetary resources have failed to adequately provide for wetland conservation and management. As a result, the country has been unable to effectively respond to challenges of wetland conservation and management.

Policy Statement:

The State shall ensure that adequate and reliable resources are made available for wetland conservation and management from national and multilateral sources; and that there is a conducive environment for the participation of all stakeholders

Implementation Strategies

- (a) Resources shall be mobilized to support conservation and management of wetlands.
- (b) A Wetlands Trust Fund shall be established, managed by Board of Trustees, for supporting initiatives that enhance sustainable management of wetlands.
- (c) Wetland communities shall be encourage to forge partnerships with the private sector to assist in the conservation and management of wetlands.
- (d) Initiatives that enhance access to multilateral funding aimed at conservation and management of wetlands shall be supported.
- (e) Legal mechanisms shall be instituted for access to wetland genetic resources and benefit sharing including technology transfer.