

PELUM KENYA

Popular Version

Of the

National Environment Policy (2012)

With reference to the Environmental Management and Coordination Act-EMCA (1999), Forests Act (2005), Water Act (2002) and Wildlife Conservation and Management Act (Rev 2009)

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LIST OF ACRONYMS

ADR Alternative Dispute Resolution

AIDS Acquired Immuno Deficiency Syndrome

ASAL Arid and Semi-Arid Land

CAAC
Catchment Area Advisory Committee
CBO
Community Based Organization
CEE
County Environment Committees
CFA
Community Forest Association

CLB Community Land Board

CMS Catchment Management Strategy
CSR Corporate Social Responsibility
DEC District Environment Committee

DLB District Land Board

EEZ Exclusive Economic Zone

EIA Environmental Impact Assessment

EMCA Environmental Management and Coordination Act

FCC Forest Conservation Committee
GHG Green House Gas Emissions

HIV Human Immuno Deficiency Virus
ICZM Integrated Coastal Zone Management
ILA Information and Legal Awareness

IPR Intellectual Property Rights

ITK Indigenous Technical Knowledge

IWRM Integrated Water Resource Management

KFS Kenya Forest Service **KWS** Kenya Wildlife Service

MEA Multilateral Environmental Agreement

NAP National Action Plan

NBSAP National Biodiversity Strategy and Action Plan

NEC
National Environment Council
NEMA
National Environment Authority
NET
National Environment Tribunal
NGO
Non Governmental Organization

NLC National Land Commission
NRM Natural Resource Management
PCC Public Complaints Committee

PELUM Participatory Ecological Land Use Management

PES Payment for Environmental Services

PFM Participatory Forest Management Principle **RRMA** Riparian Resource Management Association

SEA Strategic Environmental Assessment

SME Small and Medium Enterprise

WRMA Water Resources Management Authority

WRUA Water Rights Users Association
WSTF Water Services Trust Fund

FOREWORD

Kenya is among countries experiencing a rapid decline of its environment characterized by illegal cutting of forest growth, land erosion and unlawful settlements by farmers and settlers in its five water towers. The knowledge that the continued destruction of the environment needs to be reversed encouraged the preparation of the National Environment Policy (2012). The Vision 2030 aims to attain an average growth rate of 10% per year and is no exaggeration to state that the speed at which the Kenyan economy will grow in future is very much linked to the availability and efficient use of environmental goods and services.

The implementation of the Policy will have to be practical given that water, land, forests, wildlife and wetlands are constantly affected by environmental changes. However, environmental conservation and management cannot be left to the government alone. Therefore, stakeholder participation is important in ensuring that both the present and future generations benefit from the goods and services provided by the government. The organizations in place and the structures for public participation explained in the document provide an appropriate avenue to realize the constitutional right to a clean and healthy environment. However, any form of participation requires information. Therefore, PELUM Kenya has developed this simplified version of the Policy to improve community understanding on their role in keeping the environment safe and healthy.

The main objective of this publication is to examine how the Policy has gone beyond plans to promote the wellbeing of Kenya's environment to encourage participatory community approaches to environmental management and conservation. This document is to be used as an Information and Legal Awareness (ILA) tool for Participatory Ecological Land Use Management (PELUM) Kenya community resource persons, government officers (especially those at the grassroots) and partner organizations. Specifically, this document is aimed at informing the people of Kakamega, Kiambu, Kitui, Machakos, Kajiado, Nakuru and Trans-Nzoia Counties—areas which host Mt. Kenya, Mt. Elgon, Mau Complex and Kakamega forest ecosystems—on their rights and related duties as contained in various environmental and natural resources laws.

It is largely based on the Constitution of Kenya (2010), the National Environment Policy (2012) and related laws in the sector including: Environment Management and Coordination Act-EMCA (1999); Forests Act (2005); National Land Commission Act (2012) and Wildlife Conservation and Management Act (2009) among other laws and policies. The selection of the topics was informed by a Natural Resource Management (NRM) Policy Audit conducted between May and June 2012 by PELUM Kenya under the *Changieni Rasilimali* Program.

1.0 INTRODUCTION

1.1 Background

The environment is the space in which we live and operate—whether it is the office, street, village, sea or forest. Whatever one's surrounding may be; every Kenyan has the right to an environment that is healthy, clean and safe from pollution and protected from destruction.

All Kenyans depend directly or indirectly on the goods and services provided by the environment. These include firewood and water for domestic uses, wildlife that generates foreign income through tourism, mountains and forests that attract rainfall and thus improving agricultural production as well as lakes, oceans and rivers that provide fish and generate electricity for domestic and industrial use. Therefore, our environmental resources contribute directly and indirectly to the local and national economy through income generation and wealth creation. Therefore, a clean and healthy environment is not only a right under the Constitution of Kenya (2010) but also an important factor in achieving Kenya's development goals as contained in the Vision 2030 plan.

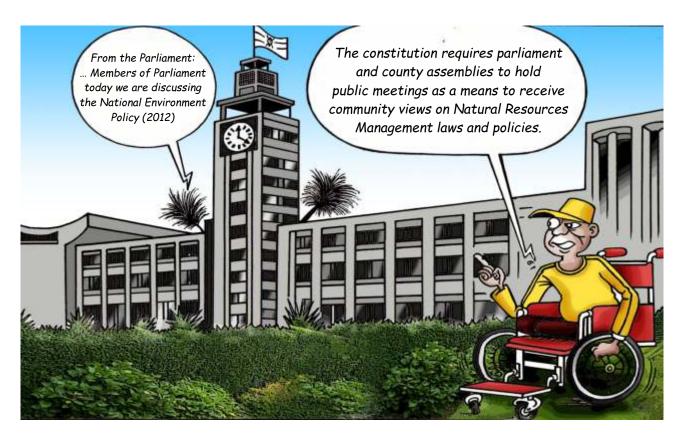
Since Kenya's independence in 1963, the country has undergone major developments which have contributed to environmental destruction due to poor farming methods, lack of soil and water management practices, deforestation (the illegal cutting of trees or 'slash and burn' type of farming), overgrazing and pollution. Environmental destruction has partly contributed to the rising costs of water treatment, increasing food prices and medical treatment. In response to the growing environmental challenges, the Government—through public participation—has now developed the National Environment Policy (2012) that seeks to among others:

- a) Increase public participation in decision making processes as one of the requirements for sustainable development.
- b) Prevent and control invasive species which threaten the environment and the plants and animals living on it for example water hyacinth and Mathenge.
- c) Introduce a joint ecosystem (forest, wildlife, wetlands, freshwater) approaches to the management of natural resources due to relationships with major economic activities. For example, mountain forests are a major source of rivers and also home to wild animals that provide hydro-electric power and attract tourists in that order.
- d) Harmonize the environment sub-sector (land, forest, wildlife and water) policies and laws with the requirements of both the Environmental Management and Co-ordination Act (EMCA) of 1999 and the Constitution of Kenya (2010).
- e) Urgently implement the National Land Policy (2009) which promotes a balance between land tenure (how land is held and used) and good environmental management.
- f) Manage and control poverty levels which put pressure on the environment due to lack of choices. For example illegal cutting of trees and charcoal burning to support family needs.
- g) Introduce strict laws and punishment against anyone who destroys the environment and improve the implementation of policies on environment.
- h) Increase the use of other renewable sources of energy (for example solar, wind and biogas) and reduce over-reliance on hydroelectric sources.
- i) Manage the negative effects of climate change and related disasters including droughts and floods.
- j) Introduce policies which encourage proper waste management and appropriate urban planning thereby ensuring the wellbeing of those people living in cities and towns.
- k) Restore (possibly to their original condition) areas that have been destroyed and restock lost biodiversity (plant and animal varieties). For example, efforts to re-plant trees in parts of Mau Forest and removal of water hyacinth in Lake Victoria should be encouraged if not supported.

1.2 The Constitution of Kenya (2010) and Public Participation

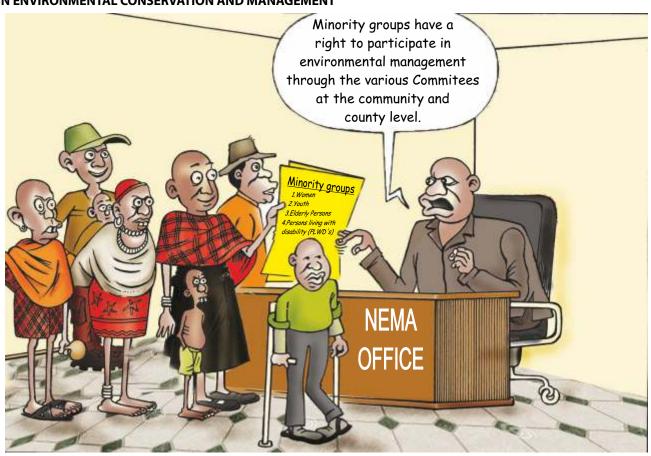
The Constitution ensures the use of our country's natural resources benefit citizen, investors as well as the overall environment. It is in the interest of the government to encourage active public participation and to ensure that members of the public are educated on environmental conservation and management so they can make valuable contributions in ensuring environmental quality and health. Being the most important law of the land, the Constitution of Kenya (2010) encourages public participation in environmental management as follows:

- 1. Every Kenyan has the right to a clean and healthy environment but with a responsibility to ensure that they protect and conserve the environment. Any Kenyan (individually or in a group) can approach the court and apply for orders when others, including the government violate these rights.
- 2. The constitution requires the government to maintain a national tree cover of at least 10 per cent (the current tree cover is estimated to be 2.3 per cent), which means that it will require both the hard work of Kenyans and the government to achieve this.



- 3. The government has the responsibility to encourage public participation in the management and conservation of the environment [Article 69 (1) (d)].
- 4. Every individual has a duty to co-operate with the state organs and other persons to protect and conserve the environment and ensure sustainable development and use of natural resources [Article 69 (2)].
- 5. Parliament is required to approve any use of Kenya's natural resources and therefore should be fully involved in the negotiation of agreements relating to the use of the country's minerals, oil, coal, forest products and wildlife. Here, public participation is through the democratically elected Members of Parliament (MPs) who

THE NATIONAL ENVIRONMENTAL POLICY (2012) PROMOTES THE PARTICIPATION OF MINORITY GROUPS IN ENVIRONMENTAL CONSERVATION AND MANAGEMENT



- should be accountable to the people they represent.
- 6. Article 56 provides for the representation of minority and marginalized groups (women, youth and minorities) who have been traditionally excluded from decision-making in their communities and government. For example, participation by Ogieks in Mau Forest as well as the Endorois in lake Bogoria resources has only been recognized recently after community campaigns in and out of court.
- 7. In Article 174, one of the aims of devolution is to improve the participation of the people in government decisions that affect them. In addition, Article 184 requires participation by residents be included in national laws on management of urban areas and cities.
- 8. Articles 118 and 196 directs the National and County Assemblies to "facilitate public participation" in its work. Article 119 states that citizens have the "right to petition Parliament to consider any matter within its authority", meaning that Kenyans can request Parliament to take up issues that are important to them (for example environmental destruction or benefit sharing).
- 9. The Constitution supports access to information which ensures effective public participation. Parliament and County Assemblies are required to hold public meetings and conduct their work in the full view of members of the public. In Article 35, citizens have the right to access all information held by the government and its agencies. This is particularly important in relation to Environmental Impact Assessment (EIA) licenses that are issued on questionable grounds.

1.3 Benefits of Public Participation

There are many benefits that can be obtained from active citizen participation. Examples include:

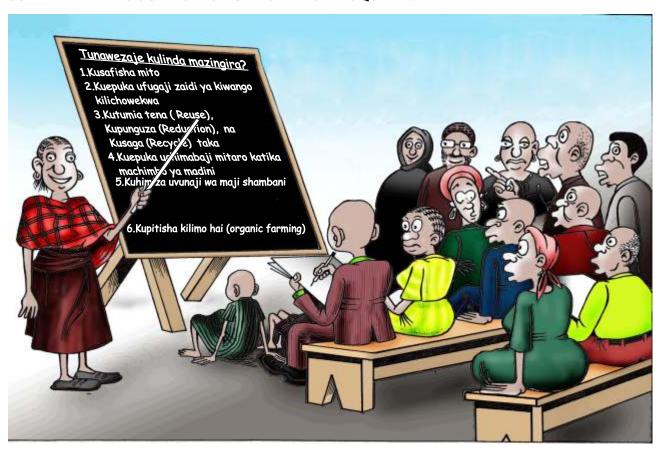
- Government officials are better able to understand and respond to the needs of their community.
- Increased consensus (meeting of minds) between government officials and the community on important issues and service delivery.
- Communities are better informed on environmental conservation and management projects undertaken by government agencies for example National Environment Authority (NEMA), Kenya Forest Service (KFS), Kenya Wildlife Service (KWS) and Water Resources Management Authority (WRMA) among others.
- How can we protect our environment?
- · Discourage the planting of eucalyptus trees near a river, swamp or lake
- Encourage the 6-R rule in waste management: Refuse, Reduction, Return, Refill, Reuse, and Recycle
- · Discourage the digging tunnels in quarries and mining areas to avoid property damage and loss of life
- Clean our rivers
- Avoid overgrazing
- Construct greenhouses as per the relevant laws
- Carry out Environmental Impact Assessment (EIA) before starting major economic activities as required by law
- Discourage agricultural activities in wildlife migration areas to reduce human-wildlife conflicts.
- Reduce soil erosion by applying proper agricultural practices for example terracing and building gabions
- Adopt organic farming to reduce pollution from chemical fertilizers and pesticides
- Protect land bordering all water bodies and plant vegetation on bare lands
- Prohibit cultivation along road and railway line reserves.
- Encourage on farm water harvesting
- Community concerns are more focused and prioritized for government officials to address. An example is the Environmental Impact Assessment (EIA) process where public comments are invited and taken into account before NEMA can allow any development project to proceed.
- Members of the public are more aware of government's allocation and use of public finances and thus ensuring transparency and accountability in the management of public resources
- Public participation through sharing of benefits that result from the management of natural resources (for example park fees, monies collected from water use and EIA licenses, monies collected from the sale of minerals) promotes greater community ownership over natural resources and encourages a conservation culture
- Public participation through environmental awareness and

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NOTE: ENGLISH VERSION OF THE NOTES ON BLACK BOARD

COMMUNITIES HAVE A RIGHT TO A CLEAN AND HEALTHY ENVIRONMENT BUT WITH A RELATED DUTY TO PROTECT AND IMPROVE ITS QUALITY.



education leads to an increased capacity of the public to respect environmental and conservation laws, rules, orders and regulations. As a result, cases of illegal cutting of trees and human settlement in forests, killing wild animals, human-wildlife conflicts and pollution of rivers and lakes will be greatly reduce.

2.0 GOAL, OBJECTIVES AND GUIDING PRINCIPLES

2.1 Goals and Objectives of the National Environment Policy

The Policy aims to provide a better quality of life for present day Kenyans by ensuring that natural resources are used in a more efficient manner so that in future, Kenyans are still able to enjoy a clean and healthy environment, green forests, clean flowing rivers and lakes full of fish as well as wildlife teaming with life. Among others, the Policy objectives include:

- Environmental Management Tools
 - Incentives: are encouraging awards for people who observe practices that conserve the environment.
 - Disincentives: are actions taken to discourage environmental destruction, for example, fines and arrests for those who destroy the environment.
 - Total economic valuation: is the total of value (in for example, in cash) obtained by people from environmental goods and services such as timber, fish, water and wildlife.
 - Strategic Environmental Assessments (SEA) refers to methods that include environmental conservation into policies,

Environmental Management Tools

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Strategic Environmental Assessments (SEA) refers to methods that include environmental conservation into policies, plans and programs and after that, examine their relationship with economic and social concerns

Environmental Impact Assessment (EIA) is a proper study carried out to determine whether an activity or project will have any negative effects on the environment.

Environmental Audit involves the checking of how well a project or organization is performing in environmental conservation.

Payment for Environmental Services (PES) is where beneficiaries of environmental services pay for their usage. For example, Nairobi County might pay Kiambu residents for using water from the Ndakaini dam.

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- To improve cooperation and participation in the protection, conservation and better management of the environment
- · Include cross-cutting issues such as poverty reduction, gender, disability and HIV/AIDS in National, County planning processes.
- · To provide a basis for a joint approach to planning and sustainable management of Kenya's environment and its natural resources. This way, Kenya's forests, wildlife, freshwater, wetlands and coastal zones will be managed in a much more coordinated manner
- To promote the use of environmental management tools such as incentives, disincentives, total economic valuation, Strategic Environmental Assessments (SEA), Environmental Impact Assessment (EIA), Environmental Audit, and Payment for Environmental Services (PES)

2.2 Guiding Principles of the National Environment Policy

Among others, the Environment Policy (2012) is to be implemented according to the following guiding principles:-

- Public Participation: A participatory approach to environmental protection and management will be promoted to ensure that the National and County governments, relevant government agencies, private sector, civil society and communities are involved in planning, implementation and decision making processes.
- A Right to a Clean and Healthy Environment: Every person in Kenya has a right to a clean and healthy
 environment with a related duty to protect and improve the quality of environment. Kenyans are therefore
 discouraged from: dumping garbage in public places, releasing raw sewage into water sources (rivers and
 lakes), clearing forests for human settlement or farming and killing wild animals in protected areas (Game
 parks, reserves and sanctuaries).
- The Principle of Subsidiarity: The management of the environment and natural resources will be transferred from the national level with devolution of authority at the lowest level possible. As a result, Community Forest Associations (CFAs), Community Land Boards (CLBs) and Catchment Area Advisory Committees will be supported.
- The Precautionary Principle: Where there are serious threats or permanent damage to important environmental resources, the lack of full scientific evidence will not be used as a reason for not preventing continued environmental destruction. For example, if fish in River Mara are dying in large numbers, NEMA may stop the release of all waste materials (whether safe or not) into the river pending any studies to confirm the source of pollution
- The Principle of Sustainable Use: Environmental resources will be utilized in a manner that does not reduce the quality and value of the resource, or decrease the carrying capacity of supporting ecosystems. Therefore, overgrazing in the grasslands will be discouraged as well as farming methods that increase soil erosion
- Inter- and Intra-generational Equity: The management of the environment and natural resources will be based on long term views where present-day Kenyans make choices that benefit them without reducing the ability of future generations (our children and children's children) to meet their own needs.

3.0 COMMUNITY PARTICIPATION IN ENVIRONMENTAL MANAGEMENT

According to the National Environment Policy (2012), forests, freshwaters, wetlands, oceans, mountains, arid and semi-arid lands (ASALs) as well as grassland environments need protection because a majority of Kenya's population live in the rural areas, and depend on them for crop farming, livestock keeping, honey harvesting, firewood, charcoal and medicinal plants (miti shamba), fish for food and minerals (including ballast and building stones).

3.1 Forests

According to the National Environment Policy (2012), Kenya's forest cover is reducing fast due to poor farming

methods, for example, clearing forests for crop farming or human settlement, industrial production, charcoal burning and infrastructure development (for example construction of roads). Other challenges include illegal cutting of trees for firewood and grazing livestock in forests. However, large scale loss of forests would lead to reduced agricultural produce, low and unpredictable rainfall and drying up of rivers, low industrial production and serious natural disasters (such as floods and droughts). Among others, the Government will:

- 1. Increase forest and tree cover to at least 10%.
- 2. Protect and conserve forests that act as major sources of rivers and water.
- 3. Support the implementation of the Forests policies and laws.

Community participation in forest conservation and management

• The Forest policy of (2005) promotes the participation of businessmen, communities and other stakeholders in forest management to conserve rainfall producing areas, create employment and reduce poverty.

Forest User Rights

Kenya Forest Service (KFS) may allow CFAs to:

- (a) Collect forest produce
- (b) Harvest grass and graze livestock
- (c) Tour the forest with an aim to support conservation, observe wildlife and leisure activities
- (d) Enter into contracts to carry out maintenance operations (establish tree nurseries, create woodlots, tree planting, pruning, and harvest mature trees)
- (e) Carry out other activities with permission from KFS.

Offences under the Forests Act (2005)

Without a permit or a CFA management agreement given by KFS, nobody shall:

- (a) Cut, burn or remove any tree or forest produce
- (b) Enter or remain in a forest between of 7 p.m. and 6 a.m. unless allowed to do so
- (c) Construct any building or livestock structure except with permission from KFS
- (d) Collect any honey or beeswax from a forest
- (e) Allow livestock to graze in a forest
- (f) Clear, cultivate or cut trees for any other purpose
- (g) Construct any road or path through a forest
- (h) Set fire to, or burn any grass, trees or plants in a forest
- (i) Possess any chain saw or tree-cutting tools inside a forest
- (j) Damage or remove any beacon, boundary mark, fence or notice board in a forest
- (k) capture or kill any animal in the forest

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- (k)capture or kill any animal in the forest
- · Under the Forest Policy, communities are allowed to farm in the forests to meet their daily needs and generate income from bamboo furniture, firewood, bee keeping and fodder for livestock
- To increase rural community participation in forest management, the Forest Policy encourages the government to:
 - o Establish community forests through which communities will be able to participate in the conservation and management of forests in their area.
 - o Protect the traditional interests of local communities who have historically lived within and around a forest for example Ogiek and Kaya shrines.
 - o Recognize cultural practices that go well together with sustainable forest management for example farm forestry and collection of medicinal plants (mti shamba)
- The Forest Policy seeks to improve the participation of minority groups in forest conservation and recommends:
 - o Training and education opportunities in forestry for youth and women;

- o Involving youth and women in forest management;
- Encouraging the youth to take more responsibility in the management of forests to ensure the survival of Kenyans in future;

The Forest Policy supports the creation of forest based micro-enterprises (for example bee keeping, bamboo furniture, sale of miti shamba and wax production).

The Forest Policy appreciates the role of Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs). NGOs can support local self-help efforts aimed at conserving forests; conduct awareness creation for local communities to effectively participate in forest conservation and serve as a link between government bodies and communities living around forests.

The Forest Policy creates the Forest Act (2005). The Act in turn creates the Kenya Forests Service (KFS) which is headed by a Board that includes forest community representatives.

The Forest Act establishes Community Forest Associations (CFAs) and gives user rights to local communities to access forest resources. It also provides for registration of CFAs under The Societies Act. A registered CFA may apply to the Director of KFS for permission to participate in the conservation and management of public forests.

KFS is allowed to establish forest conservation areas which are managed by Forest Conservation Committees (FCCs). The committees include four persons with knowledge in forestry and who are nominated by Community Forest Associations (CFAs) operating in the conservation area.

The Forest (Charcoal) Regulations of 2009 requires commercial producers of charcoal to organize themselves as business organizations or charcoal producer association for the purpose of ensuring sustainable production of charcoal by its members.

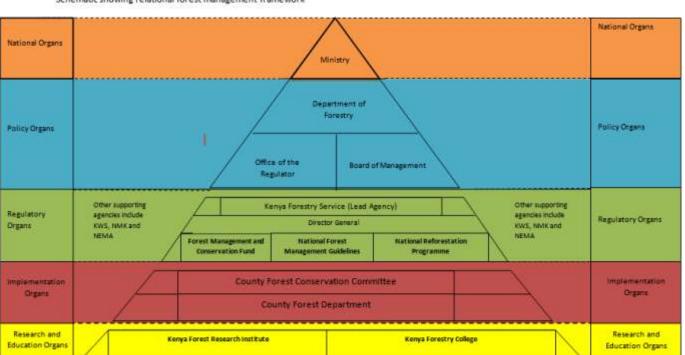
KFS is required to consult local communities while developing Public Forest Management (PFM) plans by seeking their opinions as well as other people who benefit from the forests.

Any licenses to use forest resources is only given by KFS upon satisfaction that an Environmental Impact Assessment (EIA)has been done as required by Environmental Management and Coordination Act-EMCA (1999). The EIA process allows for public comments.

The Forest Act also establishes a Fund to be used to conserve indigenous forests, promote community-based forests and related activities. Therefore, money generated from forest conservation will be used to improve the lives of communities living around the forest.

Individual land owners can have their forest registered with KFS and in return, receive advice on forest management, receive forest development funds and may not pay land rates among other benefits.

The Forest Act instructs KFS to provide the public with all documents on the use of forest resources (for example, firewood, honey and wax, timber for construction), management plans and agreements with businessmen. This promotes transparency and accountability.



Schematic showing relational forest management framework

3.2 Freshwater and Wetlands

According to the National Environment Policy (2012), areas that contain freshwater and wetlands (for example swamps) are important in providing clean drinking water, provide livestock watering points and support various crops such as, yams, rice and vegetables. Kenya is a signatory to the Ramsar Convention and as such is required to identify and protect important wetlands of international importance (Ramsar Sites). These include: Lakes Nakuru, Naivasha, Baringo, Bogoria, Elementeita and Tana Delta. However, they continue to experience destruction mainly from human activities. In response, the Government will:

- 1. Develop and implement a joint wetland and water resources management strategy and action plan.
- 2. Promote Payment for Environmental Services (PES) schemes to support water resource conservation.
- 3. Develop and implement a national wetland policy and regulations.
- 4. Coordinate the roles of various agencies managing freshwater and wetland resources.

Community participation in water conservation and management

- The Water Act (2002) calls for the development of the National Water Resource Management Strategy in consultation with the members of the public.
- The Water Act (2002) creates the Water Resource Management Authority (WRMA) to manage water resources in Kenya. This role will be implemented through regional offices of WRMA with the help of Catchment Area Advisory Committees (CAACs) and Water Resource User Associations
- Members of the public are allowed to check the register with details on water permits in use including the results of supervision carried out by WRMA upon payment of a small fee. This encourages openness in the water sector.

Guidelines on activities along Rivers, Lakes and wetlands

(WRUAs) at the community level.

- 1. Farming or grazing in swamps must ensure that the surface does not dry out.
- Communities living along swamps, rivers and lakes are encouraged to form Water Resource Users Associations (WRUAs) who will then develop water sharing plans to reduce conflicts
- 3. Farmers are required to use soil erosion control methods for example, planting grass and local trees along river banks
- 4. Farming, grazing or construction of buildings is not allowed between 2m 30m from the banks of a river (permanent or seasonal)
- Any piece of land that is 30m from the shores of a lake should not be cultivated to avoid soil erosion, pollution from pesticides and fertilizers.

Offences under the Water Act (2002)

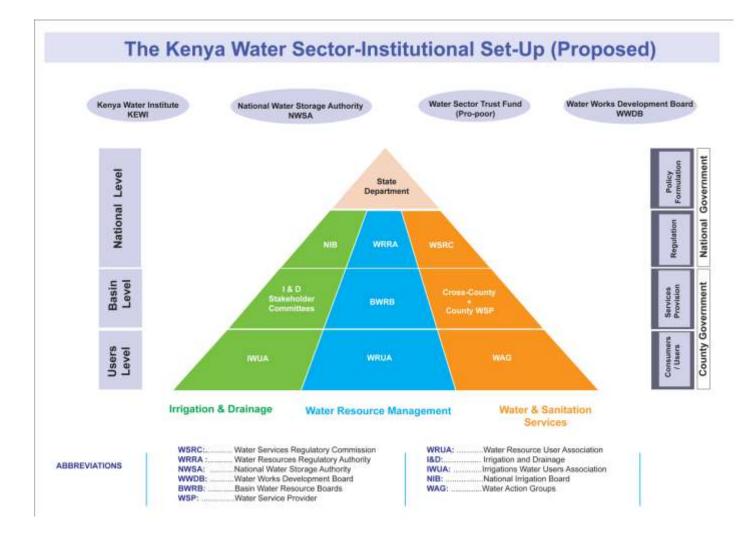
- Using water without a permit issued by WRMA; draining any swamp; directing any waste into a lake, river or swamp or any purpose for which a permit is required
- · Breaking any laws on a protected area
- Disobeying any conditions for construction works related to water service provision
- Breaking ground water conservation rules
- Failure to observe water supply limits by a licensee (water service provider)
 - Breaking rules relating to conditions for water services for example, raising prices for piped water and sewerage services without public consultations
- Neglecting or failure to respect any laws and orders given under the Act.
 - The Water Rights Users Associations (WRUAs) are created under the Water Act (2002) as forums for joint management (government and community) of water resources and for solving problems arising from the use of such resources for example a: river, swamp, lake or spring.
- A Catchment Area Advisory Committee (CAAC) is made up of people who depend on a particular water resource, give advice at the community level on water resource use, management and conservation.

Guidelines on activities along Rivers, Lakes and wetlands

- 1. Farming or grazing in swamps must ensure that the surface does not dry out.
- 2.Communities living along swamps, rivers and lakes are encouraged to form Water Resource Users Associations (WRUAs) who will then develop water sharing plans to reduce conflicts
- 3.Farmers are required to use soil erosion control methods for example, planting grass and local trees along river banks
 4.Farming, grazing or construction of buildings is not allowed between 2m 30m from the banks of a river (permanent or seasonal)
- 5. Any piece of land that is 30m from the shores of a lake should not be cultivated to avoid soil erosion, pollution from pesticides and fertilizers.

Offences under the Water Act (2002)

- ·Using water without a permit issued by WRMA; draining any swamp; directing any waste into a lake, river or swamp or any purpose for which a permit is required
- ·Breaking any laws on a protected area
- Disobeying any conditions for construction works related to water service provision
- ·Breaking ground water conservation rules
- -Failure to observe water supply limits by a licensee (water service provider)
- ·Breaking rules relating to conditions for water services for example, raising prices for piped water and sewerage services without public consultations
- •Neglecting or failure to respect any laws and orders given under the Act.



- A water permit is only given, revised or cancelled after public consultation. Similarly, the amount paid for using water can only be increased after discussions with the consumers to be affected. In some cases, an IEA study is required and this process is open to public comments.
- The Water Act (2002) creates the Water Services Trust Fund (WSTF) whose main aim is to provide funding for water projects in areas that are not adequately catered for especially in poor urban and rural areas.
- The Water Appeal Board provides an avenue through which water users can seek justice when affected by decisions made by water sector institutions.

In the Environmental Management and Coordination (Wetlands, River Banks, Lake Shores and Sea Shore Management) Regulation of 20.09, any development that may have a negative effect on a wetland must go through an Environmental Impact Assessment (EIA) which requires public participation by sending in comments and inspecting EIA reports.

- In the EMCA (1999), the Minister (now a Cabinet Secretary for Environment) may, by notice in the Gazette, declare a lake shore, wetland, coastal zone or river bank to be a protected area and enforce restrictions, to protect the said ecosystem from environmental degradation taking into consideration the interests of the communities resident around the freshwater ecosystem or wetland.
- The Environmental Management and Coordination (Wetlands, River Banks, Lake Shores and Sea Shore Management) Regulation of 2009 promotes knowledge, innovations and practices of local communities including traditional lifestyles with the conservation and sustainable use of plant and animal varieties.

3.3 Oceans and Coastal areas

According to the National Environment Policy (2012), the quality of the oceans and coastal areas continue to reduce due harmful human activities such as growing towns and tourist hotels, dumping of waste materials into the oceans, land grabbing, over-fishing and destruction of mangrove forests, the search for oil and gas and the negative effects of climate change which affect the growth of coral reefs. According to the National Environment Policy (2012), the government will promote sustainable use of the oceans by developing a harmonized Integrated Coastal Zone Management (ICZM)/Integrated Ocean Management Policy, Strategy and Action Plan.

Community participation in coastal zone management

- The EMCA of 1999 encourages community representatives to participate in managing oceans and coastal areas through District Environment Committees (DECs) which are made up of farmers, fishermen, businessmen and community based non-governmental organizations.
- To promote access to land based natural resources by communities, the government will enable members of the public to use beaches, lakes, rivers and fish landing sites unless this is not allowed to preserve delicate environmental areas or for security reasons
- The draft Fisheries Policy (2005) aims to reduce beach pollution and poor fishing methods by encouraging the use of alternative management approaches like Beach Management Units (BMUs), which promote community involvement

3.4 Mountains

The National Environmental Policy (2012) has recognized mountainous areas as important in the conservation of plant and animal varieties. Mountains also act as both rainfall producing areas and water sources for example, many rivers flow from Mt. Kenya, Mt. Elgon, Aberdare Ranges, Mau Escarpment and Cherangani Hills. However, mountain areas have been exposed to a number of harmful uses for example, illegal cutting of trees, killing and theft of wild animals and plants, destruction from fire and mining, uncontrolled livestock grazing, illegal settlement by humans, crop farming and the effects of climate change. The Government will:

- 1. Conduct research to create knowledge on how to efficiently use mountain areas.
- 2. Promote alternative income generation activities as a way to improve community participation in the conservation of mountain areas.
- 3. Adopt appropriate land use planning and watershed management practices for sustainable development of mountain ecosystems.

Community participation in managing mountainous areas

- Under the National Environmental Policy (2012), the government will promote alternative means of earning a living by encouraging community participation in the conservation of mountainous areas.
- Forested mountains maybe managed through Community Forest Associations (CFAs) which have the power to partner with the Kenya Forest Service (KFS) in developing participatory forest management plans in addition to

SOIL AND WATER CONSERVATION LEADS TO IMPROVED CROP AND ANIMAL YIELDS



forest user rights

- The Integrated National Land use Guidelines (2009) aims to:
 - o Promote farm forestry and encourage the creation of woodlots on hilly and mountainous farm lands. However, any cultivation on areas of slope of between 12%—55% must include soil and water conservation methods for example, terracing, contour farming and building of gabions to reduce soil erosion.
 - o Develop benefit sharing programs on the forest and wildlife products including the income generated by both KWS and KFS to improve community welfare and promote ownership of such resources.
- Under the EMCA of 1999, every District Environment Committee (DEC) is encouraged to organize members of the
 public to plant trees on mountainous areas by supporting voluntary self-help activities started by the local
 community.

3.5 Arid and Semi-Arid Lands

According to the National Environment Policy (2012), Arid and Semi-Arid Lands (ASALs) receive very low and unpredictable rainfall. The main form of land use in the ASALs is livestock grazing. Livestock farmers in the ASALs move from place to place in search of water and grass which are communally-owned and managed at the community level. The Government will:

- 1. Develop and implement an Integrated Land Use Master (Development) Plan for the ASALs.
- 2. Ensure application of Integrated Water Resource Management (IWRM) in ASALs with a view to harvesting flood and river water.
- 3. Implement the National Action Plan (NAP) to reduce the growth of deserts and strengthen the Desertification Trust Fund.

Community participation in managing the ASALs

- Both the Constitution of Kenya (2010) and the National Land Policy (2009) encourage the use of Alternative Dispute Resolution (ADR) in resolving resource conflicts and this is useful in the ASALs where livestock grazing is the major economic activity
- ASALs are also home to wild animals, for example Maasai Mara game reserve which attracts thousands of tourists due to its famous wilder beast migration. However, the main environmental threats to ASALs include expanding agricultural farms and ranches, charcoal burning, uncontrolled fires, human settlements and overgrazing all of which have increased the effects of climate change and dry conditions. Therefore, the National Land Policy (2009) aims to improve the representation pastoralists (livestock farmers) in major decision-making processes over land and land-based resources.
- The Kenya Forest Service (KFS) will promote dry land forestry as a means to improve environmental quality in the ASALs. Therefore, community participation through the CFAs is encouraged

3.6 Grassland Ecosystems

- According to the National Environment Policy (2012), there are several types of grasslands namely highland grasslands, savannah grasslands, moorland grasslands and rangelands among others. Grasslands are home to large wild animals in the world (also known as the 'Big Five' and includes: lion, leopard, rhino, elephant and buffalo) and also support various types of birds. Therefore, grasslands are important for tourism, livestock grazing and soil erosion control.
- According to the National Environmental Policy (2012), the government will increase public awareness on the need to protect grasslands and develop guidelines for planning and managing grassland areas.

3.7 **Land**

According to the National Environment Policy (2012), land is in short supply, delicate and non-renewable; however its productivity can be improved, say for example, through the use of organic manure. Land is an asset that provides security for bank loans which are then used to expand businesses, buildings and important services like road networks rest on land and therefore important in contributing to human well being. As a result, the demand and pressure on land is ever increasing due to a growing population; therefore demand for more food and shelter. Activities which reduce the quality of land include: poor farming methods, weak soil and water management practices, clearing forests, overgrazing and natural disasters (including floods and landslides). The government has pledged to implement Chapter Five of the Constitution of Kenya (2010) on land, the National Land Policy (2009) and the National Environment Policy (2012) to improve the quality of land for the benefit of all Kenyans.

Community participation in Land management

- The National Land Policy (2009) requires the government to support local communities and individuals to invest in income generating activities which contribute to land conservation.
- The National Land Policy (2009) directs the government to create laws to recognize community rights over land

and for sharing benefits coming from land-based natural resources with communities living on or around such resources.

- The National Land Policy (2009) requires the government to set up three important land management institutions: National Land Commission (NLC), District Land Boards (DLBs) and Community Land Boards (CLBs). Both the CLBs and DLBs will include democratically elected community representatives.
- Among the functions of the National Land Commission under the National Land Commission Act of 2012, is to encourage the use of Alternative Dispute Resolution (ADR) such as negotiations, mediation and arbitration to promote readily available justice in resolving land disputes. This is based on the principles of land management in Chapter Five of the Constitution of Kenya (2010).
- The National Land Policy (2009) promotes official recognition of traditional knowledge on the management of land-based resources and provide a systems for its development and use.
- The National Land Policy (2009) promotes the development of participatory environmental action plans by communities living near environmentally sensitive areas (like swamps, rivers, lakes, forests and hilly areas) taking into account their cultural and traditional conservation practices.

3.8 Soils

Fertile soils are important in supporting crop farming. Soils are also useful in controlling the flow of water. Loss of trees and grassland has reduced vegetation cover and exposed soils to a lot of wind and soil erosion in many parts of the country. Increasingly, farmers are using fertilizers to improve their harvests even though this method destroys the quality of farm lands. According to the National Environment Policy (2012), the government will develop and implement a National Soil Conservation Action Plan, promote organic farming so as to maintain soil fertility, ensure the protection of wetlands, riverbanks, hilltops and slopes from harmful farming practices to prevent soil erosion and environmental destruction.

Community participation in soil conservation

- The EMCA of 1999 provides for protection of wetlands, riverbanks, hilltops and slopes through District Environment Committees which have community representatives in the form of farmers or pastoralists, community based Non-Governmental Organizations (NGOs) and business representatives.
 - The National Sand Harvesting Guidelines (2007) creates technical sand harvesting committees that are made up of representatives from the District Environment Committees and the local community to supervise sand harvesting activities in their areas.

THE ENVIRONMENT MANAGEMENT & COORDINATION ACT (1999) REQUIRES AN ENVIRONMENTAL IMPACT ASSESSMENT BEFORE ANY DEVELOPMENT PROJECT CAN BEGIN. COMMUNITIES ARE ALLOWED TO VOICE THEIR CONCERNS.



- The Sand Harvesting guidelines also creates Riparian Resource Management Associations (RRMAs) that include members of the District Environment Committees and elected community representatives to be responsible for sustainable management of sand harvesting.
- The District Environment Committee has the duty to control all activities in wetlands (for example, brick making, sand and clay harvesting) requiring that the users form voluntary societies and where necessary be given a license under the EMCA (Wetland Regulations) of 2009.

3.9 Biodiversity

The National Environment Policy (2012) notes that Kenya is rich in plant and animal variety which provide a number of environmental goods and services, such as maintaining the composition of the atmosphere (for example oxygen and carbon dioxide) in the atmosphere, protection of coastal areas, attracting rainfall and controlling the flow of water (on and below the surface), reducing the effects of climate change (forest trees absorb carbon dioxide and therefore reduce the 'green house' effect), creation and conservation of fertile soils, breakdown of wastes, pollination of many crops for increased harvests and absorbing harmful substances and therefore reducing pollution. However, there is a rapid loss of biodiversity (plant and animal varieties) as a result of land destruction, climate change, pollution, misuse of natural resources and introduction of invasive weed species, for example water hyacinth and Prosopis juliflora (Mathenge). The Government will:

Guidelines on Commercial Brick Making

- •An investor is required to carry out an Environmental Impact Assessment (EIA) before starting operations on large-scale commercial brick making.
- ·Clay harvesting should not be carried out in road reserves and other environmentally sensitive areas unless allowed by the County Environment Committee
- •The deepness of clay harvesting pits should be determined by the local rock formation, existing land uses and environmental conditions.
- ·Clay sites should be divided into blocks so that rehabilitation can be done after harvesting each block.
- ·Harvested areas should be rehabilitated as recommended in Environmental Impact Assessment (EIA) or in line with the EMCA of 1999.
- 1. Revise and implement the National Biodiversity Strategy and Action Plan (NBSAP).
- 2. Develop benefit sharing schemes from the use of plant and animal varieties, traditional knowledge and technology with communities living in areas where such resources are found.
- Develop and implement a strategy to contain, control and reduce foreign and invasive species for example water hyacinth and Prosopis juliflora (Mathenge).

Community participation in Biodiversity conservation

- The National Biodiversity Strategy and Action Plan (NBSAP) of 2000 aims to increase public awareness on plant and animal varieties throughout the country to increase community participation and promote a conservation culture.
- The Integrated National Land use Guidelines (2011) directs the government to:
 - o Promote policies on community participation in the preservation of plant and animal varieties.
 - o Revive and/or establish community-led botanical gardens.
 - o Develop policies on benefit sharing and intellectual property rights (IPR) on plant and animal varieties
 - o Educate the community to identify the importance of different plant and animal varieties which invade and destroy parts of the environment as well as reduce their effects. An example is Prosopis juliflora (Mathenge) in Garissa, Wajir, Mandera, Kajiado and Baringo providing charcoal and materials for house constructions even though it affects livestock if fed on. Similarly, the introduction of Nile perch nearly eliminated the local fish varieties in Lake Victoria while the water hyacinth, Salvinia sp, and Mimosa sp. have blocked a lot of lakes and swamps in Kenya.
 - o Carry out an EIA before introduction of invasive plant and animal varieties. By going through the EIA reports, members of the public can either support or oppose such projects.

3.10 Wildlife Resources

According to the National Environment Policy (2012), wildlife contributes directly and indirectly to the local and national economy by generating income especially from foreign tourists and creating wealth. However, increasing population, human wildlife conflicts, killing and theft of protected animals and plants, pollution, climate change and the change of wildlife areas into farm lands or housing estates have all reduced the number of wild animals in Kenya's game parks and reserves. The Government will:

- 1. Protect, conserve, and increase wildlife areas and migration routes.
- 2. Provide benefits for investment in tourism and conservation activities that protect wild plants and animals.
- 3. Encourage and support the establishment of community based conservation areas in order to win more space for wildlife.
- 4. Support wildlife research and supervision to provide enough information for decision making by relevant agencies such as Kenya Wildlife Service (KWS).

Community participation in wildlife conservation and management

- The National Environment Policy (2012) requires the government to create and support community based conservation areas in order to expand the space for wildlife conservation.
- The National Wildlife Conservation and Management Policy (2012) provides for:
 - o The transfer of wildlife management to the lowest level possible with support to public participation through the private sector (business people, companies and investors), Non-Governmental Organizations (NGOs) and Community Based Organizations (CBOs);
 - o Development of an effective system for sharing benefits including income from tourists and park fees with communities living near game parks, national reserves and other Protected Areas;
 - The promotion of the use of local knowledge in the conservation and management of wildlife resources;
 - o Partnerships between local communities and private sector in creating profitable wildlife-based enterprises to improve the welfare of rural communities;
 - o Training local communities and registered wildlife associations to manage and conserve wildlife and reduce human-wildlife conflicts (damage to crops, livestock and loss of human life);
 - o Encouraging community participation in wildlife conservation and management through establishment of community wildlife conservation areas, sanctuaries/conservancies and joint management of Protected Areas.
- The Wildlife (Conservation and Management) Act allows the director of Kenya Wildlife Service (KWS) to appoint honorary game wardens from the members of the public to assist the KWS in carrying out its duties.
- The National Land Policy (2009) promotes sustainable management of wildlife resources and directs the government to identify, map out and gazette important wildlife migration routes in consultation with the local communities and individual land owners who live closer to the national parks and game reserves.

3.11 Mineral Resources

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Kenya is potentially a high mineral potential country. The National Environment Policy (2012) policy refers to the lack of information on rocks as preventing the full development of the mining sector. However, increased cases of illegal mining, including quarrying and harvesting of sand, may cause environmental destruction unless measures are taken to guide and control operations in the sector. In response, the Government will:

- 1. Develop and implementation the Mineral Resources Development and Exploitation Policy.
- 2. Promote the use of Sand Harvesting Guidelines to reduce environmental destruction.
- 3. Ensure the restoration of all mining sites (back to their original state) such as quarries and deep pits.

Community participation in managing mineral resources The Mining Bill (2013):

- Promotes environmental conservation and sustainable sand harvesting by encouraging restoration of all mining sites, pits and quarries after removing minerals.
- Encourages the Cabinet Secretary for mining to consult communities or individuals that would be affected by the mining activities before giving out a license to the project developer.
- Proposes that mineral rights on or over community land must be given after consent of the local communities.
- Seeks to ensure skills transfer among Kenyans and each mining investor is required to submit, to the Cabinet Secretary, a detailed plan for the employment and training of locals.
- Provides for a prompt, adequate and fair compensation to be paid the lawful owner, occupier or user of the land in on which minerals are found in cases where mining operations disturb or deny the owner part of his/her land; causes loss of or damage to buildings and other property and in the case of land under cultivation or grazing of livestock, causes any loss of income by the owner.
- States that the Director of Mines shall establish and maintain a register of ongoing mining projects in the country. The register is a public document and may be viewed during office hours by any interested person on the payment of an agreed fee.
- Provides for benefit sharing (distribution of a portion of income from mining activities) with communities in whose area mining takes place. Royalties and other benefits shall be shared as provided under the Bill.
- The Integrated National Land use Guidelines (2011) directs that:
 - o A County Environment Committee should be established and supported to carry out regular quarry inspection within their area. The committee consists of community representatives;
 - o An EIA should be conducted before digging pits and quarries. Local residents have a chance to send their comments on the EIA report either in support or opposition to the proposed mining project;
 - o In case of digging trenches or deep pits, rehabilitation should be done as recommended in the EIA to avoid creating waste lands. Again, local communities have a chance to send their views regarding the environmental quality of the previous mining areas.

3.12 Livestock Resources

The National Environment Policy (2012) has identified livestock keeping as the main economic activity in the Arid and Semi-Arid Lands (ASALs) which not only creates jobs but also contributes greatly to the national economy. However, overgrazing in the ASALs has lead to the loss of land quality due to soil erosion. In urban areas, dumping of wastes from factories and butcheries has made the rivers dirty leaves the environment smelling bad. Therefore, the government will develop and implement an environment-friendly Livestock Production Policy which creates free-disease areas and also develop Guidelines for Livestock Waste Disposal to reduce environmental destruction.

Does the National Livestock Policy encourage community participation?

- The National Livestock Policy (2008) encourages the government to increase community participation in solving the problem of high cost of animal feeds through the formation of feed mills by co-operative societies which are made up of local farmers.
- Under the National Livestock Policy 2008, community participation is also encouraged conserving the quality and quantity of pasture during the dry seasons by allowing community involvement in planning (for example, rotational grazing and formation of pasture management committees) to avoid overgrazing.
- The National Land Policy (2009) directs the government to provide for an easy and negotiated cross-border access to protected water, grazing lands and salt licks for livestock farmers from different communities (for example, Turkana-Pokot; Karamojong-Turkana) for communal benefit and to reduce resource conflicts.

4.0 ENVIRONMENTAL STEWARDSHIP

The National Environment Policy (2012) notes that sustainable development requires that business and factories supply goods and services that meet individual needs and the society at large, contribute to improved quality of life and avoid wasteful use of natural resources.

4.1 Trade and Environment

- The National Environment Policy (2012) has recognized trade as an important driver of economic growth. However, trade may have both direct and indirect effects on the environment and society as a whole.
- According to the National Trade Policy (2009), most traders (businessmen and investors) carry out their activities without observing environmental conservation, partly due to weak laws and few compliance officers from NEMA to arrest and/or fine traders who break the law.
- The government will include environmental conservation in the revised National Trade Policy and members of the public will be required to send their views (in line with the Constitution) which shall then be included in the new Policy.
- Investments in mining, transport, urban development, manufacturing, the storage and sale of natural gas petroleum fuels, among other major developments all require an Environmental Impact Assessment (EIA) study before beginning operations. The EIA study report is open to the public for comments or ally or in writing.

4.2 Sustainable Consumption and Production Patterns

- The National Environment Policy (2012) promotes the wise use of environmental goods and services in all sectors of the economy to avoid the challenges that come with wasteful use for example, climate change, loss of plant and animal varieties, water and air pollution, reduction in forest cover and soil erosion.
- According to the National Environment Policy (2012), the government will work together with businessmen and factory owners to promote the use of good environmental management tools, especially Environmental Impact Assessment (EIA) which encourages community participation.
- The government is encouraged to work with businessmen and companies to improve Corporate Social Responsibility (CSR) for example, providing scholarships to local students, building dispensaries and clean water projects to serve the local community as a way of showing appreciation to the community living around forests, national parks or mining areas. Environmental Impact Assessment (EIA) Process

The following are some of the projects that cannot be carried out in Kenya without an Environmental Impact Assessment (EIA) study at the cost of the potential investor and in line with the Environmental Management and Co-ordination Act-EMCA of 1999:

- 1. General activities that involve major changes in land use
- 2. Urban Development including new towns and industrial estates;
- 3. Transportation including all major roads; railway lines, airports; oil and gas pipelines;
- 4. Dams, rivers and water resources including storage dams, and geothermal drilling
- 5. Mining, including quarrying and open-pit removal of precious metals, coal, clay, sand
- 6. Forestry related activities including timber harvesting and clearing of forest areas
- 7. Large-scale farming, use of pesticides and irrigation projects

- 8. Processing and manufacturing industries
- 9. Storage and sale of natural gas and petroleum fuels
- 10. Dumping of wastes including sites for solid waste management and sewerage works
- 11. Creation of national parks and game reserves

The EIA study once conducted is published in the Kenya Gazette or in a newspaper that is widely read in the proposed project area for two consecutive weeks describing the project and where the EIA report may be available for public viewing.

Within sixty days of publication of the EIA report, NEMA allows the public to submit oral or written comments on the report. This period may be extended if an interested member of the public applies for an extension beyond the 60 days.

4.3 Industrial development

- The National Environment Policy (2012) notes that the growth of industries required to attain the Vision 2030 means that the government must promote environmentally-friendly technologies to avoid wasteful usage of natural resources
- The Government will include environmental conservation in the Draft Industrialization Policy which will be developed in a manner that involves public comments as required by the constitution.
- The Draft Industrialization Policy encourages the government to support Small and Medium Enterprises (SMEs) which carry out their activities in a way that conserves the environment.

4.4 Sustainable Human Settlements

- According to the National Environment Policy (2012), human settlements in the Kenya follow the availability (or absence) of natural resources including: access to land for farming and setting-up homes, water for domestic use and livestock, food and social facilities for example, picnic parks and playing fields. However, Kenya is still largely a rural society with a high population which puts pressure on the country's natural resources. Therefore, the Policy aims at creating conditions under which both rural and urban residents can enjoy healthy lifestyles. Therefore, the Government will:
 - Encourage Kenyans to have a family size which is manageable and include public health considerations in environmental management.
 - o Promote environmental education among school children with the hope that they will keep their environment clean and healthy as they grow up.
 - o Develop and implement land use planning at the National, County and community levels.
- The National Land Policy (2009) calls on the government to involve host communities in setting up, planning and managing refugee camps and to convince them to appreciate environmental destruction in refugee camps for example, charcoal burning, dumping of plastic waste materials and cutting of trees for firewood

4.5 Energy

- The National Environment Policy (2012) has identified energy as important for the country's development. Therefore, efforts should be put on increasing the use of clean and renewable sources of electric power for example, solar and wind to avoid environmental destruction.
- · The Energy Policy promotes access to electric power for rural areas by supporting rural electrification project on

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- 6.Forestry related activities including timber harvesting and clearing of forest areas
- 7.Large-scale farming, use of pesticides and irrigation projects
- 8. Processing and manufacturing industries
- 9.Storage and sale of natural gas and petroleum fuels
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GENDER PLAYS A MAJOR ROLE IN ENVIRONMENT CONSERVATIONS AND MANAGEMENT.



a cost-sharing basis with communities. The Rural Electrification Authority has the duty to extend electricity access to rural families and businesses.

- The Integrated National Land use Guidelines (2011) seeks to promote:
 - o Involvement of local communities in developing energy-saving technologies.
 - o EIA for all energy generating projects like dams or diesel power stations. The EIA process allows for public comments in support of or against such projects.
 - o On-farm tree planting taking into account appropriate tree species and sites to supply firewood.

4.6 Climate change

- The National Environment Policy (2012) states that climate change is a reality and that harmful human activities are largely responsible for the increasing concentration of greenhouse gases (GHGs) in the air which then raise heat levels causing extreme conditions like: increased disease outbreaks, droughts leading to reduced farm and large livestock deaths, floods and landslides which may cause loss of human life. The Policy gives two options to reduce the effects of climate change:
 - o Controlling the causes of climate change for example using clean sources of energy (such as, solar and wind power) instead of coal and diesel that increase GHGs in the air.
 - o Increasing climate adaptation measures to help community members at risk to better deal with the effects of climate change. For example, promote the use of crops that do well under dry conditions (such as cassava and millet).
- The Kenya Climate Change Action Plan (2013-2017) supports the implementation of the Constitution of Kenya (2010) and the Vision 2030 both of which encourage a people-focused development and that works to reduce the effects of climate change for the benefit of present-day and future residents of Kenya.

4.7 Disaster Management

- The National Environment Policy (2012) notes that in the last twenty years, Kenya has faced a lot of disasters with affected populations suffering serious human, property, economic and environmental losses through droughts, floods and disease outbreaks. Poverty, dry conditions, and settlement in low-lying areas affected by constant flooding or areas with poor services such as slums expose many Kenyans to various disasters. However, the country lacks a Disaster Management Strategy. In response, the Government will establish a responsible institution and laws to effectively manage disasters in the country.
- The draft National Policy for Disaster Management (2009) promotes community participation in disaster

management, early warnings and rescue operations.

- The Integrated National Land use Guidelines (2011) seeks to promote:
 - o EIA study for proposed construction of dykes and dams in flood control;
 - o Involvement of the local communities in the construction of water-flow control structures for example, dams and dykes;
 - o The growing of crops that can stand a lot of water for example rice, arrow roots by communities living on the flood plains of large rivers.

4.8 Gender and Environment

- The National Environment Policy (2012) states that gender plays an important role in the management of the environment. For example, women interact with the environment on day to day basis as they farm, collect firewood and fetch water. Therefore, recognizing different roles played by men and women will assist in including both genders to the best of their abilities in environmental conservation and management.
- The EMCA Amendment Bill (2013) involves women representatives on the County Environment Committees (CEE) as part of government plans to strengthen women participation in environmental conservation and management.

4.9 Youth and Environment

- The National Environment Policy (2012) reports that the youth make up over 50% of the total population in Kenya. While this is a positive thing in terms of the large number of young work force available, it also has negative effects due to high unemployment rates. The youth represents a future generation that is able to take care of the environment. It is therefore important to involve the youth and also ensure that their specific needs are considered.
- Jointly with environment stakeholders, the government will develop and implement a Youth and Environment Strategy and Action Plan to improve youth involvement in environmental conservation.
- The EMCA Amendment Bill (2013) provides for youth representation on County Environment Committees (CEEs) which are meant to coordinate environmental management activities at the County level.
- Under the National Climate Change Action Plan (2013-2017), the government will improve community adaptation to the negative effects of climate change and increase disaster preparedness programs by involving the youth.

4.10 HIV/AIDS and Environment

The National Environment Policy (2012) has identified the negative effects of HIV/AIDS on almost all sectors of the economy due to loss of lives or absence from work due to extended sickness periods. The disease caused a shortage of both skilled and unskilled labor, thereby reducing environmental protection activities. In response, the government will include the fight against HIV/AIDS in its environmental protection programs, projects, and support research in herbal plants (*miti shamba*) in an effort to get a cure for the disease.

5.0 ENVIRONMENTAL QUALITY AND HEALTH

The National Environment Policy (2012) has recognized that human life depends on a clean and healthy environment. However, air pollution, dirty water, dumping of waste in public places and unsafe food continues to affect the wellbeing of many Kenyans. Therefore, the government will promote Environmental Health Impact Analysis (EHIA) in addition to Environmental Impact Assessment (EIA) both of which involve public comments on how to improve environmental safety.

5.1 Air Quality

According to the National Environment Policy (2012), air pollution is the leading cause of lung cancer, heart disease, and other breathing problems. Most families use charcoal and firewood for domestic cooking. Therefore, both urban and rural Kenyans are affected. Community Based Organizations (CBOs) are encouraged to support the use an energy-saving jiko and biogas for cooking.

5.2 Waste Management

- According to the National Environment Policy (2012), the government will develop the Integrated National Waste Management Strategy by involving community members through public hearings to include their opinions and suggestions.
- The Environmental Management and Co-ordination (Waste Management) Regulations of 2006 states that any person who is involved in any activity which produces solid waste (for example plastic bags) and harmful waste (for example chemicals and used computers) must apply for an EIA license (a process which is open to the

public for comments) before being allowed by NEMA to continue with such an activity.

5.3 Harmful Chemicals and SubstancesOffences under the Environmental Management and Coordination Act (EMCA) of 1999

- Failure to obey any requirement of the Public Complaints Committee (PCC)
- Disobeying any instructions on the management of river bank, lake shores, wetlands or coastal areas
- Going against any rules given by NEMA on the good use of hill sides and mountain areas
- Releasing harmful substances into a river, lake, swamp or ocean against the requirements of the Act
- Any person who emits any substances which cause air pollution in contravention of emission standards established under the Act
- Failure to manage harmful waste materials properly and according to the Act
- Stopping an environmental inspector from carrying out his/her duties as provided for under the Act
- Any person who fails to submit a project report or prepare an EIA report is guilty of an offence
- Failure to keep any records required under the Act or illegally changing the contents of any records
- Using environment resources (e.g. water, fish and trees) in a wasteful manner

The National Environment Policy (2012) has recognized that harmful chemicals used widely in Kenya particularly by farmers and factories and when people come into contact with these chemicals, they may fall ill or suffer from long-lasting effects such as cancer. Communities can participate in the development of the National Strategy on Toxic and

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Hazardous Substances by giving their views during government-led public hearings.

5.4 Noise

The National Environment Policy (2012) has recognized that people may suffer from health problems (and result in hearing damage) when they are exposed to a lot of noise. Road users and social activities (for example a party, disco or wedding) within residential areas also create noise. Communities through resident associations in urban areas can help control noise pollution by engaging those responsible for creating noise, either from construction, entertainment or church services. In addition, members of the public can reduce noise by reporting to the Public Complaints Committee (PCC) of NEMA.

6.0 RESEARCH, EDUCATION AND MONITORING

6.1 Research and Information Management

The National Environment Policy (2012) promotes the use of modern technology to improve environmental management. Information gathered from environmental research improves the country's ability to make reliable decisions on environmental challenges for example climate change. According to the Policy, the Government will:

- · Develop a national Data and Information Management Policy on environmental resources.
- · Include the use of traditional knowledge in planning and managing the environment.
- · Support creative development projects which use modern methods for managing the environment.

6.2 Education, Communication and Awareness

The National Environment Policy (2012) has recognized environmental education as important in changing people's attitude from wasteful citizens to keepers of a clean and healthy environment. An informed public is able to develop a strong sense of responsibility on environmental issues. According to the Policy, the Government will:

- Develop a National Strategy on Environmental Education and Public Awareness that will target communities through NGO's, CBO's, women groups and community associations.
- Develop a National Environmental Education Curriculum to be used in teaching and giving exams at the primary, secondary and college levels.

- Encourage the use of local knowledge in protecting the environment.
- Support the creation of environmental resource centers and libraries at the national, county and community levels.

7.0 ENVIRONMENTAL GOVERNANCE

7.1 Environmental Legal Reforms

The National Environment Policy (2012) is the basis for the Environment Management and Coordination Act (EMCA) (Act No. 8 of 1999) which is Kenya's first all-inclusive law on environment. However, both the Policy and EMCA have added to a large number of existing sub-sector laws dealing with water, forests, minerals and wildlife all of which disagree with each other and therefore make it difficult manage the environment. In response, the Government will:

- · Promote and protect the right to a clean and healthy environment for all;
- · Revise EMCA to agree with the provisions of the Constitution;
- · Ensure sub-sector laws (water, forests and wildlife) are in harmony with EMCA.

7.2 Institutional Arrangements

The environment touches almost all areas of human life. Therefore, environmental protection needs to be included in all development activities of the government and the private sector. The National Environment Policy (2012) will improve coordination and cooperation among government ministries by:

- Strengthening the Directorate of Environment at the Ministry of Environment, Water and Natural Resources to support the Cabinet Secretary in policy development, monitoring the performance of the sector and to serve the National Environment Council (NEC).
- Strengthen the capacity of NEMA as the national institution responsible for the general supervision and coordination in all matters related to the environment.
- · Organize and strengthen the capacity of environmental institutions at the national and county levels so as to make them more effective and accessible to the public.

7.3 Human Resources Development and Capacity Building

Weak implementation of laws on environment, forests, water and wildlife has caused a lot of environmental destruction. The problem is made worse by inadequate trained staff and lack of resources (modern tools and finances) by KFS, KWS, NEMA and WRMA. The Government will:

- Support government, NGO and private sector staff to attend short and long term courses on environmental management.
- Develop a wide range of training subjects in the field of environment taking into account gender equality, emerging environmental challenges and devolution

Environmental Governance

Constitution is the most important collection of laws and principles through which a country is ruled

Multilateral Environmental Agreements (MEAs) means an international law or agreement which Kenya has signed as part of her laws to guide activities affecting the environment. For example, Kyoto Protocol and Ramsar Convention

Policy is a statement of what the government wants to do and is aimed at guiding its decisions on various matters for example the National Environmental Policy.

Act of Parliament is a document which has been passed by the National Assembly, signed into law by the President of the Republic of Kenya and published by the Government Printer

Bill is a proposed law under consideration or debate by Parliament and is yet to be passed officially as part of Kenyan law

Rules and Regulations

Guidelines

• Encourage sharing of information between centers of excellence (created under the Vision 2030) in environmental management at the county, national, regional and international levels.

7.4 Partnerships and Stakeholder Involvement

Partnerships represent a continued dedication to move forward together to reach a common objective. Therefore, ways must be found to, (a) ensure wide representation from the private sector and NGOs, and (b) ensure that community voices are included. The Government will:

- Develop and Implement a Strategy on Partnerships and Stakeholder Involvement to improve environmental management.
- Promote investments in environmental programs by providing appropriate economic benefits for NGOs and the private sector.
- Develop and implement Alternative Dispute Resolution (ADR) in the preservation of the environment and natural resources.

7.5 Funding Mechanisms

There is need to allocate enough money to ensure effective environmental management, as such, development partners, private sector and NGOs are encouraged to fill any gaps in government financing to ensure effective environmental management programs run smoothly. The Government will:

- · Provide enough money for environmental management through the annual budget.
- Promote the participation of individuals, NGOS and the private sector through financial benefits tied to creative environmental protection and usage. NGOs are also encouraged to support community self-help groups involved
 - encouraged to support community self-help groups involved in income generation activities for example bee-keeping, tree nurseries and water kiosks.
- Expand the channels for generating income to ensure the financial sustainability of environmental management institutions.

8.0 IMPLEMENTATION STRATEGIES AND ACTIONS

The government has the main responsibility to implement the National Environment Policy (2012). However, this will only succeed when other stakeholders are involved. In response, the Policy has proposed the following:

8.1 Integration of Environmental concerns in all Development Processes

All Kenyan laws, government plans and related policies on human development will include environmental conservation as the only way to achieve the goals of the National Environment Policy (2012). Therefore, the Government will:

- Encourage a participatory approach to the management of the environment and natural resources;
- Ensure cooperation between the National and County development plans;
- · Create institutions and laws that encourage environmental protection methods by communities, individuals, government agencies and businessmen;
- · Ensure that all major development projects are only carried out after Environmental Impact Assessment (EIA).

8.2 Clear Roles and Responsibilities

Implementation of the National Environment Policy (2012) involves many different groups, including Government agencies at local, national and regional levels, private sector (businessmen, investors and companies), civil society

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organizations (NGOs and CBOs), local communities and the public. However, each group will only be effective when their roles and responsibilities are clearly defined. The Government will:

- Strengthen the Directorate of Environment at the Ministry of Environment, Water and Natural Resources to supervise the implementation of the Policy.
- Encourage cooperation in environmental management between NEMA and the lead agencies (KWS, KFS, and WRMA among others) in the sector.
- · Improve the capacity of environmental institutions at the county and national levels so as to make them more effective in ensuring members of the public observe the laws in place.

8.3 Promoting Environmental Compliance

The National Environment Policy (2012) encourages Kenyans to respect environment laws without being forced to do so. However, fines and arrests are also used to make sure people respect the laws and procedures for a clean and healthy environment. Therefore, the Government will:

- · Develop and implement a National Environmental Compliance and Enforcement Programme.
- · Improve public private (investors) partnerships in environmental management.
- · Provide environmental education and awareness among the various stakeholders including: government agencies, NGOs, investors and the community to encourage environmental conservation.
- · Provide economic benefits for projects that use environmental-friendly technologies.

Community participation in Environmental Monitoring and Compliance

- According to the National Environment Policy (2012), the Government will develop and implement a National Environmental Monitoring and Assessment Program and members of the public are free to share their comments with the relevant County Environment committees.
- The government will ensure that members of the public obey laws on environmental protection through voluntary and non-voluntary methods. For example, EMCA (1999) communities have access to the National Environment Trust Fund (NETF) through awards on good environmental management and fines for breaking any law respectively.
- In protecting community interest, EMCA (1999) provides for the creation of the Public Complaints Committee (PCC) to investigate complaints against any person/National Environment Authority (NEMA) regarding the environment.
- The right to a clean environment has been expanded under the draft EMCA (Amendment) Bill 2013 to allow both individuals and special interest groups to go to court to protect their rights. The Environment and Land Court has the responsibility of hearing and determining cases on the environment and natural resources while the Water Appeals Tribunal will solve cases relating to the use of water.

ABOUT PELUM KENYA

Participatory Ecological Land Use Management (PELUM) Association is a network of Civil Society Organizations/NGOs working with small-scale farmers in East, Central and Southern Africa. The organization facilitates learning networking and advocacy on sustainable natural resource management for improved livelihoods. Membership is drawn from Non-Governmental Organizations, Faith Based Organizations, Community Based Organizations and Civil Society's which currently stands at 42 organizations.

PELUM envisions empowered and prosperous communities deriving their livelihoods from sustainable land use. The association endeavors to promote participatory ecological land use and management practices for improved livelihoods among small holder farmers in Kenya through participatory methodologies in ecological land use management and sustainable development. The PELUM Kenya network seeks to:

- 1. Promote participatory ecological land use and management practices in Kenya
- 2. Strengthen the institutional capacity of its network's member organizations
- 3. promote networking, information sharing and dissemination among its member organizations
- 4. Generate and document sustainable developmental experiences integrating existing Indigenous Technical Knowledge (ITK) and disseminate to target beneficiaries
- 5. Advocate and lobby for sustainable practices and favorable policies in favor of small scale farmers.

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