



REPUBLIC OF KENYA



TURKANA COUNTY

ENVIRONMENT POLICY, 2018

Department of Water, Environment and Mineral
Resources

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FOREWORD

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County Executive Committee Member

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ABBREVIATIONS

AIDS	Acquired Immune Deficiency Syndrome
BMU	Beach Management Unit
CEC	County Executive Committee
CFA	Community Forest Association
CIDP	County Integrated Development Plan
CPA	Charcoal Producers Association
DRC	Democratic Republic of Congo
EIA	Environment Impact Assessment
EMCA	Environmental Management and Coordination Act
HIV	Human Immunodeficiency Virus
KFS	Kenya Forest Service
NCCS	National Climate Change Strategy
NEMA	National Environment Management Authority
PES	Payment for Environmental Services
PMC	Pasture Management Committee
PPP	Public Private Partnership
SEA	Strategic Environment Assessment
UNHCR	United Nations High Commissioner for Refugees
WRUA	Water Resource Users Association

1. INTRODUCTION

1.1. Background

Turkana County is a county in the former Rift Valley Province of Kenya. Covering 77,000 square Kilometers, Turkana is the north-western most county in Kenya. The County is bordered by Uganda to the west; South Sudan and Ethiopia, to the north and north-east respectively; and, Lake Turkana to the east. To the south and east, it is bordered by West Pokot, Baringo and Samburu Counties, while Marsabit County is located on the opposite shore of Lake Turkana i.e. the eastern side.

Livestock keeping is the most important livelihood activity in Turkana County. Thus the proper management of water and pastures are key environmental factors.

1.2. History of Turkana County

The Turkana tribe originally came from the Karamojong region in northeastern Uganda. According to Turkana oral traditions, the Turkana tribe purports to have arrived in Kenya while pursuing an unruly bull. The land that the tribe occupied was harsh and very dry and for this reason the tribe was less affected by colonialism because the British saw little value in their land.

Direct influence by colonial forces, in the form of pacification within the then Turkana district began in 1900 and ended in 1918. During 1926 the entire Turkana people were subjugated to a body of the British military that subsequently restricted their movements to an area of Kenya, forcing them to settle in the area now known as the Turkana County.

In 1958 the district experienced a population influx of people classified as belonging to the Turkana people and expelled from the Kenyan settlement in Isiolo town. These people were forcibly relocated to the then Turkana district by persons of the then British colonial administration.

From that point on, the district maintained an all but complete isolation from influences of any other peoples until 1976 when road-blocks set up on entering the district were removed. However, by then, many Turkana people had settled in what are now Isiolo, Lakipia, Samburu and Trans Nzoia counties. These counties still hold a large number of Turkanas. With the discovery of large amounts of minerals, oil and water, Turkana County has seen a large influx of people from all parts of Kenya. The devolved system of government that came into existence after the 2013 general elections has also attracted many Turkana people back to their county.

1.3. Justification and Rationale

The formulation of this Policy is based on the requirement by the Constitution of Kenya; 2010 and the County Governments Act, 2013. Chapter 5 (Land and Environment) of the Constitution of Kenya in Part 2 (Environment and Natural Resources) places an onus on the State (and by extension on the county governments)¹ regarding the sustainable exploitation, utilization, management and conservation of the environment. Chapter 11 of the Constitution further establishes devolved governments (counties) and gives them powers to formulate policies and enact laws.²

The powers and obligations of county governments are further articulated in the County

¹ Refer to Articles 6(2) and 17(c), (d) & (h) of the Constitution of Kenya; 2010 and Part 2 of the fourth Schedule; Clauses 3 and 10 of the Constitution.

² Refer to Article 185(2) of the Constitution.

Governments Act, 2012.³ In addition, the Turkana County Government has produced the County Integrated Development Plan (CIDP), which spells out the aspirations of the county. This policy has taken the CIDP into account in the preparation of this Policy.

There is no doubt that there is a high dependence on natural resources as a source of livelihoods in Turkana County. Therefore, these natural resources substantially contribute to the County's economy and subsequently to the National economy. However, it is impossible to derive optimum benefits from the County's natural resources if the environment is not sustainably conserved. In this regard, it is therefore imperative that the Turkana County government formulates an Environment Policy to inform the Turkana County Environment Regulation and Control Act. This Policy and § 1 resultant Act shall complement and/or supplement the implementation of the Turkana County Natural Resources Management Act.

1.4. The Formulation process

In developing this Policy, the County government employed a consultative, participatory and inclusive approach that involved a large number of discussions and workshops with stakeholders at both the county and sub-county levels. The stakeholders included members of the Turkana County Assembly, county government officials, national government officials and communities including the youth, women and persons with disabilities. These consultations resulted in the following:

- 1.4.1. Identification of the key environmental issues;
- 1.4.2. Analysis of the current situation as regards the identified environmental issues;
- 1.4.3. Proposals for the legal and institutional arrangements to facilitate the sustainable exploitation, utilization, management and conservation of the county's environment; and,
- 1.4.4. Identification of ways to create and optimize the synergy between the county government and local community institutions to enhance participation and collaboration of communities in the sustainable exploitation, utilization, management and conservation of the county's environment.

³ Refer to Section 5 (1) & (2) (a) and Section 8 (1) (b) of the County Governments Act.

2. KEY ISSUES AND CHALLENGES IN ENVIRONMENTAL CONSERVATION IN TURKANA COUNTY

During the public participation process, the County Government of Turkana established that the key environmental issues in Turkana County include solid and liquid waste management, water pollution, air pollution, prevalence of plastics, non rehabilitation of quarrying and mining sites, noise pollution in urban areas, proliferation of advertising billboards, the threat of petrol, diesel and oil spillages from petrol stations built near River Turkwel, soil erosion arising from illegal logging particularly in Loima forest and from overgrazing, and the vibrations from mining activities and oil and gas exploration and exploitation.

A crosscutting issue that also emerged from the process is the inadequacy of the number of staff employed at the sub-county level to implement policies related to the environment. Further, the existing members of staff are unable to adequately conduct their duties as they do not have means of transport to traverse the vast areas of operation.

2.1. Solid Waste Management

Both the urban and rural areas of Turkana County do not have licensed solid waste disposal sites. It is therefore common to find solid waste on the streets and around homes and establishments. There have been efforts to provide makeshift dumpsites in some towns which serve as disposal sites for solid wastes. These sites are however not licensed by the National Environment Management Authority (NEMA).

In a bid to try and manage the disposal of solid wastes, the Turkana County government has provided waste disposal bins in markets located within major towns such as Lodwar and Kakuma. It was however discovered during the public consultations that these bins are not adequate in terms of numbers to manage the populations' needs and they are also not properly maintained by both the County Government and the users, so many of them have been damaged and are therefore not in use. Resultantly, it is very common to find livestock feeding on the waste materials which are potentially hazardous to their health and that of those that consume these livestock.

Further, there exist very few private enterprises that have ventured into the collection and disposal of solid wastes particularly within the major towns and marketplaces such as Lodwar, Kakuma and Kalokol. There are also organizations such as the United Nations High Commissioner for Refugees (UNHCR) that have tried supporting these enterprises' initiatives by donating for instance a garbage collection truck to an environmental youth group operating in Kakuma. These initiative have however been hampered by various reasons; for instance, the unwillingness of community members to pay a minimal amount for the services rendered and the lack of additional support from the County Government and/ or other agencies to facilitate their operations.

As an alternative mitigation measure, some individuals and businesses have resorted to burning solid waste along the road to prevent the piling up of these. This method of disposal however poses other environmental challenges.

In fishing town centers and marketplaces, fishmongers often carelessly dispose of unsold and undersize fish together with the fish entrails in the market areas and along the lake shore. This not only results in the contamination of the environment but is severely unsightly.

2.2. Liquid Waste Management

There is no liquid waste management treatment area in the entire Turkana County. In more ideal situations, individual homes, offices and hotels have their own septic tanks and when these fill up, the liquid waste is transported by trucks to the Kitale liquid waste management facility, more than 300 km away from Lodwar town. In the case of Kakuma sub-county, there exists a makeshift dumpsite that serves as a dumpsite for both solid and liquid wastes but is not licensed by NEMA or the County Government.

Typically, homes and establishments especially in the urban areas have not installed septic tanks and therefore their raw liquid waste is released into the open channels and later drain into water bodies. Further, most urban areas and market centers do not have public restrooms and where they exist they are not properly maintained and thus pose public health risks. There are also very few homesteads in the rural areas with pit latrines.

2.3. Water Pollution

The three main permanent water bodies in Turkana County are Lake Turkana River Turkwell and Kerio River. The consultative process revealed that solid and liquid waste is dumped into these two bodies by the population that lives next to them, in particular, the urban population. Livestock walk into that water bodies particularly River Turkwell to drink water and people too bathe and wash clothes there.

In some urban centers for instance Kakuma, seasonal rivers has been converted into dumpsites and when it rains or the said rivers flood, the garbage is carried downstream, exposing downstream users to disease. Additionally, water springs are not protected and are susceptible to pollution while slaughter-houses do not have proper waste management facilities thus posing the risk of this waste being disposed of into water bodies.

In urban areas particularly Lodwar town, car wash facilities empty their waste water into river Turkwel while very few have soak pits which are however inadequately constructed and quickly fill up and overflow into rivers especially during the rainy season. Additionally, petrol stations in Lodwar town have been constructed near Turkwell River and whenever there is an oil spill, the river gets polluted. A similar risk is likely during the exploitation of oil within the county.

Some communities bury their dead close to the river banks (permanent and seasonal) while carcasses of dead animals are disposed of in seasonal rivers and when these rivers flood, the bodies are carried away; exposing water users to disease.

There is an irrigation scheme at Napuu in Turkana Central Sub-County; and the residents there fear that the agricultural chemicals used at the scheme will end up in the aquifer thus poisoning the water they use for domestic consumption. Further, there is a fear that the use of hydrochloric acid at the scheme may be a health risk to people and livestock.

The consultative process made clear the communities' desire to have their Constitutional right to clean and safe water enforced and an opportunity to participate in the decision making process related to water projects.

2.4. Air Pollution

Air pollution in Turkana County is mostly from motor vehicle emissions, mining and quarrying activities and road construction. Of particular concern is the transporting of building materials in open trucks which results in loose particles flying into the air causing pollution. Once oil mining starts, there exists the fear that gas flaring shall be carried out and the resultant emissions shall pose great environmental risks.

The location of airstrips particularly the one in Kakuma sub-county is of great concern as it is very close to the town and whenever a plane takes off or lands, it generates a lot of dust thus polluting the air.

The burning of garbage particularly plastics is very common in the urban areas of the County and this leads to the emission of unpleasant fumes some of which are potentially toxic. Further, the drying and curing of fish in fishing towns, through traditional methods leads to the release of smoke that causes air pollution.

Finally, slaughter houses release the pollutant methane gas from the animals into the air.

2.5. Prevalence of Plastics

Poor disposal of plastic bags has been noted as a major menace in Turkana County particularly in the urban areas. Plastics in the County are in two main forms: plastic paper bags and plastic bottles. After use, these plastics are discarded carelessly and often blown by the wind to rural areas. The result is that there are plastics everywhere. Not only are these unsightly, but these plastics clog drains and pollute water sources and cause the death of livestock if they feed on them.

2.6. Soil Erosion

Turkana County has got an active quarrying and mining industry. However, after exploitation, the quarrying and mining sites are often not rehabilitated. This not only poses a danger to community members and livestock when the un-rehabilitated sites fill up with water during the rainy season but also leaves the site prone to soil erosion. This situation is further exuberated because there is a reduction of land left for pastures thus posing the risk of overgrazing that also results in soil erosion.

Additionally, illegal logging particularly in Loima forest leads to soil erosion especially during the rainy season.

Incidences of flooding have also been noted as major causes of soil erosion, for example, the irrigation scheme at Napuu often gets flooded during the rainy season. Kakuma has also been noted as a flood prone area particularly during the months of March and April.

2.7. Unregulated Charcoal Production

Due to the heavy commercialization of charcoal trade in Kenya and within the region, there are increased cases of business people coming from as far as Nairobi, Nakuru, Uasin Gishu and Trans Nzoia counties, Uganda and the Democratic Republic of Congo (DRC) to purchase charcoal from the people of Turkana County. The lack of regulation of this trade within the County has resulted in the commodity being sold at very low prices which prices act as a perpetual attraction to charcoal business people who make huge profits from this trade. Resultantly, the demand for charcoal from Turkana County has increased to unsustainable levels prompting local communities to engage in reckless charcoal production practices such as deliberately drying up green trees and using them to produce charcoal. This has led to the destruction of an already fragile ecosystem.

2.8. Noise Pollution

The main sources of noise pollution in Turkana County are places of worship, entertainment centers and promoters of goods and services. These noise polluters use powerful speakers which generate a lot of noise. Further, in areas where the airstrips are located very close to the towns, the landing and taking off of aircraft causes a nuisance to the residents.

2.9. Vibrations from Mining Activities and Oil and Gas Exploration and Exploitation

Vibrations from mining activities and oil and gas exploration and exploitation not only cause a nuisance but also damage the foundation of existing infrastructure and animal habitats. These activities if conducted close to the water bodies could have adverse effects on aquatic life and population.

2.10. Proliferation of Advertising Billboards

Commercial enterprises try to attract the attention of potential customers through advertising. Billboards are very popular in Turkana County. However, the erection of Billboards is not closely monitored and/or supervised. The result is that billboards have been erected in any free space, especially in urban areas. In this way, billboards have become not only an eyesore, but often obstruct the signage of some business premises and even road directions.

2.11. Soil Degradation

The existence of some tree and plant species such as *Prosopis juliflora* that are considered to be invasive by a majority of community members in Turkana County was pointed out as a major emerging environmental issue. These species which are typically drought resistant and were introduced into the county for this reason are now seen as a threat to the existence of other tree and plant species as they are said to be water hungry and nothing else can grow next to them.

The soil in Turkana County is also getting degraded in areas where solid waste is burnt in open areas. Further, there is soil degradation particularly in Lodwar and Kakuma towns from car and motor cycle garages as they have no proper waste oil disposable facilities.

Finally, with offshore oil and gas exploitation likely to take place soon in Turkana County, there is a likelihood of oil spills occurring and this could potentially damage pastures if not managed properly.

2.12. Climate Change and Disasters

Climate change poses significant environmental implications not only in Turkana County but also in Kenya as a nation and as part of the global village. In this regard, the people and environment of Turkana County are increasingly being exposed to the effects of frequent and intensified natural disasters such as floods, reducing levels of the waters of Lake Turkana, and prolonged droughts which continue to undermine the County's sustainable development. Further, pastoralism that is the backbone of the County's economy and culture is now threatened because it has become unreliable because of the increasingly harsh environment that now threatens the existence of the people of Turkana County.

2.13. Cross Cutting Issues

The consultative process disclosed that there is minimal community participation in public hearings related to Environment Impact Assessments (EIAs). There is also very little community awareness on the implications of the failure to take measures to conserve and sustainably manage the environment. Further, there exists very few community groups focusing on the management and conservation of the environment and these are either not properly constituted or organized thus hampering with their environmental conservation efforts.

Secondly, permits and licenses relating to the use of environmental resources are issued without ensuring that all prerequisites are met thus predisposing the environment to potential degradation.

Finally, there is an inadequacy on the number of county staff employed at sub-county levels to implement policies related to the environment. Further, the existing members of staff are unable to adequately conduct their duties as they do not have versatile means of transport to traverse the vast areas of operation.

3. POLICY GOAL, OBJECTIVES AND GUIDING PRINCIPLES

3.1. Overall goal of the Policy

The overall goal of this Policy is to ensure the sustainable management, protection and conservation of the environment in Turkana County for the benefit of the people of Turkana County and its future generations.

3.2. Policy Objectives

The objectives of this Policy are to:

- 3.2.1. Establish a legislative framework for an integrated approach to the management, protection and conservation of the environment in Turkana County;
- 3.2.2. Strengthen the institutional framework for effective coordination in the management, protection and conservation of the environment in Turkana County;
- 3.2.3. Promote and enhance cooperation, collaboration, synergy, partnerships and participation with the private sector, civil society organizations, faith based organizations and community based organizations in the sustainable management, protection and conservation of the environment in Turkana County;
- 3.2.4. Encourage public participation in the management, protection and conservation of the environment in Turkana County;
- 3.2.5. Promote and support the use of innovative environmental management tools – such as incentives, disincentives, total economic valuation, indicators of sustainable development, Strategic Environmental Assessments (SEAs), EIAs, Environmental Audit, and Payment for Environmental Services (PES) in environmental management;
- 3.2.6. Provide for the elimination of processes and activities that are likely to endanger the environment;
- 3.2.7. Provide for the utilization of the environment in Turkana County for the benefit of the people of Turkana County and its future generations; and,
- 3.2.8. Ensure the inclusion of cross-cutting issues such as poverty reduction, gender, disability and HIV/AIDS in the County planning processes.

3.3. Guiding Principles

The environment of Turkana County shall be managed, protected and conserved in a manner that is efficient and sustainable and in accordance with the following principles:

- 3.3.1. **A Right to a Clean and Healthy Environment:** Every person in Turkana County and by extension in Kenya has a right to a clean and healthy environment and a duty to safeguard

and enhance the environment.

- 3.3.2. **A Right to Development:** The right to development will be exercised taking into consideration not only the County's economic social needs but also its environmental needs.
- 3.3.3. **Ecosystem Approach:** An integrated ecosystem approach to conserving environmental resources in Turkana County will be adopted and enhanced to ensure that all ecosystems within the County are managed in an integrated manner while also providing a range of benefits to the people of Turkana.
- 3.3.4. **The Principle of Sustainable Use:** Environmental resources in Turkana County will be utilized in a manner that does not compromise the quality and value of the resource, or decrease the carrying capacity of supporting ecosystems.
- 3.3.5. **Inter- and Intra-generational Equity:** The management of the environment of Turkana County will be based on long term views where present generations in the County make choices that benefit them without compromising the ability of future generations to meet their own needs.
- 3.3.6. **Public Participation and Inclusivity Principle:** A coordinated and participatory approach to environmental protection and management will be enhanced to ensure that the relevant County Government agencies, private sector, civil society and communities are involved in the planning, implementation and decision making processes.
- 3.3.7. **The Principle of Subsidiarity:** The management of the environment of Turkana County will be through decentralization and devolution of authority and responsibilities to the lowest level possible.
- 3.3.8. **The Precautionary Principle:** Where there are credible threats of serious or irreversible damage to key environmental resources in the County, lack of full scientific certainty will not be used as a reason for postponing cost effective measures to prevent environmental degradation.
- 3.3.9. **The Polluter Pays Principle:** The polluter and users of environmental resources shall bear the full environmental and social costs of their activities.
- 3.3.10. **Good Governance:** The principles of rule of law, effective institutions, transparency and accountability, respect for human rights and the meaningful participation of the people of Turkana County will be integrated into the County's environmental management initiatives.

4. SUSTAINABLE MANAGEMENT, PROTECTION AND CONSERVATION OF THE ENVIRONMENT

4.1. Solid Waste Management

The County Government of Turkana shall:

- 4.1.1. Enforce the relevant provisions of the Environmental Management and Coordination Act (EMCA), 1999, Chapter 387 and the Integrated National Waste Management Strategy relating to the disposal of solid wastes;
- 4.1.2. Designate proper dumping sites for the safe disposal of solid wastes in all major towns and market centers within the county;
- 4.1.3. Designate appropriate areas for the safe disposal of fish entrails in towns and market centers where the sale of fish is a major economic activity;
- 4.1.4. Establish mechanisms that facilitate the recycling and up-cycling of solid waste materials; and,
- 4.1.5. Put in place transparent mechanisms that allow for the participation of private firms in the collection and disposal of solid wastes with preference being given to local community groups already providing these services.

4.2. Liquid Waste Management

The County Government of Turkana shall:

- 4.2.1. Enforce the relevant provisions of the Environment Management and Coordination Act (EMCA), 1999, Chapter 387 and the Integrated National Waste Management Strategy relating to the disposal of liquid wastes;
- 4.2.2. Put into place mechanisms that ensure the operationalization of a centralized sewer system that ends up in a licensed liquid waste management facility particularly in the urban areas and major market centers;
- 4.2.3. Designate areas for licensed liquid waste management facilities in all major towns and market centers within the county;
- 4.2.4. Establish mechanisms facilitating the recycling of liquid wastes particularly in the urban areas and major towns;
- 4.2.5. Assist rural communities construct pit latrines within homesteads;
- 4.2.6. Rehabilitate and/or renovate existing public toilets and construct new ones where none exist in town and market centers; and,
- 4.2.7. Oversee the management of public restroom facilities to ensure that they continue operating under the required public health standards.

4.3. Water Quality

The County Government of Turkana shall:

- 4.3.1. Enforce the relevant provisions of the Environment Management and Coordination Act (EMCA), 1999, Chapter 387 relating to the prevention and prohibition of water pollution;
- 4.3.2. Construct appropriate water troughs for watering livestock away from water bodies;
- 4.3.3. Support efforts aimed at protecting and conserving water catchment areas;
- 4.3.4. Embark on licensing car wash facilities to ensure that the required water disposal standards are met and penalties imposed where these are not adhered to;
- 4.3.5. Enforce license requirements for the operation of slaughterhouses to ensure that disposal of wastes is done according to the law and license conditions;
- 4.3.6. Identify and designate official cemetery sites in all major towns and market centers;
- 4.3.7. Establish mechanisms for instance through issuing burial permits to ensure that burials are conducted appropriately;
- 4.3.8. Support the capacity building of water resources users' associations (WRUAs) and involve them in the process of designing and managing water projects;
- 4.3.9. Establish mechanisms that allow for the enforcement of communities' Constitutional right to clean and safe water; and,
- 4.3.10. Coordinate the collection and burial of animal carcasses.

4.4. Air Quality

The County Government of Turkana shall:

- 4.4.1. Enforce the relevant provisions of the Environment Management and Coordination Act (EMCA), 1999, Chapter 387 relating to the prevention and prohibition of air pollution;
- 4.4.2. Enforce the legal stipulations pertaining the sustainable exploration and extraction of oil and gas as provided for in the national legislation regulating the exploration and extraction of oil and gas and in the Environment Management and Coordination Act, 1999 as amended in 2015;
- 4.4.3. Enforce the anti-air-pollution standards set out for the release of methane gas by slaughter houses;
- 4.4.4. Establish mechanisms in collaboration with the Kenya Forest Service (KFS) and in accordance with the relevant provisions of the Forest Conservation and Management Act, 2016 to ensure that a certain level and variety of indigenous tree species are maintained to ensure that these do not go into extinction as they play a vital role in regulating air quality;

- 4.4.5. Establish mechanisms in collaboration with the National Government that ensure that airstrips are situated at least ten km from towns;
- 4.4.6. Enforce the legal requirement that building materials be transported in covered trucks;
- 4.4.7. Where garbage has to be burnt, designate areas away from residences and establishments for the same;
- 4.4.8. Make provision for environmentally friendly technologies to be used for burning wastes; and,
- 4.4.9. Provide environmentally friendly technologies to be used for smoking and drying fish.

4.5. Reduction of the Prevalence of Plastics

The County Government of Turkana shall:

- 4.5.1. Establish mechanisms to encourage the use of bags from biodegradable materials such as from the leaves of the doum palm and leather by placing a tax on plastic bags;
- 4.5.2. Encourage the use of water bottles that can be recycled by placing a tax on plastic bottles; and,
- 4.5.3. Put in place mechanisms to encourage the recycling of plastics particularly through Public Private Partnerships (PPPs).

4.6. Soil Quality

The County Government of Turkana shall:

- 4.6.1. Enforce in collaboration with the national the requirements pertaining to public participation before EIA licenses are given to mining and oil drilling companies;
- 4.6.2. Enforce the condition of site rehabilitation as set out in EIA licenses;
- 4.6.3. Establish mechanisms that facilitate the construction and use of incinerators to disintegrate unrecyclable, hazardous and toxic wastes;
- 4.6.4. Set up mechanisms that permit motor bike and motor vehicle garages to operate only upon being issued with licenses;
- 4.6.5. Enforce the conditions set out in the licenses issued to motor bike and motor vehicle garages regarding the disposal of oil and any other items that pose environmental threats;
- 4.6.6. Put in place a disposal facility for waste oil in urban areas;
- 4.6.7. Establish mechanisms to facilitate the exploration and implementation of alternative beneficial uses of tree and plant species that are considered invasive;
- 4.6.8. Establish mechanisms that encourage and empower community members to engage in tree planting and maintenance initiatives to prevent flash floods;

- 4.6.9. Establish mechanisms in collaboration with (KFS) and in accordance with the relevant provisions of the Forests Conservation and Management Act, 2016 to ensure that a certain level and variety of indigenous tree species are maintained to ensure that these do not go into extinction as they play a vital role in maintaining good soil quality; and,
- 4.6.10. Enforce measures that allow for the regeneration of pastures.

4.7. Regulated Charcoal Production

The County Government of Turkana shall:

- 4.7.1. Enforce the provisions of the Forests (Charcoal) Regulations, 2009 as read together with the relevant sections of the Forest Conservation and Management Act, 2016;
- 4.7.2. Set up mechanisms for facilitating improved coordination between the relevant County Government Departments, the Kenya Forest Service and the affected communities;
- 4.7.3. Establish mechanisms to enforce the use of modern technology in charcoal production to reduce pressure on trees; particularly indigenous species as a source of raw material in charcoal production; and,
- 4.7.4. Establish mechanisms to encourage the use of tree species that are considered invasive such as *Prosopis juliflora* as a charcoal production raw material.

4.8. Noise

The County Government of Turkana shall:

- 4.8.1. Enforce the relevant sections of the Environment Management and Coordination Act, 1999 as amended in 2015; as regards permitted noise levels; and,
- 4.8.2. Set up mechanisms detailing the process of obtaining a license to exceed the recommended noise levels.

4.9. Advertising Billboards

The County Government of Turkana shall:

- 4.9.1. Establish mechanisms that permit it to regulate and monitor the erection of advertising billboards.

4.10. Vibrations from Mining Activities and Oil and Gas Exploration and Exploitation

The County government of Turkana shall:

- 4.10.1. Enforce the relevant sections of the Environment Management and Coordination Act, 1999, Chapter 387 regulating vibration levels.

4.11. Climate Change Mitigation and Disaster Management

The County Government of Turkana shall:

- 4.11.1. Develop and implement a robust Climate Change Adaptation Programme in line with the National Climate Change Strategy (NCCS);
- 4.11.2. Identify and raise awareness amongst the people of Turkana County on the opportunities for adaptation measures through promotion of appropriate technology transfer and capacity building;
- 4.11.3. Develop an integrated and improved County early warning and response system for climate and disaster risks with a clear strategy for dissemination of information at the grassroots; and,
- 4.11.4. Integrate traditional adaptation and early warning mechanisms into the County climate change programmes.

4.12. Mainstreaming the Environment

The County Government of Turkana shall:

- 4.12.1. Establish mechanisms that support public participation particularly the participation of the Turkana council of elders, women and youth groups engaged in environmental management and conservation to participate in public hearings connected to EIA studies in accordance with the relevant provisions of EMCA and the Turkana County Government Public Participation Act, 2015;
- 4.12.2. Establish mechanisms to systemize community capacity building on the need for sustainable environmental conservation;
- 4.12.3. Establish mechanisms to support the formation and operations of community environment management groups;
- 4.12.4. Enforce the mechanisms put in place for compensating communities who are displaced or disturbed by commercial exploitation of environment resources;
- 4.12.5. Put in place procedures for monitoring adherence to conditions related to environmental resources as set out in licenses and penalties meted out to those who do not follow the law;
- 4.12.6. Employ adequate staff particularly at the sub-county and ward levels to implement environment related policies;
- 4.12.7. Facilitate the movement of its staff especially those operating in vast areas; and,
- 4.12.8. Mainstream the fight against HIV/AIDS in the environmental protection programmes, projects and activities within the County.

5. LEGAL AND INSTITUTIONAL FRAMEWORK

5.1. Institutional Arrangements

The County Government of Turkana shall oversee the establishment of a County Environment Committee as provided for in EMCA to be responsible for the proper management of the environment within Turkana County. The County Government shall further oversee the operations of the said committee to ensure that it adequately meets its mandate as per the relevant provisions of EMCA.

The County Government of Turkana shall also provide resources to support environmental management and conservation institutions operating at the sub-county and ward levels that include local communities and other stakeholders. This support shall be through strengthening of their capacities to enable them to engage better with National and County Government institutions. These groups shall include Environment and Sanitation groups, Pasture Management Committees (PMC), Water Management Committees, Community Forest Associations (CFA), Charcoal Producers' Associations (CPAs), Water Resources Users' Associations (WRUAs), Fishers Associations, Beach Management Units (BMUs), Sand Harvesters' Associations and cultural institutions.

Finally, the County government shall strengthen the existing institutional framework to implement sustainable management and conservation efforts within Turkana County. The Turkana County Environment Regulation and Control Act shall provide for penalties and incentives as regards the sustainable management and conservation of the County's environment.

5.2. Funding Mechanisms

The sustainable management and conservation of the environment of Turkana County requires the availability of long term funding. This funding shall come from various sources such as the County Government and investment from persons who wish to benefit from the provision of services related to environmental resources.

The County Government of Turkana commits to:

- 5.2.1. Provide adequate funds for the sustainable management and conservation of the environment in the County through annual budgetary allocations. This shall include the budgeting for salaries and operational costs of the departments in charge of environmental management and conservation; and
- 5.2.2. Mobilize funds through licenses, fees, levies and permits issued in relation to sustainable management and conservation of the environment.

5.3. Public Consultation and Stakeholder Involvement

The Fourth Schedule of the Constitution in Part 2 (14) requires county governments to ensure that local communities participate in governance at the local level. Further, Article 69 (1) (d) requires the State to encourage public participation in the management, protection and conservation of the environment. In this regard, the County Government shall provide resources to enable local communities to be consulted and participate in decision-making processes that impact on the environment in the county.

6. EFFECTIVE DATE

This policy will come into force on a date appointed by the County Executive Committee Member for the time being responsible for the Environment, Turkana County.

DEFINITION OF KEY TERMS

“Community” refers to a clearly defined group of users, which may, but need not be, a clan or ethnic community. These groups of users hold a set of clearly defined rights and obligations;

“Conservation” means the protection, maintenance, rehabilitation, restoration and enhancement of the environment;

“Ecosystem” means a dynamic complex of plant, animal, micro-organism communities and their non-living environment interacting as a functional unit;

“Environmental Impact Assessment” means a systematic examination conducted to determine whether or not a programme, activity or project will have any adverse impacts on the environment;

“Land use” means activities carried out on a given piece of land;

“invasive species” means a non-indigenous organism which could be an animal or a plant translocated to a place outside its natural distribution range in nature and which dominates other indigenous species or takes over the habitat;

“Stakeholder” refers to an individual or group having a vested interest in environment and natural resources; and,

“Sustainable use” means present use of natural resources, which does not compromise the ability to use the same by future generations or degrade the carrying capacity of ecosystems and habitats.