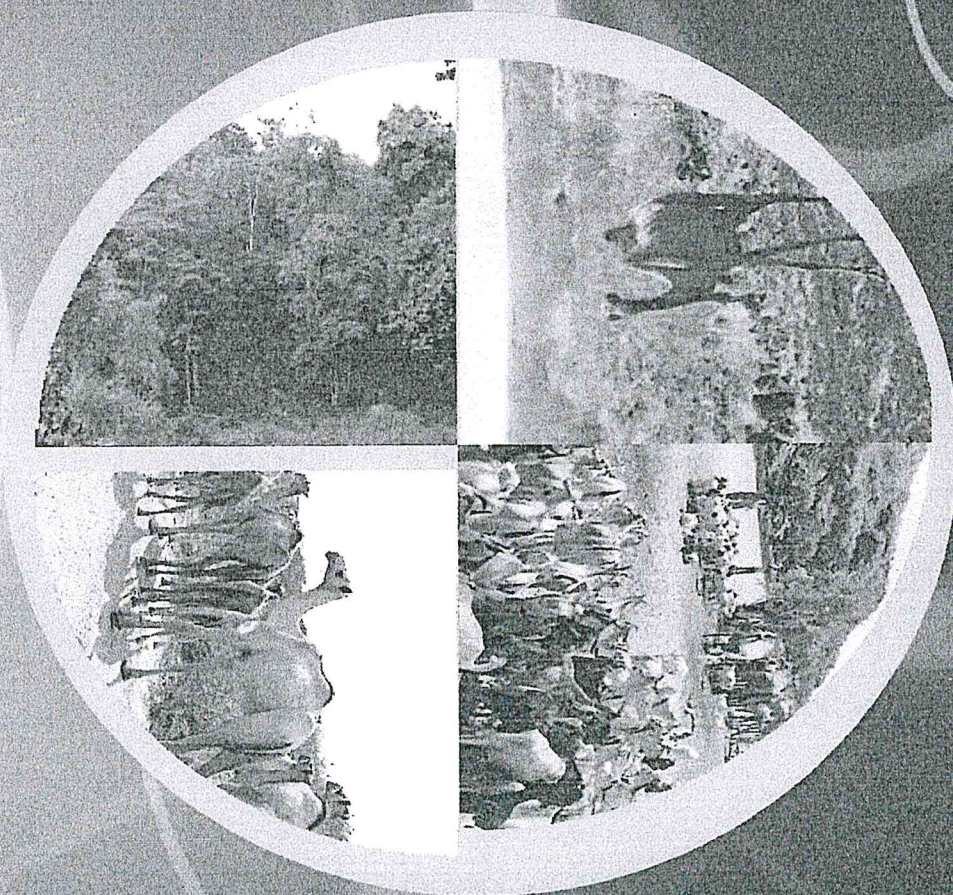


THE COUNTY GOVERNMENT OF MANDERA

DEPARTMENT OF ENERGY, ENVIRONMENT,
NATURAL RESOURCES AND CLIMATE CHANGE

Mandera County Climate Change Adaptation Policy



FOREWORD

Mandera County is one of the 47 counties in Kenya that was established in March 2013 following the promulgation of the Constitution of Kenya, 2010. It measures about 25,991 km² and is located at the extreme end of North Eastern Kenya, bordering Somalia and Ethiopia. According to the Kenya census 2019, the county had an estimated population of 867,457 persons with 125,763 households and a density of 33 persons per km².

The main economic activity in Mandera County is pastoralism, contributing approximately to 72% of the total household income. Cross-border trade, artisanal mining, bee-keeping and irrigation-aided agriculture are the other viable ventures. Bee-keeping is gaining popularity in most parts of the county, while irrigated subsistence agriculture is practiced along the Daua River. The common breeds of livestock reared in this county are goats, cattle, camels, sheep, donkeys and chickens.

Majority of county residents rely on climate-sensitive sectors of the economy to earn a living namely agriculture, livestock, water forest and wildlife. Over the years, erratic rains have reduced the locals' capacity for planning either as pastoralists or even agro-pastoralists. Rangeland degradation is yet another persistent problem. Dwindling rangeland resources has increased the risk of climate extremes, resource conflicts and food insecurity for a vast majority of county residents.

The Mandera County Climate Change Adaptation Policy is a key milestone in addressing county residents' vulnerability to climate change. This Policy was guided by inputs from relevant departments within county and national government, civil society organizations and representatives of community leaders. It is my hope that all these actors will support the county government in implementing policy proposals therein.

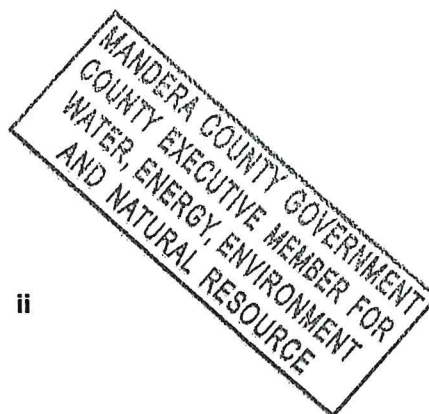
Indeed, the County Government of Mandera through the Department of Water, Energy, Environment, Natural Resources and climate change is committed to strengthening sector governance of climate change, promoting inter-sectoral coordination regarding the implementation of climate change adaptation priorities in the county and mobilizing resources necessary for the realization of the objectives of this policy.

Eng. M.A. OMAR

County Executive Committee Member

Water, Energy, Environment, Natural Resources and climate change

Mandera County



ACKNOWLEDGMENT

The County Government of Mandera wishes to express its sincere gratitude to all the people and organizations that have contributed to the development of this policy. Indeed, this policy was developed through intensive consultative processes that involved relevant county and national and government departments, private sector, and members of the civil society.

Special thanks to Eng. M.A. Omar (CEC- Water, Energy, Environment, Natural Resources and Climate change) for the overall coordination during the policy development not forgetting Mr. Siyad Mohamed Ali (Deputy Director- Environment, Energy, Natural Resources and climate change) for his operational support to the process. Much appreciation goes to the Technical Working Group (TWG) for steering the policy development process. Among other members of the TWG, we wish to acknowledge contributions from the Department of Environment, Energy, Natural Resources and Climate change ; Department of Agriculture, Livestock and Fisheries, Kenya Meteorological Department, Kenya Forest Service, Kenya Wildlife Service, Concern Worldwide, World Vision, Livestock Market Systems Activity, National Drought Management Authority (NDMA), GIZ, Netherlands Development Organization (SNV) and RACIDA.

We immensely express much gratitude to each and every one that contributed to the successful production and adoption of this policy but, for one reason or another, has not been acknowledged here.

The department of Environment, Energy, Natural Resources and climate change is committed to supporting the implementation of this policy and hereby invite all partners and stakeholders to support the county in this worthy cause.

I look forward to seeing a prosperous and climate resilient county.

Mr. Abdullahi Maalim Alio
County Chief Officer
Environment, Energy, Natural Resources and Climate change

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LIST OF ACRONYMS AND ABBREVIATIONS

| | |
|--------|--|
| ADR | Alternative Dispute Resolution |
| AU | African Union |
| ADP | Annual Development Plans |
| ASAL | Arid and Semi-Arid Lands |
| CSA | Climate-Smart Agriculture |
| CIDP | County Integrated Development Plan |
| CIMES | County Integrated Monitoring and Evaluation System |
| CPPS | Country Programming Papers |
| CSP | County Spatial Plan |
| LPG | Liquefied Petroleum Gas |
| LULC | Land Use Land Cover |
| EAC | Intergovernmental Authority on Development |
| EMCA | Environmental Coordination and Management Act |
| EDE | Ending Drought Emergencies |
| FAO | Food and Agriculture Organization of the United Nations |
| GHG | Greenhouse Gas |
| GMP | Grazing Management Plan |
| IDDRSI | IGADDrought Disaster Resilience and Sustainability |
| IGAD | Intergovernmental Authority on Development |
| M&E | Monitoring and Evaluation |
| MED | Monitoring and Evaluation Department |
| MTP | Medium Term Plan |
| NCCAP | National Climate Change Action Plan |
| NCCRS | National Climate Change Response Strategy |
| NIMES | National Integrated Monitoring and Evaluation System PPP |
| | Public-Private Partnerships |
| PES | Payment for Environmental Services |
| PPR | <i>peste des petits ruminants</i> |
| RVF | Rift Valley Fever |
| SDG | Sustainable Development Goals |
| UNCCD | United Nations Convention to Combat Desertification |
| UNEP | United Nation's Environment Programme |
| UNFCCC | United Nations Framework Convention on Climate Change |

CHAPTER ONE

1.0 INTRODUCTION AND BACKGROUND

1.1 Administration and Geography

Mandera County is located in the North Eastern part of Kenya. It borders Ethiopia to the North, Somalia to the East and Wajir County to the South-West. The county lies between latitudes 20 11' North, and 40 17' North, and longitudes 39 47' East and 41 4.8' East. It covers an area of 25,991.5km².

Mandera County is characterised by low-lying rocky hills resting on the plains that rise gradually from 400m above sea level in the south at Elwak, to 970m above sea level on the border with Ethiopia. The rest of the topography is low-lying, characterised by dense vegetation with thorny shrubs of savannah type. This is especially found along the foots of isolated hills, covered by bushes, shrubs, boulders and the invasive *prosopis juliflora* (*mathenge*) shrubs. The flat plains make drainage very poor, causing flash floods during heavy rains. There are no lakes, swamps or dams, but earth pans are a common feature in the county.

Daua River, whose source is the Ethiopian highlands, flows eastwards along the county's boundary with Ethiopia, covering 150km along the border and passes through Malkamari, Rhamu Dimtu, Rhamu, Libehia, Khalalio and Township wards into Somalia at Border Point One (BP1). The Daua River basin spans an area of about 60,106km² and bestrides on the three countries of Kenya, Ethiopia and Somalia. About 9,119km² of the basin area lies in Mandera County. Geographically, the catchment extends between 41.8840 – 38.4650 East and 3.9970 – 6.4560 North from the border to the origin of the catchment in south-eastern Ethiopian highlands

Ecological Conditions

Table 1: County's Ecological Zones

| County Sub-Region Zone | Suitable Enterprises | |
|------------------------|----------------------|--|
| Mandera East | LM (IV- VI) | Livestock keeping, irrigated agriculture along River Daua and drought tolerant crops |
| Mandera North | LM (IV- VI) | Livestock keeping, irrigated agriculture along River Daua and drought tolerant crops |
| Mandera West | LM (IV- VI) | Livestock keeping and drought tolerant crops |
| Mandera South | LM (IV-VI) | Livestock keeping and drought tolerant crops |
| Banisa | LM (IV- VI) | Livestock keeping, irrigated agriculture along River Daua and drought tolerant crops. Bee keeping is also gaining popularity |
| Lafey | LM (V- VI) | Livestock keeping, irrigated agriculture along River Daua and drought tolerant crops |
| Kutullo | LM(IV-VI) | Livestock keeping and drought tolerant crops |

There are two ecological zones in the county namely, arid and semi-arid. Up to 95% of the county is semi-arid with dense vegetation consisting mainly of thorny shrubs and mathenge bushes along foots of isolated hills and fallow land. Mandera East, Mandera North, Mandera West, Mandera South and Banisa Constituencies are classified under ecological zones LM (IV-VI), while Lafey Constituency is classified under zone LM (V-VI) as tabulated above.

Climatic Conditions

Temperatures are high with a minimum of 24°C in July and a maximum of 42°C in February. Variation in altitude is the cause of differences in temperatures across the county, where places near Banisa Constituency experience low temperatures due to neighbouring highlands in Ethiopia. Rainfall is scanty and unpredictable, averaging 191.7mm annually. The long rains fall in April and May averaging 69.1mm, while the short rains fall in October and November averaging 122mm. Most parts of the county experience long hours (approximately 11 hours) of sunshine in a day. This causes high evaporation rates, leading to withering of most of the vegetation before they mature. The continuous sunshine in the county has great potential for harnessing solar energy.

1.2 Population, Gender dynamics and Urbanization

According to the Kenya census 2019, the county had an estimated population of 867,457 persons with 125,763 households and a density of 33 persons per km².

Mandera East that hosts the county headquarters in Mandera Town is the most densely populated constituency with 87 persons per square kilometre. This is projected to rise to 98 and 106 persons per square kilometer in the year 2021 and 2022 respectively, as a result of rural-urban migration, as locals seek greener pastures. Mandera North is the least densely populated constituency with 42 persons per square kilometre, but which is projected to be 47 and 51 persons per square kilometres in the year 2020 and 2022 respectively. Population distribution in the county affects infrastructure development and provision of social amenities.

Mandera Town is the most densely populated urban area of the county, while Takaba is the least populated. The town is the oldest and main urban section of the county and its high population is attributed to its residents' engagement in different economic activities. The town has small-scale traders; retailers, artisans, hoteliers, grocers and even cross-border traders

CHAPTER TWO

20 SITUATIONAL ANALYSIS

21 *Evidence of Climate Change in Mandera*

Kenya's Arid and Semi-Arid Lands (ASALs) cover 89 percent of the country, endowed with vast amounts of natural resources, host roughly 36 percent of Kenya's population, 70 percent of the national livestock herd and 90 percent of the wild game that Kenya's tourism sector is renowned for. Yet, the ASALs continue to record the lowest development indicators. The striking features of these arid and semi-arid lands and the pastoral communities living there are the many years of political neglect and marginalization resulting in extreme poverty. Climate change is making a bad situation worse. However, the ASALs have enormous untapped resources that can be harnessed to sustain resident communities and contribute to local and national development.

Analysis of temperature trends in the county over 25 years (1980 to 2005) showed that both first and second season temperatures have increased moderately over the years (approximately 0.5°C and 0.25°C, respectively). Analysis of rainfall over 35 years (1980-2015) showed a decrease in average first season rainfall by about 30mm and a similar increase in second season rainfall. The increase in second season rainfall has been accompanied by an increase in the length of the growing season and a decrease in the number of heat stress days. However, the second season rainfall variability from year to year has also increased and there are still constant high levels of drought risk. On the other hand, the decrease in first season rainfall combined with the increase in temperatures has resulted in decreased season length, an increase in heat stress days and a moderate increase in drought risk. Despite some differences in the changes in rainfall between the two seasons, rainfall in both seasons has become increasingly erratic and unreliable, posing a significant threat to crop and livestock production as well as overall economic development of the county.

Moreover, future (2021-2065) projections based on two representative greenhouse gas (GHG) concentration pathways—RCP2.6 (emissions peaking between 2010 and 2020 and then declining) and RCP8.5 (emissions continuing to rise throughout the 21st Century)—show continued increase in temperatures in both seasons and increase in the number of consecutive dry days, albeit with some differences between them. In other words, the two scenarios generally show similar trends and point to increasing climate risks to crop and livestock production in Mandera County.

A continually degrading local environment and natural resources (e.g., unregulated groundwater abstraction as well as massive deforestation rates for charcoal, firewood, building, and construction) have added to the historical political and economic marginalization to compound climate change impacts. A trend analysis of Land Use Land Cover (LULC) mapping by the Food and Agriculture Organization of the United Nations (FAO) in Mandera indeed points to a changing local ecosystem and climate. In 1979, for instance, shrub land covered an estimated area of 4,076,584.71 Ha followed by grassland at 2,839,840.64 Ha cropland covering an estimated area of 11,469.19 ha with the least dominant LULC type then being a settlement which covered an estimated area of 44.51 Ha.

Major changes were recorded in Mandera between 1979 and 2014 across nearly all LULC types, with a total of 380,001.52 Ha immersed bare land over the 35 years. It is noteworthy to mention that a huge fraction of this change (90.33 percent; 343,260.82 Ha) was gained during the 2010 and 2014 window. Conversely, grassland registered the highest losses within the same period. Again, most (394,867.73 Ha) of this loss occurred between the 2010 and 2014 period. It will be remembered that Kenya has experienced successive drought episodes beginning late 2009 through 2017, only varying in intensity.

Drought is a frequent visitor to Mandera (specifically) and Northern Kenya in general. Owing to climate change, drought episodes have increased in frequency and intensity. The drought cycle in Kenya dates back to more than three decades ago in 1975, followed by another episode in 1980 and 1984 (locally termed as the drought of the yellow maize). In 1991/92, 1.5 million people were affected by drought, mostly in Northern Kenya, followed by another episode in 1995/96 and in 1999/2000 that affected close to 4.4 million Kenyans. In 2004, 3 million people were in dire need of food assistance owing to the severe drought that extended through 2005. Drought episodes were also recorded in 2008 and late 2009 while in 2010, 10 million people were affected following which Kenyans came together in 2011 to raise funds through the Kenya Red Cross Society to help at least 3.5 million people affected by drought. In 2016 and continuing into 2017, Kenya experienced yet another drought episode, with over 3 million people affected.

The aforementioned LULC mapping by FAO also flagged out the continuous decline of water body class between 1979 and 2014. During the 1979 season, the water body occupied 515,154.36 Ha however as of 2014, this had shrunk to 500,636.86 Ha resulting in a total loss of 14,516.67 Ha which equals an annual average loss of 414.79 Ha. Indeed, this alarming rate of loss should concern policymakers being that water is such an important unit of the ecosystem, if not the most precious commodity in the ASALs (including Mandera). This loss is partly attributed to rising surface temperatures and increasing drought episodes in Mandera.

Overall, major environmental “changes” identified in Mandera are almost entirely linked to a changing climate. The United Nation's Environment Programme (UNEP) projects an increase in the frequency and intensity of climate extremes (droughts and floods in the case of Mandera) owing to rising global temperatures and other anthropogenic factors, including population pressure, land use change and the continued destruction of forests, grasslands, wetlands and other critical ecosystems.

Animal husbandry: Pastoralism remains the dominant mode of livestock production system in Mandera. Mobility means that pastoralism is inherently adaptive to climate change. However, recurrent droughts and the resultant rangeland degradation has seen most pastoralists shift to epicyclic translocation, moving anywhere to places with adequate pasture and water) as opposed to the otherwise organized transhumance. This contributes to the escalation of resource conflicts and reduced livestock productivity. Climate change impacts has also been linked to emerging and re-emerging livestock diseases, such as Rift Valley Fever (RVF), peste des petits ruminants (PPR), bluetongue, Trypanosomiasis, sudden camel death syndrome, and enterotoxaemia. Others are anthrax, foot and mouth, East Coast Fever, goat pox, respiratory diseases in sheep and goats and some skin diseases or infections such as Besnoitiosis, Bovine Farcy and Myiasis. As a result of climate change consequences, increase in temperatures is creating conditions that suit and sustain the spread of animal pests like ticks and Tsetse flies.

Further, there are also indications that breeding in sheep and goats has halved to just once in a year instead of the previous two times. The cumulative impact of these climate change challenges on the livestock sector – diminished water and pasture, increased resource conflicts, and increased pests and diseases – is reduced productivity and production with associated socioeconomic impacts (loss of livelihoods and income and further deprivation). Some households, for instance, lose up to 50 percent of their herds during a drought.

Crop farming: Mandera County is ecologically diverse, with rain-fed crop farming practiced along river Daua in Mandera East, Mandera North and Lafey Sub counties. However, climate change principally reduced rainfall and increased temperatures leading to unsustainable agricultural practices and incompatible land use have all contributed to successive crop failure. Increased rates of runoff, soil erosion, crop destruction by wildlife, locust invasion, limited inputs as well as pests and diseases (some such as spider mites, nematodes, *Tuta absoluta* species and the maize lethal necrotic virus (MLNV) linked to climate change) also magnify crop losses. Farmers observe that there is a remarkable reduction in crop productivity and production. For instance, in 1982, the Mandera region had surplus maize production that was even exported to Malawi as relief food. Currently, the county is food insecure and a large proportion of the population depends on relief food. It is projected that declining crop production will further impact negatively on the already food insecure communities in the county.

Fisheries; There is increase of fish and fish products in the county since the onset of devolution. In addition, the county enabled the formulation of animal feeds at the GOK farm. The County Government ensured the production of a variety of fish species in Daua River. It has enhanced productivity in the fishing industry by distributing fishing gear like lines and hooks, cooler boxes, as well as fishing nets

Water and sanitation: The main water resources in the county are Daua River, ponds, streams, earth pans, equipped boreholes, protected dug wells and unprotected dug wells. The quality of the water from these resources is poor and residents are advised to treat the commodity before using. In areas far away from the Daua River basin, groundwater is tapped from deep aquifers by drilling boreholes (175-350m below the surface). Poor distribution in the occurrence of groundwater is a key challenge, which is being addressed through the ongoing ground water assessment and countywide aquifer mapping study currently being undertaken by Mandera County Government.

Rangemanagement: There are no known ranches in the county, though there is potential that needs to be exploited by initiating ranches/ranching in the form of group ranches or individual ranches through proper paddock and rotational grazing system

23 *Policy and Legal Frameworks Governing Climate Change*

Since 2003 the Government of Kenya has demonstrated a renewed commitment to the ASAL regions, for example, through the Economic Recovery Strategy launched in 2003, which, for the first time, recognized ‘the important contribution the ASALs can make to national development’. The Government of Kenya is committed to putting in place a holistic policy framework that facilitates and fast-tracks sustainable development of the region, reducing levels of inequality concerning the rest of Kenya and realising its potential for the benefit of affected counties and the country as a whole.

The 2010-2011 drought was one of the most severe humanitarian disasters of recent years and had a significant negative impact on the region’s livelihoods and its people. In what amounted to a political sea change, the Heads of State and Government of Intergovernmental Authority on Development (IGAD) and East African Community (EAC) member states and international development partners convened a Summit in Nairobi on September 2011 to discuss the drought crisis. Following the Nairobi Summit Decision to embark on the initiative to end drought emergencies in the Horn of Africa, IGAD member states and their development partners were urged to put in place coordinated long-term policies, programs, and interventions aimed at addressing food security and building drought resilience on a sustainable basis. As a result, the IGAD Secretariat led a consultative, participatory process involving member states, development partners and non-state actors to prepare the IGAD Drought Disaster Resilience and Sustainability (IDDRSI) Strategy. IGAD Member States, Kenya included, developed Country Programming Papers (CPPs) for the Ending Drought Emergencies (EDE) interventions to be undertaken at the national level, from which the County Governments can now draw on for their drought resilience initiatives.

Kenya has assented to several international and regional instruments governing diverse aspects of climate change, currently implemented with varying degrees of success. The United Nations Convention to Combat Desertification (UNCCD) promotes sustainable management and utilisation of drylands while the United Nations Framework Convention on Climate Change (UNFCCC) seeks to address climate change through periodic and successive binding global agreements (presently the Paris Agreement) that detail, among others, adaption measures to respond to both current and future impacts of climate change. Further, the Sustainable Development Goals (SDGs) are a set of development goals that aim at fostering sustainable development across diverse sectors. Of particular interest to rangelands are SDGs 15 (Life on Land) and 13 (Climate Action). The Sendai Framework for Disaster Risk Reduction (2015-2030) seeks a reduction in disaster risk and losses in lives and livelihoods while the African Union (AU) Policy Framework for Pastoralism in Africa aims to secure, protect and improve the lives, livelihoods, and rights of African pastoralists. Closer home, the EAC Climate Change Policy guides Partner States on the preparation and implementation of collective measures to address climate change in the region.

The Constitution of Kenya (2010) asserts the aspiration of all Kenyans for a governance based on the essential values of, among others, human rights, equality, and social justice. These aspirations particularly resonate with pastoralists in Mandera and other ASAL counties who have endured socio-economic marginalization. It creates an Equalization Fund to right the wrongs of such marginalization. These provisions are buttressed by objects of devolution which include, among others, to protect the marginalized, including pastoralists and to ensure equitable sharing of national resources throughout Kenya. Most importantly, the Constitution creates a two-tier system of governance where, among others, counties are tasked with the implementation of crop and livestock production, water and sanitation services, disaster management (concurrent function) as well as soil and water conservation; all of which contribute to climate change adaptation.

The National Land Policy (2009) provides for guiding principles that resonate with sustainable rangeland management including, among others, equitable access to land; conservation of ecologically sensitive areas, elimination of gender discrimination in land relations; and encouragement of traditional dispute resolution mechanisms. To secure community rights to land, the Policy mandates the Government to enact legislation which shall inter alia, provide a framework for the recognition and registration of community rights to land and resources found thereon. Pending which, any unregistered community land shall be held in trust by the County governments in trust for the community in question.

The Kenya Vision 2030 recognizes the ASALs as an integral part of the national economy that have specific disadvantages borne out of historical marginalization and which therefore require special attention. It roots for inclusive development and recognizes the contribution of pastoralism to the national economy. Vision 2030's Second medium-term plan (MTP II) 2013-2017 recognizes that Kenya is susceptible to natural disasters such as drought and flooding which are likely to increase because of climate change. It thus prioritized the management of climate-induced disasters by strengthening people's resilience to drought and improving the monitoring of, and response to emerging drought conditions through the Ending Drought Emergencies (EDE) program.

The National Policy for the Sustainable Development of Northern Kenya and Other Arid Lands (2012) seeks to strengthen climate resilience of communities in the ASALs and ensure sustainable livelihoods, recognizes the importance and need to strengthen customary natural resource management, recommends appropriate mechanisms to support pastoralism as a viable livelihood system and eradicate invasive species such as *Prosopis juliflora* (*mathenge*) that are increasingly posing a threat to rangelands.

The National Climate Change Response Strategy (NCCRS, 2010) laid the foundation for strengthening nationwide actions towards climate change adaptation and mitigation of greenhouse gas (GHG) emissions. The National Climate Change Action Plan (2013-2017) sets plans for the implementation of the NCCRS, including prioritized actions needed to achieve a low carbon and climate-resilient development. The 2016 Climate Change Act provides the regulatory mechanisms to implement climate change resilience and low-carbon actions in both public and private sector development activities and has enshrined the National Climate Change Action Plan (NCCAP) – to be developed in 5-year cycles and aligned with the MTPs – as its principal implementation instrument. It requires County governments to integrate the provisions of the Act. The National Adaptation Plan (2015-2030) aims to integrate climate change into national and county level development planning and budgeting, as well as enhance the resilience of vulnerable populations to climate shocks through adaptation and DRR.

The County Government Act (2012) mandates counties to develop a County Integrated Development Plan (CIDP), County Spatial Plan (CSP) as well as Cities and Urban Areas Plan which shall be the basis for county budgeting and expenditures. The 2016 Community Land Act sets a framework for ownership, protection, management, utilization, rights, benefits sharing, disputes resolutions, and penalties regarding community land. Furthermore, communities have powers to set rules for administration and management of communal land, establish measures to protect critical ecosystems and habitats, and facilitate access, public participation and co-management of resources by communities. The 2011 Environment and Land Court Act 2011 mandates the court to mainstream Alternative Dispute Resolution (ADR) in its proceedings.

The Environmental Coordination and Management (EMCA Amendment) Act of 1999 (amended in 2015 to incorporate devolution) creates the County Environment Committee comprising, inter alia, representatives of pastoralists within the county in question. The Water Act, 2016 provides for, inter alia, the regulation, management, and development of water resources and services throughout the country. The Water Services Trust Fund shall provide grants to counties (in addition to the Equalization Fund) to extend water services in marginalized areas or those considered to be underserved or not to be commercially viable. Representation of pastoralists on the Basin Water Resources Committee is also a requirement. The Wildlife Conservation and Management Act, 2013 calls for devolution of wildlife conservation and management, wherever possible, to landowners where wildlife occurs while recognizing the rights of communities living adjacent to protected areas.

The National Environment Policy (2013) aims to a better quality of life for present and future generations (of all Kenyans) through sustainable management and use of the country's environment and natural resources. Its provisions most relevant to ASALs and rangelands are to be found in several sections such as forest ecosystems (develop and implement a national strategy for rehabilitation and restoration of degraded forest ecosystems and water catchment areas with active community involvement/participation), ASALs (promote integrated natural resource management in ASALs, implement the National Action Plan to combat desertification and revitalize the Desertification Trust Fund and mainstream dryland issues into all national development plans and policies) and land (ensure implementation of the Constitutional and the National Land Policy provisions on land, promote land restoration). Others are biodiversity and wildlife resources (involve community participation in conservation activities) and livestock (develop and implement an environment-friendly livestock production policy that takes cognizance of livestock mobility and communal management of natural resources

The Mandera County Climate Change Action Plan (2018-2022) identifies the most vulnerable sectors negatively impacted by climate change in the county to, among others, agriculture, forestry, water resources, health, energy, rangelands, tourism, social infrastructure, human settlement, and physical infrastructure. The plan has therefore proposed sector-specific adaptation needs, action plans, key implementing partners and indicative budget. Among others, the plan recommends the following adaptation actions: promoting climate-smart agriculture, livelihood diversifications, and water catchment protection, building the resilience of at-risk communities, rangeland rehabilitation, and stakeholders' awareness on climate change and mainstreaming adaptation actions across all county departments.

CHAPTER THREE

30 GOALS, OBJECTIVES AND GUIDING PRINCIPLES

31 Goals and Objectives

Goal: To enhance adaptive capacity and build resilience to climate change.

Objective: To reduce vulnerability to the impacts of climate change by building adaptive capacity, enhancing climate change resilience and strengthening capacities for disaster risk reduction.

Specific Objectives

- a) To provide a framework for mainstreaming climate change adaptation in county planning, budgeting, decision-making, and implementation.
- b) To promote county-level climate change capacity building efforts through inter alia education and training; public awareness; research and development; technology development and transfer; and information and knowledge management.
- c) To facilitate public awareness of climate change issues in the county and build their response effort.
- d) To provide a framework for mobilizing resources for climate change response while ensuring effective utilization of the resources.
- e) To enhance sustainable utilization and management of natural resources.
- f) To mainstream gender in climate change adaptation and mitigation.
- g) To develop a dynamic monitoring and evaluation (M&E) system through which the county will track the implementation of this Policy.
- h) To establish a robust institutional framework for climate change mainstreaming and policy implementation.

32 Guiding principles

- a) Right to a clean and healthy environment: under the 2010 Constitution every person in Kenya has a right to a clean and healthy environment and a duty to safeguard and enhance the environment.
- b) Partnership: building partnerships, collaboration, and synergies among various stakeholders from the public, government, non-governmental organizations, civil society, and private sector, as well as vulnerable communities and populations including women and youth, will be prioritized to achieve effective implementation of this Policy.

- c) Corporate governance; embracing a system of consultation, negotiation, and consensus-building in government administration between and within the national and county governments.
- d) Equity and social inclusion: ensuring a fair and equitable allocation of effort and cost, as well as ploughing back of benefits in the context of the need to address disproportionate vulnerabilities, responsibilities, capabilities, disparities, and inter- and intra-generational equity.
- e) Special needs and circumstances: the special needs and circumstances of people and geographic areas that are particularly vulnerable to the adverse effects of climate change will be prioritized. This includes, but is not limited to, vulnerable groups such as women, children, the elderly and persons with disabilities.
- f) Avoiding maladaptation: the climate change response will be conducted in such a way as to avoid maladaptation, defined by the UNFCCC as any changes in natural or human systems that inadvertently increase vulnerability to climatic stimuli.
- g) Integrity and transparency: the mobilization and utilization of financial resources shall be undertaken with integrity and transparency to eliminate corruption and achieve optimal results in climate change responses.
- h) Cost-effectiveness: the selection of climate change interventions will take into account available alternatives to identify appropriate choices that provide the most benefit to society at least cost.
- i) Sustainable Resource Use: Environmental resources 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.
- j) Alignment with county and national priorities: Implementation of the policy will be aligned with other county and national development priorities including gender considerations, poverty alleviation efforts, job creation, and human resource development to avoid duplication of efforts and to enhance efficiency in resource utilization.
- k) Best available technology (BAT) and best environmental practice (BEP): that maximizes climate change opportunities and minimizes risks/losses as well as contributes to avoiding maladaptation.

CHAPTER FOUR

40 POLICY PROPOSALS

41 *Mainstreaming Climate Change*

Mandera County is extremely susceptible to the impacts of climate change. Climate change affects fundamental economic, social and environmental sectors of the county. Besides, emerging evidence consistently links climate change, rural-urban migration, and urban decline. Therefore, effective cross-sectoral climate change response ought to prioritize mainstreaming efforts. Mandera CIDP explicitly links climate change response to sustainable development. However, mainstreaming in this sense requires cross-sectoral policy integration that operates both horizontally, by providing an overarching guide for all sectors; and vertically, by requiring all levels of government to implement climate change responses in their core functions. Currently, this policy guidance is lacking.

The County government shall;

- ❖ Mainstream climate change adaptation options across all climate-sensitive sectors including, but not limited to, livestock production, crop farming, fisheries, urban planning and management, Forestry, range management, water and sanitation.
- ❖ Support research on the nexus between climate change and migration. This will also involve specific programs aimed at reinforcing adaptation among climate migrants in urban, peri-urban and rural settings.
- ❖ Implement Mandera County Climate Change Adaptation Action Plan (2018 – 2022).
- ❖ Make deliberate attempts at mainstreaming climate change into specific county planning, budgeting, expenditure and performance management including, among others, County Integrated Development Plans (CIDPs), Annual Development Plans (ADPs), sector plans, annual budget estimates, and performance contracts.
- ❖ Develop clear guidelines and tools for mainstreaming climate change adaptation into county planning and budget procedures.
- ❖ Ensure that county planning processes and documents account for climate risk analyses and vulnerability assessments, and identify opportunities to strengthen climate change adaptation.
- ❖ Establish the requisite institutional framework and build capacity to coordinate and enhance climate change mainstreaming across all county departments.
- ❖ Put in place mechanisms linking climate change information with county planning and budgeting processes.
- ❖ Work with relevant stakeholders in undertaking systematic vulnerability assessments of the county across different sectors.

42 *Public Education and Awareness*

Decades of marginalization and underdevelopment have seen Mandera County (and the ASALs in general) lag behind on several development indicators; least of which is education. Yet, the

importance of education and awareness on development in general and sustainable development, in particular, cannot be overstated – it equips an individual with the knowledge and skills for their personal growth and development and that of the society at large, in light of existing and emerging sustainable development challenges.

Increasing public awareness on climate change impacts and interventions can help to facilitate the role of the public as a positive agent in climate change response. Climate change interventions, such as building resilience or enhancing adaptive capacity are closely related to how people understand the impacts of climate change. Indeed, these interventions can support the transition of people from victims of climate change, to positive agents working against climate change.

The County government shall;

- ❖ Put in place a strategy for identifying, refining and disseminating climate change knowledge to the public in user-friendly formats.
- ❖ Collaboratively work with the national government to mainstream climate change in basic, secondary and tertiary level education curricula.
- ❖ Incorporate climate change knowledge into all public awareness initiatives including civic education, peace building and extension programs.
- ❖ In collaboration with the County Directorate of Civic Education, work with civil society groups to incorporating climate change knowledge into advocacy and public awareness-raising programs.
- ❖ Strengthen the capacity and ensure sufficient resourcing of institutions engaged in climate change public awareness.
- ❖ Establish climate change desks at the county, sub-county, ward and village levels while also ensuring linkages with the county's complaints and feedback mechanisms including *Uwajibikaji* Platform.

43 *Climate Finance*

Mandera County's funding constraints are not unique. They emanate from limited national resources against unlimited competing needs at both the national and county levels, since a huge chunk of counties' budgets is funded by the exchequer. Also, for counties like Mandera that have faced decades of marginalization and underdevelopment, prioritization of development activities for funding becomes a very daunting task. The consequence is that no county department can be adequately funded as funds are limited, disbursements are often delayed, and development activities suffer. Lack of harmonization of budgets across different departments and development partners' programs/projects compound the problem further, as resources are not efficiently utilized.

Funding required for financing climate change responses under this policy will be mobilized from both internal and external sources. In this context, resource mobilization will be closely linked to Kenya's climate finance strategy, particularly regarding mobilizing external financing. The County

Government of Mandera will, therefore, integrate climate change response actions into its planning and budgetary cycle. Indeed, this will complement any external climate finance resources.

The County Government shall;

- ❖ Establish a County Climate Change Fund as well as a source for and access additional finance for climate change interventions, including but not limited to the National Climate Change Fund.
- ❖ Ensure harmonization of budgets across different departments and development partners' funded programs and projects to reduce duplication and increase efficiency and impact.
- ❖ Build the capacity of departments and staff in accessing finance from both traditional and new sources, e.g., capacity in project proposals development and accessing climate finance.
- ❖ Allocate resources for climate change actions in national and county budgetary processes.
- ❖ Build capacity to mobilize and enhance the absorption of resources for climate change interventions.
- ❖ Mobilize substantial levels of climate finance to fund implementation of this Policy and the associated Climate Change Action Plans from internal and external sources.
- ❖ Put in place mechanisms to attract and leverage Public Private Partnerships (PPPs) as a vehicle to mobilize resources and enhance private sector participation in low carbon climate resilient development activities.

4.4 *Sustainable Utilization and Management of Natural Resources*

The future of Mandera rangelands and the communities that derive livelihoods from the ecosystem services they provide depends upon maintaining the integrity of its rangelands. The rangelands of Mandera are endowed with important rangeland resources such as springs, oasis, aquifers, minerals and precious stones, pasture/grazing lands, watering points, riverine ecosystems, and forest areas that provide important ecosystem services supporting many livelihoods and enhancing resilience to climate-induced shocks and disasters. However, most of them are critically threatened and/or degraded.

Sustainable pasture management systems that rime well with the local pastoral conditions, such as adhering to stocking densities, continues to pose a challenge to sustainable rangeland management. Overgrazing has resulted in almost no natural regeneration of specific valuable tree and pasture species, affecting rangeland health. Destocking as a corrective measure is equally constrained by several factors. Besides, uncoordinated and poor rangeland planning has seen the expansion of settlements and crop fields in areas hitherto reserved for pastures, livestock migration corridors or wildlife dispersal areas thereby contributing to the intensification of farmer-herder and human-wildlife conflicts if not threatening the county's food security.

The County Government shall;

- ❖ Develop Mandera Water and Sewerage Act by 2021.

Given gender disparities in social and economic roles mean that women and men experience the effects of climate change differently. Women suffer more because of vulnerability arising from the gender division of labor and allocation of power at the household, work, and other levels. Climate change exacerbates these inequalities, and it is, therefore, necessary to understand the risks and impacts of climate change on women and men. This disaggregation should be applied not just across genders but also amongst the members of each gender, as the factors that exacerbate vulnerability to climate change vary.

The youth represent a crossover between the present and future generations, and therefore play a critical role in socio-economic development, including addressing climate change. It is necessary to carve out specific roles and opportunities for youth participation in decision-making in climate change governance and to pursue opportunities that arise through climate change response by the county.

Mandera County shall adapt a gender and youth mainstreaming to climate change adaptation. This will involve assessing the implication any planned climate change action on women and youth including legislation, policies or programmes to achieve equality.

The County Government shall:

- ❖ Ensure that its climate change response is equally beneficial to women, youth, persons living with disability, and men while enhancing gender equality.
- ❖ Undertake systematic gender analysis of its climate change response, through the collection and utilization of gender-disaggregated data, including budgetary processes.
- ❖ Ensure that marginalization and vulnerability arising from gender disparities are addressed at all stages of climate change response.
- ❖ Adopt a gender mainstreaming approach at all stages of the climate change policy cycle from research to analysis, to the design and implementation of actions.
- ❖ Put in place mechanisms to ensure and enhance the participation of the youth in climate change governance and position them to take advantage of opportunities.
- ❖ Undertake a systemic analysis of the various special needs and ensure that planning and climate change responses mainstream participation and protection to persons with special needs.
- ❖ In collaboration with other stakeholders, enhance gender equality in land ownership, decision making, planning and management of rangeland resources.
- ❖ In concert with relevant stakeholders and to avoid any backlash from the custodians of culture (predominantly senior male members of the society), progressively deal with retrogressive and harmful cultural practices that perpetuate gender discrimination, in line with the provisions of the Constitution and other enabling statutes.

The Monitoring and Evaluation Department (MED) in the Ministry of Devolution and Planning, is tasked with the responsibility of coordinating all government monitoring and evaluation (M&E) activities. To do this effectively, MED has developed the National Integrated Monitoring and Evaluation System (NIMES) as a mechanism for tracking implementation progress for programs outlined in the Medium Term Plan (MTP III) of Vision 2030.

The constitution requires county governments to plan and budget for the delivery of goods and services under their mandate (as provided in the Fourth Schedule) through various plans including County Integrated Development Plan (CIDP), County Sectoral Plans, County Performance Management Plans, County Spatial Plan, Cities and Urban Areas Plans, Annual Development Plan (ADP) and Annual Fiscal Strategy. At the county level, tracking progress towards the achievement of the policies, projects, and programs outlined in each CIDP will be undertaken through the County Integrated Monitoring and Evaluation System (CIMES). While CIMES feeds into NIMES, the overall goal of such an integrated system is to provide important feedback to policymakers and citizens on the government's performance towards achieving various economic and social development targets.

At the county level, however, governments are only beginning to set up departments responsible for developing crucial systems needed for M&E, performance management, and statistical data collection. At this initial stage, counties (including Mandera) face several challenges relating to the development and use of M&E systems. For instance, the draft M&E Policy and draft M&E Framework, which are crucial to the formalization of the CIMES have not yet been finalized. M&E Departments are not yet operational, and where they exist, they may not have the required skills, capacity, and political goodwill to effectively discharge their mandate. This is the case of Mandera County where such efforts were initially spearheaded by the Governor's Results Delivery Unit (GRDU) albeit with external support. Besides, M&E reporting is not well coordinated resulting in the use of different M&E definitions and concepts. Worse still, the involvement of the community in M&E is still lacking.

To track the implementation of this Policy, it will be essential to record and measure progress and changes, as well as the overall performance of climate change actions by county. M&E will provide reliable and timely data on progress, results, and shortcomings of the Policy implementation to inform decision-makers, stakeholders and the public on necessary adjustments if any. The M&E system of this Policy will be synchronized with both the CIMES and NIMES towards the achievement of national targets under the 5-year year MTP III of Kenya's Vision 2030. Most importantly, the M&E system will monitor implementation by tracking inputs and actions to mainstream climate change by the County Government of Mandera and subsequent contribution to national priorities.

The County Government shall

- ❖ Establish M&E Unit in the proposed Climate Change Directorate within the Department of Environment which shall oversee the performance management concerning the implementation of the Policy.
- ❖ Build the capacity of the M&E Unit in the proposed Climate Change Directorate to effectively discharge its mandate. This will include efforts to enhance both the human and financial resources within the Unit.
- ❖ The M&E Unit will be strengthened to collect, analyze and use relevant statistical data and performance indicators for the planning and implementation of this Policy. An M&E framework will be developed as an integral component to ensure the policy objectives are achieved in a cost-effective, coordinated and harmonized approach.
- ❖ Through, M&E Unit put in place mechanisms to utilize action plans and performance contracts as tools for review and evaluation of inputs and results under this Policy.
- ❖ Incorporate climate change adaptation indicators into the County Integrated Monitoring and Evaluation System (CIMES).
- ❖ Set up coordination mechanism involving relevant stakeholders to undertake M&E of this Policy over five-year intervals in line with the county and national Climate Change Action Plans and the MTP III of Kenya's Vision 2030.
- ❖ Disseminate the outcomes of reviews and evaluations for public and stakeholder discussion, and County Assembly debate and oversight.
- ❖ Review this Policy every five (5) years or as the need may arise.

4.7 *Coordination and Institutional Set-up*

Article 10 of the Constitution identifies public participation as a binding national value during the implementation of any public policy. The Department of Environment, therefore, recognizes the importance of building and sustaining partnerships to ensure ownership and collective action on climate change adaptation.

The Department of Water, Environment and Natural Resources will continue to play the lead role in the strategic planning and management of climate change adaptation in the county. This will also involve partnerships between itself and county line departments, other national government agencies, the private sector, civil society, development partners, media and international agencies.

The County Government will;

- ❖ Establish a robust institutional framework for climate change mainstreaming and policy implementation that aligns with the Climate Change Act, 2016.
- ❖ Establish a County Directorate of Climate Change within the Department of Energy, Environment, Natural Resources and Climate Change for strategic leadership and implementation of this Policy;
- ❖ Develop a framework for coordinating county, national and development partners for collection action on climate change.
- ❖ Put in place and operationalize a climate change public participation strategy that, among others, includes platforms for involving special interest groups (women, elders, and youth,

children) and at-risk communities in key decision making around climate change adaptation.

- ❖ Ensure the climate change institutional set-up promotes the objects of devolution by creating and sustaining structures from the county, sub-county, ward and village levels.
- ❖ Ensure that public participation enhances consultation and awareness of citizens, including facilitating equitable roles for women and men, persons with special needs and the youth.
- ❖ Establish and sustain partnerships with various categories of climate change stakeholders including development partners and sectoral departments.
- ❖ Take steps to consolidate and strengthen the working relations with development partners through, among others, sectoral coordination, periodic meetings, and related fora.