COUNTY GOVERNMENT OF KAJIADO

P.O BOX 11-01100 KAJIADO COUNTY.

Kajiado County Participatory Climate Risk Assessment

2023 - 2027

DEPARTMENT OF ENVIRONMENT, NATURAL RESOURCES AND CLIMATE CHANGE.

5TH October 2023

FOREWORD

I am delighted to introduce the Participatory Climate Risks Assessment initiative, led by the FLLoCA program, which aims to foster sustainable development agenda and in line with our vision agenda of modulated pastoralism, climate-proofed environment, and livable towns. This forward-thinking program represents a significant step towards ensuring a resilient future for our communities in the face of climate change. As the Governor, I recognize the urgent need to address the challenges posed by climate change and the critical role that local communities play in shaping our collective response. The Participatory Climate Risks Assessment initiative empowers our citizens to actively participate in identifying and assessing the risks associated with climate change, thereby enabling us to develop effective strategies for mitigation and adaptation.

The concept of modulated pastoralism is at the heart of this program. It recognizes the intricate relationship between our communities and the land, acknowledging the importance of sustainable land use practices and the preservation of our natural resources. By involving our pastoral communities in decision-making processes, we can ensure that their traditional knowledge is valued and incorporated into the development of climate-resilient strategies. Another essential aspect of this initiative is the focus on creating a climate-proofed environment. Our region is vulnerable to the impacts of climate change, including extreme weather events, rising temperatures, and water scarcity. Through the Participatory Climate Risks Assessment, we will identify key vulnerabilities and develop measures to enhance our infrastructure, protect our ecosystems, and safeguard the well-being of our communities.

Furthermore, the concept of livable towns emphasizes the importance of creating sustainable, inclusive, and thriving urban spaces. By engaging our citizens in the planning and design of our towns, we can ensure that they are resilient to climate change while providing a high quality of life for all residents. This approach promotes social cohesion, economic prosperity, and environmental sustainability, setting a strong foundation for the future. I encourage all citizens to actively participate in this program, as your input and expertise are invaluable in shaping our response to climate change. By working together, we can build a more resilient region, where communities thrive, natural resources are protected, and future generations can flourish.

I extend my gratitude to the FLLoCA program and its dedicated team for spearheading this initiative. Their commitment to empowering communities and fostering sustainable development is truly commendable. Let us embrace this opportunity to address climate risks, protect our environment, and create livable towns that stand as beacons of resilience. Together, we can forge a sustainable future for ourselves and future generations.

H.E Joseph Ole Lenku,
Governor Kajiado County

Acknowledgement

I would like to take this opportunity to express my sincere gratitude and appreciation to all those who played a significant role in the development of the Participatory Climate Risk Assessment report. This report represents a collaborative effort and highlights the commitment of numerous individuals and entities towards addressing climate risks in our county. I would like to extend my heartfelt thanks to our Governor HE Joseph Ole Lenku for his steadfast support and leadership in prioritizing climate action in our county. Your unwavering commitment to sustainability and resilience has set the foundation for our county's climate change initiatives. Your guidance and vision have been instrumental in driving us towards a more sustainable future.

I would also like to acknowledge the exceptional efforts of the Environment and Climate Unit Chief Officer, the Director, and the County Climate Change Unit officers. Your expertise, dedication, and tireless work in coordinating and overseeing the assessment process have been crucial to its success. Your commitment to evidence-based decision-making and your determination to prioritize climate change adaptation and mitigation strategies are commendable. My appreciation also extends to the Program Implementation Steering Committee, whose members have provided valuable guidance and oversight throughout the assessment process. Your collective expertise and diverse perspectives have enriched the quality and relevance of the report. Your commitment to ensuring the inclusion of multiple stakeholders and fostering participatory approaches is truly commendable.

I would also like to express my deepest gratitude to the community members who actively participated in the participatory process. Your valuable insights, local knowledge, and willingness to engage have been invaluable in identifying and understanding the climate risks faced by our county. Your active involvement underscores the importance of community-driven approaches in addressing climate challenges. It is through your cooperation and commitment that we can develop effective strategies that truly meet the needs of our communities. Lastly, I want to acknowledge the support and contributions of various governmental agencies, non-governmental organizations, and other stakeholders involved in the assessment. Your expertise, technical assistance, and collaboration have been instrumental in the comprehensive analysis and formulation of recommendations presented in this report. Your commitment to our shared goal of building a climate-resilient county is deeply appreciated.

In conclusion, I would like to express my gratitude to all those who have contributed to the Participatory Climate Risk Assessment report. Your dedication, hard work, and collaboration have laid the groundwork for informed decision-making and the implementation of effective climate change adaptation and mitigation measures in our county. Together, we can forge a sustainable future for our communities and protect the well-being of our present and future generations

Dr. Leina Mpoke

CECM – Water Services, Environment, Natural Resources and Climate Change.

Executive Summary

The Kajiado County Participatory Climate Risk Assessment which was carried out between February and May 2023 provides a comprehensive analysis of the climate risks faced by our county and presents key recommendations for building resilience and addressing the challenges posed by climate change. This report is the result of a collaborative effort involving various stakeholders, including community members, governmental agencies, and non-governmental organizations, and highlights the importance of a participatory approach in understanding and addressing climate risks.

The assessment process engaged local communities through community Barraza's, workshops, interviews, and knowledge sharing, allowing for the inclusion of diverse perspectives and local knowledge. This participatory approach facilitated a deeper understanding of the climate risks specific to Kajiado County and ensured that the report's findings and recommendations reflect the unique context of our communities. The report identifies several key climate risks that pose significant challenges to our county. These risks include increased frequency and intensity of droughts, erratic rainfall patterns, land degradation, and heat waves. These risks have severe implications for our agricultural sector, livelihoods, water resources, ecosystems, and overall socio-economic well-being. To address these challenges, the report provides a set of comprehensive recommendations that focus on building resilience, enhancing adaptive capacity, and promoting sustainable development. The recommendations encompass various sectors and aspects, including agriculture, water management, infrastructure, land use planning, and community engagement. Key recommendations include:

- Strengthening drought preparedness and management by improving water storage and conservation systems, promoting efficient irrigation practices, and diversifying livelihood options to reduce dependency on rain-fed agriculture.
- Enhancing ecosystem resilience through sustainable land management practices, reforestation efforts, and the conservation of biodiversity. This includes promoting sustainable grazing practices in modulated pastoralism, integrated land-use planning, and the protection of critical habitats.
- Improving water resource management by enhancing water storage infrastructure, implementing water harvesting techniques, and promoting efficient water use through community awareness and education programs.

- Integrating climate change considerations into infrastructure planning and development, ensuring climate-proofed designs and incorporating nature-based solutions to enhance resilience against extreme weather events.
- Strengthening early warning systems and disaster preparedness measures to enable timely response and mitigate the impacts of climate-related hazards.
- Enhancing community engagement and participation in decision-making processes, ensuring that local knowledge and needs are considered in the formulation and implementation of climate change adaptation and mitigation strategies.

The successful implementation of these recommendations requires collaborative efforts among various stakeholders, including government agencies, communities, civil society organizations, and development partners. Effective coordination, capacity building, and the allocation of adequate resources are essential for realizing the desired outcomes.

In conclusion, the Kajiado County Participatory Climate Risk Assessment report provides a roadmap for building resilience and addressing the challenges posed by climate change. By adopting the recommendations presented in this report, we can work towards a more sustainable, climate-resilient future for our county, ensuring the well-being and prosperity of our communities for generations to come.

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Definition of Terms

Climate Change	Change in the climate system that is caused by significant changes in the concentration of greenhouse gases due to human activities, and which is in addition to the natural Climate Change that has been observed during a considerable period.
Adaptation	Adjustment in natural or human systems in response to actual or expected climatic stimuli or their effects, which moderates harm or exploits beneficial opportunities.
Adaptive capacity	Ability of systems, institutions, humans, and other organisms to adjust to potential damage, take advantage of opportunities, or respond to consequences.
Global warming	Observed or projected gradual increase in global surface temperature. It is one of the consequences of Climate Change.
Greenhouse gases	Gases that absorb and emit radiant energy within the thermal infrared range. The main GHGs measured in a GHG inventory are, carbon dioxide (CO2), methane (CH4), nitrous oxide (N2O), per-fluorocarbons (PFCs), hydro-fluorocarbons (HFCs), sculpture hexafluoride (SF6) and nitrogen tri-fluoride (NF3).
Mitigation	Human interventions to prevent or slow down atmospheric GHG concentrations by limiting current or future emissions, and/or enhancing potential sinks for greenhouse gases.
Resilience	Capacity of social, economic and environmental systems to cope with a hazardous event, trend, or disturbance.
Vulnerability	Propensity or predisposition to be adversely affected. It encompasses sensitivity or susceptibility to harm, and lack of capacity to cope and adapt.

List of Acronyms

ADSW	Anglican Development Services Western
CCAP	Climate Change Action Plan
CCF	County Climate Change Fund
CFA	Community Forest Association
CIDP	County Integrated Development Plan
CSO	Civil Society Organizations
ECDE	Early Childhood Development Education
GIS	Geographical Information Systems
KCB	Kenya Commercial Bank
KFS	Kenya Forest Service
KIHBS	Kenya Integrated Household Budget Survey
DNMP	Division of National Malaria Programme
KMD	Kenya Meteorological Department
KWS	Kenya Wildlife Services
MD	Managing Director
NEMA	National Environment Management Authority
PCRA	Participatory Climate Risk Assessment
PWD	Persons with Disability
TVET	Technical and Vocational Training Colleges
WG	Working Group
WRA	Water Resources Authority

Background

Climate change poses significant risks to communities worldwide, necessitating the development of effective adaptation strategies. Participatory Climate Risks Assessment (PCRA) has emerged as a valuable approach for understanding and addressing these risks at the community level. PCRA is a participatory and inclusive process that engages stakeholders in identifying and assessing climate-related risks, vulnerabilities, and adaptation strategies. By involving diverse stakeholders, including local communities, experts, policymakers, and non-governmental organizations (NGOs), PCRA ensures that adaptation efforts are grounded in local knowledge and priorities.

This report provides a summary and analysis of the recently concluded Participatory Climate Risks Assessment (PCRA) exercise conducted in Kajiado County and across all the 25 Wards from 17th April – 19th May 2023. The PCRA exercise aimed to engage stakeholders in understanding and addressing climate-related risks, vulnerabilities, and adaptation strategies specific to the community level. The exercise followed a participatory and inclusive approach, involving various stakeholders, including community members, experts, policymakers, and NGOs. PCRA recognizes the importance of engaging stakeholders throughout the assessment and decision-making processes. By involving those directly affected by climate risks, PCRA empowers communities and fosters a sense of ownership over adaptation strategies. The participation of multiple stakeholders brings together diverse perspectives, expertise, and resources, enabling a comprehensive understanding of climate risks and the development of context-specific adaptation measures

Objectives of the PCRA Exercise

- Identify and assess climate-related risks hazards and vulnerabilities in the community.
- Assessing the potential impacts of climate change on various sectors and populations
- Engage stakeholders in a collaborative process to co-design appropriate adaptation strategies.
- Enhance community resilience and adaptive capacity to climate change impacts.
- Foster knowledge exchange and integration between scientific and local knowledge.

This report will explore the key steps that were involved in the PCRA process, including stakeholder engagement, climate risk assessment, data collection and analysis, scenario building and modeling, and community climate change adaptation strategies. Each step will be discussed in detail, highlighting the significance of stakeholder collaboration, data-driven analysis, and the incorporation of local and

scientific knowledge. Furthermore, the report will outline the benefits of PCRA, such as community empowerment, enhanced resilience, knowledge integration, stakeholder collaboration, and policy influence. By actively involving communities and fostering collaboration among stakeholders, PCRA promotes the development of adaptive capacity, strengthens social cohesion, and contributes to long-term sustainable development.

Despite its many advantages, PCRA process faced numerous challenges and learnings that need to be incorporated for its successful implementation. This report will discuss common challenges related to data limitations, capacity building, equity, and the need for long-term engagement and support.

CHAPTER ONE: CONTEXT OF PCRA

1.0 COUNTY OVERVIEW

This chapter gives the overview on the county background information, position and size, physiographic and natural conditions, administrative and political units by constituency and wards, demographic features and human development index.

1.1 Background and Context

Kajiado County total population stands at 1,117,840 as at 2019 population census with female population being slightly higher than the male and constitutes 50.1% and 49.8% respectively with a negligible percentage of the intersex populace. This represents 64 percent population increase in the last ten (10) years. Rural-Urban migration is a major factor contributing to rapid urbanization and urban growth experienced in the county specifically in the urban centers. This has contributed to the rise of multiethnic representation in the major urban centers with the Maasai community being dominant in the rural areas.

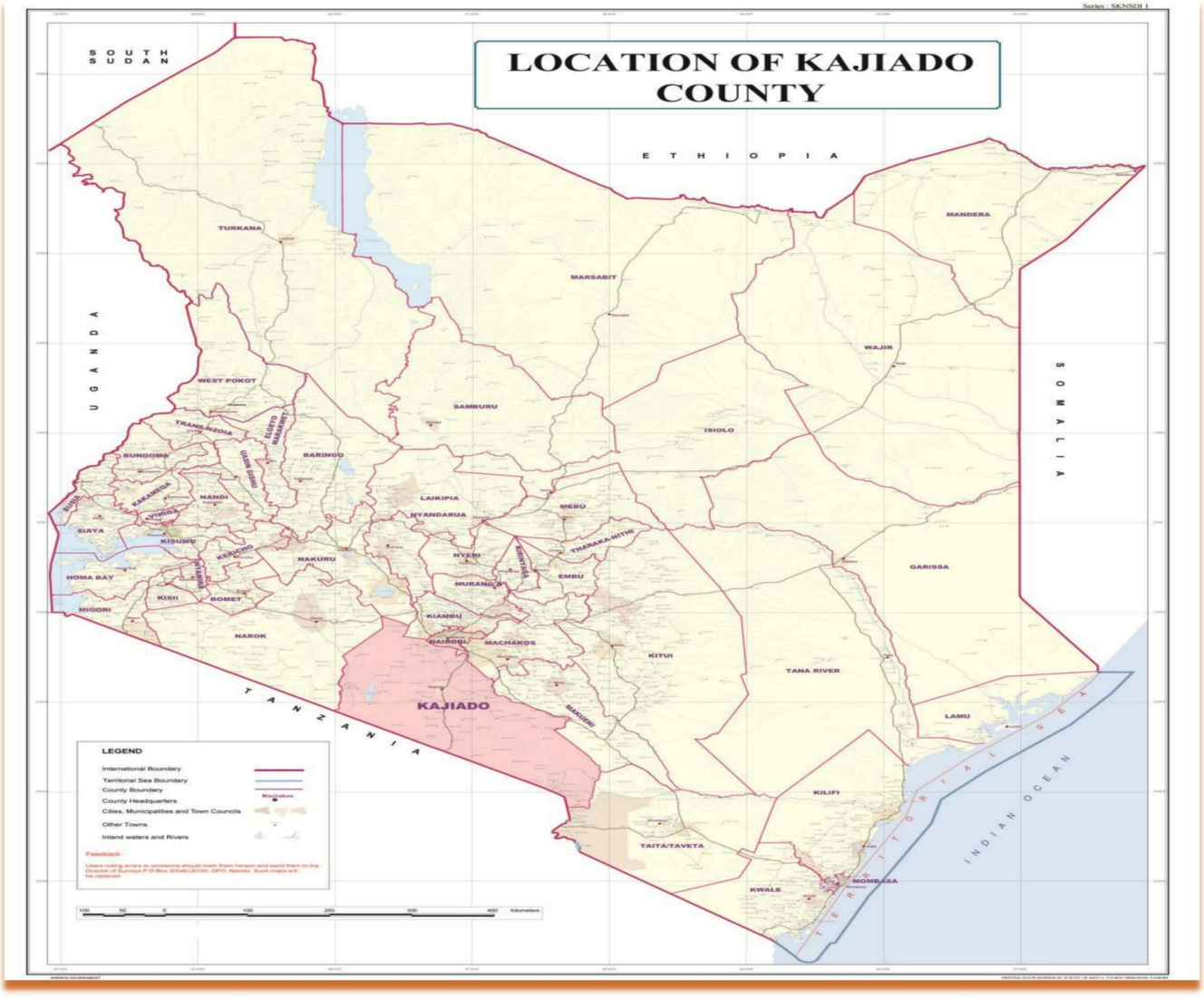
The county has five sub-counties and twenty five wards headquartered in Kajiado Central, Kajiado Town. It is primarily semi-arid with livestock rearing and crop growing as the main economic activities. Livestock rearing is mainly practiced through nomadic pastoralism in the rural areas. The agriculture and livestock development sector employs about 75% of the total population and provides nearly 40% of the county's food requirements. According to the ASDSP Baseline report of 2014 (GoK, 2014), at least 78% of households were employed and derived their income from on-farm (crop, livestock sales and fishing activities). Approximately 1,055ha of land is cultivated with food crops such as maize, sorghum, finger millet, beans, cowpeas, green grams, tomatoes, bulb onions amongst others.

The county is a member of Narok - Kajiado Economic Block (NaKaEB) consisting of Narok and Kajiado counties. The objective of the bloc is to develop joint county programmes to provide an enabling environment and attract investments and allow the private sector to play a leading role in its socio-economic development. The objective of NaKaEB is to transform lives and reduce poverty in the region through infrastructural development and quality service delivery.(*Narok-Kajiado Economic Bloc COVID-19 Social Economic Re-Engineering Recovery Strategy 2020/21-2022/23).*

1.2 Position and Size

Kajiado County is located in the Southern part of Kenya. The county borders the Republic of Tanzania to the southwest, Taita Taveta County to the southeast, Machakos and Makueni counties to the east, Nairobi County to the northeast, Kiambu to the north and Narok County to the west. The county covers an area of 21,871.1 Sq.Km

Figure 1: Location of the County in Kenya



1.3 Physiographic and Natural Conditions

1.3.1 Physical and Topographic Features

Kajiado County main physical features include plains, valleys as well as sporadic volcanic ridges and hills. Lake Magadi has the lowest altitude of 595metres above sea level while Ngong Hills in Kajiado North has the highest altitude of 2357metres above sea level. The landscape within the county is divided into Rift Valley, Athi Kapiti plains and Central Broken Ground.

The Rift Valley is a lengthened depression on the western side of the county running from North to South. The floor is broken by volcanoes, the steep walls forms plateaus and plains structurally forms features such as Mount Suswa and Lake Magadi.

Lake Magadi is saline formed of solid and semi-solid soda-ash deposits and is approximately 100 square kilometers in size lying in an endorheic basin formed by a graben. The lake precipitates massive quantities of trona (sodium sesquicarbonate) formed by a dense sodium carbonatebrine. Tata Chemicals Magadi Limited (TCML), the Africa's largest soda-ash manufacturer and a leading chemical company commercially produces soda-ash from trona. Approximately 720,000 tons of soda ash is harvested per year in Magadi and this makes it the largest producer both in the country and in Africa (*ASDSP, 2014*).

Mount Suswa is an active volcano which contains an unusual island-block and caldera structure which is also seen at Poseidonius and Gassendi craters on the moon.Athi Kapiti Plains comprise of an expansive dispersal area – 14,646Ha lying to the South and Southeast of National National Park (NNP) with 1,777 Households and ten (10) conservancies. The Athi-Kapiti ecosystem's dispersal areas enable the seasonal movement of wildlife from the NNP to the equally fauna-rich ecosystems of Amboseli, OlDonyoSabuk, Tsavo and Serengeti national parks.

The Athi-Kapiti ecosystem is home to the Big Five, (*lion, leopard, buffalo, rhino and elephant*).The landscape also has one of the highest densities of cheetahs in East Africa and attracts other predators such as the hyena. The shorter and more nutritious grass coupled with the open vast plains makes Athi-Kapiti plains a popular feeding ground during the calving season and the wet season for a range of herbivores, including zebras, wildebeests, waterbucks, elands, impalas and the endangered Maasai giraffe. Likes of the lesser kudu, wild dogs and gerenuk enjoy the wooded habitats at the central part of the ecosystem. The plains are home to about 500 bird species, including the ostrich, helmeted Guinea fowl, yellow-necked spurfowl, yellow-billed egret, martial eagle and Africa's heaviest flying bird, the

Kori bustard. Originally home to the Maasai, the region has evolved into a more cosmopolitan area occupied by diverse communities.

The Central Broken Ground is an area stretching 20-70 kilometers wide from the North Eastern boarder across the county to the southwest where altitude ranges from 1220 to 2073 meters above sea level.

1.3.2 Climatic Conditions

Kajiado County experiences long rains between March and May every year with short rains falling between October and December. The rainfall patterns vary from place to place depending on the converging –ascending air flow, air temperature, moisture bearing winds and mountain ranges. As at the year 2022, the average highest rainfall recorded was 389.9mm around Ngong hills and the slopes of Mt. Kilimanjaro. The lowest was 2.3mm recorded around Amboseli basin and the western parts of the county. This shows a negative trend in the average yearly rainfall received owing to the effects of climate change.

Kajiado County has a cool dry climate with mean annual temperatures. Over the last seven (7)years, the mean annual temperature was 38.2°C with the years 2021,2020,2019 and 2017 receiving 29.2°C, 28.6°C, 28.4°C and 28.4°C consecutively. This shows an increasing trend of temperatures recorded over the past years. The highest temperatures of about 34^0C have previously been recorded around Lake Magadi while the lowest of 10^0C in Loitokitok on the eastern slopes of Mt. Kilimanjaro.

1.3.3 Ecological Conditions

The county's soils include well drained, shallow to moderately deep, brown to dark brown, firm and slightly smeary, strongly calcareous, stony to gravelly clay loam; in many places saline and/or sodic soils and with inclusions of lava fields. (*National Accelerated Agricultural Inputs Access Program Report, 2014).*

The three geological regions in the county are Quaternary volcanic, Pleistocene and basement rock soils. They are mainly found in Rift Valley especially the Quaternary volcanic. In the Amboseli lake drainage system are the Pleistocene soils and the basement system rocks are found mainly along the river valleys and some parts of the plains. Basement rocks mostly comprise of various gneisses, cists, quartzite and crystalline limestone. Most rivers in the eastern part of the Rift Valley drain toward the

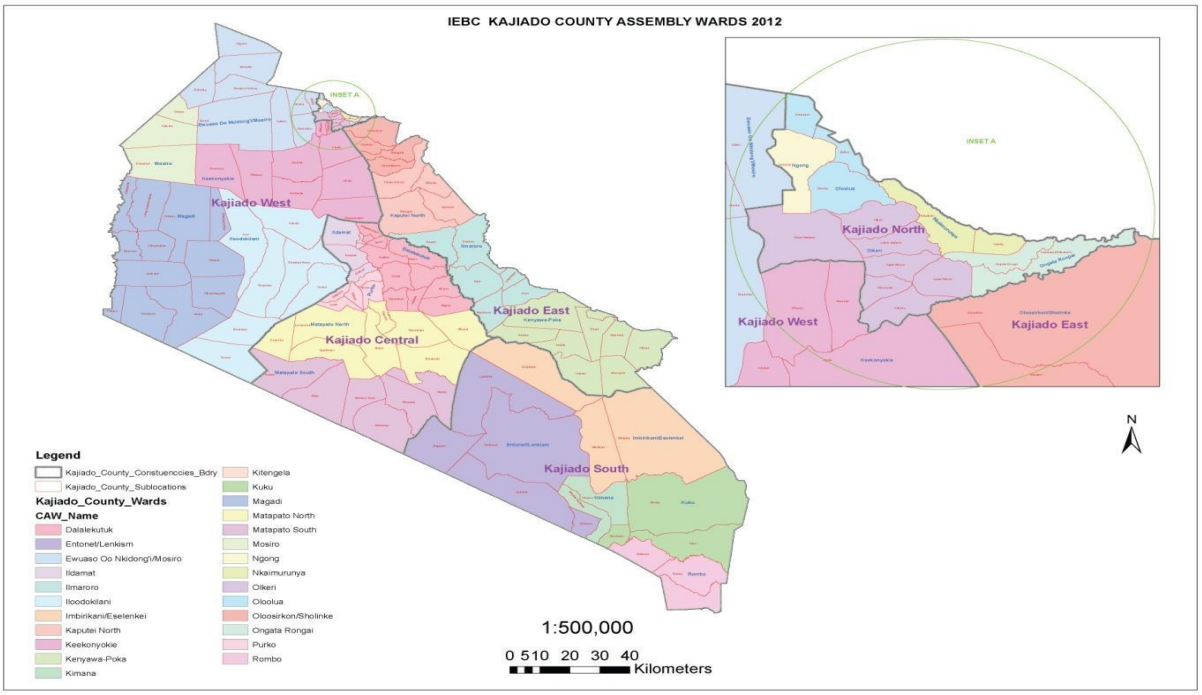
east while those within the floor of the valley are restricted to the small depressions and lakes that have no major outlets. It is within this region that Lake Magadi is found.

The amount of surface water varies from area to area. Vegetation type in the county is determined by altitude, soil type and rainfall. In many instances it has been modified by animal and human activity. Grazing, browsing, charcoal burning, extraction of fuel wood and cultivation are the major causes of vegetation reduction. In the lower parts of Mt. Kilimanjaro, indigenous trees have been cleared to create room for agriculture. Vegetation is scarce in low altitude areas and increases with altitude. Ground cover throughout the county varies seasonally with rainfall and grazing intensity. Canopy cover ranges from less than 1 percentage on heavily settled areas to about 30 percent on steep hills. (*County Climate Risk Profile Report*)

1.4 Administrative and Political Units

1.4.1 Administrative Units

Figure 2: County's Administrative and Political Units



Area (Km2) by Sub-County

The table below shows the number of divisions, locations, sub-locations and area per sq.kms by sub-counties. Kajiado West occupies the largest area with the highest No. of locations and sub-locations closely followed by Kajiado South. The smallest sub-county by area remains to be Kajiado North with the least No. of locations and sub-locations.

Each division in Kenya is divided into some locations. Habitually, locations have been seen to coincide with electoral wards. Locations are further subdivided into sub-locations. Each location is headed by a chief, appointed by the state. Chiefs are deputized by sub-chiefs at the sub-location level.

Table 1 1: Area (Km2) by Sub-County

Sub-County	No. of Divisions	No. of Locations	No. of Sub-locations	Area (Km2)
Kajiado Central	4	31	55	4,240
Kajiado West	3	26	63	7,862
Kajiado East	6	20	36	3,322
Kajiado South	4	18	38	6,337
Kajiado North	2	10	23	111
TOTAL	**19**	**105**	**215**	**21,872**

Source: KNBS

1.4.2 County Government Administrative Wards by Constituency

The table below shows the County Government Administrative wards by constituency. There are twenty five (25) No. wards and 135 No. villages across the county. It is worth noting that Kajiado North with the highest population has the least villages against the expectations.

Table 2: County Government Administrative Wards

Sub County	No. of Wards	No. of Villages
Kajiado Central	5	40
Kajiado West	5	33
Kajiado East	5	30
Kajiado South	5	19
Kajiado North	5	13

Total	**25**	**135**

Source: CGK

1.4.3 Political Units (Constituencies and Wards)

Kajiado County is divided into 5 sub-counties and 25 wards. Every ward is represented by a Member of County Assembly (MCA). The role of an MCA is Representation, Legislation and Oversight.

Table 3: County's Electoral Wards by Constituency

Constituency	Ward
Kajiado Central	Dalalekutuk
	Ildamat
	Purko
	Matapato North
	Matapato South
Kajiado West	Keekonyoike
	Mosiro
	EwuasoNkidong'
	Iloodokilani
	Magadi
Kajiado East	Kaputiei North
	Kitengela
	Oloorsirkon/Sholinke
	KenyawaPoka
	Imaroro
Kajiado South	Rombo
	Kimana
	Kuku
	Imbirikani/ Eselenkei
	Entonet/ Lenkism
Kajiado North	Ngong

	Oloolua
	Olkeri
	Ongata Rongai
	Nkaimurunya

Source: IEBC

1.5 Demographic Features

County Population Age Structure

1.5.1 Population Size, Composition and Distribution

The table below shows the current and the projected sub-county population by sex and sub-county showing the mid (2025) and end (2027) plan projections. Kajiado North records the highest population representing 27 percent of the county population closely followed by Kajiado East at 25 percent. Kajiado Central is the least populated at 14 percent.

It has been noted that Kajiado North is the leading in female population; however the disparity by sex is not huge going by sub-counties. The high population witnessed in Kajiado North and Kajiado East could highly be attributed to the factors of development such as migration, industrialization and natural increase of population among others

Table 4: Population Projections (by Sub-County and Sex)

Sub-County	Census (2019)				Projections (2022)			Projections (2025)			Projections (2027)		
Sub County	Male	Female	I/S	Total	Male	Female	**Total**	Male	Female	**Total**	Male	Female	**Total**
Kajiado Central	81,514	80,343	5	161,862	90,081	89,237	**179,319**	96,723	95,558	**192,281**	101,109	99,698	**200,807**
Kajiado North	150,675	155,908	13	306,596	166,511	173,168	**339,679**	178,788	185,433	**364,221**	186,895	193,466	**380,361**
Kajiado East	138,689	135,991	7	274,687	153,266	151,046	**304,312**	164,566	161,744	**326,310**	172,028	168,751	**340,779**
Kajiado West	91,607	91,237	5	182,849	101,235	101,337	**202,573**	108,699	108,515	**217,214**	113,628	113,216	**226,844**
Kajiado South	94,613	97,225	8	191,846	104,557	107,988	**212,545**	112,266	115,637	**227,903**	117,357	120,646	**238,003**

Source: KNBS

According to the ***Kenya Population and Housing Census (2009 and 2019),*** total population in 2009 stood at 687,312 with male and female being 345,146 and 342,166 respectively. The 2019 population, however, stood at 1,117,840 with male and female being 557,098 and 560,704 respectively. This

depicts that the population growth rate during the ten year period is 62.6 percent in comparison to the national rate which is 23 percent. Consecutively, the annual population growth rate in the county is 5.5 percent. The male and female population however both in county and national levels is seen to grow almost at the same rate.

Between the years 2020-2035, it is projected that Kajiado County will record the highest projected population increase estimated at 87 percent across the country. Generally, the increment is in all special population groups ranging from the school going population, labor force and number of households during the period. However, during the plan period (2023-2027), National Population in labor force (15-64 years) is expected to increase by 10 percent whereas number of households is expected to increase by 12.7 percent in Kajiado County. This calls for strategic investments to increase employment and entrepreneurship opportunities, enhance the education system and food security sectors.

Necessary investments in housing, waste disposal and management, security, transport among others need to be strategically implemented to accommodate the high migration rate. It is worth noting that the net migration in 2019 according to *Economic Survey 2022* stood at 100733.

Population Projections by Age Cohort

The table below shows population projections by age cohort. The population portrays a decreasing trend from age zero to nineteen years, slightly increases to age twenty four then steadily decreases throughout.

Table 5:

Sub County	Census (2019)				Projections (2022)				Projections (2025)				Projections (2027)			
	M	F	I/S	T	M	F	I/S	T	M	F		T	M	F		T
0-4	78,943	77,385		**156,328**	77,268	77,446		**154,715**	80,500	78,485		**158,985**	80,685	78,658		**159,343**
5-9	73,245	72,350		**145,595**	73,093	75,222		**148,315**	74,524	77,477		**152,001**	76,670	78,175		**154,845**
10-14	63,973	65,659		**129,632**	70,624	71,489		**142,114**	71,937	73,613		**145,549**	72,898	75,128		**148,026**
15-19	49,647	51,721		**101,368**	65,179	66,047		**131,226**	69,788	70,422		**140,210**	70,671	71,849		**142,520**
20-24	54,143	64,676		**118,819**	64,193	65,021		**129,214**	63,460	64,572		**128,032**	66,597	67,557		**134,154**
25-29	55,664	59,489		**115,153**	63,906	61,896		**125,802**	66,328	66,610		**132,938**	65,877	66,364		**132,242**

30-34	49,549	50,284		**99,833**	54,236	52,889		**107,125**	63,475	58,872		**122,346**	65,140	62,033		**127,173**
35-39	37,290	33,284		**70,574**	42,675	42,865		**85,540**	48,637	48,650		**97,288**	54,892	52,635		**107,527**
40-44	28,158	25,175		**53,333**	33,777	34,200		**67,978**	38,602	38,438		**77,040**	42,612	42,277		**84,889**
45-49	22,305	18,734		**41,039**	25,738	26,810		**52,548**	29,776	30,099		**59,875**	32,934	32,827		**65,761**
50-54	15,555	13,269		**28,824**	16,356	17,531		**33,887**	22,067	23,296		**45,363**	24,646	25,376		**50,022**
55-59	10,289	9,333		**19,622**	9,541	10,509		**20,050**	11,491	12,665		**24,156**	15,015	16,245		**31,260**
60-64	7,031	6,896		**13,927**	6,532	7,024		**13,556**	7,182	8,235		**15,417**	8,324	9,549		**17,873**
65-69	4,441	4,280		**8,721**	4,281	4,580		**8,861**	5,022	5,558		**10,581**	5,398	6,277		**11,676**
70-74	3,302	3,490		**6,792**	3,350	3,656		**7,006**	2,884	3,422		**6,306**	3,284	3,994		**7,278**
75-79	1,596	1,802		**3,398**	2,124	2,468		**4,593**	2,585	3,192		**5,777**	2,382	3,064		**5,445**
80+	1,954	2,869		**4,823**	2,777	3,124		**5,901**	2,785	3,281		**6,065**	2,990	3,768		**6,758**

Source: Kenya National Bureau Statistics

In Kenya, adolescents are defined as those ages between 10-19 years while 15-35 years represents the youth (percent of the economically actively *GoK, Ministry of Youth affairs 2006*).

Table 6: Poulation Projections by Urban Area

Urban Area	Census (2019)				Projections (2022)				Projections (2025)				Projections (2027)			
	M	F	I/S	T	M	F	I/S	T	M	F	I/S	T	M	F	I/S	T
Kitengela	75,567	78,864	5	**154,436**	81,139	84,679	5	**165,824**	87,123	90,924	6	**178,052**	91,355	95,341	6	**186,702**
O/Rongai	84,969	87,592	8	**172,569**	91,235	94,051	9	**185,294**	97,962	100,987	9	**198,958**	102,722	105,893	10	**208,624**
Ngong	50463	51,857	3	**102,323**	54,184	55,681	3	**109,868**	58,180	59,787	3	**117,970**	61,006	62,691	4	**123,701**
Kajiado	12,407	12,267	4	**24,678**	13,322	13,172	4	**26,498**	14,304	14,143	5	**28,452**	14,999	14,830	5	**29,834**
Loitokitok	5,156	5,412	-	**10,568**	5,536	5,811	-	**11,347**	5,944	6,240	-	**12,184**	6,233	6,543	-	**12,776**
Namanga	7,579	7,343	-	**14,922**	8,138	7,884	-	**16,022**	8,738	8,466	-	**17,204**	9,162	8,877	-	**18,040**
Isinya	7,300	7,129	-	**14,429**	7,838	7,655	-	**15,493**	8,416	8,219	-	**16,635**	8,825	8,618	-	**17,444**
Emali	9,435	8,890	-	**18,325**	10,131	9,546	-	**19,676**	10,878	10,249	-	**21,127**	11,406	10,747	-	**22,154**

Kimana	4,870	5,246	-	**10,116**	5,229	5,633	-	**10,862**	5,615	6,048	-	**11,663**	5,887	6,342	-	**12,230**
Sultan-Hamud	4183	4,535	-	**8,718**	4,491	4,869	-	**9,361**	4,823	5,228	-	**10,051**	5,057	5,482	-	**10,539**
Ilbissil	3,834	3,978		**7,812**	4,117	4,271	-	**8,388**	4,420	4,586	-	**9,007**	4,635	4,809	-	**9,444**
Illasit	2,160	2,469	2	**4,631**	2,319	2,651	2	**4,972**	2,490	2,847	2	**5,339**	2,611	2,985	2	**5,599**
Isinet	2,202	2,234	1	**4,437**	2,364	2,399	1	**4,764**	2,539	2,576	1	**5,116**	2,662	2,701	1	**5,364**
Rombo	1,904	1,950	-	**3,854**	2,044	2,094	-	**4,138**	2,195	2,248	-	**4,443**	2,302	2,357	-	**4,659**
Masimba	1,269	1,235	-	**2,504**	1,363	1,326	-	**2,689**	1,463	1,424	-	**2,887**	1,534	1,493	-	**3,027**
EwuasoKedong	1,137	1,007	-	**2,144**	1,221	1,081	-	**2,302**	1,311	1,161	-	**2,472**	1,375	1,217	-	**2,592**
Kiserian	37,612	39,287	4	**76,903**	40,386	42,184	4	**82,574**	43,364	45,295	5	**88,663**	45,470	47,495	5	**92,970**

The youths represent 76 percent of the economically active population. Therefore, a pronounced investment in education and youth related business and investments sector is very crucial to address interests of the youths. Special interest will be given to the policies aimed at enhancing youth participation in development goals and ensuring programmes are well coordinated. Focus shall be given to the recently developed *County Integrated Development Plan Youth Inclusion Guidelines*. The proposed affirmative actions include youth employment, youths' voice in decision making for a such for instance public participation; Budgeting of youth friendly initiatives across departments; Education sponsorship and scholarships throughout the learning process; Grants and subsidies to support youth friendly initiatives; Youth empowerment geared towards procurement Opportunities, Youth trainings and capacity building.

Table 6: Population Projections by Urban Area

The highly occupied urban areas within Kajiado North are Rongai, Ngong and Kitengela. The proximity to the Kenyas' capital city among other development factors plays a major role. However, there are several lowly inhabited urban centers in Kajiado South and Kajiado West. A detailed evaluation of the development needs within these urban areas is necessary. This will guide sustainable development by the government entities and other partners. Proper prior planning will come in handy as envisaged in the Kajiado County Spatial Plan 2018-2028. The percentage of urban population is 55.7

of the entire county population. In order to realize requisite growth in the urban centres, special emphasis will be given to Kajiado, Kitengela and Ngong municipalities which are centered in Kajiado Central, Kajiado East and Kajiado North municipalities respectively.

1.5.2 Population Density and Distribution

The table below shows population density and distribution per sub-county where Population density is the number of persons occupying an area divided by land area in square kilometers in a given time.

Table 7: Population distribution and density by Sub-County

Sub County	(2019)Census			(2022)Projections			(2025) Projections			(2027) Projections		
	Area (KM2)	Population	Density	Area (KM2)	Population	Density	Area (KM2)	Population	Density	Area (KM2)	Population	Density
Kajiado Central	4,240	161,862	38	4,240	179,319	42	4,240	192,281	45	4,240	200,807	47
Kajiado North	111	306,596	2,773	111	339,679	3,071	111	364,221	3,293	111	380,361	3,439
Kajiado East	3,322	274,687	83	3,322	304,302	92	3,322	326,310	98	3,322	340,779	103
Kajiado West	7,862	182,849	23	7,862	202,573	26	7,862	217,214	28	7,862	226,844	29
Kajiado South	6,337	191,846	30	6,337	212,545	34	6,337	227,903	36	6,337	238,003	38

Source: KNBS

It is remarkably noted that Kajiado North has the highest population density of 2,773 persons per sq.km. It is the most populated sub-county yet with the least area of occupancy at 111km2. Kajiado West on the other hand has the least population density with occupancy of 23 persons per sq.km. Parts of this Kajiado West, Central and South lack major infrastructural and social amenities e.g. proper roads, electricity and water translating to the scattered form of population patterns.

By the end of plan period, Kajiado North is projected to have a population density of 3,439 persons per sq. km followed by Kajiado East at 103 sq. km. This is contributed by the rapid urbanization and industrialization in some of the urban centers and towns for instance Rongai, Ngong, Kiserian, and Kitengela. The county risks the adverse effects of inadequate housing, mushrooming of informal settlements, environmental degradation, and competition of amenities among others. In order to align to

SDGs Goals 6, 7 and 11, the county aims to increase its efforts to avert the risks; for instance infrastructure and housing among others.

On the other hand, Kajiado West, Kajiado South and Kajiado East have a lesser population density hence an opportunity for agricultural, industrial, tourism and green energy investments.

1.5.3 Population Projection by Broad Age Groups

The table below shows population projections by broad age groups indicating an infant population under the age of one year and that of five (5) years and below; pre-school, primary and secondary school; women of reproductive age; economically active and the aged.

Table 8: Population Projections by Broad Age Groups

Age Group	Census (2019)				Projections (2022)			Projections (2025)			Projections (2027)		
	M	F	I/S	T	M	F	T	M	F	T	M	F	T
Infant Population (<1Year)	14,080	13,727	-	**27,807**	15,118	14,739	**29,857**	16,233	15,826	**32,059**	17,022	16,595	**33,617**
Under 5 population	78,943	77,385	-	**156,328**	84,764	83,091	**167,856**	91,015	89,219	**180,234**	95,437	93,553	**188,990**
Pre-School (3- 5 Years)	48,399	47,482	-	**95,881**	51,968	50,983	**102,951**	55,800	54,743	**110,543**	58,511	57,402	**115,913**
Primary school (6-12 Years)	97,511	97,358	-	**194,869**	104,701	104,537	**209,239**	112,422	112,246	**224,668**	117,884	117,699	**235,583**
Secondary School (13-19 Years)	73,591	75,185	-	**148,776**	79,018	80,729	**159,747**	84,845	86,682	**171,527**	88,966	90,893	**179,860**
Women of reproductive age (15-49 Years)		303,363	-	303,363	-	325,733	325,733	-	349,753	349,753	-	366,745	366,745
Economically Active Population (15-64 Years)	329,631	332,861	-	**662,492**	353,938	357,406	**711,344**	380,038	383,762	**763,800**	398,501	402,406	**800,906**

Aged (65+)	11,293	12,241	-	**23,534**	12,126	13,144	**25,269**	13,020	14,113	**27,133**	13,652	14,799	**28,451**

Source: KNBS

The infant Population **(<1Year),** pre-school population **(3- 5 Years),** and **under 5** represent 2 percent, 9 percent, and 14 percent of the entire population respectively. The government aims to reduce the infant and child morbidity and mortality by achieving 100 percent countywide vaccinations as per the national schedule. Similarly, the county aims to increase accessibility to healthy facilities and treatment for child illness. Treatment for the acute respiratory infection systems, fever and diarrhea is less than 60 percent in the county. Other factors to be considered include early childhood development and child nutrition status.

The primary school population **(6-12 Years)** represents 17 percent of the entire population. Education and training sector is key in socio-economic development. The National Government has committed to providing free primary Education (FPE) rolled out in January 2003 for providing equal opportunities for all and rolled out Competency Based Curriculum (CBC) in 2019. To reduce the population of those who never attended school, the government aims to provide free day secondary education and re-introduce school feeding programmes.

The cohort **Secondary School (13-19 Years)** represents 13 percent of the entire population. This is the teenage and youthful age, sensitive and filled by intense curiosity to social and physical developments. It is noted that teenage pregnancy is on the rise within the county. In order to maintain the young adults in school increase the rate of completion and transition to higher levels of education as well as reduce the chances of early marriages - the county aims to re-introduce the school feeding programme, employ more teachers and intensify training to children on puberty and adolescents. However, adult education enrolment decreased from 6883 to 3389 in 2019 and 2021 respectively.

From the analysis, the **Economically Active Population (15-64 Years)** is the largest cohort representing 59 percent of the entire population. This is the economically active cohort expected to produce enough and cater for the economically dependent population. Therefore, Strategic investments need to be undertaken in the Health and wellbeing; Education and skills development; Trade enhancement and Investments; Employment and entrepreneurship; and Good governance and Youth empowerment. Programmes aimed at reducing the crime rate and enhancing mental health are equally encouraged to combat the number of criminal perpetrators.

Women of reproductive age (15-49 Years) form the second largest cohort at 600,111 and representing 54 percent of the entire population. Goal 3 of the SDGs aims to reduce maternal mortality. The percentage receiving antenatal care from a skilled provider and postnatal check two days after delivery in Kajiado stands at 100 and 80.8 respectively. The percentage of delivery by skilled provider in the county is 85 percent. The county needs to enhance accessibility to maternal and reproductive health services. Also, the county needs to undertake necessary measures to combat the escalating rate of teenage pregnancy currently at 22 percent and the rate of experience of sexual violence currently at 16.9 percent.

Aged (65+): This cohort represents 2 percent of the population. The county shall invest in Social Protection policies for instance pensions, retirement and health care policies to cushion the vulnerable aged persons.

1.5.4 Demographic Dividend Potential

The table below shows the county's demographic dividend potential by giving the percentage size of both the economically dependent and productive population. It further provides both the fertility and dependency ratio.

The demographic dividend is basically the growth of the economy emanating from the possible changes in a population's age structure. The demographic dividend is presumably high when working-age population (***15 to 64***) is larger than the non-working-age (***14 and younger, and 65 and older***).

Table 10: Demographic Dividend Potential

Category	2,019	2,023	2,024	2,025	2,026	2,027
Population Size	1,117,840	1,268,261	1,298,095	1,327,929	1,357,361	1,386,793
Population below 15(%)	39	35	35	34	34	33
Population 15 _64 (%)	59	62	63	63	64	64
Population above 65(%)	2	2	2	2	2	2
Dependency	0.69	0.60	0.59	0.58	0.56	0.55

Ratio						
Fertility Rate	3.3	3.3	3.1	3.1	3.0	3.0

Source: KNBS

From the analysis of the above table, the dependency ratio and the fertility rates tends to decrease as the years progress. However, the fertility rate is higher than the dependency ratio hence an opportunity for population increase. Eventually, this translates to an increased population of the economically productive (***15-64 years***) proliferating at a higher rate than the economically dependent population (***15 years and below; and 65+ years***).

Notably, the percentage increase of the economically dependent population is absolutely lower than the economically productive population and decreases throughout the plan period. This informs the county that there is a potential for a higher economic growth since the working age population is approximately one and half times bigger than the non - working age population and increases throughout the plan period.

Borrowing a leaf from *the County Adolescent and Youth Survey Reports and Kenya's Demographic Dividend Roadmap* and in order to achieve a demographic dividend, the county aims to achieve the Big Vision deemed a ***Transformed and Sustainable Kajiado***. It is anchored on issues regarding Land reforms, Water Provision and investing in Natural Resources; Health and wellbeing; Education and skills development; Trade enhancement and Investments; Roads infrastructural improvement; Employment and entrepreneurship; and Good governance and Youth empowerment.

Demographic dividend window of opportunity start year for Kajiado County is 2035 which is a slight improvement from the previous CIDP which was 2042. In order to achieve the demographic potential, calculated investments in the four focus areas is key as guided by *National Council for Population and Development.*

Health and wellbeing: In order to improve the overall livelihoods for the county residents, the country aims to provide an efficient and high standard health care system. This will be achieved through investing and upgrading of health facilities; systems and workforce. Kajiado County Health Improvement Fund will be of greater focus.

Education and skills development: Under this sector the government aims to provide competitive and quality education, as well as training and scholarships. Specifically, the county aims to reduce illiteracy

levels, increase the enrolment rate, and improve the transition and completion rates throughout all levels of education. Recruitment of more teachers will help to improve the pupil teacher ratio. Quality education is key to eliminating the retrogressive cultural behaviors and teen pregnancy which is currently at 22 percent.

Employment and entrepreneurship – The County aims to be a supplier of locally manufactured products emanating from value addition to agricultural produce. This will contribute to setting up of strategic industries and eventually contribute in job creation and employment opportunities.

Good governance and Youth Empowerment – Accountability in all public affairs and management of public resources will be upheld. Up-scaling the youth training on business and increase in the empowerment funds will equip them to start and maintain income generating activities.

1.6 Human Development Index

Human Development (HD) is basically a process of improving people's well-being by broadening their freedoms, opportunities and choices. The basic ideology for HD is fairness within and across groups, effectiveness in resource utilization, people's empowerment and capacity to participate in development and inclusivity.

The Human Development Index (HDI) is calculated as a singular complex index using a simple average of three components: Life expectancy, Mean years of schooling and gross per capita income. Life expectancy at birth reflects the ability to live a long and healthy life; mean years of schooling and expected years of schooling reflect the ability to acquire and utilize knowledge while Gross income per capita reflects the ability to achieve a decent standard of living.

According to the *Human Development Report 2021-22*, Kenya was positioned152 out of the 191 countries and territories across the world with the **Human Development Index (HDI)** value at 0.575. Kajiado County HDI stands at 0.59 slightly higher than the national value. It is worth noting that Kenya has come a long way recording an increase in HDI from 0.474 in 1990 to 0.575 in 2021 with the highest ever recorded being 0.581 in 2019 before reducing to 0.578 in 2020. It is widely assumed that the reduction was as a result of the world-wide pandemic of Covid 2019. The national life expectancy at birth is 62.4 years, expected and mean years of schooling is 10.7 and 6.7 respectively, and Gross National Income (GNI) per capita being 4474.

Other indices that were used to measure national human development are as follows.

Inequality- adjusted Human Development Index (IHDI). This extends beyond the normal attainments of a country in long life, education and per capita income and demonstrates how these attainments are spread among the populace. In real sense, IHDI is the level of human development when inequality is taken care of. The national value of IHDI in 2021 is **0.426**

Gender Development Index (GDI) measures disparities on the HDI by gender. The national value was approximated to **be 0.941**. The estimated gross national income per capita for male category was leading at $5084 while female category was $3873. The male category led in HDI as well as expected and mean years of schooling. The female category led in life expectancy at birth.

Gender Inequality Index (GII) presents a composite measure of gender inequality using three scopes: reproductive health, empowerment and the labour market. The reproductive health indicators are maternal mortality ratio and adolescent birth rate. The empowerment indicators are the percentage of parliamentary seats held by women and the percentage of population with at least some secondary education by gender. The labour market indicator is participation in the labour force by gender. Gender Inequality Index stood at **0.506**

Multi-dimensional Poverty Index (MPI) captures the numerous deprivations that people in developing countries face in their health, education and standard of living. The MPI shows both the incidence of non-income multidimensional poverty and its intensity (the average deprivation score experienced by multi-dimensionally poor people). Based on deprivation score thresholds, people are classified as multi-dimensionally poor, in severe multidimensional poverty or vulnerable to multidimensional poverty. National MPI is **0.171**

Planetary pressures – adjusted Human Index Development Index is the level of human development adjusted by planetary pressures for instance carbon dioxide emissions per person and material footprint per person to account for excessive human pressure on the planet. The national index is 0.575

1.7 POLICY CONTEXT

Climate change is a global problem that demands a global solution, and Kenya is an active participant in international efforts. This PCRA was advised by the following legislation;

1.7.1 International legislation

The international response to climate change is now recorded under the Paris Agreement, which aims to strengthen the global response to the threat of climate change by keeping global temperature rise this century well below 2° C above pre-industrial levels. Kenya ratified the United Nations Framework Convention on Climate (UNFCCC) in 1994, and since then the country has been working towards the achievement of the objectives of the Convention.

The Paris Agreement entered into force for Kenya on 27th January 2017, and as set out in Article 2(6) of the Constitution (2010), the Paris Agreement now forms part of the law of Kenya. Kenya's Nationally Determined Contribution sets out the country's actions to contribute to achieving the global goal set out in the Paris Agreement and includes mitigation and adaptation contributions.

1.7.2 National legislation

At the domestic level, a robust regulatory framework comprising laws, policies, plans, and institutions is being progressively established at the national and county levels to address climate change. The foundation of the institutional and legal framework for climate change action is the Constitution of Kenya (2010). Article 10 sets out national values and principles of governance, such as sustainable development, devolution of government, and public participation, that are mandatory when making or implementing any law or public policy decisions, including climate change. Article 42 provides for the right to a clean and healthy environment for every Kenyan, which includes the right to have the environment protected for the benefit of present and future generations.

Kenya has other legal frameworks for climate change actions including;

a) Environmental Management and Coordination Act, 1999 (2015 revised)-An Act of Parliament to provide for the establishment of an appropriate legal and institutional framework for the management of the environment

b) National Climate Change Act (2016)-This Act is applied for the development, management, implementation, and regulation of mechanisms to enhance climate change resilience and low carbon development for the sustainable development of Kenya.

c) National Climate Change Response Strategy (2010)-for providing a framework for a comprehensive and strategic approach to climate change adaptation, mitigation, technology and finance

d) National Climate Change Action Plan NCCAP (2018-2022)-for the mainstreaming of climate risk reduction into national, sector and local development plans and programs, the assessments of vulnerability and facilitation of capacity building, the formulation of a framework strategy and program, in consultation with the global effort to manage climate change.

e) National Adaptation Plan NAP (2015-2030)-The aim of NAP is to consolidate the country's vision on adaptation supported by macro-level adaptation actions that relate with the economic sectors and county level vulnerabilities to enhance long term resilience and adaptive capacity.

f) Kenya Climate Smart Agriculture Strategy (2017- 2026)-The broad objective of the Kenya CSA Strategy (KCSAS) is to adapt to climate change, build resilience of agricultural systems while minimizing emissions for enhanced food and nutritional security and improved livelihoods.

g) Climate Risk Management Framework (2017)-outlines how the government intends to harmonize its climate change and disaster risk policies.

h) National Climate Change Framework Policy (2018)-The goal of this framework Policy is to enhance adaptive capacity and resilience to climate change, and promote low carbon development for the sustainable development of Kenya.

i) Public health Act, 1986 (2012 revised)

j) Kenya Forest conservation and management Act, 2016-This Act makes provision for the conservation and management of public, community and private forests and areas of forest land that require special protection, defines the rights in forests and prescribes rules for the use of forest land.

k) Kenya meteorological Bill

l) Kenya Water Act, 2016

m) Irrigation Act 2019

1.7.3 County legislations

At County level robust regulatory framework comprising laws, policies, plans, and institutions is being progressively established and adopted to address climate change. At the local level, Kajiado County has enacted the following legislation;

a) Kajiado county integrated development plan 2023 – 2027 This plan sets out the programmes and projects, financing framework and the timelines that will guide the implementation the county priorities in the five years.

b) Kajiado County climate change Act 2020-establishes a climate change fund that allocates a portion of the development budgets to funds that support local climate change actions.

c) Kajiado County Environment Protection Act, 2020-provides for the protection and conservation of the Environment and other connected purposes.

d) Kajiado Rain Water harvesting Act, 2021-The Act provides for compulsory harvesting of rainwater in every residential, commercial and institutional building within Kajiado County, to conserve and ensure the availability of water while also ensuring the recharge of groundwater.

e) Climate-smart agriculture Strategy

f) Kajiado county finance Act, 2020

1.8 Key steps in the county's PCRA process

The PCRA exercise employed a systematic and participatory methodology. In addition, as described in the PCRA guide, Kajiado County PCRA was implemented through 8 main steps that is; Formation of the technical working group; training of the technical working group; mapping of stakeholders; preparation for community engagements; conducting participatory risk assessment at ward level; preparation of ward level risk assessment reports; data analysis and preparation for county level multi-stakeholder workshop; multi-stakeholder climate change risk assessment workshop and final report writing as detailed in the section below:

a) **Creation of the Technical Working Group:** The technical working group was constituted in November 2022 through appointment by the Chief Officer in Charge of Climate Change. Considerations for appointment to the technical working group comprised of; representation of directors and technical officers in the climate change relevant sectors such as environment, water, agriculture, livestock, lands, public health, citizen participation, ICT & finance, gender and social services. Civil society organizations & Ministries, Departments and Agencies (MDA); committed to create time for the exercise, knowledge, skills and experience relevant to the task among others. In total, the technical working group had 15 members. This technical working group was supported by a wider consultative group which provided advice through the whole process. The Technical working group had a broader membership which included the Ward Climate Change Planning Committees, County Emergency Management Unit, Economic Planning, County Climate Change Steering Committee and County Climate Change Planning Committee, national government agencies, Members of the Civil Society organization, academia and media and communication unit.

Figure 1 The above picture shows the trained technical working groups from relevant sector departments at Tumaini Gardens, Kajiado .

b) **Stakeholders' engagement and analysis;** The stakeholders were identified during the PCRA stakeholders mapping and analysis process. The technical working groups were divided into 5 groups according to the Sub-counties. Their roles were to identify the stakeholders in order of their interest and roles in climate change which include climate action and building resilience, those involved in climate action and responses to climate impacts, those with knowledge and expertise relevant to climate adaptation and building resilience and community representatives and those impacted by climate change. Table 2 below summarizes the analyzed list of stakeholders.

Table 2: Stakeholder mapping and analysis summary

No	Sectors	Examples	Roles
1.	National government	Ministry of environment and forestry, National Treasury, Lands, Water, Agriculture and Livestock, Education and State Department of Gender and Social services,	Provide technical advice and financial support on climate actions
2.	Government Agencies	NEMA, KEFRI, KFS, KWS, NDMA, WRA,	Technical support on environmental issues
3.	Civil Society Organizations/Non-governmentalorganizations	NIA, Duputo e maa, WWF, AMREF, UNDP, World Vision, KCCWG, FAO, Ilaramatak Community Concern, Mpiido, ALIN, HIVOS.	Community technical support, financial and technical support to county government
4.	Private sector	Banks, Industries, companies	Financial support
5.	Community based organisations	Women groups, youth groups, self help groups, environment groups	Information dissemination, Trainer of trainees, beneficiary of projects

6.	Education institutions	Schools, TVETS, universities	Research, Participation climate change activities, integrating climate action units in their courses, beneficiary of projects
7.	Religious institutions	Churches, Mosques and traditional cultural leaders	Information dissemination, sensitization, beneficiary
8.	Media	Bus Radio, Maiyanfm, Radio Citizen & Citizen TV, Inooro Radio	Community sensitization, Information dissemination, Community Mobilization
9	Political office	Office of the governor, County assembly,	Decision making on Policies & regulations, budgeting and community representation.

Providers of scientific and statistical data such as the GIS team, the Meteorological, Social and County Planning Departments were also considered.

c) **Preparation for ward level engagements:** The Climate Change Unit sensitized the citizens on radio of the upcoming climate change risk assessment exercise and mobilized participants with the support of Sub county Administrator, Ward Administrators, Village Administrators, Chiefs and Citizen Participation officers. Given the big geographic area of the county, the Technical WG adopted a process where the wards were engaged in clusters of 2-3 wards per venue per day considering proximity to each other as well as common climate change challenges. The identified community participants were in addition mobilized through their respective ward climate change planning committees. Programs, engagement tools and other materials relevant to the community engagements prepared included; Day program, community guiding questions and the note takers feedback forms.

d) **Engagement of Communities at Ward Level on PCRA;** An average of 50 participants was mobilized from the wards in line with the mobilization criteria stated above. The participants mobilized consisted of different livelihoods groups such as Pastoralists, farmers and traders, marginalized groups, youth and PWDs in addition to the members of the Ward Climate Change Planning Committees. Other participants included ward agriculture officers, Sub-county, ward administrators, foresters, citizens' participation officer and other technical officers with ward level mandate. In the first session of the community meetings, all the 2-3 wards clustered were

jointly taken through an introduction session. The introduction session covered the significance of the PCRA process, overview of climate change trends followed by explanation of the process and its application in the county planning and development cycle. The participants were then segregated into their respective villages clustered according to their similarities whereby they chose among the group a chair and secretary to take notes. The process took one cluster per day and it took the Technical WG 20 working days to cover all the 25 wards. The community engagement meetings started by sketching a climate hazard and community assets map. Thereafter, the climate change risk assessment tools were administered to determine the main hazards, prioritize them, identify vulnerabilities, local response actions and propose adaptation strategies. The output of this process was that the community's identified key climate change risks and hazards and priority response measures.

e)

*Ward community members engaging in a focused group discussion on PCRA process in all Sub-counties***.**

f) **Data Analysis and Preparations for County Level Participatory Climate Change Risk Assessment:** The data from the wards was summarized into reports and risk maps digitized by

the GIS unit capturing the main hazards and prioritized response actions per ward and at the sub county level. This was followed by one-day meeting of technical committee to develop the workshop program and share responsibilities among team members as well as agree on the workshop execution strategy. The County Director Meteorology prepared an overview presentation on historical, current and projected climate scenarios for the county while the director economic planning prepared presentation on the socio-economic status of the county. The Directors GIS and Climate Change presented the prevalent climate hazards and their geographic distribution in the county. A concept for the workshop was developed which detailed the background of the exercise, objectives, program and list of invitees.

The 2-day workshop was held from 22nd to 23rd May 2023 with objective to validate the findings from the wards and have the multi-stakeholders incorporate their views into the Kajiado County PCRA process. The workshop had 50 participants who included the PCRA Task Team, government officers from line departments such as water, agriculture, environment, climate change and public health; representatives of Civil Society Organisations implementing climate change related projects; academia; community representatives among others.

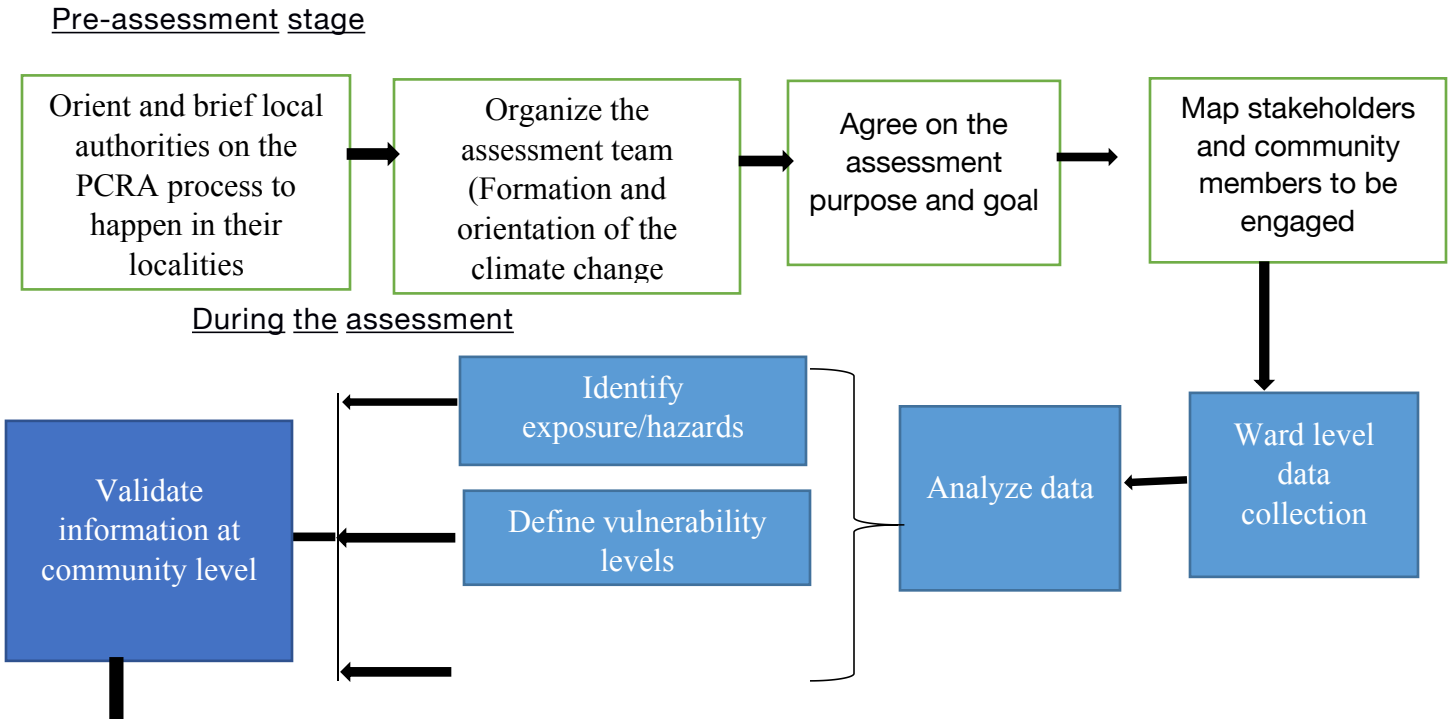
During the workshop, the participants were introduced to the general overview of the county followed by the current and projected climate change scenarios. This presentation was followed by identification of climate change hazards, Societal, social/political challenges, current and historical climate hazards and trends which was compared to the hazards that had been prioritized by the wards and followed by updating the hazard maps from the wards. The participants prioritized the hazards, response measures as well as drivers of climate change vulnerability. The wards were

clustered into sub-counties due to similarity of livelihoods pursued as well as for cross-fertilisation of ideas.

g) **County Level Validation Workshop on Participatory Climate Change Risk Assessment;** The 2-day workshop was held from 22nd to 23rdMay 2023 with objective to validate the findings from the wards and have the multi-stakeholders incorporate their views into the Kajiado County PCRA process. The workshop had 50 participants who included the PCRA Task Team, government officers from line departments such as water, agriculture, environment, climate change and public health; representatives of Civil Society Organisations implementing climate change related projects; academia; community representatives among others.

During the workshop, the participants were introduced to the general overview of the county followed by the current and projected climate change scenarios. This presentation was followed by identification of climate change hazards, Societal, social/political challenges, current and historical climate hazards and trends which was compared to the hazards that had been prioritized by the wards and followed by updating the hazard maps from the wards. The participants prioritized the hazards, response measures as well as drivers of climate change vulnerability. The wards were clustered into sub-counties due to similarity of livelihoods pursued as well as for cross-fertilisation of ideas.

h) **Participatory Climate Risk Assessment Report;** The team then developed a participatory climate risk assessment report through consolidating the data gathered throughout the risk assessment process. The technical expert contracted by the national treasury provided the necessary backstopping and review of the report until final draft was developed.




Identify community
adaptive capacity

CHAPTER TWO: KAJIADO COUNTY CLIMATE HAZARD PROFILE

2.1 Historical and current climate hazard profile

Metrologically, Kenya lies in one of the most complex sectors of the African continent. Its climate is influenced by large-scale tropical controls which include several major convergence zones including the Inter-tropical Convergence Zone(ITCZ) that are superimposed upon regional factors associated with lakes, topography and the maritime influence. Thus, the climatic patterns within the country are markedly complex and change rapidly over short distances (Wandiga, 2006). Annual temperature range is 20 oC with the lowest value in March and April and the highest is in July and August. Diurnal temperature range is in the order of 10-20oC, far exceeding the annual temperature range. Mean annual net radiation received on a horizontal surface is between 450 -550 cals/cm2 /day. Mean annual bright sunshine amounts to over 7 -8 hours per day in the highlands and 8-9 hours per day in the lowlands (Ibid).

Kajiado County, located in Kenya, is susceptible to various climate hazards and trends that have significant implications for its ecosystems, communities, and economic activities. Understanding these hazards and trends is crucial for developing effective climate change adaptation and mitigation strategies. During the colonial era there were almost 70 rainfall stations but most of them closed down around the fight for independence. Post-colonial era the Kenya meteorological department installed 30 rainfall stations in the year 1978 and most of them were closed shortly in 1983.

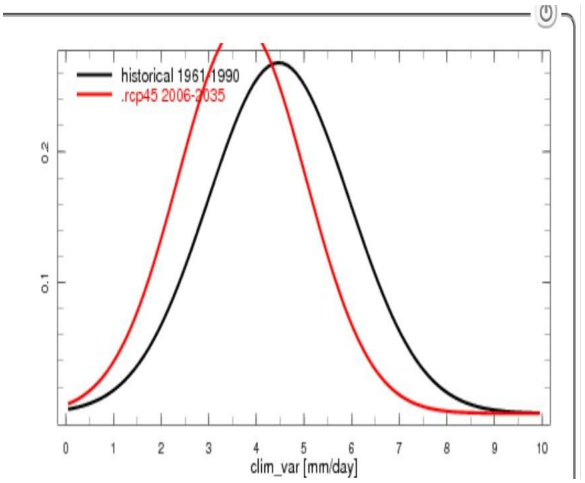
The climatology of Kajiado is divided into into seven ecological zones mainly

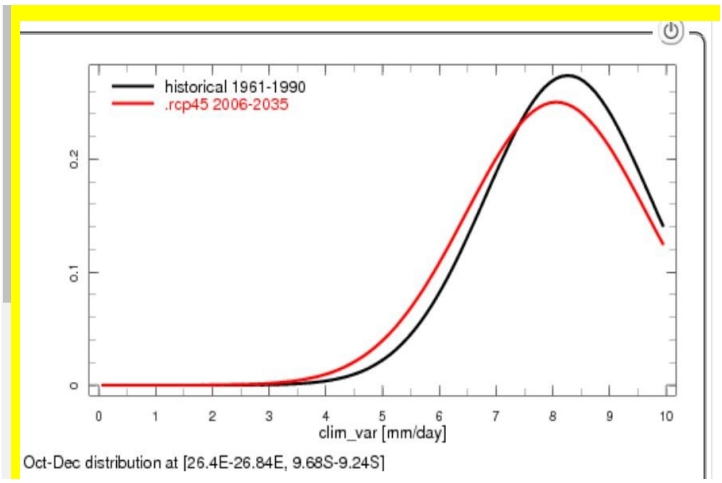
1.Bisil

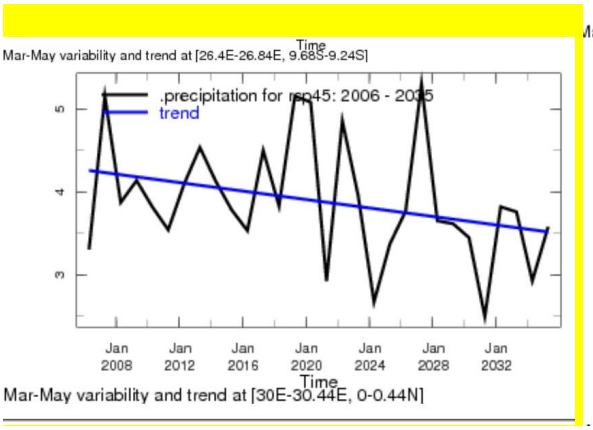
2. Ngong,Ongata Rongai and Kiserian.
3. Oliotoktok
4. Namanga
5. Magadi
6.Sultan Hamud
7.Kitengela

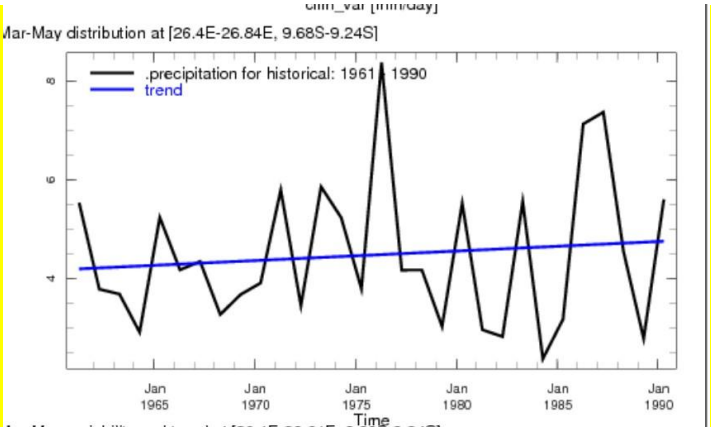
In Kajiado,the rainfall range amounts is 200-400mm for both long and short rainfall seasons. In 1988, Kajiado recorded rainfall data and the frequency of drought has increased in the county with rains most of the time being flashfloods that cause destruction of property and loss of life in some instances.

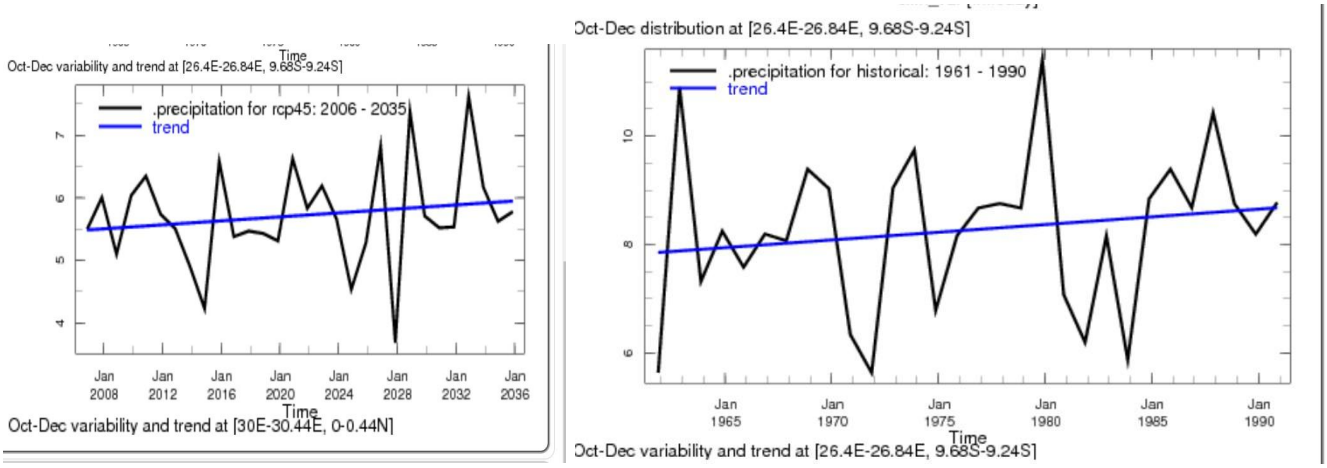
The maximum temperature ranges from 36^0 C in Namanga and the lowest being 20^0C in Ngong. During the cold season in the month of June and July the maximum temperature may decrease from 27 C to 10 C, which is being observed at Namanga and Ngong respectively. The County has a cool dry climate with mean annual temperatures over most of the county being around 21°C; although the northwestern corner near Lake Magadi has higher mean annual temperatures of 23°C to 25°C. Annual average rainfall ranges from as low as 300mm in the Amboseli basin to as high as 1250mm in the Ngong Hills and the slopes of Mt. Kilimanjaro, although most of the county receives an average of between 500mm and 750mm annually. The minimum temperature might get to their lowest during the cold season to 7^0 C especially in Ngong area and its environs.The winds speed in Kajiado is strong in some areas such as Kipeto, Ngong and it has been used to harness electric power. The evaporation rate in Kajiado is very high because of lack of tree cover and the speed of the wind being not breaked by lack of trees.









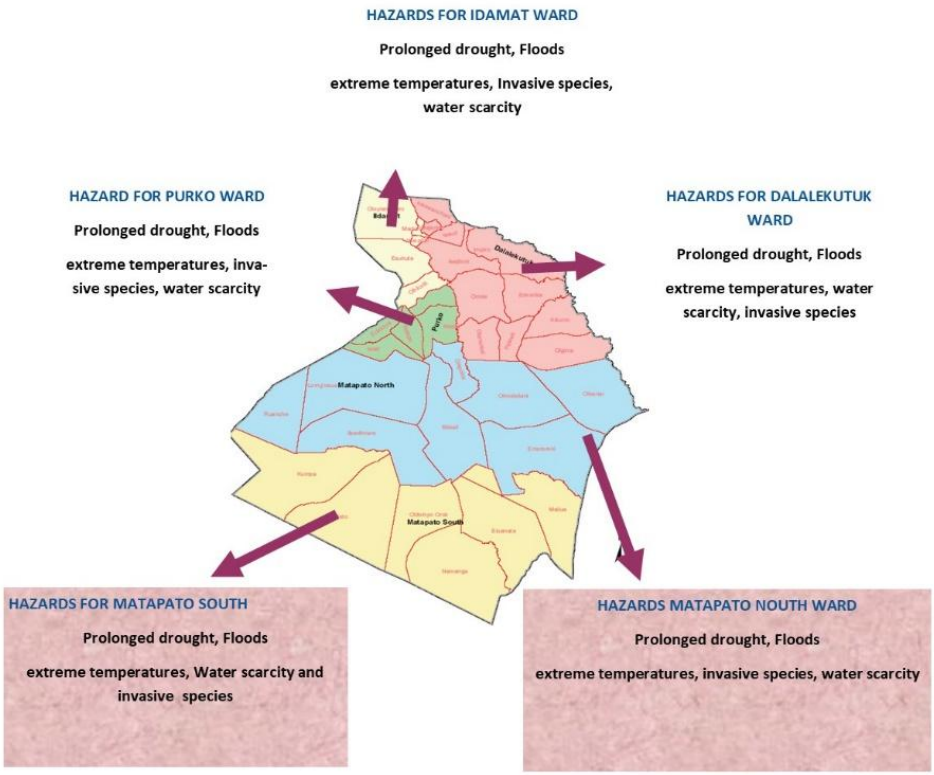


2.2 Climate Hazards in Kajiado County

2.2.1 Kajiado Central

Kajiado Central has a population of 161,862 people according to the 2019 census and it covers an area of 4,240 kilometers per square areas. The Sub County is further divided into 5 County administrative wards namely Ildamat, Dalalekutuk,, Purko, Matapato North and Matapato South wards. Kajiado Central is predominantly semi-arid. The main economic activity is livestock rearing and crop farming. Crop farming is mainly in the Southern and Western parts of the County along rivers and springs. During the PCRA process,the communities identified risks and hazards that affected the climate of the area which included; prolonged drought,floods,invasive species,water scarcity and extreme temperatures.

THE HAZARDS/RISK MAP OF KAJIADO CENTRAL SUB-COUNTY

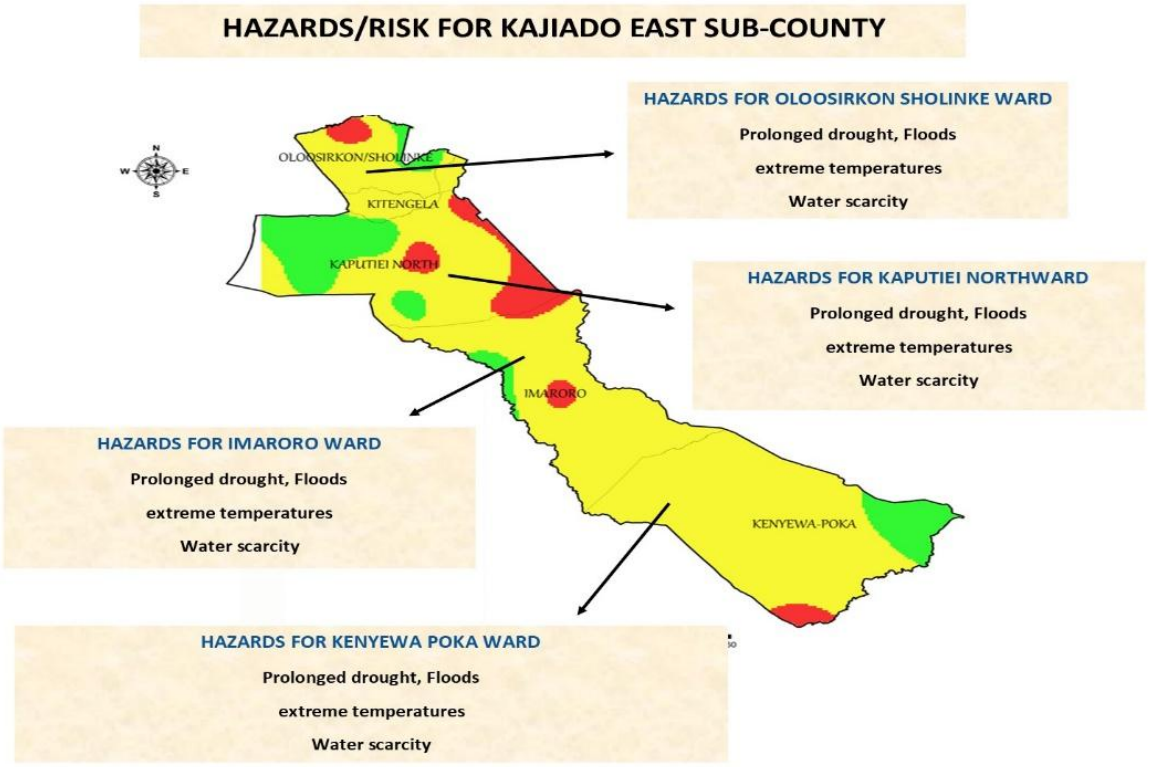


2.2.2 Kajiado East

Kajiado East sub County is a cosmopolitan area in Kajiado County. It lies within the Nairobi metropolis and borders Machakos and Makueni counties in the North East position respectively and it's approximately 20km from Nairobi city center. The Sub County is further divided into 5 County administrative wards namely Kitengela, Kenyewa-poka, Imaroro,Kaputei North and Oloorsirkon-Sholinke ward. The main activity economic activity for the Sub County is largely livestock and agricultural related business. Demographic features are dynamic especially in ethnic ratios, density and lifestyle parameters due to current land tenure system.

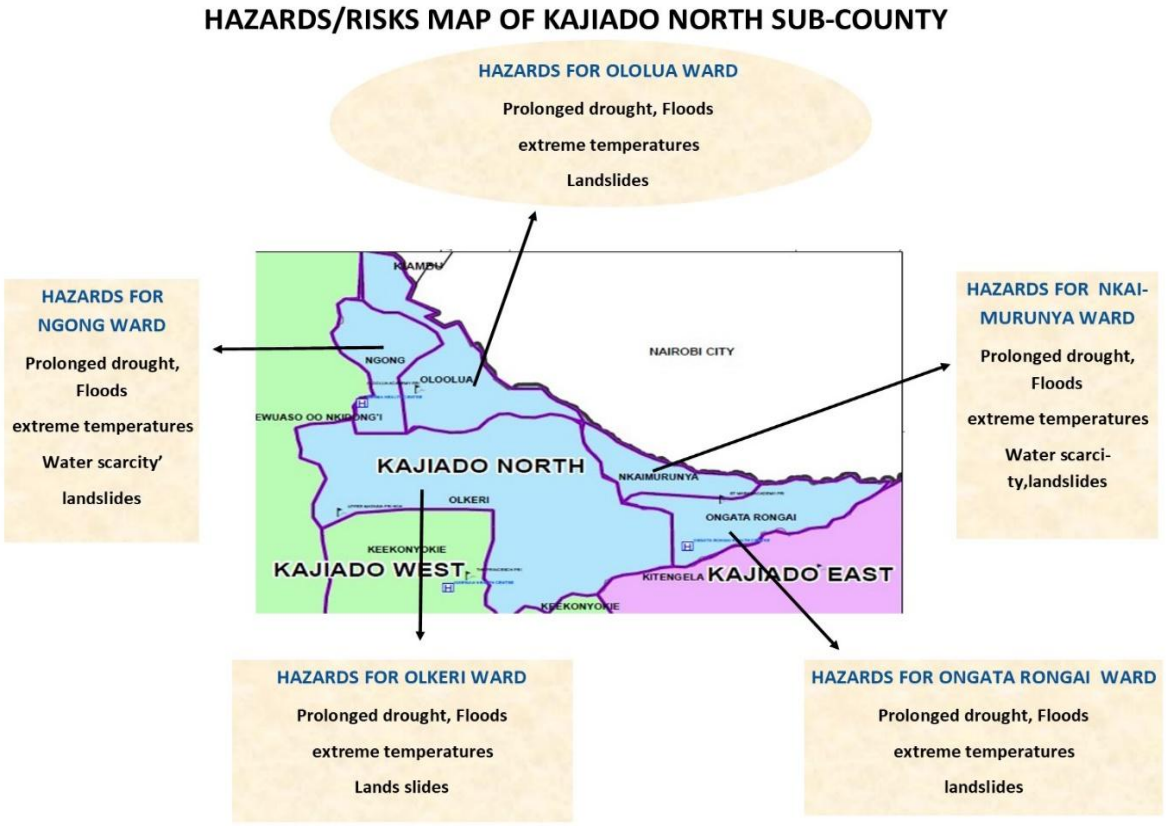
Large track of Land which were livestock/wildlife grazing have been sub divided for sale into willing buyers who are putting up residential houses and real estate development. The Sub County has been experiencing human wildlife conflicts mostly due to drought such as in Kenyewa-Poka ward(Masimba)

which is brought about by scarce resources (water) ,floods ,extreme temperatures and encroachment of animals corridors.



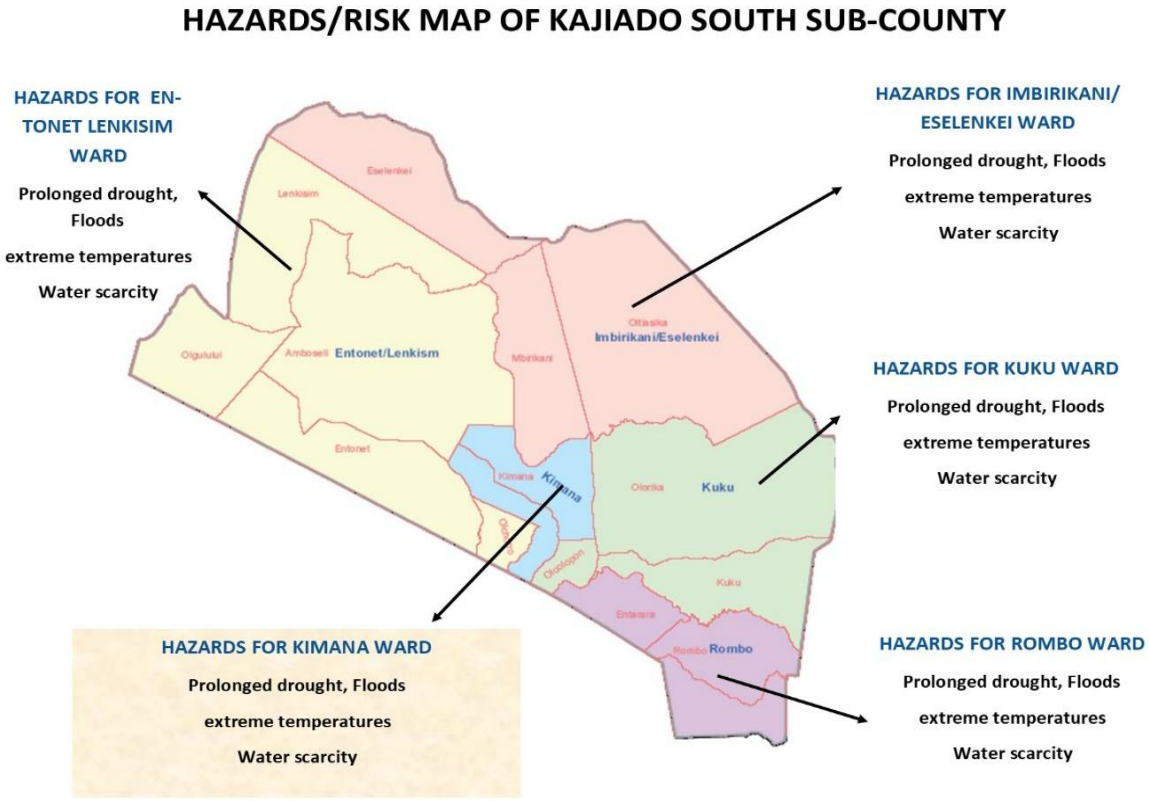
2.2.3 Kajiado North

Kajiado North Sub-County is one of the five constituencies in Kajiado County. It borders Kiambu and Nairobi counties. Kajiado North Sub-County is highly cosmopolitan with almost every ethnic community in Kenya. The constituency has a population of estimated 306,596 according to the Kenya Bureau of statistics 2019, covering an area of approximately 110.6km2. Kajiado North SubCounty comprises of five wards which includes; Olkeri, Ongata Rongai, Nkaimurunya, Oloolua and Ngong. Kajiado North Sub -County being within the Nairobi Metropolis,business becomes a major economic activity. The constituency has been affected by climate change in various ways including landslides, floods,extreme temperatures, water scarcity and prolonged drought.



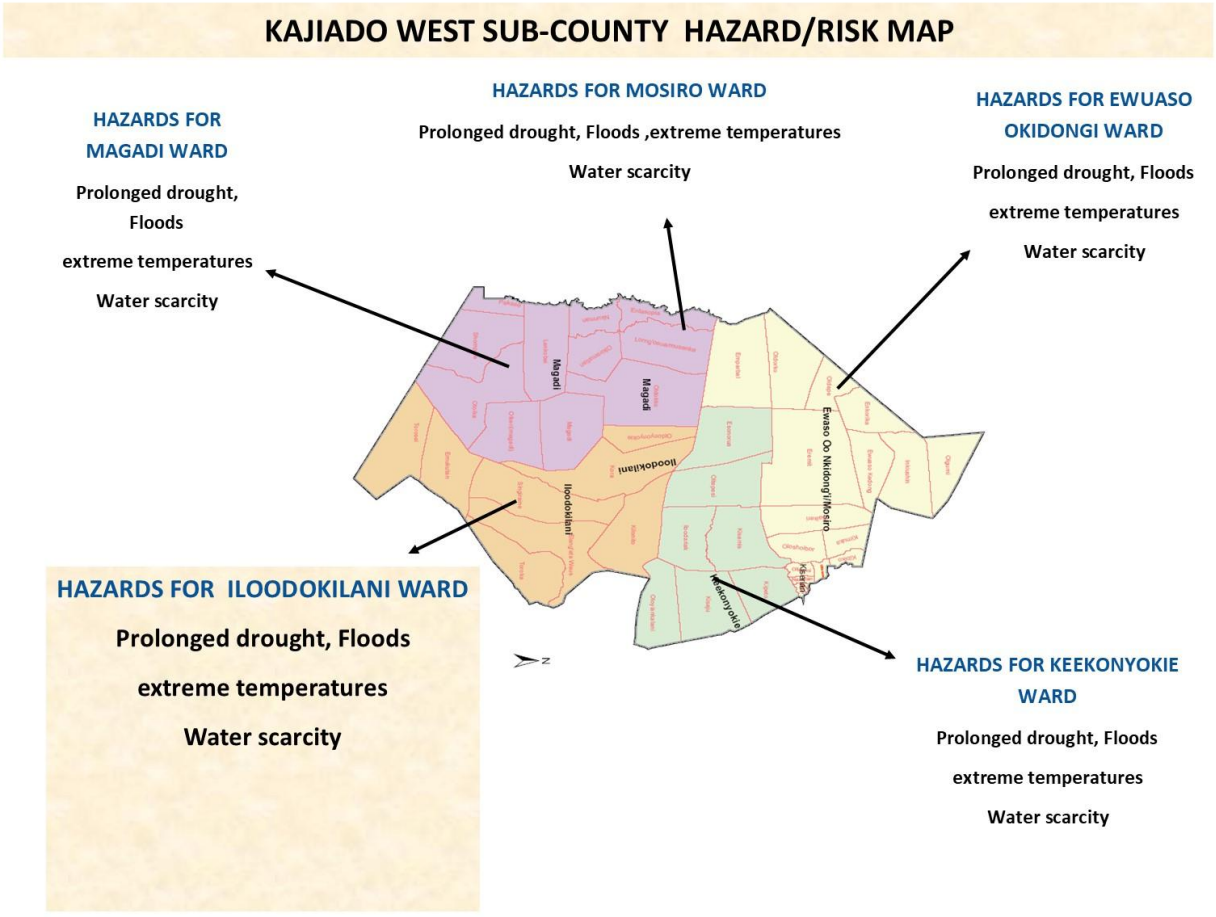
2.2.4 Kajiado South

Kajiado south sub -county also known as Loitoktok Constituency. It is one of the five constituencies in Kajiado located in the southern part of Kenya. It borders Kenya and Tanzania. It has a population of estimated 191,846 according to the Kenya Population and Housing Census 2019. 94,613 Males and 97,225 females, covering an area of approximately 6337km2. It has five wards namely: Entonet/Lenkisim, Imbirikani/Eselenkei, Kimana, Rombo and Kuku. The main economic activity is nomadic pastoralism and small- scale farming. Kajiado South Sub County being an arid and semi-arid land has experienced prolonged drought, decline in water sources such as springs, loss of vegetation cover and increase in temperatures has led to increase in poverty, school dropouts, high mortality rate of livestock and human-wildlife conflicts.

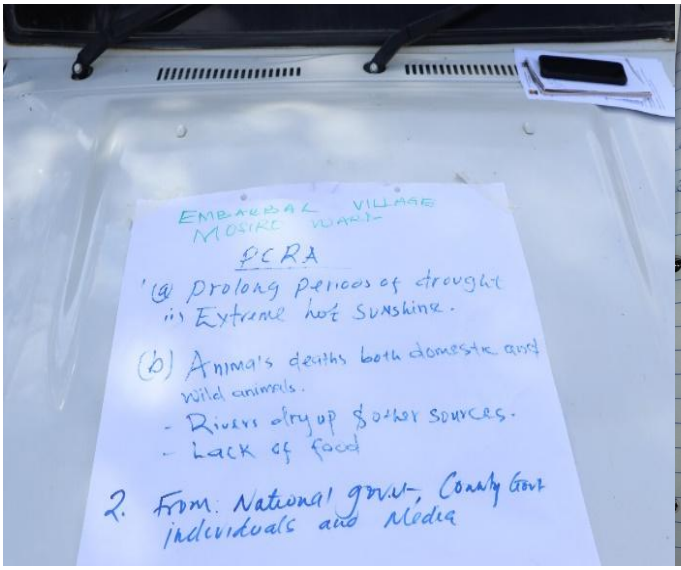


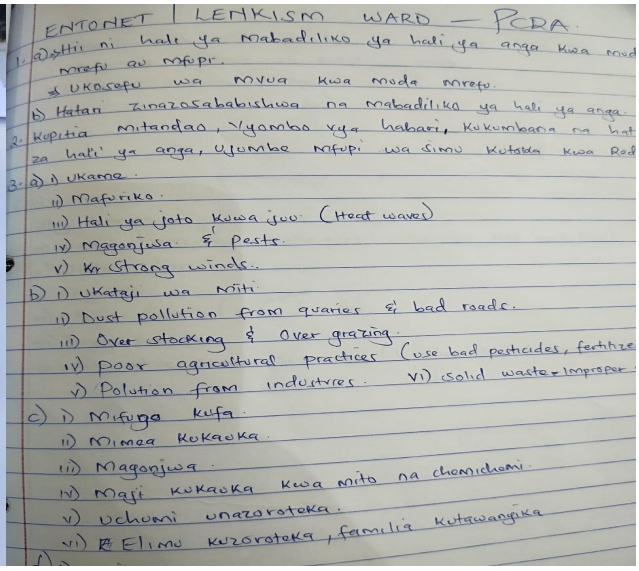
2.2.5 Kajiado West

Kajiado West Sub County is one of the sub counties found in Kajiado County. It covers an area of 7,862km2 and has a population of over 182,849 according to 2019 census. The Sub County is divided into five administrative wards namely Mosiro, Iloodokilani, Ewuaso, keekonyokie and Magadi ward. Livestock rearing and crop farming are the main activities practiced in the Sub County. The Sub county is also known for minerals such as building materials in Kenya Marble Quarry (KMQ), sand, Lake Magadi which is the source of trona and animals licks. Despite of all this, the sub county was one of the most affected sub counties due to its remoteness, vastness and over dependency of livestock farming.The Sub-County has been affected by climate change in various ways including prolonged drought,water scarcity,extreme temperatures,and floods.



Climate Hazards in Kajiado County





2.2.6 Drought:

Kajiado County is prone to prolonged, recurrent droughts, which have severe consequences on;

Livestock rearing – This has resulted to high livestock mortality, emaciated livestock, depleted pastures, low market value of livestock and its products, high cost of feeds, human wildlife conflict in search of pastures.

Water availability – Drying of water sources i.e., springs, rivers, lakes, lowering of water tables affecting boreholes, wells and sand dams, drying of water pans and dams.

Health and Malnutrition – Vulnerable groups such as PWD's, Children, pregnant and lactating mothers, elderly health deteriorated immensely due to drought. Vector borne diseases, water borne diseases and zoonotic diseases due to migration from one region to another.

Agriculture – Failure of rain fed crops has resulted to food insecurity and high cost of purchase. In addition, drought has resulted to loose soil leading to soil erosion affecting its fertility and PH.

Education – Prolonged Drought has resulted to school drop-outs due to high livestock mortality (main source of livelihood), migration in search of water and pastures, early teenage pregnancy and early marriages. In addition, high dropouts have been caused by lack of foods at household level and schools.

Social and economic Impact – There has been an increase in gender-based violence, mental illness increases for men & women, family conflicts separations and divorce, increase in HIV & STI's, drug abuse & crimes due to prolonged drought. In addition, there has been increased level of poverty.

2.2.7 Flooding:

Despite being a semi-arid region, Kajiado County experiences sporadic episodes of heavy rainfall that can result in localized flooding. This has been attributed by; overgrazing, loss of vegetation cover, deforestation, land subdivision, riparian and wetland encroachment, unsustainable sand harvesting practices, natural change of river course among others.

Flash floods pose risks to; Livestock, Infrastructure, homes, and agricultural lands, causing damage and displacing communities.

2.2.8 Extreme Temperature:

Rising temperatures are a notable climate hazard across Kajiado County. Heat waves and increased frequency of hot days have had implications on;

Livestock production–extreme temperature affects livestock milk production.

Human health – there has been increased prevalence of skin diseases, respiratory diseases.

High rate of evaporation – drying up of surface water such as water pans, dams, river and runoff water. In addition, crop production in areas that are dependent on irrigation like in Kuku and Imbirikani ward in Kajiado south has resulted to farmers increasing the frequency of watering of the plants.

2.2.9 Desertification and Land Degradation:

Kajiado County is susceptible to desertification and land degradation due to overstocking, overgrazing, deforestation, and unsustainable land management practices. These processes reduce the productivity of agricultural lands, exacerbate soil erosion, and degrade rangelands, posing significant challenges for the local communities and their livelihoods.

Invasive species such as ***prosopisjuliflora*** in Magadi ward***, ipomeabatatas*** in Kajiado central and Kajiado east has killed the indigenous grass affecting natural livestock pastures.

2.2.10 Whirl Winds:

Trees, schools, homesteads rooftops have been carried away such as in Oldonyokie Secondary school in Magadi ward due to frequent whirl winds. This has caused physical injuries to people and livestock.

2.2.11 Increased Climate Variability:

Climate variability, characterized by erratic rainfall patterns and extreme weather events, has become more pronounced in Kajiado County. The increased variability challenges the predictability of growing seasons, hampers water resource management, and disrupts traditional livelihood practices.

2.3 Impacts/exposure on Communities and Ecosystems

2.3.1 Agriculture and Food Security:

Climate hazards and changing trends pose significant challenges to agriculture in Kajiado County. Reduced water availability, crop failures, and decreased livestock productivity affect food security, livelihoods, and income generation for the Pastoral and farming communities.

2.3.2. Water Resources:

Droughts and changing rainfall patterns impact water availability in Kajiado County. Decreased water levels in rivers, streams, and underground aquifers affect domestic water supply, livestock watering, and irrigation for agriculture, exacerbating water scarcity and competition for resources. Floods and flash floods, soil erosion, reduced soil fertility, environmental degradation, increased pests and disease, landslides, increased number of continuous dry days within rainy seasons

2.3.3 Biodiversity and Ecosystems:

Climate change poses threats to biodiversity and ecosystems in Kajiado County. In the recent past, there has been crease in human-wildlife conflict ranging from lion killings by Morans in Imbirikani ward Amboseli Ecosystem, Elephant attacks and destruction of plants and households water systems across the county, over 200 monkeys invading Kimana girls' secondary school farm. Habitat loss, species migration, and changes in ecological dynamics impact the resilience and functioning of ecosystems, disrupting important ecological services and threatening local flora and fauna.

2.4 Vulnerability Profile

Vulnerability is determined by the people's livelihoods and the resources available to enable them cope with the hazards or their impacts. Several factors compound the impacts of climate change and variability, and at the same time curtail communities' abilities to cope with these impacts: reductions in agricultural land area, declining soil fertility, eroded soils, environmental degradation caused by cultivating on steep slopes, high input costs, and poor marketing systems.

The PCRA process established the most vulnerable groups to climate hazards as:

Drought Effects

1. **Agricultural Dependency:** Kajiado County's heavy reliance on rain-fed agriculture makes it highly vulnerable to droughts. Crop failures and reduced livestock milk and meat productivity during droughts result in food insecurity, income losses, and increased vulnerability among

farming communities such as Loitokitok Sub-county and some parts of Nkuruman in Kajiado west.

2. **Water Scarcity:** Limited water sources exacerbate vulnerability during droughts, affecting both domestic water supply and irrigation for agricultural, domestic activities and wildlife consumption. Lack of access to clean water further increases health risks and sanitation challenges. Water scarcity has also results to character conflict; human wildlife conflicts as wildlife have left their territories to homesteads in search of water.

Flood effects:

- **Infrastructure Damage**: Flash floods in Kajiado County pose a significant risk to infrastructure, including roads, bridges, and buildings. Infrastructure damage disrupts transportation of goods and services, hampers access to social services such as hospital and schools, and slows down recovery efforts.
- **Displacement and Livelihood Disruption:** Floods can displace communities, leading to temporary or prolonged displacement. Disruptions to livelihoods, especially in the agriculture and livestock sectors, can cause economic instability and increased vulnerability.

Temperature Extremes effects:

- **Human Health Risks:** Rising temperatures, heat waves, and prolonged periods of high heat increase the risk of heat-related illnesses and heat stress among vulnerable populations, including the elderly, children, and those with pre-existing health conditions.
- **Livestock and Crop Impacts:** Extreme temperature affect livestock health, reducing productivity and increasing vulnerability among pastoralist communities. High temperatures can also negatively impact crop yields, leading to food insecurity and economic losses.

Desertification and Land Degradation effects:

- **Decreased Agricultural Productivity**: Desertification and land degradation reduce the fertility and productivity of agricultural lands in Kajiado County. Soil erosion, loss of vegetation cover, and degradation of rangelands pose challenges for sustain able pastrolism.
- **Water Resource Stress**: Land degradation contributes to water resource stress, affecting water availability for both agricultural and domestic use. The degradation of rangelands further

exacerbates the vulnerability of pastoralist communities, as it reduces grazing areas and compromises livestock rearing.

Socio-Economic Vulnerability:

- **Poverty and Limited Resources**: The combination of climate hazards and limited resources increases vulnerability among the vulnerable groups, leading to poverty traps and limited adaptive capacity.
- **Limited Access to Services:** Vulnerable groups such as PWDs, elderly, pregnant and lactating women in Kajiado County may have limited access to essential services such as healthcare, education, and social safety nets, further exacerbating their vulnerability to climate hazards.

Addressing these vulnerability profiles is crucial for developing targeted climate change adaptation strategies in Kajiado County. It requires a comprehensive approach that integrates climate-resilient agriculture, sustainable water resource management, community-based early warning systems, and social safety nets to enhance the adaptive capacity and resilience of the county.

2.5 Ward level climate hazards analysis and their impacts

2.5.1 Community Knowledge and Understanding of Climate Change:

From the PCRA exercise, it was observed that 95% of the participants understood hazards, impacts and effects of climate change from the historical trends and traditional beliefs first-hand experience on their day to day livelihood activities. It was also noted that media played a major role in creating awareness on climate change related events and its impacts on livelihoods.

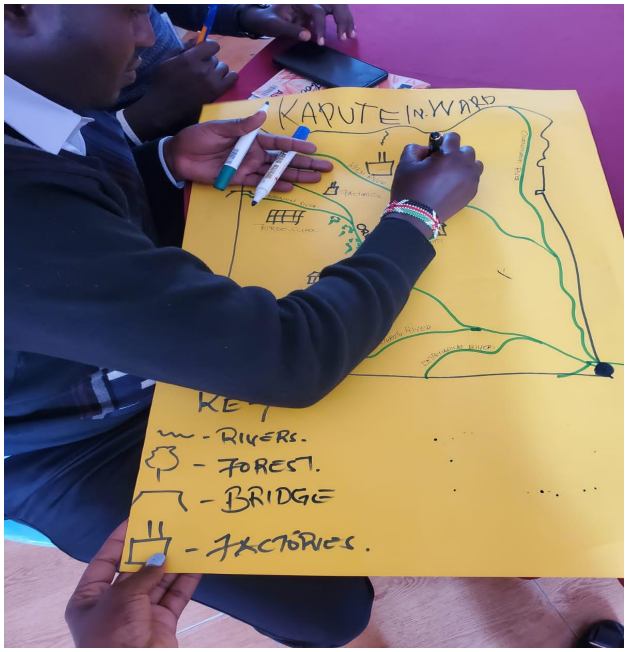
The participatory nature of the exercise enabled the integration of local knowledge, ensuring that community perspectives and priorities were central to the assessment and strategy development process. The insights gained from community members' experiences and observations enriched the understanding of climate risks and the identification of appropriate adaptation measures.

2.5.2 Summary Wards Hazard Analysis & Prioritization of hazards and their impacts

The assessment highlighted the specific climate risks and vulnerabilities faced by the community at the ward level. These included increased frequency and intensity of extreme weather events, rising temperatures, water scarcity, and the impacts on agriculture and livelihoods. Participants drew the maps of their respective wards indicting the areas and livelihood resources put at risk by certain climate,

natural or human-made hazards as they discussed the changes in the type, extend, frequency and intensity of this hazards.



Community members were able to draw their ward maps while identifying natural resources such as rivers, forests, lakes and minerals.

The objectives of this exercise were to:

1. Identify the important livelihood resources and assets in the community
2. Identify areas and resources at risk from climate, natural or human-made hazards
3. Analyze changes in areas affected and types of hazards seen.

The Exercise required the participants to share their knowledge so that their local knowledge can complement the general knowledge developed in the review of the scientific and policy literature. In addition, the maps provide knowledge which further helps in analyzing the vulnerabilities of livelihood assets of the community such as forested areas, water bodies, agricultural lands, pasture and grazing areas were identified and documented as follows.

Dried rivers that TWG identified during the PCRA process in Kajiado West and Kajiado East respectively.

Invasive species such as ipomea batatas in Mashuuru,Namanga and Ilbisil were identified as a climate hazard during the PCRA process.

Summary Wards Hazard Analysis & Prioritization of hazards and their impacts

Among the hazards that came out during the ward discussion forum included; floods, droughts, soil erosions, dry rivers, wildfires, human made hazards such as social political conflicts, human-wildlife conflicts.

Sub-county	Ward	Hazards	Impact
Kajiado Central	Dalalekutuk	Prolonged drought Floods, Extreme Temperatures, Invasive species	Loss of livestock, increase poverty level, outbreak of diseases, displacement of families, decline in ground water tables, Selling of land, Human wildlife conflict, school drop-out, GBV, child marriages and FGM.
	Ildamat		
	Purko		
	Matapato North		
	Matapato South		
Kajiado West	Keekonyoike	Extreme Temperatures, Invasive species, Prolonged drouught Floods, strong whirl winds	Loss of livestock, Sale of land, increase poverty level, outbreak of diseases, displacement of families, decline in ground water tables, increased school drop outs, silting of water dams (Oloishobor and Saikeri dam), Low livestock value, increased distance to water points, Air pollution, Human wildlife conflict, early marriages
	Mosiro		
	EwuasoNkidong'		
	Iloodokilani		
	Magadi		
Kajiado East	Kaputiei North	Extreme Temperatures, Invasive species, Prolonged drought Floods,	Loss of livestock, Sale of land, increase poverty level, outbreak of diseases, displacement of families, decline in ground water tables, increased school drop outs, Low livestock value, increased Malnutrition, loss of lives, insecurity, intercounty boundary conflict, high costs of livelihood, Human wildlife conflict, air pollution, water shortage, early marriages, FGM & emergence of informal settlement.
	Kitengela		
	Oloorsirkon/Sholinke		
	KenyawaPoka		
	Imaroro		
Kajiado	Rombo	Extreme	Loss of livestock, crop failure, Sale of land,

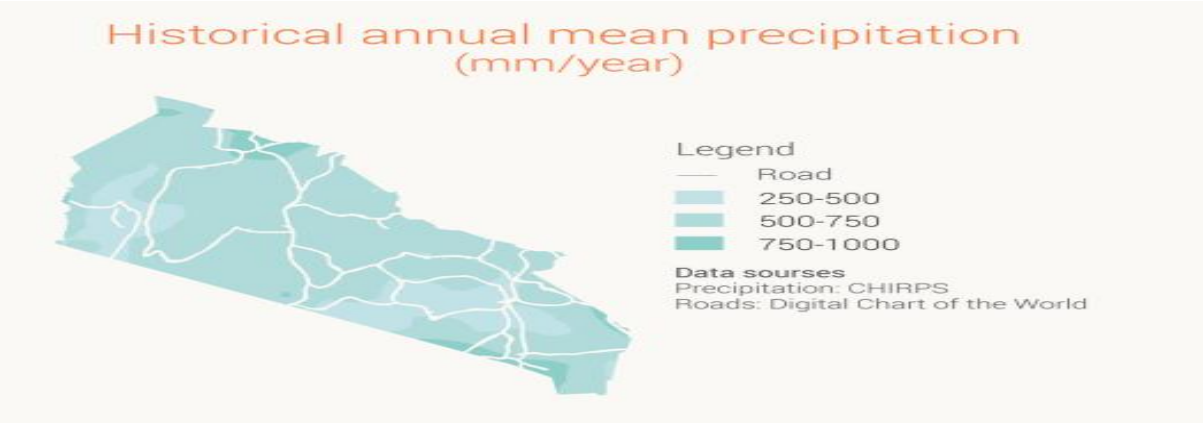
South	Kimana	Temperatures, Prolonged drought Floods,	increase poverty level, outbreak of diseases, displacement of families, decline in ground water tables, Low livestock value, increased Malnutrion, loss of lives, insecurity, intercounty boundary conflict, high costs of livelihood, mental illness, loss of indigenous, deforestation, divorce and prostitution, invesive species, character conflict, school drop-out FGM, encroachment of wetlands and riparian areas.
	Kuku		
	Imbirikani/ Eselenkei		
	Entonet/ Lenkism		
Kajiado North	Ngong	Extreme Temperatures, Prolonged drought, landslide, Floods,	low food yields, high costs of living, water borne diseases, community conflicts and increase in insecurity, limited access to social amenities, decline in ground water, loss of livestock, School drop-outs, GBV, malnutrion, respiratory illnesses, fire break-out, industrial wastes, deforestation, poverty increase, drying out of Kerraapon springs, Encroachment of riparian areas.
	Oloolua		
	Olkeri		
	Ongata Rongai		
	Nkaimurunya		

CHAPTER THREE: CLIMATE SCENERIOS FOR THE COUNTY

3.1 Current and future Climate Scenarios in Kajiado County

3.1.1 Changing Rainfall Patterns:

Kajiado County has experienced changes in rainfall patterns, with evidence of decreasing rainfall amounts and increased variability. This trend affects rain-fed agriculture, water availability, and pastoralism, impacting food production and livelihoods. Annual average rainfall ranges from as low as 300mm in the Amboseli basin to as high as 1250mm in the Ngong Hills and the slopes of Mt. Kilimanjaro, although most of the county receives an average of between 500mm and 750mm annually. Drought is the main agricultural hazard in the county, commonly resulting in a reduction in the availability of water and pasture availability and quality. This in return causes crop losses, livestock emaciation, conflict between agro pastoralists and escalated human-wildlife conflict. In early 2022 for example severe drought resulted in failure of maize crops and a drastic decline in household milk production (to less than 1 liter per day) with households reportedly reducing the frequency and size of meals being eaten each day as a coping strategy.



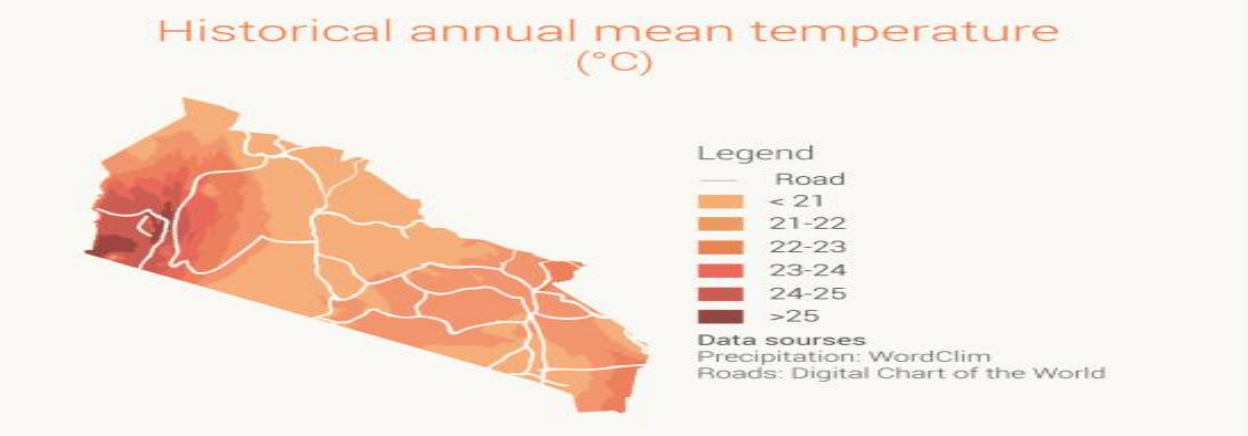
Source:

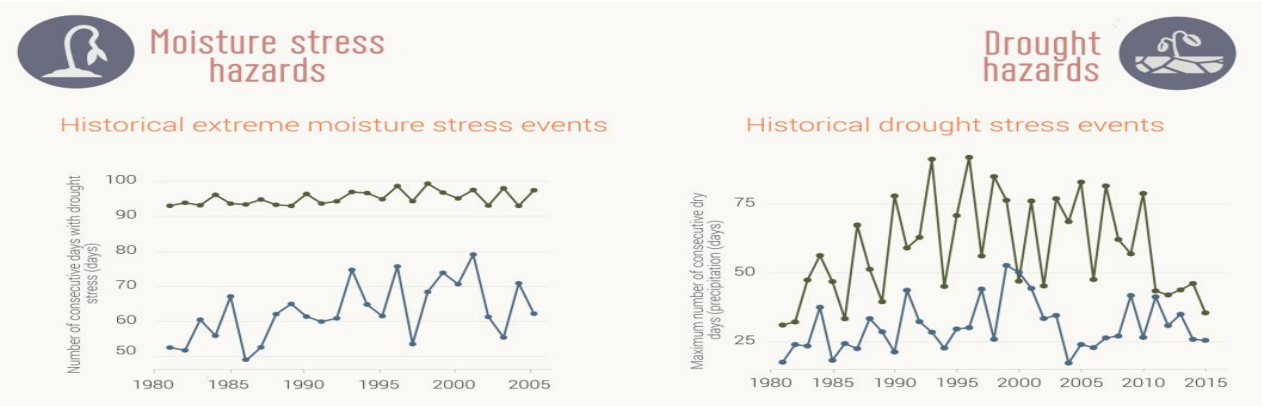
3.1.2 Temperature Rise:

Kajiado County has a cool dry climate with mean annual temperatures over most part of the county being around 21°C; although the northwestern corner near Lake Magadi has higher mean annual temperatures of 23°C to 25°C. Like many other regions globally, Kajiado County has witnessed a rise

in temperatures over the past decades. Increasing temperatures have implications for water resources, crop yields, livestock health, and human well-being, exacerbating existing vulnerabilities.

Analysis of historical temperature trends in the county over 25 years (1981 to 2005), indicate that mean first season temperatures have increased by approximately 0.5°C, while second season temperatures decreased slightly ≤0.1°C. Analysis of precipitation trends over a 35-year period (1981-2015) showed that average first season rainfall had decreased moderately, while that of second season had increased by more than 50mm particularly since 2000. Because of these changes in temperature and rainfall, first season has experienced a large increase in the number of heat stress days15, while flood risk in both seasons has increased. The farmers perceive that a rise in temperatures, moisture stress and flood risk as the main agricultural hazards in the county.

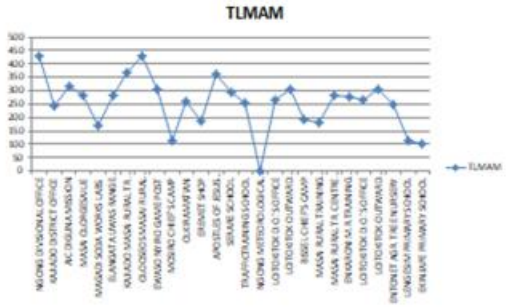




DATA FROM MET

Historical data 1988

Historical data



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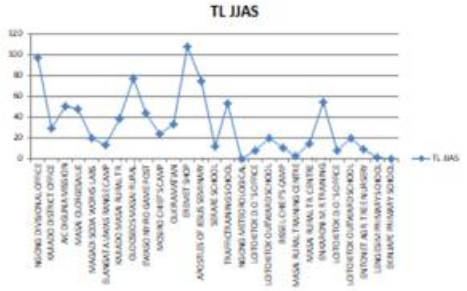

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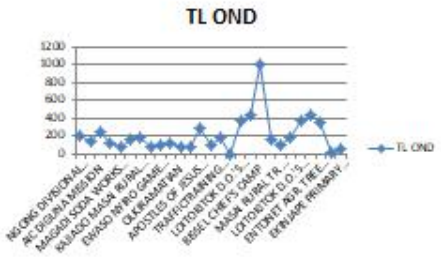
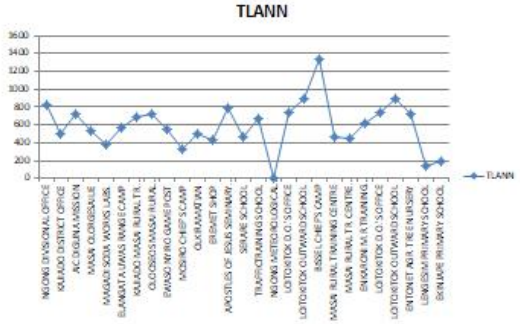
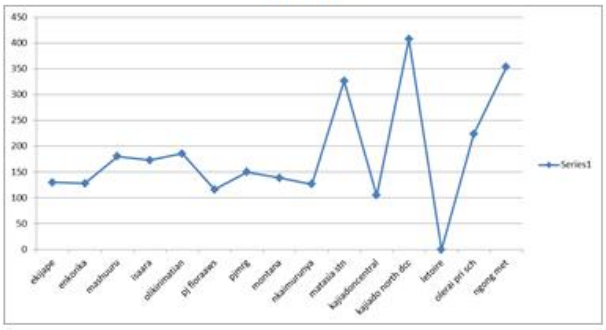


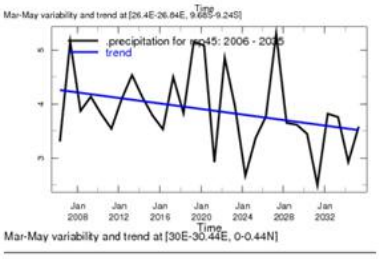
Total for 1988



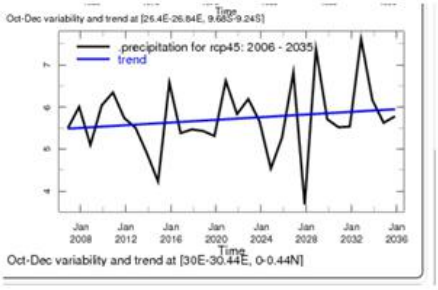
Current data 2023
MRG



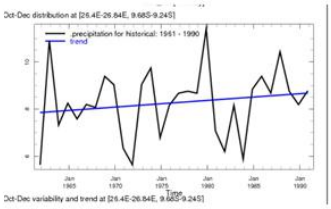
Future projections for Kenya



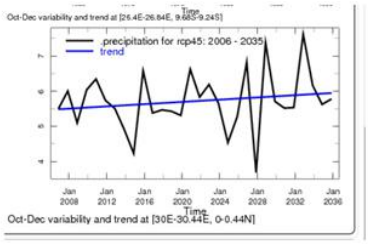
OND projection



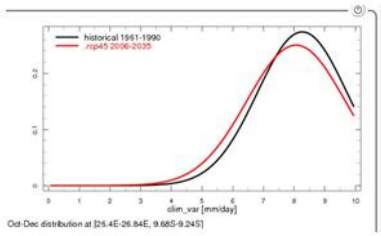
Variability 1961-1990



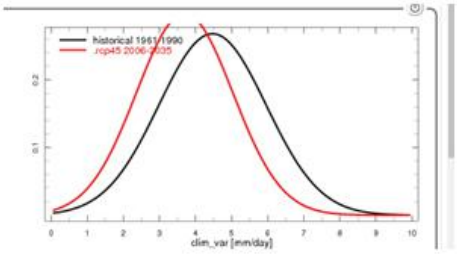
Variability 2008-2036



OND Variability 1961-1990



Historical variability 1961-1990



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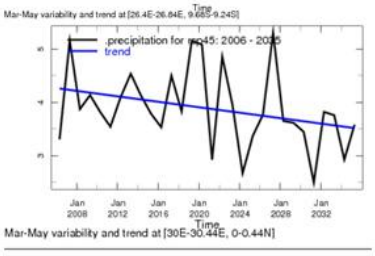

CHAPTER FOUR: EXISTING ADAPTATION STRATEGIES

4.1 Introduction

Kajiado county community and stakeholders have been employing different adaptation and coping strategies of to climate change and viable adaptation options to reduce the impact of climate change. These strategies include, Migration in search of pasture, Destocking, buying of hay, livelihood diversification, table banking and self held group. Other strategies identified by the community include slaughtering of weak animals, diversification of herds, sending children to school and rain harvesting

4.2 Overview of existing and future adaptation strategies in Kajiado County

Rainfall patterns in Kajiado County have changed, becoming more erratic and unpredictable, with the long rainy season becoming shorter and drier. The overall annual rainfall remains low with the long rains continuously declining in recent years. Droughts have intensified in terms of frequency, severity, and coverage over the past few years.

Anthropogenic activities are the major cause of the changing climate. Human induced climate change is directly linked to the amount of fossil fuels burned, aerosol releases and land alteration from agriculture and deforestation. Kajiado being near Nairobi city, it has recently harbored a large population of people. As population increases, it results in clearing of vegetation and forests to create room for constructions. All these contribute to an increase in the concentration of greenhouse gasses in the atmosphere.

Higher temperatures, unpredictable rainfall patterns, increased incidence of droughts and floods, and rising sea levels are impacting people across the county. Extreme weather events have led to loss of lives, diminished livelihoods, reduced crop and livestock production, and damaged infrastructure, among other adverse impacts.

Kajiado county has in place different adaptation strategies as briefly explained below;

NO	HAZARD	CURRENT & FUTURE ADAPTATION STRATEGY
1.	Drought	1. Water harvesting- construction of water pans, water dams, sand dams, drilling of boreholes, 2. Modulated pastoralism-paddocking, dairy farming, feedlot system, fattening, veterinary services 3. Hay farming-grass reseeding, hay harvesting, hay bailing, hay storage. 4. Growing of drought tolerant crops 5. Keeping drought tolerant animal breeds 6. Alternative sources of livelihoods- poultry keeping, mixed farming, pig keeping, beading, apiculture, acquaculture, kitchen gardening 7. Use of renewable sources of energy- solarization, clean cooking jikos, biogas, LPG Gas 8. Establishment and management of tree nurseries for women and youth groups 9. Reforestation with adaptable species and fruit trees 10. Recycling of solid waste i.e. Taka ni Mali initiative
2.	Floods	1. Climate proof infrastructure- roads, bridges and drainages 2. Construction of gabions and terraces 3. Planting of grass seedbanks to restore vegetation cover and control surface runoff 4. Demarcation, beaconing and restoration of riparian and wetlands areas 5. Construction of rain water harvesting infrastructure such as roof catchment, water pans, earth pans/dams. 6. Capacity building of community on flood risks 7. Construction of proper drainage systems
3.	Desertification	1. Increase tree cover through afforestation 2. Development of participatory forest management plan i.e.

		Entarara forest 3. Capacity building of Community Forest Associations (CFA) 4. Identification of alternative sources of energy i.e. Clean cooking jikos, bio gas and briquettes 5. Conservation of indigenous trees species such as Acacia tortillas, xanthophloer 6. Enforcement and strengthening of existing regulations and policies 7. Modulated pastoralism – controlling overstocking overgrazing and best practices of grassland and rangeland management.
4.	Extreme temperatures	1. Construction of green buildings 2. Adoption of renewable energy i.e. solar energy 3. Planting of trees for shades 4. Use of air conditioning in offices and homesteads
5.	Whirl winds	1. Tree planting to act as wind breakers

Drought Adaptation Strategies:

1. **Water Harvesting and Storage:**
    - The construction of water pans, dams, and sand dams has been implemented to capture and store rainwater. These strategies have been effective in increasing water availability during dry periods and improving resilience in agriculture and livestock sectors.
    - ***Diversification of Livelihoods:*** Encouraging alternative income-generating activities, such as beekeeping, poultry farming, and horticulture, reduces dependence on rain-fed agriculture and enhances economic resilience during droughts.
    - ***Climate-Smart Agriculture:*** Promoting climate-smart agricultural practices, including conservation agriculture and efficient irrigation techniques, has helped improve water and soil management, increase crop resilience, and enhance food security.
2. **Flood Adaptation Strategies:**
    - ***Early Warning Systems***: Community-based early warning systems have been established to provide timely information about impending floods. These systems have proven effective in reducing flood-related risks by enabling communities to evacuate and take necessary precautions.
    - ***Floodplain Management***: Effective land use planning and zoning in flood-prone areas have helped minimize exposure to floods and reduce damages to infrastructure and livelihoods.

- **Climate-Resilient Infrastructure:** Constructing flood-resistant infrastructure, such as elevated roads, bridges, and flood control structures, has improved the county's resilience to floods and minimized infrastructure damage.

3. **Temperature Extremes Adaptation Strategies:**
    - ***Heat wave Preparedness:*** Public awareness campaigns and heat wave preparedness measures, including provision of shaded areas, distribution of drinking water, and health advisories, have helped reduce heat-related health risks and protect vulnerable populations.
    - ***Sustainable Land Management:*** Afforestation and reforestation efforts, as well as the promotion of sustainable land management practices, have helped mitigate temperature extremes by providing shade and regulating microclimates.
4. **Desertification and Land Degradation Adaptation Strategies:**
    - ***Sustainable Rangeland Management:*** Implementing rotational grazing systems, promoting proper rangeland management, and restoring degraded lands have helped prevent further desertification and land degradation, improving the productivity of rangelands.
    - ***Agroforestry and Soil Conservation:*** Adoption of agroforestry practices and soil conservation techniques, such as terracing and contour plowing, have helped combat soil erosion and improve soil fertility, enhancing the resilience of agricultural lands.
5. **Socio-Economic Adaptation Strategies:**
    - ***Community-Based Climate Adaptation Planning***: Engaging local communities in the development of climate adaptation plans has improved the relevance and effectiveness of interventions, ensuring they address the specific needs and vulnerabilities of communities.
    - ***Capacity Building and Awareness:*** Training programs and awareness campaigns on climate change adaptation have enhanced the knowledge and skills of communities, enabling them to implement adaptive measures effectively.
    - ***Social Safety Nets:*** The establishment of social safety nets and insurance mechanisms, such as crop insurance and livestock insurance, has provided financial protection to vulnerable households, reducing the socio-economic impacts of climate-related shocks.
    - ***Legal frameworks:*** development of legal policies, bills, regulations and Acts

CHAPTER FIVE: SECTOR STRATEGIC PRIORITY AREAS

The major climate risks and hazards identified by stakeholders across the five sub-counties in Kajiado include unpredictable rainfall patterns, droughts, high temperature and soil erosion which is felt across the county. During community consultation forums and the County Level Multi-stakeholder workshop, the climate hazards in the county prioritized at ward level were presented in the view of the current and projected climate outlook. This was followed by sector-wise identification and prioritization of the response actions for the identified climate risks. This section presents the prioritized strategies for addressing climate risks and their impacts in four priority areas namely water, agriculture, environment and disaster management.

Strategic Priority Areas Summary	
SECTOR	**ACTIONS FOR MITIGATION AND ADAPTATION TO CLIMATE CHANGE**
Environment, Natural Resources and forestry	● Increase forest cover to 10% of the total land area through Afforestation and reforestation programs to restore degraded and deforested areas in Counties ● Rehabilitate degraded lands, including rangelands and abandoned quarry pits with indigenous tree species; ● Implement initiatives to reduce deforestation and forest degradation ● Implement alternative sources of energy to reduce dependence on forest for charcoal and wood fuel. ● Establishment of tree nurseries for fast-growing tree species in each sub-county. ● School tree planting programs ● Encourage involvement of community in county tree planting days ● Encourage Forestation efforts with civil societies

	● Farmer-managed natural regeneration ● Waste to energy -conversion of open dumpsites to sanitary landfills ● Proper waste management through recycling ● Encourage the use of 4Rs-Reduce, Reuse, recover and Recycle ● Encourage segregation of waste at source ● Undertake routine clean-ups of towns ● Control of over harvesting of sand in rivers ● Control of quarrying activities
Water	● Increase annual per capita water availability through the development of water infrastructure ● Climate-proof water harvesting and water storage infrastructure ● Promote water efficiency (monitor leakage, reduce, re-use, and recycle) and Water treatment ● Spring/water catchment and riparian areas protection ● Capture of water run-off on roads ● Strategic placement of dams and water pans
Agriculture, livestock and fisheries	**Crops** ● Undertake farm forestry / agroforestry ● Promoting planting of drought tolerant crops ● Establishment of irrigation systems, such as construction of dams/water pans for irrigation and up scaling drip irrigation ● Educating farmers on conservation agriculture (soil and water conservation) ● Enhanced agricultural extension services ● Crop diversification ● Promote Agro ecology-sustainable farming that works with nature ● Climate information services for farmers ● Promote urban agriculture ● Promotion of non-rain agricultural practices (greenhouse farming, aquaponics and hydroponics) ● Initiate Crop insurance for farmers to caution them against climate-related disasters ● Link farmers to market opportunities

	Livestock ● Controlled grazing ● Promote fodder banks ● Encourage hay establishment, harvesting and storage for use in dry seasons ● Promoting growth of drought tolerant animal feeds e.g.Brachiara ● Promoting drought-resistant breeds of livestock and poultry ● Encourage livestock insurance to cushion farmers from climate-related shocks. ● Management of invasive tree species ● Link farmers to market opportunities **Fisheries** ● Promote aquaculture/ Fish farming ● Promoting aquaponics ● Promoting sustainable low-cost feeds such as black soldier flies and crickets as fish feeds ● Promote rearing of black soldier flies and crickets for management of solid waste ● Link farmers to market opportunities
Health, Sanitation and Human Settlements	● Vaccination / immunization campaigns and programmes ● Vector-borne disease surveillance, reporting and treatment ● Distribution of mosquito nets ● Controlling flooding in human settlements ● Planning urban settlements to incorporate sewer systems ● Controlling pollution from the sewerage systems by repairing leaks and enforcement of proper disposal ● Promote construction of green and eco buildings ● Encourage municipalities for management of waste.
Energy and Transport	● Promoting renewable/green energy (wind, solar, biogas) ● Promotion of clean cooking solution e.g. efficient cooking stoves, biogas and briquettes ● Construction of green roads ● Designating walking and bicycle lanes on roads ● Designate highway and roads for infrastructure that encourage uptake of electric technology e.g. charging points

	for electric cars. ● Encourage individuals to acquire electric vehicles
Tourism and Wildlife	● Promote eco-tourism ● Protect community wildlife conservancies ● Encouraging direct financial benefits for conservation to the community ● Promote designing, construction and operation of low impact facilities in conservancies and parks ● Build environmental awareness to tourists and local
Trade	● Incorporate climate smart innovations into the existing market infrastructures ● Incentivize climate smart innovations in businesses
Disaster Risk Management	● Provide timely response after the occurrence of a disaster ● Support other sectors/departments to undertake measures to prepare and prevent for drought and flood disasters ● To reduce losses from drought disasters by buying livestock before emaciation by drought ● Put in place early warning system e.g. SMS based system for warning communities on a foreseen disaster ● Sensitize the community on the roles of the emergency response dockets and establish a 24hour communication system

CHALLENGES AND LESSONS LEARNED

The PCRA exercise also encountered some challenges and lessons learned:

- **Data Limitations:** Limited availability of local climate data and uncertainties in climate projections posed challenges during the assessment process. Overcoming these data limitations requires improved data collection and access, as well as enhanced collaboration with scientific institutions.
- **Geographical vastness and terrain –**Kajiado County has span area of 21,292.7 Km square, which posed a great challenge in accessing the most remote areas and venues. Poor road networks due to bad terrains dragged the PCRA process with team taking a lot of time in accessing the areas.
- **Poor Communication network –** Due to the vastness and remoteness of some parts of the county, information dissemination was a great challenge such as Oldorko and Kapongo villages in Magadi ward.
- **Inadequate resources –** Delays and limited of resources derailed the PCRA process.
- **Capacity Building**: Building the capacity of stakeholders, particularly community members and local government officials, in understanding climate change risks and adaptation strategies proved crucial. Capacity-building efforts should be sustained to ensure effective implementation and long-term resilience.
- **Cultural barrier:** In some instances, during the participatory open group discussion, it was observed that men were not comfortable seating in the same groups with their daughters and women, affecting constructive engagements.

Conclusion and Recommendations

The concluded PCRA exercise in Kajiado County successfully engaged stakeholders in understanding and addressing climate-related risks and vulnerabilities. More so, it was observed that women (Pregnant and lactating mothers), children, PWDs and elderly were the most affected by the effects of climate change. The exercise resulted in the co-design of context-specific adaptation strategies, incorporating scientific knowledge and local expertise.

Moving forward, the following recommendations are proposed:

1. Strengthen data collection and analysis to improve the understanding of local climate risks and vulnerabilities.
2. Continue building the capacity of stakeholders, particularly community members and local officials, to effectively implement adaptation strategies.
3. Foster collaboration and partnerships among stakeholders for sustained knowledge exchange and collective action.
4. Advocate for policy changes and the integration of climate change considerations into local and national development plans.
5. The responsible entities should fast-track timely disbursement of funds to avoid delays in implementation of activities.
6. By adopting a participatory approach, the PCRA exercise in Kajiado County has laid the foundation for community-led climate change adaptation and enhanced resilience. The outcomes of this exercise will serve as a valuable resource for future climate action and decision-making processes.

Annexure 1: Templates for PCRA FGD's note taking

Documentation of the results of the PCRA process is key to using the knowledge and information for further community action. After each exercise, note takers should summarize and document the results. The reporting templates cover the key aspects of each exercise and help note takers produce exercise reports for the community and for the facilitation team and supporting organizations.

The templates contain four sections. Sections A, B and C cover general information and the main findings of the exercises. These sections are essential parts of the reports for the community.

The information in Section D is potentially confidential and should only be included for internal reports. Organizations conducting or supporting PACDR processes can use this material for their internal reports, for process monitoring and steering, for internal process evaluation and discussions and for the preparation of the exercises that come next.

The supporting organization and the community determine the language(s) for the final documentation. This will depend mainly on how to use it during and after the assessment. It is also important to decide which information should be public (included in sections A, B, C) and which information can only be used for internal purposes (noted separately).

Structure of the exercise report templates

A. Information

B. Main findings of the exercise

C. Main findings of the discussion and guiding questions

D. Process appraisal, additional information, open questions, key insights (confidential or internal use)

- Working conditions, atmosphere (open, interested, shy, tense, dominated…)
- Degree of participation (men, women, leaders, ordinary people, old, young…)
- Strong and weak points

- Degree of understanding of the issue and the instructions
- Quality of facilitation and of interpretation
- Relevance for the participants
- Important aspects not mentioned by participants (not aware, too problematic, risky, conflict avoiding, taboo…)
- Open questions, things to do, follow-up
- Key insights

Exercise 1: Hazard map
A. Information
Date: Location: Names and roles of the facilitation team: Number and characteristics of participants (gender, representatives, minorities etc.):
B. Main findings of the exercise
o Most important livelihood assets and resources:
o Most important hazards mentioned:
o Resources threatened by hazards:
o Gender considerations:
C. Main findings of the discussion and guiding questions
o Comparison of the maps: Similarities, differences, missing aspects:
o Reasons for differences in the maps:
o Changes of hazards over time: Occurrence, frequency, intensity
o People most affected:
o Access and control over resources:

D. Process appraisal, additional information, open questions, key insights (confidential)

Exercise 2: Seasonal calendar
A. Information

Date: Location: Names and roles of the facilitation team: Number and characteristics of participants (gender, representatives, minorities etc.):
B. Main findings of the exercise
o Main activities and events:
o Main differences between the current situation and the situation 30 years ago:
o Periods of stress, hazard, disease, hunger, debt, vulnerability…:
o Gender considerations:
C. Main findings of the discussion and guiding questions
o Comparison of the calendars: Similarities, differences, missing aspects:
o Reasons for differences in the calendars:
o Changes in seasonal activities and events:
o Reasons for the changing situation (climate change, conflicts, increased pressure on resources, politics…):
o Future scenarios (improvement, no change, deterioration):

D. Process appraisal, additional information, open questions, key insights (confidential)

Exercise 3: Prioritization of hazards
A. Information
Date: Location: Names and roles of the facilitation team: Number and characteristics of participants (gender, representatives, minorities etc.):
C. Main findings of the discussion and guiding questions
o Most difficult moments in the community and hazards they relate to:
o Changes and trends of hazards, vulnerable periods, etc., and the reasons for these:
o People most affected:
o Ranking of hazards:
o Magnitude and frequency of hazards:

D. Process appraisal, additional information, open questions, key insights (confidential)

Exercise 4: Vulnerability Matrix
A. Information
Date: Location: Names and roles of the facilitation team: Number and characteristics of participants (gender, representatives, minorities etc.):
B. Main findings of the exercise
o Hazards most harmful to the community livelihood resources or assets:
o Livelihood resources or assets most affected by hazards:
o Gender considerations:
C. Main findings of the discussion and guiding questions
o Comparison of the matrices: Similarities, differences, missing aspects:
o Reasons for differences in the matrices:
o Reasons some resources or assets are strongly affected, other less so or not at all:
o Consequences for the community when basic resources or assets (*land, agriculture, livestock, health*) are strongly affected (*hunger, diseases, poverty, conflicts, migration, solidarity, aid…):*
o People most affected (*landless, handicapped people, elderly, migrants, indigenous, etc.):*
o Why are some hazards more harmful than others?
o Where and how has the vulnerability of the community increased in recent years?

D. Process appraisal, additional information, open questions, key insights (confidential)

Exercise 5: Review and evaluation of local responses
A. Information

Date: Location: Names and roles of the facilitation team: Number and characteristics of participants (gender, representatives, minorities etc.):
B. Main findings of the exercise
o Most important negative impacts of hazards:
o Most effective and sustainable local responses to these impacts:
o Gender considerations:
C. Main findings of the discussion and guiding questions
o Comparison of the tables: Similarities, differences, missing aspects:
o Reasons for differences in the tables:
o Additional local responses not mentioned in the groups (*practiced only by very few people, culturally not accepted, taboo…)*:
o Impacts with satisfying responses, impacts with weak responses:
o Overall result as to effectiveness and sustainability:
o People with low capacities to respond to negative impacts (*landless, handicapped people, elderly, migrants, indigenous, etc.)*:
o Hazards and negative impacts where the community wants to improve their responses:

D. Process appraisal, additional information, open questions, key insights (confidential)

Summary: Review and conclusions
A. Information
Date: Location: Names and roles of the facilitation team: Number and characteristics of participants (gender, representatives, minorities etc.)
C. Main findings of the discussion and guiding questions
o Particular local challenges (*conflicts, land issues, controversial large-scale developments*)
o Degree of practice of responses (spreading):
o Reasons for responses not practiced (obstacles):

o Table: Severity of impacts | Strength of existing responses | Need for action
o Responses to be spread widely:
o Inadequate local responses:
o Areas where action is needed:
o Gender considerations:

D. Process appraisal, additional information, open questions, key insights (confidential)

Exercise 6: Community adaptation goals
A. Information
Date: Location: Names and roles of the facilitation team: Number and characteristics of participants (gender, representatives, minorities etc.):
B. Main findings of the exercise
o Short-term goals (1–3 years):
o Long-term goals (5–10 years):
o Gender-specific goals (if any):
C. Main findings of the discussion and guiding questions
o Impacts most critical to women, men, minorities:
o Comparison of the goals: Similarities, differences, missing aspects:
o Reasons for differences in the goals:
o Merged goals:

D. Process appraisal, additional information, open questions, key insights (confidential)

Exercice 7: Adaptation stratégies, obstacles and opportunités

A. Information
Date: Location:
Names and roles of the facilitation team:
Number and characteristics of participants (gender, representatives, minorities etc.):
B. Main findings of the exercise
o New adaptation responses and strategies (effective, sustainable):
C. Main findings of the discussion and guiding questions
o Comparison of the results: Similarities, differences, missing aspects:
o Reasons for differences in the tables:
o Obstacles for implementing the new responses and strategies:
o Possible negative effects (conflicts between farmers and pastoralists; people living upstream, downstream; environmental impacts):
o External support needed (knowledge, funds, resource people, government support):

D. Process appraisal, additional information, open questions, key insights (confidential)

Exercise 8: Identification of co-benefits
A. Information
Date: Location:
Names of the facilitation team:
Number and characteristics of participants (gender, representatives, minorities etc.):
C. Main findings of the discussion and guiding questions
o Co-benefits (positive indirect impacts): - Environment, ecology, climate (biodiversity, forest, soil, erosion, GHG mitigation) - Socioeconomic (gender justice, pro-poor, income generating) - Political (empowerment, participation in decision making, advocacy)
o Negative indirect impacts:
o Methods and approaches to increase co-benefits:

D. Process appraisal, additional information, open questions, key insights (confidential)

Exercise 9: Development of an action plan
A. Information
Date: Location: Names and roles of the facilitation team: Number and characteristics of participants (gender, representatives, minorities etc.):
C. Main findings of the discussion and guiding questions
○ Short-term activities:
○ Long-term activities:
○ Individual or household activities:
○ Community activities:
○ Activities to be implemented with locally available resources:
○ Activities where other stakeholders are needed (resource persons, government, funders):
○ Commitments of participants and stakeholders:

PCRA Process in pictures

Kitengela ward community members sharing their views and knowledge on climate change while identifying effects of climate change.


Keekonyokie ward community members identifyied their climate change hazards during a focused group discussion.


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Addressing Core Problems Affecting
The Local Community By Building
Capacities To Harness And Utilize
Available Resources