



Samburu County

## County Climate Change Action Plan

2023 - 2027

October 2023



Kingdom of the Netherlands



Sweden  
Sverige

Ministry of Foreign Affairs of Denmark

DANIDA



## Forward



Livestock, agriculture and tourism are the economic mainstay of the residents of Samburu County. All the three economic sectors are highly climate sensitive, and are therefore extremely vulnerable to climate risks and shocks. The increasing frequency of extreme weather events such as droughts, poses a great challenge to socio-economic development. In collaboration with stakeholders, the County government has, and continues to put in place governance structures that enable climate change adaptation and resilience building of our communities, and consequently safeguard and enhance development gains already made in the socio-economic and other fronts.

This Climate Change Action Plan (CCAP) is one of these structures. It has been developed through a Participatory Climate Risk Assessment (PCRA) process with the aim of providing a clear and concise framework of community generated priority response actions to climate variability and change for sustainable resilience building. The plan is anchored on the Samburu County Climate Change Act, 2022, which seeks to protect the climate system for the benefit of the present and future generations in line with relevant national and international policy frameworks.

Samburu County has also laid requisite framework and other mechanisms to access climate resilience investment financing to ensure that the County's systems of governance, ecosystems and society have capability to maintain normal function in the face of climate change.

With this action plan in place, my government is focused on implementing key interventions as identified and prioritized by communities to help achieve the goal of low carbon climate resilient development pathways. These efforts will go a long way in addressing adverse climate change impacts on all sectors that are important to the socio-economic wellbeing of our people.

To achieve the objective of this plan, we must all work together. I, therefore, appeal to all individuals, agencies, local communities and other stakeholders to join hands with us in this endeavour.

**H.E LATI J. LELELIT**

**GOVERNOR, SAMBURU COUNTY**

## Acknowledgement

The County Government of Samburu through the Department of Water, Environment, Climate Change, Natural Resources and Energy acknowledges the valuable inputs of all stakeholders for their contribution in the preparation of this Samburu County Climate Change Action Plan.

We sincerely thank members of the local communities through the ward climate change planning committees in all the fifteen wards of Samburu County, Technical Working Groups and our partners for the processes leading to the adoption of this plan. CSOs are critical partners who provided insight and expertise from their long-time work at the community level. We appreciate their role in reviewing and aligning information on local hazards, priority plans and strategies as outlined in the third generation County-Integrated Development Plan for 2023-2027.

We thank the Samburu County PCRA technical committee for being part of the facilitation of the ward-level PCRA data collection exercise and bringing their local insight to inform the process.

The County appreciates the invaluable input and participation of the following national government ministries, departments and agencies; Kenya Meteorological Department, Interior and National Coordination, National Environmental Management Authority, Kenya Forestry Services, Ministry of Agriculture, Livestock and Fisheries, National Drought Management Authority and Ministry of East Africa Community, the ASALS and Regional Development. The data provided and the information gained from the institutions both for sector-based risk assessment was enormous.

### Document citation

Samburu County, 2023-2027 Climate Change Action Plan. The Department of Water, Environment, Climate Change, Natural Resources, and Energy; Samburu County.

## County Climate Change Action Plan Task Force

NAME	DEPARTMENT/INSTITUTION
Benson Lengalen	Water, Environment, CC, Natural Resources & Energy
Joseph Kilonzo	Livestock Production
Loldos Billy	Livestock Production
Joseph Lolchuraki	Special Programs
Peter Daniel Lesooni	Special Programs
Eng. Kirui Samwel	Crop Production
Steve Biko Lepariyo	Water, Environment, CC, Natural Resources & Energy
Simon Lekembe	Tourism
Lediipo Jamaica John	Water, Environment, CC, Natural Resources & Energy
Monica Lotukoi	Water, Environment, CC, Natural Resources & Energy
Sammy Lenolkulal	Water, Environment, CC, Natural Resources & Energy
Angela Nyanchama	LISTEN Project (FCDC)
Timothy Lembara	Water, Environment, CC, Natural Resources & Energy
John Lenareu	County Administration
Daniel Lelenguiya	County Administration
Rose Lenairerei	County Administration
Tony Boaz Leparkery	Water, Environment, CC, Natural Resources & Energy
Joseph Lenaseiyan	Water, Environment, CC, Natural Resources & Energy

Table of Contents	
3	Acknowledgement ..... ii
4	Contents ..... iv
5	Definition of terms..... ix
6	Executive Summary ..... x
	Background and Context ..... 1
1.1.	Introduction & Background ..... 1
1.2	Purpose and process of the CCCAP..... 1
1.3	Underlying Climate Resilience Context.....2
1.3.1	<b>Annual and Seasonal Rainfall Variation..... 3</b>
1.4	Impacts of Climate Hazards in the County.....5
1.5	County Climate Hazard Map .....6
2,	Brief Overview of Climate Change Actions in the County .....8
2.1	Mainstreaming of NCCAP in County Actions .....8
	<b>Climate Change in CIDP .....8</b>
	<b>Other key climate actions/strategies in the County ..... 10</b>
2.2	Policy Environment ..... 10
2.2.1	National Policy Context..... 10
2.2.2	National Legal and Policy Framework ..... 10
2.2.3	County Enabling Legal & Policy Framework.....12
3.	Priority Climate Change Actions .....14
3.1	Identification of strategic climate action priorities in the PCRA .....14
3.2	Priority County Climate Change Actions .....14
	Delivery Mechanisms for CCAP ..... 1
	Enabling Factors ..... 1
	<b>Enabling Policy and Regulation ..... 1</b>
	<b>Mainstreaming in the CIDP ..... 1</b>
	<b>Multi-stakeholder participation processes ..... 1</b>
	<b>Finance - County Climate Change Fund ..... 1</b>
	<b>Governance - County Government Structures..... 1</b>
	<b>Governance - Climate Change Planning Committees ..... 1</b>
	<b>Climate Information Services &amp; Climate Data Access..... 1</b>
	<b>Resilience Planning Tools..... 1</b>
	<b>Measurement, Reporting and Verification ..... 1</b>

	<b>Institutional Roles and Responsibilities .....</b>	<b>1</b>
	<b>Implementation and Coordination Mechanisms .....</b>	<b>1</b>
	<b>    Directorate of Climate Change .....</b>	<b>1</b>
	<b>    County Climate Change Planning Committees .....</b>	<b>1</b>
<b>7</b>	<b>Annexes .....</b>	<b>Error! Bookmark not defined.</b>

## List of Figures

<b>Figure 1</b> Figure Annual rainfall distribution over Samburu County.....	3
<b>Figure 2</b> Annual cycles of rainfall, mean temperature, maximum temperatures and minimum temperatures.....	3
<b>Figure 3</b> Annual variation of rainfall in Samburu County 1981-2022 .....	4
<b>Figure 4</b> Seasonal rainfall variation over Samburu County.....	5
<b>Figure 5</b> Livelihood and Risks map.....	6

## List of tables

Table 1: Agriculture Sector climate actions .....	16
Table 2: Water and Sanitation Sector climate actions.....	19
Table 3: Environment, Climate Change, Natural Resources and Energy .....	23
Table 4: Human Health and Well Being Sector climate actions.....	27
Table 5: Disaster Risk reduction and special programmes sector climate actions .....	32
Table 6: Institutional Roles and Responsibilities.....	37
Table 7: Implementation Matrix.....	41



## Acronyms

ADP	Annual Development Plans
CBOs	Community Based Organization
CCAP	County Climate Change Action Plan
CCU	Climate Change Unit
CECM	County Executive Committee member
CIDP	County Integrated Development Plan
CIMES	County Integrated Monitoring and Evaluation System
FBO	Faith-Based Organization
NCCAP	National Climate Change Action Plan
IPCC	Intergovernmental Panel on Climate Change
NDC	Nationally Determined Contribution
NGO	Non-governmental organisations
MRV	Measurement, Reporting and Verification
PCRA	Participatory Climate Risk Assessment
PWD	People Living with Disability
TWG	Technical Working group
WCCPC	Ward Climate Change Planning Committee
CIMES	County Integrated Monitoring and Evaluation System

## **Definition of terms**

**Climate change:** a change in the state of the climate that can be identified (e.g., by using statistical tests) by changes in the mean and/or the variability of its properties, and that persists for an extended period, typically decades or longer. Climate change may be due to natural internal processes or external circumstances such as modulations of the solar cycles, volcanic eruptions, and persistent anthropogenic changes in the composition of the atmosphere or in land use (IPCC, 2018).

**Climate risk:** The potential for consequences where something of value is at stake and where the outcome is uncertain, recognizing the diversity of values. Risk is often represented as probability of occurrence of hazardous events or trends multiplied by the impacts if these events or trends occur. Risk results from the interaction of vulnerability, exposure, and hazard (IPCC, 2018).

**Climate hazard:** The potential occurrence of a natural or human-induced physical event or trend or physical impact that may cause loss of life, injury, or other health impacts, as well as damage and loss to property, infrastructure, livelihoods, service provision, ecosystems, and environmental resources (IPCC, 2018).

**Climate variability:** Variations in the mean state and other statistics (such as standard deviations, the occurrence of extremes, etc.) of the climate on all spatial and temporal scales beyond that of individual weather events (IPCC, 2018).

**Resilience** refers to the capacity of social, economic and environmental systems to cope with a hazardous event, trend, or disturbance. It is manifested through responding or reorganising in ways that assert the essential function, identity, and structure of the system, while also maintaining the capacity for adaptation, learning and transformation.

**Vulnerability** refers to the propensity or predisposition to be adversely affected. It encompasses a variety of concepts and elements, including sensitivity or susceptibility to harm, and lack of capacity to cope and adapt.

## **Executive Summary**

Samburu County Climate Change Action Plan 2023-2027 is a five-year plan to drive the county's climate change action. The plan is driven from county documents including CIDP 2023-2027 and Samburu County Climate Change Act 2022 which requires the county government to develop action plans to guide mainstreaming of climate change into sector functions. It presents actions that will be undertaken to address Climate Change risk and Vulnerability faced by the County which fall under the ASAL region.

Samburu County Climate Change Action Plan 2023-2027 is derived from a participatory process that systematically informed county communities, governments and stakeholders about climate change risks thereby aiding their identification of opportunities to integrate these climate perspectives into county development. The community actors included elders, women, men, youth, PWPs, PBOs and FBOs in line with the Samburu Climate Change Act, 2022. At county level, state and non-state actors from socio-economic sectors affected by climate change were engaged. This included agriculture and livestock, disaster risk management, water, energy, health, infrastructure and transport, forestry and natural sources, and tourism. The development of the plan has its roots in the County Climate Change Act 2022 which explicitly provides for the development of a County Climate Action Plan. It also feeds into the CIDP 2023-2027 which requires mainstreaming of climate change into sector functions. It presents priority climate actions that will be undertaken to address Climate Change risks and vulnerabilities faced by the County as identified by communities during the climate risk assessment process that culminated in the development of the Participatory Climate Risk Assessment report.

This document provides a background to the need of climate action planning in the County and describes the highly participatory and inclusive process that was used to identify climate actions to be implemented to build the climate change adaptive capacity and resilience of communities in the County. It paints a contextual picture of the climate situation in the County with respect to differentiated exposures and vulnerabilities of the different groups of residents, and explains climate actions already being undertaken in the County.

Chapter 2 analyses the policy context both at the national and county levels, and how each relevant individual policy enables the advancement of the climate agenda, and chapter 3 identifies priority climate actions as spelt out in the PCRA.

The last chapter describes the delivery mechanism of the CCAP with a focus on factors such as governance, policy, collaborations, finances among others that enable the delivery. It also explains mechanisms for coordination and implementation such as formal structures. Finally, an implementation matrix details the implementation of the prioritised actions and provides a basis for monitoring and evaluation.

## 1. Background and Context

### 1.1. Introduction & Background

Samburu County is located within the northern parts of the Rift Valley in Kenya. It lies within Kenya's arid and semi-arid lands region, covering an area of 21,022 km<sup>2</sup> and bordering Turkana to the northwest, Baringo to the southwest, Marsabit to the northeast, Isiolo to the east, and Laikipia to the south. Administratively, Samburu is divided into three sub-counties, 15 wards, and 108 villages. A total of 139,892 ha, or (8%), of the land is arable. Most of this land is concentrated in Samburu's central highland. Samburu County encompasses five agro-ecological zones.

Climate change has impacted Samburu economy and is a threat to socio-economic strides which the County has made over time. The County has developed structures and institutional framework to help its communities manage the impact of climate change. In line with the objectives of the Paris Agreement, National Government Climate Change Act (2016) and the National Climate Change Action Plans (NCCAP 2018-2022); Samburu County has developed a County Climate Change Act, (2022) a framework for enhanced response to climate change in the County.

### 1.2 Purpose and process of the CCCAP

Samburu County applied sectoral and participatory methodologies to develop the Climate Change Action plan. The science based approach (Participatory Climate Risk Assessment (PCRA)) adopted by the County considered inclusivity and dialogue opportunities to the people of Samburu. The PCRA process aimed to deliver climate resilience services and development to the residents of the county and ensure that negative impacts of climate extremes due to changes in atmospheric process on key sectors doesn't slow its programs and projects. The PCRA process helped inform government programs through informing and formulating the County Climate Actions to drive the sustainable development agenda in the County.

The PCRA was aimed at understanding the nature and extent of the current and future climate change risks, by analysing potential hazards and assessing the vulnerabilities that could pose potential threats or harm to Samburu County's population, assets, livelihoods, investments and the ecosystem on which they are dependent. The overall objective of the assessment is to map out the vulnerability of the county to climate change and develop strategies towards adaptation and resilience.

The exercise had the following outcomes:

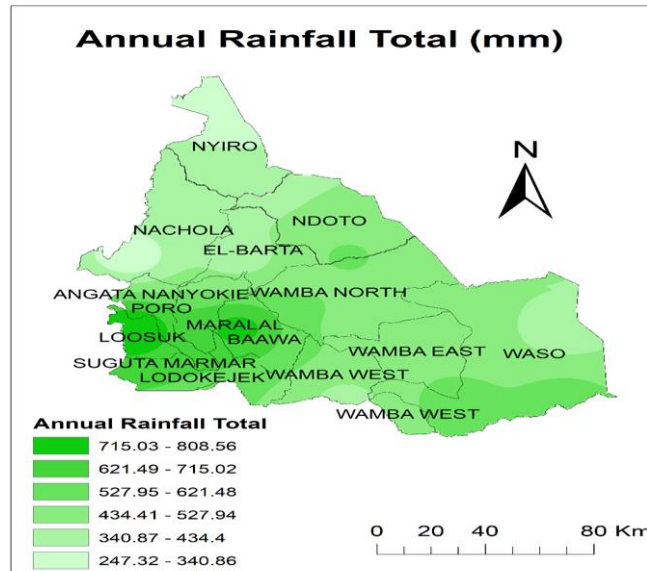
1. To provide a detailed Samburu County Climate Change vulnerability report of high medium and low risk areas.
2. To propose intervention or measures to increase resilience of the county to climate change impacts.

Participatory climate change approaches involve engaging local communities, stakeholders, scientists and decision-makers in the process of understanding and addressing the impacts of climate change. These approaches recognize the importance of local indigenous knowledge and expertise in developing effective climate change responses, and aim to empower communities to take action on climate change. Understanding the past interactions between society and climate hazards, including adaptations that have evolved to cope with these hazards, is a critical first step in developing adaptations to manage future climate risks.

Samburu county government formed Ward Climate Change Planning Committees (WCCPC) and trained them in 2023. These committees were drawn from the community level through a rigorous process where the community members elected their representatives. The criteria used during the composition of these committees factored in the gender, youth, and people living with disabilities. These are the groups who were involved during the PCRA process. WCCPC was established under Part III—Institutional framework for planning and implementation of the Samburu County Climate Change Act 2022.

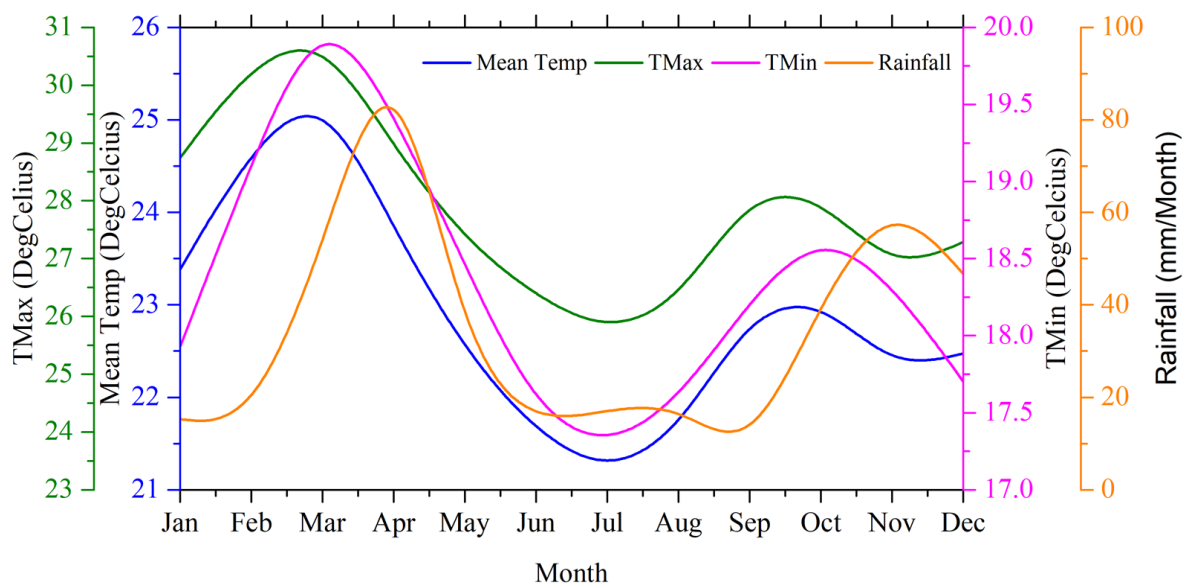
### **1.3 Underlying Climate Resilience Context**

The County experiences tropical climatic conditions. The driest months are January and February. The long rainy season falls in the months of March, April and May. The elevation and orientation of the major topographic features such as Mathew ranges and Ndoto hills influence rainfall distribution. In Samburu Central short rains occur during the months of July and August, sometimes extending into September. In Samburu North and East, the short rainy season is usually delayed and occurs in October and November and sometimes extends into December. The southwest plains and the Lorroki Plateau receive between 500 mm and 700 mm of rainfall annually. The Nyiro and Ndoto Mountains and Matthews ranges receive the highest amount of rainfall between 750 mm and 1250 mm per annum. The central basin and the plains east of the Matthews Range are the driest parts of the county with annual rainfall of between 250 mm and 500mm.



**Figure 1** Figure Annual rainfall distribution over Samburu County

Annually, the county has an annual mean temperature of 29°C with the maximum range being 33°C and minimum of 24°C. The central plains and the region east of the Matthews Range have the highest temperatures while the highland belts in the North Eastern side of Lorroki Plateau are cooler.



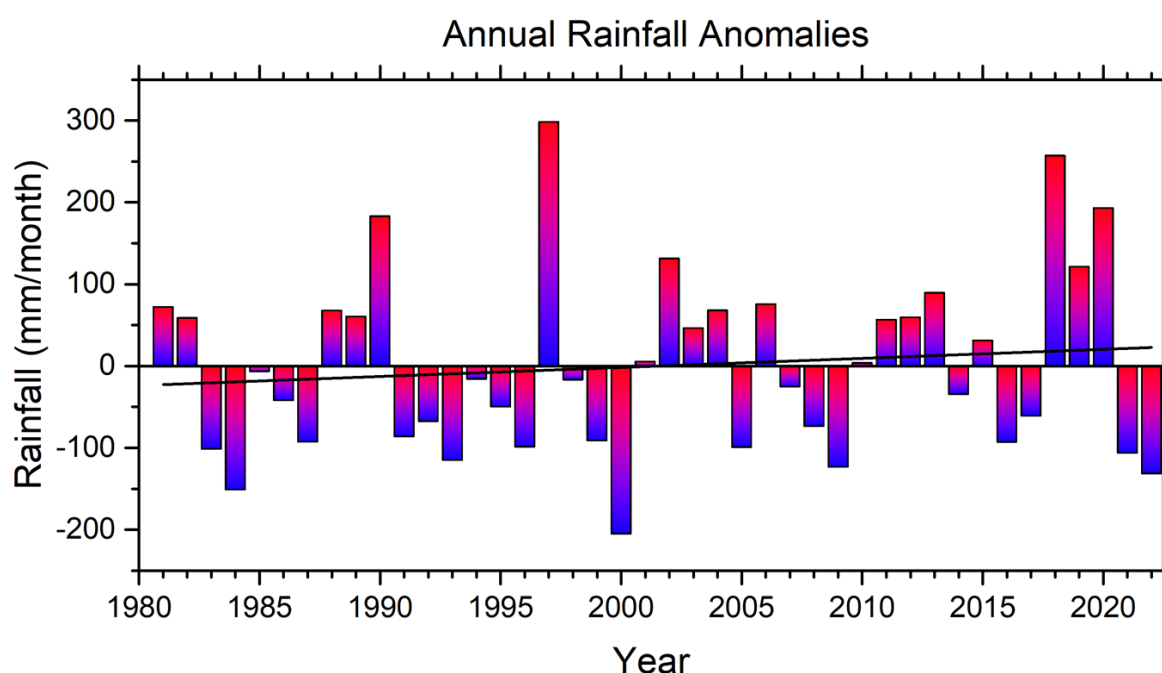
**Figure 2** Annual cycles of rainfall, mean temperature, maximum temperatures and minimum temperatures

### 1.3.1 Annual and Seasonal Rainfall Variation

This section seeks to underscore the importance of the historical calendar in the PCRA process and link it to the impacts of various climate hazards experienced in the past. Based on the findings of the ward level PCRA reports as discussed in section 2.1 of this

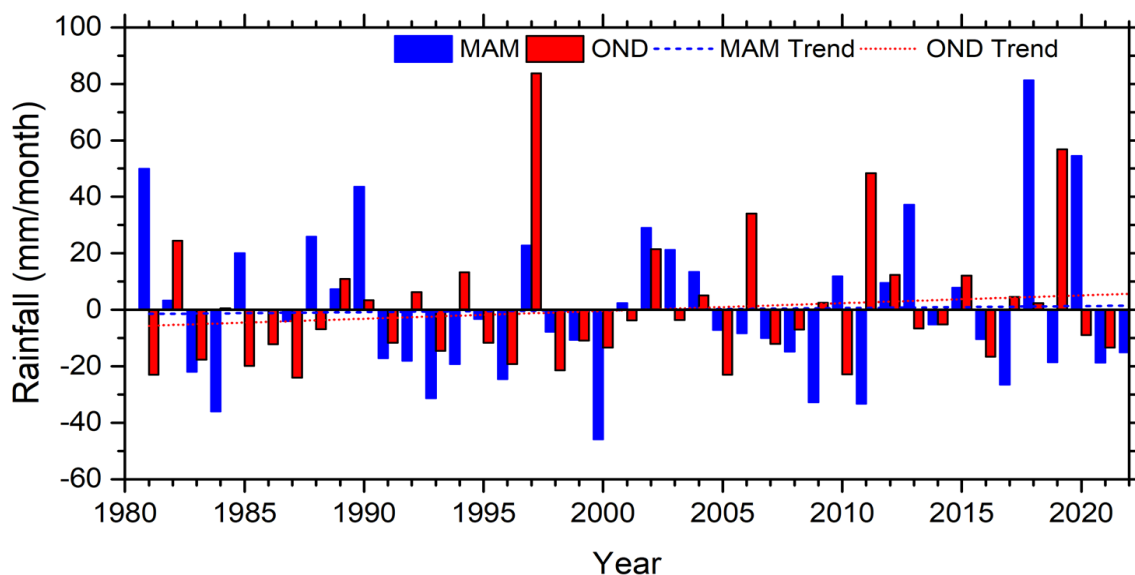
report, drought stands out to be the most prioritised hazard that affects the communities living in the 15 wards of Samburu county. Findings from this PCRA indicate that communities are cognisant of the general climate trends in their various wards, its variability and the impacts of extreme weather events on their livelihoods. The main climate changes perceived by the residents of Samburu county include more erratic and reduced amounts of rainfall, rise in temperature and prolonged and frequent periods of drought. Pastoralists mainly view population pressure and tree cutting as the major causes of climate change. Further, this study found that NDMA gives early warning on droughts through its DEW Bulletin which comes out monthly. Importantly, pastoralists reported the negative impacts of climate change on cattle production. The severe recurrent drought periods result in shortage of forage and water, leading to cattle starvation and human malnutrition. Pastoralists reported massive cattle deaths and outbreaks of diseases such as contagious bovine pleuropneumonia and tick-borne diseases. Further, reduction in milk production and poor livestock market prices were also reported as negative impacts on cattle production.

The drought highlighted in the latter sections of this report are observed in the annual anomalies of rainfall as illustrated in *Figure 3*. For instance, the 1984 drought was caused by up to 160mm deficiency in the annual rainfall total received over Samburu County. Other notable extreme events that can be identified from the analysis of the historical rainfall trends are the 1990-1992 drought as identified by Suguta ward, the year 2000 drought, 2010 and the recent drought of 2020-2023 that spread all over the county which led to migration of pastoralist from Samburu into other counties. In addition, the 1990, 1998 floods that ravaged some wards are visible with a record 280mm positive rainfall anomaly being observed in the 1998 El Nino event. The analysis depicts a scenario of rising trend of annual rainfall from 1981 to 2022.



**Figure 3** Annual variation of rainfall in Samburu County 1981-2022

As discussed in section 3.1.2, rainfall over Samburu county varies at both temporal (monthly and seasonal scales) and geographically over various parts of Samburu county. *Figure 4* demonstrates the seasonal variation of rainfall over Samburu county. Rainfall variability is of great importance in Samburu County, where small-scale farmers and pastoralists dominate. Their livestock production activities are heavily dependent on rainfall which affect their seasonal calendar as discussed in the PCRA steps. Notably, Wamba region depends on OND season for crop production with harvesting mainly happening in December and January. It is observed that the historical rainfall patterns for both MAM and OND seasons have been on the rise. However, there are also inter-annual variations within the season with some years experiencing failed seasons while other seasons receiving fairly high rainfall amounts.



**Figure 4** Seasonal rainfall variation over Samburu County

#### 1.4 Impacts of Climate Hazards in the County

Samburu County as per literature and climate data is predominantly semi-arid with a scarce erratic rainfall (mean annual rainfall of between 500-700mm per annum). Increased human dependence on forest resources along with variability in intensity and seasonality of rainfall, have resulted in prolonged droughts and severe weather events in recent years. Kirisia forest, one of four forest reserves in Samburu, has been badly encroached and poorly managed, and is subject to fierce and destructive fires. Illegal extraction of cedar, collection of firewood, charcoal burning, cutting down trees for fodder and overharvesting of herbs and non-wood forest products are main threats to Kirisia forest and its ecosystem functioning.

Samburu communities are culturally pastoralists - 88% of the community household income comes from livestock rearing, with 98% of the community using fuel wood as a source of energy, but only 30% of the community engages in tree planting to help maintain a viable source of wood and forest system.



## 1.5 County Climate Hazard Map



The county experiences tropical climatic conditions with exposure and vulnerability being multi-dimensional and differential – that is, it varies across physical space. The

main assets (livestock, crop farming, forest and business) of Samburu County appear to be significantly affected by the four main climatic hazards affecting the County. Livestock, crop farming and forestry are highly impacted by drought. The areas in the county which are currently receiving floods have increased with flood being experienced in new areas including Lesirikan, Tuum, Waso Rongai, Marti and Kurungu. Forest fires have increased recently leading to rampant loss of vegetation and forest covers. For example, Ndoto Forest has suffered major forest fires 6 times in a period of one year.

## **1.6 Brief Overview of Climate Change Actions in the County**

### **1.6.1 Mainstreaming of NCCAP in County Actions**

SCCAP 2023-2027 is the first step towards aligning the Samburu communities' thinking and climate solution needs to a national plan. The Climate Change Action Plans of all the 47 Counties will be collated to inform the national Climate Change Action Plan 2023-2027. Samburu County Climate Change Act 2022 states that the County Climate Change Action Plan shall be for a period of five years and shall run concurrently with the current National Climate Change Action Plan and County Integrated Development Plan.

### **1.6.2 Climate Change in CIDP**

The County Integrated Development Plan is a framework for planning, coordinated development, budgeting, effective and efficient project implementation and progress performance measurement. The following climate change actions were achieved under the 2<sup>nd</sup> CIDP (2017-2022); the proportion of households accessing clean water increased from 6,800 HHs to 11,480 HHs against a target of 13,600 HHs for urban population while those for rural population increased from increased from 4,200 HHs to 5,920 HHs against a target of 6,500 HHs. For rural populations, the walking distances to the nearest water points reduced from 12 kms to 8 kms against a target of 5 kms. This was attributed to the following interventions: drilling and equipping of 213 boreholes against a target of 240; construction of 20 water pans and 15 dams/ sand dams against a target of 30 and 20 respectively, desilting of eight (8) earth dams against a target of 10; five (5) rock catchments; laying of 115 km new pipeline against a target of 100 km; rehabilitation of 43 km water pipeline infrastructure against a target of 50 kms; and also supplied 140 water tanks (capacity of 10,000 Litres); supply of fast moving spares for strategic boreholes; and water trucking during severe droughts. The county forest cover increased from 15.84% to 23.29% (KFS 2021). This achievement was attributed to several community sensitizations and/or awareness campaigns; establishment of three (3) Community Forest Associations (CFAs) and six (6) Water Resource User Associations (WRUAs); support to six (6) community groups to set up tree nurseries; supply and planting of 100,000 tree seedlings to schools through school greening initiatives and during world international days' celebrations. Additionally, we were able to rehabilitate 300 Ha of land under invasive species and degraded areas from a target of 750 Ha. This was achieved through construction of soil and water conservation structures; training of community groups on Participatory Rangelands Management (PRM), natural resource management, and pasture production as a business. (CGS CIDP 2017-2022).

Community livelihoods were transformed through a sustainable community-based conservation program, increased revenue from potential tourism products, improved infrastructure and hospitality, mitigation of climate change effects, creation of employment opportunities for youth, women and vulnerable groups in the society; and

provision of alternative livelihoods to communities thus enhance natural resource conservation and sustainability.

The 3<sup>rd</sup> CIDP (2023-2027) proposes more climate strategies in the next five years of its implementation. This will include strengthening policy, legal and institutional frameworks, enhancing proper solid waste management, sustainable forest management and catchment protection, climate change adaptation and mitigation and promote sustainable rangelands management.

The prioritised climate change actions in the Samburu Climate Change Action Plan respond to the impact of climate change to the critical socio-economic sectors that affect the livelihoods of the Samburu County communities. The CCAP is therefore aligned to the CIDP.

### **1.6.3 Samburu County Spatial plan**

The Samburu County Spatial Plan (CSP) is a blueprint to guide development activities in Samburu. The plan gives a detailed spatial depiction of the county's territorial space, and highlights strengths and deficiencies in its existing spatial structure. Consequently, the plan suggests a strategy of intervention by which the various components of the existing spatial structure are integrated into a wholesome and overarching framework to achieve long-term sustainable development within the county. The purpose for the Samburu County Spatial Plan is to provide a clear strategic direction for the development of the County over the next 10 years but with the flexibility to respond to change. This county spatial plan identifies programs and projects on land development, designation of urban areas, delineation of sensitive areas that require conservation while integrating sectors such as natural resource and environmental characteristics, economy, human settlements, transport and infrastructure. The plan proposes the following interventions in combating climate change: Carry out afforestation and reforestation programs at Ndoto, Mathews Ranges, Nyiro and Lorroki forests; Protection of natural resources e.g. forests ; Construction of strategic dams for water storage; Promote use of renewable energy in the county such as solar usage; Land reclamation on degraded areas especially along riparian reserves; Encourage green competitiveness among the three sub-counties and sensitization of the public on going green in their development endeavours.

## **2. Policy Environment**

### **2.1 National Legal and Policy Framework**

Climate change poses a significant challenge to sustainable national development goals which include Kenya becoming a middle-income country by providing a high quality life to all its citizens by the year 2030.

Climate change is becoming one of the most serious challenges in Kenya with indications showing that the Country is susceptible to climate related events and projections in the coming future. Over the past 50 years, changes in temperature and rainfall patterns have resulted in more frequent weather related disasters such as floods, droughts and landslides with a profound impact on the country's economy and people's well-being. Climate change projections suggest that both temperatures and precipitation will further increase by the year 2100 accompanied by even more frequent heat waves, floods and landslides. Further warming in Kenya and the rest of continental Africa is projected to be greater than the global mean (2.8°) during the 21st century. These changes are expected to reduce soil productivity, increase prevalence of pests and diseases and thus worsen people's food security. The Samburu economy is highly dependent on her Natural Resource Base, and thus is highly vulnerable to climate variability and change(s). Rising temperatures and changing rainfall patterns, resulting in increased frequency and intensity of extreme weather events such as droughts and inland flooding, threaten the sustainability of the county's development. In order to safeguard sustainable development seen in the recent past, the County has developed the Climate Change Act and Policy to provide a clear and concise articulation of overall response priorities to climate variability and change. Samburu, which is in the category of arid and semi-arid areas, is highly vulnerable to these extreme atmospheric changes putting the lives and socio economic activities of thousands of households at risk.

Kenya recognised the problems posed by climate change and the importance of taking the necessary action to mitigate climate change impacts by ratifying the United Nations Framework Convention on Climate Change (UNFCCC) in 1994. At the national level, the climate change policy and legal framework consists of policies, laws, strategies and plans as discussed in the following sections.

#### **2.1.1 The National Climate Change Response Strategy (NCCRS), 2010**

The NCCRS was the first national document on climate change formulated in 2010. The strategy focuses on ensuring that adaptation and mitigation measures are integrated in all government planning and development objectives. The objective of the strategy is to respond to climate change by: Enhancing the understanding of the global climate change negotiations process, international agreements, policies and processes and most importantly, the positions Kenya needs to take in order to maximise beneficial effects; assessing the evidence and impacts of climate change in Kenya; recommending robust adaptation and mitigation measures needed to minimise risks associated with climate

change while maximising opportunities; enhancing understanding of climate change and its impacts nationally and in local regions; recommending vulnerability assessment, impacts monitoring and capacity building framework needs; recommending research and technological needs and avenues for transferring existing technologies; providing a conducive and enabling policy, legal and institutional framework to combat climate change; and, providing concerted action plan, resource mobilisation plan and robust monitoring and evaluation plan.

The NCCRS laid the foundation for the establishment of the current climate change response policy and legislative framework in Kenya. The policies, plans and legislations emanating from the implementation of the strategy include: The National Climate Change Action Plans; the National Adaptation Plan; the National Climate Change Framework Policy of 2016; and the National Climate Change Act.

### **2.1.2 The National Climate Change Framework Policy-2016**

The National Climate Change Framework Policy was ratified by the National Assembly in 2016. The main objective of the policy is to enable a coordinated, coherent and effective response to the local, national and global challenges and opportunities presented by climate change. The policy aims to enhance adaptive capacity and build resilience to climate variability and change, while promoting a low carbon development pathway. The policy identifies the adaptive capacity of individuals and communities as being key to improving their socio-economic situations. Thus, to effectively establish the adaptive capacities of individuals and communities, the policy recognises the need for vulnerability assessment. As a policy statement on enhancing climate resilience and adaptive capacity, the Government commits to ensure integration of climate change risk and vulnerability assessment in environmental impact assessments and strategic environmental assessments. The policy further compels the Government to promote public and stakeholder consultation and participation, including with vulnerable groups, to enhance adaptive capacity and climate resilience.

### **2.1.3 The National Climate Change Action Plan (NCCAP)**

The first NCCAP in Kenya was developed in 2012 to cover the five-year period between 2013-2017. The NCCAP 2013-2017 aimed to enhance the implementation of the NCCRS and to contribute to the achievement of Vision 2030. The NCCAP 2013-2017 contributed to the improvement in Kenya's climate change policy and legal framework and to the establishment of climate change funds in five counties<sup>13</sup>. It also informed the development of the National Adaptation Plan (NAP).

The National Climate Change Action Plan (NCCAP) 2018-2022 was developed pursuant to the provisions of the Climate Change Act, 2016. The NCCAP 2018-2022 builds on the NCCAP 2013-2017. It contains detailed actions that the country intended to take to tackle climate change from 2018 to 2023. The plan set out to support Kenya's development goals by providing mechanisms and measures to achieve low carbon

climate resilient development in a manner that prioritises adaptation and recognises the essence of enhancing the climate resilience of vulnerable groups including children, women, youth, persons with disabilities, the elderly and marginalised and minority communities.

The priority climate change actions in NCCAP 2023-2027 will contribute to achieving sustainable development benefits. They reflect inputs received from the National and County Governments; vulnerable groups, including women, youth and children, persons with disabilities, members of marginalised and minority communities, internally displaced persons and migrants, the private sector, civil society, and sector experts. The actions are mainstreamed in the MTP IV in all sectors and in CIDPs to ensure they are taken up across the country and in all relevant sector.

#### **2.1.4 The Climate Change Act No. 11 of 2016**

The Climate Change Act came into force in 2016. The main objective of the Act is to govern the development, management, implementation and regulation of mechanisms to enhance climate change resilience and low carbon development for the sustainable development of Kenya. The Act is to be applied to all sectors of the economy by both the national and county governments. Specifically the Act is to be applied to ensure among other objectives: Mainstreaming of climate change responses into development planning, decision making and implementation; building resilience and enhancing adaptive capacity to the impacts of climate change; formulation of programmes and plans to enhance the resilience and adaptive capacity of human and ecological systems to the impacts of climate change; and, mainstreaming and reinforcing climate change disaster risk reduction into strategies and actions of public and private entities.

### **2.2 County Enabling Legal & Policy Framework**

Samburu Climate Change Policy 2022 in its policy objective number two highlights the Strengthening of community resilience to enhance their adaptive capacities to climate change and livelihood diversification and further in objective six policy statement number (iii) speaks of reducing vulnerability of women to climate change impacts thus providing for policy framework to assessment of climate Risks and women participation in climate change interventions.

The Samburu County Climate Change Act, 2022 has the objective of anchoring the process that ensures climate resilience is enhanced through development, management, and implementation of climate actions.

Community conservancies fund act- stipulates the role of community conservancies in environmental and wildlife conservation. These conservancies play a critical role in rangeland conservation and improved livelihoods in Samburu county.

Rangelands management and grazing policy enhances sustainable resource planning, development and use. It also ensures equitable benefit sharing and peaceful coexistence

leading to a more resilient society that is able to withstand climatic variations and impacts of climate change. The following legislations also have provisions touching on climate change actions:

- Samburu County Sale Yard Act, 2018
- Samburu County Community Conservancies Act, 2019
- County Spatial Planning Act, 2019
- Samburu County Sustainable Forest Management and Tree Growing Act, 2022
- Samburu County Livestock Development Policy, 2015
- Samburu County Disaster Risk Management Policy, 2020
- Draft Samburu County Climate Change Policy, 2022



### **3. Priority Climate Change Actions**

#### **3.1 Identification of strategic climate action priorities in the PCRA**

Samburu PCRA process analysed the current communities' responses to the impacts of climate change to help the communities map and identify the desired climate solutions which are sustainable. For example, the local response to the impacts includes an increase in non-farm activities such as fetching and selling firewood to substitute income from livestock which was rated to be highly effective in the community but not sustainable. Also, on water shortage, the community members are forced to seek for alternative water sources, hence, travel long distances in search of water. This again is not sustainable. It was noted that crop rotation, diversification on income generating activities, and treatment of water were found to be more effective and sustainable in responding to the impacts of pest & diseases and soil erosion, as well as drought.

The priority strategic actions were finalised through the impact chain analysis where the communities and county stakeholders focused on the identification of localised strategic investment priorities that strengthen the adaptive capacity and resilience of key livelihood, social and economic systems within Samburu County.

#### **3.2 Priority County Climate Change Actions**

##### **3.2.1 Ward Climate Change Actions**

The ward proposals on climate change actions are summarized below:

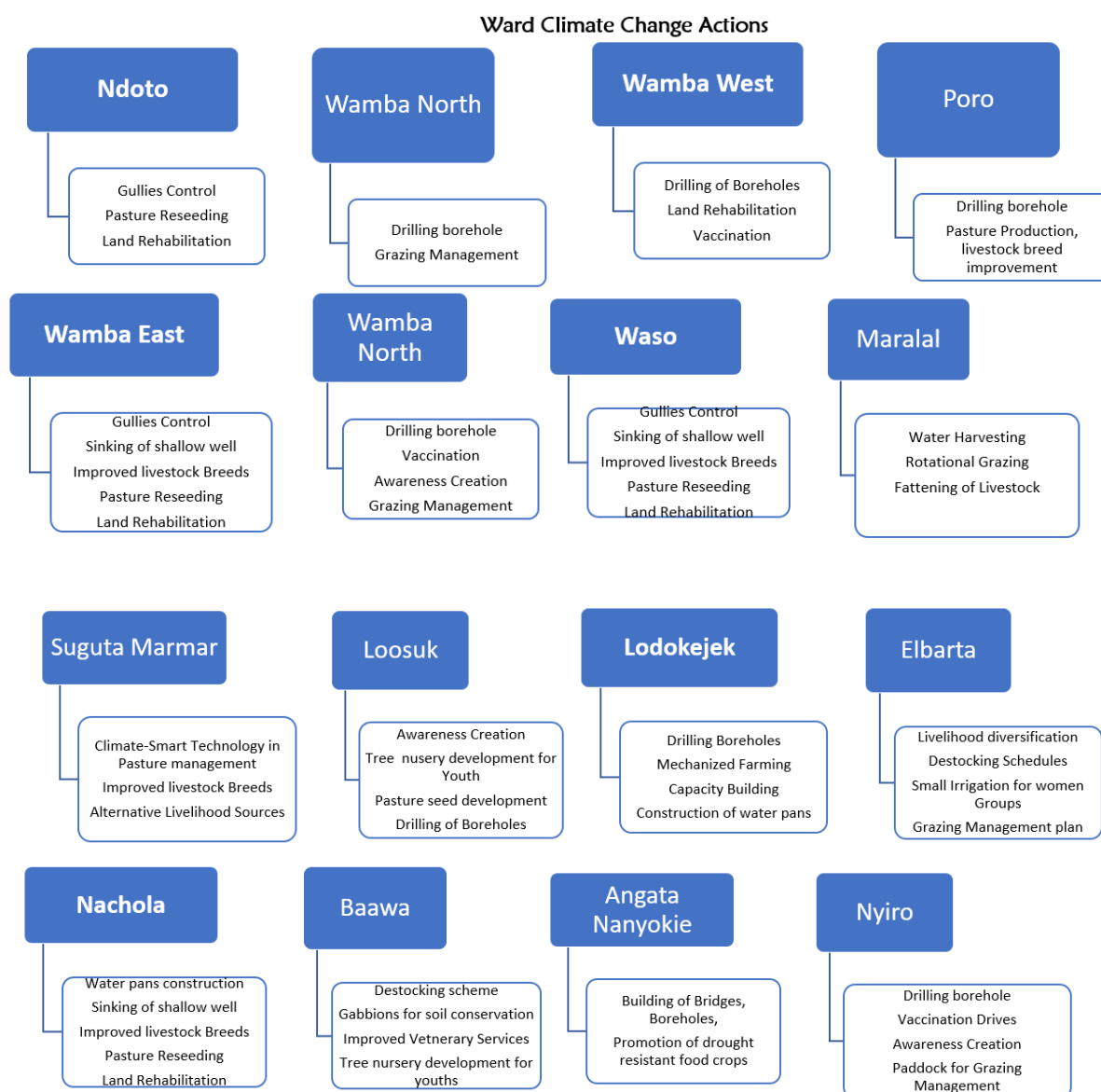


Figure 6 Proposed ward climate actions

### 3.2.2 Sectoral Climate Change Actions

The county due to the nature of the communities' livelihoods (culturally pastoralists) and ecological standings (predominantly semi-arid Samburu), prioritised water, Agriculture (crops and livestock), Water, Forests and Energy. The table below presents the sectoral strategic areas of focus.

*Table 1: Agriculture Sector climate actions*

<b>Sector 1: Agriculture</b>	
<b>Summary</b>	Agriculture and Livestock is one the mainstay of Samburu county. The residents are largely pastoralists with a household of total of 41,097 practising livestock production while nearly half of the number practising crop production (KNBS,2019). As a key livelihood and investment, livestock production bears the greatest brunt of climatic changes, especially drought. This impact on livestock production complicates other challenges that amplifies the impacts to an unmanageable level that sucks in all other livelihood and economic sectors into an emergency situation. The county government and partners have made significant strides to strengthen the resilience of the sector but more interventions are required to cushion the sector against the impacts of climate change impacts. Crop production on the other hand is the mainstay of close to 20,000 households and plays a crucial role in food security and stability in the county. Its dependence on rainfall makes it very sensitive as well. Apart from the impacts of drought and erratic rainfall patterns, locust invasion and other pests also has had a devastating impact on the crop systems. These challenges in the two key sectors call for diversification of livelihood to a more robust value chain like apiculture. However, the county government intends to strengthen the sector through actions that are climate resilient and geared toward reducing losses in the sector.
<b>Strategic Objective:</b>	<b>Fortify livestock and Agriculture Sector through adoption climate smart technology and innovative food production systems</b>
<b>Responsibility</b>	CGS, State Departments- Agriculture, Livestock, NDMA, VSF-Suisse, NRT, WFP, LISTEN Project, NAWIRI, County Government of Samburu (Agriculture, Livestock, Water, Environment, health)
<b>Action 1:</b>	<b>Adopt climate-Smart technologies for improved breeding, pasture regeneration and Conservation grazing methods</b>
<b>Examples of ongoing projects/initiatives</b>	Pasture and Fodder Development Project (Supply and delivery of 1500 Kg of Assorted pasture seeds), Capacity building of farmers/groups on pasture establishment, storage and value addition Construction of storage facilities Rangeland rehabilitation and restoration
<b>Issues/Gaps</b>	Low adoption of regenerative grazing method due to cultural influences

	<p>Land tenure Inadequate knowledge and extension services for the pastoral communities</p> <p>Resource based conflicts Inadequate pasture seeds</p> <p>Inadequate storage facilities</p> <p>Insufficient equipment for value addition eg pelletizers and crushers</p> <p>Vast and highly degraded rangelands with invasive spp</p>
<b>Short Term Sub-actions (2023-2024)</b>	<p>Sensitization and awareness creation on the sustainability of conservation grazing methods.</p> <p>Demarcate grazing fields and develop grazing calendar</p> <p>Improve extension services among pastoral community</p>
<b>Mid/Long-term Sub-actions (2024-2027)</b>	<p>Develop animal breeding centre to enhance livestock breed improvement</p> <p>Establish pasture development centre for pasture regeneration plans</p> <p>Introduce efficient irrigation technologies to support pasture and fodder fields</p> <p>Timely vaccination and disease surveillance targeting improved breeds</p>
<b>Action 2:</b>	<b>To Increase food and nutrition security through enhanced productivity and resilience of the agricultural sector.</b>
<b>Examples of ongoing projects/initiatives</b>	<p>Improved chicken projects for Vulnerable and Marginalized Groups, Apiculture, Aquaculture, Stocking of fish in some of the water pans</p>
<b>Issues/Gaps</b>	<p>Limited awareness about what causes climate change</p> <p>Low uptake of Climate Smart Technologies</p> <p>Limited climate change interventions,</p> <p>Low technology limits to improve disaster readiness and reduce the cost of disasters, that affect food production systems</p> <p>Emerging livestock diseases</p> <p>Inferior breeds that take time to mature thus low weight gains and pricing</p>
<b>Existing interventions</b>	<p>Enhanced extension services through recruitment of ward officers</p> <p>Provision of hives and equipment to farmers/CIGs</p> <p>Provision of improved chicken as a start up to individuals and CIGs</p> <p>Provision of superior breeds thus faster maturity and better prices</p> <p>Adoption of resilient animals like in camel flagship project within livestock department</p> <p>Adoption drought tolerant crops</p> <p>Establishment of sale yards and market linkages</p>

<b>Short Term Sub-actions (2023-2024)</b>	Farmer's capacity-building programmes targeting PWDs youths and women on climate change food production Develop means of dissemination of information on new technologies and climate information Ensure County Climate Change Policy is enacted
<b>Mid- and Long-Term Sub-actions (2023-2027)</b>	Promote birds rearing among youths' women and PWDs
<b>Action 3:</b>	<b>Strengthen post-harvest food processes, aggregation, and value addition</b>
<b>Issues/Gaps</b>	Farmers experience post-harvest losses Limited value chain linkages amongst farmers Absence of aggregation centres for farm produce especially fruits and horticultural crops Presence of middle men and their role in pricing of livestock
<b>Short-medium-long Term Sub-actions (2023-2024)</b>	Support the farmers by providing training on agro-meteorological, market systems and advisory services. Promotion of post-harvest management technologies like mobile solutions for scheduling and e-matching demand and supply processes. Build capacity in value addition and quality control
<b>Existing interventions</b>	Enhanced extension services on integrated pest management and post-harvest losses Purchase of driers supporting maize farmers
<b>Action 4:</b>	<b>Support Irrigation infrastructure development and efficient water use</b>
<b>Examples of ongoing projects/initiatives</b>	Construction of dams and water pans for irrigation and livestock use Establishment of three irrigation schemes
<b>Issues/Gaps</b>	Inadequate funds Vandalism / lack of ownership Drought affecting water availability

<b>Short Term Sub-actions (2023-2024)</b>	Rehabilitate water pans and dams across the county
<b>Mid- and Long-Term Sub-actions (2024-2027)</b>	Increase piping water infrastructure from boreholes
<b>Sector Budget (Million Kshs)</b>	<b>242</b>

***Table 2: Water and Sanitation Sector climate actions***

<b>Sector 2: Water and sanitation</b>	
<b>Summary</b>	Water plays a critical role in ensuring that livelihoods are resilient to impacts of climate change, degradation of environment is also a factor of abundance of water or scarcity of it. Most indirect impacts of climate change and risks from them are water related floods, water borne diseases. SDGs strategy highlights how women and other genders can be equitably involved in water and environment issues by increasing their involvement in governance, management of natural resources and energy access and planning. To ensure this is done the sector objective can only be met by sustainable actions that support resilience of all gender to climate change.
<b>Responsibility and Partnerships</b>	Department of water and sanitation, WRA, UNICEF, NW/WA
<b>Strategic Objective:</b>	Promote access to clean energy and clean, safe water through sustainable approaches that conserves the environment
<b>Action 1:</b>	Increase sustainable access to adequate and safe water by increasing the number of boreholes and water points
<b>Issues and Gaps</b>	Lack of comprehensive county underground potential mapping. Inadequate financial allocation

<b>Short Term (2023/2024)</b>	<b>Undertaking proposed water points sites hydrogeological survey to ascertain its underground position.</b>
<b>Mid Term/Long Term sub actions (2023-2027)</b>	<b>Formulate &amp; Develop County underground potential mapping</b>
<b>Action 2:</b>	<b>Strengthen water governance to include participation of more women in communal water management</b>
<b>Issues and Gaps</b>	<b>Involvement of women in water management committees Capacity building on water facility management and ownership for project sustainability. Inadequate resource allocation for capacity building. Cultural norms on leadership and project management.</b>
<b>Short Term (2023/2024)</b>	<b>Awareness creation on facility management and ownership of project sustainability.</b>
<b>Mid Term/Long Term sub actions (2023-2027)</b>	<b>Adequate resource mobilization and allocation. Establishment of WUAs that include participation of women Capacity building</b>
<b>Action 3:</b>	<b>Improve policy framework for improved sanitation in populated settlement</b>
<b>Issues and Gaps</b>	<b>Lack of Sanitation policy and framework in place Inadequate settlement and physical planning</b>
<b>Short Term (2023/2024)</b>	<b>Create awareness on sanitation issues in towns and settlements</b>
<b>Mid Term/Long Term sub actions (2023-2027)</b>	<b>Construction of sanitation facilities in water sources</b>

<b>Action 4:</b>	<b>Protect Water Sources from pollution including through suitable watershed and wastewater management strategies.</b>
<b>Issues and Gaps</b>	<b>Lack of awareness to existing WASREB water pollution guidelines. Lack of County watershed and wastewater management strategy and policies.</b>
<b>Short Term (2023/2024)</b>	<b>Establishment of WRUAs Awareness creation.</b>
<b>Mid Term/Long Term sub actions (2023-2027)</b>	<b>Formulation and actualization of strategies and Policies.</b>
<b>Action 5:</b>	<b>Design and Implement programmes for increased Community and private sector participation in water resource management</b>
<b>Issues and Gaps</b>	<b>Inadequate sector coordination</b>
<b>Short Term (2023/2024)</b>	<b>Establishment of sectoral working groups platforms.</b>
<b>Mid Term/Long Term sub actions (2023-2027)</b>	<b>Develop and design implementation programmes for increased Community and private sector participation in water resource.</b>
<b>Mid- and Long-Term Sub-actions (2023-2027)</b>	<b>Tree planting (with appropriate species, including indigenous species)</b>
<b>Responsibility</b>	<b>Department of Water and Environment,  KFS, KWS, NEMA, WRA, NDMA, KEFRI, Community Forestry Associations (CFAs), Community Institutions</b>



Sector budget (Millions Ksh.)	576.5
--	-------

**Table 3: Environment, Climate Change, Natural Resources and Energy Climate actions**

Sector: <b>Environment, Climate Change, Natural Resources and Energy</b>	
<b>Summary</b>	<p>Environmental sustainability is paramount, with a focus on conserving native vegetation to safeguard water sources and prevent soil erosion in the face of unpredictable rainfall patterns. Responsible natural resource management, such as sustainable grazing and wildlife conservation, is essential to balance the needs of the local communities and protect biodiversity. Access to clean and sustainable energy, particularly through solar power initiatives, is central to rural development.</p> <p>The county forest cover increased from 15.84% to 23.29%. This achievement was attributed to several community sensitizations and/or awareness campaigns; establishment of three (3) Community Forest Associations (CFAs) and six (6) Water Resource User Associations (WRUAs); support to six (6) community groups to set up tree nurseries; supply and planting of 100,000 tree seedlings to schools through school greening initiatives and during world international days' celebrations. Additionally, we were able to rehabilitate 300 Ha of land under invasive species and degraded areas from a target of 750 Ha.</p> <p>Climate resilience measures, including rainwater harvesting and drought-resistant crops, are vital in a region susceptible to climate change impacts. Moreover, gender equality and social inclusivity are emphasized, ensuring that women and diverse gender groups participate in decision-making related to environmental conservation, resource management, and energy access. These tailored efforts aim to secure a sustainable and inclusive future for Samburu County, preserving its unique natural heritage while improving the well-being of its residents.</p>

<b>Responsibility</b>	Department of Water and Environment, KFS, KWS, NEMA, NDMA, KEFRI, Community Forestry Associations (CFAs), Community Institutions: WRUAs, WUAs, USAID STAWI,
<b>Strategic objective</b>	To Strengthen the ability of ecosystems to respond to impacts of climate change, provide climate mitigation solutions and improve resilience of social systems across various landscapes
<b>Action 1</b>	Reduce emissions from deforestation and forest degradation
<b>Issues/ Gaps</b>	Limited funding Long and recurring droughts affecting tree survival Land degradation through invasive species and soil erosion Poverty hence reliance on charcoal burning
<b>Ongoing initiatives</b>	Tree planting initiatives Establishment and training of NRM Institutions Community sensitization and awareness creation Formation and strengthening charcoal producer's association control of invasive species eg <i>Acacia reficiens</i> and <i>Prosopis juliflora</i>
<b>Short Term Sub-actions (2023-2024)</b>	Capacity building of Charcoal Producers Association on alternative livelihoods Promote Non-Wood Forest Products & other nature-based enterprises as alternative livelihood option Community/participatory forestry management (CFAs) Capacity building of Charcoal Producers Association on alternative livelihoods Support the establishment of tree nurseries Support tree planting initiatives
<b>Mid- and Long-Term</b>	Developing alternative technologies to reduce demand for biomass (such as clean cooking and efficient charcoal production)

<b>Sub-actions (2023-2027)</b>	Community/participatory forestry management (CFAs) Establishment of woodlots
<b>Action 2</b>	<b>Sustainable waste management</b>
<b>Issues/ Gaps</b>	Lack of designated waste management sites Lack of waste management policy Uncoordinated strategies addressing waste management among the concerned sectors (NEMA, Environment, Public Health, Municipality) Inadequate capacity in sustainable solid waste amangement
<b>Short Term Sub-actions (2023-2024)</b>	Capacity building on proper solid waste management
<b>Mid- and Long-Term Sub-actions (2023-2027)</b>	Construction of waste management sites and transfer stations
<b>Action 3</b>	<b>Sustainable rangelands management</b>
<b>Issues/ gaps</b>	Inadequate rangelands management frameworks and structures Land degradation through soil erosion and emergence of invasive species Resource based conflicts Persistent droughts Poor rangeland management practices Cross boundary rangelands management
<b>Short Term Sub-actions (2023-2024)</b>	Promoting & strengthening cross border Holistic Management Grazing approaches Regenerated rangeland with improved pasture production Control of invasive species

<b>Mid- and Long-Term Sub-actions (2023-2027)</b>	<p>Undertake proper land use-planning/zoning at community &amp; group ranch level</p> <p>Improved practices in soil conservation and management</p> <p>Control of soil erosion</p>
<b>Action 4</b>	Promote access to renewable energy for cooking and lighting at household level
<b>Issues and Gaps</b>	<p>Lack of county energy policy</p> <p>Limited access to energy saving cooking solutions</p> <p>Low uptake on use of renewable energy for lighting and cooking</p> <p>Inadequate awareness on clean energy technologies</p> <p>Affordability of energy saving jikos</p>
<b>Short Term (2023/2024)</b>	<p>Create awareness on use of efficient cooking technology</p> <p>Create awareness on alternative energy sources</p> <p>Carry out assessment on renewable energy potential for the county</p> <p>Promote use of cheap solar energy alternatives for lighting</p> <p>Training women champions at ward level on making of traditional clean energy saving jikos</p>
<b>Mid Term/Long Term sub actions (2023-2027)</b>	<p>Facilitate the enactment of county energy policy</p> <p>Promote solarisation of community infrastructure</p> <p>Promote investment in renewable energy by locals to improve indoor air quality for households</p>
<b>Sector Budget (millions Ksh.)</b>	326

*Table 4: Human Health and Well Being Sector climate actions*

Sector 4: Human Health & Well being	
Summary	<p><b>Medical Services, Public Health and Sanitation</b></p> <p>Under curative and rehabilitative health services, specialized clinics have been increased from three to seven, and also the number of personnel recruited to offer specialized services has increased from three to fourteen officers. HIV positive pregnant mothers receiving preventive ARV's to reduce the risk of mother-to-child transmission (PMTCT) of HIV coverage has also increased from 90% to 95 % against a target of 100%. in addition, the average length of stay for medical patients reduced to 3 days from 5 days against the ideal of 2 days. Bed occupancy rate has reduced from 70% to 51% across all inpatient facilities in the county. New outpatient visits increased from 69% to 89.8%.</p> <p>Under preventive and promotive health services, there was increase in proportion of population accessing basic health as indicated by the following indicators. Latrine coverage increased from 27% to 35% against a target of 50%. Skilled deliveries increased from 35% to 44.8% (target 60%). The proportion of focused ante natal care visits (4 ANC visits) increased from 20.6% to 29%. fully immunized children under one year increased from 53.1% to 58.5%.</p> <p>This improvement in access and utilization of health services is largely attributed to; increase in the number of public health facilities (increased from 72 to 100), Increase in recruitment of health care workers (HCWs) from 543 to 789 across the various cadres and construction of three new outpatient blocks (Archers Sub County Hospital, Baragoi Sub County Hospital and Samburu County Referral Hospital (SCRH)) and operationalization of ICU, dialysis unit and oxygen plant in</p>

	<p>SCRH. Moreover, it is also due to increase in coverage of community level services which was enabled by increase of Community Health Units (CHUs) from 21% coverage to 95%.</p>
<b>Responsibility</b>	<b>CGS</b>
<b>Strategic Objective:</b>	To provide effective leadership and participate in the provision of quality health care services that are equitable, responsive, accessible, and accountable to the people of Samburu County.
<b>Action 1:</b>	Enhance access & improve universal healthcare through strengthening health systems to adjust to a Changing climate
<b>Examples of ongoing projects/initiatives</b>	<p>Contingency planning in support of disease surveillance &amp; Emergency Response;</p> <p>Timely and consistent procurement, supply of adequate products, commodities, diagnostic kits and Non-pharmaceuticals including PPEs</p>

	Monthly integrated outreaches targeting ANC, Immunization and FP services in the county targeting hard to reach areas and vulnerable and marginalized groups
<b>Issues/Gaps</b>	<p>Poor access to health care services</p> <p>In appropriate screening and diagnosis of Communicable and non-communicable conditions due to inadequate supply of testing Kits and inadequate laboratories.</p> <p>Unhealthy socio-cultural traditions, beliefs and practices</p> <p>Poor personal, environmental and food hygiene practices</p> <p>Frequent and consistent shortage of drugs and supplies including PPEs.</p>
<b>Short Term Sub-actions (2023-2024)</b>	<p>Prepare a contingency plan in support of disease surveillance &amp; Emergency Response;</p> <p>Ensure timely and consistent procurement, supply of adequate products, commodities, diagnostic kits and Non-pharmaceuticals including PPEs</p> <p>Plan and conduct monthly integrated outreaches targeting ANC, Immunization and FP services in the County targeting hard to reach areas and vulnerable and marginalized groups</p> <p>Plan, implement and sustain health education sessions in the community on the impact related to negative health practices.</p>
<b>Mid/Long-term Sub-actions (2024-2027)</b>	<p>Develop Contingency plans in support of disease surveillance &amp; Emergency Response;</p> <p>Develop measurable policies on timely, consistent procurement, supply of adequate products, commodities, diagnostic kits and Non-pharmaceuticals.</p> <p>Develop an integrated outreaches policy targeting all vulnerable and marginalized groups in hard to reach areas in the County.</p> <p>Construct additional level 2 health facilities</p>
<b>Action 2:</b>	Reduce the burden of violence and injuries that are on the rise in the occurrence of climate related hazards



<b>Issues/Gaps</b>	<p>Lack of community knowledge on safety precautions to minimize injuries.</p> <p>Lack of skills and information on the management of Gender based violence that are common during drought</p> <p>Lack of trauma unit in the County</p> <p>Lack of Staff and community sensitization on social gender-based violence.</p>
<b>Short Term Sub-actions (2023-2024)</b>	<p>Training and sensitizations of HCWs on issues relating various Gender based violence and injuries e.g. First aid skills etc. to health care providers.</p> <p>Organize for Sensitization of staff and community about violence, injuries and SGBV using CHVS and integrate climate change matters</p> <p>Undertake awareness creation on safety precautions to various health providers and community</p>
<b>Mid- and Long-Term Sub-actions (2023-2027)</b>	<p>Establish trauma and emergency unit to handle accidents.</p> <p>Procure violence and injuries teaching aids and other materials e.g. IEC on violence and injuries.</p> <p>Quarterly Support supervisions for health facilities to ensure provision of quality health services.</p>
<b>Action 3</b>	Minimize exposure to health risk factors and integration of nutrition and food security into health sector
<b>Examples of ongoing projects/initiatives</b>	<p>Health education to the community on avoidance of health risks through CHVs.</p> <p>Health education on high impact nutrition interventions and provision of Nutrition food supplements.</p>
<b>Issues/Gaps</b>	<p>Knowledge gap to the community on avoidance of health risks including poor health seeking behaviour, poor feeding practices among others.</p> <p>Inadequate community health units attached to facilities to create demand for services</p>
<b>Short Term Sub-actions (2023-2024)</b>	Establish 10 more community health units in the county.

<b>Mid- and Long-Term Sub-actions (2024-2027)</b>	<p>Strengthen Nutrition services in the County through Health education on high impact nutrition interventions and provision of Nutrition food supplements.</p> <p>Celebration of important health days.</p> <p>County Nutrition Policy.</p>
<b>Responsibility</b>	Samburu County Government (Health and Development partners)
<b>Budget (Million Kshs)</b>	<b>79</b>

**Table 5: Disaster Risk reduction and special programmes sector climate actions**

<b>Sector: 5: Disaster Risk reduction</b>	
<b>Summary</b>	<p>Special programs</p> <p>This sector is crucial in building resilience of communities towards human induced hazards and climate change related shocks within Samburu county. The sub-sector supports peace trainings that reduces conflicts in scale and frequency by 50%. The milestone by having more peace actors on board and the use of community structures to address conflicts in conflicts prone areas within and along the borders of our County have been achieved. The sub-sector also has conducted 15 Inter/intra County Livestock seasonal migration routes and maps/Agreements but only had 10 Inter/intra County Livestock seasonal migration routes and maps/Agreements representing 67% of the set target. Competition for limited financial resources was the reason for the missed target. The sub-sector also conducts community Managed disaster risk reduction (CMDRR) and Trainings and through support of partners (ACTED, WFP, KRC).</p> <p>Preparation of the five (5) county multi hazard contingency plans and establishment of a disaster risk management standing fund has enabled prompt response to disasters occurrences within the county.</p>
<b>Responsibility</b>	<b>County government- special programmes, ACTED, WFP, KRC, UNICEF</b>
<b>Strategic Objective:</b>	To reduce risk and potential damages posed by disasters through comprehensive Disaster Risk Management policies, strategies and programmes to ensure timely response, preparedness, mitigation, rehabilitation, recovery on disaster managements
<b>Action 1:</b>	To reduce risk and potential damages posed by disasters through comprehensive Disaster Risk Management
<b>Examples of ongoing projects/initiatives</b>	<p>Peace dialogue meetings</p> <p>County multihazard contingency plans</p>

	Provision of emergency relief food
<b>Issues/Gaps</b>	Limited funding Persistent drought Vast county hence affecting timely response to disasters
<b>Short Term Sub-actions (2023-2024)</b>	Community managed disaster risk reduction training Emergency rescue missions Peace dialogue meetings food and nutrition security for food insecure households and nutritionally challenged populations
<b>Mid/Long-term Sub-actions (2024-2027)</b>	Establishment and equipping of County Emergency Operations Centre Procurement of firefighting equipment County multi hazard contingency plans
<b>Budget (million Ksh,)</b>	70

## **4. Delivery Mechanisms for CCAP**

### **4.1 Enabling Factors**

Many factors provide an enabling environment for the delivery of the CCAP as outlined below key among them are policies and regulations, climate change governance, institutional framework and partnerships.

#### **4.1.1 Enabling Policy and Regulation**

The Climate Change Act, 2016 is the main legislation guiding Kenya's climate change response through mainstreaming climate change into sector functions, and it is the legal foundation of the Samburu County Climate Change Action Plan. In addition, Kenya has developed the National Climate Change Response Strategy (2010), first NCCAP (2013-2017), Second NCCAP (2018-22), National Adaptation Plan (NAP 2015-2030), Kenya Climate Smart Agriculture Strategy (2017-2026), Climate Risk Management Framework (2017), National Climate Change Policy (2018) and National Climate Finance Policy (2018), among other sector plans and policies that address aspects of climate change.

At the County level, Samburu has a climate change Act 2022 and is in the process of finalizing the County Climate Change Policy, 2022 and other climate change fund regulations that allocate a portion of their development budgets to County-level funds that support local adaptation and mitigation actions.

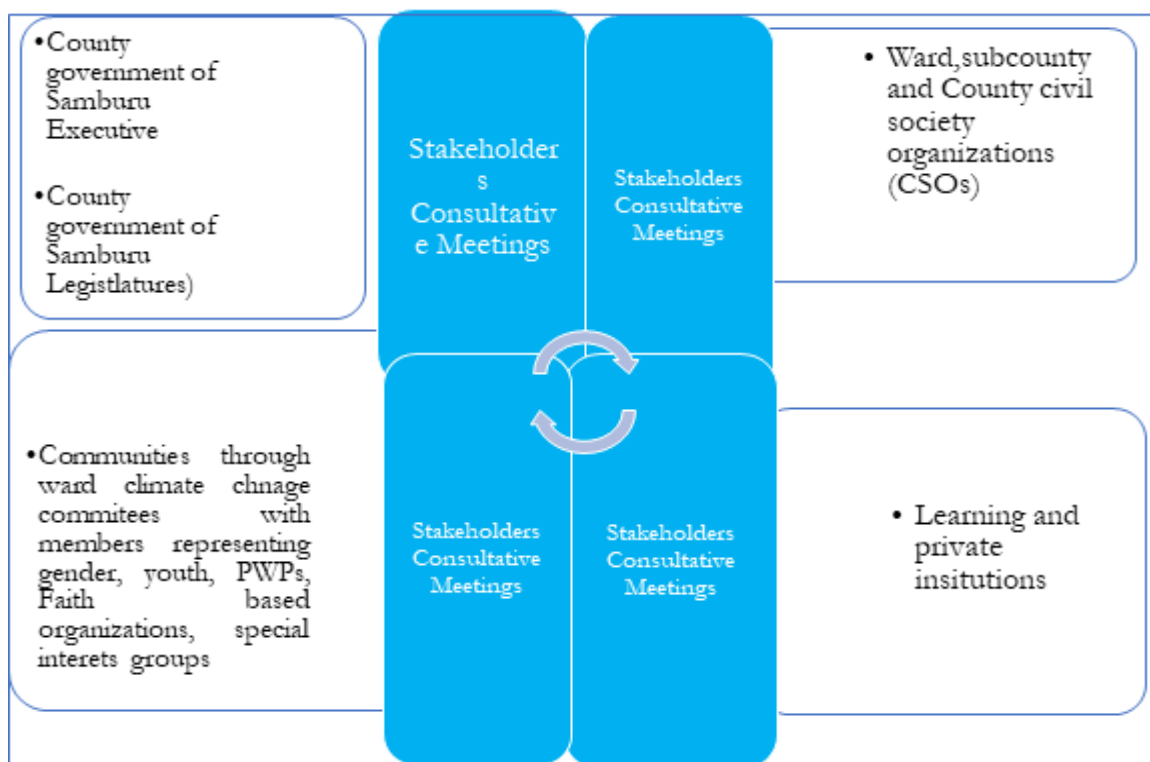
#### **4.1.2 Mainstreaming in the CIDP**

The Samburu Climate Change Action plan draws its aspirations from the Samburu County Integrated Development Plan which has a foundation based on the Paris Agreement on Climate Change, 2015 of development contributing to the Zero carbon solution.

Further, during the stakeholders' engagements, priority climate solutions were identified based on realistic frames as depicted under the County CIDP 2023-2027 and Non-state actors' interventions that targeted resilience livelihood interventions.

#### **4.1.3 Multi-stakeholder participation processes**

Samburu County climate change actions in this SCCAP (2023-2027) were identified through extensive consultations starting with community level engagement through the ward planning committees established by Samburu Climate Change Act 2023. Also, the state and non-state actors domiciled in the county were engaged as shown below:



The PCRA process involved consultation and engagement of different actors at county level, for example, part of the the members of county assembly joined ward, state and non-state actors to validate PCRA community data and also input on sectoral priority areas based on Samburu CIDP 3 (CIDP 2023-2027). Some of the non-stakeholders involved in the validation included LISTEN, IMPACTED, and BOMA

#### 4.1.4 Finance - County Climate Change Fund

Samburu Climate Change Act 2022 establishes a Climate Change Fund, to finance, facilitate and coordinate Climate Change Adaptation and Mitigation Measures in the County; and for connected purposes. It also provides an enabling environment for partnerships with non-state actors and international partners in provision of climate financing of intervening actions that can leverage on the county government support

#### 4.1.5 Governance - County Government Structures

The coordination and governance for the Samburu Climate Change Action plan is twofold drawing from the County Governments (Amendment) Act, 2020 and also the Samburu Climate Change Act 2022. The County Government Act, 2020 indicates that members of county assembly (the legislatures) will approve this plan and approve climate funds' budgets for submission to external regulatory offices of the National Treasury. Also, the assembly conducts oversight over the County Executive actions

towards the implementation of the priority climate actions. The County department of Water, Environment, Natural Resources & Energy which has the mandate to protect, conserve and improve access to adequate and safe water and other natural resources for sustainable socio-economic development coordinates mainstreaming of climate change in all sectoral actions which will include the implementation of this Climate Change Action plan.

Further, for the governance of climate change issues in the county, Samburu County Climate Change Act 2022 establishes the County Climate Change Steering Committee which is mandated to perform among other functions coordination and oversight climate change responses in the county.

#### **4.1.6 Climate Change Planning Committees**

Samburu County Climate Change Act 2022 established the County and Ward Climate Change Planning committees. The County Climate Change Planning Committee consists of members not exceeding seventeen (17) and are appointed by the Executive Committee Member in charge of Climate Change matters. Membership consists of chief officers and/or directors from the socio-economic sectors affected by climate change in addition to national government departments domiciled in the county including Meteorology, drought, National Environment and Management Authority. Further, the committee consists of representatives of public benefit organisations, private sectors, women, youth all nominated by the relevant respective bodies within the County. The county climate change planning committee is responsible for managing climate actions at local level.

#### **4.1.7 Climate Information Services & Climate Data Access**

To promote socio-economic development through prudent utilisation of resources, National Drought Management Authority (NDMA) provides drought early warning bulletin to communities in Samburu on a monthly basis. Also, the Kenya meteorological Department (KMD) provides routine climate information and extreme events weather alerts.

#### **4.1.8 Resilience Planning Tools**

Samburu County has seen actors join hands in utilising community resilience planning tools to promote community-based resilience planning and identify core areas of need to promote and sustain livelihoods.

#### 4.1.9 Measurement, Reporting and Verification

The Paris Agreement under the UNFCCC sets out an enhanced transparency framework for climate change action and support. In Kenya, the department of Climate Change implemented MVR for county to track and report climate actions on mitigation, adaptation, access to energy and the support received. The climate actions under the Samburu Climate Change Action Plan will be tracked through a monitoring and evaluation (M&E) system based on indicators. Also, the Measurement, Reporting, and Verification Plus (MRV+) of the National Climate Change Action Plan framework will allow an evaluation of this Plan.

#### 4.9.10 Institutional Roles and Responsibilities

Samburu Climate Change Act 2022 sets out institutional structures and responsibilities to guide the oversight and management of Samburu County Climate Change Action Plans. Responsibilities of the main institutions engaged in the oversight, implementation, and monitoring of Samburu County Climate Change Action Plans 2023-2023 are illustrated in the table below:

*Table 6: Institutional roles and responsibilities*

	Institution	Role
1.	The County Climate Change Steering Committee	The County Climate Change Steering Committee, chaired by His Excellency the Governor, is responsible for overall coordination and advisory functions as guiding the implementation
2.	Other state actors (e.g national and county departments )	Implementation, reviews and monitoring
3.	Public Benefit Organisations	Agent of change through public awareness creation, policy research and analysis, and advocacy on key socio-economic issues, including climate change
4.	The Academia and research institutions	Provide evidence and science for knowledge-based decision making by the County Governments, the private sector, development partners, and civil society
5.	Media	Awareness creation and provision of vital information at times of emergency, from warning of imminent floods, to explaining how to deal with disease outbreaks.



6 .	Private sector	Action on climate change and implementation
--------	----------------	---

## 4.2 Implementation and Coordination Mechanisms

### 4.2.1 Directorate of Climate Change

The coordination of climate change activities in Samburu County is currently spearheaded by the County department of Water, Environment, Climate Change Natural Resources & Energy through the director in charge of climate change.

### 4.2.1 County Climate Change Planning Committees

For the planning and implementation of local climate actions, Samburu County Climate Change Act 2022 establishes a framework planning and implementation committees consisting of county and ward climate change planning committees. The County Climate Change Planning committee among other functions coordinates the implementation of this County Climate Change Action Plan in addition to providing guidance for the development of a climate finance framework for the County. The County Climate Change Act, 2022 also establishes Ward Climate Change Planning Committees that have the function of among others: 1) coordinate and mobilise communities and other stakeholders in the ward to design and implement climate change response activities 2) support and conduct public education, awareness creation and capacity building at the ward level on climate change, its impacts and strategies for responding thereto and 3) receive project proposals from the communities at the Ward level;

## 4.3 Monitoring and Evaluation

Under Public Financial Management Act 2012 Article 104 (1), the county government is mandated to monitor, evaluate and oversee the management of public finances and economic affairs of the county government. This gives the provision for the establishment of a County Monitoring and Evaluation System, CIMES. The county has developed a draft M and E Policy to coordinate and strengthen the monitoring and evaluation systems in the county, support evidence-based monitoring and evaluation and provide a consistent approach to the monitoring and evaluation of the CCAP Programmes and Projects. The M and E Policy provides for the establishment of a County Monitoring and Evaluation Committee (CMEC). The committee will also be responsible for developing appropriate indicators for measuring the success of the plan, oversight and policy guidance, review and endorsement of county M and E work plans and other guiding documents, mobilization of M and E resources for M and E work at the county, dissemination and communication of M and E findings/reports to

stakeholders. The director M and E is also a member of the County Climate Change Unit.

## 4.4 implementation Matrix

*Table 7: Implementation Matrix*

PRIORITY ACTION	EXPECTED OUTPUT/OUTCOME	KEY PERFORMANCE INDICATOR	RESPONSIBLE INSTITUTIONS	TARGETED GROUPS	SOURCE OF FUNDS	BUDGET KSH (MILLION)	23/24	24/25	25/26	26/27	27/28
<b>AGRICULTURE: FOOD SECURITY AND NUTRITION</b>											
<b>Strategic Objective: Fortify livestock and Agriculture Sector through adoption climate smart technology and innovative food production systems</b>											
Adopt climate-Smart technologies for improved breeding, pasture regeneration and conservation grazing methods	Climate resilient breeds procured and distributed	No. of climate resilient breeds procured and distributed	CGS, State Departments-Agriculture, Livestock, NDMA, VSF-Suisse, NRT, WFP, LISTEN Project, NAWIRI	VMGs (Women, Youths, PWDs) Farmers	CGS, Private & Development partners	30	6	6	6	6	6
	Chicken, rabbits, goats, sheep, bee keeping and fisheries adopted	No. of animals in each category adopted				10	2	2	2	2	2
	Provision of certified pasture seeds and storage facilities in the lowlands constructed	Kgs of certified pasture seeds supplied No. of storage facilities constructed				10	2	2	2	2	2

	Establishment of strategic aggregation facilities	No of aggregation facilities constructed				20	4	4	4	4	4
Climate policy and regulatory framework strengthening food security enacted	Crop and Livestock policies enacted and operationalized	Number of policies enacted	CGS, State Departments- Agriculture, Livestock,	All	CGS ,Private & Development partners	7	0	0	3.5	3.5	0
Increase in food and nutrition security through enhanced productivity and resilience of the agricultural sector	Increased nutritious food productivity achieved through adaption of resilient crop, livestock and fisheries production	Tonnage of produce from livestock, fisheries and crops	State Departments- Agriculture, Livestock, NDMA, VSF-Suisse, NRT, WFP, LISTEN	Pastoralists and Agro-pastoralists	State Departments- Agriculture, Livestock, NDMA, VSF-Suisse, NRT, WFP, LISTEN	15	3	3	3	3	3
Increase timely disease surveillance and vaccination	Vet lab established and equipped Vaccines procured and livestock vaccination conducted	Well equip and functioning vet lab within the county	CGS, NAWIRI VSF-SUISSE	Pastoralists and Agro-pastoralists	County, NAWIRI VSF-SUISSE	30	6	6	6	6	6

Reduce food wastages and post-harvest losses amongst farmers	Post-harvest losses reduced and communities practicing food saving utilization methods	No of pastoralists and farmers adopting the value chain addition and Post-harvest loss reduction	CGS, State Departments-Agriculture, Livestock, NDMA, VSF-Suisse, NRT, WFP, LISTEN Project, NAWIRI	Pastoralists and Agro-pastoralists	CGS & Development partners	15	3	3	3	3	3
Support Irrigation infrastructure development and efficient water use	Irrigation infrastructure developed and functional	no of women and vulnerable groups beneficiaries from water projects	CGS, state Departments-Agriculture, Livestock, LISTEN, RED CROSS, NAWIRI	Pastoralists and Agro-pastoralists	CGS, state Departments-Agriculture, Livestock	105	30	30	15	15	15
<b>Sector Sub Total</b>						<b>242</b>	<b>56</b>	<b>56</b>	<b>44.5</b>	<b>44.5</b>	<b>41</b>
<b>WATER: WATER SECURITY AND MANAGEMENT</b>											
<b>Strategic Objective : Promote access to clean, safe water through sustainable approaches that conserves the environment</b>											
Increase annual per capita water availability through	Improved access to quality water and reduced water-borne related diseases	Number of boreholes drilled and equipped, No. of surface water reservoirs constructed No of households accessing clean water	CGS, National Govt. Stakeholders (Nawiri, Acted, UNICEF, FCA, NDMA,	County	CGS , National Government & Development partners	250	50	50	50	50	50

the developme nt of water infrastructur e (mega dams, small dams, water pans, water legislation)			Caritas, LMS, World Vision, WF, WRA, NW/WA,								
	Mapping and inventory of existing water sources within the county	No. of maps generated Inventory of water source generated	ACTED, CGS, LISTEN, NAWIRI			7	3	1	1	1	1
	E.I.As Certified water projects.	No. of projects E.I.As certificate issued	NEMA & CGS, all stakeholders	Water Departme nt.	CGS & Develop ment partners	2.5	0.5	0.5	0. 5	0. 5	0. 5
	Enhancing Solarization programmes within the water structures.	Number of water points Solarized	, CGS, National Govt. Stakeholders (Nawiri, Acted, UNICEF, FCA, NDMA, Caritas, LMS, World Vision, WF, WRA, NW/WA,	Water Users	CGS & Develop ment partners	80	16	16	16	16	16
Strengthen water governance to include	Strengthened water governance to include participation of more women,PWDs and	No of women and vulnerable groups benefiting from water projects	CGS, State Department of Water & Irrigation,	Women and youths	CGS & Develop ment partners	16	3	4	3	3	3

participation of more women in communal water management	other vulnerable groups in communal water management		MOH, Nawiri, Acted, UNICEF, Social Services								
	Empowered women and youths by involvement in water management committees	Number of women groups/women elected in the water committee	WRA, WSTF, CGS, WRUAs, WUAs; Development Partners	Women and youths	CGS, Private & Development partners	25	5	5	5	5	5
Improve policy framework for improved sanitation in populated settlement	Improved policy framework developed for improved sanitation in polluted settlement (water poly and Act, Water master plan, Water strategy	Number of Policy framework dealing with sanitation in polluted settlement improved	CGS, Nawiri, WFP, WF, LISTEN	Entire County	CGS & Development partners	25	5	5	5	5	5
Protect Water Sources from pollution including through suitable watershed	Protected Water sources from Pollution.	No. of protected water sources.	CGS, National Govt. Stakeholders (Nawiri, Acted, UNICEF, FCA, NDMA, Caritas, LMS, World Vision,	Entire Community	CGS, Private & Development partners	30	6	6	6	6	6

and wastewater mgt strategies.			WF, WRA, NWWA, NEMA								
	Establishment of sanitation facilities in constructed water points	No. of sanitation facilities constructed	CGS, National Govt. Stakeholders (Nawiri, Acted, UNICEF, FCA, NDMA, Caritas, LMS, World Vision, WF, WRA, NWWA, NEMA			25	5	5	5	5	5
	Establishment of water analysis lab	No. of water analysis lab established and operational	CSG , NWWA,WRA			16	10	6	0	0	0
Design and Implement programmes for increased Community and private sector participatio	Designed and Implemented programmes for increased Community and private sector participation in water resource mgt - Capacity build community & private sector on water	No. of Designed and Implemented programmes for increased Community and private sector participation in water resource. No. of community members trained No. of workshops conducted	CGS, National Govt. Stakeholders (Nawiri, Acted, UNICEF, FCA, NDMA, Caritas, LMS, World Vision, WF, WRA,	Water Users, CGS.	CGS, Private & Development partners	100	20	20	20	20	20



n in water resource.	resource management.		NWVA, NRM institutions								
Sector Sub Total						576.5	123.5	118.5	111.5	111.5	111.5
ENVIRONMENT AND CLIMATE CHANGE: ECOSYSTEMS AND NATURA RESOURCE MANAGEMENT											
Strategic Objective: To Strengthen the ability of ecosystems to respond to impacts of climate change, provide climate mitigation solutions and improve resilience of social systems across various landscapes											
Reduce emissions from deforestation and forest degradation	Increased forest cover in the County and reduced land degradation through tree planting	Percentage of forest plantation established	Min. of Energy, KOSAP, CGS, Clean Cooking Solutions, Private Sector KFS NEMA NGOS	Community	CGS & Development partners	20	5	5	4	3	3
	Strengthened county climate change related policies and regulations  Enhance county environmental management institutional structures	No of policies enacted No of gazette notice issued  No of environmental committees formed No of groups trained	Min. of Energy, KOSAP, CGS, Clean Cooking Solutions, Private Sector, county Assembly of Samburu, LISTEN	Community	CGS & Development partners, LISTEN project	17	5	3	3	3	3

	Increased forest cover in the County and reduced land degradation	No. of hectares on degraded forest patches rehabilitated	Min. of Energy, KOSAP, CGS, Clean Cooking Solutions, Private Sector	Community, Conservancies	CGS & Development partners	25	5	5	5	5	5
	Reduced land degradation and empowered community conservation groups	No of hectares rehabilitated No of community groups empowered	KFS, CFAs, CGS and Communities	County residents and social institutions	CGS & Development partners	10	2	2	2	2	2
	Enhanced Capacity building	No of community members, NRM groups, government agencies trained No of trainings conducted	County government, NG, NGOs	Local communities County Staff, Administration	NG, CGS, NGOs	5	1	1	1	1	1
	Reduced land degradation through wetlands and spring protection and restoration	No. of protected springs No of wetlands restored No of wetlands management committees formed	KFS, CFAs, CGS and Communities NEMA	Community	CGS & Development partners	15	3	3	3	3	3
	Riparian protection and restoration	Kilometres of riparian area pegged Riparian pegging report	NEMA, WRA, CGS	Community, WRUAS	CGS, Development partners	15	3	3	3	3	3

Sustainable solid waste management	Create awareness of communities on sustainable solid waste management act 2023 and other regulations, extended producer responsibility and waste segregation at source	No trainings/meetings held	NEMA/CGS	Community	Manufacturers/producers	5	1	1	1	1	1
	Establishment of material recovery facilities And waste collection centres  Registration of waste collectors/pickers groups	No of material recovery facilities established  No of groups/ association registered  No of groups trained.	CGS  CGS	Communities  Community	CGS  CGS	50	10	10	10	10	10
	Promote green jobs through waste recycling  Improve solid waste collection and transportation	No of waste recyclers in the county  Solid waste bins/dustbins produced No. of waste transportation vehicles increased.	CGS  CGS	Community  Community	CGS  CGS	50	10	10	10	10	10

Sustainable rangelands management	Control of invasive species	Reduced acreage under invasive species	NGOs, CGS	Community	CGS	15	4	4	4	3	0
	Mapping wildlife corridors	No of Mapped wildlife corridors	KWS,CGS,NRT AND CONSERVANCIES	Community, Conservancies	CGS, KWS	8	4	4	0	0	0
	Identification, mapping and restoration of degraded areas through soil and conservation measures	Acreage of degraded land rehabilitated No/ of maps generated No. of degraded sites identified and restored	CGS,NRT,NE MA,KFS,NGOs	Community, Conservancies	CGS	5	1	1	1	1	1
	Soil erosion control structures constructed	No. of soil erosion control structures constructed	CGS,NRT,NE MA,KFS,NGOs	Community, Conservancies	CGS and development partners	50	10	10	10	10	10
	Planned Settlement and grazing management	No of settlement plans developed No of grazing committee established No of committee trained No of exchange visits No of zoned grazing blocks	CGS,NRT,VSF SUISSE	Community, Conservancies	CGS, Development partners	6	2	2	2	0	0
Promote access to renewable	Improved accessibility to clean cooking solutions such as	No of people having access to energy saving appliances	CGS,WORLD BANK through KOSAP	Community,	CGS, KOSAP	15	3	3	3	3	3

energy for cooking and lighting at household level	energy saving jikos, biogas <b>Promote use of alternative fuels</b> , such as LPG, ethanol and other clean fuels as a way of transitioning to clean cooking:	No of groups trained on clean cooking initiatives No of households using Energy saving jikos		Institutions							
	Improved accessibility to renewable energy	No of people having access to solar panels No of groups trained on green energy for lighting No of households using solar lighting	CGS, WORLD BANK through KOSAP	Community, Institutions	CGS, KOSAP	15	3	3	3	3	3
						<b>326</b>	<b>72</b>	<b>70</b>	<b>65</b>	<b>61</b>	<b>58</b>
<b>HEALTH: HUMAN HEALTH AND WELL BEING</b>											
<b>Strategic Objective:</b> To mainstream climate change adaptation into the health sector; and increase the resilience of human both in rural and urban areas within the county											
Enhance access & improve universal healthcare through strengthening	Upscale active disease surveillance by increased case detection & Response	Number of suspected cases detected & investigated.	Department of Health -CGS, State Department of Public Health & Professional Standards,	All vulnerable Communities in Samburu County.	CGS, Private & Development partners	25	5	5	5	5	5

g health systems to adjust to a Changing climate.	Vector control programmes undertaken	Number of vector control programmes developed and conducted.	CGS Departments-Environment, Agriculture, Livestock, Health, LISTEN.	All	CGS & Development partners	10	2	2	2	2	2
	Upscale of health Promotion in Schools in-cooperating climate change	Number of school population reached with health messages relation & focus on climate change.	CGS, Ministry of Education, Agriculture, Livestock, UNICEF	All School going children	CGS, Private & Development partners	15	3	3	3	3	3
	Undertake assessment of climate risks to health service delivery and produce a strategic sector plan that builds health resilience to climate change impacts.	No. of assessment undertaken No of Strategic sector plans produced.	CGS Departments-Environment, Agriculture, Livestock, Health NDMA, Unicef, LISTEN, USAID Nawiri	Pastoralists and Agro-pastoralists	State Departments-Agriculture, Livestock, NDMA, VSF-Suisse, NRT, WFP, LISTEN	5	2.5	2.5	0	0	0
	Evaluate climate and mainstream vulnerability of existing and proposed waste management systems and climate	No. of evaluation reports generated	CGS Departments-Environment, Agriculture, Livestock, Health NDMA,	Pastoralists and Agro-pastoralists	CGS & Development partners	5	1	1	1	1	1

	proof vulnerable systems		Unicef, NEMA, LISTEN, USAID Nawiri								
Reduce the burden of violence and injuries that are on the rise in the occurrence of climate related hazards	Training and sensitizations of HCWs on issues relating various Gender based violence and injuries e.g. First aid skills etc. to health care providers. Organize for Sensitization of staff and community about violence, injuries and SGBV using CHVs and integrate climate change matters Undertake awareness creation on safety precautions to various health providers and community	No. of CHVs trained on GBV, violence and injuries No. of staff trained No of awareness creation campaigns conducted	CGS Departments- Environment, Agriculture, Livestock, Health NDMA, Unicef, NEMA, LISTEN, USAID Nawiri	CHVs Medical staff	CGS & Development partners	9	3	3	1	1	1
Enhanced Integration of nutrition & food security into health	Integration of nutrition & food security into health sector planning.	No. of updated food security & nutrition policy & plan addressing climate change impacts.	CGS Departments- Environment, Agriculture, Livestock, Health NDMA, Unicef, NEMA,	Pastoralists and Agro-pastoralists	CGS & Development partners	3	3	0	0	0	0

sector planning.			LISTEN, USAID Nawiri, WFP, World Vision								
Enhance proper sanitation of human settlements in terms of solid waste and effluent management	Integrated waste & sewage management plans developed to address risks from climate change.	Number of Integrated waste & sewage management plans developed to address risks from climate change.	CGS Departments- Environment, Agriculture, Public Works, Water, Livestock, Health, NEMA, Maralal Municipality, LISTEN, USAID Nawiri.	Pastoralists and Agro-pastoralists	CGS & Development partners	2	2	0	0	0	0
	Strengthen & improve Integrated waste & sewage management institutions & policies	No. of waste and sewerage management institutions strengthened	CGS Departments- Environment, Agriculture, Public Works, Water, Livestock, Health, NEMA, Maralal Municipality, LISTEN, USAID Nawiri.	Pastoralists and Agro-pastoralists	CGS & Development partners	5	1	1	1	1	1
						79	22.5	17.5	13	13	13



<b>DISASTER: DISASTER RISK REDUCTION AND MANAGEMENT</b>											
Strategic objective: To reduce risk and potential damages posed by disasters through comprehensive Disaster Risk Management policies, strategies and programmes to ensure timely response, preparedness, mitigation, rehabilitation, recovery on disaster managements											
To reduce risk and potential damages posed by disasters through comprehensive Disaster Risk Management	Community managed disaster risk training conducted	No of trainings conducted No. of community members trained	CSG- Special programs, USAID	Community members	CGS & Development partners	10	2	2	2	2	2
	Establishment and equipment of County Emergency Operations Centre (EOC)	No. EOC centres established	CSG- Special programs, USAID, WFP, KRS	Community members	CGS & Development partners	10	5	5	0	0	0
	County multihazard contingency plan established	No. of contingency plans developed	CSG- Special programs, USAID, WFP, KRS	Community members	CGS & Development partners	15	3	3	3	3	3
	Emergency rescue missions and capacity building	No. of rescue missions conducted	CSG- Special programs, USAID, WFP, KRS		CGS & Development partners	10	2	2	2	2	2
	Early warning and response mechanism	No. of early warning disseminated	CSG- Special programs, USAID, WFP, KRS, NDMA		CGS & Development partners	15	3	3	3	3	3

	Peace dialogue meetings conducted		CSG- Special programs, USAID, WFP, KRS		CGS &Develo pment partners	10	2	2	2	2	2
<b>Sector Sub Total</b>						<b>70</b>	<b>17</b>	<b>17</b>	<b>12</b>	<b>12</b>	<b>12</b>


## REFERENCES

County Government of Samburu Integrated Development Plan (CIDP 2017-2022)

County Government of Samburu Integrated Development Plan (CIDP 2023-2027)

Kenya Meteorological Department

Kenya Forest Service, National-Forest-Resources-Assesment-Report-2021

Republic of Kenya, (2018): National Climate Change Action Plan (2018-2022)

Republic of Kenya, (2018): National Climate Change Action Plan (2023-2028)

Republic of Kenya , (2016): National Climate Change Adaptation Plan (2015-2030)

The Samburu County Climate Change Act, 2022

The Samburu County Climate Change Policy, 2022

## ANNEXES

### LIST OF CCAP TECHNICAL WORKFORCE

Sr No.	NAME	DEPARTMENT/INSTITUTION	DESIGNATION
1.	Benson Lengalen	Water, Environment, CC, Natural Resources & Energy	Director Environment, CC, NRs & Energy
2.	Joseph Kilonzo	Livestock Production	County Director Livestock
3.	Loldos Billy	Livestock Production	Livestock Officer
4.	Joseph Lolchuraki	Special Programs	Principal Officer,
5.	Peter Daniel Lesooni	Special Programs	Principal Officer
6.	Eng. Kirui Samwel	Crop Production	Agriculture Engineer
7.	Steve Biko Lepariyo	Water, Environment, CC, Natural Resources & Energy	Sub-County Environment Officer
8.	Simon Lekembe	Tourism	Asst. Director, Marketing
9.	Lediipo Jamaica John	Water, Environment, CC, Natural Resources & Energy	NRM/Environment Officer
10.	Monica Lotukoi	Water, Environment, CC, Natural Resources & Energy	Geologist and Principal Environment Officer
11.	Sammy Lenolkulal	Water, Environment, CC, Natural Resources & Energy	NRM/Environment Officer
12.	Angela Nyanchama	LISTEN Project (FCDC)	Policy & Governance Support
13.	Timothy Lembara	Water, Environment, CC, Natural Resources & Energy	NRM/Environment Officer
14.	John Lenareu	County Administration	Sub-County Administrator – East
15.	Daniel Lelenguiya	County Administration	Sub-County Administrator – North
16.	Rose Lenairerei	County Administration	Sub-County Administrator – Central
17.	Tony Boaz Leparkery	Water, Environment, CC, Natural Resources & Energy	Sub-County Environment Officer
18.	Joseph Lenaseiyan	Water, Environment, CC, Natural Resources & Energy	Environment Officer

## CCAP VALIDATION WORKSHOP



The County Secretary opening the PCRA and CCAP Validation workshop in Samburu Guets House on 29<sup>th</sup> May, 2023



Participants posing for group photo during the validation workshop