County Governments' Response to Climate Change Impacts

A COMPARATIVE STUDY ON KAKAMEGA, SIAYA, TANA RIVER AND MOMBASA, COUNTY GOVERNMENTS' RESPONSE TO CLIMATE CHANGE IMPACTS THROUGH POLICY, LEGISLATION, PROGRAMMING AND FINANCING.

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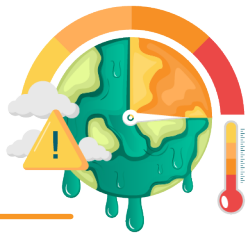
Executive Summary



This is a comparative analysis of how six counties in Kenya respond to climate change through policy, legislation, programming, and budgeting. The research report does a comparative analysis of the climate change response in the six counties against six main criteria listed under the overarching study objectives using various indicators and parameters identified through the terms of reference. The comparative analysis is further deepened by a robust conceptual framework *Systems Dynamics Model* developed by the research team that explored the relationships between institutions, actors, policies, and legislations on how the selected counties integrate climate change into their programming, planning, and budgeting. This model has been used as an approach to analyse the complexity of climate change institutions, their frameworks, actors, and policies and how they interact with one another.

Case studies were prepared for each county founded on a set of guiding open-ended research questions and drew initial literature review from a plethora of available documentation on climate change, existing policies and legislations, research reports, case studies, media reports, unpublished reports and existing policy and legislative frameworks.

This comparative research report is also a product of extensive consultations in six selected counties of:

- Mombasa
- Tana River
- Kajiado
- Nairobi
- Siaya
- Kakamega

This content was further corroborated through two steps. One, the research collected data during interviews, focused group discussions through interviewing key individuals in all counties, state and non-state actors, climate experts and policy makers. A comparative analysis of the six selected counties was undertaken based on the data and findings from the field drawing on key thematic areas that formed part of the study as follows:

1. The report found concerted efforts by the selected counties to respond to climate change by decentralizing Climate Change legislations, policies, and funding since the enactment of the National Climate Change Act of 2016. Only Nairobi County had not published its Climate Change Act while the rest of the counties had aligned most of their structures and policies with the national legislation.
2. The constitution of the Climate Change Fund has been very instrumental in ensuring that counties integrate climate data into the County Integrated Development Plans (CIDPs). This has further enabled the six counties to allocate crucial funds into their CIDPs and come up with mechanisms on how to access the money for their mitigation and adaptation projects.
3. Stakeholder participation and access to information on climate change has been on a minimal scale. The research established that there is scanty information and consultations on climate change planning, programming, and budgeting. No county had established a climate information portal or systems to track finances and projects on climate change and this was a big gap when the data collection exercise was being undertaken. On a positive note, the establishment of the County Climate Change Fund demonstrated great strides in mainstreaming climate information and adaptation strategies to receive all the relevant information required to inform the County Integrated Development Plans (CIDP)
4. Budgeting processes are unique in all the six counties, but we found out that the budget cycle in all the counties is guided by the Public Finance Management Act, 2012. This has been crucial in ensuring that public participation is adhered to as part of the budget cycle. However, county consultations on the budgeting process have not been specific to the Climate Change processes. In Siaya county for instance, there is a proposal to establish climate change budgeting processes at sub county and ward level. This will subsequently ensure that communities through the leadership of ward climate change committees are able to prioritize projects on adaptation

and mitigation.

5. The report established that there is a mismatch between what is planned as part of the County Integrated Development Plan and what is actually allocated by counties through their budgeting process. Much as there is ambition to plan mitigation and adaptation projects, there is little or no implementation happening much on the ground. For instance, in Mombasa County, there was allocation of Kenya shillings 500 million to construct a sea wall to protect fort Jesus from the rising sea level. However, the research found out that this project had not been initiated by the county nor did the participants feel that it was a key priority.
6. The research established there is limited Knowledge on climate change, as most of the respondents referred to the changing climatic conditions and varying weather patterns.

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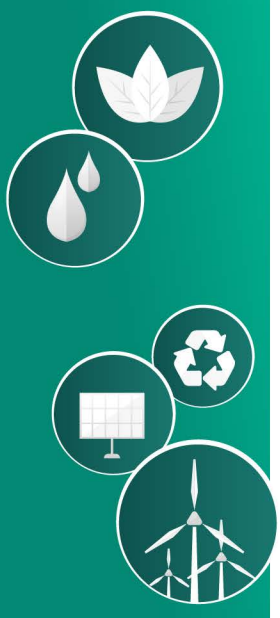
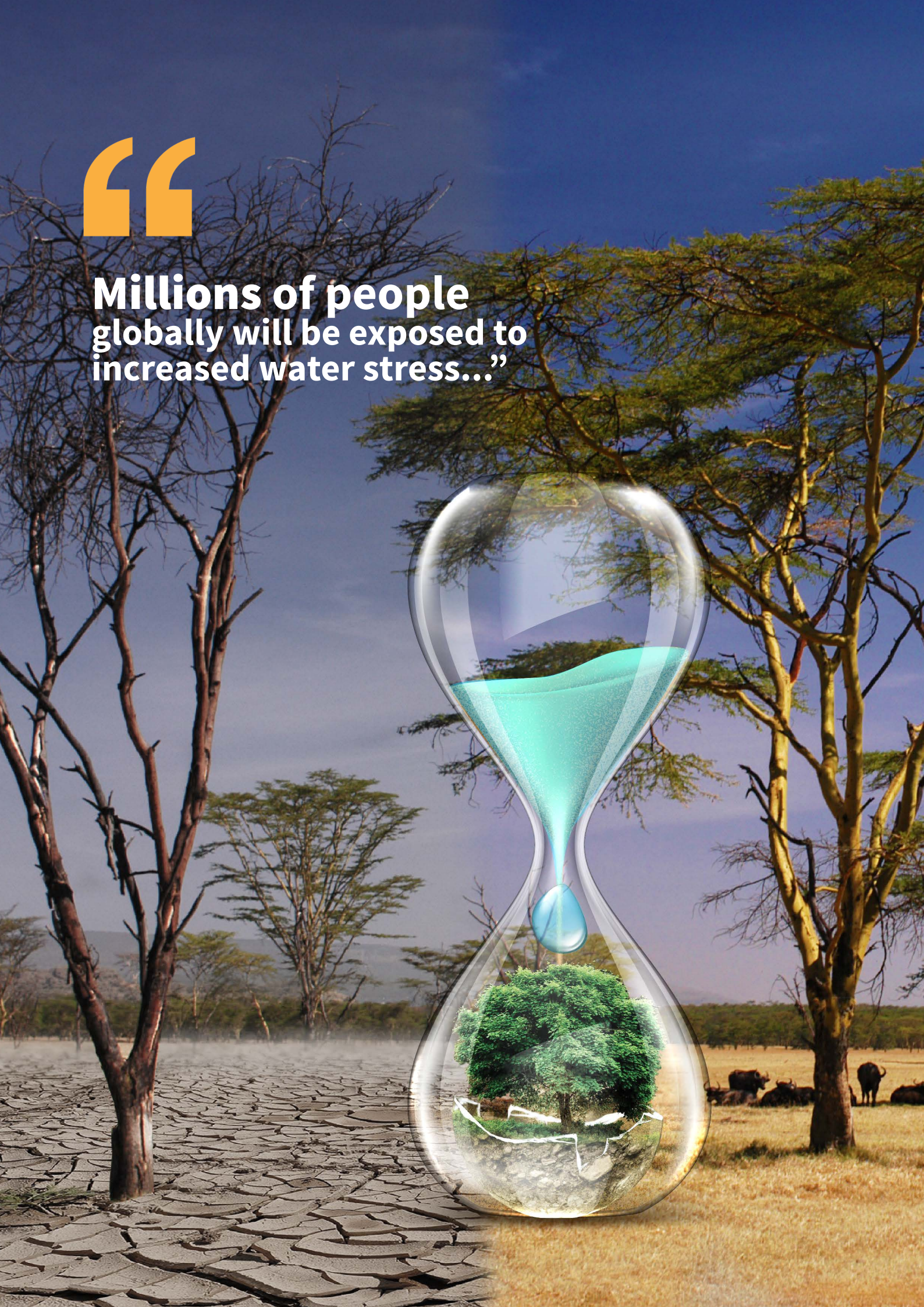


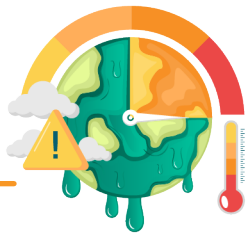
List of Acronyms

ASAL	Arid and Semi-Arid Land
ASDS	Agricultural Sector Development Strategy
BAU	Business as Usual
CAF	County Adaptation Funds
CAP	County Adaptation Plan
CCCF	County Climate Change Fund
CCCSC	County Climate Change Steering Committee
CEC	County Executive Committee
CCCS	County Climate Change Secretariat
CCRMF	Climate Change Risk Management Framework
CIDP	County Integrated Development Plan
CEAF	County Energy Access Fund
EBA	Ecosystem Based Approach
FLLoCA	Financing Locally–Led Climate Action Program (G-FLLoCA)
GCF	Green Climate Fund
GESIP	Green Economy Strategy and Implementation Plan
GDP	Gross Domestic Product
GHG	Greenhouse Gasses
ISWMP	Integrated Solid Waste Management Plan
KALRO	Kenya Agricultural and Livestock Research Institute
KCCAP	Kakamega Climate change Action Plan
KCSAP	Kenya Climate Smart Agriculture Project
KFS	Kenya Forestry Service
KMD	Kenya Meteorological Department
LREB	Lake Region Economic Block
MTPF	Medium Term Policy Framework
NAMATA	Nairobi Metropolitan Area Transport Authority
NCSEAA	Nairobi County Sustainable Energy Act
NCCAP	National Climate Change Action Plan
NCCCA	Nairobi County Climate Change Action Plan
NEMA	National Environmental Management Authority
NCCFP	National Climate Change Framework Policy
NCCRS	National Climate Change Research Strategy
NDC	Nationally Determined Contributions
NMS	National Metropolitan Services
RPLRP	Regional Pastoral Livelihoods Resilience Project
REREC	Rural Electrification and Renewable Energy Commission
UNFCCC	United Nations Framework Convention on Climate Change
UNSDGS	United Nations Sustainable Development Goals
WB	World Bank


“
Millions of people
globally will be exposed to
increased water stress...”

CHAPTER ONE

Introduction



Background and context

Climate change is considered one of the most devastating threats to sustainable development not only in Kenya but also globally (National Climate Change Response Strategy, 2010). Climate change is projected to impact many sectors such as agriculture and food security, natural resources, human health and environment among others. The findings of the fourth assessment report (AR4) (IPCC, 2007) show that millions of people globally will be exposed to increased water stress; access to food in many African countries will be severely compromised, and adaptation to climate change will be necessary.

It's against this backdrop that Econews Africa in partnership with Legal Resources Foundation and Ujamaa Centre (Hereinafter referred to as the Consortium) is implementing with support from HIVOS the project "*Voices for Climate Action (VCA) Project: Expanding the policy, financing and advocacy space for communities most affected by extreme climate through strong political and community agency*" which seeks to strengthen weak systems of community resilience in the wake of climate variability through the mobilization of strong political and community agency that is rooted in promoting alternatives, securing human rights, and livelihoods, and improving health in order to expand the policy, financing, and advocacy space for communities most affected by extreme climate. In the long term, the project should build the leadership of women, youth, small scale farmers and marginalized communities to adapt and implement economic transition strategies that take into consideration the current and future risks.

Purpose of the Comparative Study

The purpose of the study was to comparatively interrogate and assess the adequacy and effectiveness of policy, legislative and institutional frameworks on climate change mitigation and adaptation in the six target county governments namely Mombasa, Tana-River, Siaya, Kakamega, Nairobi and Kajiado. The study also sought to interrogate the alignment of these frameworks with the national and global (Paris Agreement) goals and commitments on climate change mitigation and adaptation, identify and expose the policy gaps that exist and finally generate best practice information from the analysis comparing the policy response and action by the target counties.

COUNTY PROFILES

Kajiado County

Located in the Rift Valley region, Kajiado County borders Machakos County, Makueni County and Taita Taveta County to the East, Nakuru, Kiambu and Nairobi County to the North, Narok County to the West, and Tanzania to the South. According to the 2019 Population and Housing Census, the county's population was 1,117840 and the growth rate is 5.5% while the population density is 51 people per Km^2. It is situated between Longitudes 360 5' and 370 5' East and between Latitudes 10 0' and 30 0' South. The county covers an area of 21,900.9 square kilometres (Km2).

Kajiado County is predominantly semi-arid, and the main economic activities are livestock herding, crop farming, tourism and pastoralism. The main challenge facing not only Kajiado County but the entire country especially in achieving its development goals as stipulated in its development blueprint, Vision 2030, is climate change. Kajiado County is highly susceptible to climate-related hazards such as prolonged drought, irregular and unpredictable rainfall patterns, and droughts during rainy seasons. Due to its arid and semi-arid nature, agriculture is practiced through greenhouses and irrigation and the main practice is horticulture.

Characterized by plains, valleys, and occasional volcanic hills, Kajiado County experiences short rains between October and December while the long rains fall between March and May. The long rains (March to May) are more pronounced in the western part of the County while the short rains (October to December) are heavier in the eastern part. The rainfall amount ranges from as low as 300mm in the Amboseli basin to as high as 1250mm in the Ngong hills and the slopes of Mt. Kilimanjaro. Temperatures vary both with altitude and season with the highest temperatures (34^0C) recorded around Lake Magadi while the lowest (10^0C) at Oloitokitok on the eastern slopes of Mt. Kilimanjaro. The coolest period is between July and August, while the hottest months are from November to April. Most of Kajiado County lies in semi-arid and arid zones V and VI characterized

as livestock production zones with only 8% of having potential for rain fed cropping (zone IV).

The agriculture and livestock development sector are the most important sectors in the county. The sector employs 75% of the total population and provides nearly 40% of the county's food requirements. According to the ASDSP Baseline report of 2014 (GoK, 2014), at least 78% of households were employed and derived their income from on-farm (crop, livestock sales and fishing activities).

Pastoralism is a major economic activity in the county with major stocks being cattle, sheep, and goats. Livestock trade, livestock products that include milk, beef and chevon, hides and skins form the main part of employment contributing to a higher percentage of the household incomes. The vastness of the county and proximity to Nairobi City provides a competitive advantage by enhancing access to markets and other business opportunities. This has boosted establishment of manufacturing industries, large scale farming especially floriculture and horticulture. Other sectors that have developed include real estate development in major towns (Kitengela, Ngong, Ongata Rongai, Kiserian Isinya) and the extraction industry.

The County is also mineral-rich with soda ash found in Lake Magadi, marble stones in Loodokilani; Limestone and sand extracted from the many seasonal rivers which traverse the county.

The agriculture sector is adversely affected by climate change and Kajiado County is already facing the consequences. This is experienced through the constantly decreasing rainfall amount and prolonged drought. It is also evidenced by a moderate increase in mean temperature, remarkable increase in heat stress days, high variability and slight decrease in precipitation and an increase in flooding risk. All these changes have led to decline in agricultural productivity hence threatening the people's livelihoods. While drought is the major agricultural risk in Kajiado county, flash floods also occur resulting in displacement of people and livestock.

The Water-Energy-Food (WEF) nexus

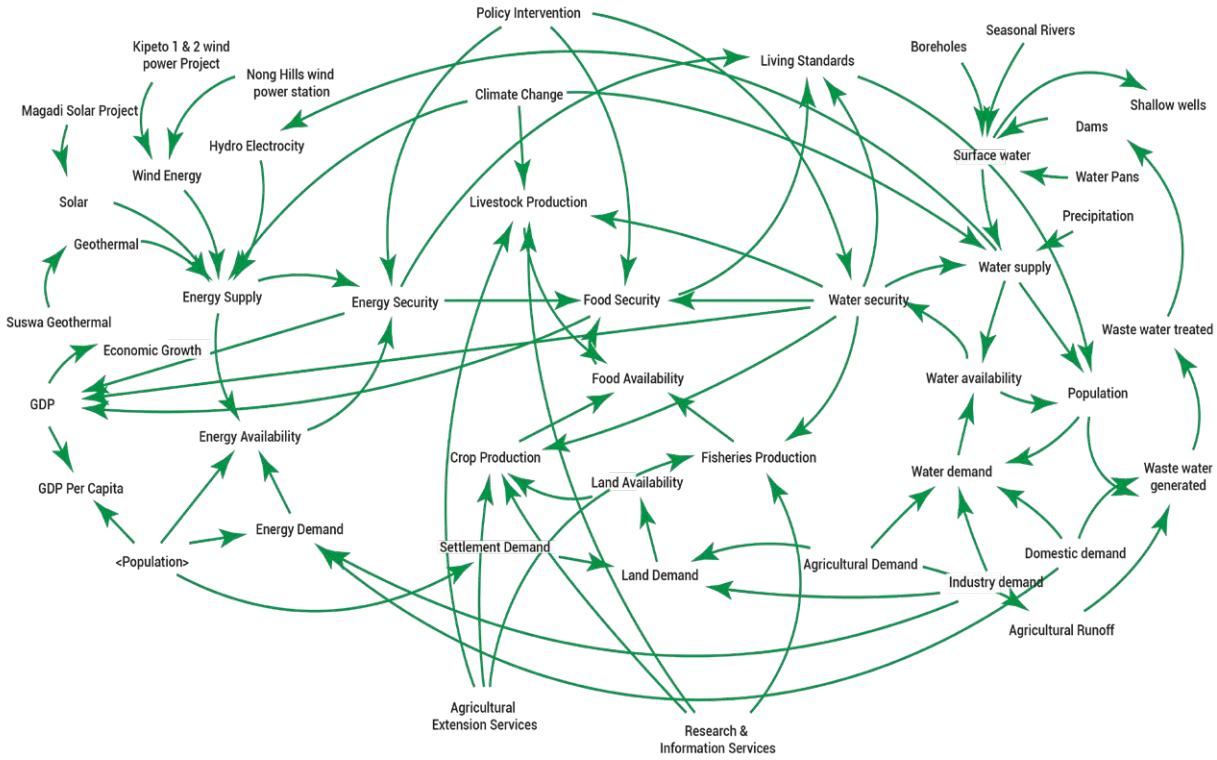


Fig 1: A system Dynamics Model showing the relationship between water, energy, and food sectors in Kajiado County, | Omesa, 2022

The model which utilizes the System Dynamics (SD) approach can be used to show the relationship between water, energy and food sectors and inform how policy intervention can help improve the security of each of the sectors. The primary components of the model are water security, energy security, food security and population which influences all of them. The model can be used to assess effectiveness of the county government's cross-sectoral departments on management of water and energy resources consumption and how to affect food production and availability through sector-specific policies that are aimed at improving ecosystem services within the county while enhancing the people's livelihoods. The key take-away from this model is that combined policy responses proposed from the food and water sub-sectors would more effectively improve

the WFE system while conserving the environment and enhancing the livelihoods of the people of Kajiado County.

Fig 2: A group of fishermen reparing their nets on the shores of L. Victoria | Image by valerossi from Pixabay

Siaya County

Siaya County is located in Western Kenya. It is one of the six counties that form the Nyanza region. It neighbours Vihiga and Kakamega Counties to the North-East, Kisumu County to the South-East, Busia County to the North and Homa Bay County across the Winam Gulf. It has a land surface area of 253,000 ha and a water surface area of 100,500 ha. The water surface forms part of Lake Victoria. The county occupies an area of 2,530 Km with an estimated population of 842,304 people (47% male and 53% female) according to the population census.

Mombasa County

Mombasa County is one of Kenya's coastal counties, with an area of 260km2 between latitudes and longitudes -4.0435, and 39.6682. It borders Kilifi County to the North, Kwale County to the Southwest and the Indian Ocean to the East. The county lies within the coastal lowland which rises gradually from the sea level in the East to about 132m above sea level in the mainland. The county has six constituencies namely Changamwe, Jomvu, Nyali, Kisauni, Likoni and Mvita. The population is estimated at 1.2 million and it is projected to rise up to 1.8 million by 2030.

The County's terrain is characterized by three distinct physiographic features, which includes the coastal plain (parts of Changamwe and North Coast and parts of South Coast) consisting of flat land and beach terraces covered with coral limestone, sand deposits and back reefs; the hilly areas in the western part of the county (parts of mainland west) that is 45m to 132m asl; and the Indian Ocean and the shoreline covering parts of the South Coast, the Island, parts of Changamwe and the North Coast. The island is separated from the mainland by two creeks, Port Reitz in the south and Tudor Creek in the north, which are fringed by well developed mangrove forests. The fringing coral reefs in the North Coast are an important marine conservation area - Mombasa Marine National Park and Reserve.

Tana River County

Tana River County is one of the six Counties in the Coast region. It borders Kitui County to the West, Garissa County to the North East, Isiolo County to the North, Lamu County to the South East and Kilifi County to the South. The county lies between latitudes 0 053 and 20 041 South and longitudes 38^0 25.43' and 40^0 15' East. The county has a total area of 38,862.2 Km^2 with a population of 314,710(KNBS, 2019) and covers about 76 kms of the coastal strip. The County is composed of

three administrative sub-counties namely; Bura, Galole, Tana Delta, three constituencies namely; Galole, Bura and Garsen and 15 electoral wards.

Fig 3: A pair of elephants dig for water due to prevailing drought in the Tsavo - Turkana County

Tana River County is an arid and semi-arid county characterised by warm and hot climate. The average temperatures are 30^0C with temperatures ranging between 20°C and 41°C while the rainfall pattern and distribution is erratic and unreliable. There are two rainfall seasons. The long rains usually occur between April and May and the short rains between October and November and ranges between 280 mm and 900 mm annually. The driest periods are January, February and September. The precipitations are brief and occasionally accompanied by violent storms resulting in flash floods. The surface runoff and potential evaporation rates are incredibly high.

Kakamega County

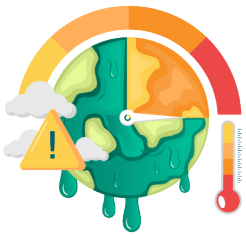
Kakamega County is located in the Western part of Kenya, 0.2827° N, 34.7519° E. The county borders Vihiga County to the South, Siaya and Busia Counties to the West, Bungoma and Trans Nzoia Counties to the North and Nandi and Uasin Gishu Counties to the East. The County covers an area of 3,051.3 KM^2 and is subdivided into 12 sub-counties, 60 wards, 87 village units and 400 community areas. The altitudes of the county ranges from 1,240 meters to 2,000 meters above sea level. The southern part of the county is hilly and is made up of rugged granites rising in places to 1,950 meters above sea level. The Nandi Escarpment forms a prominent feature on the County's eastern border, with its main scarp rising from the general elevation of 1,700 meters to 2,000 metres. There are several hills in the county such as Misango, Imanga, Eregi, Butieri, Sikhokhochole, Mawe Tatu, Irhanda, Kiming'ini, Maturu, Khuvasali, Kambiri hills among others. The county consists of major rivers such as Yala, Isiukhu, Lusumu, Nzoia, Shatsala, Firatsi, Kipkaren, Kamehero, Lukusitsi, and Sivilie and a number of several streams.

Nairobi County

Nairobi County is one of the 47 Counties in the Republic of Kenya. It borders the Counties of Kiambu to the north and west, Kajiado to the south and Machakos to the east. Among the three neighbouring counties, Kiambu County shares the longest boundary with Nairobi County. The County has a total area of 696.1 Km2 and is located between longitudes 36° 45 East and latitudes 1° 8' South. It lies at an altitude of 1,798 metres above sea level

The terrain in the eastern side of the County is gently rolling but divided by steep valleys towards the City boundaries. To the north, there is the Karura Forest which is characterised by steep sided valleys. The Karen-Langata area is characterised by plains surrounded by Nairobi National Park on the east and Ngong Forest on the south. Several streams with steep-sided valleys covered with vegetation are a dominant landscape feature of the County. The main rivers in the County are Nairobi River, Ngong River and Kabuthi River. These rivers are highly polluted by effluence from

open sewers and industrial waste. Nairobi dam, which is along the Ngong River, and Jamhuri Dam are the main water reservoirs in the County. The main types of soils are black cotton and red soils that form patches in different parts of the County.



There are three forests in the County, namely Ngong Forest to the south, Karura Forest to the north and the Nairobi Arboretum. The three forests have a total coverage of 23.19 Km2. The County is predominantly a terrestrial habitat that supports a diverse web of biodiversity and ecosystems. It is home to about 100 species of mammals, 527 bird species and a variety of plant species. Although it is endowed with some permanent rivers, the aquatic ecosystems are largely choked by the effects of pollution from different sources. Currently, efforts are underway to ensure a sustainable clean Nairobi River Basin

Study Objectives

The following were the main overarching objectives of the study;

i. To assess the Alignment of the Climate Change Policies and Legislations at the County Level with National Level Frameworks
ii. To assess the policy and legal frameworks on climate change in the target Counties Focusing on Identifying their Adequacies or inadequacies in addressing Climate Change impact
iii. To interrogate the institutional frameworks tor climate change action
iv. To examine the integration of climate reality into development priorities, government planning and budgeting at the county level
v. To assess the policy mechanism for climate financing probing their adequacy, effectiveness, and sustainability
vi. To examine stakeholder engagement, public participation, and access to information
vii. To deliver a comprehensive report containing the findings, comparative experience among target counties and recommendations

Study Methodology

The study was conducted in six counties namely; Mombasa, Tana-River, Siaya, Kakamega, Nairobi and Kajiado.

Study Design

The study utilized the mixed research methodology encompassing both elements of qualitative and quantitative to collect and analyse data. The research team prepared an elaborate interview guide that captured a list of general questions whose aim was to elicit insights, views, opinions, observations, and ideas across different sets of stakeholders while ensuring that the interviews were as open as possible. This was important to capture the different aspects of the research as well as ensure that the comparative aspect of the study was identified. The lists of the interview guides for both state and non-state actors are annexed in the report.

The research team developed robust conceptual framework dubbed *Systems Dynamics Model* represented by a causal loop diagram (see figure 1) that explored the relationships between institutions, actors, policies, and legislations on how the selected counties integrate climate change into their programming, planning, and budgeting. System Dynamics Modelling has been used in this study as an approach to analyse the complexity of climate change institutions, their frameworks, actors, and policies and how they interact with one another. This presented a clear-cut way of elaborating how the six counties compare climate change programming, planning, and budgeting.

Sampling

The study utilized *convenience sampling* with the help of key contacts in the six counties that helped identify various state and non-state actors working in the climate change adaptation and mitigation space. These were helpful in identifying members of focus group discussions (FGDs) in Kakamega, Siaya, Tana River and Mombasa. *Purposive sampling was* also used to select key informants from the populations of the County government officials in the relevant agencies dealing with climate change governance in the six counties. The study also employed the use of *snow-balling sampling* to ask stakeholders in the climate change space to help identify other relevant stakeholders who were consequently interviewed for these were represented by a sample size of 25 interviewees in each county.

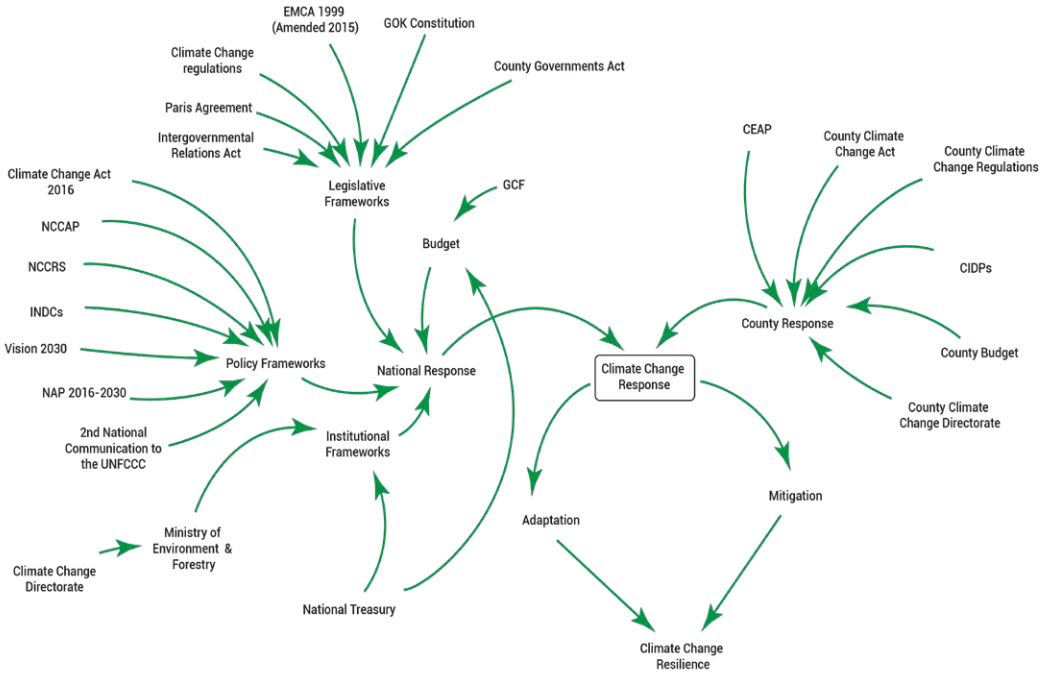


Fig 4: A System Dynamics Model showing the relationship between different national and county policy and institutional frameworks in response to climate change | Omesa 2022

Data Collection

The study collected data using self-administered questionnaires that were designed for specific respondent categories namely; County governments (state actors), Private sector, and non-state actor stakeholders. The responses were recorded by the interviewees on by use of pen-and-paper on the administered questionnaires. The researcher recorded the responses for the FGDs and the interviews with the informants from the county agencies at the various counties. These interviews played a fundamental role in generating prerequisite primary data and capturing the views of stakeholders engaged.

Table 1: Data Collection Summary

County	Questionnaires issues	Questionnaires Responded to	Percentage
Nairobi	25	14	56%
Kakamega	25	22	88%
Tana River	25	18	72%
Kajiado	25	17	68%
Mombasa	25	21	84%
Siaya	25	23	92%

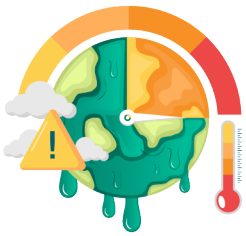
Data Analysis

The study analysed the data from the key informants and FGDs using the *content analysis method* which involved sorting and collating of various themes under the study exercise. The study team subjected the developed study themes to content analysis after ensuring that they were exhaustively discussed, transparent and mutually exclusive.

The study had a timeline and consequently, in order to manage the volumes of data collected from the six counties, the research team sorted and eliminated irrelevant (based on the themes created by the researcher) data using the *scissor-and-sort technique*. In some cases, some of the data was misplaced and good responses were given to wrong questions in the questionnaires. These were corrected and placed in the most suitable question categories. In cases where data was totally irrelevant, it was sorted out and avoided in the analysis but stored for reference for future studies that might need similar responses.

The research team also sought to understand the attitude and perception of various stakeholders on the response of the county governments to climate change and therefore used the *Likert-scale approach* to note the facial expressions, intonation and voice frequency and change/shift in the sitting postures of the informants during the FGDs sessions in the various counties.

Using the systems dynamics modelling, the data collected helped the research team to comprehend the complexity of the various variables such as policy actors, institutions, organs, legislations, and policies that underpin climate change. The system dynamics models helped in organizing numerous complex processes from diverse data sources through visual representations that capture the interrelationships between all the identified variables.



Study Limitations

The comparative research study relied on collected data during interviews, focused group discussions through interviewing key individuals in all counties, state and non-state actors, climate experts and policy makers. However, the processes of coming up with climate change policies and legislations were inconsistent across all the counties under consideration. For the processes of climate budgeting and financing, there was little and scanty information that we could obtain, some of it was unavailable making it difficult to come up with comparison between counties. This is partly explained by the fact that climate change programming and budgeting was executed as part of development projects in most counties. This leads to underestimating the budgeting process that captures climate change adaptation and mitigation projects in selected counties.

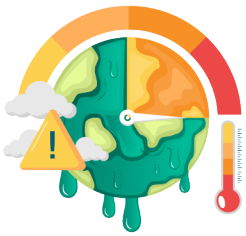
The various pieces of policies and legislations were prepared at different times, so it was difficult to provide up to date information for purposes of comparative analysis. Different counties had different methods of consulting civil society on climate change voices which again proved challenging in comparing their methods. A few counties (Kakamega and Siaya) were elaborate in their climate change processes including consultations with non-state actors while others were keen on engaging climate change experts along the way. This of course brought out varying information from different stakeholders and made it challenging to compare.

“Kenya has ratified the key climate change treaties: UNFCCC, Kyoto Protocol, and the Paris Agreement...”

Fig 5: A session of a Kakamega County Assembly proccedings (feb 2022)

CHAPTER TWO

Alignment of the climate change policies and legislations at the county level with national level frameworks



Policy and Legal Architecture on Kenya's Climate Change

In order to address the adverse effects of Climate Change, Kenya has initiated a raft of policy and legal instruments in the last couple of years. In this section, we identify these instruments and do a summary of their objectives and what they aim to achieve. The main piece of legislation is the 2016 Climate Change Act, a legislation that is executed by the National Climate Change Policy of 2018. Its execution is anchored on the National Climate Change Response Strategy 2010 and consequently the National Climate Change Action Plans (NCCAP) The National Adaptation Plan (NAP) is a pivotal extra policy document.

From a global standpoint, Kenya has ratified the key climate change treaties: UNFCCC, Kyoto Protocol, and the Paris Agreement. These treaties are now part of Kenyan law (The Climate Change Act, No. 11 of 2016, 2016) and act as references to national-level climate policies and plans. The East African Community's Climate Change Master Plan likewise is part of Kenya's climate policy genre. Various institutionalized arrangements, particularly affiliated to the financial mechanisms of the UNFCCC, have been formulated. The National Environment Management Authority (NEMA) is the execution of the Adaptation Fund, while the Ministry of Finance (National Treasury) is authorized as the National Designated Entity of the Green Climate Fund (GCF). In several counties, the sub-national tier of the two-level government, have developed Country Adaptation Funds (CAFs). National and county-level policies relevant to implementation of climate change in Kenya below for a summary of key policy instruments.

Table 2: Key Climate Change Legislations in Kenya

Climate Legislation	Objectives
Climate Change Act, 2016	The implementation of the Climate Change Act commenced in May 2016. The Act aims to strengthen climate change governance coordination structures. It outlines key climate change duties of public and private sector entities and recognises the complementary roles of national and county governments towards addressing climate change.
National Climate Change Action Plan (NCCAP 2013-2017) The National Climate Change Action Plan (NCCAP 2013-2017)	To implement the National Climate Change Response Strategy (NCCRS 2010). The NCCAP guides the transition to a low carbon climate resilient development pathway towards the achievement of sustainable development as outlined in Kenya's Vision 2030. The Action Plan recommended the mainstreaming of climate change actions in development planning, budgeting and implementation processes. It also recommended the formulation and implementation of a climate change policy and legal frameworks.
Climate Finance	A draft National Policy on Climate Finance that establishes the institutional framework for mobilization and management of climate finance was developed. Climate finance targets both short and long-term climate related activities in energy, forestry, water resources management, land management, agriculture, health, infrastructure development; and fragile ecosystems such as the ASALs, wetlands, mountainous coastal and marine zones.
The Green Economy Strategy and Implementation Plan (GESIP)	The Green Economy Strategy and Implementation Plan (GESIP) was launched in 2017 with the aim of transforming Kenya into an inclusive green economy. The Kenya Green Economy Assessment Report was prepared which demonstrated important benefits accruing from transition to a green economy, such as relatively high long-term economic growth, clean environment, and high productivity among others.

County Climate Change Initiatives	Several Counties have developed and legislated county climate change policies and bills to address climate change. Other actions taken by counties include establishment of climate funds; mainstreaming of climate change actions into the County Integrated Development Plans (CIDPs) and Spatial Plans; and implementation of greening initiatives such as solar street lighting, energy efficient cookstoves, and climate smart agriculture.

At a national level, the Government of Kenya (GoK) has developed and implemented several policies and programmes that address climate, environmental, social, and economic development goals and objectives. These are an important framework for Nairobi's climate response and have been considered in the development of this County Adaptation Plan (CAP). The Constitution, adopted in 2010, lays the groundwork for climate change action. It clarifies that sustainable development is a key principle of governance and guarantees the right to a clean and healthy environment under the Bill of Rights. Vision 2030, created in 2008, is the long-term development strategy for Kenya. It is based on three 'pillars', covering economic, social and political growth; the environment is named as a key sector under the social pillar. Vision 2030 is implemented through 5-year Medium Term Plans (MTPs), which explicitly address climate change programmes and projects and their implementation.

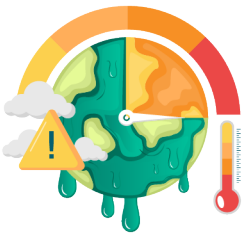
The current NCCAP (2018-2022) sets out a vision for Kenya to deliver on its Nationally Determined Contribution (NDC) under the Paris Agreement, to achieve a 32% reduction in emissions by 2030 compared to a 'business as usual' (BAU) scenario. It includes a variety of sectoral emissions reduction targets that apply nationally, along with some that are specific to Nairobi, particularly around waste management and transport emissions. Other notable pieces of legislation are the National Climate Change Response Strategy (NCCRS, 2010), the National Adaptation Plan (NAP, 2015), Kenya's NDC under the Paris Agreement (2016 and updated in 2020), the Climate Risk Management Framework (CRMF, 2017) and the National Climate Change Framework Policy (NCCFP), the Green Economy Strategy and Implementation Plan (GESIP) and National Climate Finance Policy (NCFP, 2018).

Table 3: Key Sectoral Climate Change Policies

Policy	Objectives
The Energy Act, 2019	The objective of this policy is to ensure affordable, competitive, sustainable, and reliable supply of energy to meet national and county development needs at least cost, while protecting and conserving the environment. In addition, the Renewable Energy and Energy Efficiency Regulations, 2012, requires installation of solar heating for buildings with hot water requirements exceeding 100 litres per day;
The Kenya Water Act, 2016	The purpose of this Act is to provide for the regulation, management and development of water resources, and water and sewerage services;
The National Drought Management Authority Act, 2016	The aim of the Act is to exercise overall coordination of all matters related to drought management including the implementation of policies and programmes related to drought management;
Wildlife Conservation and Management Act, 2013	The Act provides for the protection, conservation, sustainable use and management of wildlife in Kenya and for connected purposes like the conservation/ management of natural forests and ecosystems;
Forest Conservation and Management Act of 2016 and the National Forest Programme (2016– 2030)	These aim to increase forest cover, boost the forest sector's contribution to the national economy, enhance resilience to climate change, and improve livelihoods;
Kenya Climate Smart Agriculture Strategy:	This aims at adapting to climate change, building resilience of agricultural systems while minimizing emissions for enhanced food and nutritional security and improve livelihoods;

The key piece of legislation that explicitly addresses climate change in Kenya is the Climate Change Act of 2016 as elaborated in Table 1 above. It provides the legal framework for mainstreaming a climate change response across different Government functions and sectors. The Act establishes a National Climate Change Council, gives legal powers for the cabinet secretary of the Council to impose duties relating to climate change, prescribes a course for legal action to be taken regarding climate change through the Environment and Land Court, and stipulates the creation of a Climate Change Fund. The Act also advocates for the establishment of climate change units at devolved

levels of government. It stipulates that annual reporting must be carried out by institutions mandated to tackle climate change, both at national and city level. The 2016 Climate Change Act also underpins the development of National Climate Change Action Plans (NCCAPs) as shown in Figure 5.



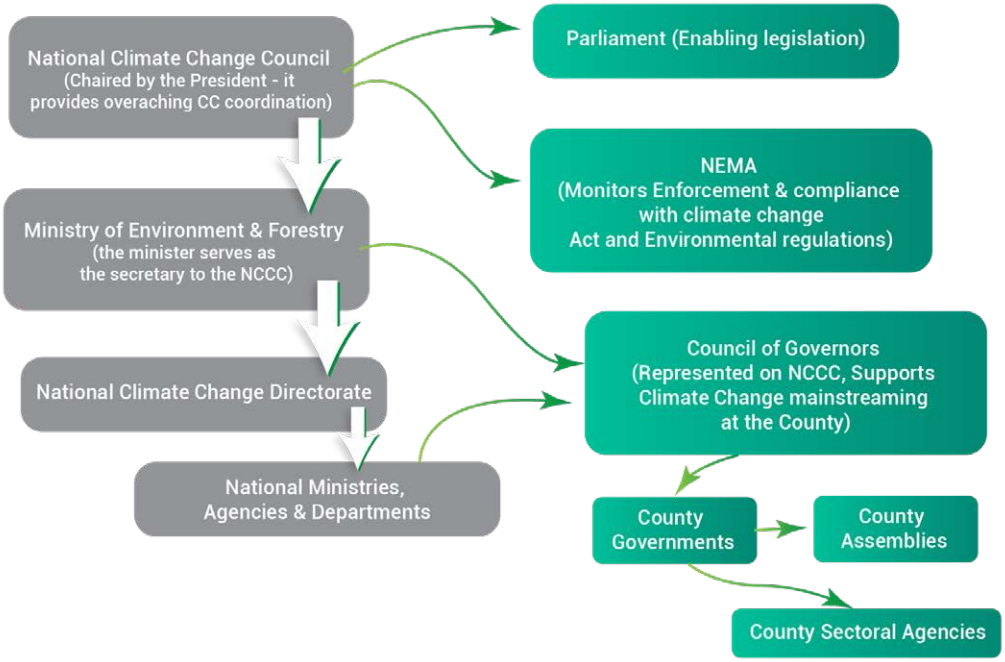


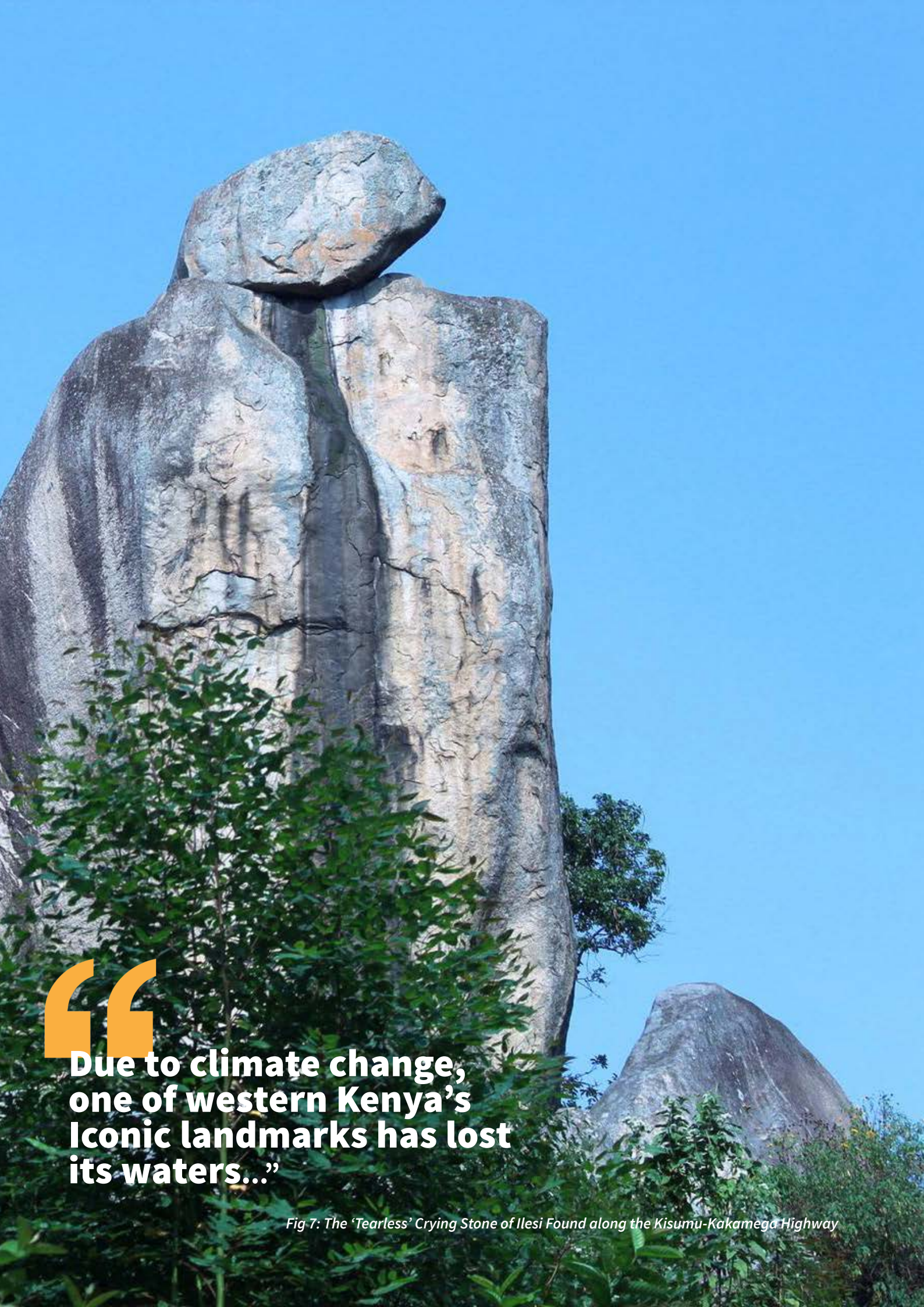
Fig 6: National Climate Change Action Plans | National institutional arrangements on climate change; Source: Author's design

Decentralized Climate Change Architecture

Kenya possesses a unique decentralized climate change architecture ranging from Institutional arrangements, legislations, actors, and financing. In this section, we highlight the existing frameworks and funds that support climate change at the county levels.

County Climate Change Fund. A county-managed fund to finance climate action as prioritized by local communities using public and private resources from local, national, and international finance streams. County governments should guarantee minimum funding as a percentage of their annual development budget (to date this is typically 1-2%). The commitment of a minimum budget from county resources is not essential to establishing a CCCF, however it is strongly recommended as a good practice after the initial pilot phase.

County and Ward Climate Change Planning Committees. Wards—a sub-county local governing district consisting of villages—establish a climate change planning committee consisting of community members selected from the constituent villages (the County Government Ward Administrator also sits on this committee). The committees facilitate the process of identifying local needs and priorities in relation to climate action. At the county level, the Climate Change Committee consists of representatives from ward committees across the county, county government officers, technical representatives of government agencies and civil society representatives.

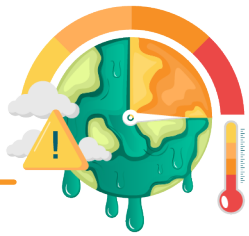


“Due to climate change, one of western Kenya’s Iconic landmarks has lost its waters...”

Fig 7: The ‘Tearless’ Crying Stone of Ilesi Found along the Kisumu-Kakamega Highway

CHAPTER THREE

Case Studies



Kakamega County

Policy and Legal Architecture

Table 4: Kakamega County Climate Change Policy Frameworks

Policy/Legal Framework	Purpose
County Climate Change Policy 2020	proposes a legislative framework to institutionalize climate change management and facilitate the flow of climate finance from national and international sources to finance locally led projects.
County Climate Change Bill 2020	proposes formulation of climate governance structures and their mandates, adaptation, and mitigation plans, monitoring and evaluation tools for projects financed by the climate change fund.
County Climate Action Finance Strategy -	aims to improve the county's ability to mobilize and effectively manage and track adequate and predictable climate change finance in the county in the quest to drive economic growth while addressing climate change. It also aims to enhance access to innovative financing mechanisms
Kakamega County Climate Information Services Plan (KCCISP) –	a framework for development and delivery of climate information service in Kakamega County Its main aim is to develop and deliver weather and climate information to support local, sub-county and county-level decision making at all times within the county.
County Climate Change Adaptation Plan 2020-2025 –	aims to facilitate the implementation of priority adaptation actions to climate change as well as facilitate flow of climate finances from national and international sources.
Kakamega County Climate Change Act 2020 -	provisions for establishment of the County Climate Change Fund as a central unit for funding climate actions; climate change governance structures to guide the implementation of the Act; climate change adaptation and mitigation plans to guide implementation of climate actions; and up-scaling of climate information services.
County Climate Change Action Plan (KCCAP) 2021-2026 -	provides the framework for enhanced response to climate change impacts through proposing low carbon climate smart actions. It identifies strategic areas where climate action is linked to the Big Four agenda, recognizing that climate change is likely to limit the achievement of these pillars. It provides a framework for priority enabling actions to be addressed which include; enabling policy and regulatory framework, technology and innovation, capacity development and knowledge management, climate finance and resources mobilization, transparency, measurement, reporting and verification.

Institutional frameworks for climate change

Climate change activities coordination is the responsibility of the **Department of Water, Environment and Natural Resources** in which the **County Climate Change Unit** is domiciled. The Department has also the mandate to coordinate with other departments affected by climate change to ensure it is mainstreamed in the different sectors of the economy.

The county climate change governance framework sets out the following institutional structures;

i. The county has a **Climate Change Unit** domiciled in the Department of Water, Environment and Natural Resources and is mandated to coordinate with other relevant departments on climate change activities.

ii. County Climate Change Steering Committee (CCCSC) which is chaired by the County Executive Committee Member (CEC) responsible for climate change matters. The

Committee is mandated to oversee the implementation of the county climate change action and adaptation plans priority actions to enhance resilience and adaptive capacity of the county.

iii. **County Climate Change Secretariat (CCCS)** domiciled in the county department responsible for climate change headed by the director responsible for climate change. The Secretariat has the mandate to provide technical support on climate change matters to county departments and agencies; prepare and submit operational and statutory reports to the relevant authorities; and ensure need-based allocation of the monies available in the climate change fund regarding the projects received from the ward administrators.

iv. The county also has the **Kenya Meteorological Department (KMD)** that helps disseminate climate information through Climate Information Services (CIS). Through the Climate Information Services Plan, the county seeks to ensure long-term sustainability through creating a reliable, user-led service which supports local, sub-county and county government decision making and explore how this can be supported by the introduction of demand-led, cost-recovery services.

Integration of climate reality into development priorities, government planning and budgeting

Fig 8: Map of Kenya Showing Kakamega County

In an effort to address its vulnerability and resilience to climate change, Kakamega County has set in place a County Climate change Action Plan, 2020-2025, which is a 5-year focusing on the interlinkage between sustainable development, climate change and priority adaptation initiatives within the county.

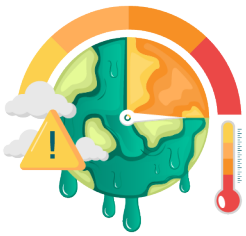
In its CIDP II, Kakamega county has identified Environmental conservation as a sector development need and consequently identified development and implementation of initiatives to mitigate the effects of climate change as one of the development strategies. It has identified food insecurity due to the impacts of climate change as a major crisis and in its efforts to align its development with Kenya's Vision 2030, it has specific flagship projects under the Agriculture, Livestock, Fisheries and Cooperatives, to improve food security and create employment opportunities through industrial development. Under the Water, Environment and Natural Resources sector, the county has identified the Extension and augmentation of Tindinyo and Mumias water distribution lines as the major Vision 2030 flagship project with a goal of increasing access to clean and safe piped water.

In its review of the CIDP I, Kakamega county has identified as one of its sectoral achievements the irrigation aspect of dealing with water scarcity and climate change in the county. It notes that a total of 128-foot pumps have been distributed to farmer groups, total area of land under irrigation is 335 acres, 4,135 acres under drainage, 60 dams and water pans. The positive impact of this is improved food security, maize production increased by 40%, stabilized maize prices and improved farmer incomes hence reduced poverty levels. Under the Water, Environment and Natural Resources sector, the county boasts of increased county tree cover by planting over 430,000 trees in public institutions, hill tops and riverbanks by the close of the CIDP I period in 2017. It also notes in the current CIDP that it increased access to safe drinking water through construction, rehabilitation, and augmentation of existing water supply schemes, drilling and equipping boreholes and spring development and protection in order to address the water scarcity issue brought about by climate change.

The county has identified, as a sustainable management strategy for the diminishing planted forests, promotion of nature-based enterprises to empower communities neighboring the forests to reduce dependence on the forests. To deal with water scarcity, the county has laid down the following strategies to be mainstreamed in its development priorities;

i. issuance of extraction permits to control amount of water extracted from water bodies
ii. undertake afforestation and re-afforestation Catchment protection and conservation
iii. Sensitization on sustainable use of water bodies

The county has also put in place sustainable management strategies to protect wetlands degradation due to conversion to agriculture land by reclaiming the wetlands and planting bamboo and other vegetation.



Kakamega County has committed in its CIDP to consider a green economy in its efforts of deal with the impacts of climate change while ensuring there is development in the county. With that regard, it has highlighted the following areas under consideration;

i. Use of solar energy and biogas for pumping water, lighting, and other domestic uses
ii. Installation of rainwater harvesting systems in all public buildings
iii. Planting of indigenous trees
iv. Use of farmyard and compost manure
v. Control of effluent discharge in County Abattoirs
vi. Bioengineering in all County public works.

Table 5: Sector development programmes and projects for 2018-2022 that incorporate climate change response as highlighted in the CIDP II

Programme: Agricultural Extension and Research

Objective: To improve agriculture Technology Development

Outcome: Increased agriculture technology uptake

Sub Programme	Key Output	Key performance Indicators	Baseline	Planned Targets					Total Budget Kshs. Millions
				Year 1	Year 2	Year 3	Year 4	Year 5	
Research and Value chain addition	Improved agriculture technology	No. technology partnerships with research institutions	***0***	***5***	***5***	***5***	***5***	***5***	***96***
	Climate smart agriculture interventions, practices and technologies for VC enhanced	No. of climate smart technologies promoted.	6	6	6	6	6	6	
		No. and type of CSA technologies in use per value chain.	***6***	***6***	***6***	***6***	***6***	***6***	
		No. of VCAs using climate smart technologies by gender	***1762***	***1762***	***1762***	***1762***	1762	1762	
Kenya Climate Smart Agriculture programme	Development of Kenya Climate Smart Agriculture Programmes	No. of farmers training	***0***	***200***	***200***	***200***	***200***	***200***	***600***
		No. of climate change technologies adopted	***0***	***3***	***3***	***3***	***3***	***3***	
		No. of storage 0 facilities established	***0***		3	3	6	0	

The policy mechanisms for climate financing

In order to enhance the county's resilience to the impacts of climate change, the county has recognized that its crucial to mobilize resources in terms of climate finance through formation of a Climate Change Fund as provided for in its climate change legislations. The legislations also provide for the formation of climate change finance management strategies as well as facilitation of flow of climate finances from national and international sources. These policies ensure that

climate activity is targeted to the lowest level in the context of devolution be it a ward, village or community area.

> **"In order to ensure that public climate financing is incorporated in all sectors of the economy, the County Climate Change Policy 2020 commits all county departments to mainstream climate change in their plans, policies and programmes, including budget planning."**

The County Climate Change Fund created by the County Climate Change Act, 2020 forms the basis for financing climate actions within Kakamega county. All the county climate change related expenditures are guided by the ***County Climate Action Finance Strategy***. The County Climate Change Act, 2020 commits the county government to allocate at least 1% of the annual development budget as Climate Change Fund.

It's noted from the ***County Climate Change Action Plan (KCCAP) 2021-2026*** that a total of 9.568 billion Kenya Shillings is needed in order to effectively address key priority climate actions through adaptation and mitigation. The County Itemized budget for the 2020/2021 financial year reveals that the forecast for the Climate Fund amounts to Kshs.0.35 billion for the period 2020 - 2026. A total of Kshs.9.2 billion has been identified by the finance strategy as the funding gap (investment gap) which is a conservative estimate derived from the analysis of the cost of climate action activities within the county as provided for in the county planning documents such as the CIDP and the Annual Development Plan.

In order to ensure that public climate financing is incorporated in all sectors of the economy, the ***County Climate Change Policy 2020*** commits all county departments to mainstream climate change in their plans, policies and programmes, including budget planning. This is essentially to ensure that public climate financing is incorporated into all sectors of the economy within the county.

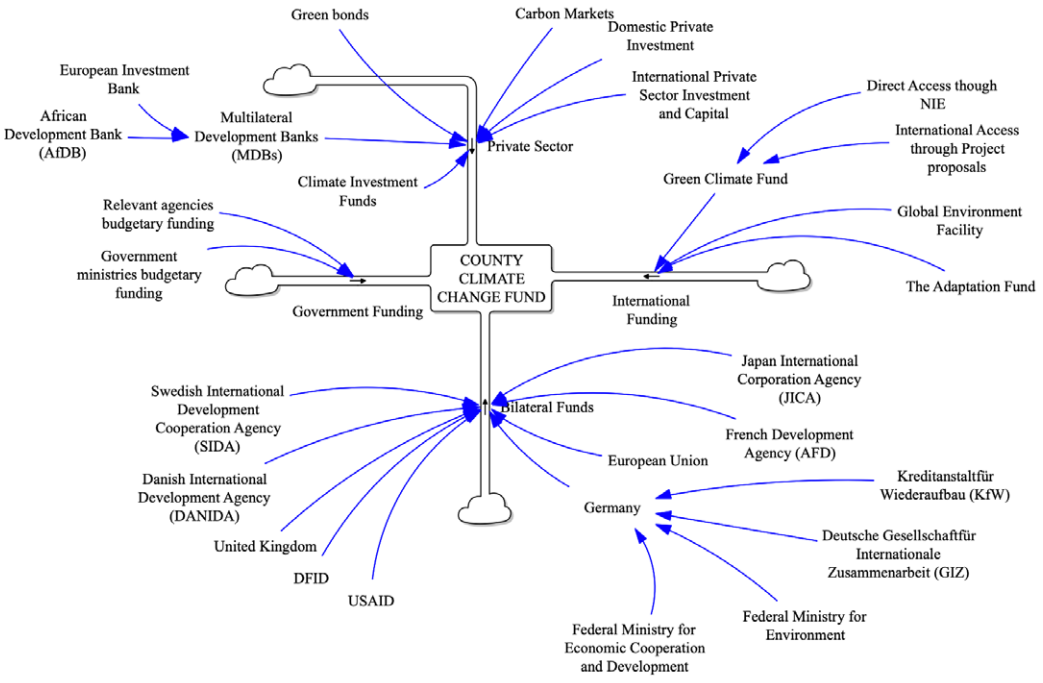
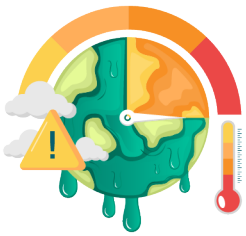


Fig 9. A System Dynamics Model showing the Climate Fund sources in Kakamega County |Omesa, 2022

Stakeholder engagement, public participation, and access to information



Below are the broad categories of stakeholders involved and their roles;

• **County Government Agencies** are to ensure that they coordinated with the County government and integrate the Plan into their Annual and Periodic Plans and projects.

• **Public and Private sector:** The private sector is experiencing the brunt of climate change such as erratic weather patterns, ecosystem threats, food insecurity, water and energy supply priorities and flood risks. The county government recognizes the importance of building and sustaining partnerships with the public and development partners at all levels to ensure collective ownership of all climate change responses. Steps will be undertaken to consolidate and strengthen the working relations with the partners for efficient adoption of priority adaptation actions. Platforms such as the media are vital since they can provide vital information at times of emergency from warning on natural climate change related disasters and awareness creation.

• **Academia and research institutions:** These institutions are vital in performance of experiment-based research on different aspects of climate change adaptation and resilience and come up with innovations that can improve resilience.

• **Public Benefit Organizations:** These include non-governmental organizations, civil society organizations and faith-based organizations, amongst others. The civil society is vital in creation of public awareness, policy development, research and analysis, information sharing and promotion of adoption of improved technologies, livelihood support advocacy on societal issues.

Table 6: Kakamega County Climate Change Policy Framework

Category	Stakeholder	Role	Influence
Government	Kenya Meteorological Department	Provide climate information for decision making in the county	***High***
Non-governmental Organizations (NGOs)	Kakamega CSOs reference Group Kenya Climate Change Working Group Christian Aid Catholic Agency for Overseas Development (CAFOD), Green Africa Foundation - Kenya, Hivos, World Wildlife Foundation (WWF).	They conducted stakeholder policy dialogues on climate change Did outreach and sensitization of stakeholders on climate action. Conducted research and analysis on climate change issues. Worked with county government to draft the county climate change policy	***High***
Community Based Organizations	N/A	N/A	N/A
Research & Academia	***Masinde Muliro University***	The department of agriculture and natural resources was involved in county consultative meetings on climate change	

In terms of access to information, the Kenya Meteorological Department is responsible for providing and disseminating all information that is relevant to climate change to help the county and the public in terms of planning and adapting well to the impacts of climate change within Kakamega County.

Kajiado County

Policy and Legal Architecture

Table 7: Kajiado County Climate Change Policy Frameworks

Policy/Legal Framework	Purpose
Kajiado County Climate Change Act, 2020	The act provides for regulatory framework for enhanced response to climate change including the development, management, implementation, coordinating climate financing for the county as well as enhancing community awareness and participation in climate adaptation and mitigation activities.
The Kajiado County Environmental Protection Bill, 2020	aims to provide for the protection and conservation of the environment and other purposes by promoting a clean and healthy environment, reducing waste production and promoting sound waste management and protecting conservation of natural resources;
Kajiado County Pastoralist Development Centers Bill, 2020	a bill for the Act of the County Assembly of Kajiado that aims to provide for the establishment and administration of Kajiado pastoralist development centers and for connected purposes with an objective of offering livestock value chain development and other development matters
Kajiado County Disaster Management Bill 2015	A bill to provide for more effective organization of disaster risk reduction and mitigation of, preparedness for, and response to and recovery from emergencies and disasters.

Institutional frameworks for climate change

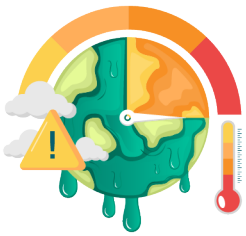
Fig 10: Map of Kenya Showing Kajiado County

The Kajiado County Climate Change Act, 2020 provides for the establishment of the County Climate Change council that comprises of;

i. Chairperson who shall be the Governor of the County
ii. the Deputy Governor of the County who shall be vice chairperson of the Council
iii. the County Executive Committee Member for the time being responsible for Environment and Natural Resources or a representative
iv. County Executive Committee Member for the time being responsible for County Treasury or a representative, who shall be the Secretary
v. Chief Officer in charge of Environment
vi. Chief Officer in charge of Agriculture, livestock, and fisheries
vii. Chief Officer in charge of Public Health
viii. The County Director of the National Drought Management Authority in the County
ix. The County Director of the National Environment Management Authority in the County
x. The County Director of Meteorological Department in the County
xi. Fund Administrator
xii. A representative of the private sector nominated by the body representing the largest number of institutions in the private sector within the county; and
xiii. A representative of the Civil Society nominated by the CEC Environment and Natural Resources within the county.
xiv. The Council may recruit staff on a need basis subject to the limitation on the administrative costs of the fund.

The functions of the council are to provide an overarching county climate change coordination mechanism and to;

i. adopt relevant national policy and other measures necessary for climate change response and attaining low carbon climate change resilient development
ii. approve and oversee implementation of the County Climate Change Action Plan



iii. approve and provide overall guidance for the development of a Climate Finance Framework for the County
iv. facilitate and monitor the implementation of the Climate Finance Framework at the ward level:
v. approve the ward disbursement proposal by the Fund administrator
vi. ensure compliance of the Fund administration to the public finance management principles under Article 201 of the Constitution of Kenya
vii. prepare a Climate Change Awareness strategy for the County
viii. identify and implement incentives for the private sector and institutions such as schools, community groups, to develop affordable and locally appropriate adaptation and mitigation technologies for climate change.
ix. prepare and submit annual report on progress of implementation of climate change actions to the County Assembly for review and debate, and a copy of this report shall be forwarded to the Directorate for information purposes.
x. approval of county climate change project proposals.

The Act also provides for the establishment of the Ward Climate Change Council which comprises of;

i. a Chairperson who shall be elected from among the members
ii. five (5) Technical Officers each from; Finance, Agriculture, Environment, Public Health and Livestock appointed by the County Climate Change Council competitively sourced
iii. two (2) Youth representative of different gender nominated by the County Secretary through a competitive process
iv. one Women representative nominated by the County Secretary through a competitive process
v. a representative of persons living with disability nominated by the County Secretary through a competitive process
vi. a representative from a Ward based Public Benefit Organization nominated by the County Secretary through a competitive process
vii. a representative from the Civil Society Organization within the county nominated by the County Secretary through a competitive process:
viii. a representative from the private sector within the county nominated by the County Secretary through a competitive process

The functions of the Ward Climate Change Council include;

i. mobilize and hold consultative meetings on climate change with local communities together with relevant agencies
ii. conduct public participation on climate change compliance and related matters
iii. prepare programs and project proposals through aggregation and coordination of climate change resilience.
iv. prepare project budgets for the County Climate Change approval and allocation of funds
v. oversee the implementation of climate change projects and programs under its mandate:
vi. report on sectoral greenhouse gas emissions for the County inventory,
vii. prepare and submit annual report on progress of implementation of climate change actions and or projects within its jurisdiction to the County Climate Change Council

Integration of climate reality into development priorities, government planning and budgeting

While climate change is not independently highlighted as a sector/subsector that needs to be addressed with its own budget allocation as seen from the CIDP II and the county annual development plan 2020/21 Financial Year and the previous plans, it is integrated into other development priority programs under the Productive sector, and the Water and Environmental Protection and Natural Resources Sector. The sectors are further broken down into specific subsectors namely, Agriculture, Livestock and Fisheries which has three programs namely, Crop Production and Management, Animal Production and Management, Fish production and Fisheries management. These fall under the productive sector. Under the Water and Environmental Protection and Natural Resources Sector, there are three sub-sectors namely, Irrigation, Water Infrastructure and Environment and Natural Resources with the Irrigation Services, Water Resources Management and Supply, Environmental Management and Protection, and Natural Resources Management and Protection programs respectively.

In its effort to align with the sustainable development goals, particularly Goal 13 on taking urgent action to combat climate change and its impacts, Kajiado county has earmarked a number of

Fig 11: Ngong Hills Wind Power Station In Kajiado County

initiatives for investment which include; training the community on climate change mitigation, adaptation, impact reduction and early warning; construction of solid waste management infrastructure e.g. dump sites and recycling plants; restoring forest cover by planting drought resistance trees; formulation and implementation of the Charcoal policy, Sand Policy, and Quarry and Mining Policy; increasing investments in natural resources exploitation and; rehabilitation of quarry mines among others.

In terms of achieving Goal 7 on ensuring access to affordable, reliable, sustainable, and modern energy for all, the county has committed – as stipulated in the CIDP II – to focus on awareness creation on alternative and clean sources of energy; curbing destruction of forests through charcoal burning as well as developing relevant policies and laws to support the same.

Water scarcity is a big challenge in Kajiado and its CIDP II has instituted strategies to deal with this issue including increasing the number of households, markets, schools and hospitals among others with piped water; drilling, equipping and piping community boreholes; constructing water pans; construction of mega dams- flagship project-; rehabilitation of gullies; construction of storm water drains and sand dams; increasing acreage under irrigation and; enhancing water harvesting.

Kajiado county also aims to achieve SDG 2 on ending hunger, achieving food security and improved nutrition and promotion of sustainable agriculture by focusing, as instituted in the CIDP II, on promoting agricultural productivity through projects such as: The Hay Production Project; offering support to small scale farmers through provision of subsidized fertilizers; drought resistant crops and; promotion of agricultural mechanization. It also concentrates on improved livestock production measures especially on the dairy project, which shall be supported by the Hay Production Project. The County is set to invest heavily on ways of harnessing water for irrigation through the construction of mega dams.

Table 8: Kajiado County Flagship/Transformative projects (2018-2022) in line with climate change response

Name of Project	Location	Objective	Output/ Outcome	Performance indicators	Target	Timeframe	Implementing Agency	Source of funds	Total Budget in Ksh. (Millions)
Mega dams	Kajiado East, West and South	To increase access to safe and clean water	Increased access to safe and clean water	No. of mega dams constructed (94Million cubic meters each)	3	2018- 2022	Water, Environment & Natural Resources	CGK/ Partners	8,000

The policy mechanisms for climate financing

The Kajiado County Climate Change Act, 2020 provides for the establishment of a ***County Climate Change Fund*** which is to be used to fund climate change programs, projects and activities provided for in the Climate Finance Framework that is established under the Act. The purpose of the fund, as stipulated in the Act, is to; finance climate change resilience and its assessment; for technical and scientific research as well as county policy

formulation; to finance implementation of approved climate change projects; for capacity building within the County; for public participation within the County; and for any other approved climate change related activities.

The Act also provides for the formation of the ***County Finance Framework*** which states that the Executive Member of Environment in consultation with the Executive Member in charge of Finance shall publish a Climate Finance Framework for the County every two (2) years and shall address the following

issues

i. the status of Climate Change Awareness in the County
ii. the impact of climate change in the County
iii. human activities in the County that may contribute to Climate Change
iv. projects that are relevant in the County with regard to Climate Change Adaptation and Mitigation and the anticipated impact
v. any other emerging climate change issues.

Kajiado County committed to formulate the 2020 Finance Act to guide in collection of Own Source Revenue aimed at enhancing government revenue to finance planned development programmes and projects in the 2020/21FY ADP.

The resource requirement for the 2020/21FY ADP was approximated to be Kshs.13Billion in the proposed budget by sector, subsector, and programmes. With this estimate, the plan would be financed through equitable share from the national government, county's Own Source Revenue (OSR), funds from development partners and stakeholders implementing programmes/projects in the county.

The resources required for execution of the priority development areas in the ADP were allocated based on prioritized programs that are aligned to the 2018-2022 CIDP. To ensure harmonized resource allocation across the entire functions of the county government, the 2020/21FY ADP adopted sectoral planning and budgeting.

To finance the implementation of the key priority areas such as climate change that is mainstreamed in the county's development sectors like Environment and Natural resources, the county has a Resource Mobilization Framework as noted in the CIDP II which indicates revenue streams that include equitable share from the national government, locally generated revenue and other grants from development partners. For the financial year 2018/19, the approved budget estimates for equitable share were Kshs 6,345,020,000 and projected for 2021/22 was Kshs 8,445,221,620. The grants approved and projected for the Kenya Development Support Program was Kshs.42,829,648.00 for the same periods while that for Kenya Climate Smart Agriculture was Kshs.117,000,000.00.

Kajiado County, in line with the Public Finance Management Act 2012 which stipulates that at least thirty percent of the total county revenues - locally generated revenue and transfers from the National Government shall be used in the implementation of capital projects, embarks on enhancing revenue collection to aid in development projects outlined in the CIDP and annual development plans where climate change is mainstreamed. It also pursues strategic financing approaches in implementing its priority projects through Public Private Partnerships (PPPs).

Stakeholder engagement, public participation, and access to information

The findings show that most civil society organizations working in Kajiado County are involved in supporting the formulation and implementation of policy response towards climate change either directly through lobby work with the policy makers or through implementation of resilience projects at the grassroots level. Some of the ways the organizations identified they are involved include mainstreaming climate financing mechanisms, capacity building and awareness creation and supporting youth-led climate actions at both the county and national level. These organisations include Mazingira kwa wote, Isinya social forum, Kiini youth initiative as some have been actively involved in providing inputs for the Kajiado County Climate Change Bill, 2020.

The organizations work with the county government to mainstream climate change in their funding options for various adaptation and mitigation work through co-funding of grassroots resilience projects such as the youth-initiated projects on nature-based solutions to climate change impacts. The organizations hold stakeholder meetings to explore possible collaboration opportunities and signing memorandum of understanding with the county government to support their adaptation projects. The organizations also reported to have sought support from the county government for some of the programs they are involved in such as the tree planting program which they do by offering financial support towards purchase of seedlings and offering permission for tree planting on public spaces.

The civil society organizations reported to be facing challenges of lack of political goodwill from the county government in supporting their resilience work within the county and lack of proper stakeholder engagement in county policy processes. There is great disconnect among organizations working in the county (listed in the table below) and between the civil society organizations and the county government in responding to climate change. This can be addressed by ensuring there is a proper stakeholder engagement criterion to bring together all the involved parties to ensure there is collaborative effort and collective common issue affecting the people of Kajiado which is the devastating impacts of climate change.

Table 9: Kajiado County Climate Change Policy Frameworks

Category	Stakeholder	Role	Influence
Government	Kenya Meteorological Department	Provide climate information for decision making in the county	***High***
Non-governmental Organizations (NGOs)	*Kenya Climate Change Working Group*	Drafting of the climate change policy with county government.	
Community Based Organizations		Kenya Climate change working group (KCWG)	***High***
Research & Academia	*Islamic University of Kenya*	Engaging on research on climate change in Kajiado county	***Medium***

Siaya County

Policy and Legal Architecture

Table 10: Siaya County Climate Change Policy Frameworks

Policy/Legal Framework	Purpose
The Siaya County Climate Change Bill, 2021	An Act of the County Assembly of Siaya to provide for the establishment of an appropriate legal and institutional framework for integrating and mainstreaming climate change responses, measures and actions into county development planning and decision-making processes, climate change finance mechanisms and for connected purposes. Its purpose is to provide for the establishment of an appropriate legal and institutional framework for enhancing resilience of communities and natural systems to climate change while advancing low-carbon development pathways in Siaya County and in particular to:- i. Set forth the guiding principles for climate change measures and actions ii. establish an appropriate coordination and implementation mechanism for climate change measures and action iii. establish a transparent and accountable financing mechanism for climate change measures and actions iv. strengthen climate resilience of communities in Siaya County & capacities for climate risks reduction & management v. catalyze transition towards low-carbon development and green economy anchored on resource-use efficient technologies and processes vi. develop a framework to mainstream climate change considerations across sectors and into integrated planning and budgeting processes vii. facilitate public participation to enhance ownership and budget oversight and accountability for the county climate change response viii. develop a transparent and accountable monitoring and reporting platform to track progress in the implementation of climate actions ix. establish a framework for promoting collaboration and cooperation with public entities, private sector, civil society organizations and development partners; and,

Institutional frameworks for climate change

Fig 12: Map of Kenya Showing Siaya County

The Siaya County Climate Change Act, 2021 provides for the establishment of the;

i. **County Climate Change Directorate** within the county department that is responsible for handling climate change affairs. According to the Act, the Directorate shall be headed by the County Director of Climate Change who shall be appointed by the County Public Service Board in accordance with criteria set by the Board. The county Director of Climate Change reports to the Chief Officer for the time being responsible for climate change affairs.

ii. **County Climate Change Steering Committee** to provide overall policy and strategic direction for climate change response measures and actions in the county; approve and oversee the implementation of the County Climate Change Action Plan, County Climate Change Finance Framework and other climate change related policies, plans, programmes and projects; advise the County Government on any policy, legislative, administrative and other measures

to encourage low carbon development and enhance resilience and adaptive capacity of communities to climate change.

iii. County Climate Change Planning Committee to responsible for strategic planning and coordination of climate change response measures and actions in the county and to;

a. coordinates the preparation of the County Climate Change Action Plan, County Climate Change Finance Framework and other climate change related plans, programmes and strategies;

b. oversee the mainstreaming of climate change actions into county development planning and budget processes

c. Coordinate planning of County Government programmes, projects and activities for climate change response in the county;

d. advise the Steering Committee on strategies, priority programmes, projects and activities for climate change response in the county;

e. prepare guidelines and criteria for screening and approval of climate response projects for funding by the County Climate Change Fund;

f. consider and make decisions on applications for funding of climate change programmes, projects and activities under the County Climate Change Fund;

g. formulate and implement strategic actions to foster climate change education, awareness creation and capacity development in the county; (h)

h. Develop the county's climate change research agenda, training and dissemination of climate change knowledge and information in the county;

i. formulate and oversee the implementation a county monitoring, evaluation, reporting and learning framework for climate change response; and,

j. perform any other climate change related function as may be assigned by the County Climate Change Steering Committee established under this Act.

> **"Under the water sub-sector, the county has a number of priority projects whose overarching objective is to provide clean, safe and adequate water noted from the CIDP..."**

iv. Ward Climate Change Planning Committees in each ward in the county to responsible for coordination of climate change and to;

a. coordinate and mobilize the community and other stakeholders in the ward to identify, design and implement climate change response activities in the ward;

b. Coordinate public education, awareness creation and capacity building on climate change in the ward;

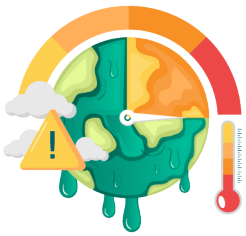
c. Coordinate, facilitate and manage community consultations on priority climate change response activities;

d. facilitate public participation in climate change governance;

e. coordinate and facilitate provision of technical support to communities in the ward in developing proposals on climate change response projects for funding by the County Climate Change Fund; and

f. Oversee implementation of climate change related programmes and projects funded by the County Climate Change Fund and report thereon to the County Planning Committee.

Integration of climate reality into development priorities, government planning and budgeting



The Siaya County CIDP II indicates that the county has prioritized development projects and programmes especially under the department of Water, Irrigation, Environment and Natural Resources and that of Agriculture, Livestock and Fisheries to address the devastating impacts of climate change such as water scarcity and food insecurity.

Fig 13: Siaya County's Lake Kanyaboli | Source: Kenyatalk.com

Under the water sub-sector, the county has a number of priority projects whose overarching objective is to provide clean, safe and adequate water noted from the CIDP. The projects include; Siaya Bondo Water and Sanitation Project, Uranga-Lihanda Water project, Romnwa Community Water Project, Kanyaboli Community Water Project, Rehabilitation and augmentation of pumping units, Construction of water storage facilities, and Ground water resource development among others that are either complete or ongoing.

Some priority projects under the irrigation sub-sector which are aimed at increasing area under irrigated farming through drip irrigation system include; Nyambonia irrigation project (Ugunja Division, Ugunja Constituency), Kanyabonyo irrigation project (South Gem, Wagai, Gem), Alwala Irrigation Project (south Sakwa, Nyang'oma, Bondo), Project(West Yimbo,Usigu, Bondo), Omia Mwalo Youth Group (West Asembo – Rarieda, Ahono Valley Irrigation project (East Gem, Yala, Gem), Focal Area irrigation project (Ugunja Division- Ugunja Constituency, Jora Irrigation Project (East Imbo, Usigu-Bondo, Aram Irrigation Project (South Asembo, Rarieda Constituency. Ontly the Nyangera Irrigation Project (West Yimbo,Usigu, Bondo) is 100% and functional while the others are shelved due to inadequate funds.

Under the Environment and Natural Resource sub-sector, the county has the following priority projects; Afforestation aimed at increasing tree cover to 12%, Reservation of county forest lands aimed at determining the percentage of tree cover; Energy conservation aimed at conserving energy by supplying improved cook stoves, Catchment Protection programme aimed at rehabilitating degraded catchment areas, Agroforestry programme aimed at protecting catchment areas by training TOTs and establishing demonstration farms and tree planting; Environmental Education and Awareness aimed at increasing community awareness by 20% and Forest service infrastructure development aimed at improving service delivery by putting in place 7 offices, 16 tree nurseries, 3 model nurseries, 9 motorbikes and 8 ICT equipment. The Agroforestry programme is successful as 50 TOTs have been trained and farmers introduced to field schools by KFS. Riverine conservation efforts have also been made on the River Yala and Nzoia. Ther other projects are either stalled or inconsistent due to delayed disbursement of funds by the Kenya Water Towers Project or potential forest sites remaining ungazetted.

Other projects that are active in terms of responding to the impacts of climate change indirectly through other sectors include; Njaa Marufuku Kenya (NMK), East Africa Agricultural Productivity Programme (EAAP), Traditional High Value Crops (THVCs), Agricultural Sector Development

Support Programme (ASDSP), Kenya Agricultural Productivity and Agribusiness Project (KAPAP), Private Sector Development in Agriculture (PSDA), Millennium Village project and Water Harvesting for Food Security project.

Under the 2021/22 financial year, as noted in the Annual Development Plan 2022/23, Siaya County saw some sector achievement in terms of addressing the vulnerabilities of climate change that include; improved access to water through construction of 15 water pans against a target of 18, protection of 33 water springs against a target of 43; drilling and equipping of 46 boreholes with solar pumps, Rehabilitation of 8 shallow wells, Installation of 4 Rainwater Harvesting systems, Rehabilitation of 4 Water Supply Schemes, and Extension of 80km of Water Pipelines. Under Natural Resources Conservation and Management, 11 tree nurseries were established against a target 5; 5 woodlots were developed against a target of 6; 25,000 seedlings distributed to community members from the nurseries and the 5,000 seedlings planted in woodlots are estimated to increase the tree cover by 0.0046%.

The policy mechanisms for climate financing

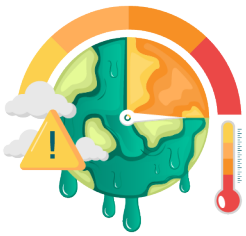
The Siaya County Climate Change Act, 2021 provides for the establishment of a County Climate Change Fund vested in the County Treasury of the County Government of Siaya with an objective of providing a mechanism for coordinated mobilization and allocation of funds for priority climate change response measures and actions in Siaya County. The sources of the funs include;

a. initial seed capital, being moneys appropriated by the County Assembly and constituting not less than two percent of annual county development budget
b. moneys appropriated annually by the County Assembly, being not less than 2 percent of annual county development budget
c. moneys received from the Climate Change Fund of the National Government and/or other moneys payable pursuant to any written law
d. moneys from international climate finance mechanisms received directly by the Fund or through the National Government or other agencies
e. fees and charges levied on assets or goods or services which are linked to climate change pursuant to any written law
f. monies received by the Fund in the form of donations, endowments, grants and gifts; and
g. any moneys that accrue to the Fund in the form of interests or any other form.

The Act provides that the operations of the Directorate and the Committees established under it shall be financed through a budget vote in the annual estimates of revenue and expenditure of the relevant County Government Department responsible for climate change affairs.

Fig 14.Community Meeting on Comparative County Climate Comparative Study (Kakamega County) | Source: VCA, 2022

Stakeholder engagement, public participation, and access to information



According to the Mariwa and Korengo Youth Group whom we interviewed, they have been engaged in planting trees on hilltops and riparian zones with an aim of making the micro-climate of the county different through tackling floods and heat intensity in the coming years. The Rasanga Moth Foundation, an outfit established by the current governor, is partnering with local schools in the county to establish tree nurseries through interventions that reclaim the wetlands. Within the 35 kilometres, the foundation is inviting other people to support the process as a community for ownership. Involving schools in the project neighborhood. Mobilizing youth and women groups to join the project as part of setting up a bamboo factory in Alego-Usonga.

The Lake Region Economic Block has come up with a joint project dubbed LREB Integrated Climate Action whose mandate is to pursue shared responsibilities on the role of sub-national governments in climate action, learning and sharing of strategic actions as well as building available and emerging opportunities. This project aims at providing legal and institutional support to the 14 LREB Counties; to jointly develop an evidence based LREB Integrated Climate Action Plan (LICAP); to co-design and develop bankable and fundable integrated regional climate change projects and programmes; to jointly implement regional mitigation and adaptation programmes and projects and to undertake jointly capacity building and technical support to the LREB counties.

Siaya county has embraced the Ecosystem based approach (EBA) as part of its efforts to restore its largest wetland of Yala. This is an initiative that has been advanced with the involvement of local communities and as part of the conservation activities. Our research found out that communities in the Yala swamp region have been very instrumental in improving the papyrus vegetation in the wetland areas and this has led to other benefits like improved water quality and quantity as well as controlled the existing pollution. This has consequently led to ecological resilience within these systems. This has been made possible by the existing local conservation groups who have worked in partnership with county government and other non-governmental organizations.

Table 11: Siaya County Climate Change Stakeholders Engagement

Category	Stakeholder	Role	Influence
Government	Kenya Meteorological Department	Provide climate information for decision making in the county	High
	Kenya Forest Service (KFS)	Technical support, policy direction, implementation	High
	National Environmental Management Authority (NEMA)	Technical support, policy direction, implementation	High
	Line ministries and Departments such as; Agriculture, Livestock and Fisheries department, ASDSP,	Technical support and policy direction	High
	ASDSP (Government Programme)	Coordination through a stakeholder meeting called Participatory Scenario Planning (PSP)	High
Non-governmental Organizations (NGOs)	World Vision (WV)	Funding, research, and implementation of adaptation projects	High (Because they provide funding)
	Red Cross	Funding, research, and implementation of adaptation projects	High (Because they provide funding)
	World Food Programme (WFP)	Funding, research, and implementation of adaptation projects	High (Because they provide funding)
	Welthungerhilfe	Funding, research, and implementation of adaptation projects	High (Because they provide funding)

Non-governmental Organizations (NGOs)	PLAN Kenya	Funding, research, and implementation of adaptation projects	High (Because they provide funding)
	CARE Kenya	Funding, research, and implementation of adaptation projects	High (Because they provide funding)
Community Based Organizations	Not involved	Not involved	
Research & Academia	Kenya Forest Research Institute (KEFRI)		

The ASDSP is a government program that plays a key role in spearheading climate risk management in Siaya County by convening a stakeholders' meeting referred to as Participatory Scenario Planning (PSP) that merges the state and no-state actors. This provides relevant and necessary information that helps the stakeholders to avoid duplication of efforts in implementing projects that address climate change adaptation within the county.

In terms of access to information, the Kenya Meteorological Department is responsible for providing and disseminating all information that is relevant to climate change to help the county and the public in terms of planning and adapting well to the impacts of climate change within Kakamega County.

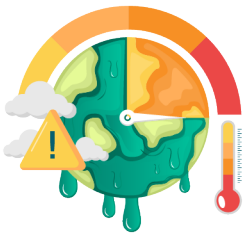
Mombasa County

Policy and Legal Architecture

Table 12: Mombasa County Climate Change Policy Frameworks

Mombasa County Climate Change Action Plan, 2020-2024	A plan developed in line with Kenya's Climate Act, 2016 to provide guide for the county's action towards mitigation and adaptation of climate change. The general objective of the County Climate Change Action Plan is to enhance the county governments and local communities' capacity to mitigate and adapt to the impact of climate change by creating a resilient and thriving environment and economy using a participatory approach. The Specific objectives are; 1. To enhance the institutional capacity of the county in climate change adaptation and mitigation 2. To reduce climate change risk to the local community and infrastructure 3. To enhance the capacity of the local community in food and nutrition security 4. To increase the county's forest cover 5. To promote the adoption of green energy at the county 6. To reduce the level of pollution at the county
Mombasa County Climate Change Policy	Aimed at providing an enabling environment for transforming Mombasa County towards a climate resilient development. The policy's specific objectives are; i. To provide a framework for the county's transitioning towards low carbon climate resilient development in line with the Kenya Climate Change Act 2016 and the current and successive National Climate Change Action Plans (NCCAPs); ii. To provide for mainstreaming and integration of climate change issues into the County Integrated Development Plan (CIDP), programs and projects;

Mombasa County Climate Change Policy	iii. To provide for identification, prioritization and implementation of adaptation and mitigation actions; iv. To provide legal and institutional framework for addressing climate change in the County; and v. To promote collaboration and partnerships with national government, other county governments, private sector, academia, civil society organizations (CSOs), research and development (R&D) and development partners in the implementation of climate actions across the County.



Institutional frameworks for climate change

Fig 15: Map of Kenya Showing Mombasa County

Mombasa County Government Executive is responsible for the implementation of climate actions. The Policy states that iinstitutional arrangements are key in implementation and coordination of climate change actions in the county and that the cross-cutting nature of climate change requires that all sectors and actors are involved at different levels in implementation of climate actions. In this regard, the county endeavors, as guided by the policy, to:

i. Designate a County Executive Committee (CEC) Member to be responsible for coordination of all matters relating to climate change.

ii. Establish a climate change unit with adequate technical capacity and budget to support its operations and supervision of climate actions on the ground.

iii. Devolve coordination of climate change to lower levels of authority and engagement – subcounty, location and sublocation levels.

Integration of climate reality into development priorities, government planning and budgeting

In its climate change policy, Mombasa County has recognized the crucial intersection between climate change adaptation and development given that they both aim to reduce the county's vulnerability to climate change. The county recognizes that one way of doing this is integrating climate change risks and opportunities in development activities to directly engage with this intersection. The county Climate Change Policy has been very deliberate in integrating climate change into county development and sectoral planning and decision-making processes as an important element in ensuring climate change adaptation and poverty reduction are implemented hand-in-hand. It is also very deliberate in its design as it considers integrating public spending into the County Sectoral Plans and County Integrated Development Plans (CIDPs) and budgeting to enhance implementation. It will subsequently ensure that County planning processes integrate the best available scientific climate information in order to enhance locally appropriate planning and responses

In terms of building the resilience of coastal and marine ecosystems, the policy states that the county will endeavour to;

i. Develop Integrated Water Infrastructure Management Plans at County and Sub-County levels that will include *inter alia:* enhance rainwater harvesting and storage among other measures.

ii. Enhance protection of water catchment areas that are important for trans-basin water transfer by working with the Counties of Taita Taveta, Kilifi and Kwale.

iii. Climate proof existing water infrastructure, and any new investments in the water sector.

iv. Develop Real-Time Flood Monitoring and Community Flood Communications and Response System.

v. Enhance access to clean and safe water and sanitation and improved water efficiency.

vi. Develop and implement standards and guidelines for management and use of surface and ground water resources.

The policy also provisions that in order to enhance the resilience of agricultural production, the county will endeavour to;

i. Promote climate smart crop and livestock production technologies and practices including solar powered small-scale irrigation and improved seed varieties and livestock breeds.

ii. Enhance access to climate information by all stakeholders especially the small-scale farmers and fishers.

iii. Develop a comprehensive early warning systems and climate risk management tools, including insurance schemes for crops, livestock and fishing gear.

iv. Climate proofing agricultural and fisheries value chains from farm to consumers and to address post-harvest loss.

v. Enhance the protection of fish breeding grounds in the inshore waters especially the mangroves, sea grass beds, and coral reefs.

vi. Promote aquaculture

vii. Support fishermen to access offshore fishing grounds.

The county, as highlighted in its Climate Change Action Plan, 2020-2024, commits to an implementation matrix that commits it to focus on the following key objectives;

i. To enhance the institutional capacity of the county in climate change adaptation and mitigation by developing climate change regulations, enhancing the climate change directorate in implementing climate change functions, and enhancing the county's capacity in monitoring the impact of climate change

ii. To reduce climate change risk to the local community and infrastructure by improving the local community's resilience to climate change, improving the delivery of disaster risk management services, and increasing the resilience of county infrastructure to climate change

iii. To enhance the capacity of the local community in food and nutrition security by improving food and nutrition security and spearheading adoption of alternative livelihood sources

iv. To increase the county's forest cover through rehabilitation of degraded marine ecosystems, rehabilitation of degraded terrestrial ecosystems and increasing afforestation and urban forestry.

v. To promote the adoption of clean energy by enhancing the local community's capacity to adopt clean energy.

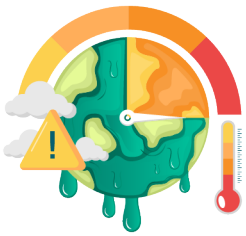
vi. To mainstream climate change in sectoral development by incorporating climate change activities in all the sectors in the county.

The policy mechanisms for climate financing

The county's second CIDP requires Kshs. 416 billion for implementation. The Agriculture, Rural and Urban Development and the Environmental Protection, Water and Natural Resources sectors, which majorly incorporate climate change adaptation and mitigation are the biggest consumers, requiring 52 and 33 percent of the total budget respectively. The CIDP indicates that the county was expected to collect Kshs. 22 billion, receive Kshs. 47.6 billion as equitable share from the National Government and Kshs. 5 billion as conditional grants. This gives the county a total of Kshs. 77.7 billion, leaving a deficit of Kshs. 338.3 billion. Therefore, the county was expected to put in place mechanisms for resource mobilization while at the same time ensuring prudent utilization of the available resources.

As a resource mobilization framework, the county committed, as indicated in the CIDP, to employ the following strategies to raise the revenue required to implement the relevant CIDP priority projects and programs under which climate change response falls;

i. Enforcement of the Finance Acts and Regulations: The County Government will ensure that fees and charges are collected according to the enacted Finance Acts.



ii. Mapping of New Revenue Sources: The county government will pursue strong revenue collection and identification of new sources of revenues from the devolved functions

iii. Continued Public-Private Partnerships (PPPs) negotiations and implementations.

iv. Negotiating with Commission of Revenue Allocation (CRA) on the third-generation revenue allocation formula. This will ensure that the county gets a fair allocation based on its contribution to GDP, floating population parameter, existing infrastructures maintenance, strategic positioning as the gate city county and the inherited bloated wage bill.

> **"Mombasa County recognizes, as noted in its Climate Change Policy, that access to knowledge and information about the expected impacts of climate change and sources of emissions in the County is critical for the County's sectoral and development planning and decision making...."**

In the capital financing and accountability, capital projects will be financed through;

- Public Private Partnership: This is done through collaboration with other stakeholders to undertake development of capital projects on agreed costing contract. The county will explore new and innovative financing methods in which private sector investment can be roped in through a mutually agreed arrangement.
- Development Partners/Donors: The county will also expect to continue receiving grants and loans from development partners for various projects and programmes upon approval by the county assembly.
- Community Initiatives: The county will encourage local initiatives from the community to accelerate development at the ward and village level.
- Exchequer Issues: The county will prioritize on the capital projects to be implemented based on the medium-term plan and finance them through the National Government Revenue Allocation.
- Local Revenue: The county local revenue will be used to supplement financing of the projects that have been prioritized in the CIDP.

Stakeholder engagement, public participation, and access to information

Table 13: Mombasa County Climate Change Policy Frameworks | Source: Author's computation

Category	Stakeholder	Role	Influence
Government	Kenya Meteorological Department	Provide climate information for decision making in the county	High
	National Environmental Management Authority (NEMA)	Technical support, policy direction, implementation	High
	Line ministries and Departments such as; Agriculture, Livestock and Fisheries department,	Technical support and policy direction	High
Non-governmental Organizations (NGOs)	Kenya Climate Change Working Group (KCCWG)	Co-leading CSOs processes into the Climate Change Action Plans	Medium
	Pan African Climate Justice Alliance (PACJA)	Organising policy dialogues with the county government on climate change Action Plans.	Medium
Community Based Organizations	***None***		

Mombasa County recognizes, as noted in its Climate Change Policy, that access to knowledge and information about the expected impacts of climate change and sources of emissions in the County is critical for the County's sectoral and development planning and decision making. It recognizes that it's important to share climate information on observations, predictions and projections about existing and expected weather- or climate-related (extreme) events or slow onset events (e.g. increasing temperatures, sea level rise, salinization, etc.), damage statistics and information on possible adaptation and mitigation actions. The County therefore endeavours as provided by the policy to;

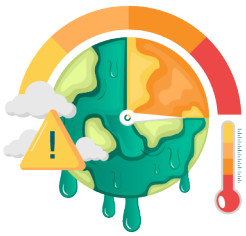
1. Develop an integrated county climate information system with a comprehensive database.
2. Collaborate with Kenya Meteorological Department in the co-generation of climate information and its use.
3. Develop protocols on accessing county climate information by different users.
4. Promote establishment of i-hub for low carbon and climate resilient innovations to incubate climate smart solutions.
5. Collaborate with research and development institutions to catalyse innovative technologies and approaches to support the transformation to the low carbon economy.
6. Promote research in socio-economic impacts of climate change

Tana River County

Policy and Legal Architecture

Table 14: Tana River County Policy Frameworks addressing climate change

Policy/Legal Framework	Purpose
Tana River County Climate Change Policy, 2021	Provides a framework for addressing climate change issues within the County. It aims to facilitate a coordinated, coherent, and effective response to the local, national, and global challenges and opportunities presented by climate change and it adopts an overarching mainstreaming approach to ensure the integration of climate change considerations into development planning, budgeting, and implementation in all sectors and at all levels of the county government.
Tana River County Climate Change Fund regulations, 2019/2020	Defines the procedures for management, operations and winding up of the County Climate Change Fund, and for planning of climate change response interventions to be funded by the Fund
Tana River County Climate Change Action Plan, 2020-2023	Aims to enhance the county governments and local communities' capacity to mitigate and adapt to the impact of climate change by creating a resilient and thriving environment and economy using a participatory approach. Its specific objectives are to; 1. To enhance the institutional capacity of the county in climate change adaptation and mitigation 2. To reduce climate change risk to the local community and infrastructure 3. To enhance the capacity of the local community in food and nutrition security 4. To increase the county's forest cover 5. To promote the adoption of green energy at the county 6. To reduce the level of pollution at the county
Tana River County Climate Finance Policy, 2021	This Policy seeks to position Tana River County to better access climate finance by helping the county to mobilize, access and utilize financial resources to strengthen its adaptive capacity and resilience to climate change while promoting low carbon sustainable development. Its specific objectives are to; i. Provide an overarching guidance framework for climate finance including putting in place coordination system for mobilizing and managing climate finance in Tana River



Tana River County Climate Finance Policy, 2021	ii. Enhance and streamline the implementation of public finance management in relation to climate financing in Tana River iii. Establish a framework for tracking, monitoring, accounting for, evaluating and reporting on sources, applications, and impacts of climate finance in Tana River iv. Enhance the capacity of the county to mobilise climate change finance to support local climate adaptation and mitigation actions; and v. Encourage and facilitate private sector participation in climate relevant financing opportunities.
Tana River County Livestock Grazing Control Act, 2017	AN ACT of the County Assembly to provide for the establishment of a legislative and institutional framework for the management and orderly use of grazing resources; to minimize conflict and maximize peaceful coexistence between the various land users, through planning, identification, and documentation of the areas according to the different types of land users in the county; to control the influx, movement and conflict brought by graziers from other counties and for connected purposes
Tana River County Disaster Risk Management Act, 2020	AN ACT of the County Assembly of Tana River to provide for the effective organization of the mitigation, prevention, preparedness, response and recovery from emergencies and disasters, and for connected purposes.
Tana River County Agriculture Development Act, 2016	AN ACT of the Tana River County Assembly to establish the Tana River County Agriculture Development Authority, to provide for a framework to facilitate growth and the development of the agriculture, and for related purposes

Institutional frameworks for climate change

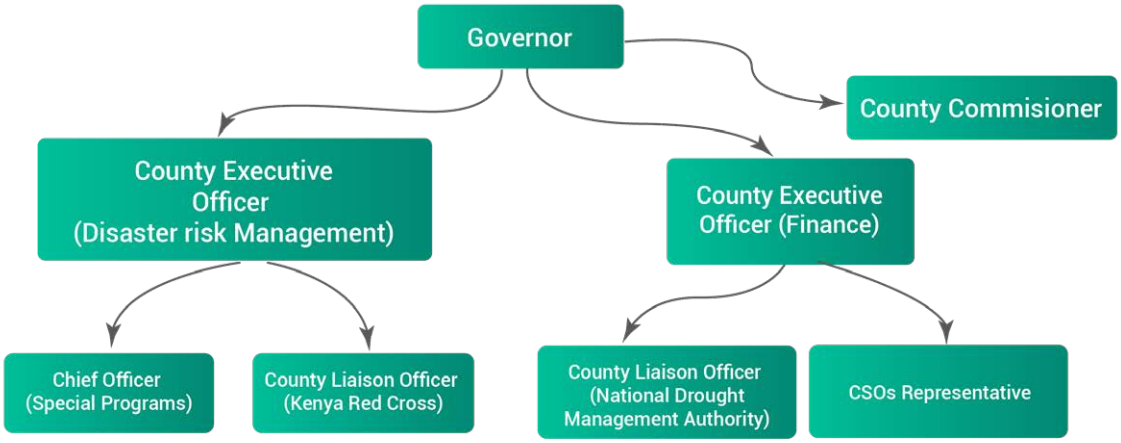


Fig 16: Disaster Risk Management Committee. | Source: Author's design

From the structure above, Tana River County has managed to put together both state and non-state actors especially in addressing the disaster risk management. This has been made possible by the office of the governor. The County Commissioner is also part of this structure. According to one respondent, this structure was established through the national government efforts led by the Cabinet Secretary in charge of devolution. The committee has the task to ensure that stakeholders are involved in recovery activities. This committee has been very instrumental in coming up with a number of policies including County Disaster Risks Management Plan (CDRMP), County Disaster Risk Reduction Act (CDRRA), Contingency plans and County Emergency Response Plan (CERP).

The Tana River County Disaster Risk Management Act, 2020 provides for the establishment of a disaster risk management committee with the following functions;

i. examine the vulnerability of different parts of the County to different disasters and identify specific prevention, reduction or mitigation measures
ii. lay down guidelines to be followed for preparation of disaster and emergency management plans by the County departments
iii. evaluate preparedness at all governmental or non-governmental levels in the County to respond to disaster and emergencies and to enhance preparedness
iv. co-ordinate response in the event of disaster or emergency
v. promote the recruitment, training and participation of volunteers in disaster and emergency management in the County

vi. to administer and mobilize resources for the County Disaster risk management Fund
vii. to negotiate with the central government and other counties on trans-border disasters and emergencies
viii. implement the national government's policy on disaster and emergency response
ix. to oversee the implementation of disaster risk reduction, preparedness, response and recovery activities by all County Government sectors and agencies performing roles related to disaster risk management
x. oversee the implementation of disaster risk reduction, preparedness, response and recovery activities by all County Government sectors and agencies performing roles related to disaster risk management
xi. to approve, review, amend and endorse recommendations of the Committee; oversee application and implementation of the County Disaster risk management Plan during any period of disaster or emergency and give orders or directions necessary for the implementation of the Plan

Tana River County Agriculture Development Act, 2016 provisions for the establishment of the Tana River County Agriculture Development Authority which has the following functions;

i. promote agricultural activities in the County
ii. advise the County Executive Committee member on all matters relating to it functions under this Act
iii. facilitate growth in the agricultural field
iv. promote production, processing, marketing and distribution of agricultural products
v. undertake study to assist in the discharge of the functions under this Act in relation to agriculture
vi. promote competitiveness in the agriculture sector
vii. promote the development of diversified crops and animal products
viii. attract and promote private investment in the agriculture sector
ix. promote county agricultural productivity and marketing through strengthening producer organizations, streamlining and facilitating bulk supply of inputs to farmers, pastoralists and fisher folks including fertilizers, seeds, agro-chemicals, animal breeding, animal drugs and feeds, artificial insemination services and fishing gears among others
x. gather, package and disseminate agribusiness-related information pertaining to key elements of the value chain across various sector enterprises including but not limited to agronomic and market information
xi. promote development of core and high impact irrigation infrastructure such as community boreholes, dams, shallow wells and water pans
xii. promote high value agricultural, livestock and fisheries products such as oil crops, newly emerging high value crops, zero grazing, aquaculture and ornamental fish farming among others

Integration of climate reality into development priorities, government planning and budgeting

In line with the Paris Agreement on the renewed recognition of the need of developing countries to adapt to climate change, Tana River County as per her Climate Change Action Plan (2021-2026) and Tana River CDCs (2021) will endeavor to increase tree cover from the current 3.24% to 10% by the year 2026.

As noted in its CIDP II, the county recognizes that climate change is real in the county and its effects include droughts, flooding, rise in sea levels along the coastal parts, intrusion of salt waters upstream, reduced fish population in the sea, drying of the ox bow lakes, reduced crop productivity, loss of biodiversity, changing ecosystems and destruction of infrastructure. Consequently, the county has put in place climate change mitigation measures and adaptation strategies that include good governance, practicing sustainable approaches to development, developing a comprehensive land use planning, creation of awareness on the effects of climate change among the population, identifying and protecting ecologically sensitive and fragile areas and discarding old practices and embracing modern and sustainable practices/technologies.

The governor's manifesto also identifies the environment sector, under which climate change falls,

as a key sector that his administration focuses on in terms of priority programs in the 2018-2022 period.

Fig 16: A section of Tana river. | Source: kenyanews.go.ke

In the effort to integrate the sustainable development goals, especially goal 13 on climate action, into the CIDP through the design of the county programs and projects, the county has endeavored to seek partnership with National Government, Development Partners, Philanthropists, Foundations, United Nations Agencies, civil society, and private sectors in implementation and tracking of the SDGs. Further, the County has integrated the nationally prioritized SDGs indicators in the County Integrated Monitoring and Evaluation System (CIMES) and will allocate resources to support periodic monitoring and reporting.

The implementation of the first CIDP (2013-2017) made a few milestones and in the water and environment sector under which climate change is domiciled, Dams and water pans have been dug in places where perennial water shortage was always experienced. The CIDP notes that even though these dams dry up at times of drought, they provide a quick fix to water shortage. . In the Agriculture, livestock and Cooperatives sector, veterinary services have improved due to enhanced extension services with extension officers now being based in the sub-counties. For instance, vaccination of livestock done at Kiembeni, Tawakal, Kor Label, Maziwa and Manyatta Sub locations in Salama Location in Garsen North Ward have led to reduction of disease prevalence hence leading to increased production of milk and meat in the wake of a changing climate in the county.

As highlighted in its CIDP II, the county has identified a number of sector development priorities and strategies that address climate change which include; improving food security by increasing the area under irrigation to ensure availability and supply of appropriate seeds, improving extension services and reducing incidences of pests and diseases; promoting sustainable agriculture by reducing drought risks and improving soil productivity; and ensuring there is proper preparedness for disaster risk by providing funds for combating disasters within the county.

The policy mechanisms for climate financing

The Tana River Climate Finance Policy sets out strategic interventions that can encourage the mobilisation of climate finance and increase financial flows. These interventions include the establishment of a dedicated County Climate Change Fund, as well as measures to support the mobilization, coordination and tracking of climate finance in County, including from both local and external sources.

According to the Policy, mobilization of climate finance will require coordination of support from public and private, and bilateral and multilateral sources, including principally the Green Climate Fund (GCF) and the Global Environment Facility (GEF), which are the entities entrusted with the operation of the Financial Mechanism of the UNFCCC

The Tana River Climate Finance Regulations form the basis for the establishment of a Climate Change Fund which shall be not two percent of the annual development budget of the county appropriated by the County Assembly in the financial year commencing immediately after the date of commencement of these Regulations. As pertains to the sources of the Fund, it shall consist of;

i. Monies appropriated by the County Assembly annually, not being less than two percent of the county development budget
ii. Monies received by the county from the national government pursuant to the Public Finance Management Act
iii. Climate finance received by the county from the national Climate Change Fund
iv. International climate finance received by the county directly from the National Designated Authority, National Implementing Authority or any other agency
v. Donations, endowments, bequests, grants and gifts from local or foreign individuals, public and private entities
vi. Charges, fees, levies or fines accruing to the county government in connection with activities that adversely impact on climate change in the county
vii. Interest and any other monies that may lawfully accrue to the Fund in any form

The Tana River County Disaster Risk Management Act provisions for the establishment of a Disaster Risk Management Fund which is to be utilized towards meeting the expenses for the emergency preparedness, response, mitigation, risk reduction, relief, and reconstruction after a disaster in the county. Climate risk is part of the risks this fund should address. The fund is financed through the following sources;

i. such monies as may be appropriated from the County Revenue
ii. such monies or assets as may accrue to the Committee during the exercise of its powers or the performance of its functions under this Act
iii. grants made by the national government or other county governments
iv. loans, aid or donations from national or international agencies; and
v. all monies from any other lawful source provided, donated, or lent to the Committee.

Tana River County Agriculture Development Act, 2016 provisions for the establishment of the Agriculture Development Fund to provide a comprehensive, harmonized, efficient and effective legal and regulatory framework for financing of agriculture in Tana River County for the purposes of promoting agriculture in the county, providing access to agricultural services in the county, marketing and creation of awareness on agricultural services and products, cascading the use of public funds at the lowest level of governance where the most vulnerable exist, and ensuring local level participation in the provision of county government activities.

Stakeholder engagement, public participation, and access to information

The research found out that there has been a unique model of multi stakeholder engagement in Tana River. It is unique in the sense that it brings on board state and nonstate actors as illustrated in the structure below. One of the organizations, The Nature Conservancy (TNC) established a Water Fund that particularly addresses climate adaptation through addressing water security. They further set up the Upper Tana-Nairobi Water Fund whose ambition is to improve water quality for the people of Tana River including Kenya's hydropower generation and Nairobi water supply.

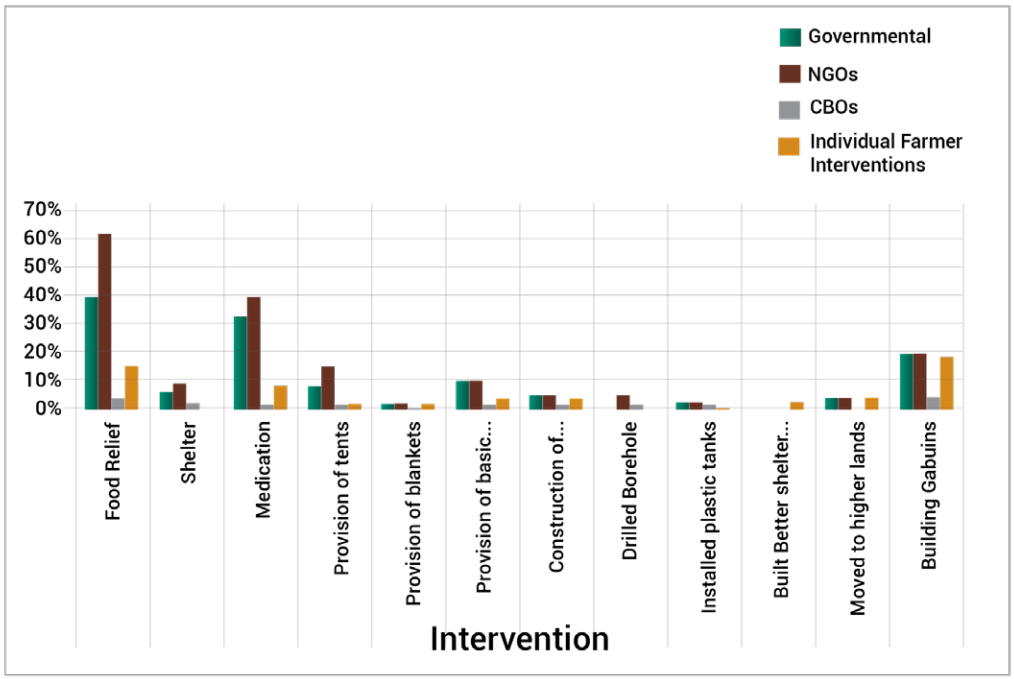
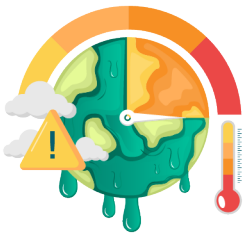


Fig 17: Disaster Risk Reduction Stakeholder Interventions



The study further established that Tana River is home to many development agencies and non-governmental organizations due to the climate vulnerability it encounters such as persistent droughts and flooding. This has necessitated cooperation between these actors with support from government institutions and agencies.

Various state and non-state actors including governmental departments and non-governmental organizations (NGOs), community-based organizations (CBOs), private sector and faith-based organizations work or are involved either directly or indirectly to address the climate risks in Tana River County. They are highlighted in the table below.

Table 15: Tana River County Climate Change Policy Frameworks

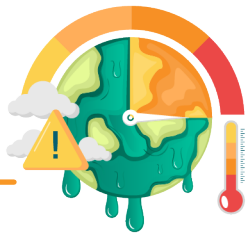
Category	Stakeholder	Role	Influence
Government **(County level local offices)**	Kenya Meteorological Department	Provide climate information for decision making in the county	***High***
	Ministry of Agriculture, Livestock and Fisheries (MoALF)	Provide agricultural extension, inputs, and policy support Provision of vaccinations by the veterinary department Destocking services by the livestock department	***High***
	Kenya Forest Service (KFS)	Promotes tree planting and controlled bush clearing and provides policy support	***High***
	Ministry of Water and Irrigation (MoWI)	Provides construction of water facilities such as boreholes and water pans services and also policy support	***High***
	National Environmental Management Authority (NEMA)	Regulation and coordination of various environmental projects	***High***
	Kenya Wildlife Service (KWS)	Regulation of livestock movement (to control human-wildlife conflicts)	***High***
	National Drought Management Authority (NDMA).	Directly deals with climate change risks by providing early warning in formation to farmers (in collaboration with KMD)	***High***
	Agriculture Sector Development Support Program (ASDSP)	Policy support	***High***
Non-governmental Organizations (NGOs), international organizations	The World Food Program (WFP), Kenya Red Cross (KRC), Food and Agriculture Organization (FAO) Care Kenya, Pan African Climate Justice Alliance, Christian Aid, Nature Kenya, World Vision, Kenya Red Cross, Islamic Relief, Concern Worldwide, Horn Aid and Welthungerhilfe Kenya.	Provision of water tanks, agricultural inputs like fertilizers and pesticides, greenhouses, and extension on good agricultural practices	***High***

Faith-based organizations	Samaritan's Purse and the Catholic Relief Services (CRS)	Emergency response, conflict resolution, rescue services, administration of food aid, and disasters. Providing extension, inputs such as fertilizers, high-yielding seeds and irrigation equipment to farmers	***High***
Community Based Organizations	Tana Peace Tana River Life Foundation,	Reduce conflicts in the county	***Moderate***
Private Organizations	Team and Team	Construction of water pans and water tanks	***Moderate***
	Technoserve	Offers extension services on input utilization	***Moderate***

Due to the autonomous nature of operations for the NGOs, collaboration between NGOs and between NGOs and government departments is reported to be minimal in the county. However, collaboration between the government departments exists in terms of designing and implementing key projects in the county.

CHAPTER FOUR

County Comparative Analysis



This chapter presents a comparative analysis of how the six counties under this study respond to climate change impacts through policy, legislation, planning and budgeting. Though the use of Systems dynamics illustrated, the complex relationship between actors, institutions, actions and direction, the research showed that there has been limited movement at county level to respond to climate change. With limited progress, most counties have taken a long time to establish the relevant institutional frameworks including building their capacity to adequately integrate climate change issues into their development planning. The research further found out that counties have taken unique strategies to address their climate change based on the geographical dynamics, political leadership, external support and the existing capacity to address the climate crisis.

Much as the ambition to address climate change mitigation and adaptation at county level are driven by key factors such as climate finance, institutional capacities and political leadership. Our research found out that there are huge efforts to use the guidance of national level climate change legislations, existing knowledge from government agencies, international donors, civil society organizations and humanitarian agencies.

Table 16: Comparative Analysis of Climate Change Policies Progress

Parameters/County	Siaya	Kakamega	Nairobi	Kajiado	Tana River	Mombasa
Climate Change Policy	complete	complete	complete	complete	complete	complete
Climate Change Action Plan	complete	complete	on-going	on-going	Complete (submitted to county assembly)	complete
Climate Change Act	complete	complete	on-going	complete	complete	complete

Notes:

Complete: The policy and action plan has been finalised, passed and published.

Ongoing: The policy, act and action plan has been drafted but not yet published.

The research established that all apart from Nairobi County had passed their County Climate Change Policy with specific guidance from the Climate Change Act of 2016. Respondents in Nairobi highlighted that the leadership of the County Government had not sent the policy to the County Assembly for the debate by the time this data was collected, but it has since been debated and published. The existence of the Climate change policy in Nairobi only meant that it could not be implemented, nor could it mobilize the requisite resources from government and donors needed to implement it.

In the county of Mombasa, it was at the point of conducting validation workshops of the climate change policy by the time we held consultations sessions. CSOs like Kenya Climate Change Working Group, Friedrich Ebert Stiftung, Pan African Climate Justice Alliance were part of the civil society organisations that were actively involved in its design. The county of Mombasa had not been inclusive enough to bring on board CSOs in the county as part of the process.

Siaya County had completed its climate change policies and enacted it through the County Assembly as an Act. It is in Siaya and Kakamega counties that there were specific on-going initiatives, discussions and consultations to design climate change budgeting as a specific process. The budgeting process in Mombasa, Tana River, Nairobi and Kajiado has largely been driven by county's development needs as stipulated in the County Integrated Development Plans (CIDPS) and not guided by climate change planning, programming and legislation.

Table 17: Budgetary allocation on Climate Change Programs and Projects in 6 counties

county	Approved budget (Kshs.)	Actual Payments (Kshs.)	Variance	Absorption (%)	Source of Funds
Mombasa	428,303,423	425,643,461	2,659,962	99.4%	County Government
Kajiado	279,821,200	279,821,200	246,633,084	88.1%	IDA (WB) Kenya Climate Smart Agriculture Project (KCSAP)
Siaya	319,185,080	319,185,080	244,610,461	76.6%	IDA (WB) Kenya Climate Smart Agriculture Project (KCSAP)
Tana River	320,000,850	178,289,408	178,289,408	55.7%	IDA (WB) Kenya Climate Smart Agriculture Project (KCSAP)
Kakamega	425,612,132	280,266,342	145,345,790	65.9%	IDA (WB) Kenya Climate Smart Agriculture Project (KCSAP)
Nairobi	100,154,180	884,630,000	884,630,000	82.7%	County Government

Source: County Governments Budget Implementation Review Report for the FY 2020/21

From the table below, it is evident that climate change budgeting and allocation varies from counties. Based on the expenditure absorption rate shown on this table, Mombasa county absorbed and exceeded their approved budget on climate mitigation and adaptation at 101.6%. it is worth noting that all the allocated resources from Mombasa were sourced from the county government. Nairobi county is the other highest absorbing county on climate change budgets at 82.7%, and all their allocations came from the county. So, this comparative table shows that monies allocated by counties (Mombasa and Nairobi) are highly absorbed.

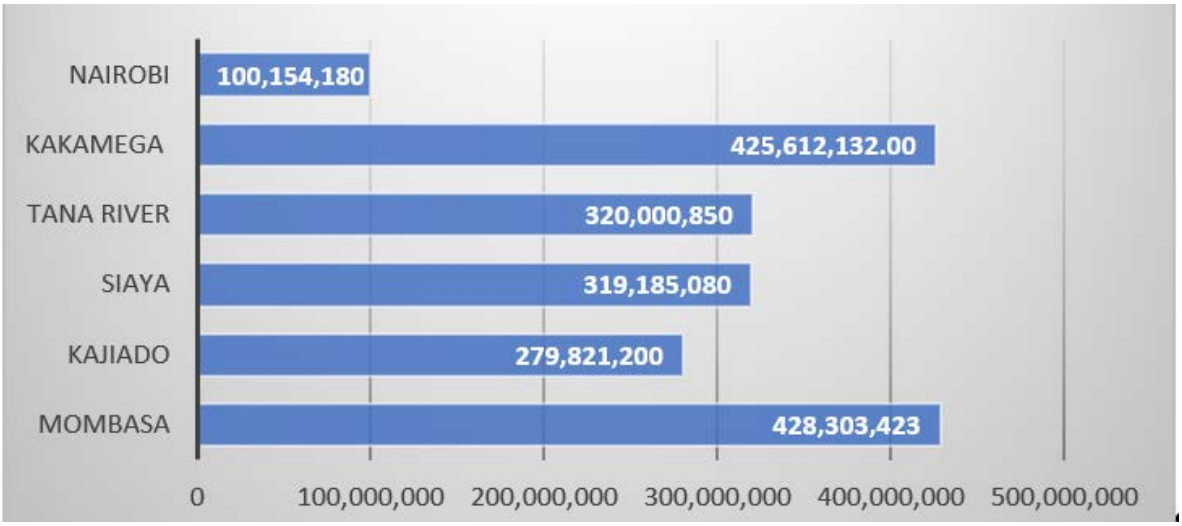


Figure 7: County Climate Change Budget Allocations (2020-2021) | Source: County Government Budget Implementation Review Report (2020/2021)

In our analysis, Kakamega allocated the highest amounts of budgets to climate change mitigation and adaptation programmes at Kshs. 452,612,132 followed by Mombasa County that allocated Kshs. 428,303,423 in the financial year 2020-2021. Nairobi county had the least budgetary amounts allocated to climate change at Kshs 100,154,180

This analysis shows that Kakamega, Tana River, Siaya and Kajiado got their climate finances from the International Development Association of the World bank under the Climate Smart Agriculture Project (KCSAP) as a conditional grant from development partners. Both Kakamega and Siaya recorded a high absorption rate at 89.36% and 76.6% respectively. The Kenya Climate Smart Agriculture Project (KCSAP) is a Government of Kenya project jointly supported by the World Bank.

KCSAP is being implemented over a five-year period (2017-2022) under the framework of the Agriculture Sector Development Strategy (ASDS) (2010-2020) and National Climate Change Response Strategy (NCCRS, 2010). KCSAP will cost a total of USD 279 M with USD 250 M financing from the World Bank and a Government contribution of USD 29 M**.** The Ministry of Agriculture Livestock Fisheries and Cooperatives is the main implementing Agency at the national level with the project anchored in the State Department of Agriculture. County governments are the executing agencies at the county level. This programme prioritises climate adaptation projects as a key component

of supporting farmers at county level to build resilience from climate change.

Table 18: Annual expenditure on climate change based on OCOB Review reports

COUNTY	Strategic positioning of climate change in the CIDP 2013-17 and 2018-22	Priority programs as per the CIDP 2013-17 and 2018-22	Annual expenditure on climate change based on OCOB Review reports		
			2018/2019	2019/2020	2020/2021
Tana River	• Has a dedicated chapter on environment and climate change (CIDP 2013-17 page 37) (CIDP 2018-2022, page 19 • Has department for environment and natural resources where climate change resides • Climate change recognized as a major environmental issue and a growing crisis of our time • Identifies mitigation and adaptation measures which include, payment for ecosystem services; pricing of natural resources; pricing carbon foot prints and mainstreaming climate change and disaster mitigation into national planning programmes	• Mainstreaming Disaster Risk Reduction (CIDP 2013, page 115) • Greening of schools and public institutions (CIDP 2013, page 123) • Agroforestry establishment in all wards (CIDP 2013, page 123) • Establish Tana Investment Board to improve county investment on climate (CIDP 2013, page 203) • Has Climate change mitigation and adaptation program (CIDP 2018-2022; page 148) • Adopted climate smart agriculture in mitigating against the adverse effects of climate change & persistent drought (CIDP 2018-2022; page 71) • Promotion of the use of alternative sources of energy (CIDP 2018-2022; page 229)	**316,750,000** This was **4.25%** of the entire budget in the year and spent by whole department where climate change resides which means it not exclusively spent on climate program	**33,700,000** This was **0.4%** of the entire budget in the year and spent by environment and natural resources program activities where climate change also resides	**162,600,000** This was **1.9%** of the entire budget in the year spent by environment and natural resources program activities where climate change also resides
Nairobi	• Has a dedicated chapter on environment and climate change (CIDP 2013-17 page 24) (a sub-section on environment and climate change (CIDP 2018-2022, page 35 • Has department for water, energy, forestry, and environment and natural resources where climate change is domiciled • Climate Change recognized as a major problem affecting people and the environment (CIDP 2013-2017, Page 24) and has major impacts leading to increased health threats, change in water levels, lack of enough rainfall, increasing temperature, erratic weather patterns, food insecurity and increase in cost of food commodities. (CIDP 2018-2022 Page 36)	• Promote environmental education and public sensitization (CIDP 2013, page 105) • Beautification, recreation, and greening services (CIDP 2018-2022, Page 190) • Improve energy mix through installation of solar panels (CIDP 2018-2022, 195 • Improve water supply to curb water shortage (CIDP 2018-2022, 201) • Promotion of renewable energy and enhancing energy efficiency in institutions and buildings (CIDP 2018-2022, 208)	**2,390,590,000** This represents 8.1% of the total budget spent in the financial year for both climate change adaptation and mitigation	**1,470,100** This represents 6.2% of the total budget spent in the financial year for both climate adaptation and mitigation.	**884,630,000** This represents 2.9% of the total budget spent in the financial year for both adaptation and mitigation.

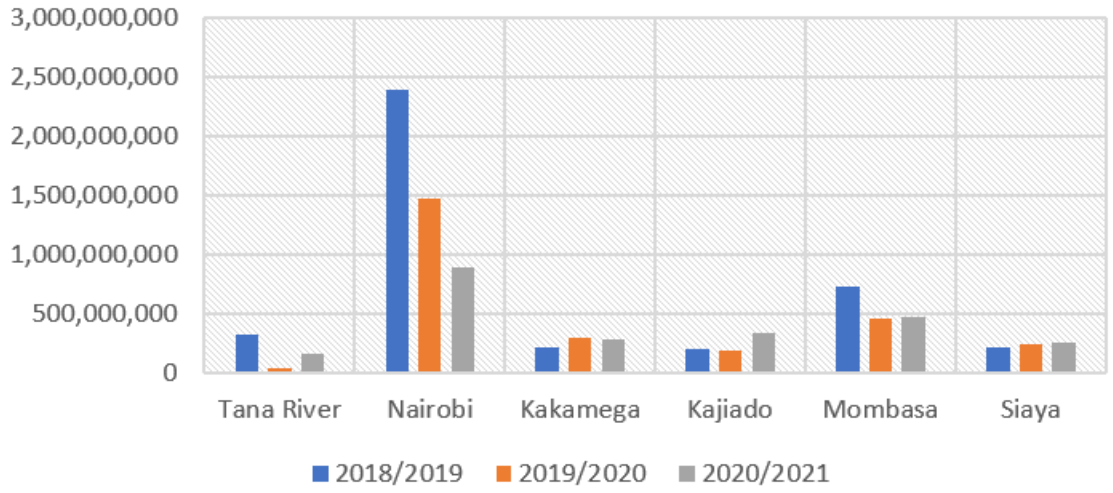
Nairobi	• Identifies mitigation and adaptation measures which include; establishment of early warning systems, monitoring climate change and disseminating information to the farmers, adaptation of new technology in both solid and waste management as opposed to using open dumping sites, diversify energy sources by investing in renewable sources of energy, water harvesting, recycling and conservation.	• Education for sustainable Development in the County project (CIDP 2013-2017, 105) • Tree cover management in the City-afforestation (CIDP 2013-2017, 106) • Tree planting in schools aimed at achieving the desired ten % forest cover (CIDP 2013-2017, 107)	**2,390,590,000** This represents 8.1% of the total budget spent in the financial year for both climate change adaptation and mitigation	**1,470,100** This represents 6.2% of the total budget spent in the financial year for both climate adaptation and mitigation.	**884,630,000** This represents 2.9% of the total budget spent in the financial year for both adaptation and mitigation.
Kakamega	• Dedicates a section on environment and climate change (CIDP 2013-17 page 29) (CIDP 2018-2022, page 53) • Consists of a Department of Water, Environment and Natural Resources in which the County Climate Change Unit is domiciled. • Recognises the impacts of climate change especially on water shortage in the county (CIDP 2018-2022 page 54) and change in weather patterns and reduced precipitation in the county (CIDP 2013-17 page 29) • Identifies climate change mitigation measures such as provision of environmental education on sustainable natural resource utilization, proper waste disposal systems, conservation and protection of catchment areas. (CIDP 2013-17 page 29)	• Promotion of greenhouse technology (CIDP 2013, page 105) • Supporting Irrigation (CIDP 2013-2017, page 106) • Promotion of agroforestry (CIDP 2013-2017, page 107) • Enhancing household knowledge on rainwater harvesting and storage (CIDP 2018-2022, page 146) • Enhancing climate change resilience through conducting surveys Climate Change Vulnerability, mitigation and adaptation (CIDP 2018-2022, page 148) • Afforestation and reafforestation (CIDP 2018-2022, page 148) • Promotion of nature-based enterprises (CIDP 2018-2022, page 149)	**219,680,000** This represents 1.8% of the total budget spent for climate adaptation and mitigation	**290,650,000** This represents 2.3% of the total budget spent on climate adaptation and mitigation	**285,990,000** This represents 2.2% of the total budget spent on climate adaptation and mitigation
Kajiado	• Dedicates a section on environment and climate change (CIDP 2013-17 page 19) (a sub-section on environment and climate change (CIDP 2018-2022, page 36 • Has a Department of Environmental protection Water and Natural Resources where climate change is located.	• Construction of water harvesting structures: dams, pans, sand dams; Drill boreholes; (CIDP 2013-17 page 141) • Establishment of one Mega Dam per Sub- County/ Constituency (CIDP 2013-17 page 142)	**195,560,000** This represents 2.5% of the total budget spent in the financial year for climate adaptation and mitigation	**191,610,000** This represents 2.6% of the total budget spent in the financial year for climate adaptation and mitigation	**330,380,000** This represents 3.7% of the total budget spent in the financial year for climate adaptation and mitigation

Kajiado	• Recognizes major impacts of climate change in the county such as erratic rains, extreme temperatures and cyclic and prolonged droughts. (CIDP 2013-2017, page 20 and drought and famine; flash floods and winds; and environmental pollution and degradation. (CIDP 2018-2022, page 37) • Notes that mitigation measures to the impacts of climate change in the county are minimal. However, the county government focuses tree planting in all major public institutions and offices, and control of soil erosion through building of gabions. (CIDP 2013-2017, Page 20	• Construction of roof catchment storage in public institutions (CIDP 2013-17 page 142) • Develop and implement climate change adaptation and mitigation initiatives by planting vegetation, constructing pans and introducing alternative energy saving at household level (CIDP 2013-17 page 146) • Protection of eco-fragile ecosystems and increasing the vegetation cover by planning trees (CIDP 2018-2022, page 69 • Harnessing and supply of rain though strategic construction of two dams in each sub-county (CIDP 2018-2022, page 69)	**195,560,000** This represents 2.5% of the total budget spent in the financial year for climate adaptation and mitigation	**191,610,000** This represents 2.6% of the total budget spent in the financial year for climate adaptation and mitigation	**330,380,000** This represents 3.7% of the total budget spent in the financial year for climate adaptation and mitigation
Mombasa	• Dedicates a section on environment and climate change (CIDP 2018-2022, page 24 • Has a Department of Environment, Waste Management and Energy where climate change is domiciled? • Recognizes Climate change impacts such as shifting and unpredictable rain patterns, flooding, incidences of crop failure and average temperature rise above normal. (CIDP 2018-2022, page 24 • Mitigation and adaptation measures identified include tree planting and rehabilitation of water catchment areas, enforcement of solid and liquid waste disposal regulations and improving road infrastructure to enhance flow of traffic and thus reduce carbon emissions by motor vehicles. (CIDP 2018-2022, page 24)	• Encourage use of alternative energy sources that are renewable (CIDP 2018-2022, page 87 • Building of desalination plants; drilling/rehabilitation of boreholes; (CIDP 2018-2022, page 102 • Increase water supply for irrigation by developing irrigation schemes (canals and construction of water storage facilities (dams and pans) • Enhance food security by Promoting irrigated agriculture; introduction of drought resistance crops; Promote water harvesting at house- hold level e.g. Roof catchment; Initiate and promote climate smart agriculture to arrest dangers of pollution; Promote appropriate technology that reduces water loss through evapotranspiration, e.g. shade structures. (CIDP 2018-2022, page 113	**732,400,000** This represents 5.8% of the total budget spent in the financial year for climate adaptation and mitigation	**462,510,000** This represents 4.2% of the total budget spent in the financial year for climate adaptation and mitigation	**477,820,000** This represents 4.1% of the total budget spent in the financial year for climate adaptation and mitigation

Siaya	• Dedicates a section on environment and climate change (CIDP 2013-2017, page 24, (CIDP 2018-2022, page 41	• Promoting alternative sources of energy such as solar power (CIDP 2013-2017, page 98 • Increase land under irrigation by promoting low cost irrigation techniques (CIDP 2013-2017, page 113)	**210,080,000** This represents 3.6% of the total budget spent for the financial year on climate adaptation and mitigation	**244,860,000** This represents 3.5% of the total budget spent for the financial year on climate adaptation and mitigation	**259,060,000** This represents 3.7% of the total budget spent in the financial year on climate adaptation and mitigation.
Siaya	• Recognizes climate-related disasters in different magnitudes where the most serious of them is flooding experienced in Usonga and Mahawa swamp in West Ugenya and drought in the entire county. Diseases such as cholera are also experienced due to climate change. (CIDP 2018-2022, page 45 • Mitigation and adaptation measures identified include; formation of multi-stakeholder platform, Combination of local and scientific knowledge, sensitization and capacity building, afforestation and reafforestation construction of pans dams and other water harvesting measures, use of proper farming methods (good farming practices) and zoning land use. (CIDP 2013-2017, page 20)	• NjaaMarufuku Kenya – NMK project aimed at improving food security generate income, employment and alleviate poverty • (CIDP 2013-2017, page 114) • Kenya Agricultural Productivity and Agribusiness Project (KAPAP) to address specific crops and livestock value chains (CIDP 2013-2017, page 114) • Private Sector Development in Agriculture (PSDA) for Promoting Value Chain Development and resource friendly technologies (CIDP 2013-2017, page 114) • Agricultural Sector Development Support Programme (ASDSP) specific crops and livestock value chains and provide support for gaps in agricultural production (along value chains) (CIDP 2013-2017, page 114) • Millennium Village Provide farmer support in availing farm inputs and healthcare (CIDP 2013-2017, page 114) • support sustainable exploitation of agricultural natural resources (CIDP 2013-2017, page 126)	**210,080,000** This represents 3.6% of the total budget spent for the financial year on climate adaptation and mitigation	**244,860,000** This represents 3.5% of the total budget spent for the financial year on climate adaptation and mitigation	**259,060,000** This represents 3.7% of the total budget spent in the financial year on climate adaptation and mitigation.

Source: County Government Review Reports for the Financial Year 2018/19, 2019/20, 2020/21

Figure 18: Annual expenditure on climate change based on OCOB Review Reports



Source: Office of the Controller of Budgets Reports (2018-2021)

From the analysis based on the reports from the office of the controller of budgets, counties that spent a substantial amount of money on climate change adaptation and mitigation were Nairobi, Mombasa and Kakamega. Both Nairobi and Mombasa spent a substantial amount of money on mitigation through installation of solar panels for a huge chunk of their residents who live in the cities. Kakamega on the other hand, Kakamega county spent most of their climate budgets on climate adaptation with projects spent on water, agriculture, infrastructure, afforestation and increasing vegetation cover. In Kajiado and Siaya, there was similar expenditures on climate smart agriculture, water and infrastructure projects with substantial projects coming from development partners and non-governmental organisations funded projects.

Council of Governors Engagement on Climate Change Issues

Among its various activities, COG hosts an annual Devolution Conference, inviting representatives from County Governments as well as National Government to discuss important policy issues. The last six conferences have focused on various issues with a key focus on the devolution journey. For instance, in 2021 during the 7th Annual Devolution Conference focused on Climate Action, in particular, the impact and the role of sub-national Governments in Climate Action.

The focus on climate action has been necessitated by the adverse impact of climate change in socio-economic development in Kenya. This has resulted in poor living conditions in some areas, occurrence of floods, drought, unregulated release of industrial wastes and increased burden in health. National and County Governments have a responsibility to ensure that these issues are dealt with and that the population is food secure, that the use of natural resources is sustainable. Furthermore, National and County Governments have a responsibility to ensure the provision of affordable and quality healthcare, job opportunities are created and that sustainable waste management practices are employed both by government and private sector.

County governments of Siaya, Kakamega, Kajiado, Nairobi, Mombasa and Tana Rive were actively involved with the council of governors in discussion their role in unlocking opportunities to turn around the climate change effects in the communities. Given the increasing nature-related hazards like floods, landslides among others facing Kenyans. Specifically, the council of governors uses the annual devolution conference to invite representatives from County Governments as well as National Government to discuss important policy issues. The last six conferences have focused on various issues with a key focus on the devolution journey. In the 2021 conference, the main focus was on Climate Action, in particular the impact and the role of sub-national governments in Climate Action. The six counties under this study were engaged in this conference.

CHAPTER FIVE

Conclusions & Recommendations

CONCLUSIONS

From the study, it is apparent that significant milestones have been made at both national and county level in respect of enacting policy and legislation addressing the effects of climate change. Some of these milestones include enactment of Climate Change Act, 2016; National Climate Change Action Plan (NCCAP 2013-2017); the Green Economy Strategy and Implementation Plan (GESIP) as well as numerous policy and legislative initiatives by Counties on Climate Change. Climate Change Act of 2016 is the main national legislation that explicitly addresses climate change in Kenya and also provides elaborate institutional framework relating to climate change including National Climate Change Council and other units at the county level.

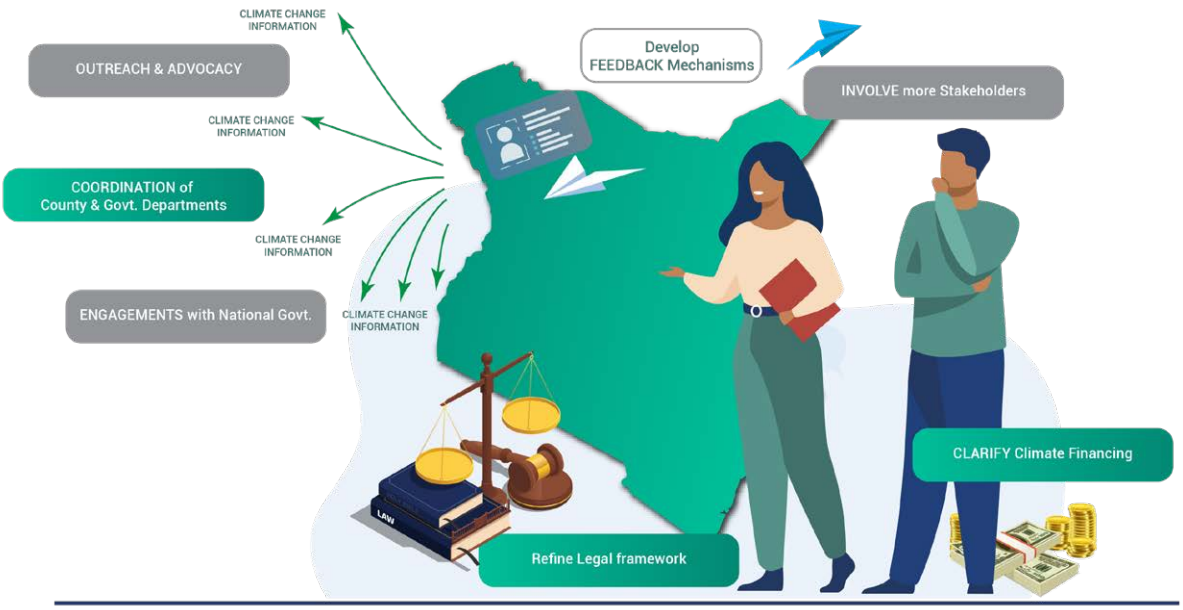
While the policy and legislation addressing climate change is an ongoing process, this study established that there are certain inadequacies and gaps particularly at the County level. Of more importance, some of the counties such as Kakamega, Mombasa and Tana River are way ahead in terms of climate policy and legal frameworks, others such as Kajiado and Nairobi are lagging behind. With respect to institutional framework for climate change action, the study found that various Counties take different approaches. Some counties such as Kakamega and Tana River have put in place elaborate institutions that take care of both political, technical and administrative dimensions. A careful analysis of some of these institutions demonstrate possible overlapping roles.

Regarding integration of climate change as a concern in the County development priorities, planning and programming, the study concludes that all counties under study demonstrated expression of planning for climate change through different tools. It is clear from the study that County Integrated Development Plan (CIDP) serves as the main tool for integrating climate change mitigation, adaptation and response in planning. However, it is also noted that the programs set out in the CIDP does not necessarily translate into the county budget. The study further shows that some Counties such as Kakamega, Mombasa and Tana River have gone beyond CIDP and have developed a five-year County Climate Change Action Plans. Comparably, the climate change action plans in the case of Kakamega, Mombasa and Tana River show a deeper assessment and contextual analysis of the climate problem fostering a robust climate action or response unlike the CIDPs which has a wider focus for all the sectors in County's economy.

On policy mechanism for climate financing, Kakamega County recognizes the importance of mobilizing resources for climate action. The county has developed Climate Change Legislation and Climate Finance Strategy which recognizes mobilization of climate finances locally, nationally and internationally. The County has also established Climate Change Fund as provided for under the County Climate Change Act which commits one percent of the annual development budget for Climate Change fund. On the other hand, Kajiado County provides for the establishment of a County Climate Fund specifically meant for climate change programs, projects and activities. The County has in the past committed and allocated budget for climate change activities through its annual budgetary allocation. For Siaya County, the County Climate Change Act, 2021 provides for the establishment of a County Climate Change Fund for climate change response measures in the County. Mombasa County on the other hand have no framework for climate financing. This study established that the County uses CIDP as the mechanism for programming and allocating finances for climate action. Moreover, Tana River has a climate finance policy that sets out strategic interventions for mobilizing finances for climate change activities. Despite these efforts, it is the conclusion of this study that most of these mechanisms for climate financing by counties are mainly expressions and a desire that are yet to translate into real financing for climate. Moreover, most Counties seems to construe climate as an agenda for attracting and accessing various financing from both national government and external development partners. The study further concludes that the ways Counties are financing their climate action, it is not easy to distinguish whether the drive is climate mitigation, climate adaptation or both or which is more important than the other for a county.

Finally, the level of influence and voices on climate change varies in different counties. Stakeholders' participation, inclusiveness and influence in the climate change policy making process is a function of technical knowhow and capacity to effectively engage on climate change issues, offering relevant inputs and representing the voices of the citizens in the decision-making process. Further, it entails accessing county government forums, building a relationship with them and being present in decision making. This study found that citizens and other stakeholders voices

were strong in Siaya and Kakamega. This was reflected by the number of policies, projects and programmes on climate change that have been initiated there. The study also noted that there were deeper engagements between the counties and CSOs working on climate change.



RECOMMENDATIONS

Based on the above conclusions and in view of the comparative analysis brought about in this study, a number of recommendations are made for concrete action:

Recommendations to County Governments

1. Clarify climate financing and be deliberate whether mitigation, adaptation or both

From the comparative analysis on climate financing, it was very difficult to delineate whether the counties consciously allocated funds for either climate change adaptation or mitigation. Whereas climate change response is more contextual than general, it is important that county government model their financing for climate action in a way that clarifies their drive and priority whether mitigation or adaptation.

2. Reaching out and involving more stakeholders

In all the counties under this comparative study, some stakeholder has not been actively engaged in climate change programming and legislation. These often include county assemblies, youth groups, women leaders, community-based organisations. County governments, in consultation with county civil society organisations establish structured consultative mechanisms and have legal mandate to give inputs and feedback on all climate change legislations, actions, programming, budgeting and financing. This could be through regular consultations and stakeholder briefing.

3. Designing proper feedback mechanisms on climate actions

There is need for constant and regular feedback, through evaluation of the climate change policy making processes including the budgeting processes. This would help CSOs track progress, hold government accountable on their commitment to finance climate change work in the county but most importantly, prioritise climate mitigation and adaptation projects. There were cases of ad hoc consultations in Nairobi, Tana River and Mombasa counties which never captured the real voices on climate from a variety of stakeholders.

4. Disseminating climate change information

Stakeholder identified with counties, including non-state actors should organise awareness-raising forums and *barazas* on climate action. Utilising social media tools and mainstream media outlets for purposes of awareness raising while targeting activities for stakeholders who have been

on the margins of climate policy making process.

5. Enhancing ownership through Climate Change Programming and Budgeting

There is need to be distinct from the general public participation on the budget process, to have stand alone information sharing with stakeholders on climate change budgeting and programming. The primary responsibility lies with the County executive in charge of climate change affairs and the department/ministry.

6. Strengthening consultative mechanisms

In consultation with other stakeholders in the counties, consultations should be rationalised in order to ensure that climate change processes are mandated to more groups. This consultation process should be anchored on legal mandate in order to be more transparent, inclusive and open. The county departments responsible for climate change should be accorded adequate financial and human resources in order to ensure that the planned consultations are functional.

7. Stakeholders coordination among county departments and government agencies on climate change issues.

It would be imperative for the county government department with the overall planning responsibilities on climate change to be able to collect and offer feedback from stakeholders. This necessitates solidification the coordination mechanisms from climate change stakeholders, having robust rules of procedures and according CSOs access to discussions as is given to development partners and private sectors.

8. Stronger engagement with national government and the council of governors

Counties need to regularly engage the national government (especially ministries of environment, finance and planning) in order to update their climate change requirements as well as align their legislations and policies. This helps in obtaining the relevant financial and technical resources that are required to act on climate change. This collaboration is also useful in order to county staff and technical experts to be able to influence the climate change agenda, negotiations and policy making at national and county levels.

9. Engaging comprehensively with FLoCA Programmes

The new Financing Locally-Led Climate Action Program (2020-2030) presents a great opportunity for county governments to strengthen their existing legal, financial and fiduciary frameworks to access climate finance through setting up climate change specific finance accounts, drafting strong climate legislations and allocating sufficient finances from their budgets. Further, the FloCA program is a good avenue to avail financial resources for public participation and to an extent ensuring great climate voices and consultations that contributes positively to support climate programmes.

Recommendations to Civil Society

1. Strengthen Climate Change work in the Third generation CIDPs

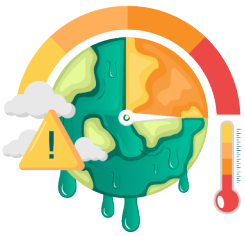
Whereas the study established considerable efforts by county governments to be using CIDPs as important tools for integrating climate change in their planning, it is important that civil society organizations working on climate change affairs use the upcoming opportunity for the development of third generation CIDPs to strongly embed climate change in the county planning and follow or monitor this into county budgeting and implementation as well.

2. Consider ongoing capacity building for Community as well as duty bearers

Climate change is technical and a dynamic topic and as such would require ongoing capacity building for both citizens and policy actors in a way that they can relate with it. In August 2022 the country will be voting in new leadership and policy actors and it is important to build their capacity on this subject for them to be conversant with the topic as they embark on their policy development and implementation obligation.

3. Develop a mechanism for tracking climate finances

In the absence of climate information portal or centres by the counties as this study established, it is important that CSOs monitor, track and audit the projects, programs as well as finances allocated and applied for climate change activities. This is important given the realization that sometime budgets allocated for climate action are not actually used for climate change activities.



4. Forming strong networks and outfits on climate justice

CSOs need to be more organised in umbrella bodies, based on geographical coverage, areas of strength, expertise and interest. This helps to co-create solutions with county leadership, identify key climate change projects, conduct outreach activities in a more coherent and organised manner that prioritises climate action strategically.

Conducting more research and analysis on climate change

CSOs need to be more propositional, factual and armed with evidence on climate change and how it's affecting communities. This could be in form of brief facts, stories from communities, written submissions, pictures, images, analysis and documented stories this can be used by counties to make informed decisions, design projects and allocate budgets for climate action.

5. Conducting more outreach and advocacy on climate change

In order to strengthen climate change budgeting and programming, CSOs need to be proactive in conducting outreach activities and influencing the desired change at county levels. It is prudent that carrying out advocacy to policy-makers on climate change programming and budgeting in order to influence positive change, prioritise programs and projects that could be crucial in adapting and mitigating climate change.

CONSERVE . PRESERVE . RECYCLE . RENEWABLES .

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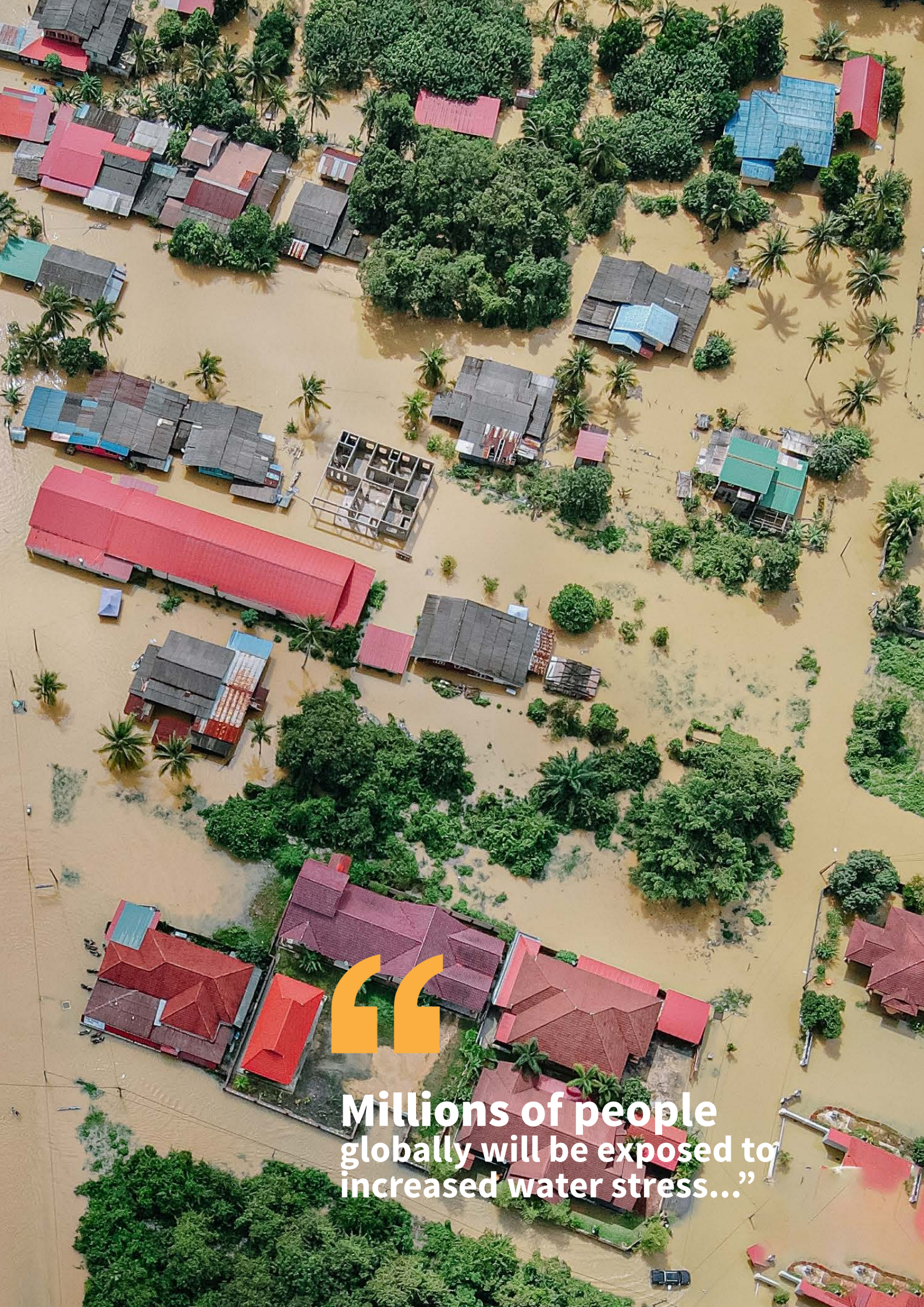


“**Millions of people globally will be exposed to increased water stress...**”

Appendix 1: QUESTIONNAIRES

SECTION 1: GENERAL INFORMATION

Name of Organization/CSO:

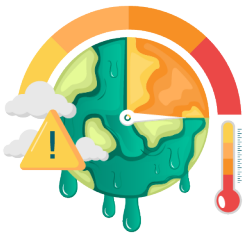
Sub-County:.....

Sector:.....

SECTION 2:

1. What's the main focus of your campaign work?
2. Is your organization involved directly or indirectly, in supporting, formulating, or implementing any policy in response to climate change? If so, which policy?
3. From your past experience with the communities, what are some of the key issues that you think need urgent attention to enhance climate change resilience?
4. Does the county government involve your organization in its processes aimed at effectively responding to climate change?
5. How do you work with the county government to mainstream climate change into your funding options/decisions through various adaptation and mitigation projects?
6. Do you collaborate with other like-minded stakeholders in your climate change adaptation work?
7. Does the county government provide a conducive environment for you to conduct your campaigns in the communities?
8. In your opinion, what are some of the gaps you have identified that you think need to be sealed in the county's response to climate change?
9. Do you think the stakeholder engagement in the county government's policy processes is sufficient and effective? If not, how should this be improved or enhanced?
10. What challenges have you faced before while working in the communities in addressing climate change?
11. Do you see any possible opportunities in this space that either the county government, the national government or any interested party can take advantage of to effectively address climate change within this county?

Appendix 2: QUESTIONNAIRES



SECTION 1: GENERAL INFORMATION

Name of County:.....

Ministry Responsible:.....

SECTION 2: POLICY AND LEGAL FRAMEWORKS ON CLIMATE CHANGE

1. Does the county have a Climate Change Act or regulation guiding response to climate change?
2. What is the county's commitment towards aligning itself to the national goal of transitioning towards a carbon neutral economy?
3. How effective are the county's policy frameworks in responding to climate change? Is the county leadership focused more on adaptation or mitigation towards climate change impacts?
4. What known or unknown risks or costs are involved in the county's response to climate change through policy formulation and implementation?

SECTION 3: INSTITUTIONAL FRAMEWORKS FOR CLIMATE CHANGE ACTION

1. What is the main agency mandated to deal with climate change issues within the county?
2. Does this agency work with other departments within the county to ensure climate change is mainstreamed in other sectoral plans developed and implemented within the county?
3. How well does this agency align with the national government's Climate Change Directorate?
4. Do you see any available opportunities of collaboration that other non-state actors can tap into in response to climate change?

SECTION 4: CLIMATE CHANGE AND DEVELOPMENT/PLANNING

1. In your views, is the climate change issue framed as a development issue or an environmental issue by the county policy and legislation?
2. Do you think climate change is sufficiently captured in the county development and planning agenda through the CIDPs?
3. How well does the county ensure climate change is mainstreamed in its development agenda through other sectors?
4. Does the county have any early warning systems in place to respond to any unforeseen climate emergencies?

SECTION 5: POLICY MECHANISM FOR CLIMATE FINANCING

1. Does the county have in place a county climate change fund mechanism?
2. What are the county government's priority areas in terms of allocating funds to climate change response?
3. What exogenous/external climate financing mechanisms exist in this county apart from the county budget?

SECTION 6: STAKEHOLDER ENGAGEMENT, PUBLIC PARTICIPATION, AND ACCESS TO INFORMATION

1. Do the existing policy and institutional frameworks at the county provide a conducive environment for stakeholder engagement through community awareness, participation, and public access to information?
2. What are some of the stakeholders that the county works with to address the issue of climate change?
3. What opportunities do you think exist for stakeholder engagement?
4. How does the county avail information on climate change to the public?