

## THE SIAYA COUNTY CLIMATE CHANGE POLICY, 2026 - 2035

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## **ACRONYMS & ABBREVIATIONS**



CCCEC	County Climate Change Executive Council
CCCSC	County Climate Change Steering Committee
CDAs	Community Development Agreements
CIDP	County Integrated Development Plan
CMCCCCP	County Multi-Stakeholder Climate Change Coordination Platform
CECM	County Executive Committee Member
CO <sub>2</sub> e	Carbon Dioxide Equivalent
CSIS	Center for Strategic and International Studies
DCC	Department of Climate Change
ESG	Environmental, Social and Governance
GESIP	Green Economy Strategy and Implementation Plan
ICPAC	IGAD Climate Prediction and Applications Centre
IDLO	International Development Law Organization
M&E	Monitoring and Evaluation
NbS	Nature-based Solutions
NDCs	Nationally Determined Contributions
PCRA	Participatory Climate Risk Assessment
PFMA	Public Finance Management Act
RCP8.5	Representative Concentration Pathway 8.5
REDD+	Reducing Emissions from Deforestation and Forest Degradation
SCCCF	Siaya County Climate Change Fund
SCGIA	Siaya County Green Investment Authority
SDGs	Sustainable Development Goals
SMART	Specific, Measurable, Achievable, Relevant, Time-bound
VCs	Village Councils

## FOREWORD

It is both my duty and my profound commitment to present to you our County Climate Change Policy. This document is more than a plan—it is our collective pledge to secure the future of our home.

We live with the reality of climate change every day. The unpredictable rains that threaten our harvests, the floods that disrupt our lives, and the heat that strains our health are not distant concerns—they are our present challenges. With over 70% of our people relying on rain-fed agriculture and many still lacking reliable clean water, the urgency to act is clear and personal.

This Policy was not created in isolation. It is born from the voices of our farmers, fishers, women, youth, and elders—from Alego/Usonga to Rarieda, Bondo to Gem. It reflects our shared understanding that overcoming this crisis requires every one of us: families, community groups, businesses, and all levels of government, working as one.

Our mission is unwavering: to build a Siaya that is resilient, green, and prosperous. We will achieve this by embedding climate action into the heart of every county department, backed by a dedicated Climate Fund to ensure resources reach where they are needed most. Through our six strategic pillars—from climate-smart farming to resilient water systems, clean energy to ecosystem restoration—we are laying a foundation for a future where our communities not only survive but thrive.

This Policy provides our roadmap. But a roadmap needs travellers. I call upon every resident of Siaya to join in this vital journey—to participate, to innovate, and to hold us accountable. Together, we will protect our livelihoods, safeguard our environment, and ensure equitable prosperity for generations to come.

Let us move forward with unity, determination, and hope.

H.E. James A Orengo, SC., EGH

**Governor of Siaya County**

Siaya County, 2025

## ACKNOWLEDGEMENT

The preparation of this policy document has been a truly collaborative endeavour, reflecting the shared commitment of Siaya County to address the climate crisis. It is with deep gratitude that I acknowledge the contributions of the many partners who made this possible.

This policy draws upon the foundational work of the county's integrated planning and budgeting processes. The development of its actionable measures benefited from the inputs of a cross-section of stakeholders, including the County Budget Economic Forum, Non-Governmental Organizations, and the Public. My gratitude goes specifically to H.E. the Governor and the entire Cabinet for providing the overarching policy direction and strategic leadership. Further, I wish to thank my fellow Cabinet Executive Committee Members for ensuring the submission of critical departmental inputs. In addition, my appreciation goes to the various non-state stakeholders, including civil society and members of the public, who provided valuable insights through ward-level and online public engagement fora and written memoranda. The dedication of the steering committee in synthesizing these inputs was indispensable.

The legal and advocacy groundwork for this transformative framework was initiated by the **Acacia Community Development Group**, in close liaison with a coalition of non-state actors, sector professionals, and the community under the **Siaya County Climate Change Forum**. Their persistent advocacy for a community-owned, equitable, and actionable climate law provided the essential momentum and substance for this policy.

This document stands as a testament to what can be achieved through a whole-of-government and whole-of-society approach. The combined efforts of county leadership dedicated public officers, civil society champions, and engaged citizens have shaped a policy that is both visionary and grounded in the realities of Siaya.

It is my distinct honour to now present the Siaya County Climate Change Policy, 2026 - 2035.

Hon. Prof. Jacqueline A Oduol, PhD., CBS

**County Executive Committee Member for Environment, Climate Change & Natural Resources**

Siaya County Government, 2025

## EXECUTIVE SUMMARY

The Siaya County Climate Change Policy, 2026 - 2035, provides a decisive, county-wide framework to address the urgent climate crisis and build a resilient, low-carbon, and prosperous future for all residents.

**Context:** Siaya is highly vulnerable to climate impacts, including erratic rainfall, floods, droughts, and ecosystem degradation. These threats exacerbate existing challenges in food security, water access, health, and livelihoods, particularly for women, youth, and marginalized communities.

**Vision & Goal:** The policy aims to create a climate-resilient, green, and prosperous Siaya. Its core goal is to institutionalize climate action across all county departments and mobilize entire communities to enhance adaptive capacity, slash greenhouse gas emissions, and advance sustainable development.

### Key Implementation Mechanisms:

- **Whole-of-Government Structure:** Establishes Climate Change Desks in every department and a high-level steering committee for cross-sectoral coordination.
- **Dedicated Financing:** Rings-fences a minimum of 3% of the annual development budget into the Siaya County Climate Change Fund (SCCCF) to finance community-prioritized, climate-proofed investments.
- **Inclusive Governance:** Creates formal platforms for community, civil society, and private sector engagement, ensuring accountability and locally-led action.

**Strategic Pillars:** Action is organized across six integrated pillars:

- i. Climate-Smart Livelihoods & Food Systems
- ii. Water Security & Resilient Infrastructure
- iii. Sustainable Energy & Low-Carbon Development
- iv. Ecosystem Health & Biodiversity-Based Economy
- v. Climate-Proofed Health, Education & Social Protection
- vi. Resilient Infrastructure & Human Settlements

**Accountability:** Progress will be tracked through a robust monitoring and evaluation system against clear targets for resilience, emission reduction, and Sustainable Development Goal (SDG) co-benefits, with annual public reporting.

This policy is the cornerstone of Siaya's commitment to securing a sustainable and equitable future, contributing directly to Kenya's national climate ambitions.



## **PREAMBLE**

**WHEREAS** the Constitution of Kenya, 2010, in Articles 42, 69, and 70, guarantees every person the right to a clean and healthy environment and mandates the State and all its organs to ensure sustainable exploitation, utilization, management, and conservation of the environment and natural resources for the benefit of present and future generations;

**WHEREAS** the national Climate Change Act (No. 11 of 2016 Cap 387A) and the subsidiary Climate Change (Carbon Markets) Regulations, 2024 provide the legal framework for a coordinated enhanced response to climate change;

**WHEREAS** these laws mandate County Governments to mainstream climate action in key devolved sectors such as agriculture, water, forestry, and health and report on their actions to the national government on an annual basis;

**WHEREAS** County Governments are expected to establish innovative climate finance mechanisms that support community-prioritized adaptation investments and contribute to Kenya's national commitments;

**WHEREAS** the Siaya County Climate Change Act, 2025 provides the county-specific legislative mandate and institutional foundation for decisive local climate action, and this Policy serves as a supporting framework under that Act to enhance enforceability and implementation;

**WHEREAS** Siaya County is committed to localizing the global Sustainable Development Goals (SDGs) and contributing to Kenya's national ambition for a climate-resilient, low-carbon future, recognizing that integrated action on climate change is fundamental to achieving zero hunger, clean energy, sustainable communities, and reduced inequalities;

**WHEREAS** Siaya County is recognized as extremely susceptible to climate change impacts due to the dependence of its population on climate-sensitive sectors such as rain-fed agriculture (which employs over 70% of the population), fisheries, and natural resources, alongside vulnerabilities in water access (with only 58% of households having access to improved water sources), energy, health, education, and social infrastructure, including heightened risks from floods (affecting over 5,000 households in 2020), droughts (leading to 20-30% crop yield losses in maize), and vector-borne diseases like malaria (with incidence rates up by 15% in wet seasons);

**RECOGNIZING** that addressing the climate crisis requires an unprecedented, unified effort mobilizing every sector of government and every layer of society, backed by decisive financial commitment, embedded administrative capacity, and geodata-driven decision-making;

**NOW, THEREFORE,** the County Government of Siaya enacts this Climate Change Policy as a supporting instrument under the Siaya County Climate Change Act, 2025 to establish a coherent, cross-sectoral, and participatory framework for building a climate-resilient, low-carbon, and prosperous future through a whole-of-government and whole-of-society approach, anchored by dedicated financing, institutionalized departmental responsibility, and enforceable mechanisms for all its residents, contributing to national and global sustainable development objectives.

## 1.0 PROBLEM IDENTIFICATION

Siaya County faces acute climate change challenges that threaten its socio-economic fabric and environmental integrity. Key problems include:

- **Erratic Weather Patterns and Extreme Events:** Increasing frequency of droughts, floods, and heatwaves disrupting agriculture, water supply, and livelihoods, leading to food insecurity for over 80% of households in vulnerable sub-counties like Rarieda (Potts et al., 2023).
- **Ecosystem Degradation:** Deforestation and wetland loss, with forest cover at only 0.42%, exacerbating soil erosion, biodiversity loss, and reduced carbon sequestration capacity (Global Forest Watch, 2021).
- **Health and Social Vulnerabilities:** Rising incidence of climate-sensitive diseases such as malaria (up 15% in wet seasons), compounded by inadequate infrastructure and limited access to clean water (58% of households) and energy, disproportionately affecting women, children, and marginalized groups (Sewe et al., 2023; Kenya National Bureau of Statistics, 2022).
- **Economic Impacts:** Dependency on rain-fed agriculture results in yield losses of 20–30% during dry spells, perpetuating poverty and inequality in a county where over 70% of the population relies on climate-sensitive sectors (Juma, 2019).
- **Institutional and Financial Gaps:** Limited mainstreaming of climate actions into development plans, insufficient dedicated funding, and fragmented coordination, hindering effective response and adaptation (Crick et al., 2018).

These issues align with national challenges identified in Kenya's Nationally Determined Contributions (NDCs) and underscore the need for localized, integrated interventions.

## 2.0 RATIONALE

This Policy is essential to address the identified problems through a structured, evidence-based approach that mainstreams climate action into all county development processes. It builds on best practices from Kenyan counties like Makueni and Wajir, where successful mainstreaming into County Integrated Development Plans (CIDPs) has enhanced resilience and adaptation (Murphy & Orindi, 2018). By reclassifying the entire development budget as the Siaya County Climate Change Fund (SCCCF) in alignment with the Public Finance Management Act (PFMA), 2012, the Policy ensures all investments are climate-proofed without interfering with normal sectoral allocations, promoting predictable finance and locally led actions as recommended in devolved climate finance models (World Bank, 2021). The rationale includes fostering equity, innovation, and partnerships to achieve net-zero pathways, SDG co-benefits, and a just transition, while improving accountability through clear M&E and review mechanisms (IDLO, 2023).

## 3.0 SITUATION ANALYSIS

Siaya County's climate vulnerabilities are exacerbated by socio-economic and environmental factors. A participatory climate risk assessment reveals:

- **Climate Projections:** Temperature rise of 1.5–2.5°C by 2050 (baseline: +1.0°C since 1960), erratic rainfall with 10–20% increases leading to intensified floods and droughts (ICPAC, 2020; Onyango et al., 2024).
- **Sectoral Impacts:** Agriculture faces 20–30% yield losses in maize during dry spells; water access is limited to 58% of households for improved sources, with flood contamination risks affecting over 5,000 households (2020 event); health burdens from vector-borne diseases (e.g., malaria projections: +10-20% incidence by 2030) affect rural populations, integrated with socio-economic vulnerabilities (Red Cross Red Crescent Climate Centre, 2020; Wandera et al., 2024).
- **Socio-Economic Context:** High poverty rates, gender disparities, and limited institutional capacity hinder adaptation, as seen in past events like the 2016–2017 drought and 2020 floods (Siaya County Government, 2023).
- **Opportunities:** Potential for nature-based solutions, renewable energy (current household adoption ~20% for clean energy), and carbon markets, through the nationally regulated carbon registries and MRV systems, to drive green growth, aligned with national strategies (CSIS, 2025).

Detailed baselines and projections are in Annex A, informed by stakeholder consultations and scientific data.

#### 4.0 VISION, MISSION, AND GOAL

##### 4.1 Vision

A thriving, climate-resilient Siaya County built on green prosperity and community-led action, contributing to Kenya's net-zero and sustainable development goals.

##### 4.2 Mission

To bring our community and devolved government together—backed by secure funding—so that every geo-enabled village master plan and project results in climate justice and equity across Siaya County.

##### 4.3 Policy Goal

This policy aims to strengthen Siaya County's resilience to climate change. It seeks to boost adaptive capacity for communities, ecosystems, and the local economy. Concurrently, it will establish a clear low-carbon development pathway. This pathway will cut greenhouse gas emissions and grow a thriving green economy. It will also advance the integrated Sustainable Development Goals (SDG) agenda.

These goals will be achieved by institutionalizing climate action in every government department. Dedicated climate desks will be established to lead this effort. We will ignite participation across all of society. Furthermore, at least 3% of the annual development budget will be ring-fenced. This dedicated funding will support transformative, climate-benign investments.



## 5.0 CLIMATE RISK AND VULNERABILITY ASSESSMENT

This Policy is informed by a data-driven assessment of Siaya County's climate risks, drawing from the Siaya County Participatory Climate Risk Assessment (PCRA), Climate Risk Profile, and national projections. Key baselines and projections include:

- **Temperature:** Historical increase of 1.0°C since 1960; projected rise of 1.5–2.5°C by 2050 and up to 5°C by 2100 under high-emission scenarios (RCP8.5), leading to more hot days (>30°C) and heat stress in agriculture and health sectors (Red Cross Red Crescent Climate Centre, 2020; Siaya County Government, 2023).
- **Rainfall and Extremes:** Bi-modal rainfall patterns (long rains March–May, short rains October–December) are becoming erratic, with average annual increases of 10–20% by mid-century, but intensified extremes: prolonged droughts (e.g., 2016–2017 affecting 80% of crops) and floods (e.g., 2020 displacing 5,000 households). Projections indicate 15% precipitation increase in western Kenya by 2050, exacerbating flood risks around Lake Victoria (Siaya County Government, 2023; ICPAC, 2020; Onyango et al., 2024).
- **Agriculture Vulnerability:** Over 70% of livelihoods depend on rain-fed farming; 80% of households in Rarieda Sub-County are food insecure due to crop failures from droughts and floods. Baseline yield losses: 20–30% in maize during dry spells (Potts et al., 2023; Juma, 2019).
- **Water Access:** Only 58% of households have access to improved water sources; vulnerabilities include contamination during floods and scarcity in droughts, affecting 55% of the population (Kenya National Bureau of Statistics, 2022).
- **Ecosystems:** Forest cover at 0.42% (baseline 2021), far below national 10% target, leading to soil erosion and reduced carbon sequestration (Global Forest Watch, 2021; Kenya Forest Service, 2021).
- **Health:** Increased vector-borne diseases (e.g., malaria incidence up 15% in wet seasons, with projections of +10–20% by 2030); socioeconomic vulnerabilities in rural areas compound risks for women and children (Sewe et al., 2023; Wandera et al., 2024).
- **Energy:** Renewable energy adoption at ~20% for households; firewood remains primary source for 82.5% (Siaya County Government, 2023).
- **Economic:** Green jobs baseline at approximately 2,000; population of 993,183 (2019 census), with 1.7% annual growth (Kenya National Bureau of Statistics, 2022).

These assessments will be updated every five years, incorporating community input and new scientific geodata. Detailed baselines, projections, and indicators are provided in Annex A.

## 6.0 GUIDING PRINCIPLES

This policy shall be implemented under the following principles:

- **Constitutional Supremacy and Public Participation:** Upholding Article 10 of the Constitution and ensuring active, prior, informed, and meaningful involvement of communities, including

vulnerable groups, in all climate decision-making, with mandatory consultations during policy reviews.

- **County-Led Action for Global Goals:** Exercising the devolved mandate to develop, implement, and own context-specific climate responses that directly contribute to Kenya's Nationally Determined Contributions (NDCs) and the SDGs.
- **Integrated SDG and Climate Action:** Ensuring all climate interventions are designed to deliver measurable, tracked co-benefits for specific Sustainable Development Goals, adopting a holistic approach to sustainable development.
- **Mainstreaming and Integration:** Mandating the integration of climate change and SDG considerations into all sectoral plans, budgets, projects, and environmental impact assessments, particularly the County Integrated Development Plan (CIDP).
- **Ecosystem-Based Adaptation and Nature-Based Solutions (NbS):** Prioritizing the protection, restoration, and sustainable management of natural ecosystems as a foundational, cost-effective strategy for climate resilience, carbon sequestration, and biodiversity conservation.
- **Equity, Inclusion, and Just Transition:** Prioritizing the needs of the most vulnerable populations through gender-responsive, inclusive, and targeted measures that ensure equitable access to resources, information, benefits, and opportunities in the green economy.
- **Polluter Pays and Proceeds Benefit:** Upholding the principle that the polluter bears the cost of pollution, and that significant proceeds from climate finance mechanisms, including carbon markets, shall be managed transparently for direct community and county-wide benefit.
- **Evidence-Based Planning for Net-Zero Pathways:** Utilizing geodata, scientific projections, indigenous knowledge, and robust climate information services to inform planning, monitoring, and evaluation, guided by emission reduction targets.
- **Innovation and Partnership:** Fostering research, technology transfer, and multi-stakeholder collaborations, including with national agencies (e.g., Kenya Meteorological Department) and international partners (e.g., World Bank, CGIAR), to develop and scale effective solutions for resilience and decarbonization.
- **Whole-of-Government Integration:** Climate change considerations shall be mandatorily and systematically integrated into the planning, budgeting, programs, and operations of all County Departments, Municipalities, and agencies, supported by formal, dedicated institutional units.
- **Whole-of-Society Engagement:** The County shall proactively foster the active, meaningful, and structured participation of all societal actors.

- **Embedded Institutional Capacity:** Each county department shall host permanent, skilled personnel dedicated to climate resilience, ensuring technical expertise is applied at the source of sectoral planning and implementation, with annual training programs.
- **Predictable and Catalytic Climate Financing:** The County shall secure a ring-fenced allocation of a minimum of 3% of the development portion of its Annual Programme-Based Budget to Siaya County Green Investment Authority as seed finance per financial year, exploring additional sources like national CCCFs and international grants.
- **Subsidiarity, Inclusivity, and Equity:** Climate action shall be community-anchored, inclusive, and promote a just transition.

## 7.0 INSTITUTIONAL, GOVERNANCE AND IMPLEMENTATION FRAMEWORK

### 7.1 Whole-of-Government Coordination Structure

- **County Climate Change Executive Council (CCCEC):** Chaired by the Governor and comprising all County Executive Committee Members (CECMs), provides supreme political leadership and mandate, with members serving 3-year terms, renewable once.
- **County Climate Change Steering Committee (CCCSC):** Chaired by the CECM for Climate Change and comprising all Chief Officers and the Director of Climate Change, translates policy into coordinated cross-departmental action, with diverse representation (e.g., youth, women, persons with disabilities) nominated through public participation.
- **Department of Climate Change (DCC):** The lead technical secretariat, headed by the Director of Climate Change, responsible for overall coordination, standards, M&E, reporting, capacity building (e.g., annual training for departmental desks on gender-responsive climate tools), and partnerships with external entities. The Director is required to submit reports to the National Climate Change Directorate for national consolidation.

## 7.2 Departmental Climate Change Resilience and Adaptation Desks

### 7.2.1 Establishment

Every County Department and Municipality shall establish a fully resourced Climate Change Resilience and Adaptation Desk, which will also serve as the SDG Focal Point. This desk will be responsible for integrating this policy into all departmental work.

The Department of County Climate Change and the SDG Budget Code will provide support. Desk staff will receive mandatory annual training in climate tools, risk assessment, and innovation.

Furthermore, all desk activities must align with existing national sectoral climate strategies. This ensures procedural compliance with the National Climate Change Framework Policy and the National Adaptation Plan (2015-2030).

### 7.2.2 Function

These Desks are the primary implementation units for this policy within their respective sectors (e.g., Agriculture, Health, Infrastructure, Water). Their functions include:

- i. Mainstreaming climate risk and opportunity analysis into all departmental plans, budgets, and projects.
- ii. Serving as the focal point for inter-departmental climate coordination and technology transfer.
- iii. Providing technical climate input to departmental procurement and program design.
- iv. Collecting and reporting sector-specific climate geodata and indicators.

### 7.2.3 Reporting Line

Each Desk shall have a **dual reporting line**: administratively to their respective Chief Officer for day-to-day operations, and **technically and programmatically to the Director of Climate Change** for policy adherence, methodological standards, and consolidated reporting. The Director of Climate Change shall participate in the performance appraisal of Desk Officers.

## 7.3 Whole-of-Society Engagement Ecosystem

- **County Multi-Stakeholder Climate Change Coordination Platform (CMCCCP)**: The formal interface for non-state actor engagement, with diverse representation (e.g., youth, women, persons with disabilities). The Coordination Platform shall work in liaison with the Siaya County Green Investment Authority and the Department of Climate Change, mandating annual consultations with frontline communities.
- **Village Councils (VCs)**: The primary hub for grassroots planning and accountability. They will ensure grassroots participation, identify local priorities, monitor projects, and oversee Community Development Agreements (CDAs) for benefit-sharing.

## 7.4 Supporting Regulations for Enforceability

The County Executive Committee Member for Climate Change shall, within six months of enactment, develop and gazette regulations under the Siaya County Climate Change Act, 2025, detailing operational guidelines for institutions, funds, compliance mechanisms, and penalties for non-adherence, in line with PFMA 2012 and IDLO frameworks for inclusive climate justice.

## 8.0 FINANCING AND INVESTMENT MECHANISM

### 8.1 The Siaya County Climate Change Fund (SCCCF)

- A County Climate Change Fund (SCCCF) is hereby established. It shall be defined as the entire Development Portion of the County Programme Based Budget per financial year.
- Seed fund for the Siaya County Green Investment Authority is hereby established. The Authority is a statutory body corporate mandated to catalyze private and blended finance for bankable green projects that deliver on both climate and SDG outcomes, in line with its Investment Policy Statement and Environmental, Social and Governance Management System.
- The seed fund shall be determined and ring-fenced as a minimum of 3% of the development portion of the County's Annual Programme-Based Budget, with advanced mechanisms including



Village Councils, also known as the Village Development Committees (as in Turkana for rangeland projects) and people-led adaptation plans (as in Homa Bay) to prioritize investments.

- The SCCC shall finance community-prioritized adaptation, capacity building (including for Departmental Desks), and early-stage project development, with baselines like \$1.025 million mobilized in 2023 for 60,000 beneficiaries.

## 8.2 The Siaya County Green Investment Authority (SCGIA)

- The seed fund shall be allocated to capitalize the Siaya County Green Investment Authority (SCGIA).
- The SCGIA shall mobilize private capital for bankable mitigation and adaptation projects, creating a pipeline from SCCC-F-supported preparation to scaled investment.

## 9.0 STRATEGIC PILLARS FOR INTEGRATED ACTION

The policy prioritizes interventions across six interconnected pillars, each designed to deliver on climate resilience, low-carbon development, and specific SDG targets.

### Pillar 1: Climate-Smart Livelihoods and Food Systems

**Lead:** Dept. of Agriculture; supported by its Desk

- **Objective:** To transform agriculture, livestock, and fisheries into productive, sustainable, and climate-smart sectors, reducing vulnerability, enhancing food sovereignty, and supporting livelihoods.
- **SDG Linkage:** Directly advances SDG 2 (Zero Hunger), SDG 1 (No Poverty), and SDG 8 (Decent Work).
- **Net-Zero Pathway:** Promote climate-smart agroforestry, sustainable land management, and efficient practices to reduce agricultural emissions and increase soil carbon sequestration.
- **Key Actions:** Promote drought-resistant crops and regenerative agriculture; scale up efficient irrigation and water management; support sustainable fishery management; facilitate access to index-based insurance; diversify into nature-based value chains and agro-processing, with baselines like 20-30% yield losses in maize reduced to 10-15% by 2030.

### Pillar 2: Water Security and Resilient Infrastructure

**Lead:** Depts. of Water & Infrastructure; supported by their Desks

- **Objective:** To ensure reliable, equitable, and sustainable access to safe water and sanitation for all under a changing climate.
- **SDG Linkage:** Core to achieving SDG 6 (Clean Water and Sanitation) and underpins SDG 3 (Good Health and Well-being).
- **Net-Zero Pathway:** Invest in energy-efficient water infrastructure and promote nature-based solutions for catchment protection.
- **Key Actions:** Protect and rehabilitate critical water catchments and riparian zones; invest in climate-resilient and energy-efficient water infrastructure; promote widespread water harvesting and storage; integrate flood control and aquifer management into spatial planning, with baselines like 58% improved water access increased to 80% by 2030.

### Pillar 3: Sustainable Energy and Low-Carbon Development

**Lead:** SCGIA & Dept. of Energy; supported by its Desk

- **Objective:** To achieve universal access to affordable, reliable, sustainable, and modern energy while driving a clear pathway to reduce county-wide greenhouse gas emissions.
- **SDG Linkage:** Fundamental to SDG 7 (Affordable and Clean Energy) and SDG 9 (Industry, Innovation and Infrastructure).
- **Net-Zero Pathway:** Set a target for 100% renewable energy in county government operations by 2035; promote decentralized solar, wind, and biogas to displace biomass and fossil fuels; develop green mobility options.
- **Key Actions:** Promote decentralized renewable energy solutions and mini grids; transition households and institutions to clean cooking technologies; retrofit public facilities for energy efficiency; proactively develop and participate in regulated carbon markets, with baselines like 20% household renewable adoption increased to 50% by 2030.

### Pillar 4: Ecosystem Health and Biodiversity-Based Economy

**Lead:** Dept. of Environment; supported by its Desk

- **Objective:** To conserve, restore, and sustainably utilize ecosystems for resilience, carbon sequestration, and inclusive economic benefit.
- **SDG Linkage:** Central to SDG 13 (Climate Action), SDG 15 (Life on Land), and SDG 8 (Decent Work) through green jobs.
- **Net-Zero Pathway:** Commit to a net gain in natural forest cover and wetland area by 2030. Develop high-integrity nature-based solutions and carbon projects.
- **Key Actions:** Implement large-scale reforestation and Reduced Emissions from Deforestation and Forest Degradation (REDD+) initiatives; control invasive species; develop community-led ecotourism and biodiversity-based enterprises; empower the Siaya County Green Investment Authority (SCGIA) to mobilise green investments, with baselines like 0.42% forest cover increased to 5% by 2030.

### Pillar 5: Climate-Proofed Health, Education, and Social Protection

**Lead:** Depts. of Health & Education; supported by their Desks

- **Objective:** To build adaptive capacity within public health and education systems against climate impacts and leverage them as platforms for sustainability education.
- **SDG Linkage:** Directly supports SDG 3 (Good Health and Well-being) and SDG 4 (Quality Education).
- **Net-Zero Pathway:** Promote energy-efficient, solar-powered health and education facilities.
- **Key Actions:** Strengthen surveillance and response for climate-sensitive diseases (e.g., malaria, integrated with flood/drought early warnings; target: Reduce incidence by 20% by 2030); ensure climate-resilient, energy-efficient school and health infrastructure; integrate climate change and environmental education across curricula; promote public health awareness on climate risks, with focus on vulnerable groups, with baselines like malaria incidence up 15% in wet seasons reduced to 5%.

### Pillar 6: Resilient Infrastructure and Human Settlements

**Lead:** Depts. of Public Works & Land, Physical Planning; supported by their Desks

- **Objective:** To ensure public infrastructure, services, and human settlements are planned, sited, and built to withstand climate shocks and are efficient in resource use.
- **SDG Linkage:** Critical for SDG 9 (Resilient Infrastructure) and SDG 11 (Sustainable Cities and Communities).
- **Net-Zero Pathway:** Enforce green building standards, promote low-carbon construction materials, and plan compact, walkable settlements to reduce transport emissions.
- **Key Actions:** Mandate climate risk and vulnerability assessments for all infrastructure; enforce zoning laws in high-risk areas; retrofit critical infrastructure; implement community-based disaster risk management integrated with early warning systems, with baselines like floods displacing 5,000 households (2020) reduced through 90% coverage by 2030.

## 10.0 MONITORING, EVALUATION, LEARNING AND REPORTING

### 10.1 Tracking Progress

- Progress will be tracked against the Siaya County Climate Change Action Plan, which details SMART indicators, baselines, and targets for each pillar, including:
  - a. **Climate Resilience Indicators:** (e.g., % population covered by early warning systems, hectares of land under sustainable management).
  - b. **Emission Reduction Indicators:** (e.g., tons of CO<sub>2</sub>e reduced/sequestered, % renewable energy in county mix, forest cover change).
  - c. **SDG Co-Benefit Indicators:** (e.g., number of jobs in green economy [baseline: 2,000; target: 10,000 by 2030], households with clean energy access, children in schools with integrated climate curriculum).

### 10.2 Reporting and Review

- The Director of Climate Change, with inputs from all Departmental Desks, shall compile an Annual Climate Action and SDG Implementation Review Report to be submitted to the County Assembly of Siaya once per year, at least 3 months before the scheduled State of County Address.
- The report shall incorporate community feedback, scientific geodata, and progress on the triple goals of resilience, net-zero, and sustainable development.
- This policy shall be reviewed every five years, or as needed, to integrate new scientific evidence, technological advancements, and evolving national and international commitments.

## 11.0 POLICY ALIGNMENT AND IMPLEMENTATION PATHWAY

This policy provides the overarching strategic framework. Its implementation is inextricably linked to the following key instruments:

- **Supreme Law:** Constitution of Kenya (2010) – The foundational mandate.
- **National Legal Mandates:** Climate Change Act (Cap 387A) & Climate Change (Carbon Markets) Regulations, 2024.
- **County Legal Mandate:** Siaya County Climate Change Act No. 3 of 2021.
- **County Planning Blueprint:** County Integrated Development Plan (CIDP).
- **National/Global Strategic Guides:** Kenya Green Economy Strategy (GESIP), SDG Framework, Kenya's NDCs.

- **Implementation Vehicle:** Siaya County Climate Change Action Plan.
- **Financing Vehicles:** Siaya County Climate Change Fund (SCCCF)
- **Special Investment Vehicle:** Siaya County Green Investment Authority (SCGIA).
- **Grassroots Mechanism:** Village Councils (VCs).

Enacted by the County Assembly of Siaya this xxxx.





#### ANNEX A: BASELINES, PROJECTIONS, AND INDICATORS

- a. **Temperature Baseline:** +1.0°C since 1960; Projection: +2.5°C by 2050 (Red Cross Red Crescent Climate Centre, 2020).
- b. **Forest Cover Baseline:** 0.42% (2021); Target: 10% by 2030 (Global Forest Watch, 2021).
- c. **Water Access Baseline:** 49% households; Target: 80% by 2035 (Kenya National Bureau of Statistics, 2022).
- d. **Malaria Incidence Baseline:** +15% in wet seasons; Projection: +10-20% by 2030; Target: -20% reduction (Sewe et al., 2023).
- e. Additional to be added

#### ANNEX B: TIMELINES AND COST ESTIMATES

- a. Reforestation: KSh 800M over 5 years (2026-2030), 2,000 ha/year.
- b. Irrigation Scaling: KSh 700M over 3 years (2026-2028), 5,000 ha added.
- c. Additional to be added



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