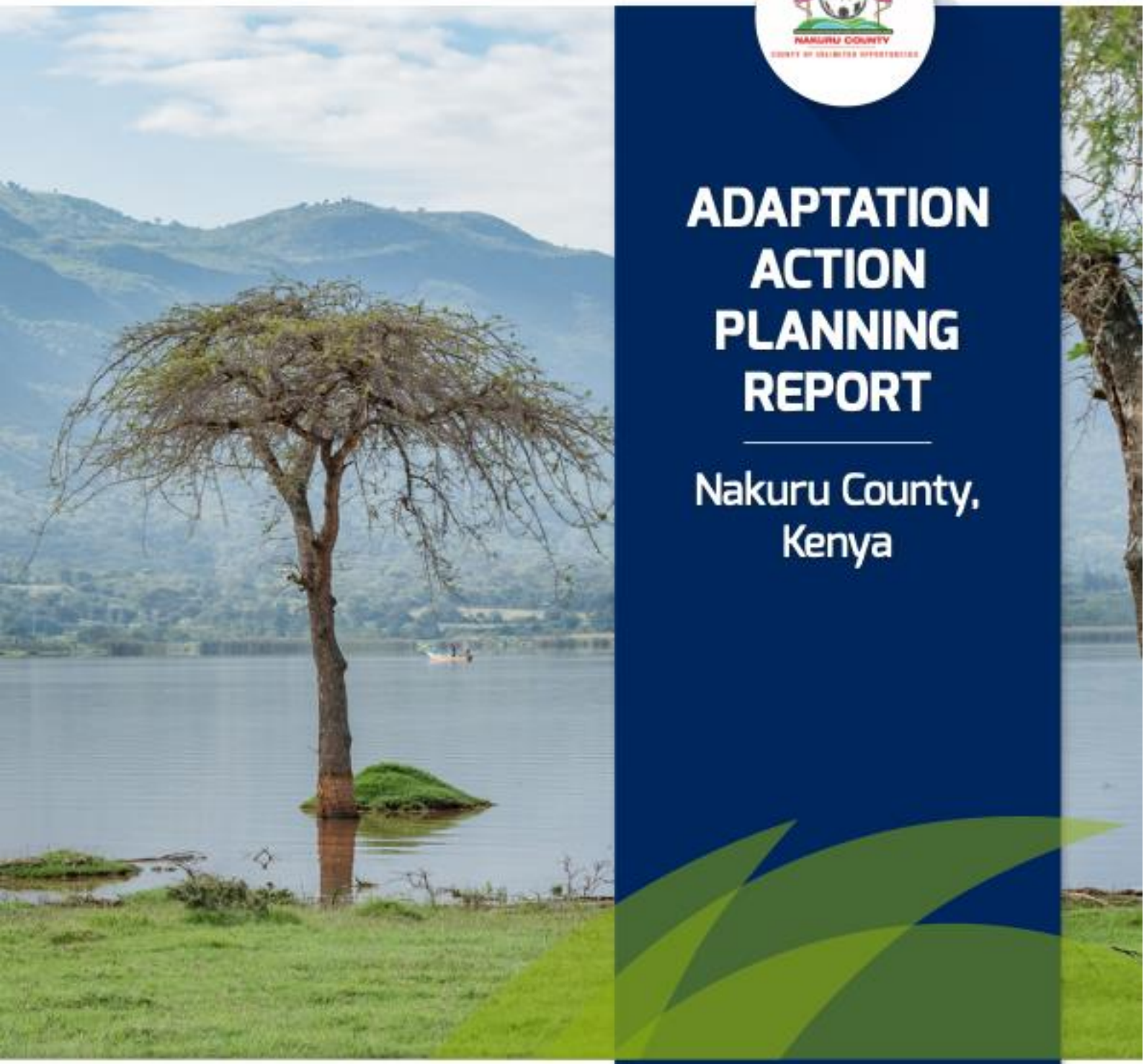
Covenant of Mayors
in Sub-Saharan Africa

NAKURU COUNTY

ADAPTATION ACTION PLANNING REPORT

Nakuru County, Kenya



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Contents

Abbreviations

ATAR	Adaptation Technical Analysis Report
AWS	Automatic Weather Stations
BEI	Baseline Emissions Inventory
CIDP	County Integrated Development Plan
CIP	Climate Information Platform
CSA	Climate-smart agriculture
CoM SSA	Covenant of Mayors in Sub-Saharan Africa
EC	European Commission
EU	European Union
GCoM	Global Covenant of Mayors for Climate & Energy
GHG	Greenhouse gas
JRC	Joint Research Centre
NAP	National Adaptation Plan
NCCAP	National Climate Change Action Plan
NCCCAP	Nakuru County Climate Change Action Plan
NDC	Nationally Determined Contribution
RVA	Risk and Vulnerability Assessment
SDGs	Sustainable Development Goals
SEACAP	Sustainable Energy Access and Climate Action Plan
SMART	Specific, Measurable, Achievable, Realistic, Time-bound

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1. The Covenant of Mayors Sub-Saharan Africa (CoM SSA) and Sustainable Energy Access and Climate Action Plans (SEACAPs)

1.1 The Covenant of Mayors Sub-Saharan Africa (CoM SSA)

The Covenant of Mayors Sub-Saharan Africa (CoM SSA) is an initiative launched by the European Union (EU) to support local authorities in sub-Saharan Africa in the climate challenge and in their efforts to ensure access to clean energy. It is the "regional covenant" or chapter of the Global Covenant of Mayors for Climate & Energy. CoM SSA is delivered through a partnership of global and local city networks as well as initiatives funded by the European Commission (EC). It is a bottom-up and voluntary initiative that invites cities to define and meet ambitious and realistic energy access and climate targets set by themselves, in line with GCoM requirements. This means that targets are at least as ambitious as cities' respective government's Nationally Determined Contribution (NDC) under the Paris Agreement. Furthermore, targets need to be in line with National Adaptation Plans (where these exist) and be consistent with the principles around energy access and urban sustainability embodied in the Sustainable Development Goals (SDGs). Local authorities are encouraged to voluntarily commit to the implementation of a climate and energy action plan in their area of influence. They are also encouraged to define long-term vision actions towards a sustainable future based on the pillars of climate change mitigation and adaptation, and sustainable, affordable, and secure access to energy. CoM SSA is open to any city in sub-Saharan Africa, regardless of the size. In order to translate the political commitment into practical measures, CoM SSA signatories commit to producing and implementing a strategic and operational document called the Sustainable Energy Access and Climate Action Plan (SEACAP).

1.2 Sustainable Energy Access and Climate Action Plan (SEACAP)

The Sustainable Energy Access and Climate Action Plan (SEACAP) is the key document that sets the strategies, plans, and actions for a sustainable and low greenhouse gas (GHG) emission development pathway, while including climate adaptation actions and ensuring access to secure, affordable and sustainable energy, in response to the current and future impacts of climate change in the region. The SEACAP is both a strategic and an operational document. It uses the results of the Baseline Emissions Inventory (BEI) to identify the best fields of action and opportunities for reaching the local authority's greenhouse gas (GHG) emission reduction targets. It is based on the climate change Risk and Vulnerability Assessment (RVA), which identifies the city's most relevant climate hazards and vulnerabilities. It also includes an Access to Energy Assessment, which articulates a plan to improve the access to secure, sustainable, affordable and reliable energy. The SEACAP defines concrete measures for climate mitigation, adaptation and access to sustainable energy, with timeframes and assigned responsibilities, translating the long-term strategy into action.

1.3 Phases of the SEACAP development within the Adaptation pillar

The Adaptation Pillar of the SEACAP development involves four phases:

i. **Initiation phase** – Activities in this phase include the identification of national action plans on adaptation, mobilising and engaging stakeholders, and affirming political commitment to the SEACAP development from the heads of the municipality and the national government.

ii. **Planning phase** – This phase includes pre-assessment and development stages. Thus, it involves developing a Risk and Vulnerability Assessment (RVA) which highlights the climate hazards that affect a local government and indicates the sectors and population groups within that city most heavily impacted by climate hazards. The RVA offers an opportunity for local government authorities to obtain data specific to the local government, thus increasing awareness of the current status and providing a premise for further action to improve the status quo. After the development of the RVA, targets are set for each sector particularly vulnerable to climate change, and thereafter actions are set to achieve these targets.

iii. **Implementation phase** – This phase involves delivering practical actions, starting with the ones identified as priority in the planning phase. All the information necessary to implement these actions is collected, funding is secured (either internally or from external sources) and a project management approach is adopted – including deadline control, financial control, planning and risk management.

iv. **Monitoring and Reporting phase** – This phase involves reviewing progress and re-adjusting priorities. The proposed actions are monitored to ensure that the targets are achieved in this phase. Specific procedures and processes for each of the actions are confirmed, while maintaining constant communication with the stakeholders throughout. On a regular basis, progress is assessed and priorities are adjusted as needed to fit the current situation. A progress report is submitted every second year after the SEACAP was developed, for monitoring and evaluation.

This document constitutes the Adaptation Action Planning Report, the action planning component of the Adaptation Pillar for Nakuru County, Kenya.

1.4 Purpose of action planning

The action planning phase is the final stage in the process of developing a SEACAP. The actions identified under each pillar are intended not only to help the city achieve the targets set for each sector, but more broadly to implement actions within the city to help it become more climate resilient and improve its access to energy.

2. Summary of the RVA

Nakuru County covers 7,498.8 km^2 inland area and is located in the Rift Valley in the east of Kenya. The county is administratively divided into 11 subcounties and 55 wards (KNBS, 2019). Approximately 54.2% of the people in Nakuru live in rural areas, whilst 45.8% live in urban areas. According to the 2019 National Population and Housing Census, the county's population is approximately 2.16 million, with 1.077 million male, 1.084 million female, and 95 intersex. The population growth rate is approximately 3% per year (Nakuru County, 2021), with individuals aged 18–35 representing approximately 33% of the population (KNBS, 2019).

The county's Gross Domestic Product (GDP) for 2019 was estimated at KES 613 billion (at time of writing, this equated to approximately USD 5.7 billion), accounting for 6.9% of Kenya's GDP (KNBS, 2019). About 29.1% of the population lives under the poverty line of USD 2 a day, which is slightly below the national poverty level of 36.1% (KIPRA, 2019). The main economic activities within Nakuru County are agribusiness, financial services, geothermal power generation and tourism (CIDP 2018–2022). The county's economy is mostly built around agriculture, which accounts for approximately 60% of total economic activity (Nakuru County, 2020).

Nakuru County has approximately 68,000 hectares of gazetted forests as well as three national parks: Lake Nakuru, Hells Gate, and Longonot. The county also has a number of private wildlife conservancies with large flocks of birds (notably flamingos), as well as endangered rhinoceros, Rothschild's giraffe and hippopotamus among other wild mammalian species.

The county experiences a bimodal rainfall pattern, receiving heavy rainfall from March to June and low rainfall from September to November. On average, dry spells are longer around the second wet season ranging from 35 to 80 days in any given year. Around the first wet season, the dry spell ranges between 25 and 60 consecutive days every year. Extreme precipitation and flood risks are moderate in both seasons, even though relatively higher in the first season.

The objective of the Nakuru County Risk and Vulnerability Assessment (RVA) was to identify the most significant **climate hazards** currently affecting the county and to understand which **key sectors** and **population groups** in the county are most affected by these hazards. The RVA also aimed to assess how these hazards are likely to change in intensity, frequency and timescale in the future as a result of climate change.

Based on data from two participatory workshops, a household survey, interviews with key stakeholders and a literature review, the RVA found that Nakuru County is already facing several climate hazards, the most severe being **drought**, **rainstorms**, **flash/surface floods**, **river floods**, and **waterborne diseases**. These results are aligned with the hazards described in the Nakuru County Climate Change Action Plan (2018) (NCCCAP) which include increasing frequency of droughts, heavy rains, flooding and waterborne diseases as hazards which affect the county.

The RVA found that these hazards are likely to intensify with climate change, as temperatures are projected to rise in the county and rainfall is likely to become more erratic (Climate Information Platform (CIP): Nakuru Meteorological Station). Current and future impacts of these hazards on the population of Nakuru County include: increase in **crop failure**, **malnutrition**, **fluctuation in the water levels of rivers and lakes**, **depletion of aquifers**, **soil erosion and degradation**, **water pollution**, **loss of biodiversity**, **and destruction of infrastructure such as roads**.

The sectors identified by the RVA as being the most affected by current and future climate hazards are: (i) **environment**, **biodiversity and forestry**; (ii) **water supply and sanitation**; (iii) **land use planning**; and (iv) **food and agriculture**. The NCCCAP (2018) similarly states **that agriculture**, **livestock and fisheries**; **water**; **wildlife and tourism; forestry**; **transport and infrastructure; health**; **energy**; **mining; and manufacturing and trade** are considered key sectors to prioritise when promoting a transition to a low-carbon, climate-resilient economy and livelihoods. The National Adaptation Plan (2015) (NAP) also identified the **agriculture and livestock**, **water**, **infrastructure**, **sustainable livelihoods**, **energy**, **and tourism sectors** as priority sectors for which adaptation actions are needed.

The RVA indicated that the most vulnerable groups to climate hazards in Nakuru County are **women and girls** and **low-income households**. This is partly aligned with the NCCCAP (2018) which highlights the need to focus adaptation actions **on indigenous communities**, **women**, **children**, **the elderly**, **youth**, **and the disabled**, among other groups, as these are already — and are likely to be in the future — the most vulnerable groups to climate hazards such as droughts and floods in Nakuru County.

The RVA found that factors that could support the adaptive capacity of Nakuru in the future include: agricultural and livestock insurance and safety net schemes; improved technology to handle post-harvest losses; mainstreaming and promotion of climate-smart agriculture and livestock development; improved communication systems related to climate-smart agriculture extension and agroecological issues; domestication of the National Water Master Plan to ensure dams, dykes, lakes, and rivers are protected; and improvement in public awareness of climate health risks.

Finally, the RVA found that factors that could challenge the adaptive capacity of Nakuru include: conflict over land-use policies in the agriculture-livestock sectors; increased demand for water in other sectors and an increasing human population; incoherent and insensitive policies to deal with the over-abstraction of water and other water management issues; limited data on the current and future water situation; overexploitation of wildlife habitats due to the absence of laws to support wildlife benefits to the population; loss of indigenous forest knowledge and practices that protected certain areas for community benefits; and insufficient funds to support research on climate-related diseases – especially those in the tropics – hence, increased endemism.

3. Summary of the Adaptation Target Report

The purpose of this report was to define a long-term, overarching, climate change adaptation vision, prioritise sectors on which to focus adaptation actions, and set sector-specific targets for each of these priority sectors.

Following the completion and validation of the Nakuru County RVA, consultations with stakeholders were held to prioritise sectors to focus on, set an overarching adaptation vision, and sector-specific targets for the key sectors. The consultations took the form of a hybrid participatory and virtual workshop, held on 15 June 2021 and involving 33 participants, 23 of whom attended in person and 10 of whom attended virtually. Participants represented sectors and departments within Nakuru County government, including health, resource mobilisation, water and sanitation, tourism, roads, transport and public works, among others. To meet the goals of the workshop, both presentations and focused group discussions were held. The workshop allowed for a co-development process when establishing the overarching vision and setting targets. After the workshop, a validation meeting was held on 14 September 2021 with high-level representatives of the relevant sector departments in the Nakuru County Government. During this meeting, further inputs were gathered, minor adjustments were made to the targets, and the overarching vision and targets were validated by the county. The vision and targets adopted during this process are aligned with national and local policies and strategies, including the NDC.

3.1 Existing mandates in Kenya and Nakuru County relating to climate change adaptation

According to the RVA, there are several pieces of legislation which should guide climate change adaptation target setting at the county level. An overview of the most relevant national and local policies, plans and mandates that address climate change adaptation is provided below (**Table 1:** National-level policy and regulatory framework and **Table 2:** County-level policy and regulatory framework).

Table 1: National-level policy and regulatory framework

Policy documents	Adaptation provisions
Nationally Determined Contribution (NDC), 2020	The updated NDC sets out the mitigation and adaptation contribution of mainstreaming mitigation and adaptation into Medium Term Plans and implementing mitigation and adaptation actions. In the NDC, Kenya commits to : • Enhance the adaptive capacity and climate resilience across all the sectors of the economy and the two levels of government – national and county governments; • Explore innovative livelihood strategies for enhancing climate resilience of local communities through financing of locally led climate change actions; • Enhance the risk-based approach to climate change adaptation through the development and application of comprehensive climate risk management tools that would help in addressing and adaptively managing climate risks; • Address residual climate change impacts, loss and damage especially in the productive sectors of the economy; • Enhance generation, packaging and widespread uptake and use of climate information on decision making and planning across sectors and counties with robust early warning systems (EWS); • Enhance uptake of adaptation technology especially by women, youth and other vulnerable groups, incorporating scientific and indigenous knowledge; • Enable institutional strengthening of the CDD, the Climate Change Units and related institutions across sectors and counties as well as non-state actor institutions; and • Strengthen tools for adaptation monitoring evaluation and learning (MEL) at the national and county levels, including non-state actors.
Kenya National Adaptation Plan (NAP) 2015–2030	• The 2016 NAP is designed to operationalise the NCCAP (2013-2017) and support adaptation strategies in the country. The NAP forms the basis for the adaptation component of Kenya's first NDC.
2nd National Climate Change Action Plan (NCCAP) 2018–2022	• The NCCAP guides Kenya on the priority adaptation and mitigation climate change actions that help define Kenya's low-carbon, climate-resilient development pathway and lead to the achievement of Kenya's NDC targets. • Counties will align their Strategic Plans and County Integrated Development Plans (CIDPs) to the Vision 2030 national development blueprint, the MTP III, and the NCCAP 2018-2022 through a consultative process.

Policy documents	Adaptation provisions
Vision 2030, 2008	• Under the social strategy, Kenya aims to be a nation that has a clean, secure, and sustainable environment by 2030 by harmonising environment-related laws for better environmental planning and governance. • Kenya will also enhance disaster preparedness in all disaster-prone areas and improve the capacity for adaptation to climate change.
Vision 2030' Third Medium Term Plan (MTP) 2018–2022	Thematic area: Climate Change and Disaster Risk Management (DRM). • To mitigate drought, the government will strengthen the Integrated Early Warning Systems and National Drought Emergency Fund. • The government will promote low-carbon, climate-resilient and green growth development. • This will be achieved through strengthening climate change governance and coordination, climate change monitoring, reporting and verification, capacity building and public awareness, and formulation and implementation of the Green Economy Strategy and the National Climate Change Action Plan.
Climate Change Act, 2016	• The Act provides a framework for mainstreaming climate change across sectors. • It facilitates the formulation of a five-year National Climate Change Action Plan (NCCAP) that addresses all sectors of the economy and provides mechanisms for mainstreaming climate change into all sectors and the County Integrated Development Plans (CIDPs). • It provides mechanisms for mainstreaming climate change into the CIDPs.
National Climate Change Response Strategy, 2010	• Its mission is to strengthen and focus nationwide actions towards climate change adaptation and GHG emission mitigation.
Kenya Climate-Smart Agriculture Strategy (CSA) 2017–2026	• To support adaptation to climate change, build the resilience of agricultural systems while minimising emissions for enhanced food and nutritional security and improved livelihoods. • The strategy was subjected to wider stakeholder consultations that brought together all the 47 counties. • Nakuru County does not have a county CSA strategy. However, the CSA has provision for the County Agriculture Sector Ministries, Departments, and Agencies (MDAs) to spearhead the implementation of the identified strategies in the counties.
Draft Climate Change Policy, 2018	• This policy was developed to facilitate a coordinated, coherent, and effective response to the local, national and global challenges and opportunities that climate change presents.
National Disaster Risk Management Policy, 2018	• The policy lays down strategies for ensuring that the government commits itself to the enhancement of research in disasters and the formulation of risk reduction strategies.
Green Economy Strategy and Implementation Plan 2016–2030	• This strategy is expected to strengthen the resilience of economic, social, and environmental systems to the adverse effects of external shock. • GESIP is linked with the NCCAP 2013–2017, the NAP 2016–2030, and the National Climate Change Act 2016. • Strategies under the thematic area on building resilience: – Promote livelihood diversification for vulnerable communities; and – Enhance disaster risk reduction measures.

Table 2: County-level policy and regulatory framework

Policy documents	Mitigation and adaptation provisions
Draft Nakuru County Climate Change Plan 2018–2022	• Mitigation and adaptation • Provides the following vision: Nakuru County has a low-carbon, climate-resilient economy that sustains the livelihoods of its citizens while contributing to the national development agenda. • Anticipated to be achieved through eight strategic objectives, namely: – Food security – Water security – Ecosystem conservation for sustainable economic development – Green energy production and use – Climate change resilient infrastructure – Knowledge management and capacity building of community, stakeholders, and county officials – Sustainable financing for climate change action – Governance and coordination of climate change adaptation and mitigation • Highlight the formulation of a vision, mission, and strategic objectives for Nakuru County Climate Change Adaptation Plan.
Second County Integrated Development Plan (CIDP) 2018–2022	• Strategic focus and programme implementation frameworks and support to tackle climate change, provide policy advice and tools.
Nakuru County Climate Change Bill, 2020	• The Nakuru Climate Change Act is aimed at putting in place a framework and mechanisms for mobilisation and facilitation of county government, communities and stakeholders to respond effectively to climate change. The response mechanisms will be through appropriate adaptation and mitigation measures and action.

In addition to the above, the second Nakuru County Integrated Development Plan (CIDP) (2018-2022) has already allocated budget for climate change actions as detailed in Table 3**:** Total budget allocated for climate change actions in the Nakuru CIDP (2018–2022) below.

Table 3: Total budget allocated for climate change actions in the Nakuru CIDP (2018–2022)

Subprogramme	Key output	Key Performance Indicators (KPIs)	Total budget (KES)
Promotion of climate-smart agriculture	Increased adoption of climate change mitigation/adaptation strategies	Number of water pans constructed, greenhouses installed, soil testing kits procured, farmers trained, staff trained, soil samples	10,000,000
Climate change	Increased climate change resilience	Climate Change Action Plan in place	5,000,000
	Updated climate information	Percentage implementation of the Climate Change Action Plan	
	Climate and weather information disseminated	No. of Automatic Weather Stations (AWS) established and operationalised	65,000,000
		RANET community radio stations established	
	1 million-plus trees grown per year, increased forest cover	No. of trees grown % increase in forest cover Sustained water sources	500,000,000

3.2 Overarching climate change adaptation vision

According to the SEACAP development guidelines developed by the JRC, local authorities are required to establish a long-term vision which indicates the direction that the city wishes to follow. Setting a long-term vision is considered a key success factor of SEACAPs as it clearly shows the local authority's political commitment and gives a strong message to citizens and stakeholders on how the local authority wants to develop in the future, paving the way for more substantial investment in sustainable infrastructure. An overarching adaptation vision is one statement that captures the direction the county would like to take in terms of adaptation. It is set for the same year outlined in the Nationally Determined Contribution (2020) – in this case, 2030 – and is aligned with the intention of Kenya's NDC and National Adaptation Plan (2015) as well as the Nakuru County Climate Change Action Plan (2018). The visions/goals outlined in the NDC, NAP and NCCCAP are indicated below:

i. At the national level, Kenya's updated Nationally Determined Contribution (2020) (NDC) sets out the country's actions towards achieving the global goals outlined in the Paris Agreement. The adaptation vision outlined in Kenya's NDC is as follows: *"Kenya aims to ensure a climate resilient society. This is to be achieved through mainstreaming climate change adaptation into the Medium-Term Plans (MTPs) and County Integrated Development Plans (CIDPs) and implementing adaptation actions. Subject to national circumstances, Kenya intends to mobilise domestic resources to cater for 10% of the adaptation cost, while 90% of the adaptation cost will require international support in the form of finance, technology development and transfer, and capacity building."*

ii. The vision outlined in Kenya's National Adaptation Plan (2015) is *"Enhanced climate resilience towards the attainment of Vision 2030"*. Enhanced climate resilience includes strong economic growth, resilient ecosystems, and sustainable livelihoods for Kenyans. It will also result in reduced climate-induced loss and damage, mainstreamed disaster risk reduction approaches in various sectors, reduced costs of humanitarian aid, and improved knowledge and learning for adaptation and the future protection of the country.

iii. At the county level, and aligned with these national ambitions and commitments, the Nakuru County Climate Change Action Plan (2018–2022), outlines the following vision: *"Nakuru County has a low-carbon, climate-resilient economy that sustains the livelihoods of its citizens while contributing to the national development agenda"*.

The above vision statements were presented to participants at the Adaptation Vision and Target-setting Workshop and discussions were had around a set of visions proposed by participants. Consensus was reached and the overarching adaptation vision for Nakuru County (base year 2021) was adopted, to read as follows:

"A climate resilient county with sustainable ecosystems and livelihoods by the year 2030"

This vision, which was formulated by workshop participants and subsequently validated by high-level representatives of the Nakuru County Government, represents the desired future state of Nakuru County and its local government with respect to resilience to the impacts of climate change. The sector-specific adaptation targets presented in Section 3.3 below collectively contribute to this overarching vision. The base year for implementation of this adaptation vision is 2021 and the year to achieve this vision is 2030, aligned with Kenya's NDC target date.

3.3 Prioritised sector targets

According to the SEACAP development guidelines of the JRC, once the overarching vision for the pillar is established, it is necessary to translate this into more specific targets for the different sectors under each pillar in which the local authority intends to take action. The sector targets should follow the principles of the SMART acronym: Specific, Measurable, Achievable, Realistic, and Time-bound.

Prior to setting adaptation targets for key sectors, it was necessary to identify the sectors that are considered a priority and key for setting targets and adaptation actions, in order to be most effective in building resilience to the impacts of climate change in the county. As noted above, the sectors identified through the development of the RVA as being the most affected by current and future climate hazards are environment, biodiversity and forestry; water supply and sanitation; land use planning; and food and agriculture. The NCCCAP (2018) similarly states that agriculture, livestock and fisheries; water; wildlife and tourism; forestry; transport and infrastructure; health; energy; mining; and manufacturing and trade are considered key sectors to prioritise when promoting a transition to a low-carbon and climate-resilient economy and livelihoods. The National Adaptation Plan (2015) also identified the agriculture and livestock; water; infrastructure; sustainable livelihoods; energy and tourism sectors as priority sectors for which adaptation actions are needed. By combining the results of the RVA, NAP (2015) and NCCCAP (2018), workshop participants agreed that **agriculture**, **livestock and fisheries**; **water**; **forestry**; and **tourism** should be prioritised to set targets and adaptation actions for.

The targets for each key sector were set by workshop participants, and subsequently discussed in a validation meeting with high-level representatives of the relevant sector departments in the Nakuru County Government. The final agreed-upon sectoral targets are presented below.

3.3.1 Agriculture, livestock and fisheries sector target

By 2030, ensure that at least 70% of crop, livestock and fishery farmers and other stakeholders are using climate-resilient practices including water-harvesting techniques and nature-based enterprises (e.g. agroforestry)

This target is well aligned with the targets for the agriculture sector in Kenya's updated NDC (2020), specifically: *"Build resilience of the agriculture systems through sustainable management of land, soil, water and other natural resources"* and *"Mainstream climate-smart agriculture towards increased productivity"*. It is also aligned with the target *"Increase food, nutrition, and income security through enhanced productivity and resilience of agricultural systems and value chains"* in the NCCAP Volume II, ATAR (2018). Finally, this target is aligned with the goal of *"Enhanced food security"* in the NCCCAP (2018).

3.3.2 Water sector target

During the target validation meeting, it was decided that two targets would be more appropriate for the water sector, as access to clean water (or water supply) and sanitation are two distinct services that require different actions in order to achieve the targets. These two targets are outlined below:

Access to clean water target:

By 2030, increase access to clean water to 80% of the population

Currently, the county has 66% coverage of clean water supply, thus 80% was considered by workshop participants to be a realistic target to achieve by 2030. This was further supported in the subsequent validation meeting where it was noted that coverage of clean water supply in Nakuru County increases by an average of 5% annually. This target is aligned with the goal of *"Enhanced water security"* in the NCCCAP (2018) and the target *"Enhance the resilience of the water resources by ensuring adequate access to, and efficient use of, water for agriculture, manufacturing, domestic, wildlife, and other uses"* in the NCCAP Volume II, ATAR (2018). It is also in line with the objective in the NDC relating to improved water storage, as improved storage will improve access to clean water for the population.

Sanitation target:

By 2030, increase access to sanitation to 100% of the population

Current access to improved sanitation[1] in Nakuru County is relatively low. Only about 25% of Nakuru County's two million inhabitants have access to improved sanitation; 30% use shared sanitation facilities and 42% use unimproved sanitation facilities (Nakuru County Government, 2019). Despite this, the vision in the Nakuru Countywide Sanitation Strategy (2019) is for universal access to sanitation to be achieved by 2030. This aligns with the national target in the National Water Master Plan 2030 of *"Increase coverage rate of improved sanitation to 100% (improve sanitation by sewerage system and on-site treatment facilities)".* Therefore, the SEACAP target to increase access to sanitation to 100% of Nakuru County's population is aligned with existing local and national targets.

3.3.3 Forestry sector target

By 2030, increase tree cover in Nakuru County to 75,000 ha

The county currently has approximately 68,000 ha of gazetted forests (currently 9% of total land cover in the county). The target adopted by the county represents an increase to 10% of total land cover, which directly aligns with the national target to increase forest/tree cover to at least 10% on public, private and community lands, as stated in the NCCAP Volume II, ATAR (2018) and the National Forest Programme 2016–2030.

3.3.4 Tourism sector target

By 2030, ensure that the Nakuru County tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations

This target is aligned with the targets for the tourism sector in Kenya's updated NDC (2020), specifically: *"Develop climate-resilient action plans for the sector"*, as well as the targets of *"Enhance the resilience of tourist attractions and tourism infrastructure"* and *"Enhance the resilience of wildlife, habitats and ecosystems that sustain wildlife"* in the NCCAP Volume II, ATAR (2018). It is also aligned with the goal of *"Ecosystem conservation for sustainable economic development"* in the NCCCAP (2018).

[1] An improved sanitation facility is one that hygienically separates human excreta from human contact. They include: flush/pour flush to pipe sewer system, septic tank, pit latrine; ventilated improved pit latrines; pit latrine with a slab; composting toilet (Source: JMP 2015 for MDG monitoring).

4. Methodology for the development of the Nakuru County Climate Change Adaptation Action Planning Report

This section briefly describes the methodology followed to gather the necessary information to develop adaptation actions to achieve each of the targets formulated for the four key sectors (agriculture, fisheries and livestock; water; tourism; and forestry), as presented in the previous section.

A technical hybrid workshop was held on 22 September 2021, with 29 participants attending in person. Participants were from various sectors and departments within the Nakuru County Government, non-governmental organisations and universities, and have been involved since the beginning of the SEACAP development process. Represented sectors included: health; agriculture, livestock and fisheries; environment; water and sewerage; tourism; education; gender; and culture. To meet the goals of the workshop, reference material was provided to participants, and presentations and focused group discussions were held. During the workshop, participants were showed a recap presentation on climate change adaptation, the main relevant findings of the Nakuru County Risk and Vulnerability Assessment (RVA), and the outcomes of the Adaptation Vision and Target Setting Workshop held on 15 June 2021. Participants were then introduced to the purpose of the workshop – adaptation action planning. They were informed that they would be developing a set of achievable, realistic actions that would contribute to achieving the sectoral targets set in the previous step of the process, and that are aligned with existing adaptation plans at the national and county level. Participants were reminded to refer back to the results of the RVA – specifically the climate hazards identified as being most relevant to Nakuru County, and the population groups identified as being most vulnerable to climate change in Nakuru County – to inform their action development.

The participants were grouped according to the four key sectors and were provided with a list of existing adaptation actions sourced from the NCCCAP (2018) (county level) and the NCCAP (2018) (national level). The list of actions was specific to each group (i.e. aligned with the different sectors) and served to inform participants of the existing adaptation actions planned at the national level, and for the county specifically in order to guide them in their action development. The workshop's three activities (see below) were then undertaken by participants, followed by plenary discussions to validate the activity results.

Activity 1: Formulating adaptation actions where participants were asked to formulate three actions per key sector target that each directly respond to the corresponding sector target. The actions were to be accompanied by: (1) an action title; (2) a short description; and (3) the climate hazard/s addressed by the action.

Activity 2: Evaluating/prioritising adaptation actions (with criteria) where participants were asked to provide information for each action according to different criteria including co-benefits, synergies, trade-offs and technical, political and financial feasibility of the actions. These criteria then informed which action was considered a priority action for each sector target.

Activity 3: Detailing priority actions where participants completed detailed action sheets for each priority action in their groups.

As the workshop proceeded, adjustments were made to some actions based on feedback from the facilitators and other group members. In addition, after the workshop, a smaller group of high-level representatives from relevant sector departments in the Nakuru County Government were engaged in a validation meeting on 18 November 2021 to further refine action titles and descriptions and develop further details for each of the adaptation actions considered most relevant and feasible for the county.

5. Adaptation actions for Nakuru County

During the participatory workshop of 22 September 2021, participants identified 15 adaptation actions to contribute to meeting the adaptation sector targets, as presented in **Table 4:** Adaptation action titles, descriptions, and climate hazard/s addressed.

Table 4: Adaptation action titles, descriptions, and climate hazard/s addressed

ACTION NUMBER	ACTION TITLE	DESCRIPTION OF THE ACTION	CLIMATE HAZARD ADDRESSED
SECTOR:	**Agriculture, Livestock and Fisheries**		
SECTOR TARGET:	**By 2030, ensure that at least 70% of crop, livestock and fishery farmers and other stakeholders are using climate-resilient practices including water-harvesting techniques and nature-based enterprises (e.g. agroforestry)**		
1	Desilt 60 water pans and construct 25 new water pans in Naivasha and Rongai subcounties by 2030 to promote water harvesting, conservation and utilisation for domestic and agricultural use in Nakuru County	Currently, there are 95 private and public water pans in Nakuru County, 60 of which require desilting in order to function effectively. In addition, 25 more water pans with a volume of 30,000 m^3 should be installed in Naivasha and Rongai subcounties by 2030. This action will promote water harvesting, water storage and efficient utilisation for domestic and agricultural use. It will help to ensure that at least 70% of farmers are practising water-harvesting techniques, thereby increasing food security.	• Drought • Flash/surface floods • River floods • Rainstorms
2	Train 70% of smallholder farmers and pastoralists in Nakuru County on how to adopt appropriate technologies in fodder production and animal husbandry by 2030	This action aims to build technical capacity of smallholder farmers and pastoralists in Nakuru County to adopt and implement appropriate technologies in fodder production, such as hydroponics; breeding and selection technologies, and animal husbandry, such as AI services and embryo transplants by 2030. Farmers should be trained on feed conservatism, and drought-tolerant pastures and fodder should be introduced. This action will ensure that at least 70% of farmers are adopting these technologies.	• Drought • Disease
3	Train 70% of fish farmers in Nakuru County on how to adopt sustainable modern fish farming technologies by 2030	Climate change has resulted in drought, forcing a shift in fish farming in Nakuru County from traditional fish farming to climate smart methods. Aquaponic systems use 90% less water than traditional farming methods. The action will empower youth, women and other vulnerable groups to adopt sustainable modern fish farming technologies such as recirculating aquaculture systems and adoption of aquaponic systems in Nakuru County by 2030. In addition, there should be distribution of fingerlings, fish feeds and liners for demos. This action will ensure that 70% of fish farmers are adopting and practising these systems for water conservation and food security.	• Drought

ACTION NUMBER	ACTION TITLE	DESCRIPTION OF THE ACTION	CLIMATE HAZARD ADDRESSED
SECTOR:	**WATER**		
SECTOR TARGET:	**By 2030, increase access to clean water to 80% of the population**		
4	Map all community water sources in Nakuru County by 2030, including springs, boreholes, pans, dams and shallow wells	Currently, Nakuru County has 66% coverage of clean water supply, with this figure increasing by roughly 5% per year. In the Rift Valley Catchment Area, which includes the Nakuru area, around 32% of the population is estimated to get their water from springs, wells or boreholes, some of which are unprotected and are categorised as unimproved drinking water sources (Kenya National Water Master Plan 2030). This action aims to contribute towards increasing annual per capita clean water availability to 80% of the population by 2030. This will be achieved through the construction and maintenance of safe water storage containers, protection of the water catchment areas and community water sources, and enforcement of the Nakuru County Public Health and Sanitation Act on access to clean water and other regulations. The action will also ensure that spatial planning of wetlands and water catchments will take place to facilitate planning and implementation. The County Government of Nakuru have an ongoing waterworks programme which has begun the mapping process using GIS to understand where water sources are located in different catchments, how the water sources are being used, and whether they are being depleted. This action will contribute to this programme by ensuring all community water sources are mapped and protected by 2030 to ensure availability of water sources for future use. There will be close coordination between the Water Resources Authority, county-level water utilities, water resource users associations, Ministry of Water, and County Department of Water Resources.	• Drought • Waterborne diseases
5	Reduce water losses by 15% by 2030 through replacement of existing dilapidated water infrastructure with advanced technologies including HDPE pipes and smart meters	Currently, high water wastage in Nakuru County is as a result of physical losses from dilapidated water infrastructure, apparent losses from illegal connections and vandalism by households. To reduce this, replacement of the dilapidated infrastructure and support should take place, and the capacity of communities must be strengthened to reduce illegal water use. This action will result in the reduction of water losses by 15% by 2030.	• Drought • Waterborne diseases

ACTION NUMBER	ACTION TITLE	DESCRIPTION OF THE ACTION	CLIMATE HAZARD ADDRESSED
SECTOR:	**WATER**		
SECTOR TARGET:	**By 2030, increase access to clean water to 80% of the population**		
6	Introduce water filters and water treatment tablets to 80% of the population by 2030 to improve access to safe water storage and treatment methods	In the Rift Valley Catchment Area, which includes the Nakuru area, around 40% of the population is estimated to get their water from unimproved drinking water sources that have not been properly treated. This results in high incidences of preventable waterborne diseases. This action will ensure that households in Nakuru County have access to safe water storage and treatment methods and will reduce the spread of waterborne diseases.	• Drought • Waterborne diseases
SECTOR TARGET:	**By 2030, increase access to sanitation to 100% of the population**		
7	Establish at least five new sewage/decentralised treatment facilities in major urban and peri-urban areas in Gilgil, Subukia, Njoro, Elburgon and Bahati by 2030	Currently, the sanitation system is old and dilapidated and inadequate for the current population, resulting in frequent blocks and leakages. There are also a limited number of off-site treatment facilities - there are four small-scale wastewater treatment plants in Nakuru, Naivasha, and Molo - and only around 10% of the urban population is covered by sewerage systems. This action would result in the construction of at least five simplified sewer systems and the connection of households to the main sewer system. In addition, the capacities of existing wastewater treatment plants should be enhanced.	• Waterborne diseases
8	Support all rural villages in Nakuru County with achieving "Open Defecation Free (ODF)" status by 2030, including follow-ups, claims, verification, certification and celebration of ODF villages	As of 2019, only 29.7% and 21% of the urban and rural populations in Nakuru County respectively use improved sanitation facilities, with sewerage coverage estimated at only 3.4%. Around 1.8% of Nakuru County's population still defecates in the open. As a result, water- and sanitation-related diseases such as diarrhoea and cholera continue to pose a great challenge to the county. Indeed, waterborne diseases are ranked among the top five diseases in Nakuru County. The county has so far achieved the certification of 507 villages as Open Defecation Free (ODF), with 1,484 villages remaining. This action will upscale the number of villages achieving ODF status, aiming to increase access to sanitation to 100% of the population by 2030. This will improve hygiene standards, enhance social dignity and reduce the economic burden in accessing healthcare by reducing the prevalence of waterborne diseases.	• Waterborne diseases

ACTION NUMBER	ACTION TITLE	DESCRIPTION OF THE ACTION	CLIMATE HAZARD ADDRESSED
SECTOR:	**WATER**		
SECTOR TARGET:	**By 2030, increase access to sanitation to 100% of the population**		
9	Train communities and WASH service providers on improved hygiene and sanitation practices, including the formation of Community Led Total Sanitation (CLTS) and ODF committees from village, wards and subcounty levels, so as to ensure sustainability of ODF villages	Currently, the management of sanitation is unequal and exclusive, and poor hygiene behaviours around sanitation exist in many communities. To address this, community members and WASH service providers will be trained under this action on improved hygiene and sanitation practices. Women and girls will be specifically targeted for this action, as they are typically the primary home caregivers.	• Waterborne diseases
SECTOR:	**FORESTRY**		
SECTOR TARGET:	**By 2030, increase tree cover in Nakuru Country to 75,000 ha**		
10	Reduce deforestation and forest degradation by introducing alternative energy sources to households in Nakuru County	According to the Kenya National Bureau of Statistics (KNBS) 2019 report, the highest energy consumption by the residents of Nakuru County is through the use of firewood and charcoal. This has resulted in forest deforestation and degradation in Nakuru County. To address these problems, this action will look to introduce alternative energy sources (solar, biogas, energy saving jikos, charcoal briquettes) while promoting the participation of the youth, women and Indigenous communities in ecosystem conservation.	• Drought • Flash/surface floods • Rainstorms
11	Restore degraded landscapes in riparian habitats and water catchment areas in Nakuru County using indigenous vegetation	The current tree cover in Nakuru County stands at 9% of total land cover, with the woodland and farmland constituting the largest percentage of degraded landscapes. To increase tree cover in Nakuru County to 10% of total land cover by 2030, this action will involve the restoration of degraded landscapes including riparian habitats and water catchment areas by engaging vulnerable groups (including youth, women and Indigenous communities) in habitat restoration.	• Drought • Flash/surface floods • Rainstorms

ACTION NUMBER	ACTION TITLE	DESCRIPTION OF THE ACTION	CLIMATE HAZARD ADDRESSED
SECTOR:	**FORESTRY**		
SECTOR TARGET:	**By 2030, increase tree cover in Nakuru Country to 75,000 ha**		
12	Rehabilitate open public green spaces in Nyayo Garden, Lion Garden, Naivasha People's Park and others, and reforest areas in gazetted forests with a focus on indigenous trees and the restoration of indigenous ecosystems	Kenya's target at the national and local level is to increase forest/tree cover to at least 10% of total land cover on public, private and community lands by 2030. The current area under tree cover in Nakuru County is approximately 69,000 ha (9% of total land cover), therefore, the target of 10% tree cover by 2030 amounts to 75,000 ha (an increase of 6,000 ha). There is additionally a goal in Nakuru County to plant at least 2 million trees per year until 2030 in forest and green spaces, including efforts across departments (environment, forestry, agriculture, etc.). To attain this target, this action will undertake afforestation and reforestation activities within the farmlands and the promotion of natural regeneration techniques within degraded landscapes by 2030. Open public places to be rehabilitated include green spaces such as: Nyayo Garden, Lion Garden, Naivasha People's Park and the Park opposite Statehouse, road reserves, schools and institutions, abandoned quarries, mountainous areas and riparian areas. The action would also include reforestation of gazetted forests, e.g. Eastern Mau (Kiptunga, Mariashoni, Likia, Logoman, Naisuet, Sururs), Menengai, Bahati and Dondori. This reforestation will be undertaken using indigenous trees and will focus on the restoration of indigenous ecosystems. It should also incorporate GIS mapping of trees planted and the monitoring of tree survival and improvement of care of trees after planting for at least three years.	• Drought • Flash/surface floods • Rainstorms
SECTOR:	**TOURISM**		
SECTOR TARGET:	**By 2030, ensure that the Nakuru Country tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations**		
13	Map all wildlife corridors in Nakuru County using GIS, and gazette at least one wildlife corridor by 2030	The tourism sector frequently uses mapping to promote destinations, local attractions and marketing. Through this action, all wildlife corridors in Nakuru County will be mapped using GIS, which will facilitate better planning and will enhance the commercial tourism opportunities for local communities. Gazetting of wildlife corridors will also assist in conservation of wildlife habitats, ensuring wildlife will persist in these areas and continue to attract tourists, for example in Lake Solai.	• Drought

ACTION NUMBER	ACTION TITLE	DESCRIPTION OF THE ACTION	CLIMATE HAZARD ADDRESSED
SECTOR:	**TOURISM**		
SECTOR TARGET:	**By 2030, ensure that the Nakuru Country tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations**		
14	Conduct sensitisation and capacity-building on sustainable tourism activities with vulnerable groups (including youth, women and Indigenous communities) across Nakuru County's 55 wards by 2030	Most tourism destinations in Nakuru County are starting to adopt sustainable practices. For example: • Lake Solai: bird conservation, fishing and boat-riding, hiking • Lake Naivasha: bird sanctuary, snake conversation, fishing and boat-riding (existing) • Hells Gate National Park: hiking, biking, mountain climbing, game drives, conservation of indigenous species (birds, and other animals) • Lake Nakuru: game drives, conservation including of species such as flamingos, rhinos, lions, etc., boat-riding, clean-up activities by communities, sensitisation of community is ongoing (including on human-wildlife conflict) In these destinations, this action will build on what's already happening, supporting the expansion of eco-tourism activities and the addition of others. Where destinations are still in the early stages of adopting sustainable tourism practices, the action would help them to start the process of sustainable tourism, based on what has been done elsewhere. Further identified activities in these areas include: • Lake Solai: prioritising the blue economy • Lake Naivasha: prioritising the blue economy • Hells Gate National Park: tree planting, beautification, tour guiding, beadwork • Lake Nakuru: removal of invasive species, (including invasive grass, hyacinths) To do this, sensitisation and capacity-building for communities will be done in partnership with the private sector and the Kenya Wildlife Service (KWS). The first step will be sensitisation, training communities on what sustainable tourism is, what makes it sustainable, and what some of the possibilities are. The second step, capacity-building, would then include more direct training or workshopping of skills needed for running eco-tourism activities. There could also be opportunities here for knowledge exchange between communities – those already running small eco-tourism businesses, and those who aren't yet, so that agency and entrepreneurship within the communities is supported. The third step would then be to engage community members in sustainable tourism employment opportunities in partnership with KWS and the private sector.	• Drought • Flooding

ACTION NUMBER	ACTION TITLE	DESCRIPTION OF THE ACTION	CLIMATE HAZARD ADDRESSED
SECTOR:	**TOURISM**		
SECTOR TARGET:	**By 2030, ensure that the Nakuru Country tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations**		
15	Introduce water-harvesting techniques in 80% of Nakuru County's conservation areas by 2030 for wildlife use	Most conservation areas have been affected by the surrounding human activities. Some of the rivers and swamps dry up during the dry seasons due to human activities like irrigation and infrastructural development on riparian lands. Flooding also occurs during the wet seasons. Introducing water-harvesting techniques into 80% of Nakuru County's conservation areas will contribute to providing reliable sources of water for the wildlife conservancies during dry seasons, and will also mitigate waterborne diseases during wet seasons.	• Drought • Waterborne diseases

6. Feasibilities, co-benefits, synergies and trade-offs of adaptation actions

Whilst not mandatory under the JRC Reporting Guideline, each action should ideally be accompanied by a description of its co-benefits and an overview on whether the actions have synergies with the other pillars (Mitigation and Access to Energy). Describing co-benefits supports local governments with 'making the case' for why actions should be prioritised and implemented in the (unlikely) event that climate change considerations are removed. Detail on synergies of the action with other work that the local government is undertaking or plans and legislation should be included. Detail on potential trade-offs associated with the action should also be included. In addition, an exercise to rank the technical, political and financial feasibility of each action is helpful when assessing which action should be considered a priority action for implementation. **Table 5:** Technical, political and financial feasibility of adaptation actions and **Table 6:** Co-benefits trade-offs and synergies of adaptation actions below show the above information for each action.

Table 5: Technical, political and financial feasibility of adaptation actions

ACTION NUMBER	ACTION TITLE	TECHNICAL FEASIBILITY (RATE 1–3)	POLITICAL FEASIBILITY (RATE 1–3)	FINANCIAL FEASIBLITY (RATE 1–3)	TOTAL (OUT OF 9)
SECTOR:	**AGRICULTURE, LIVESTOCK AND FISHERIES**				
SECTOR TARGET:	**By 2030, ensure that at least 70% of crop, livestock and fishery farmers and other stakeholders are using climate-resilient practices including water-harvesting techniques and nature-based enterprises (e.g. agroforestry)**				
1	Desilt 60 water pans and construct 25 new water pans in Naivasha and Rongai subcounties by 2030 to promote water harvesting, conservation and utilisation for domestic and agricultural use in Nakuru County	3	2	2	7
2	Train 70% of smallholder farmers and pastoralists in Nakuru County on how to adopt appropriate technologies in fodder production and animal husbandry by 2030	3	2	2	7
3	Train 70% of fish farmers in Nakuru County on how to adopt sustainable modern fish farming technologies by 2030	3	2	3	8

ACTION NUMBER	ACTION TITLE	TECHNICAL FEASIBILITY (RATE 1–3)	POLITICAL FEASIBILITY (RATE 1–3)	FINANCIAL FEASIBLITY (RATE 1–3)	TOTAL (OUT OF 9)
SECTOR:	**WATER**				
SECTOR TARGET:	**By 2030, increase access to clean water to 80% of the population**				
4	Map all community water sources in Nakuru County by 2030, including springs, boreholes, pans, dams and shallow wells	3	3	3	9
5	Reduce water losses by 15% by 2030 through replacement of existing dilapidated water infrastructure with advanced technologies including HDPE pipes and smart meters	2	3	2	7
6	Introduce water filters and water treatment tablets to 80% of the population by 2030 to improve access to safe water storage and treatment methods	3	3	3	9
SECTOR TARGET:	**By 2030, increase access to sanitation to 100% of the population**				
7	Establish at least five new sewage/decentralised treatment facilities in major urban and peri-urban areas in Gilgil, Subukia, Njoro, Elburgon and Bahati by 2030	2	3	1	6
8	Support all rural villages in Nakuru County with achieving "Open Defecation Free (ODF)" status by 2030, including follow-ups, claims, verification, certification and celebration of ODF villages	3	3	2	8
9	Train communities and WASH service providers on improved hygiene and sanitation practices, including the formation of Community Led Total Sanitation (CLTS) and ODF committees from village, wards and subcounty levels, so as to ensure sustainability of ODF villages	3	3	2	8

ACTION NUMBER	ACTION TITLE	TECHNICAL FEASIBILITY (RATE 1–3)	POLITICAL FEASIBILITY (RATE 1–3)	FINANCIAL FEASIBLITY (RATE 1–3)	TOTAL (OUT OF 9)
SECTOR:	**FORESTRY**				
SECTOR TARGET:	**By 2030, increase tree cover in Nakuru County to 75,000 ha**				
10	Reduce deforestation and forest degradation by introducing alternative energy sources to households in Nakuru County	3	3	3	9
11	Restore degraded landscapes in riparian habitats and water catchment areas in Nakuru County using indigenous vegetation	3	2	3	8
12	Rehabilitate open public green spaces in Nyayo Garden, Lion Garden, Naivasha People's Park and others, and reforest areas in gazetted forests with a focus on indigenous trees and the restoration of indigenous ecosystems	3	3	2	8
SECTOR:	**TOURISM**				
SECTOR TARGET:	**By 2030, ensure that the Nakuru County tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations**				
13	Map all wildlife corridors in Nakuru County using GIS, and gazette at least one wildlife corridor by 2030	2	2	2	6
14	Conduct sensitisation and capacity-building on sustainable tourism activities with vulnerable groups (including youth, women and Indigenous communities) across Nakuru County's 55 wards by 2030	3	3	2	8
15	Introduce water-harvesting techniques in 80% of Nakuru County's conservation areas by 2030 for wildlife use	2	3	2	7

Table 6: Co-benefits trade-offs and synergies of adaptation actions

ACTION NUMBER	ACTION TITLE	CO-BENEFITS	TRADE-OFFS	SYNERGIES WITH EXISTING POLICIES AND PLANS	ACTION ALSO AFFECTING MITIGATION PILLAR [Y/N]	ACTION ALSO AFFECTING ACCESS TO ENERGY PILLAR [Y/N]	PRIORITY ACTION [Y/N]
SECTOR:	**AGRICULTURE, LIVESTOCK AND FISHERIES**						
SECTOR TARGET:	**By 2030, ensure that at least 70% of crop, livestock and fishery farmers and other stakeholders are using climate-resilient practices including water-harvesting techniques and nature-based enterprises (e.g. agroforestry)**						
1	Desilt 60 water pans and construct 25 new water pans in Naivasha and Rongai subcounties by 2030 to promote water harvesting, conservation and utilisation for domestic and agricultural use in Nakuru County	Improve access to water Improve income Improve food security Mitigate flooding, drought and river floods	None identified	National Climate Change Action Plan (NCCAP, 2018) – *"Promote water harvesting, water storage, soil moisture conservation, climate-smart irrigation infrastructure, and efficient water use"* Nakuru County Climate Change Action Plan (NCCCAP, 2018) – *"Promote innovative water-harvesting techniques"*	N	N	**Y**
2	Train 70% of smallholder farmers and pastoralists in Nakuru County on how to adopt appropriate technologies in fodder production and animal husbandry by 2030	Reduce vulnerability of livestock farmers Improve food security	None identified	NCCCAP (2018) – *"Investing in production and storage of drought-resistant fodder crops"*	N	N	N

ACTION NUMBER	ACTION TITLE	CO-BENEFITS	TRADE-OFFS	SYNERGIES WITH EXISTING POLICIES AND PLANS	ACTION ALSO AFFECTING MITIGATION PILLAR [Y/N]	ACTION ALSO AFFECTING ACCESS TO ENERGY PILLAR [Y/N]	PRIORITY ACTION [Y/N]
SECTOR:	**AGRICULTURE, LIVESTOCK AND FISHERIES**						
SECTOR TARGET:	**By 2030, ensure that at least 70% of crop, livestock and fishery farmers and other stakeholders are using climate-resilient practices including water-harvesting techniques and nature-based enterprises (e.g. agroforestry)**						
3	Train 70% of fish farmers in Nakuru County on how to adopt sustainable modern fish farming technologies by 2030	Increase sense of ownership and empowerment Improve income Increase water conservation Improve food security Increase biodiversity	Initial cost is high Not many crops can be grown in aquaponics High energy consumption	NCCAP (2018) – "Promoting the up-scaling of climate resilient strategies/ technologies in fisheries and, climate-resilient fish species" NCCCAP (2018) – "Adoption of sustainable modern fish farming technologies"	N	N	N
SECTOR:	**WATER**						
SECTOR TARGET:	**By 2030, increase access to clean water to 80% of the population**						
4	Map all community water sources in Nakuru County by 2030, including springs, boreholes, pans, dams and shallow wells	Enhance understanding of water resources Improve water resource management Reduce exploitation of water catchment areas Quantify amount of water available for abstraction	Conflict with communities on reclamation of encroached catchment areas	NCCAP (2018) – *"Climate-proof the construction and maintenance of at least 12 and at most 36 multipurpose dams, small dams, water pans, and in situ water harvesting and storage structures countrywide by June 2023"* NCCCAP (2018) – *"Promote access to safe water for marginalised groups"* Kenya National Water Master Plan 2030 (NWMP) – *"All water resources are managed, regulated and conserved in an effective and efficient manner by involving the stakeholders, guaranteeing sustained access to water and equitable allocation of water while ensuring environmental sustainability"*	N	N	**Y**

ACTION NUMBER	ACTION TITLE	CO-BENEFITS	TRADE-OFFS	SYNERGIES WITH EXISTING POLICIES AND PLANS	ACTION ALSO AFFECTING MITIGATION PILLAR [Y/N]	ACTION ALSO AFFECTING ACCESS TO ENERGY PILLAR [Y/N]	PRIORITY ACTION [Y/N]
SECTOR:	**WATER**						
SECTOR TARGET:	**By 2030, increase access to clean water to 80% of the population**						
5	Reduce water losses by 15% by 2030 through replacement of existing dilapidated water infrastructure with advanced technologies including HDPE pipes and smart meters	Increase revenue for service expansion Increase water supplied Easier access to supplied water	Water supply disruption during implementation	NCCAP (2018) – *"Reduce water wastage and non-revenue water (unbilled and unaccounted for) from the current 43% to 20%, by June 2023"*	N	N	N
6	Introduce water filters and water treatment tablets to 80% of the population by 2030 to improve access to safe water storage and treatment methods.	Increase access to safe water for marginalised groups Reduce the incidence of waterborne diseases	None identified	NCCAP (2018) – *"Increase to 2,000 the number of annual climate-proofed water harvesting/storage infrastructure from 700"*	N	N	N

ACTION NUMBER	ACTION TITLE	CO-BENEFITS	TRADE-OFFS	SYNERGIES WITH EXISTING POLICIES AND PLANS	ACTION ALSO AFFECTING MITIGATION PILLAR [Y/N]	ACTION ALSO AFFECTING ACCESS TO ENERGY PILLAR [Y/N]	PRIORITY ACTION [Y/N]
SECTOR:	**WATER**						
SECTOR TARGET:	**By 2030, increase access to sanitation to 100% of the population**						
7	Establish at least five new sewage/decentralised treatment facilities in major urban and peri-urban areas in Gilgil, Subukia, Njoro, Elburgon and Bahati by 2030	Reduce environmental pollution Improve hygiene standards Increase employment opportunities Reduce incidence of waterborne diseases	Limited land use	NWMP 2030 – *"Increase coverage rate of sewerage system to 80% for urban population"*	N	N	N
8	Support all rural villages in Nakuru County with achieving "Open Defecation Free (ODF)" status by 2030, including follow-ups, claims, verification, certification and celebration of ODF villages	Improve hygiene standards Reduce incidence of waterborne diseases Enhance social dignity Reduce economic burden in accessing healthcare	There might be some expectations for payments/ subsidies	Kenya NWMP 2030 – *"Install improved on-site treatment facilities for remaining population not covered by sewerage systems"* Kenya Environmental Sanitation and Hygiene Policy 2016-2030 – *"aims to make Kenya Open Defecation Free by 2020"*	N	N	**Y**
9	Train communities and WASH service providers on improved hygiene and sanitation practices, including the formation of Community Led Total Sanitation (CLTS) and ODF committees from village, wards and subcounty levels, so as to ensure sustainability of ODF villages	Improve hygiene standards Reduce incidence of waterborne diseases Enhance social dignity	There might be some expectations for payments/ subsidies	Nakuru Countywide Strategic Sanitation Plan – *"Through sanitation marketing, capacity building and political goodwill universal access to sanitation has been achieved, open defecation eliminated and waterborne diseases minimised"*	N	N	N

ACTION NUMBER	ACTION TITLE	CO-BENEFITS	TRADE-OFFS	SYNERGIES WITH EXISTING POLICIES AND PLANS	ACTION ALSO AFFECTING MITIGATION PILLAR [Y/N]	ACTION ALSO AFFECTING ACCESS TO ENERGY PILLAR [Y/N]	PRIORITY ACTION [Y/N]
SECTOR:	**FORESTRY**						
SECTOR TARGET:	**By 2030, increase tree cover in Nakuru Country to 75,000 ha**						
10	Reduce deforestation and forest degradation by introducing alternative energy sources to households in Nakuru County	Reduce CO_2 levels through increased carbon stocks Improve biodiversity Improve human health as a result of no longer breathing in smoke from using wood for energy	Loss of jobs in the timber industry Increase cost of living in regard to the alternative sources of energy	NCCAP (2018) – *"Reduce deforestation and forest degradation, and enhance the protection of an additional 100,000 hectares of forests"*	**Y**	**Y**	N
11	Restore degraded landscapes in riparian habitats and water catchment areas in Nakuru County using indigenous vegetation	Reduce soil erosion Improve aesthetic value Improve biodiversity Improve water quality	Potential for people to be displaced Reduce agricultural/ pastoral land	NCCAP (2018) – *"Restore up to 200,000 hectares of forest on degraded landscapes, especially in ASALs and rangelands"* NCCCAP (2018) – *"Restore degraded landscapes including riparian habitats and water catchment areas."* National Forest Programme 2016–2030 – *"Increase forest /tree cover to at least 10% on public, private and community lands"*	**Y**	N	N

ACTION NUMBER	ACTION TITLE	CO-BENEFITS	TRADE-OFFS	SYNERGIES WITH EXISTING POLICIES AND PLANS	ACTION ALSO AFFECTING MITIGATION PILLAR [Y/N]	ACTION ALSO AFFECTING ACCESS TO ENERGY PILLAR [Y/N]	PRIORITY ACTION [Y/N]
SECTOR:	**FORESTRY**						
SECTOR TARGET:	**By 2030, increase tree cover in Nakuru Country to 75,000 ha**						
12	Rehabilitate open public green spaces in Nyayo Garden, Lion Garden, Naivasha People's Park and others, and reforest areas in gazetted forests with a focus on indigenous trees and the restoration of indigenous ecosystems	Increase employment opportunities in forest sector e.g. tree nurseries Create more opportunities for research Reduce CO_2 levels through increased carbon stocks Improved biodiversity	Potential for people to be displaced Reduce agricultural/ pastoral land	NCCAP (2018) – *"Afforestation/reforestation agroforestry of additional 100,000 hectares of land"* NCCCAP (2018) – *"Promote urban forestry"; "Promote afforestation and reforestation activities within the farmlands"; "Engage vulnerable groups (including youth, women and indigenous communities) in habitat restoration."* National Forest Programme 2016–2030 – *"Increased forest /tree cover to at least 10% on public, private and community lands"*	**Y**	N	**Y**
SECTOR:	**TOURISM**						
SECTOR TARGET:	**By 2030, ensure that the Nakuru County tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations**						
13	Map all wildlife corridors in Nakuru County using GIS, and gazette at least one wildlife corridor by 2030	Can share the mapped areas with other relevant stakeholders Improve planning and planning tools Improve biodiversity	Conflict of use of the gazetted land Potential for people to be displaced	NCCAP (2018) – *"Identify and effectively conserve 30,000 hectares of wildlife habitats, to support a broad range of wildlife and plants under changing conditions"* NCCCAP (2018) – *"Map and gazette wildlife corridors"*	N	N	N

ACTION NUMBER	ACTION TITLE	CO-BENEFITS	TRADE-OFFS	SYNERGIES WITH EXISTING POLICIES AND PLANS	ACTION ALSO AFFECTING MITIGATION PILLAR [Y/N]	ACTION ALSO AFFECTING ACCESS TO ENERGY PILLAR [Y/N]	PRIORITY ACTION [Y/N]
SECTOR:	**TOURISM**						
SECTOR TARGET:	**By 2030, ensure that the Nakuru County tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations**						
14	Conduct sensitisation and capacity-building on sustainable tourism activities with vulnerable groups (including youth, women and Indigenous communities) across Nakuru County's 55 wards by 2030	Increase job creation Reduce crime Reduce violence against women and girls Increase feeling of inclusion for vulnerable groups in the community Promote cohesion and integration Reduce land degradation Support conservation Improve livelihoods	Cultural conflicts Conflicting responsibilities	NCCCAP (2018) – *"Engaging vulnerable groups (including youth, women and indigenous communities) in ecotourism activities"*	N	N	**Y**
15	Introduce water-harvesting techniques in 80% of Nakuru County's conservation areas by 2030 for wildlife use	Reduce human-wildlife conflict Improve access to water in conservation areas Improve wildlife health Enhance tourism opportunities Enhance opportunities for livelihood improvement	Disturbs the ecological balance which may lead to animals relying on human beings	NCCCAP (2018) – *"Promote water harvesting in conservation areas for wildlife use"*	N	N	N

7. Priority actions

Once the adaptation actions were developed for each sector target (three per sector target), priority actions were indicated and corresponding information was gathered for each action to decide which should be the priority action for their sector target. **Table 7:** Priority adaptation actions for Nakuru County indicates which actions were prioritised by the county and provides a rationale for each. **Table 8:** Supporting adaptation action information for priority actions as required by the JRC Guideline and JRC Reporting Template provides additional information on these prioritised actions as required by the JRC to support city planning in the future.

Table 7: Priority adaptation actions for Nakuru County

ACTION NUMBER	ACTION TITLE	RATIONALE FOR PRIORITISATION
SECTOR:	**AGRICULTURE, LIVESTOCK AND FISHERIES**	
SECTOR TARGET:	**By 2030, ensure that at least 70% of crop, livestock and fishery farmers and other stakeholders are using climate-resilient practices including water-harvesting techniques and nature-based enterprises (e.g. agroforestry)**	
1	Desilt 60 water pans and construct 25 new water pans in Naivasha and Rongai subcounties by 2030 to promote water harvesting, conservation and utilisation for domestic and agricultural use in Nakuru County	Many farms in Nakuru County are impacted negatively by flooding due to heavy rains during the rainy season, as well as water shortages during the dry season. Water pans are an intervention that addresses both of these climate hazards, as they reduce flooding locally by collecting runoff water, while also extending water availability through the dry season. In addition, it is an action that has already been undertaken in some areas in the county, and thus is definitely feasible. This action will directly mitigate against drought and river flooding, and will have high impact on increasing the resilience of the agriculture sector to the impacts of climate change.
SECTOR:	**WATER**	
SECTOR TARGET:	**By 2030, increase access to clean water to 80% of the population**	
4	Map all community water sources in Nakuru County by 2030, including springs, boreholes, pans, dams and shallow wells	Around 32% of the population is estimated to get their water from springs, wells or boreholes, some of which are unprotected and are categorised as unimproved drinking water sources, resulting in the spread of waterborne diseases that are exacerbated by flooding caused by climate change. These water sources have not all been mapped, meaning it is difficult for the county to protect them, as well as ensuring that the population has access to clean water and ensuring the health of vulnerable groups in more rural areas. This action is a priority as it will ensure the protection of community water sources, contributing to the target of access to clean water for 80% of the population (a human right), while preventing the spread of waterborne diseases.
SECTOR TARGET:	**By 2030, increase access to sanitation to 100% of the population**	
8	Support all rural villages in Nakuru County with achieving “Open Defecation Free (ODF)” status by 2030, including follow-ups, claims, verification, certification and celebration of ODF villages	Waterborne diseases are ranked among the top five diseases in Nakuru County and are exacerbated by climate change related flooding. They are also preventable with improved sanitation. One aspect of the vision in the Nakuru Countywide Strategic Sanitation Plan is for open defecation to be eliminated and for waterborne diseases to be minimised in Nakuru County by 2030. It is estimated (as of 2019) that Nakuru County loses about KES 978 million per year due to poor sanitation (Nakuru Countywide Strategic Sanitation Plan, 2019). This figure is likely to increase as climate change induced flooding events increase in intensity and frequency in the future. To address these problems, this action was considered a priority. In addition to improving hygiene standards, this action will enhance social dignity and reduce the economic burden in accessing healthcare by reducing the prevalence of waterborne diseases.

ACTION NUMBER	ACTION TITLE	RATIONALE FOR PRIORITISATION
SECTOR:	**FORESTRY**	
SECTOR TARGET:	**By 2030, increase tree cover in Nakuru County to 75,000 ha**	
12	Rehabilitate open public green spaces in Nyayo Garden, Lion Garden, Naivasha People's Park and others, and reforest areas in gazetted forests with a focus on indigenous trees and the restoration of indigenous ecosystems	As part of the resolutions and commitments within Kenya's NDC, the National Forest Programme, as well as county-determined contributions, this action will ensure that Nakuru County meets the target of 10% tree cover by 2030, thereby reducing negative impacts of climate change such as flooding, erosion, and extreme heat while also increasing the county's carbon sinks. In addition, this action will contribute to the social value of Nakuru County's open public green spaces by rehabilitating them, resulting in aesthetically pleasing areas that can be used for recreation and community-upliftment purposes. This action will also focus on the reforestation of gazetted forests with indigenous vegetation, contributing to the overall functioning of these ecosystems. These additional benefits contribute to this action being considered a priority by the county.
SECTOR:	**TOURISM**	
SECTOR TARGET:	**By 2030, ensure that the Nakuru County tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations**	
14	Conduct sensitisation and capacity-building on sustainable tourism activities with vulnerable groups (including youth, women and Indigenous communities) across Nakuru County's 55 wards by 2030	Ecotourism contributes to the conservation and preservation of natural and cultural resources, increasing their resilience to climate change impacts such as flooding and droughts. It is also a well-established way of uplifting local communities and generating livelihoods, while increasing economic activity in the county in general. Thus, this action will build resilience to climate change through increased means by which to respond to climate hazards. Local residents, especially vulnerable groups such as the youth, women and Indigenous groups, will enjoy economic and social benefits through this action. Examples of this are already seen in Lake Naivasha, Lake Solai, Hells Gate National Park and Lake Elementaita. This action will result in community empowerment through ecotourism, as well as improved conservation and increased climate resilience. It is thus considered a priority for the county.

Table 8: Supporting adaptation action information for priority actions as required by the JRC Guideline and JRC Reporting Template[2]

ACTION NUMBER	ACTION TITLE	RESPONSIBLE BODY	POLICIES ACTION ALIGNS TO	ORIGINS OF ACTION	PROPOSED IMPLEMENTATION TIMEFRAME (START – FINISH)	STATUS OF IMPLEMENTATION	STAKEHOLDERS INVOLVED	RELATED INDICATOR	VULNERABILITIES TACKLED	OUTCOMES REACHED	INVESTMENT COST	AVOIDED COSTS
SECTOR:	**AGRICULTURE, LIVESTOCK AND FISHERIES**											
SECTOR TARGET:	**By 2030, ensure that at least 70% of crop, livestock and fishery farmers and other stakeholders are using climate-resilient practices including water-harvesting techniques and nature-based enterprises (e.g. agroforestry)**											
1	Desilt 60 water pans and construct 25 new water pans in Naivasha and Rongai subcounties by 2030 to promote water harvesting, conservation and utilisation for domestic and agricultural use in Nakuru County	County Government of Nakuru – Ministry of Agriculture, Livestock and Fisheries National government – Line Ministry (MDALF) – NIB, NARIGP NGOs and civil society – World Vision, WWF, Green Belt Movement	NCCAP 2018 NCCCAP 2018	Local Government	2022–2030	Ongoing - 27% complete	National government NGOs/civil society Academia Local government Private sector	No. of dams constructed No. of dams desilted No. of farmers (households) reached	Low-income households Farmers	35 public and private water pans excavated and functional Beneficiaries – 1,200 households	KES 1.78 billion	Not available
SECTOR:	**WATER**											
SECTOR TARGET:	**By 2030, increase access to clean water to 80% of the population**											
4	Map all community water sources in Nakuru County by 2030, including springs, boreholes, pans, dams and shallow wells	County Government of Nakuru (Water, Environment, Energy and Natural Resources Department) Central Rift Water Works Development Agency (CRWWDA) Water service providers (NAWASCO, NARUWASCO, NAIVAWASS) Water Resources Authority Community-based water schemes Water Resources Users Association	NCCAP 2018 NCCCAP 2018 Kenya NWMP 2030	Local Government	2022–2030	Ongoing – 42.5% complete	National government NGOs/civil society Academia Local government Citizens Private sector Donor/support partners	Number of community water sources mapped Number of water sources reclaimed and protected Number of households reached	Low-income households Women and girls	Water service providers water sources mapped and protected 300,000 people reached with access to clean water through water service providers	KES 10 million	Not available

[2] **Note:** Each heading included in the table has a drop-down list included in the JRC Reporting Template for responses.

ACTION NUMBER	ACTION TITLE	RESPONSIBLE BODY	POLICIES ACTION ALIGNS TO	ORIGINS OF ACTION	PROPOSED IMPLEMENTATION TIMEFRAME (START – FINISH)	STATUS OF IMPLEMENTATION	STAKEHOLDERS INVOLVED	RELATED INDICATOR	VULNERABILITIES TACKLED	OUTCOMES REACHED	INVESTMENT COST	AVOIDED COSTS
SECTOR TARGET:	**By 2030, increase access to sanitation to 100% of the population**											
8	Support all rural villages in Nakuru County with achieving "Open Defecation Free (ODF)" status by 2030, including follow-ups, claims, verification, certification and celebration of ODF villages	Nakuru County Public Health Office Private sector (e.g. banks, social enterprises, CBOs) NGOs National government (schools) Academia (research)	Kenya NWMP 2030 Kenya Environmental Sanitation and Hygiene Policy 2016–2030	Local government	2013–2030	Ongoing – 29% complete	National government NGOs/civil society Academia Local government Citizens Private sector Donor/support partners	Number of villages triggered Number of villages followed up with Number of villages claimed Number of villages verified Number of villages certified	Low-income households Women and girls	1,276 villages triggered 721 villages claimed 570 villages verified 507 villages certified	KES 120 million	Not available
SECTOR:	**FORESTRY**											
SECTOR TARGET:	**By 2030, increase tree cover in Nakuru County to 75,000 ha**											
12	Rehabilitate open public green spaces in Nyayo Garden, Lion Garden, Naivasha People's Park and others, and reforest areas in gazetted forests with a focus on indigenous trees and the restoration of indigenous ecosystems	National government – Ministry of Environment and Forestry Local Government – Department of Water, Environment, Energy and Natural Resources NGOs/civil society – Green Belt Movement, Climate Change Kenya Organisation, Globe Gone Green Academic institutions – Egerton University	NCCAP 2018 NCCCAP 2018 National Forest Programme 2016–2030	Local Government	2022–2030	Ongoing – 9% completed	National government NGOs/civil society Academia Local government	No. hectares rehabilitated No. hectares reforested	Low-income households Youth Women and girls	9% tree cover in county	KES 960 million	KES 4.64 billion

ACTION NUMBER	ACTION TITLE	RESPONSIBLE BODY	POLICIES ACTION ALIGNS TO	ORIGINS OF ACTION	PROPOSED IMPLEMENTATION TIMEFRAME (START – FINISH)	STATUS OF IMPLEMENTATION	STAKEHOLDERS INVOLVED	RELATED INDICATOR	VULNERABILITIES TACKLED	OUTCOMES REACHED	INVESTMENT COST	AVOIDED COSTS
SECTOR:	**TOURISM**											
SECTOR TARGET:	**By 2030, ensure that the Nakuru County tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations**											
14	Conduct sensitisation and capacity-building on sustainable tourism activities with vulnerable groups (including youth, women and Indigenous communities) across Nakuru County's 55 wards by 2030	County Department of Water, Environment, Energy and Natural Resources	NCCCAP 2018	Local Government	2023–2030	Not started	National government NGOs/civil society Academia Local government Citizens Private sector Religious organisations Development finance institutions	Number of vulnerable persons identified, profiled and registered in all wards Number of ecotourism activities identified, mapped and gazetted in all wards Number of capacity building and sensitisation activities conducted for vulnerable groups in all wards	Low-income households Women and girls Youth Indigenous communities	Not applicable	KES 1 billion	KES 2.5 billion

8. Conclusion

Based on the findings from the Nakuru County Risk and Vulnerability Assessment, as well as existing national and local adaptation strategies and plans, workshop participants identified and described 15 adaptation actions that the county needs to implement to contribute to achieving the sector-specific targets previously identified (Section 3.3). Each of the actions are aligned with Kenya's 2nd National Climate Change Action Plan (NCCAP) 2018–2022, the Nakuru County Climate Change Action Plan (NCCCAP) 2018–2022, as well as a number of sector-specific plans. During the workshop, representatives of each sector selected one action to be prioritised for each sector-specific target (five actions in total) and provided details for each action that will aid the county in implementation. A smaller group of high-level representatives from relevant sector departments in the Nakuru County Government were then engaged in a validation meeting to further refine action titles and descriptions, and develop further details for each of the adaptation actions considered most relevant and feasible for the county.

This report has summarised the results of the participatory identification, prioritisation and detailing of adaptation actions for Nakuru County's SEACAP. The ultimate goal of this process is the mainstreaming/integration of these actions into existing adaptation and other development plans at the county level and the implementation of these actions, starting with the priority actions identified. A summary of the adaptation actions identified and prioritised by the county's stakeholders is provided in Table 9**:** Summary of adaptation actions for Nakuru County, including prioritised actions in bold for each sector-specific target below. As outlined in Section 7, Actions 1, 4, 8, 12, and 14 (those in bold below) were prioritised due to their contribution in achieving the sectoral targets, their potential to directly address climate hazards affecting each sector, their feasibility, as well as the numerous co-benefits offered by the actions.

Table 9: Summary of adaptation actions for Nakuru County, including prioritised actions in bold for each sector-specific target

SECTOR	SECTOR-SPECIFIC TARGET	ADAPTATION ACTIONS
Agriculture, livestock and fisheries	By 2030, ensure that at least 70% of crop, livestock and fishery farmers and other stakeholders are using climate-resilient practices including water-harvesting techniques and nature-based enterprises (e.g. agroforestry)	**Action 1. Desilt 60 water pans and construct 25 new water pans in Naivasha and Rongai subcounties by 2030 to promote water harvesting, conservation and utilisation for domestic and agricultural use in Nakuru County**
		Action 2. Train 70% of smallholder farmers and pastoralists in Nakuru County on how to adopt appropriate technologies in fodder production and animal husbandry by 2030
		Action 3. Train 70% of fish farmers in Nakuru County on how to adopt sustainable modern fish farming technologies by 2030.
Water	By 2030, increase access to clean water to 80% of the population	**Action 4. Map all community water sources in Nakuru County by 2030, including springs, boreholes, pans, dams and shallow wells**
		Action 5. Reduce water losses by 15% by 2030 through replacement of existing dilapidated water infrastructure with advanced technologies including HDPE pipes and smart meters
		Action 6. Introduce water filters and water treatment tablets to 80% of the population by 2030 to improve access to safe water storage and treatment methods

SECTOR	SECTOR-SPECIFIC TARGET	ADAPTATION ACTIONS
Water	By 2030, increase access to sanitation to 100% of the population	Action 7. Establish at least five new sewage/decentralised treatment facilities in major urban and peri-urban areas in Gilgil, Subukia, Njoro, Elburgon and Bahati by 2030
		Action 8. Support all rural villages in Nakuru County with achieving "Open Defecation Free (ODF)" status by 2030, including follow-ups, claims, verification, certification and celebration of ODF villages
		Action 9. Train communities and WASH service providers on improved hygiene and sanitation practices, including the formation of Community Led Total Sanitation (CLTS) and ODF committees from village, wards and subcounty levels, so as to ensure sustenance of ODF villages
Forestry	By 2030, increase tree cover in Nakuru County to 75,000 ha	Action 10. Reduce deforestation and forest degradation by introducing alternative energy sources to households in Nakuru County
		Action 11. Restore degraded landscapes in riparian habitats and water catchment areas in Nakuru County using indigenous vegetation
		Action 12. Rehabilitate open public green spaces in Nyayo Garden, Lion Garden, Naivasha People's Park and others, and reforest areas in gazetted forests with a focus on indigenous trees and the restoration of indigenous ecosystems
Tourism	By 2030, ensure that the Nakuru County tourism sector promotes ecotourism and sustainability in 80% of its tourism destinations	Action 13. Map all wildlife corridors in Nakuru County using GIS, and gazette at least one wildlife corridor by 2030
		Action 14. Conduct sensitisation and capacity-building on sustainable tourism activities with vulnerable groups (including youth, women and Indigenous communities) across Nakuru County's 55 wards by 2030
		Action 15. Introduce water-harvesting techniques in 80% of Nakuru County's conservation areas by 2030 for wildlife use

9. References

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