ADAPTATION FUND

CONCEPT NOTE PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme:	Nature-Based Adaptation for Resilience Building and Empowerment of Vulnerable Communities in Narok and Nakuru Counties (NAREC)
Country:	Kenya
Thematic Focal Area:	Water management, Ecosystem-Based Adaptation, Climate-proofing of Urban areas
Type of Implementing Entity:	National Implementing Entity
Implementing Entity:	National Environment Trust Fund (NETFUND)
Executing Entities:	World Resources Institute (WRI)

Amount of Financing Requested: 10,000,000 (in U.S Dollars Equivalent)

Project Formulation Grant Request (<u>available to NIEs only</u>): Yes ☒ No ☐

Amount of Requested financing for PFG: 150,000 (in U.S Dollars Equivalent)

Letter of Endorsement (LOE) signed: Yes ☒ No ☐

NOTE: LOEs should be signed by the Designated Authority (DA). The signatory DA must be on file with the Adaptation Fund. To find the DA currently on file check this page: https://www.adaptation-fund.org/apply-funding/designated-authorities

Stage of Submission:
☒ This concept has been submitted before
☐ This is the first submission ever of the concept proposal.
In case of a resubmission, please indicate the last submission date: 2/6/2026

Please note that concept note documents should not exceed 50 pages, including annexes.

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A. List of Figures

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List of Abbreviations

AF	Adaptation Fund
ASALs	Arid and Semi-Arid Lands
BAU	Business as Usual
BETA	Bottom-Up Economic Transformation Agenda
CBOs	Community-Based Organizations
CCCAPs	County Climate Change Action Plans
CCCUs	Climate Change Coordination Units
CFAs	Community Forest Associations
CIDPs	County Integrated Development Plans
CRPs	Community Restoration Plans
CSP	County Spatial Plan
ENSO	El Niño Southern Oscillation
ESS	Environmental and Social Safeguards
GDP	Gross Domestic Product
GHG	Greenhouse Gases
IWRM	Integrated Water Resources Management
ITCZ	Inter-Tropical Convergence Zone
KES	Kenya Shillings
KIHBS	Kenya Integrated Household Budget Survey
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KNBS	Kenya National Bureau of Statistics
LOE	Letter of Endorsement
MRL	Monitoring, Reporting and Learning
MRV	Monitoring, Reporting and Verification
MSMEs	Micro, Small and Medium Enterprises
$MTCO_2e$	Metric Tonnes of Carbon dioxide Equivalent
MTP	Medium Term Plan
NAP	National Adaptation Plan
NAREC	Nature-based Adaptation for Resilience Building and Empowerment of Vulnerable Communities
NbS	Nature-based Solutions
NCCAP	National Climate Change Action Plan
NDC	Nationally Determined Contributions
NETFUND	National Environment Trust Fund
NIE	National Implementing Entity
NPC	Nature, People and Climate
PCRA	Participatory Climate Risk Assessment
PFG	Project Formulation Grant
PPP	Public–Private Partnership
RCP	Representative Concentration Pathway
SMEs	Small and Medium Enterprises
TCC	Technical Coordination Committee
USD	United States Dollar
WB	World Bank
WCCPCs	Ward Climate Change Planning Committees
WRI	World Resources Institute

WRUAs	Water Resource User Associations

Part I: Project/Programme Background and Context:

Provide brief information on the problem the proposed project/programme is aiming to solve. Outline the economic, social, development and environmental context in which the project would operate.

C. National context

1. The Republic of Kenya covers a total land area of 582,646 km^2, which includes varied formations of plains, escarpments, and hills, as well as low and high mountains. Starting east along the coast, low plateaus run inland (west) to an elevated plateau and mountain ranges, marked by the Kenyan highlands in the southwest corner of the country. Kenya shares borders with Ethiopia to the north, South Sudan, and Uganda to the northwest and west, and Tanzania to the south. The country's southeast coastline borders the Indian Ocean. Approximately 85% of Kenya's land area is classified as a fragile arid and semi-arid ecosystem, which is largely used for agro-pastoral production (World Bank, 2023[1]).

2. Climate change poses a major challenge to Kenya's development goals as articulated in the Vision 2030. One of the critical threats to the achievement of this vision is the increasing recurrence of drought, causing substantial losses and suffering and undermining economic growth, particularly in the country's arid and semi-arid lands (ASALs). Climate variability in Kenya is strongly influenced by the Inter-Tropical Convergence Zone (ITCZ) and the El Niño Southern Oscillation (ENSO), resulting in high inter-annual rainfall variability exceeding 30% of the long-term mean in most ASAL areas.

3. Kenya's ASALs are characterized by extremely high inter-annual variability of rainfall, with most years varying by more than 30% of the mean, and this variability is projected to be increased by climate change. According to the Intergovernmental Panel on Climate Change (IPCC 2012[2]), there is likely to be a marked increase in drought risk over much of Eastern Africa by the 2050s, which ultimately will threaten climate-sensitive economic sectors. Kenya is highly influenced by the ENSO phenomenon, which seasonally and annually contributes to Kenya's variable rainfall. Damage to forests, rangelands, and cultivated lands has reduced agricultural productivity, undermined food, and water security, and strained the economy. The combined effect of land degradation with rising temperatures and erratic weather has led to deepened poverty for rural and urban households. Without action, these trends will likely result in exacerbated ecosystem degradation, greater food insecurity, water shortages, and higher disease risks.

4. ASALs occupy 89% of Kenya and are home to about 36% of the population and 70% of the national livestock herd. The livestock sector contributes 5.6% to 12.5% of GDP and 30% to 47% of agricultural GDP: estimates are constrained by weak market penetration in the ASALs and poor data collection, but applying 70% to the livestock sector contribution indicates that pastoralism contributes between 3.9 and 8.8% of GDP. Up to 90% of the red meat consumed in Kenya comes from livestock raised in the ASALs. In pastoralist production systems, livestock accounts for 90% of employment and 95% of family incomes (Elisabeth & Mbwika, 2012[3]). Additionally, the ASALs are home to 90% of the wildlife that supports the country's thriving tourism sector (contributing more than 15% of GDP). Of the 23 counties in the ASALs in Kenya, 9 counties are classified as Arid, and 14 as Semi-Arid. The ASAL ecosystems are characterized by low, erratic annual precipitation between 150mm and 550mm per year in arid areas and 550mm and 850mm per year in semi-arid areas. The ASALS are the most affected by climate change in Kenya. The country's climate is strongly influenced by the Inter-Tropical Convergence Zone (ITCZ). Temperatures across Kenya vary significantly, with the highlands experiencing much cooler temperatures than the coastal and lowland zones. Little seasonal variation in temperatures has been observed, with average temperatures range between 18°C at the higher elevations to 26°C along the coast. Rainfall varies considerably across the country, with less than 250 millimeters (mm) falling in the arid zones of the north, to over 2,000 mm per year in the west annually (WB, 2021[4]).

[1] World Bank (WB): Climate Risk Country Profile Accessed from: 15724-WB_Kenya Country Profile-WEB.pdf

[2] https://www.ipcc.ch/2012/

[3] Elisabeth & Mbwika, 2012. PDF of Kenya Livestock End Market Study - livestock. Accessed from: https://doczz.net/doc/5281115/pdf-of-kenya-livestock-end-market-study

[4] Climate Risk Profile: Kenya – 2021, by the World Bank Group) access link -15724-WB_Kenya Country Profile-WEB.pdf

5. The seasonal migration of the ITCZ defines four distinct seasons in Kenya, dominated by two rainfall periods: January to March, which is generally considered the 'warm dry season', April to June known as the 'long wet season', July to September the 'cool dry season', and October to December as the 'short wet season'. Analysis of data from the World Bank Group's Climate Change Knowledge Portal (CCKP) (Figure 1) shows Kenya's seasonal cycle for the latest climatology, 1991–2020. Mean annual temperatures for Kenya is 24.3°C, with average monthly temperatures ranging between 22°C (July) and 25.6°C (March).

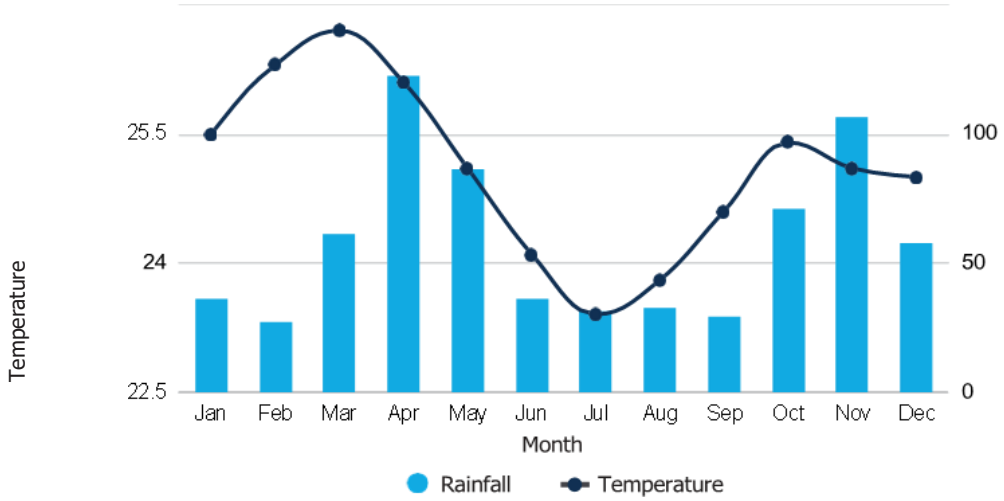

Figure 1: Average monthly temperature and rainfall for Kenya, 1991–2020 (CCKP, 2020)

6. The mean annual rainfall for Kenya is 668.6 mm. While rainfall does occur throughout the year, depending on the area, most rainfall is received between March and June and October to December (Table 1).

Table 1: Kenya Climate profile (WB 2021)

Climate Variables	**1901–2020**
Mean Annual Temperature (°C)	24.3°C
Mean Annual Precipitation (mm)	668.6 mm
Mean Maximum Annual Temperature (°C)	30.3°C
Mean Minimum Annual Temperature (°C)	18.3°C

7. In 2024, the Kenyan economy grew at a slower pace compared to 2023. The real GDP grew by 4.7%, down from 5.7% in 2023. The services sector contributed the largest share of the GDP growth at 55.3%, followed by agriculture at 22.5%, industry at 16.5%, while other sectors accounted for 5.8%. The nominal GDP increased from USD 111.51 billion in 2023 to USD 120.34 billion in 2024. Under the Bottom-Up Economic Transformation Agenda (BETA), Kenya prioritized key sectors including agriculture, MSMEs, affordable housing, healthcare, and the digital and creative economy. In 2024, agriculture, forestry, and fishing contributed 22.5% to GDP and employed 42.3% of the labor force, underscoring their vital role in rural livelihoods and food security (Economic Report 2025 Kenya[5]).

8. Kenya developed the National Adaptation Plan (Government of Kenya, 2016[6]) as a robust framework to support adaptation at national, county, and local community level. The NAP defined adaptation and resilience building as the priority responses to climate change and suggested that adaptation and development goals need to complement each other. Vision 2030 was conceived as an overarching strategic document. Its second Medium Term Investment Plan (MTP II) prioritizes investments in climate change adaptation, drought risk management and ending drought emergencies, and the water, livestock, crop agriculture, and energy sectors. Additionally, as climate change continues to pose a global threat, Kenya remains particularly

[5] Economic Report 2025 Kenya, access link https://www.knbs.or.ke/reports/2025-economic-survey/

[6] Government of Kenya, 2016 NAP_Final-Signed_22022017.pdf. Accessed from: https://www4.unfccc.int/sites/NAPC/Documents%20NAP/Kenya_NAP_Final.pdf

susceptible to its economic and fiscal consequences. In response, the Government has developed several key frameworks to strengthen climate finance and investment opportunities that include the Climate Finance Mobilization Strategy, National Policy Framework on Green Strategy, National Policy Framework on Green Fiscal Incentives, Carbon Market Framework, and National Green Taxonomy (KPMG, 2025[7]).

D. Geographical Location of Target Counties

9. The Nature-based Adaptation for Resilience Building and Empowerment of Vulnerable Communities (NAREC) Programme targets Narok and Nakuru Counties, two climate-vulnerable yet economically strategic counties located within the southern and central Rift Valley region. Together, the counties represent a rural-urban climate risk continuum, encompassing pastoral rangelands, water towers, rapidly urbanizing towns, and high-value agricultural and tourism systems.

10. **Narok County,** situated in Kenya's ASAL zone, spans approximately 17,944 square kilometers and encompasses a wide range of ecological zones, from the Mau Escarpment in the north to the expansive plains bordering Tanzania to the south as shown in Figure 2. The county's terrain is predominantly classified as arid and semi-arid lands (ASALs), making it one of the most climate-sensitive regions in the country. While higher altitude areas in the north and parts of Trans Mara sub-county support some rain-fed crop farming, the vast majority of Narok's landmass is not suitable for stable crop cultivation due to erratic rainfall and poor soil fertility (Opere, Waswa, & Mutua, 2022).

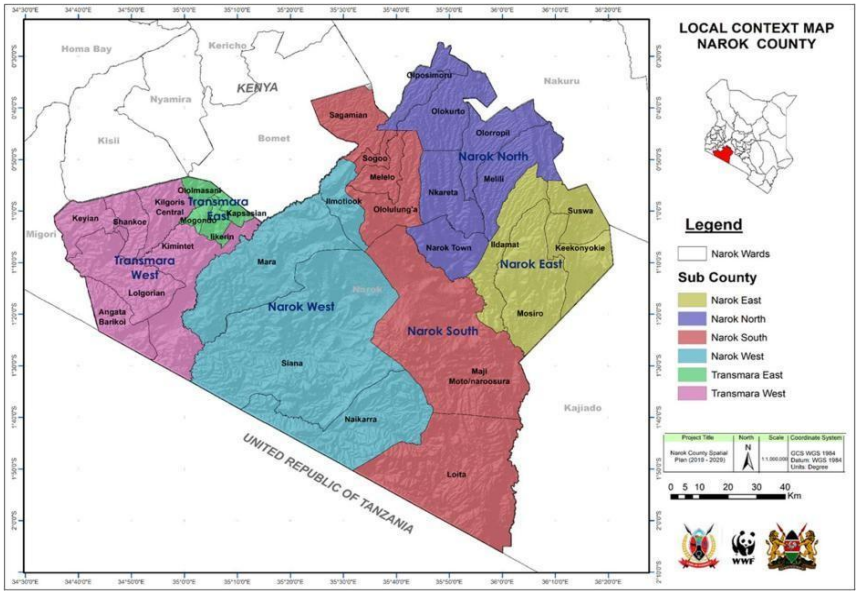

Figure 2: Map of Narok County (Narok County, PCRA 2023)

11. **Nakuru County** covers an area of approximately 7,498.8 km², with its capital being Nakuru Town. The main topographical features in Nakuru County are the Mau Escarpment covering the western part of the county, the Rift Valley floor, Ol-Doinyo Eburru volcano complex, Akira Plains and Menengai Crater. The major urban centres are: Nakuru City, Naivasha Municipality, Mai Mahiu, Molo Municipality, Njoro, Gilgil Municipality, Subukia, Olenguruone, Bahati, Rongai, Salgaa, Dundori, and Mau Narok (County Government of Nakuru, 2018). Nakuru city's 2022 population was 686,630, growing at 6.36% annually and projected to exceed one million by 2030.

[7] KPMG (2025). Kenya 2025/2026 Budget Brief. Accessed from: https://assets.kpmg.com/content/dam/kpmg/ke/pdf/tax/2025/Kenya_2025_2026_Budget_Brief.pdf

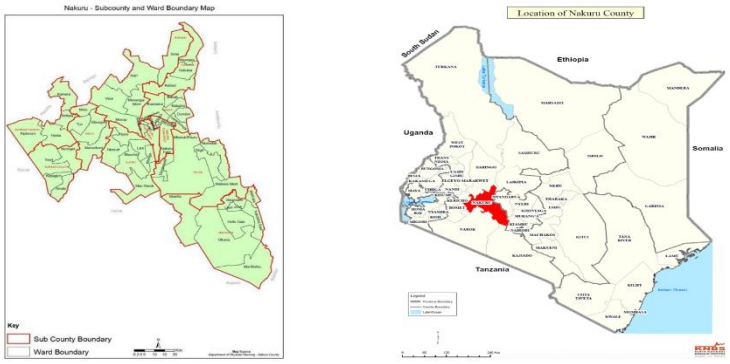

Figure 3: A map of Nakuru County and its sub-counties (County Government of Nakuru, 2018[8]) and its relative location in Kenya.

E. Economic Context of Target Counties

12. Narok County's economy is predominantly livestock-based, with pastoralism and agro-pastoralism accounting for over 70% of household livelihoods. Narok County's economy is estimated at approximately KES 238.3 billion (about USD ~2.0 billion). About 22.6% of Narok's population lived under the national poverty line according to the 2015/2016 Kenya Integrated Household Budget Survey. Livestock, which include cattle, sheep, and goats, provide the main source of income, food, and assets for most households, contributing significantly to household resilience during normal climatic conditions. The livestock value chain supports employment through herding, trading, transport, and local markets, while livestock sales account for an estimated 60–80% of household cash income in pastoral zones. However, productivity remains low due to climate shocks, rangeland degradation, limited access to veterinary services, and weak market integration.

13. Tourism is the county's second major economic pillar, contributing a substantial share of county revenues through wildlife-based tourism linked to conservation landscapes. Despite this, economic benefits are unevenly distributed, with most local communities, especially women and youth, remaining marginally integrated into tourism value chains. Climate variability, land degradation, and declining ecosystem services are increasingly undermining both livestock and tourism revenues, exposing households to income volatility and heightened poverty risks. Limited access to climate finance, insurance, and diversified livelihood opportunities further constrains economic resilience, particularly among women-led and resource-poor households.

14. **Nakuru County's** Gross Domestic Product (GDP) for 2019 was estimated at 613 billion Kenyan shillings (KES) (approximately USD 5.7 billion), accounting for 6.9% of Kenya's GDP (KNBS, 2019, 2020c). 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% (KIPPRA, 2019). Furthermore, informal settlements are increasing in the county due to rapid urbanization and failure of the formal sector to supply adequate houses, especially for the low-income segment of society (KIHBS, 2016). An estimated 82.5% of households in Nakuru County own a mobile phone, providing an important entry point for climate information services, digital finance, and market access. Approximately 16% have access to the internet, 57% have access to television, and 91% have access to radio (KIHBS, 2016).

15. The main economic activities within Nakuru County are agribusiness, financial services, geothermal power generation and tourism (Nakuru County, 2018). The county's economy is mostly built around agriculture, which accounts for approximately 60% of total economic activity (Nakuru County, 2020). Both subsistence and large-scale commercial farming is practiced by flower firms as major employers in the county. The main food crops produced in the county include maize, Irish potato, wheat, and beans, and the main livestock types are dairy cattle, local poultry, and wool sheep (Government of Kenya, 2016).

[8] Nakuru City County Integrated Development Plan 2023-2027

F. Social and Development Context of Target Counties

16. **Narok County** has an estimated population of 1.31 million people, with an average household size of 4.8 persons, reflecting a predominantly rural and pastoral social structure. Access to basic services remains uneven, particularly in semi-arid and remote areas, where households face persistent constraints in water access, healthcare availability, education, and market connectivity. These structural gaps contribute to high poverty levels. Climate shocks, particularly droughts, frequently reverse development gains and increase reliance on humanitarian assistance. These structural gaps contribute to high poverty levels. Climate shocks, particularly droughts, frequently reverse development gains and increase reliance on humanitarian assistance. Social indicators highlight significant reproductive and health challenges, including a total fertility rate of 4.9, teenage pregnancy prevalence of 28%, and 70% skilled birth attendance, reflecting both access barriers and cultural influences (Kenya Demographic and Health Survey, 2022).

17. **Nakuru County** has an estimated population of 2.16 million people, with women accounting for 50.2% of residents, and a youthful demographic profile where 33% of the population is aged 18–35 years. This youth bulge presents both an opportunity and a development challenge, underscoring the need for inclusive employment, skills development, and climate-resilient livelihood pathways. Urbanization is advancing rapidly, with 45.8% of residents living in urban areas, particularly in Nakuru City and peri-urban zones such as Naivasha. However, much of this growth has been unplanned, resulting in informal settlements characterized by inadequate access to safe water, sanitation, drainage, waste management, and affordable housing. These deficits heighten exposure to flooding, heat stress, and water insecurity, particularly among low-income households and informal workers.

18. Gender inequalities remain pronounced across both pastoral and urban–peri-urban contexts in Narok and Nakuru counties, where they are deeply intertwined with livelihoods, customary institutions, and exposure to climate risks as identified in the preliminary gender assessment (see annex III). In Narok County, women and girls shoulder a disproportionate burden of unpaid labour, including water and fuelwood collection, household care, and management of small livestock; during dry seasons, women may travel 10 km or more to access water. Customary tenure systems further constrain women's adaptive capacity through low levels of land and livestock ownership, limiting access to credit, extension services, and climate finance. In Nakuru County, gender inequalities cut across both rural and urban settings, with women overrepresented in informal, low-paying, and climate-sensitive livelihoods while continuing to bear a heavy unpaid care burden.

19. These vulnerabilities are compounded for women-headed households and persons with disabilities, who face limited access to land, secure tenure, finance, and decision-making spaces. Women's priority needs, therefore, include secure land rights, especially in peri-urban and irrigated horticulture zones such as the Naivasha basin, alongside affordable childcare, time-saving technologies, safe transport, access to finance for agribusiness and SMEs, and accessible reproductive and sexual health services. Narok and Nakuru Counties' gender policy and Integrated Development Plans explicitly recognize these differentiated needs, providing a strong institutional foundation for advancing gender-responsive and climate-resilient development.

G. Environmental and Climate Context of Target Counties

20. **Narok County** is ecologically significant at both national and regional levels, supporting agriculture, tourism, water resources, and biodiversity conservation. The county hosts important ecosystems, including the Maasai Mara National Reserve, which underpins Kenya's tourism economy, and major forest ecosystems such as the Mau Forest Complex, Loita Forest, and Enoosupukia Forest, collectively covering 125,130 ha (County Government of Narok, 2023). These ecosystems regulate hydrological flows and sustain pastoral and agro-pastoral livelihoods across the county. Narok County comprises humid and sub-humid highlands around the Mau Escarpment suited to crop farming, transitional midlands supporting mixed agriculture, and extensive semi-arid to arid lowland plains dominated by pastoralism and rangeland use.

21. Narok County experiences high climatic variability, with annual rainfall ranging from 125 mm in arid

lowlands to over 1,800 mm in highland areas, and a bimodal rainfall pattern characterized by long rains (March–May) and short rains (September–November). Average temperatures are approximately 18°C, but rising trends are evident, with projections indicating an increase of 1–1.5°C by mid-century, and potentially exceeding 2°C by the late 21st century under high-emission scenarios as shown in Figure 4. Rainfall has become increasingly erratic, with shorter, more intense rain events interspersed with prolonged dry spells. These shifts have increased the frequency of droughts, flash floods, pest outbreaks, livestock and human diseases, disrupting grazing calendars, planting cycles, and traditional pastoral mobility patterns. While some pockets may experience marginal increases in total annual rainfall, climate projections indicate an average increase of four additional dry days within rainy seasons, heightening the risks of crop failure, pasture loss, and water scarcity (Narok County Climate Risk Profile, 2023[9]).

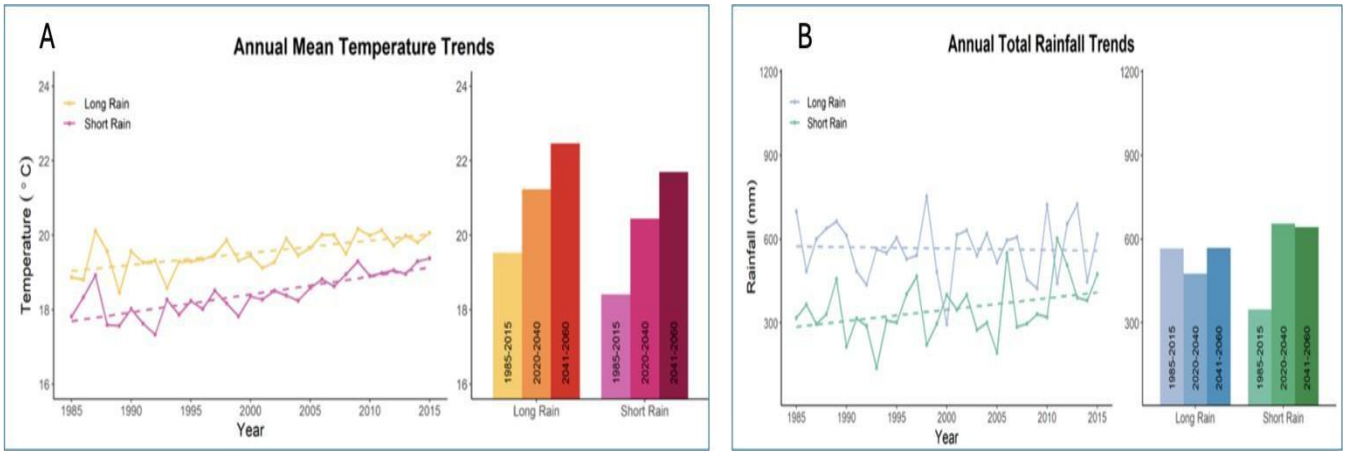

Figure 4: Annual temperature and Rainfall in Narok from 1985 to 2015 and in the future (2020-2040 and 2041-2060)

22. The degradation of 30,000 ha of land of the Mau Forest Complex, driven by logging, charcoal production, and agricultural encroachment, has significantly reduced the two counties' water regulation capacity. Rivers such as the Mara, Nyangores, and Ewaso Ng'iro, which originate in the Mau ecosystem, now exhibit more erratic flows, increased surface runoff, and reduced dry-season discharge. As a result, access to water for both livestock and domestic use has declined, particularly during prolonged dry seasons.

23. These environmental stresses have led to declining livestock productivity, shrinking herd sizes, reduced milk yields, and rising vulnerability among women and children, who bear the primary responsibility for water collection and small livestock care. The climatic shifts have severe socio-economic consequences. Women and children are disproportionately affected, as they bear the primary responsibility for water collection and "small livestock" care. Time spent on these activities has increased significantly, reducing opportunities for education, income generation, and community participation (Narok County Government, 2023). For instance, Narok Town, the county's largest and most prominent urban center, experiences seasonal flooding during periods of heavy rainfall, as shown in Figure 5. These events often result in substantial damage to road networks, market infrastructure, residential property, and the displacement of vulnerable populations. The town has been repeatedly cited in county flood risk assessments as a hotspot for climate-related urban hazard (World Bank, 2019).

24. Paradoxically, during the dry season, Narok Town also suffers from acute water shortages. Despite hosting a growing population and acting as a commercial and administrative hub, the town has limited capacity to capture, store, or treat rainwater, and relies on surface and borehole sources that are becoming increasingly unreliable due to overuse and changing rainfall patterns (Narok County Government, 2023).

[9] Kenya County Climate Risk Profile: Narok County - CGIAR

Figure 5: Narok, on the left is the drought situation and on the right is flooding in Narok town during the heavy rains season.

25. Recent climate modeling under the RCP 8.5 scenario reveals a significant warming trend across Narok County, see figure 6 below. Average annual temperatures are projected to rise by 1–1.5°C between 2036 and 2065, with the northern highland zones experiencing the greatest increases (Zwane et al., 202510). By the late 21st century (2066–2095), these increases are expected to exceed 2°C, aligning with broader regional projections for East Africa. These warming trends are anticipated to exacerbate heat stress, reduce agricultural productivity, and increase evapotranspiration rates, thereby reducing soil moisture and water availability.

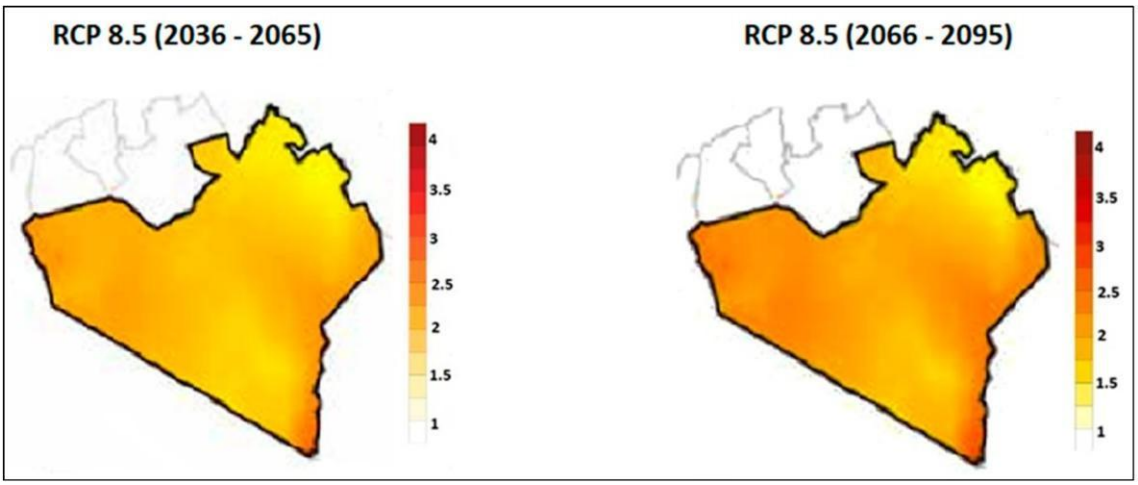

Figure 6: Annual surface temperature projections in Narok County, (Adopted from Zwane et al 2025)

26. In human systems, elevated temperatures are expected to raise incidences of heat-related illnesses and expand the geographic range of vector-borne diseases such as malaria. Heat stress will also impact livestock health, reduce milk and meat yields, and alter grazing behavior, undermining the viability of traditional pastoral systems that dominate Narok's economy. Narok's historical rainfall regime has been marked by high

[10] researchonline.lshtm.ac.uk/id/eprint/4676155/1/Zwane-etal-2025-Analysis-of-the-projected-climate-impacts.pdf

intra- and inter-annual variability. Climate projections suggest this variability will increase, with rainfall becoming more erratic and spatially heterogeneous. While some areas in the south of the county may experience marginal increases in annual precipitation, overall patterns indicate a rise in the frequency and intensity of extreme events, including prolonged dry spells and flash floods (Zwane et al., 2025).

27. **Nakuru County** exhibits pronounced climatic and ecological gradients that shape both livelihoods and development outcomes. Annual temperatures range from about 12°C in cooler high-altitude areas to up to 29°C in warmer lowlands, with an average upward trend. Climate projections indicate a temperature increase of between 1°C and 2.5°C by 2060, as shown in Figure 7, which is expected to alter rainfall patterns, intensify evapotranspiration, and increase the frequency of extreme weather events. These shifts are already contributing to more frequent droughts, intense rainfall episodes, and prolonged heat stress, particularly affecting urban, peri-urban, and low-lying flood-prone areas. (Climate Risk Profile for Nakuru, 2023[11]).

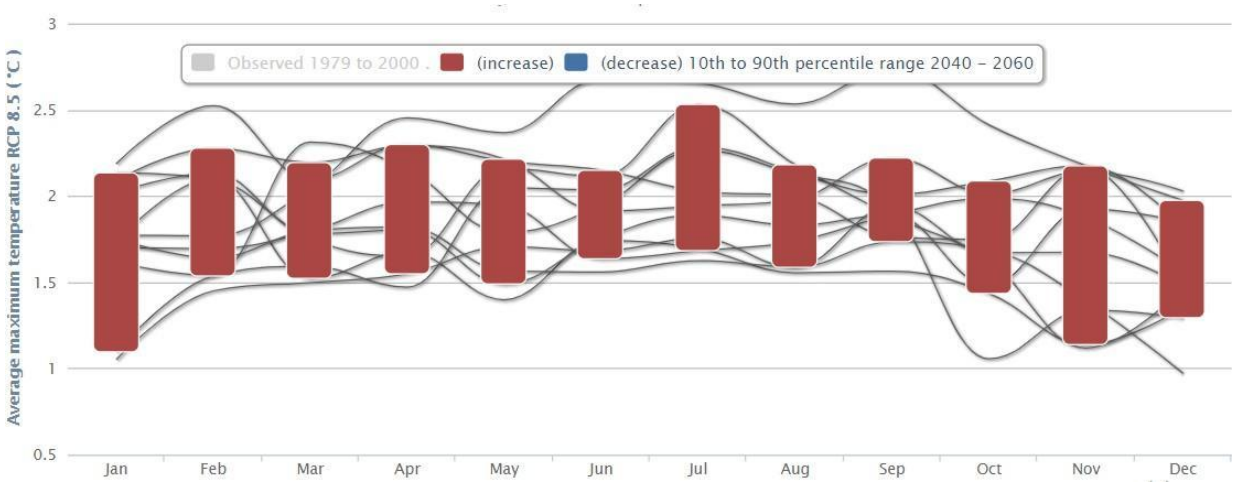

Figure 7: Average predicted maximum monthly temperature in Nakuru for the period 2040-2060 (Nakuru County PCRA, 2023).

28. Nakuru County experiences a bimodal rainfall pattern, with the short rains occurring between October and December and the long rains between March and May. The annual rainfall distribution varies significantly across the County. The Mau Forest region receives the highest rainfall, exceeding 1,600 mm, while the Kuresoi area records between 1,200 mm and 1,600 mm. Central parts of the County receive between 800 mm and 1,200 mm, whereas areas around Lake Elementaita and further south receive moderate rainfall ranging from 600 mm to 800 mm. The driest regions, such as Akira and parts of Naivasha, receive only 400 mm to 600 mm annually and lie within the County's sub-humid zone, where the bimodal pattern does not apply (CSP, 2019–2029[12]).

29. Due to the significant climatic gradient across Nakuru County, agricultural activities face multiple climate-related risks, including dry spells, intense rainfall, and heat stress. Nakuru County will experience a rise in average monthly temperatures, with warming expected to range between 1.0°C and 2.5°C by 2060 (Nakuru County Participatory Climate Risk Assessment 2023[13]).

30. Climate projections for Nakuru County indicate a likely increase in the duration of heatwaves, particularly in January and February, based on data relative to the 1980–2000 historical period under the RCP 8.5 scenario. While there is strong agreement among climate models that historical rainfall patterns will shift, there is uncertainty about the direction of change some models project increases in annual rainfall, while others suggest decreases (see Figure 8). This uncertainty is visualized using red and blue bars, where red indicates potential monthly decreases and blue

[11] https://maarifa.cog.go.ke/sites/default/files/2024-06/Nakuru%20County%20PCRA%20Report.pdf

[12] Nakuru County Spatial Plan (2019-2029) | Maarifa Centre

[13] maarifa.cog.go.ke/sites/default/files/2024-06/Nakuru County PCRA Report.pdf

indicates increases. The presence of both colors for a given month reflects ambiguity in the projections. These changing climate conditions rising temperatures, heat stress, and unpredictable rainfall are expected to exacerbate existing vulnerabilities in Nakuru County, leading to increased crop failure, malnutrition, fluctuating lake water levels, depletion of aquifers, soil erosion and degradation, water pollution, biodiversity loss, infrastructure damage, and population displacements.

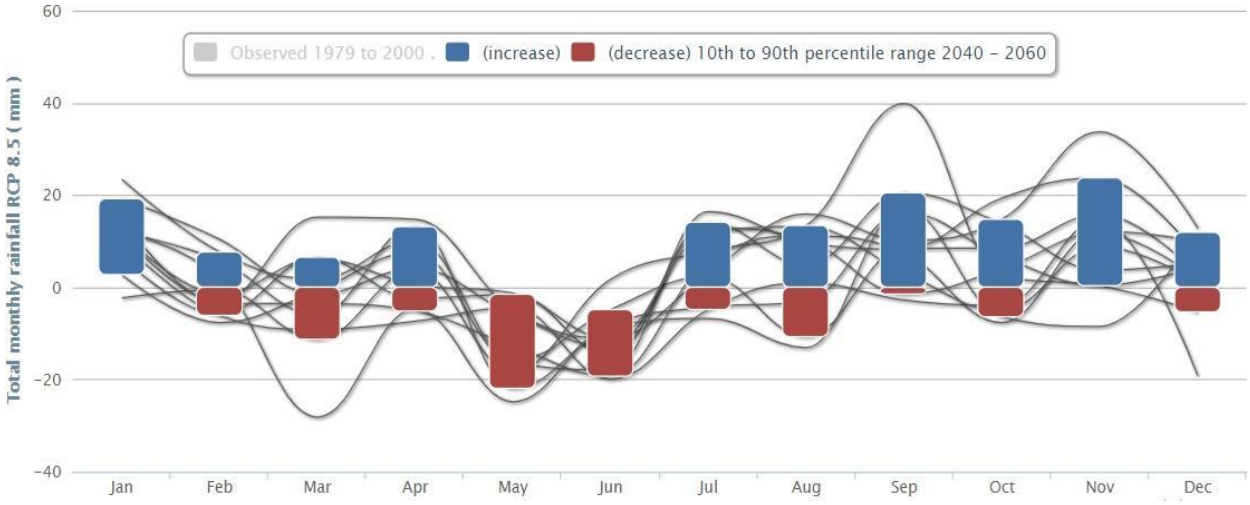

Figure 8: Total predicted monthly rainfall in Nakuru for the period 2040-2060 (Nakuru County PCRA, 2023)

31. The National Climate Change Action Plan (NCCAP) 2018–2022 highlights that rising temperatures, unpredictable rainfall patterns, and an increased risk of extreme weather events, such as droughts, floods, and landslides, pose significant threats to counties like Nakuru. Data from the Participatory Climate Risk Assessment (PCRA) identifies a wide range of climate hazards currently affecting the County, including erratic rainfall, frost, fog, hail, extreme temperatures, severe winds, lightning and thunderstorms, cold and hot extremes, droughts, forest and land fires, various types of flooding (flash, surface, river, and groundwater), and the spread of waterborne and vector-borne diseases. These hazards disproportionately impact vulnerable groups, including women and girls, the elderly, people with chronic illnesses or disabilities, those with low education levels, youth, indigenous populations, people in sub-standard housing, and marginalized communities. The resulting impacts both current and projected include increased crop failure, malnutrition, fluctuating river and lake levels, aquifer depletion, soil erosion and degradation, water pollution, biodiversity loss, damage to infrastructure such as roads, and population displacements.

32. The increasing irregularity and intensity of rainfall associated with climate change has already begun to strain local infrastructure. Heavy rains and flooding frequently overwhelm stormwater drainage and sewerage systems, leading to their failure, overflow, and contamination of nearby water bodies. This not only raises the risk of eutrophication but also compromises water safety by introducing pathogens capable of triggering disease outbreaks. Moreover, extreme rainfall events have caused significant damage to key infrastructure such as roads, bridges, dams, and culverts, disrupting transport and trade networks and impeding economic development across the region.

33. To address climate stressors in the target counties, the NAREC programme enhances climate resilience and adaptive capacity through a multifaceted strategy anchored on integrated water resources management (IWRM), nature-based urban resilience, and inclusive climate finance solutions. The project contributes to Adaptation Fund outcomes by reducing exposure to climate-related hazards, increasing the resilience of livelihoods and ecosystems, and strengthening the adaptive capacity of communities and institutions through climate-resilient water and landscape investments, improved governance, and mobilization of private capital for sustainable adaptation.

34. The overall project Theory of Change (see annex II) is based on the presumption that:

If the project:

- Strengthens county and community capacity to design and implement climate-resilient water, rangeland, and urban NbS;
- Restores and protects degraded water catchments, forests, wetlands, and riparian ecosystems; and
- Develops climate information, MRV systems, and investable adaptation pipelines,

This will lead to:

- Enhanced institutional and community capacity to manage climate risks;
- Improved water availability and climate-resilient production systems; and
- Increased private sector engagement in adaptation.

Which will result in:

- Enhanced urban and rural climate resilience;
- Improved livelihoods and adaptive capacity; and
- Strengthened ecosystem services.

35. The proposed project aligns to five AF Outcomes, namely **Outcome 2**: Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses; **Outcome 4**: Increased adaptive capacity within relevant development sector services and infrastructure assets; **Outcome 5**: Increased ecosystem resilience in response to climate change and variability-induced stress; **Outcome 6**: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas; and **Outcome 8**: Support the development and diffusion of innovative adaptation practices, tools and technologies.

Project/Programme Objectives

List the main objectives of the project/programme.

36. The project's overall objective is to increase climate resilience and adaptive capacity of communities through an integrated water resource management, nature-based urban resilience, climate information management, and inclusive climate finance solutions in Narok and Nakuru Counties, Kenya.

37. The programme components are as outlined below:

a. **Component 1**: Integrated Water Resource Management for agro-pastoral productivity
b. **Component 2**: Climate finance mobilization
c. **Component 3**: Urban Climate Resilience
d. **Component 4**: Enabling systems for climate resilience.

Project/Programme Components and Financing:

Fill in the table presenting the relationships among project components, activities, expected concrete outputs, and the corresponding budgets. If necessary, please refer to the attached instructions for a detailed description of each term. For the case of a programme, individual components are likely to refer to specific sub-sets of stakeholders, regions and/or sectors that can be addressed through a set of well-defined interventions/projects.

Table 2: Project Financing Summary

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
Component 1: Integrated water resource management for agro-pastoral resilience	Output 1.1 Climate-resilient water assets availed and operationalized	Outcome 1: Enhanced water availability for Agro-Pastoral production systems	1,500,000
	Output 1.2 Degraded water catchments restored		1,200,000
	Output 1.3 Enhance agro-pastoralist value chains		800,000

Project/Programme Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
Subtotal Component 1			**3,500,000**
Component 2: Climate Finance Mobilization	Output 2.1 Private sector investable project pipeline developed	Outcome 2: Increased private sector investment in climate-resilient building initiatives	900,000
	Output 2.2 Increased mobilization of climate investment		600,000
Subtotal Component 2			**1,500,000**
Component 3: Urban Climate Resilience	Output 3.1: County-level guidelines and tools to manage urban heat stress and floods through NbS developed and implemented.	Outcome 3: Enhanced urban resilience against heat stress and floods	1,165,000
	Output 3.2 Nature-based solutions implemented to manage heat stress and floods		1,335,000
Subtotal Component 3			**2,500,000**
Component 4: Enabling Systems for Climate Resilience	Output 4.1 Improved capacity of local community to sustainably manage climate-resilient water and rangeland assets	Outcome 4: Enhanced capacity for institutions and communities to prevent and reduce climate risks.	750,000
	Output 4.2 Climate information, knowledge management, and MRV systems operationalized		297,955
Subtotal Component 4			**1,047,955**
Project/Programme Execution cost			668,635
Total Project/Programme Cost			9,216,590
Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			783,410
Amount of Financing Requested			**10,000,000**

Projected Calendar:

Indicate the dates of the following milestones for the proposed project/programme

Table 3: Projected implementation calendar for 4 years (48 months)

Milestones	Expected Dates
Start of Project/Programme Implementation	January 2027
Mid-term Review (if planned)	January 2029
Project/Programme Closing	December 2030
Terminal Evaluation	June 2031

PART II: PROJECT / PROGRAMME JUSTIFICATION-

A. Describe the project/programme components

38. The *Nature-based Adaptation for Resilience Building and Empowerment of Vulnerable Communities in Narok and Nakuru Counties* (NAREC) Project is structured into four integrated components, each addressing a distinct but interlinked pathway of climate vulnerability identified in the Theory of Change (Annex II). The components collectively respond to increasing water scarcity, ecosystem degradation, climate-sensitive livelihoods, urban heat and flood risks, weak climate finance mobilization, and limited institutional capacity.

39. The project is designed to achieve its goal of increasing climate resilience and adaptive capacity of communities in Narok and Nakuru Counties by ensuring that county-specific investments are strategically aligned and mutually reinforcing across integrated water resource management, nature-based urban resilience, climate information systems, and inclusive climate finance solutions.

Component 1: Integrated Water Resource Management for Agro-Pastoral Resilience

Outcome: Enhanced water availability for agro-pastoral production systems.

40. This component responds to escalating climate change pressures driving water insecurity in Narok and Nakuru Counties, characterized by recurrent droughts, increasing rainfall variability, and progressive degradation of critical catchments. Climate change has altered hydrological patterns in both counties, resulting in more frequent and prolonged dry periods interspersed with intense rainfall events. In Narok, climate-driven degradation of upper catchments and rangelands has reduced dry-season water availability, increasing vulnerability to drought and ecosystem stress. In Nakuru, changing rainfall intensity and timing have heightened pressure on river basins, wetlands, and peri-urban water sources, amplifying flood risks during extreme rainfall events and exacerbating water scarcity during extended dry spells.

41. To address these interlinked risks, the component adopts an integrated water resource management (IWRM) approach that combines the development and rehabilitation of climate-resilient community water infrastructure, restoration, and protection of degraded water catchments, and strengthening of agro-pastoral value chains that depend on reliable water access. WRI, in collaboration with county governments of Narok and Nakuru, will lead community-led investments in water harvesting and storage, catchment rehabilitation through community associations such as WRUAs and CFAs, and drought-responsive fodder production and livestock market systems. This component takes up to 41% (USD 3.5M) of the total components' budget, as it addresses the most critical climate adaptation needs in the target counties. Eventually, the component reduces exposure to water scarcity, stabilizes water availability, and enhances the capacity of agro-pastoral households to sustain production during climate shocks of floods, drought, and extreme temperatures.

Key outputs under this component will include:

Output 1.1: Climate-resilient water assets availed and operationalized.

42. This output focuses on increasing reliable, equitable, and climate-resilient access to water for agro-pastoral and peri-urban communities in Narok and Nakuru Counties. In Narok, recurrent droughts and erratic rainfall have forced households, especially women and girls, to travel up to 10 km for water during dry periods, with only 7% having access to piped water (Narok County Government, 2023). In Nakuru, rapid urbanization and unplanned peri-urban settlements heighten vulnerability to floods, water contamination, and service disruptions, particularly in Naivasha, Gilgil, and Nakuru City (PCRA, 2023). Seasonal water sources are increasingly unreliable, and existing infrastructure is vulnerable to damage from extreme weather events, threatening livestock, crop production, and domestic water security.

43. The project will develop and/or rehabilitate water assets, including community springs, communal boreholes (support solar installations), water pans, set up community water kiosks, and rainwater harvesting and storage. These conveyance and distribution systems will reduce water collection distances, particularly benefiting women, girls, and vulnerable households while ensuring reliable water access for both livestock and domestic use. At the full proposal stage, mapping of specific sites will be undertaken and assessed to ensure compliance with the AF and NETFUND environmental and social safeguards Policy. Each site will be equipped with appropriate water access points such as taps, livestock troughs, and filtration units, tailored to the mixed domestic and productive needs of local agro-pastoralist communities. In parallel, the project will ensure that at least 200,000 households, with key consideration for women's needs (i.e., domestic water consumption), benefit from improved year-round water access. This will be supported through equitable access guidelines in areas with infrastructure potential.

44. To close the water access gap for rural and vulnerable groups, including women and youth, the project will support the two county governments to develop comprehensive frameworks for establishing rural water service providers or rural water companies. The counties expressed the need and willingness to establish these entities during the stakeholder consultation process (see Section H).These frameworks will be developed in a participatory manner, will define clear governance structures, operational roles, and responsibilities, ensuring that water services are effectively managed and maintained at the community level, with county government providing the necessary oversight and subsidies to ensure continued operationalization of the assets. They will also include mechanisms for transparent decision-making, community participation, and gender-inclusive representation, allowing women, youth, and marginalized groups to actively engage in planning, management, and oversight.

45. The specific activities that will be undertaken to achieve this output include:

*1.1.1 Develop/rehabilitate community-level water infrastructure (15 community springs, 10 communal boreholes with solar installations, 3 water pans, set up 12 community water kiosks, and 22 rainwater harvesting and storage systems) to support 200,000 households to access water during dry seasons (1 million individuals) – budgeted at **USD 1,250,000**.*

*1.1.2 Support the two counties to develop frameworks for establishing rural water companies that would manage, maintain, and oversee rural water assets, including those developed under this project – budgeted at **USD 250,000**.*

Output 1.2: Degraded water catchments restored.

46. This output will target restoring degraded water catchments to improve water quantity and quality, enhance ecosystem resilience, and sustain livelihoods in Nakuru and Narok counties. Both counties face significant pressures on water resources due to deforestation, unsustainable agricultural practices, overgrazing, wetland encroachment, and riparian degradation. In Narok, upper catchments of rivers such as the Ewaso Nyiro and Mau forests have experienced deforestation and soil erosion, leading to reduced water flows, siltation of water pans and dams, and compromised water quality. Also, extensive pastoralist activity, agricultural expansion, and wetland drainage in key sub-catchments have contributed to seasonal water shortages, reduced groundwater recharge, and increased vulnerability to droughts and floods.

47. A key component of the intervention is the development and implementation of Community Restoration Plans (CRPs), which will be co-developed with WRUAs, CFAs, and local stakeholders. County governments, water resource management authorities, community water associations, and local youth and women's groups will be engaged at the full proposal stage to identify and prioritize sites, ensuring participatory planning and local stewardship. These restoration interventions will target the rehabilitation of degraded ecosystems through a combination of reforestation, wetland restoration, and soil and water conservation measures. Specifically, the project aims to reforest 150,000 hectares of degraded forests, establish riparian buffer zones, rehabilitate wetlands, and promote sustainable land management practices among local communities.

48. By restoring upper catchments and critical water ecosystems, this output strengthens natural hydrological regulation under a changing climate, helping to moderate extreme flows, improve water quality, and reduce vulnerability to climate-induced droughts and floods. Adaptation Fund (AF) resources will be used specifically to rehabilitate degraded public lands that play a critical role in climate resilience, including priority areas within the Mau Forest Complex and degraded riparian corridors defined as a minimum of 30 meters on either side of the river centre line. Restoration of these public ecosystems will focus on re-establishing vegetation cover, stabilizing riverbanks, reducing erosion, and enhancing groundwater recharge to buffer climate variability and extreme rainfall events.

49. To complement these public land interventions and ensure landscape-scale resilience, additional restoration activities on private land will be co-financed by WRI through the Restore Local project. This co-financing will support climate-resilient restoration on farms adjacent to priority catchments by working with local farmers as restoration champions and promoting income-based approaches to restoration that align ecosystem recovery with household adaptation needs. Following participatory selection, the 150,000 ha will be rehabilitated through community-led ecosystem restoration activities, including:

*1.2.1 Co-develop 10 community restoration plans (CRPs) for degraded ecosystems with WRUAs and CFAs in the two counties – budgeted at **USD 150,000**.*

*1.2.2 Implement the CRPs to rehabilitate and protect 150,000 ha degraded forests, wetlands, and riparian ecosystems - budgeted at **USD 1,050,000**.*

Output 1.3: Enhanced agro-pastoral value chains

50. This output focuses on strengthening the adaptive capacity of agro-pastoral systems in Nakuru and Narok Counties because these systems represent some of the most climate-vulnerable communities in the project area. Agro-pastoral households are highly exposed to climate change impacts, including recurrent droughts, rising temperatures, and increasing rainfall variability, which directly undermine feed availability, livestock health, and household coping capacity.

51. The intervention targets climate-driven constraints that intensify vulnerability during dry periods, particularly

chronic feed shortages, and weak buffering mechanisms against climate shocks. By improving access to drought-resilient feed options and strengthening adaptive market mechanisms, the output enables agro-pastoral households to better absorb climate stresses, reduce climate-related losses, and maintain basic livelihood security under increasingly variable and extreme climatic conditions.

52. The project will support 60,000 agro-pastoralist households to improve fodder availability through the promotion of climate-resilient fodder production systems suited to semi-arid and rangeland conditions in Nakuru and Narok. This will include the introduction and scaling of drought-tolerant fodder species, improved pasture management practices, and fodder conservation techniques such as hay and silage making. Community-level fodder storage infrastructure will be supported to reduce post-harvest losses and stabilize feed supply during prolonged dry spells. Extension support and farmer-to-farmer learning will strengthen local capacity to plan fodder production in line with seasonal climate forecasts, reducing livestock mortality and distress sales during drought periods.

53. To translate improved production into sustainable incomes, the project will strengthen market access for livestock and livestock products. This will include supporting producer groups and cooperatives to improve aggregation, quality control, and bargaining power; facilitating linkages with traders, processors, and formal markets; and promoting the use of market information systems to improve price transparency. Investments in basic market-enabling infrastructure and services, such as water points at markets and improved animal handling practices, will be complemented by capacity building on business skills and compliance with market standards. Together, these measures will reduce transaction costs, improve price realization, and enhance the overall resilience of agro-pastoralist value chains under increasing climate stress.

Key adaptation activities include:

*1.3.1 Enhance production and storage of fodder during droughts to benefit 60,000 agro-pastoralist households (300,000 individuals) in Narok County through development of 5 grazing plans, fencing, restoration/reseeding, and harvesting of 1,000 ha of fodder in 5 community ranches and 5 fodder storage facilities with 5 community-driven fodder sharing plans – budgeted at **USD 640,000**.*

*1.3.2 Enhance market access for livestock through establishment of 5 improved animal handling facilities to benefit 60,000 agro-pastoralist households in 5 rural markets – budgeted at **USD 160,000**.*

Component 2: Climate Finance Mobilization

Outcome: Increased private sector investment in climate-resilient initiatives.

54. This component aims to unlock and scale private sector finance flows to support priority climate-resilient investments in Nakuru and Narok Counties, particularly in water security, climate-smart land use, agro-pastoral value chains, and urban resilience. Despite the clear identification of adaptation priorities in County Integrated Development Plans (CIDPs) and sector strategies, implementation is constrained by limited project preparation capacity, fragmented investment pipelines, and weak linkages between counties, local enterprises, and potential investors. This component addresses these structural barriers by strengthening the enabling environment for climate finance, improving the bankability of adaptation projects, and evaluating the de-risking instrument necessary for private capital participation.

55. The component will be led by NETFUND at a budget of 18% (USD 1.5M) of the total components' cost, to support counties to translate adaptation priorities into investment-ready projects by strengthening technical, financial, coordination, governance, and institutional capacities for climate finance mobilization. This includes the development of robust project pipelines aligned with county climate change funds, national climate finance frameworks, and private sector investment criteria. Targeted technical assistance will be provided to structure projects with clear revenue models, risk-sharing mechanisms, and measurable climate adaptation benefits, making them attractive to domestic and international investors.

56. A core focus will be on catalyzing private investment into climate-resilient initiatives through blended finance approaches. The project will facilitate partnerships between county governments, local financial institutions, impact investors, and private enterprises to co-invest in priority areas such as resilient water infrastructure, nature-positive agro-pastoral value chains, renewable energy-powered water services, and climate-resilient urban infrastructure. De-risking instruments, including grants for early-stage project preparation, technical

assistance, and performance-based incentives, will be used to crowd in private capital while safeguarding public and community interests.

57. By addressing upstream project preparation gaps, strengthening county–private sector interfaces, and deploying targeted de-risking mechanisms, Component 2 will enable a sustained increase in private sector investment in climate-resilient initiatives. This will enhance the scale, efficiency, and long-term sustainability of adaptation investments, contributing to resilient local economies and improved climate outcomes in Nakuru and Narok Counties.

Key outputs under this component will include:

Output 2.1: Private sector investable project pipeline developed.

58. This output focuses on converting county-identified climate adaptation priorities into a structured, credible, and investor-ready pipeline capable of attracting private sector finance in Nakuru and Narok Counties. Both counties have established Climate Change Coordination Units (CCCUs) and have already developed a range of climate adaptation projects addressing water security, land restoration, and climate-resilient livelihoods. However, most of these projects have not progressed beyond the design stage due to limited public financing, competing development priorities, and high demand on constrained national and county resources.

59. As a result, adaptation investments that are technically sound and locally prioritized remain unimplemented, prolonging exposure to climate risks. Output 2.1 addresses this implementation gap by strengthening county systems and capacities to systematically prepare, prioritize, and package climate adaptation projects in ways that align with private sector investment requirements. By translating existing adaptation priorities into bankable, investment-ready projects, this component will explore and unlock options for accelerating implementation through private sector participation, thereby complementing scarce public resources and scaling climate resilience outcomes.

60. The project will work closely with CCCUs and relevant county departments to prioritize investment-ready projects drawn from existing county pipelines, with a strong focus on scalable water and land-based adaptation investments aligned with AF and NETFUND ESS standards. Selection will be guided by clear criteria, including climate adaptation impact, financial viability, scalability, and alignment with county development plans and national climate finance frameworks, and compliance with AF and NETFUND environmental and social safeguard policy. This prioritization process will ensure that limited public and concessional resources are directed toward projects with the highest potential to crowd in private capital.

61. To enable effective project preparation, the output will strengthen county capacity for investment planning and climate finance readiness. Targeted technical assistance will support counties to undertake adaptation project structuring, risk assessment, and basic feasibility analysis, including the identification of revenue models, cost-recovery mechanisms, and appropriate public–private partnership (PPP) or blended finance structures. 80 County officials and municipal staff will be supported to better understand private sector investor expectations, climate risk considerations, and environmental and social safeguards, enhancing the overall credibility and bankability of proposed investments.

62. Through this output, Nakuru and Narok Counties will be equipped with a sustainable mechanism for generating and maintaining a pipeline of investable climate adaptation projects, laying the groundwork for increased private sector participation and long-term financing of climate-resilient development.

The project will support the following activities:

*2.1.1: Hold four technical workshops to review, cluster and prioritize investment-ready projects proposed by CCCUs in both counties – budgeted at **USD 185,000**.*

*2.1.2: Develop a pipeline of at least four investor-ready climate adaptation projects, each worth at least USD 10M, through conducting feasibility studies, financial structuring, socio-economic analysis, stakeholder consultations, and risk assessment – budgeted at **USD 454,000**.*

*2.1.3: Strengthen the capacity of 80 county officials for project preparation, investment planning, and climate finance readiness through coaching and co-development of at least four investor-ready climate adaptation projects prioritized under 2.1.2 – budgeted at **USD 261,000**.*

Output 2.2: Increased mobilization of climate investment

63. This output seeks to translate the investable climate project pipeline into actual flows of private capital for climate-resilient development in Nakuru and Narok Counties. Building on the strengthened project preparation and investment readiness under Output 2.1, Output 2.2 addresses downstream barriers to investment, including weak investor–county interfaces, high perceived risk of adaptation projects, and regulatory and policy constraints that limit private sector participation. The output is designed to actively attract private capital while safeguarding public value and climate adaptation outcomes.

64. To address risk perceptions and improve the financial attractiveness of climate adaptation investments, the project will support the design and deployment of de-risking and blended finance instruments. These may include concessional capital, results-based grants, technical assistance facilities, and risk-sharing mechanisms that lower upfront costs and mitigate climate, market, and implementation risks. By strategically combining public and concessional resources with private capital, the project will enhance project viability and enable private investors to participate in sectors traditionally viewed as high-risk, such as climate-resilient water infrastructure and nature-based land management.

65. In parallel, the output will support counties to strengthen and refine regulatory and institutional frameworks that attract and sustain private sector participation. This will include technical support to review and operationalize policies related to public–private partnerships, climate finance, and county-level incentives for private investment in climate resilience. Counties will be supported to clarify roles, approval processes, and risk allocation arrangements, increasing investor confidence and reducing transaction costs.

66. The project will facilitate structured investor engagement and deal match-making platforms to connect county governments and local project sponsors with domestic and international private investors. These platforms will include targeted investment forums, deal rooms, and bilateral engagements where counties can present prioritized, investment-ready projects in water, land restoration, agro-pastoral value chains, and urban resilience. The engagements will be structured around clear investment propositions, standardized project information, and transparent governance arrangements, enabling more efficient due diligence and decision-making by investors.

67. Through these integrated actions, Output 2.2 will result in increased mobilization of climate investment in Nakuru and Narok Counties, enabling the implementation of high-impact adaptation projects at scale and contributing to more resilient, inclusive, and sustainable local economies. To achieve this, the project will support the following activities.

*2.2.1: Facilitate structured climate adaptation investor engagement forums and deal matchmaking platforms during four county devolution conferences that will attract other partners working on unlocking private sector investment in climate adaptation – budgeted at **USD 96,000**.*

*2.2.2: Design de-risking and blended finance instruments to crowd in private capital for climate resilience for four investor-ready climate adaptation projects developed in activity 2.1.2 – budgeted at **USD 112,000**.*

*2.2.3: Support counties to develop regulatory frameworks that attract private sector climate adaptation investment through policy gap analysis, development of policies and regulatory frameworks to facilitate climate adaptation investments – budgeted at **USD 392,000**.*

Component 3: Urban Climate Resilience

Outcome: Enhanced urban resilience against heat stress and floods.

68. Rapid urbanization across Nakuru and Narok Counties has significantly increased the exposure of urban populations and infrastructure to climate-induced heat stress and flooding. For instance, Nakuru City, Kenya's third-largest urban area with a population of approximately 700,000 and growing at an annual rate of 6%, is expected to surpass 1 million residents by 2030, intensifying demand for services and infrastructure and increasing vulnerability to climate extremes. Around 35% of Nakuru's population lives in informal settlements, where inadequate planning and infrastructure compound climate risks. In Narok County, Narok Town itself has an estimated population of around 65,430, and other growing urban centres such as Kilgoris and Lolgorian further reflect expanding urban footprints that are increasingly exposed to flooding and heat hazards.

69. Climate variability and change are driving more frequent and intense weather extremes in these urban settings. Nakuru County's risk and vulnerability assessments identify flash and surface floods among the key hazards, alongside rising temperatures and unpredictable rainfall patterns that exacerbate flood and heat stress risks. In Narok, the frequency of seasonal floods has increased over the past decade, with flash floods occurring nearly every rainy season and leading to loss of lives, property, and disruption of livelihoods. These trends mirror broader national experiences: Kenya regularly faces climate extremes, with moderate floods or droughts occurring every three to four years and major droughts approximately every ten years, imposing significant social and economic costs.

70. Against this backdrop, Component 3, budgeted at 29% (USD 2.5 M) of the total components' budget, will be executed by WRI to promote urban climate resilience through integrated nature-based solutions (NbS) and climate-informed planning tools tailored to local conditions. Nature-based interventions, such as restoration of urban green spaces, protection of wetlands and riparian buffers, and incorporation of blue–green infrastructure, offer dual benefits of cooling urban heat islands and improving stormwater management to reduce flood peaks. These measures will be integrated into urban planning and infrastructure design, supported by climate risk assessments, flood mapping, and heat vulnerability analysis to ensure development decisions account for current and projected climate hazards.

71. WRI will work with local governments to strengthen these counties and municipal institutional capacity to mainstream climate resilience into land-use planning, zoning, and infrastructure standards, ensuring that new development and informal settlement upgrading prioritize resilience outcomes. By embedding NbS and climate risk data into planning frameworks, Nakuru and Narok will be better positioned to mitigate the impacts of climate change, safeguard vulnerable populations (particularly residents of informal settlements), and steer sustainable urban growth in a rapidly changing climate.

Key outputs under component 3 will include:

Output 3.1: County-level guidelines and tools for managing urban heat stress and floods developed and implemented.

72. In Nakuru and Narok Counties, rapid urban growth, expanding informal settlements, and loss of natural drainage and green spaces have increased exposure to climate hazards. This output will strengthen county and municipal capacity to systematically manage urban heat stress and flood risks through practical, locally grounded guidelines and planning tools.

73. Under this output, the project will support the co-development of county-level guidelines for managing heat stress and floods, working closely with CCCUs, urban planning departments, and municipal authorities. These guidelines will promote the use of NbS, such as urban tree cover, green corridors, wetland and riparian restoration, permeable surfaces, and green open spaces, as cost-effective measures to reduce surface temperatures, improve stormwater management, and buffer extreme rainfall events. The process will be participatory and evidence-based, drawing on local climate risk assessments developed, flood-prone area mapping, and heat vulnerability analyses. Once developed, the guidelines will be mainstreamed into County Climate Change Action Plans (CCCAPs) and related urban development instruments, ensuring they inform both short-term investments and long-term spatial planning decisions.

74. Complementing the county guidelines, the project will develop a Resilient Urban Spaces Playbook tailored to the realities of secondary cities and rapidly urbanizing towns in Kenya. The playbook will translate technical concepts into practical planning and implementation tools, including design options, planning checklists, case examples, and decision-support frameworks for integrating NbS into urban infrastructure and land-use planning. To promote uptake and consistency across project counties, the playbook will be disseminated and socialized with urban planners, engineers, and climate officers, providing a shared reference for climate-resilient urban development.

75. The project will also install heat stress in identified urban hotspots and establish automatic weather stations in upper catchments that feed rivers passing through high-density settlements. Low-cost heat stress sensors will be installed in county government-owned facilities within urban spaces and informal settlements to benefit vulnerable groups, including low-income households, persons with disabilities, the elderly, women, and

youth.

76. The sites for installing automatic weather stations in upper catchments will be co-identified and selected during the full proposal development stage, using criteria developed in collaboration with communities and county governments. Selection will comply with national and international standards, including, but not limited to, NETFUND and AF's environmental and social safeguard policies.

77. This will strengthen institutional coordination, improve the quality of urban planning, and support the transition toward cooler, safer, and more climate-resilient towns and cities. The key activities include:

3.1.1Hold four co-development workshops with county officials, to design guidelines on heat stress and flood management, and mainstream them into the two-county climate change action plans – budgeted at ***USD 96,000****.*

3.1.2 Hold four workshops to develop and socialize with urban planners with a resilient urban space playbook detailing resilient urban planning – budgeted at ***USD 173,000.***

3.1.3 Install 125 heat sensors in 13 and 7 urban centres in Nakuru and Narok counties, respectively, to inform heat stress alerts and resilience actions for the targeted urban dwellers – budgeted at ***USD 90,000****.*

3.1.4 Install a total of 12 river gauges (in 3 rivers per county) and 24 automatic weather stations in the upper catchment for the river passing through high-density populated areas – budgeted at ***USD 692,000****.*

3.1.5 Develop a data acquisition and dissemination platform, and establish a heat management plan and model to guide the two counties on heat and flood resilience actions– budgeted at ***USD 114,000***

Output 3.2: Nature-based solutions implemented to manage heat stress and floods.

78. This output targets the implementation of nature-based and climate-responsive urban design solutions to reduce heat stress and flooding in selected urban centres across Nakuru and Narok Counties. Rapid urban expansion, increased surface paving, and declining green and open spaces have intensified urban heat island effects and constrained natural stormwater infiltration, leading to recurrent flooding and rising public health risks, particularly in informal and peri-urban settlements.

79. The project at the full proposal stage will identify and select priority urban centers and neighborhood sites for NbS intervention and heat stress monitoring, in collaboration with county governments, municipalities, and communities, based on climate risk profiling and alignment with CCCAPs and urban development priorities, with compliance with AF and NETFUND Environmental and Social Safeguards policy.

80. Within the selected sites, the project will implement urban nature-based solutions that integrate green buildings, public green spaces, and sustainable flood management systems. This will include the promotion of urban green buildings, such as reflective roofs, shaded facades, natural ventilation, and reflective or permeable paving materials, to reduce indoor and outdoor heat stress. Public spaces, markets, streets, schools, and transport nodes will be redesigned with urban greening elements, including tree canopies, green corridors, and shaded walkways, to lower surface and ambient temperatures and improve thermal comfort for pedestrians and traders.

81. To address flooding challenges, the project will support the allocation and protection of semi-permeable urban areas for rainwater infiltration, underground recharge, and stormwater management. These measures will include permeable pavements, bioswales, rain gardens, and infiltration trenches that allow rainwater to percolate into the ground, reduce runoff volumes, and recharge shallow aquifers. Such systems will be integrated into urban layouts to complement existing drainage infrastructure and reduce flood peaks during intense rainfall events.

82. To support effective implementation and adaptive management of nature-based solutions under Output 3.2, targeted climate data collection systems will be deployed to track and manage changes in heat stress and flooding impacts resulting from project interventions. Low-cost heat stress sensors will be installed in county government–owned facilities located within urban centres and informal settlements to generate localized temperature and heat exposure data before and after intervention. These data will be used to assess the effectiveness of urban greening, shading, and cooling measures in reducing heat stress, particularly for vulnerable groups, including low-income households, persons with disabilities, the elderly, women, and youth.

83. In parallel, automatic weather stations will be installed in selected upper catchment areas to improve real-time monitoring of rainfall intensity and patterns that influence downstream urban flooding. The data generated will support flood risk management by informing the design, placement, and performance assessment of urban flood mitigation measures, including permeable surfaces, green drainage systems, and restored riparian buffers. Sites for these stations will be co-identified with communities and county governments during the full proposal development stage, using jointly agreed criteria and in compliance with national standards and the Adaptation Fund's environmental and social safeguard policies.

84. Implementation will prioritize interventions whose benefits will accrue for vulnerable urban populations, particularly residents of informal settlements, women, youth, and small-scale traders who face disproportionate exposure to heat stress and flood risks. Community participation will be central to the design, implementation, and maintenance of interventions, strengthening local stewardship and long-term sustainability, and WRUAs and community-level CBOs. The key activity will be as follows:

*3.2.1 Co-select urban centers and towns to pilot some heat reduction actions, such as increasing urban green spaces and/or reflective roofs identified in the model under activity 3.1.5 – budgeted at **USD 500,000.***

*3.2.2. Implement nature-based solutions on flood management, including rehabilitation of riparian areas and increasing urban rainwater infiltration, in line with the county's climate change action plans and the developed resilient urban space playbook, where applicable - budgeted at **USD 835,000***

Component 4: Enabling Systems for Climate Resilience

Outcome: Enhanced capacity of institutions and communities to prevent and reduce climate risks.

85. Component 4 focuses on strengthening the governance, information, and learning systems that underpin effective and sustained climate resilience in Nakuru and Narok Counties. While both counties have made progress in establishing climate change coordination mechanisms, including CCCUs, Ward Climate Change Planning Committees (WCCPCs), and Climate Change Action Plans, persistent gaps remain in institutional coordination, data availability, community-level capacity, and the translation of climate information into actionable decisions. These systemic constraints limit the effectiveness and long-term sustainability of adaptation investments implemented under other components of the programme.

86. To address information gaps, the component will be led by NETFUND to support the development and use of climate risk information at an estimated budget of USD 1 M (equivalent to 12% of the total components' budget), linked to early warning systems, and decision-support tools tailored to county and community needs under component 3. This includes strengthening access to localized climate data, seasonal forecasts, and risk mapping to inform planning for droughts, floods, and heat stress. Climate information will be translated into user-friendly formats and disseminated through community structures, extension services, and digital platforms, enabling households, agro-pastoralists, and urban residents to take timely preventive action.

87. Community-level capacity building and learning will be a central pillar of this component. The project will support WCCPCs, CFAs, and WRUAs, including youth, women, and vulnerable groups, to understand climate risks, participate in adaptation planning, and manage local resilience investments. Particular emphasis will be placed on inclusive participation of vulnerable groups, women, and youth, strengthening social cohesion and local leadership in climate risk management.

88. Finally, Component 4 will promote learning, knowledge sharing, and adaptive management across Nakuru and Narok Counties. Mechanisms will be established to capture lessons from implemented interventions, facilitate peer learning between counties and communities, and inform continuous improvement of policies and practices. By reinforcing the systems that enable informed decision-making, inclusive governance, and institutional learning, Component 4 will ensure that climate resilience gains achieved under the programme are sustained, scaled, and embedded within county development pathways.

Output 4.1: Improved capacity of local communities to sustainably manage climate-resilient water and rangeland assets.

89. This output strengthens the capacity of local communities to sustainably manage and safeguard critical water and rangeland resources under increasing climate variability and extremes. As climate change intensifies droughts, erratic rainfall, and land degradation, the long-term effectiveness of restored ecosystems

and water infrastructure depends on strong community-level institutions with the skills and authority to manage these assets adaptively.

90. The output will focus on building the operational, technical, and governance capacities of community-based institutions, including Climate Change Coordination Units (CCCUs), Ward Climate Change Planning Committees (WCCPCs), Community Forest Associations (CFAs), Water Resource User Associations (WRUAs), and grazing committees. Capacity strengthening will cover climate-informed resource planning, operation and maintenance of climate-resilient infrastructure, ecosystem monitoring, conflict-sensitive resource governance, and transparent reporting and accountability mechanisms.

91. By enhancing these capacities, communities will be better equipped to take ownership of rehabilitated rangelands, restored catchments, water pans, communal boreholes, and related climate-resilient assets. This participatory and locally anchored approach ensures that adaptation investments are effectively managed, protected from degradation, and maintained over the long term, even as climate conditions continue to change.

92. Ultimately, strengthened community stewardship will reduce the risk of asset failure, support sustained water availability and rangeland productivity during climate shocks, and reinforce ecosystem resilience across project landscapes, contributing to more durable and locally driven climate adaptation outcomes.

93. Key activities will be:

*4.1.1 Strengthen governance and institutional capacity of community-based climate institutions by first conducting an institutional gap analysis and training members on the identified capacity gaps (2 CCCUs, 85 WCCPCs, 5 CFAs, 5 WRUAs, 5 grazing committees) – budgeted at **USD 287,000**.*

*4.1.2 Build technical capacity for operation and maintenance of climate-resilient water and rangeland assets developed/rehabilitated under this project (5 CFAs, 5 WRUAs, 5 grazing committees with approximately 15 members each)- budgeted at **USD 110,000**.*

*4.1.3 Strengthen climate-informed resource planning and adaptive management at the community level through training of 85 WCCPCs – budgeted at **USD 64,000**.*

*4.1.4 Build community capacity for ecosystem and asset monitoring and reporting through training of 85 WCCPCs - budgeted at **USD 64,000**.*

*4.1.5 Promote inclusive participation and leadership of women, youth, and vulnerable groups in asset management through the development/revision of by-laws that govern 5 CFAs, 5 WRUAs and 5 grazing committees of approximately 15 members each - budgeted at **USD 33,000**.*

*4.1.6 Support development and enforcement of community by-laws to govern assets developed/rehabilitated under this project through community forums guided by CFAs, WRUAs and grazing committees - budgeted at **USD 192,000**.*

Output 4.2: Climate information, knowledge management, and MRV systems operationalized.

94. This output aims to strengthen the capacity of county and local institutions to apply climate information for informed decision-making, adaptation planning, and reporting of adaptation gains. It will operationalize integrated climate information, knowledge management, and monitoring, reporting, and verification (MRV) systems that support evidence-based climate resilience across Nakuru and Narok Counties.

95. Climate and hydrological data generated through county-level monitoring systems, including heat stress sensors, river gauges and automatic weather stations supported under Output 3.2, will be systematically integrated into county MRL frameworks and linked to national MRV systems to support reporting on adaptation outcomes. These data will be shared with relevant national institutions, including the Kenya Meteorological Department and other mandated agencies, to strengthen national climate data coverage, improve the accuracy of climate risk analysis, and enhance early warning systems for floods, droughts, and extreme heat in the target counties. Strengthened data flows between the county and national levels will improve the timeliness, spatial resolution, and usability of climate information for both local response and national adaptation reporting.

96. The output will further support the integration of climate risk information and hydrological analysis into water resource planning, catchment management, and land-use decision-making, enabling counties to better anticipate, prepare for, and respond to climate-related hazards. In parallel, county-level monitoring, reporting, and learning (MRL) systems will be developed and institutionalized to track progress under CCCAPs, assess

the effectiveness of adaptation interventions, and support iterative learning and adaptive management based on emerging climate data and observed impacts.

97. To promote learning and replication beyond the target geographies, the output will also include a structured knowledge dissemination and communications component. This will involve the development of practical communication materials, including best practice magazines, policy briefs, and digital content, to document lessons learned and successful adaptation approaches. In addition, the project will support the preparation and publication of technical reports and peer-reviewed journal articles to share evidence, methodologies, and results with national, regional, and international audiences. These knowledge products will contribute to broader learning on climate adaptation, inform policy, and practice, and support the scaling of effective approaches beyond Nakuru and Narok Counties.

The output activities include:

*4.2.1 Integrate climate risk information and hydrological analysis into water resource planning, catchment management, and land-use decision-making relevant to agro-pastoral systems through policy briefs and roundtables with leadership officials from the two counties – budgeted at **USD 80,385**.*

*4.2.2 Develop and institutionalize monitoring, reporting, and learning systems to track County Climate Change Action Plans – budgeted **USD 217,570**.*

B. Describe how the project provides economic, social & environmental benefits

98. The NAREC project delivers integrated economic, social, and environmental benefits by strengthening climate resilience across water systems, ecosystems, livelihoods, and urban environments in Narok and Nakuru Counties. The project is explicitly designed to prioritize the most climate-vulnerable communities and groups, including women, youth, pastoralists, agro-pastoralists, informal settlement residents, persons with disabilities, and resource-poor households, while ensuring full compliance with the Adaptation Fund's Environmental and Social Policy and Gender Policy.

Economic benefits for vulnerable communities

99. Economically, the project reduces climate-related losses and stabilizes incomes by strengthening access to climate-resilient water infrastructure, restoring productive ecosystems, and enhancing adaptive livelihood systems. Under Component 1, improved year-round access to water for domestic and productive uses will directly benefit approximately 200,000 households, significantly reducing drought-related livestock losses, crop failure, and time spent accessing water. Reduced water scarcity lowers household expenditure on emergency coping strategies, such as distress livestock sales, water trucking, or migration.

100. Agro-pastoralists and smallholder farmers, identified as among the most climate-exposed groups, will benefit from improved fodder availability, and rehabilitated rangelands. These interventions reduce income volatility linked to droughts and erratic rainfall and support more predictable production outcomes. In urban areas, investments in nature-based solutions reduce flood damage to homes, markets, and infrastructure in informal settlements, lowering repair costs and income disruption for low-income households and informal workers.

101. Climate finance mobilization under Component 2 further amplifies economic benefits by accelerating implementation of locally prioritized adaptation investments that have been delayed due to limited public resources. By packaging adaptation projects for private sector participation, the project helps unlock additional financing for water, land restoration, and urban resilience, contributing to longer-term economic stability and job creation, particularly for youth and women engaged in restoration, water services, and nature-based enterprises.

Social benefits, equity, and vulnerable groups

102. The project delivers substantial social benefits by improving access to basic services, reducing exposure to climate risks, and strengthening inclusive governance. Reliable water access under Component 1 is expected to reduce average water collection distances, currently up to 10 km during dry seasons in parts of Narok, thereby saving time and labor, particularly for women and girls. These time savings translate into improved school attendance, reduced physical strain, and greater participation in income-generating and community activities.

103. Beyond women, the project explicitly targets other vulnerable groups, including youth, elderly persons, people with disabilities, female-headed households, informal settlement residents, and marginalized agro-pastoralists. Equitable benefit distribution will be ensured through participatory targeting, inclusive water user registration systems, gender-balanced community institutions (WRUAs, CFAs, WCCPCs), and transparent governance mechanisms. Youth will benefit through skills development and employment opportunities in ecosystem restoration, monitoring, and maintenance of climate-resilient assets.

104. Social benefits are also quantified through institutional reach: community-based institutions across multiple wards will be strengthened, improving local decision-making and conflict management over increasingly scarce resources. Under Component 3, urban residents, particularly the estimated 35% of Nakuru City's population living in informal settlements, will experience reduced heat stress and flood exposure through urban greening, improved drainage, and cooling public spaces, with direct public health and safety benefits.

105. The project will directly and indirectly benefit over one million people, with at least 50% of beneficiaries being women.

Environmental benefits

106. Environmentally, the project delivers long-term adaptation benefits by restoring and protecting ecosystems that regulate water flows, moderate climate extremes, and sustain livelihoods. The project targets the rehabilitation of up to 150,000 hectares of degraded land, comprising both public and private lands, based on landscape-scale climate risk and hydrological importance.

107. Public land restoration, financed by the Adaptation Fund, will focus on high-impact ecosystems such as degraded sections of the Mau Forest Complex, wetlands, and riparian corridors defined as 30 meters from the river centerline. These areas were prioritized due to their critical role in regulating downstream water availability, reducing flood peaks, preventing erosion, and buffering drought impacts. Restoration benefits include improved groundwater recharge, reduced sedimentation of water infrastructure, enhanced biodiversity, and strengthened ecosystem resilience under rising temperatures and rainfall variability.

108. Complementary restoration on private land will be co-financed through WRI's Restore Local initiative, working with farmers as restoration champions and linking ecosystem recovery to income-based approaches. This blended public–private landscape strategy ensures ecological connectivity, increases restoration scale, and enhances sustainability beyond the project lifetime.

Safeguards, risk mitigation, and gender compliance

109. The project has been designed to avoid or minimize negative environmental and social impacts in full compliance with the Adaptation Fund's and NETFUND's Environmental and Social Policy and Gender Policy. All physical interventions will undergo environmental and social screening, site-specific assessments where required, and participatory consultations with affected communities. No involuntary resettlement or land acquisition is anticipated; restoration activities will prioritize degraded public forests and community forests with smallholder pastoralists engaged to adopt restoration on their communal lands.

110. Gender considerations are embedded across all components. Women, youth, and vulnerable groups will constitute at least 50% of beneficiaries and will be actively represented in decision-making bodies, training programs, and resource management committees. Gender-based risks, including workload increases or exclusion, will be mitigated through targeted capacity building, inclusive governance structures, and continuous monitoring.

111. Grievance redress mechanisms will be established at community and county levels to ensure that concerns related to access, equity, or unintended impacts are addressed promptly and transparently.

112. A full environmental and social risk and impact assessment report, and Environmental and Social Management plan will be developed at the full proposal stage, once the concept note is approved.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project

113. This project is designed to deliver high-impact adaptation outcomes at scale through a blend of

infrastructure, ecosystem-based solutions, inclusive financing, and institutional strengthening. The total budget of USD 8.55 million is strategically distributed across four synergistic components and enabling support costs (see Table 4). The design prioritizes cost-effectiveness through its integrated design, strategic focus on nature-based solutions, leveraging multiple finance streams, opportunities, community-driven delivery models, and integration with county systems to ensure long-term sustainability and value for money.

114. The **first component** focuses on enhancing integrated water management for agropastoral resilience. The project anticipates that investments in climate-resilient water infrastructure, catchment restoration, and agropastoral value chains will provide high adaptation returns. These will be achieved through improving water availability, ecosystem functionality, and livelihoods. Comparatively, rehabilitation of existing community water assets and restoration of degraded catchments is more cost-effective than response through emergency water trucking or post-drought recovery efforts. By co-developing Community Restoration Plans (CRPs) with WRUAs and CFAs, the project will minimize design and implementation costs while ensuring long-term maintenance through local ownership. The project will also seek to rehabilitate, restore, and protect degraded ecosystems, including grazing land, enhancing fodder production and market access for livestock. These interventions will further reduce climate-induced income volatility response costs during drought periods, e.g., post post-drought livestock restocking.

115. Under component 2, the project will seek to crowd in private sector capital in climate resilience building initiatives. This will be a core component of cost-effectiveness, whereby resources will be dedicated towards building county capacity and de-risking private investment. This will contribute to developing investable project pipelines and strengthening county project preparation capacity will reduce transaction costs for investors and avoid fragmented, ad hoc financing. Rather than rely solely on public finance, the project will use Adaptation Fund resources as catalytic funds to unlock private capital for climate-resilient investments. The use of de-risking and blended finance instruments will also increase the leverage of public funds. This will allow relatively modest funds in the form of grant investments to mobilize significantly larger volumes of private finance. This approach is anticipated to deliver sustained adaptation benefits while reducing long-term dependence on grant funding.

116. Under component 3, the project addresses heat stress, urban flood management, and ecological degradation through NbS. Solutions for heat stress and flood management provide cost-effective alternatives to grey infrastructure, offering lower capital costs, reduced maintenance expenses, and multiple co-benefits such as improved air quality, biodiversity, and public health. The project will co-develop county guidelines on heat stress and flood management and mainstream them into the county climate change action plans. These guidelines will be used to pilot components for heat stress and flood management within the county in line with the resilient city playbook. These pilots will ensure that lessons from pilot urban centers can be scaled across counties at minimal additional cost, increasing the efficiency and replicability of investments.

117. Component 4 aims to bolster enabling systems for climate resilience through enhancing the capacity for institutions and communities to prevent and reduce climate risk. This will be done by providing/ strengthening climate information systems and monitoring frameworks to enhance data-driven decision-making and early warning systems. Improved climate and hydrological data will enable better targeting of future investments and prevent maladaptation, enhancing the effectiveness of investments across all project components. Integrating monitoring, reporting, and learning into existing County Climate Change Action Plans will further avoid duplication of efforts and ensure efficient use of resources.

Table 4: Cost-effectiveness analysis

Component	Selected intervention	Cost (USD)	Benefits Generated	Alternative to Project and indicative costs	Cost Comparison
Component 1: Integrated Water Resource Management for Agro-Pastoral Resilience	Rehabilitation of community water infrastructure and catchment restoration	3.5M	- Preventive investments reduce exposure to climate risks and emergency response costs, - Improvement of groundwater recharge,	Large-scale Concrete Dam & Piped Distribution: Building centralized reservoirs and laying over 10-20 km of piping for	The project focus on community level water structures such as sand dams and communal boreholes with solar pumps typically cost

Component	Selected intervention	Cost (USD)	Benefits Generated	Alternative to Project and indicative costs	Cost Comparison
			- Multi-year water security benefits - Sustainability of infrastructure through community management	remote clusters (USD 2-10M), depending on capacity and distance	$15k – $50k per site, offering a highly localized and cheaper alternative for dispersed agro-pastoralists.
	Improved fodder production, storage, and improved market access (agropastoral value chains		- Early resilience investments stabilize incomes. - Avoid costly livestock loss during droughts	Post-drought livestock restocking and humanitarian assistance	
Component 2: Climate finance mobilization Increased private sector investment	Development of investable pipelines and de-risking/blended finance instruments	1.5M	- Use of public funds catalytically to unlock higher private capital - Improving initiative sustainability and reducing long-term fiscal burden	Adaptation finance requirement is huge with USD 15.4M budget requirements for Narok County only	Spending ~$10k- $25k on project preparation and "investor and partner engagements" to unlock millions in private capital is a significantly more efficient use of limited grant funds.
Component 3: Urban Climate-Resilience Enhanced urban resilience against heat stress and floods	Nature-based solutions (NbS) integrated into county planning	2.5M	- Leveraging natural processes and existing landscapes, reducing material and construction costs. - Lower operation and maintenance costs - multiple co-benefits (e.g., Biodiversity enhancement, public health benefits) at no or low additional cost	Grey infrastructure (drainage expansion, flood walls, cooling systems) (USD 500K-1.5M per kilometer of high-capacity drainage	The project focuses on NbS nature-based solutions that integrate green buildings, public green spaces, and sustainable flood management systems are often 20-30% cheaper to install and maintain than concrete equivalents while providing cooling.
Component 4: Enhanced institutional and community capacity	Capacity-building of community institutions and climate information systems	1M	- Reduced administrative cost per intervention. - Sustainability of infrastructure through community management - Improved climate risk decision-making coverage	Ad hoc and stand-alone infrastructure investments with inadequate governance or missing data systems	The project will focus on low-cost automatic weather stations and heat sensors (utilizing local networks) range from $2k – $5k per unit, allowing for much denser data coverage.

118. Overall, the Project is built on high standards of effectiveness with estimated impacts expected to be significant across sectors. The Project is designed to address efficiently the various bottlenecks restraining climate investments: lack of funding, human or material resources and technical skills in adaptation. Regarding the substantial anticipated impacts that will be generated by the project and its potential to generate systemic and self-sustained effects, the project's costs represent a sound investment. Finally, the project presents an opportunity to catalyze additional investment in adaptation.

119. In terms of financial sustainability, the project is designed to transition from donor-dependent interventions to self-sustaining systems managed by county governments, communities, and the private sector. For component 1, sustainability comes from transitioning community project-built water assets to county-backed rural water companies that will collect fees for operation and maintenance. Besides, the communities will be trained to manage these assets and enhance household incomes through resilient livestock value chains. Component 2 of the project aims to establish a sustainable pipeline by building capacity to develop bankable projects that meet private sector criteria. The project will support the development of blended finance and derisking tools to attract private capital into climate resilience as well as establish supportive county polices to sustain this investment flow in the long term. Sustainability of Component 3 of the project is achieved by mainstreaming Nature-based Solutions (NbS) into standard urban

and climate change planning and budgeting processes.

D. Describe how the project is consistent with national or sub-national sustainable development strategies

120. Table 5 below lists the global, national, or sub-national sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments

Table 5: National or sub-national sustainable development strategies

Institutional, policy, and regulatory framework	**Global, National, or County sustainable development strategies**
UNFCCC Paris Agreement	The project contributes to this agreement by building adaptative capacity and reducing climate vulnerability of communities and ecosystems. Additionally, it supports mobilizing private climate finance, which is aligned with Article 2.1(c), which aims to make financial flows consistent with climate-resilient development.
UN Convention on Biological Diversity (CBD) and the Kunming-Montreal Global Biodiversity Framework	The project's interventions on ecosystem restoration and nature-based solutions for urban rural resilience directly contributes to the framework's goals of halting biodiversity loss, restoring degraded ecosystems, and mainstreaming biodiversity across sectors
UN Convention to Combat Desertification (UNCCD)	The project supports efforts to combat desertification and land degradation through restoring degraded rangelands and improving water retention in arid and semi-arid lands (ASALs), a critical issue in the target counties
The Constitution of Kenya, 2010	The Constitution of Kenya, 2010 is a cornerstone document that articulates the collective aspiration of the Kenyan people for governance rooted in fundamental principles. Among these are the values of human rights, equality, and social justice. By enshrining these ideals, the Constitution establishes a framework that seeks to ensure fairness and dignity for all citizens, guiding national efforts toward inclusive and equitable development. Under article 42, the constitution gives every person the right to "a clean and healthy environment" while Article 70 empowers any person whose right to a right to a clean and healthy environment is violated to seek legal redress.
Updated Nationally Determined Contribution (NDC), 2020	Kenya's NDC aims to reduce 32% of GHG emissions to 2030, compared to the BAU scenario of 123 $MTCO_2e$. Concrete measures include increasing renewable energies in the electricity generation mix of the national grid. In terms of adaptation, Kenya has committed to enhancing adaptive resilience in relevant economic sectors. Some prioritized adaptation programs are those related to agriculture, crops, livestock, and fisheries.
National Adaptation Plan (2015-2030), 2016	Kenya's NAP outlined prioritized areas for adaptation, which include energy, technology & innovations, public sector reform, workforce & human capital, infrastructure, land reforms, education, health, water, population & housing, vulnerable groups (gender and age), tourism, agriculture, livestock & fisheries, and natural resources. Some of the objectives of Kenya's NAP include enhancing the resilience of public and private sector investment in the national transformation, economic and social and pillars of Vision 2030 to climate shocks and enhancing synergies between adaptation and mitigation actions in order to attain a low carbon climate resilient economy.
Climate Change Act (revised 2023)	A climate change-dedicated legislation that provides a regulatory framework for an enhanced response to climate change. It provides mechanisms and measures to transition to a low-carbon, climate-resilient development. This pathway emphasizes sustainable development and prioritizes adaptation, recognizing the importance of increasing the climate resilience of vulnerable groups, including women, youth, and people with disabilities, and marginalized and minority communities
National Climate Change Action Plans (NCCAP) 2023– 2027	The NCCAP provides measures and mechanisms to mainstream adaptation and mitigation actions into sector functions of the National and County Governments. The Act is reviewed and updated after every five-year period.
Kenya National Biodiversity Strategy & Action Plan (NBSAP) 2019–2030	NBSAP emphasizes ecosystem rehabilitation and habitat restoration as core national priorities, calling for the restoration of degraded forests, wetlands, rangelands, riparian areas, and coastal ecosystems through integrated, science-based, and community-led approaches. The Strategy underscores strengthened protected areas and conservancy management, including improved governance, sustainable financing, and connectivity between protected and productive landscapes to enhance ecological integrity and climate resilience. It explicitly promotes landscape and ecosystem-based approaches that integrate biodiversity conservation into county planning, agriculture, water resource management, and infrastructure development, aligning restoration efforts with livelihoods, climate

Institutional, policy, and regulatory framework	Global, National, or County sustainable development strategies
	adaptation, and sustainable development objectives.
SDGs 6,8,9, 11 13,15,17	The project will contribute to multiple SDGs. It advances SDG 6 – Clean Water and Sanitation- the project will contribute to improving water availability through climate-resilient water infrastructure, catchment restoration, and strengthened water resource governance. SDG 13 – Climate Action-The project is supporting investments in climate-resilient water assets, nature-based solutions for heat and flood management, climate finance mobilization, and climate risk information systems. SDG 15 – Life on Land- Restoration of degraded ecosystems enhances ecosystem integrity, biodiversity, and land productivity. SDG 11 – Sustainable Cities and Communities - the use of nature-based solutions and integration into county planning frameworks promotes inclusive, climate-resilient urban development. SDG 8 – Decent Work and Economic Growth- the project will strengthen agro-pastoral value chains, climate-resilient livelihoods, and increased private sector investment to support inclusive economic growth. SDG 9 – Industry, Innovation, and Infrastructure - development of investable project pipelines will foster sustainable infrastructure development and innovative financing approaches for climate adaptation. SDG 17 – Partnerships for the Goals- the project will use multi-stakeholder collaboration among counties, communities, and private investors.
County Government Act (2012)	The Act mandates counties to develop a County Integrated Development Plan (CIDP), the County Spatial Plan (CSP) as well as the Cities and Urban Areas Plan, which shall be the basis for the County budgeting and expenditures
National Land Policy (2009)	The policy provides for guiding principles that resonate with sustainable rangeland management, including, among others, equitable access to land; conservation of ecologically sensitive areas, elimination of gender discrimination in land relations; and encouragement of traditional dispute resolution mechanisms.
Community Land Act (2016)	The Act sets a framework for ownership, protection, management, utilization, rights, benefits sharing, dispute resolution, and penalties regarding community land.
The Environmental Management and Coordination Act (EMCA) of 1999 – Amended in 2015	The Act establishes a comprehensive legal framework for environmental management in Kenya, focusing on sustainable development and the protection of the environment.
The Water Act, 2016	The Act provides for the regulation, management, and development of water resources and services throughout the country
Forest Act 2016	The Act provides for the development and sustainable management, including conservation and rational utilization of all forest resources for the socio-economic development of the country and for connected purposes
Urban Areas and Cities Act 2016	The Act provides for the classification, governance and management of urban areas and cities; for the criteria of establishing urban areas, also provides for the principle of governance and participation of residents and for connected purposes.
Health Act (No. 21 of 2017)	The Act contains a section on environmental health and climate change (Part VII, sections 68 and 69) that is relevant to climate change
Green Economy Strategy and Implementation Plan (GESIP) 2016 – 2030	It provides the overall policy framework to facilitate a transition to a green economy and outlines the need to mainstream and align green economy initiatives across the economic, social, and environmental spheres
Narok County Climate Change Fund Act, 2021	The Act establishes a Climate Change Fund to facilitate and coordinate financing of Climate Change Adaptation and Mitigation activities, and to establish a county climate change framework and structures
Narok County Climate Change Policy, 2022	The policy ensures that climate change is mainstreamed in economically and socially vulnerable sectors and steers Narok County towards climate resilience and green development pathway.
Nakuru County Integrated Development Plan (2023-2028)	The County CIDP is premised on the priorities of MTP IV 2022-2027 of Kenya's Vision 2030 that, among other areas, has a focus on mainstreaming climate change adaptation and mitigation
Nakuru County Climate Change Action Plan 2023-2027	The action plan strengthens the county's policy and planning framework in mitigating impacts of climate change and building climate resilience.

E. Describe how the project/programme meets relevant national technical standards

121. The project will subject all activities to environmental and social screening in accordance with the Environmental Management and Coordination Act (EMCA) 1999 (revised 2015) and the Environmental Impact Assessment and Audit Regulations, 2003. These laws empower the National Environment Management Authority (NEMA) to oversee screening, approval, and monitoring of projects with potential environmental and social impacts, and the programme will work closely with County Environmental Officers to ensure localized compliance and integration of safeguards into county planning frameworks.

122. Agricultural and rangeland interventions will comply with Agriculture and Food Authority (AFA) guidelines under the Agriculture and Food Authority Act, 2013. In addition, the programme will meet Kenya Plant Health Inspectorate Service (KEPHIS) Seeds & Plant Varieties Regulations, 2016 and related KEPHIS authorization guidelines, ensuring seed quality, agro-input safety, and biosecurity; all seed-related value chains will observe certification/inspection requirements, merchant registration, and labelling/traceability rules.

123. Implementation in rangelands will align with the National Rangelands Strategy (2020–2030), with fodder production, rotational grazing, and agroecological land restoration guided by the Ministry of Agriculture's Sustainable Land Management approaches and rangeland restoration protocols. Pastoral and communal land use will be undertaken in line with the Community Land Act, 2016 to ensure rights-based, participatory, and non-exclusionary interventions.

124. All physical infrastructure such as water storage systems and silage pits will conform to the Physical and Land Use Planning Act, 2019 and the National Building Code of Kenya, with enforcement by county public works departments and the National Construction Authority (NCA). Sites will be approved by County Physical Planning Committees, designed and implemented with certified engineers and planning officers, and, where feasible, will incorporate universal design principles to ensure gender-sensitive and disability-friendly access. Procurement will follow the Public Procurement and Asset Disposal Act 2015 to ensure open, competitive, and accountable processes. Financial management will comply with the Public Finance Management Act, 2012, including annual external audits, quarterly financial reporting, and periodic fiduciary risk assessments.

125. The programme is anchored in Kenya's Constitution (2010), upholding equality, non-discrimination, and the right to a clean and healthy environment. It is fully aligned with the Adaptation Fund's and NETFUND's Environmental and Social Policy, with gender and inclusion mainstreamed across the project cycle, targeting at least 50% women and 30% youth beneficiaries, prioritizing youth- and women-led groups for livelihood and training, and designing activities that accommodate women's time burdens and caregiving responsibilities. The project's interventions are aligned with the County Integrated Development Plans of Narok and Nakuru, ensuring county-level priorities steer implementation.

126. All project-funded buildings and ancillary structures will comply with the National Building Code, 2024 (Legal Notice 47 of 2024) covering siting, structural design, fire safety, drainage, and building services; designs will be prepared and signed by registered professionals, with approvals obtained from relevant County and national level authorities and the NCA as applicable. Civil works will be executed by NCA-registered contractors, with statutory notifications, inspections, and quality management systems carried out in line with NCA regulations. Construction and operations will comply with the Occupational Safety and Health Act, 2007, including site-specific health and safety plans, toolbox talks, provision of PPE, incident reporting, and statutory audits by competent persons.

127. Water storage and conservation infrastructure, such as water pans, retention features, and small dam-like nature-based solutions, will be sited, designed, and constructed according to the Practice Manual for Small Dams, Pans and Other Water Conservation Structures in Kenya (Ministry of Water, 2nd ed., 2015), covering embankments, spillways, geotechnical checks, QA/QC during construction, monitoring, and safety. Groundwater and surface-water works will obtain Water Resources Authority (WRA) authorizations and permits (for siting, drilling supervision, test pumping, and completion records), adhere to allocation plans, and secure waste-disposal/effluent permits where applicable, with periodic water-quality monitoring as required by the Water Act, 2016 and Water Resources Regulations, 2021 (Legal Notice 170/2021). Where schemes interface with licensed Water Service Providers, operations will embed the WASREB Drinking

Water Quality & Effluent Monitoring Guideline (revised 2023), including national sampling frequencies, parameters, and reporting procedures consistent with KEBS limits and EMCA.

128. All discharges to the environment will meet EMCA (Water Quality) Regulations, 2006 (as amended 2012), with effluent discharge licenses secured and monitored. Construction and operational solid/hazardous wastes will be managed under EMCA (Waste Management) Regulations, 2006, including segregation, storage, transport by licensed carriers, disposal in licensed facilities, and environmental audits as required. Dust and air emissions from construction equipment and any stationary sources will be controlled under EMCA (Air Quality) Regulations, 2014, with emission licenses obtained where applicable. Construction activities will comply with permissible levels and working-hour restrictions under EMCA (Noise & Excessive Vibration) (Control) Regulations, 2009, and obtain noise/vibration permits from NEMA when needed. Activities near riparian corridors and wetlands, including riparian restoration and stormwater nature-based solutions, will observe buffer requirements, permitting, and EIA obligations under EMCA (Wetlands, Riverbanks, Lake Shores, and Sea Shore Management) Regulations, 2009.

129. Catchment restoration in the Mau Complex and other forest interfaces will comply with the Forest Conservation and Management Act, 2016 (as revised 2022), including Kenya Forest Service approvals, adherence to management plans, and benefit-sharing provisions. Public water supply protection, sanitation safeguards, and hygiene promotion will align with the Public Health Act (Cap. 242) and county public health directives. Project's urban nature-based solutions will be planned and implemented in collaboration with municipal institutions as provided for under the Urban Areas and Cities Act (as amended 2019), which clarifies municipal roles for stormwater, public spaces, and service delivery. Finally, sanitation, sludge management, and behaviour change components will align with the Kenya Environmental Sanitation and Hygiene Policy 2016–2030 and, where relevant, the 2023 Rural Sanitation Protocol.

130. The proposed project fully aligns with Kenya's legal and institutional frameworks governing environmental management, land use, infrastructure, procurement, and social safeguards. It also adheres to the Environmental and Social Policy (ESP) and Gender Policy of the Adaptation Fund and NETFUND, ensuring that all activities are designed and implemented in an inclusive, climate-resilient, and risk-sensitive manner.

F. Describe if there is duplication of the project with other funding sources, if any

131. The proposed project will ensure alignment with ongoing and planned initiatives concerning climate resilience, integrated water resource management, ecosystem restoration, and urban resilience in Kenya, in order to reinforce complementarity and avoid duplication. The project is designed to build on existing national and county-led investments, policy frameworks, and development partner, supported initiatives, while addressing clear gaps in scale, integration, and sustainability of adaptation actions in Narok and Nakuru Counties. To this end, several relevant projects and programmes have been identified and are summarized in Table 6 below.

Table 6: Duplication and complementarity analysis

Project title	Date and Status (Ongoing/ Completed)	Implementing / Funding Entities	Location	Areas of overlap/ complementarity	Lessons learned and how they are / will be considered in project design
Kenya Climate-Smart Agriculture Project (KCSAP)	2017–2025 (Ongoing)	World Bank, Government of Kenya	National (incl. Narok & Nakuru)	Complementary focus on farm-level climate-smart practices; the proposed project strengthens enabling systems such as water availability, catchment restoration, and climate-resilient infrastructure	CSA adoption is strongest when supported by reliable water access and landscape-level planning; project design integrates water security and ecosystem restoration to sustain CSA outcomes

Project title	Date and Status (Ongoing/ Completed)	Implementing / Funding Entities	Location	Areas of overlap/ complementarity	Lessons learned and how they are / will be considered in project design
Financing Locally-Led Climate Action (FLLoCA) Programme	2021/22–2030 (Ongoing)	Implementing: National Treasury (Programme Implementation Unit), County Governments via County Climate Change Units (CCCUs) Funding: World Bank	National (incl. Narok & Nakuru)	Devolution and local empowerment: Strengthens County climate planning, budgeting, implementation & monitoring at ward/community levels.	Leverage established structures of CCCUs and WCCPCs to prioritize climate actions & implement as defined by the FLLoCA Programme to ensure local ownership of adaptation actions.
Mau Forest Complex Integrated Conservation and Livelihood Improvement Programme (MFC-ICLIP)	2021–2031 (Ongoing)	Government of Kenya	Mau Forest Complex (Narok & Nakuru)	Synergy in ecosystem restoration and livelihoods; proposed project emphasizes downstream water governance and community-led adaptation	Restoration is more sustainable when linked to livelihoods and local institutions; project embeds community restoration plans and water governance mechanisms
EU NaturAfrica – South Mau Forest Conservation Project	2025–2029 (Ongoing)	European Union, Rhino Ark	South Mau (Narok & Nakuru)	Complementary forest restoration and CFA strengthening; proposed project focuses on downstream watershed management and agro-pastoral resilience	Strengthened CFAs enhance restoration success; project leverages CFA lessons while expanding benefits to downstream users
South-Western Mau Electric Fence Initiative	2025–2027 (Ongoing)	Rhino Ark, Private Sector	South-Western Mau	Complementarity through reduced human–wildlife conflict enabling ecosystem recovery	Targeted infrastructure must be paired with livelihood and ecosystem interventions; project integrates restoration and water security beyond fenced zones
WRI – Greater Rift Valley Land Degradation Initiative	Ongoing	World Resources Institute (WRI)	Greater Rift Valley	Knowledge and analytical complementarity on land degradation and restoration	Evidence-based planning improves impact; project uses spatial and land degradation analyses to guide site selection and interventions
Southern Kenya–Northern Tanzania (SOKNOT) Landscape Programme	Multi-year (Ongoing)	WWF-Kenya, WWF-Tanzania, Governments, Development Partners	Southern Kenya (incl. Narok)	Strong synergy in integrated landscape and transboundary approaches	Integrated landscape governance enhances resilience; project applies landscape planning while deepening climate adaptation and water security investments
EU-funded Action: “Harmony in Habitat: Empowering Communities for Nature’s Resilience”	Ongoing	European Union, WWF-Kenya	SOKNOT landscape (Narok)	Complementarity in biodiversity, governance, gender, and conflict-sensitive approaches	Gender and youth inclusion improves sustainability; project embeds inclusive governance and livelihood models while avoiding financing overlap
GEF-8 Project on Human–Wildlife Conflict Management (Tsavo/Laikipia)	Planned	Global Environment Facility (GEF)	Tsavo & Laikipia	Thematic complementarity through shared governance and community engagement lessons	Community engagement is critical for conflict mitigation; lessons inform stakeholder engagement and institutional strengthening
EU–IUCN BIOPAMA Project	Ongoing	European Union, IUCN	SOKNOT landscape	Complementarity in governance of conserved areas and women’s livelihoods	Strong institutions enhance conservation outcomes; project integrates water and climate risks into community-based governance

Project title	Date and Status (Ongoing/ Completed)	Implementing / Funding Entities	Location	Areas of overlap/ complementarity	Lessons learned and how they are / will be considered in project design
UK DEFRA Illegal Wildlife Trade Evidence Grant	Ongoing	UK DEFRA	Kenya (selected sites)	Knowledge complementarity through evidence generation	Evidence improves policy and implementation; findings inform governance, ranger support, and institutional design
USAID Conservation and Resilience Programmes (Mara, Amboseli, Tsavo)	Ongoing	USAID	Key wildlife landscapes inclusive Mara ecosystem in Narok County	Complementarity in conservation and resilience; the proposed project adds water security and climate finance dimensions	Integrated conservation–livelihood models are most effective; project expands upstream catchment and water system resilience

132. The design team will conduct further consultations with the above-mentioned partners to ensure that lessons learned from ongoing and completed projects are fully integrated into project design and implementation, and that no duplication occurs in areas where interventions overlap geographically or institutionally.

G. Describe the learning and knowledge management component

133. The project will integrate a dynamic and context-specific Learning and Knowledge Management (LKM) component to ensure that climate adaptation experiences and innovations in the target Counties are effectively captured, synthesized, and shared. This approach will support adaptive project implementation, inform county-level planning processes, and enable replication of successful interventions across arid and semi-arid regions of Kenya. The LKM strategy will combine embedded, participatory learning at the community level with structured mechanisms for systematic documentation, cross-site learning, and policy influence. This dual-track approach responds to the County Climate Change Fund (CCCF) framework and the goals outlined in the County's Climate Change Act (2021), County Integrated Development Plan (CIDP), and Climate Change Action Plan (CCAP), all of which emphasize evidence-based adaptation and local knowledge systems.

134. Under Component 1, counties will develop frameworks for rural water companies and co-develop Community Restoration Plans (CRPs) with WRUAs/CFAs. Each step includes short, structured learning cycles: site-level operations and maintenance sessions of water assets, seasonal range-land reviews against CRP targets, and after-action reflections when issues arise (e.g., asset downtime, allocation conflicts). Findings are recorded in simple, standardized templates (restoration scorecards) and fed into quarterly county reviews. In Component 2, LKM is anchored in investment learning that documents how pipeline projects are prioritized, prepared, and made bankable, plus what was learned from investor engagement, de-risking/blended instruments, and PPP/regulatory frameworks. Each advisory session produces case notes, financial structuring templates, and checklists to guide future deals. In Component 3, ward and county teams will run urban resilience learning labs in co-selected towns where green–grey stormwater solutions and urban NbS are piloted. Performance (e.g., runoff reduction, surface temperature drops, maintenance effort) is monitored and distilled into guidelines on heat and flood management and a Resilient City Playbook that planners can directly adopt. These labs pair technical observation (design choices, installation methods, maintenance routines) with social learning (community stewardship agreements, equitable access practices), so the playbook captures both engineering and governance lessons for scale-up.

135. The proposed project will leverage and strengthen existing local climate change structures such as Ward Climate Change Planning Committees (WCCPCs), WRUAs/CFAs, and grazing committees to facilitate the systematic generation, documentation, and dissemination of lessons learned from locally led adaptation actions.

136. NETFUND and WRI develop methods and ensure the quality of all outputs; KMD integrates climate information services. Tracking frequency is monthly at community level, quarterly at county level (component learning reviews), and annually via a county learning forum. Component 4 operationalizes the backbone: heat-stress monitoring systems, automatic weather stations in upper catchments, integration of climate risk/hydrology into planning, and county MRV-learning systems. Data collected include quantitative indicators

(water uptime/proximity, households served, hectares restored, NbS performance, staff trained, pipeline value advanced, grievance resolution rates) and qualitative insights (design choices that worked, governance arrangements, conflict-resolution practices, inclusion outcomes). Dissemination products include learning briefs, technical guides/design templates, policy notes, CRP summaries, and investment case studies.

137. Beyond any national conference, the project will institutionalize peer-exchange circuits (town-to-town/site visits), communities of practice for engineers/planners/finance officers, and quarterly themed learning sessions (e.g., de-risking design, riparian restoration, inclusive water governance). Knowledge will be shared through ward barazas, local FM segments, training videos in local languages, county/partner web portals, and annual reflective forums. To sustain learning post-project, CCCUs will maintain a permanent repository (playbook, templates, datasets, briefs), and training-of-trainers will embed competencies in county staff. LKM tasks and budgets will be mainstreamed into CCCU/Ward Committee job descriptions and county bylaws (e.g., annual updates to CCAPs and CIDPs), ensuring continuity.

H. Describe the consultative process

138. A participatory multi-stakeholder approach was used as summarized in Table 7. Forums were convened with the national government, the two county government officials (Water, Environment, Agriculture, Gender, Planning), local NGOs, Water Resource User Associations (WRUAs), and private actors to validate draft project components, ensure alignment with Narok and Nakuru development and climate action plans, and verify that gender and inclusion goals were integrated. The forums ensured that community leaders and local leadership were involved in selecting participants. The selection criteria included gender, age, socio-economic status, and membership in vulnerable groups, such as women, youth, Indigenous Peoples and Local Communities, pastoralists, as well as small-scale farmers.

139. Consultations were held with women, youth, and Indigenous Peoples and Local Communities (IPLCs) through dedicated sessions to promote inclusive participation. Participants were allowed to share concerns in any accessible way, and interpreters helped overcome language barriers by translating to their local languages. A mixed approach, combined with semi-structured interviews, focus groups, and open discussions, was used. Community feedback informed project adjustments, including rehabilitating community-level water infrastructure to improve reliable access to safe water for households, livestock, and small-scale livelihoods, reducing time spent collecting water especially for women and children. It also strengthens community resilience to droughts and climate shocks by stabilizing water supply for domestic use, agriculture, and local economic activities.

140. The in-person and virtual consultations held at both community level, county level and national level ensured that the project reflects local needs, county priorities, and aligns with national policies. Table 7 below provides the group of stakeholders consulted.

Table 7: Stakeholders consulted and their roles.

Entity/ group/ community consulted	Date	Type	No. Of participants		Topics discussed	Outcomes
			Male	Female		
Milikwen Farmers' Cooperative Society	7th July 2025	Cooperative	100	200	How farmers store fodder and challenges they faced during drought periods	Need for improved fodder storage and drought preparedness
Narok County Government (Environment, Water, Agriculture, Gender, Planning)	4th August 2025	Public sector	5	4	Challenges faced by the counties with similar projects, priorities on climate adaptation initiatives	Emphasis on integrated water resource management and governance
Nakuru County Government (Environment, Water, Agriculture, Gender, Planning)	18th September 2025	Public sector	3	6	Challenges faced by the counties with similar projects, priorities on climate adaptation initiatives	Need for urban resilience and regulatory frameworks

Entity/ group/ community consulted	Date	Type	No. Of participants		Topics discussed	Outcomes
			Male	Female		
Water Resource Users Associations (WRUAs)	12th August 2025	Community-based	150	231	Identified water needs, proposed water infrastructure for rehabilitation	Demand for water infrastructure and catchment restoration
Community Ranch Committees	17th September 2025	Customary governance	21	17	Shared land management practices, grazing patterns	Need for sustainable rangeland management
Women's Groups (e.g., Loita Women's Network, Maasai Women Empowerment, Bonde GAA)	14th October 2025	Civil society	280	376	Gender-specific climate impacts, access issues	Need for inclusive participation and water access
Youth Cooperatives and Self-Help Groups (Saitoran Farmers' Cooperative Society and Marindas Beekeepers Self Help Group)	25th September 2025	Community-based	161	121	Provided urban and peri-urban youth perspectives also, NBS enterprises	Interest in climate-smart enterprises and urban resilience
Persons with Disabilities (PWD) Organizations (Green Globe Growing CBO and	22nd August 2025	Marginalized groups	13	25	Flagged physical and institutional access barriers, inclusive participation and leadership of women, youth, and vulnerable groups in asset management	Need for inclusive design and leadership
Pastoralist and Indigenous Elders	12th November 2025	Traditional leaders	31	10	Market access for their animals	Need for better livestock market systems
Local CSOs and NGOs (The World Resources Institute, World Vision, Indigenous Info-Kenya)	16th- 18th December 2025	Partners/	8	0	Co-facilitated engagements, validated priorities, designing the project	Alignment of project with community priorities
Private Sector Actors (e.g., fodder enterprises, solar tech providers)	4th December 2025	Commercial	1	3	Gave input on blended finance models	Need for de-risking and investment platforms

I. Provide Justification for funding requested

141. Narok and Nakuru counties are among Kenya's most climate-vulnerable regions characterized by recurrent droughts, erratic rainfall, rising temperatures and escalating flood and heat stress risks. These climate impacts directly threaten agro-pastoral livelihoods, water security, urban settlements, and ecosystem stability. The proposed interventions are essential to prevent escalating human, economic, and environmental losses that would occur in the absence of Adaptation Fund support.

142. This project, therefore, seeks financing of USD 8.55 Million from the Adaptation Fund (AF) for implementation of four components to close a critical adaptation gap by enabling a county-anchored and community-driven response. The project is designed to leverage co-financing of USD 1 million from WRI to support the delivery of components 1 and 2. The project delivers an integrated package of climate-resilient water and urban infrastructure, nature-based solutions, climate finance mobilization, and institutional and community capacity strengthening targeted at highly vulnerable agro-pastoral communities and rapidly growing urban settlements exposed to recurrent droughts, flooding, and heat stress in Narok and Nakuru Counties. The project will combine investments in climate-resilient water systems and catchment restoration, urban heat and flood management through nature-based solutions, blended finance mechanisms to crowd in private capital, and strengthened governance and climate information systems.

143. Without AF support, these outcomes, ranging from reliable access to water, restored catchments to enhanced urban resilience solutions and mobilization of private investment for adaptation investments, this would remain largely unattainable, given the limited fiscal space, fragmented donor support, and insufficient

project preparation and institutional capacity in the target counties. Current national and county funding mechanisms, including Kenya's Financing Locally Led Climate Action (FLLoCA) framework and County Climate Change Funds, do not yet provide dedicated, bundled support packages for localized, landscape-level adaptation interventions like those proposed. Existing sources are competitive, slow to disburse, and often inaccessible to rural institutions and producer groups without technical support. AF financing is therefore essential as it represents a necessary, strategic, and cost-effective investments in climate adaptation that addresses immediate vulnerabilities while laying the foundation for long-term resilience of rural and peri-urban livelihoods in two of Kenya's most climate-stressed counties.

J. Describe how the sustainability of the project outcomes

144. Sustainability is deliberately embedded across all four components of the project to ensure that adaptation benefits are sustained and scaled well beyond the project implementation period. The project adopts a multidimensional sustainability approach, encompassing institutional, financial, environmental, social, and economic dimensions, to address the structural drivers of climate vulnerability in agro-pastoral and urban systems in Nakuru and Narok Counties, while creating pathways for replication and scale-up through domestic and external financing mechanisms.

145. **Institutional Sustainability**: The project strengthens institutional sustainability by anchoring implementation and post-project ownership within existing county and community governance systems. Community-level institutions, including WCCPCs, WRUAs, CFAs, and grazing committees, will be capacitated to plan, implement, operate, and monitor climate-resilient investments. These structures are legally recognized under Kenya's Climate Change Act and related sector legislation, ensuring continuity beyond project closure. At the county level, the project reinforces the operational capacity of CCCUs and sector departments to integrate/mainstream project-supported tools, guidelines, and monitoring systems into CCCAPs, CIDPs, and sector strategies. This institutional embedding ensures that policies, governance arrangements, and planning tools developed under the project remain active and funded through regular county budget cycles.

146. **Financial and Economic Sustainability**: Financial sustainability is addressed through a dedicated Climate Finance Mobilization component that reduces long-term dependence on grant financing by attracting private and domestic capital. The project strengthens county capacity to prepare bankable adaptation investments and deploy blended finance instruments, enabling climate-resilient water services, nature-based solutions, and agro-pastoral value chains to attract follow-on investment after project completion. Cost-recovery mechanisms for water infrastructure, such as user tariffs, water kiosks, and community-managed service models, will be designed to balance affordability with operational viability, ensuring resources are available for routine operation and maintenance (O&M). In parallel, strengthened agro-pastoral value chains and improved market access increase household incomes, enabling communities to sustain adaptation practices such as fodder production, rangeland management, and ecosystem stewardship through their own economic activities.

147. **Environmental Sustainability:** Environmental sustainability will be achieved through the project's strong emphasis on ecosystem restoration and NbS, which deliver self-sustaining adaptation benefits over time. Restoration of degraded forests, wetlands, riparian zones, and rangelands enhances soil health, improves water retention and groundwater recharge, and promotes biodiversity, thereby stabilizing hydrological systems and mitigating long-term climate risks. In urban areas, green infrastructure, including permeable surfaces, urban greening, and stormwater infiltration systems, reduces heat stress and flood risks while requiring lower lifecycle costs compared to conventional grey infrastructure. By strengthening ecosystem functions rather than relying solely on engineered solutions, the project ensures that adaptation benefits increase over time rather than degrade.

148. **Social Sustainability and Community Ownership:** Community ownership is central to sustaining project outcomes. Participatory planning processes, community scorecards, and grievance redress mechanisms ensure transparency, accountability, and trust between communities, county governments, and implementing partners. Targeted investments in women, youth, and marginalized groups, through inclusive representation in decision-making bodies, tailored technical training, and support for women- and youth-led

enterprises, build social cohesion and strengthen local leadership in climate risk management. This inclusive approach ensures that adaptation benefits are equitably distributed and socially accepted, reducing the risk of resource conflicts.

149. **Sustainability of Operations, Maintenance, and Knowledge Systems:** The sustainability of O&M for climate-resilient infrastructure is ensured through clear institutional mandates, community management arrangements, and capacity building. WRUAs, CFAs, water user committees, and rural water service providers will be trained in asset management, financial administration, and routine maintenance of water and ecosystem infrastructure. Counties will integrate O&M requirements into sector budgets and service delivery frameworks. Knowledge generated under the project, including climate risk data, urban heat and flood guidelines, restoration methodologies, and MRV systems, will be institutionalized within county planning, monitoring, and reporting processes. Climate information systems, automatic weather stations, and heat stress monitoring tools will continue to inform early warning, investment planning, and adaptive management beyond the project lifespan.

150. **Replication and Scaling-Up:** Replication and scaling-up of project outcomes will be achieved through multiple, complementary pathways. First, project-developed tools, such as the Resilient Urban Spaces Playbook, county heat and flood management guidelines, community restoration planning frameworks, and climate finance project preparation templates, will be designed for application beyond the project sites and shared across counties through existing inter-county learning platforms such as the Council of Governors and national climate coordination mechanisms. Second, the strengthened pipeline of investable adaptation projects and blended finance mechanisms will enable counties to mobilize additional funding from domestic sources, development finance institutions, and private investors after project completion. Third, alignment with national frameworks, including Kenya's Climate Change Act, National Climate Change Action Plan, and county climate finance mechanisms, ensures that successful interventions can be mainstreamed and scaled up using public resources. Collectively, these arrangements position the project as a scalable model for climate-resilient development in Kenya's arid, semi-arid, and rapidly urbanizing regions.

K. Environmental and social impacts and risks identified

151. The proposed project has been designed in line with the Environmental and Social Policy (ESP) and the Gender Policy of the Adaptation Fund and in line with the Environmental and Social Safeguards Policy and Gender Policy of NETFUND. An initial environmental and social screening has been conducted to assess potential risks and impacts associated with the project, as summarized in Table 8 below, in accordance with the safeguard areas outlined in the AF single country application template and ESP. Based on this assessment and consistent with the Fund's accreditation requirements, the project has been classified as Category B, indicating moderate risk as it involves small-scale infrastructure works, ecosystem restoration activities, and community-based livelihood interventions that may generate localized, site-specific, and manageable environmental and social risks if not properly mitigated.

152. In line with Adaptation Fund requirements, further assessment will be undertaken for Environmental and Social Principles 1 (Compliance with the Law), 4 (Human Rights), and 6 (Gender Equality and Women's Empowerment) during full proposal development and implementation. A detailed Environmental and Social Management Plan (ESMP) will be prepared, informed by participatory consultations at the county and community levels.

153. Throughout the implementation process, complaints related to environmental, social, or gender impacts will be addressed in compliance with the NETFUND's Grievance Redress Mechanism (GRM). All project-affected communities will be informed of the existence of the GRM in accessible formats and local languages, including procedures for submission, response timelines, and responsible institutions.

154. Where specific project activities or sites have not yet been fully defined at this concept stage, the project will apply AF guidance on the Unidentified Sub-Projects (USPs) framework to ensure they are defined and identified in compliance with NETFUND's and AF's ESS policy. During the project formulation and early implementation phases, all emerging activities will be screened to identify their potential environmental, social, and gender risks. This process will enable the classification of risks, the determination of applicable

safeguard principles, and the identification of appropriate mitigation measures. Once activities are clearly defined, site-specific assessments will be conducted as required, and corresponding mitigation measures will be integrated into the Environmental and Social Management Plan (ESMP). This adaptive approach ensures that all USPs are systematically assessed, managed, and monitored prior to implementation, in full compliance with Adaptation Fund requirements. For interventions that will fall under category A after the analysis will be dropped or redesigned, since NETFUND ESS policy strictly prohibits the implementation of projects and interventions falling under category A.

Table 8: Potential risks and impacts associated with the project.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Compliance with the Law		**Low** The project is in full compliance with Kenyan environmental, water, and land laws. All projects will undergo legal due diligence during implementation.
Access and Equity	✓	**Low** The project aims to promote equitable access. However, the project may present local barriers (e.g., distance to water points, elite capture) that require active monitoring, adaptive management, and transparent beneficiaries' selection.
Marginalized and Vulnerable Groups	✓	**Low** The project will not have any negative impacts on the marginalized and vulnerable groups. Participation of women, youth, and pastoralists must be tracked across project areas. Social assessments will be conducted where risks of exclusion are identified.
Human Rights		**Low** Risk related to participation, consent, and benefit sharing. The project will uphold human rights, FPIC, and non-discrimination in all project contexts, accessible grievance mechanisms, and continuous community consultation.
Gender Equality and Women's Empowerment	✓	**Low** Risk of reinforcing unpaid labor burdens or limited benefit capture by women The Gender Action Plan will guide implementation, but project-specific gender impacts must be assessed at sub-project level and disaggregated indicators.
Core Labour Rights		**Low** Risks related to occupational safety during construction. National labour laws will be enforced for all service providers and construction activities, prohibition of child labour, and code of conduct.
Indigenous Peoples	✓	**Low-moderate** The project will be implemented in the Maasai areas where culture and customs apply. The project will follow FPIC principles in Maasai communities, respect for customary land-use systems, and culturally appropriate consultations.
Involuntary Resettlement		Not applicable - No resettlement is planned.
Protection of Natural Habitats	✓	**Low-moderate** Some interventions (e.g., water points or NBS structures) may be sited near ecologically sensitive zones. These will require site-specific screening and avoidance of critical habitats.
Conservation of Biological Diversity	✓	**Low** Risk of disturbance during restoration activities. Project activities support ecosystem health and biodiversity. No invasive species use is anticipated.
Climate Change	✓	**Low** The project contributes positively to adaptation and resilience outcomes through NbS and water security investments
Pollution Prevention and Resource Efficiency	✓	**Low** Minor waste and emissions during the construction of water companies, Waste management plans, efficient resource use.

Checklist of environmental and social principles	No further assessment required for compliance	Potential impacts and risks – further assessment and management required for compliance
Public Health	✓	**Low** Temporary construction-related health risks. Mitigation: water quality safeguards, improved WASH access through project activities.
Physical and Cultural Heritage	✓	The proposed project does not present any risk to the physical or cultural heritage of the targeted communities.
Lands and Soil Conservation	✓	**Low–Moderate.** Risk of soil disturbance during restoration. The proposed project intends to restore degraded dryland and rangeland ecosystems

PART III: IMPLEMENTATION ARRANGEMENTS

L. Demonstrate how the project/programme aligns with the Results Framework of the Adaptation Fund

NETFUND will serve as the National Implementing Entity responsible for fiduciary oversight and compliance with Adaptation Fund policies, while WRI will act as the Executing Entity responsible for technical delivery and coordination with county governments.

Table 9: NAREC project/programme alignment with the Results Framework of the Adaptation Fund

Project Objective(s)[14]	Project Objective Indicator(s)	Adaptation Fund Outcome	Adaptation Fund Outcome Indicator	Grant Amount (USD)
Objective1: To enhance integrated Water Resource Management for increased agro-pastoral productivity	Percentage improvement in integrated water resource management and increased agro-pastoral productivity	**Outcome 4:** Increased adaptive capacity within relevant development sector services and infrastructure assets	4.2. Physical infrastructure improved to withstand climate change and variability-induced stress	1,500,000
		Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	5. Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	1,200,000
		Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas	6.1 Percentage of households and communities having more secure access to livelihood assets	800,000
Objective 2: To mobilize and leverage private sector investment in climate-resilient building initiatives	Number of private sector investment-ready climate-resilient projects	**Outcome 4:** Increased adaptive capacity within relevant development sector services and infrastructure assets	4.1. Responsiveness of development sector services to evolving needs from changing and variable climate	1,500,000
Objective 3: To enhance urban climate resilience against heat stress and floods through nature-based solutions	Proportion of urban centres in Narok and Nakuru counties adopting climate-resilient initiatives against heat stress and floods.	***Outcome 8:*** Support the development and diffusion of innovative adaptation practices, tools and technologies	8. Innovative adaptation practices are rolled out, scaled up, encouraged and/or accelerated at the regional, national and/or subnational level	2,500,000

[14] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology but the overall principle should still apply

Objective 4: To strengthen institutional and local communities' capacities to prevent and reduce climate risks	Number of county government institutions and local communities with developed integrated climate-resilient plans	**Outcome 2:** Strengthened institutional capacity to reduce risks associated with climate-induced socioeconomic and environmental losses	2.1. Capacity of staff to respond to, and mitigate impacts of, climate-related events from targeted institutions increased	1,047,955
Total outcome level grant amount				**8,547,955**
Project Outcome(s)	**Project Outcome Indicator(s)**	**Adaptation Fund Output**	**Adaptation Fund Output Indicator**	**Grant Amount (USD)**
Outcome 1: Enhanced water availability for Agro-Pastoral production systems	Percentage increase of agro-pastoral communities accessing water in dry seasons for agro-pastoral production systems	***Output 4:*** Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4.1.1. No. and type of development sector services modified to respond to new conditions resulting from climate variability and change (by sector and scale)	1,500,000
		Output 5: Vulnerable ecosystem services and natural resource assets strengthened in response to climate change impacts, including variability	5.1. No. of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type and scale)	1,200,000
		Output 6: Targeted individual and community livelihood strategies strengthened in relation to climate change impacts, including variability	6.1.1. No. and type of adaptation assets (tangible and intangible) created or strengthened in support of individual or community livelihood strategies	800,000
Outcome 2: Increased private sector investment in climate-resilient building initiatives	Number of private sector investor-ready climate-resilient projects developed	***Output 4:*** Vulnerable development sector services and infrastructure assets strengthened in response to climate change impacts, including variability	4.1.1. No. and type of development sector services modified to respond to new conditions resulting from climate variability and change (by sector and scale)	1,500,000
Outcome 3: Enhanced urban resilience against heat stress and floods	Proportion of urban centres in Narok and Nakuru counties adopting climate-resilient initiatives against heat stress and floods.	***Output 8:*** Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	8.1. No. of innovative adaptation practices, tools and technologies accelerated, scaled-up and/or replicated	2,500,000
Outcome 4: Enhanced capacity for institutions and communities to prevent and reduce climate risks	Number of county government institutions and local communities with developed integrated climate-resilient plans	***Output 2.1***: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events	2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale)	1,047,955
Total output level grant amount				**8,547,955**

[1] The AF utilized OECD/DAC terminology for its results framework. Project proponents may use different terminology, but the overall principle should still apply.

PART IV: ENDORSEMENT BY GOVERNMENT AND CERTIFICATION BY THE IMPLEMENTING ENTITY

A. Record of endorsement on behalf of the government[2]

Provide the name and position of the government official and indicate date of endorsement. If this is a regional project/programme, list the endorsing officials all the participating countries. The endorsement letter(s) should be attached as an annex to the project/programme proposal. Please attach the endorsement letter(s) with this template; add as many participating governments if a regional project/programme:

Dr. Eng. Festus K. Ng'eno, MIEK, CBS *Principal Secretary* *State Department of Environment and Climate Change,* *Ministry of Environment, Climate Change and Forestry*	Date*: November 4th, 2025*

B. Implementing Entity certification

Provide the name and signature of the Implementing Entity Coordinator and the date of signature. Provide also the project/programme contact person's name, telephone number and email address.

I certify that this proposal has been prepared in accordance with guidelines provided by the Adaptation Fund Board, and prevailing National Development and Adaptation Plans of Kenya and subject to the approval by the Adaptation Fund Board, commit to implementing the project/programme in compliance with the Environmental and Social Policy and the Gender Policy of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.

Name & Signature
Samson Toniok
Chief Executive Officer
NETFUND

Implementing Entity Coordinator

Date: ***(Month, Day, Year)*** *November 10th, 2025*	**Tel. and email:** *+254721514869* *samson.toniok@netfund.go.ke*
Project Contact Person: Andrew Machora	
Tel. And Email: *+254729553304* *andrew.machora@netfund.go.ke*	

[6.] Each Party shall designate and communicate to the secretariat with the authority that will endorse on behalf of the national government the projects and programmes proposed by the implementing entities.

PART V: Annexes

A. Annex I: Endorsement Letter

REPUBLIC OF KENYA

MINISTRY OF ENVIRONMENT, CLIMATE CHANGE & FORESTRY
State Department for Environment & Climate Change
Office of the Principal Secretary

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Telephone: 254-20- 2730808/9
Fax: 254-20- 2734722
Email : psoffice@environment.go.ke

SHA BUILDING
RAGATI ROAD
P. O. BOX 30126-00100
NAIROBI

When replying, please quote:

Ref. No. MEF/EMC/1/5 (72) **4th November, 2025**

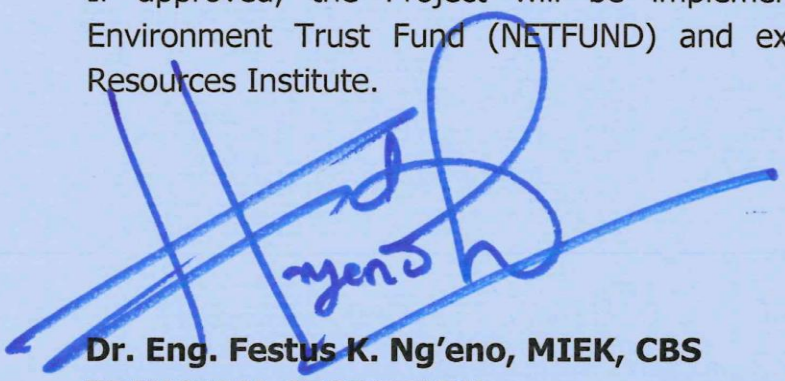
The Adaptation Fund Board
c/o Adaptation Fund Board Secretariat
Email: Secretariat@Adaptation-Fund.org
Fax: 202 522 3240/5

RE: ENDORSEMENT FOR NATURE-BASED ADAPTATION FOR RESILIENCE BUILDING AND EMPOWERMENT FOR VULNERABLE COMMUNITIES IN NAROK AND NAKURU COUNTIES PROJECT TO THE ADAPTATION FUND

In my capacity as Designated Authority for the Adaptation Fund in Kenya, I confirm that the above national project proposal is in accordance with the government's national priorities in implementing adaptation activities to reduce adverse impacts of and risks, posed by climate change in the Narok and Nakuru counties of Kenya.

Accordingly, I am pleased to endorse the above Project proposal with support from the Adaptation Fund.

If approved, the Project will be implemented by the National Environment Trust Fund (NETFUND) and executed by the World Resources Institute.



Dr. Eng. Festus K. Ng'eno, MIEK, CBS
PRINCIPAL SECRETARY

B. Annex II: Theory of Change

Goal: Increased climate resilience and adaptive capacity of communities through an integrated water resource management, nature based urban resilience, climate information management, and inclusive climate finance solutions in Narok and Nakuru Counties, Kenya

OUTCOMES

1. Enhanced water availability for Agro-Pastoral production systems			2. Increased private sector investment in climate resilient building initiatives systems		3. Enhanced urban resilience against heat stress and floods		4. Enhanced capacity for institutions and communities to prevent and reduce climate risks	
OUTPUTS								
1.1 Climate-resilient water assets availed and operationalized	1.2 Degraded water catchments restored	1.3 Enhance agro-pastoralist value chain	2.1 Private sector investable project pipeline developed	2.2 Increased mobilization of climate investment	3.1 A county level guidelines and tools to manage urban heat stress and floods through NbS developed and implemented.	3.2 Nature based solutions implemented to manage heat stress	4.1 Improved capacity of local community to sustainably manage climate-resilient water and rangeland assets	4.2 Climate information, knowledge management and MRV systems operationalized
ACTIVITIES								
• Develop/ rehabilitate of community level water infrastructure • Support counties to develop frameworks for establishing rural water companies	• Co-develop community restoration plans (CRPs) with WRUAs and CFAs • Rehabilitate and protect degraded forests, wetlands, and riparian ecosystems prioritize in the CRPs above	• Enhance production and storage of fodder during droughts • Enhance market access for livestock	• Prioritize investment projects drawn from the county climate change units' pipeline • Strengthen county capacity for project preparation, investment planning, and climate finance readiness to support scalable and sustainable water and land-based adaptation investments. • Develop a pipeline of investable climate adaptation projects	• Facilitate structured investor engagement and deal matchmaking platforms • Design and deploy de-risking and blended finance instruments to leverage private capital flows to climate resilience. • Support counties to develop regulatory frameworks to attract private sector investment	• Co-develop with county officials guidelines on heat stress and floods management and mainstream them into the county climate change action plans • Develop and socialize with urban planners a resilient city playbook for all counties through the CoG • Install systems to monitor and report heat stress in hotspot centers • Establish automatic weather stations in upper catchment for river passing through high density populated areas	• Co-select urban centers and towns to pilot components for heat stress and floods management in line with the county climate change action plans where applicable	• Strengthen governance and institutional capacity of community-based climate institutions (CCCUs, WCCPCs, CFAs, WRUAs, grazing committees) • Build technical capacity for operation and maintenance of climate-resilient water and rangeland assets • Strengthen climate-informed resource planning and adaptive management at the community level • Build community capacity for ecosystem and asset monitoring and reporting • Promote inclusive participation and leadership of women, youth, and vulnerable groups in asset management	• Integrate climate risk information and hydrological analysis into water resource planning, catchment management, and land-use decision-making relevant to agro-pastoral systems. • Develop and institutionalize monitoring, reporting, and learning systems to track County Climate Change Action Plans.
BARRIERS								
Social Barriers • High levels of poverty • Gender inequalities • Marginalization of youth and pastoralist groups • Weak integration of indigenous • knowledge into formal climate planning	**Environmental and Land-Use Barriers** • Severe land degradation and deforestation • Degradation of wetlands and riparian zones • Expansion of settlements and infrastructure Overgrazing and weakening of traditional rangeland management systems in communal lands		**Financial barriers** • Insufficient and unpredictable climate finance flows • Limited capacity to attract private or blended finance for adaptation projects Limited County fiscal space and competing development priorities		**Technological and Infrastructure Barriers** • Inadequate coverage of climate-resilient water infrastructure • Limited adoption of water-efficient, climate-smart technologies Poor stormwater management and drainage infrastructure		**Institutional, Governance, and Knowledge barriers** • Limited institutional capacity Weak operational capacity of community-based institutions • Fragmented governance arrangements Insufficient and unpredictable climate finance flows • Limited capacity to attract private or blended finance for adaptation projects. • Limited county fiscal space and competing development priorities	

Problems: Climate change is making agro-pastoral livelihoods increasingly vulnerable due to prolonged droughts, erratic rainfall, rising heat stress, and recurrent flooding in dryland towns, a situation worsened by land degradation in key water catchment areas and compounded by limited access to climate finance to support effective adaptation and resilience.

Climate Change impacts: Erratic rains, increasing flooding, droughts, Increasing heat Stress

Assumptions: The project assumes that there will be; a continued political goodwill at national and sub-national levels to support proposed interventions, attractive nature positive value chains for private sector investments, high adoption rate of disseminated climate information by the local community and the county government and reliable markets for agro-pastoral products

C. Annex III: Initial Gender Assessment Report

Introduction

The Initial Gender Assessment (IGA) for the Nature-based Adaptation for Resilience Building and Empowerment of Vulnerable Communities (NAREC) Project was undertaken to ensure that climate change adaptation interventions in Nakuru and Narok Counties are gender-responsive, inclusive, and capable of delivering long-term resilience outcomes. The assessment is grounded in national and county development frameworks and draws on recent data from the Kenya National Bureau of Statistics (KNBS), County Integrated Development Plans (CIDPs), County Climate Change Action Plans (CCCAPs), and sectoral gender reports. It recognizes that climate change impacts particularly droughts, floods, ecosystem degradation, and heat stress interact with existing gender inequalities to shape vulnerability, adaptive capacity, and access to benefits. This assessment directly informs the project's Gender Action Plan and implementation modalities across all four components.

Gender distribution and demographics

Nakuru County has an estimated population of over 2.3 million people, with women accounting over 50% of the county population, while youth aged 18–35 years constitute approximately one-third of residents. Narok County has a smaller but rapidly growing population of about 1.3 million, also characterized by near gender parity, with women making up slightly more than half of the population. Narok's demographic profile is notably youthful, with over half of the population below 35 years. This youthful structure presents both heightened vulnerability to climate shocks due to limited employment and high dependency ratios and significant opportunities for long-term adaptation if youth capacities are harnessed effectively.

Access to basic services

In Nakuru, approximately 73% of households have access to at least basic drinking water services, yet only about 43% have access to basic sanitation, according to recent county and KNBS data. During drought periods, water access declines sharply, increasing the time burden on women and girls who are primarily responsible for water collection, household hygiene, and caregiving. Narok County faces more severe challenges: about 48% of households access basic drinking water services and roughly 32% have access to basic sanitation. Clean cooking energy access is extremely low around 5% forcing women and girls to rely on fuelwood and charcoal, increasing exposure to indoor air pollution, environmental degradation, and climate-related health risks.

Education and reproductive health indicators

In Nakuru County, educational attainment is relatively high, with only 1% of women and men aged 15–49 reporting no formal education. However, a total fertility rate of about 3.4 children per woman and a teenage pregnancy rate of approximately 17% signal ongoing reproductive health and socio-economic challenges that intersect with climate stress. In Narok County, educational attainment is lower, with around 15% of women and 9% of men aged 15–49 having no formal education. The fertility rate is higher, at about 4.9 children per woman, reinforcing women's time poverty and limiting opportunities for education, income generation, and participation in adaptation decision-making.

Gender roles, responsibilities, and knowledge systems

Women contribute more than 70–75% of agricultural labor and are the primary managers of household food security, water use, seed selection, and small livestock. They possess rich indigenous and local knowledge on drought-tolerant crops, soil and water conservation, rangeland use, and household-level

coping strategies during climate shocks. Men's roles are more concentrated in livestock ownership, land management, market engagement, and formal leadership. While men often control productive assets and income, they are also increasingly affected by climate change through livestock losses, pasture scarcity, and resource-based conflicts, which are gradually reshaping household roles and decision-making dynamics.

Access to and control over resources

Despite women's central role in climate-sensitive sectors, access to and control over resources remains highly unequal. County land records and gender assessments indicate that men control over 85% of titled land in both counties. In forest and water governance systems, men dominate leadership and decision-making positions. In Community Forest Associations (CFAs) and Water Resource Users Associations (WRUAs), men hold up to 90–95% of leadership roles, while women perform the bulk of labor-intensive tasks such as tree planting, nursery management, water collection, and ecosystem monitoring. Women undertake an estimated 75% of restoration labor but receive only about 30% of associated economic benefits, undermining incentives for sustained engagement in nature-based solutions.

Economic opportunities and market access

Men control approximately 90% of access to agricultural markets, water-related enterprises, and forest product value chains, including timber and charcoal. Women's participation is largely informal and constrained by lack of collateral, limited mobility, weak access to finance, and exclusion from climate investment platforms. In Narok County, fewer than 10% of widows hold legal land ownership, significantly increasing exposure to poverty, displacement, and climate shocks. Without deliberate corrective measures, climate adaptation investments risk reinforcing these structural inequalities.

The assessment highlights intersectional vulnerabilities affecting Indigenous Peoples and Local Communities (IPLCs), youth, persons with disabilities, and female-headed households. Indigenous Maasai women in Narok experience compounded exclusion due to customary land tenure systems that limit ownership and leadership, combined with climate-driven livestock losses and water scarcity. Youth who form the majority population in Narok and a substantial proportion in Nakuru face layered risks related to unemployment, early marriage, teenage pregnancy, and limited access to climate information and finance. Persons with disabilities, particularly women, encounter physical and institutional barriers to accessing water points, climate services, and decision-making spaces, while elderly women and female-headed households face heightened dependency and exposure during droughts and floods.

Climate change also exacerbates women's time poverty, which is a critical but often overlooked barrier to adaptation. Extended droughts and ecosystem degradation increase time spent collecting water and fuelwood, reducing women's participation in education, leadership, income generation, and community-based adaptation initiatives. Coping strategies during climate stress such as reducing food intake, withdrawing children from school, or selling productive assets have particularly severe and long-lasting consequences for women and girls, undermining intergenerational resilience.

The assessment identifies shifting gender dynamics that offer pathways for lasting change. Climate stress and economic pressures are gradually increasing recognition of women's contributions to household income, ecosystem restoration, and community resilience. In some areas, men are taking on greater caregiving roles, while women are increasingly engaging in community groups, restoration activities, and local climate initiatives. Youth both young women and men are emerging as key agents

of change through engagement in climate-smart agriculture, restoration enterprises, and green jobs, provided they are supported with skills, finance, and inclusive governance frameworks.

D. Annex IV PFG Form

Revised PFG Submission Form[15]

Project Formulation Grant (PFG)

Submission Date: 17th November 2025

Adaptation Fund Project ID:
Country/ies: Kenya
Title of Project/Programme: Resilience building and Empowerment of vulnerable Communities in Narok and Nakuru counties - NAREC
Type of IE (NIE/RIE/MIE): National Implementing Entity
Implementing Entity: National Environment Trust Fund (NETFUND)
Executing Entity/ies: World Resources Institute

A. Project Preparation Timeframe

Start date of PFG	1st May 2026
Completion date of PFG	31st October 2026

B. Proposed Project Preparation Activities ($)

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note [1]
Develop Terms of Reference for various consultancies	• Tender Bids • Terms of Reference and evaluation criteria	4,633	Covers drafting of ToRs, setting evaluation criteria, and procurement support for all consultancy assignments under the PFG.
Engage a consultant to support the design and development of full project proposal	• Full project proposal with annexes	28,000	Includes expert consultancy fees for developing the full proposal, alignment with AF guidance, preparing annexes, theory of change, and technical review revisions.
Engage a consultant to undertake stakeholder mapping, consultations and development of stakeholder engagement report and plan	• Stakeholder Engagement Report and Plan	22,000	Includes expert consultancy fees for undertaking stakeholder mapping, consultations, and development of stakeholder engagement plan and report.
Engage a consultant to undertake feasibility studies covering technical, social, environmental, and financial viability of the proposed interventions	• Feasibility Study Report	29,000	Funds consultancy to conduct field assessments, analyze technical options, assess social and environmental suitability, and evaluate project cost-effectiveness.
Engage a consultant to undertake	• Gender assessment report	14,000	Supports a gender specialist to

[15] As presented in AFB/PPRC.33/40 Annex 1.

List of Proposed Project Preparation Activities	Output of the PFG Activities	US$ Amount	Budget note [1]
detailed gender analysis and develop gender action plan	• Gender Action Plan		conduct field-based gender analysis and prepare a comprehensive Gender Action Plan aligned with AF requirements.
Engage a consultant to undertake environmental and social safeguards and develop an environmental safeguards management framework (ESMF) for the project	• ESMF Report	24,000	Covers consultant time for ES risk screening, stakeholder consultations, safeguards assessments, and preparation of a full ESMF.
Engage a consultant to undertake Capacity Assessment of the project Implementing Entities	• Capacity Assessment Report	16,616	Funds review of institutional capacity gaps, governance systems, and recommendations for strengthening NIE–County execution arrangements.
PPG Sub-total		**138,249**	
IE Fees		**11,751**	8.5% of the total budget
Total Project Formulation Grant		**150,000**	

Please describe below each of the PFG activities and provide justifications for their need and for the amount of funding required:

The development of **Terms of Reference (ToRs)** is essential to ensure clarity, accuracy, and quality in procuring all consultancy services required for full proposal preparation. Given the number and technical complexity of studies involved, this activity ensures that scope, methodologies, deliverables, and evaluation criteria are well-defined. The allocated amount covers expert time and coordination needed to prepare multiple ToRs and support tendering processes.

Engaging a consultant to **design and develop the full project proposal** is critical for translating the concept note into a robust, evidence-based and AF-compliant proposal. This includes climate rationale development, costed interventions, environmental and social integration, risk analysis, theory of change, and preparation of all mandatory annexes. The consultant will also be responsible for undertaking sta**keholder mapping and development of a Stakeholder Engagement Plan (SEP)** and ensure inclusive participation throughout the project cycle. This activity ensures compliance with the AF's transparency and participation requirements. The budget supports consultations, analysis, and preparation of a structured SEP.

The budget reflects the level of expertise and time required to prepare a high-quality multi-component proposal for a large-scale adaptation project.

Comprehensive **feasibility studies** covering technical, environmental, social, and financial viability are required to demonstrate that the proposed interventions are appropriate, sustainable, and cost-effective. These studies involve field assessments, stakeholder consultations, analysis of alternative options, and scenario modelling. The cost reflects the depth of technical work and the logistical requirements of conducting studies across vast ASAL counties.

A detailed **gender analysis and development of a Gender Action Plan** is required under the Adaptation Fund's Gender Policy. This activity involves assessing gender roles, vulnerabilities, and opportunities within the project context, and outlining concrete actions for gender-responsive implementation. The budget supports field-based

assessments, stakeholder engagement with women's groups, and technical expertise needed to produce an AF-compliant GAP.

Preparation of an **Environmental and Social Management Framework (ESMF)** is a mandatory requirement under the AF Environmental and Social Policy. This entails risk screening, safeguards analysis, development of mitigation measures, and consultations with affected communities. The allocated funding covers the cost of a safeguard's specialist and the community engagement efforts required to develop a comprehensive ESMF.

A **capacity assessment of implementing entities** is needed to determine institutional strengths, gaps, and readiness for project execution. This helps refine implementation arrangements and ensures that the NIE and county governments have adequate systems for financial management, procurement, safeguards, and monitoring. The budget reflects the analytical work required, including consultations and review of institutional systems.

Finally, the **IE fees** support administrative oversight, coordination, procurement, financial management, and reporting required during the project preparation phase. The fee aligns with AF guidelines on operational norms and ensures efficient delivery of the preparation activities.