ADAPTATION FUND

LOCALLY-LED ADAPTATION PROJECT/PROGRAMME PROPOSAL FOR SINGLE COUNTRY

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: Enhancing climate resilience in Busoga sub-region through locally led adaptation strategies

Country: Uganda

Thematic Focal Area: Multisector projects

Type of Implementing Entity: National Implementing Entity

Implementing Entity: Ministry of Water and Environment

Executing Entities: Lake Victoria Basin Facility and Struggle Against Poverty /

Amount of Financing Requested: 5,000,000.00 (in U.S Dollars Equivalent)

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

NOTE: The LOE 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: Click or tap to enter a date.

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

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.

Uganda is a landlocked country located on the equator, between 4°N and 1°S, and stretching from 29.5°E to 35°W, covering a total area of 241,555 km² (UBOS, 2024). It is bordered by South Sudan to the North, Kenya to the East, Tanzania and Rwanda to the South, and the Democratic Republic of the Congo (DRC) to the West.

The country experiences a relatively humid equatorial climate, but variations in topography, prevailing winds, and water bodies result in significant differences in rainfall patterns. Average annual rainfall ranges from 800 mm to 1,500 mm, while average daily temperatures hover around 28°C, varying with altitude, temperatures can drop to 0°C in the highlands.

Over the past 25 years, Uganda has witnessed sustained economic growth with agriculture remaining a cornerstone of the economy and contributing approximately 24.09% to the country's GDP. In 2023, the GDP growth rate was 5.3%, with a Gross National Income (GNI) of US$ 147.7 billion (Purchasing Power Parity) and a GDP per capita of US$ 1,002.31 (World Bank, 2023). Despite this economic progress, Uganda faces significant developmental challenges, including high population growth and poverty levels. The total population is 45.9 million, with an average annual growth rate of 2.9 percent; nearly half of the population is under 18 years old (UBOS, 2024). Approximately 41.93% of the population lives on less than $2.15 per day (World Bank, 2024), and the country's Gini coefficient is 0.43.

Like many developing countries, Uganda is highly vulnerable to the adverse effects of climate change, characterized by high exposure and low adaptive capacity. According to the primary Representative Concentration Pathways (RCPs) for climate change scenarios – low (RCP2.6), medium (RCP4.5), and high (RCP8.5, future projections indicate that temperatures in Uganda are expected to rise. Under a high-emission scenario, monthly temperatures could increase by 1.8°C by the 2050s and by 3.7°C by the 2090s. This temperature rise will lead to greater aridity and extend the length and severity of the dry season, particularly from December to March. The most significant warming is anticipated during Uganda's cooler season (June to September), with temperatures projected to increase by 1.5 to 5.4°C by the end of the century. This will cause shifting weather patterns, declining water levels, and an increased frequency of extreme weather events.

Uganda has a predominantly tropical climate characterized by two rainy seasons each year: from March to May and from September to December. However, the northern region, which accounts for about one quarter of the country, falls outside the tropical belt and experiences only one rainy season, lasting from March to October. Uganda's weather and seasons are influenced by several climatic systems, including the Indian Monsoon, Congo air mass, Indian Ocean Dipole (IOD), and the Inter Tropical Convergence Zone (ITCZ). The El Niño Southern Oscillation (ENSO) also plays a significant role in rainfall variability, particularly impacting the rainy season from September to December, where El Niño often leads to floods and La Niña to droughts. Annual rainfall varies across the country, with southern Uganda receiving between 600 to 2,200 mm, while the north receives 400 to 1,600 mm1. Future projections from the Intergovernmental Panel on Climate Change (IPCC) predict increased variability and intensity of these climate systems, which may further disrupt rainfall patterns and seasonality in Uganda.

Data analyzed from the World Bank Group's Climate Change Knowledge Portal for the period 1901–2020 (Table 1) indicates that Uganda's average annual temperature was 22.8°C, with monthly averages

[1] Climate Risk Profile: Uganda (2021): The World Bank Group

ranging from 21.7°C in July to 23.9°C in February. Over the same timeframe, the country's average total yearly rainfall was 1,197 mm, with monthly precipitation varying from 39.6 mm in January to 152.7 mm in April. Figure 2 illustrates Uganda's latest climate averages for 1991–2020, while Figure 3 shows the recorded spatial patterns of mean annual temperature and rainfall.

Table 1: Mean annual temperature of Uganda (1991-2020)

No.	Climate variable	1991-2020
1	Mean Annual Temperature (°C)	22.4°C
2	Mean Annual Precipitation (mm)	1,200.1 mm
3	Mean Maximum Annual Temperature (°C)	28.7°C
4	Mean Minimum Annual Temperature (°C)	16.2°C

Figure 2. Average monthly temperature and rainfall for Uganda for 1991–2020

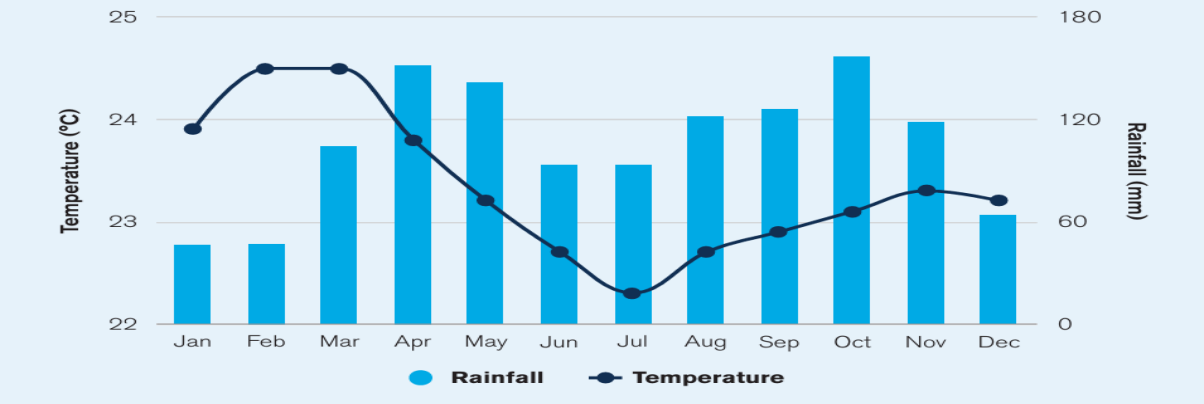
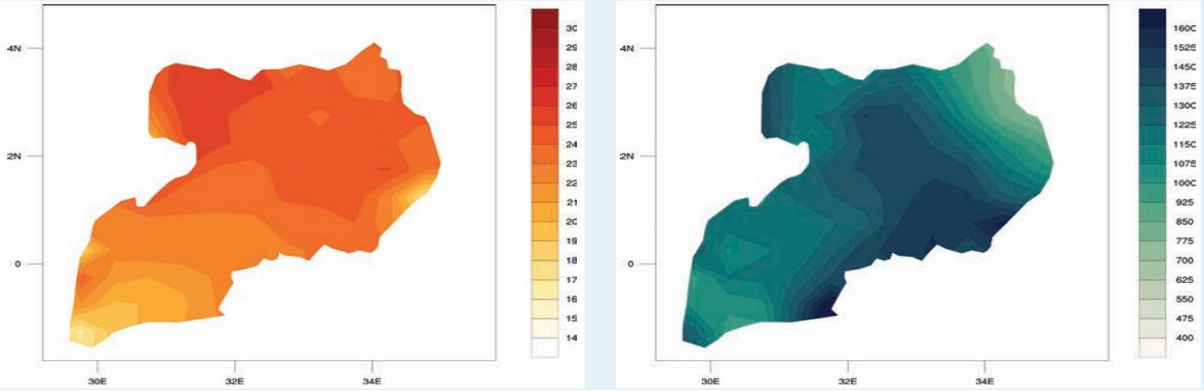


Figure 3: Map of average annual temperature (left); annual precipitation (right) of Uganda, 1991–2020



Climate trends in Uganda

a. Temperature

Average temperatures in Uganda have risen by 1.3°C since the 1960s, with minimum temperatures increasing by 0.5–1.2°C and maximum temperatures by 0.6–0.9°C[2]. This equates to an average increase of 0.28°C per decade. Observations show a significant rise in the frequency of hot days and nights, with hot days increasing by 74 days (20%) and hot nights by 136 nights (37%) from 1960 to 2003[3]. The most notable increases occurred in June, July, and August, where hot days rose by an

[2] USAID (2012). Uganda Climate Vulnerability Profile. URL: https://www.climatelinks.org/sites/default/files/asset/document/uganda_climate_vulnerability_profile_jan2013.pdf
[3] Ministry of Water and Environment (2015). Uganda National Climate Change Policy. URL: https://www.mwe.go.ug/sites/default/files/library/National%20Climate%20Change%20Policy%20April%202015

average of 8.6 days per month and hot nights by 14 nights. Conversely, cold days have decreased by 20 days since 1960, particularly in the September to November period[4].

b. Rainfall

Uganda has experienced a significant decline in both annual and seasonal rainfall, particularly affecting the March to May season, which has seen a reduction of 6.0 mm per month per decade. Some northern districts, such as Gulu, Kitgum, and Kotido, have also reported decreased rainfall. Although trends in extreme rainfall are challenging to define due to limited data, droughts have become more frequent and prolonged over the past 60 years, especially in the western, northern, and northeastern regions. In the arid district of Karamoja, seven droughts occurred between 1991 and 2000, with additional droughts in subsequent years. Such drought patterns are projected to intensify under future scenarios, placing significant pressure on agriculture-dependent livelihoods. Furthermore, the proportion of rainfall from heavy precipitation events is expected to increase, raising the risk of disasters like floods and landslides.

Climate change scenarios/projections for Uganda

Based on the Shared Socio-economic Pathways (SSPs), and the Representative Concentration Pathways (RCPs) for climate change scenarios, Uganda's future climate change projections reveal that temperature increases are expected (Figure 5 and 6). Under the high-emission scenario, monthly temperature change is expected to increase by 1.8°C by the 2050s and 3.7°C by the 2090s. The most pronounced warming will occur during Uganda's coolest months, June to September, with temperature increases of 1.5 to 5.4°C by century's end. Hot days are anticipated to occur on 15–43% of days by the 2050s and 18–73% by 2100, with hot nights (over 26°C) increasing even more rapidly[5]. This warming will lead to increased aridity and extend the dry season from December to March. These changes could exacerbate heat stress, reduce crop yield, increase evaporation, and impact hydropower generation, thereby threatening food and energy security.

Figure 5: Historical and projected average temperature for Uganda from 1986 – 2099[6]

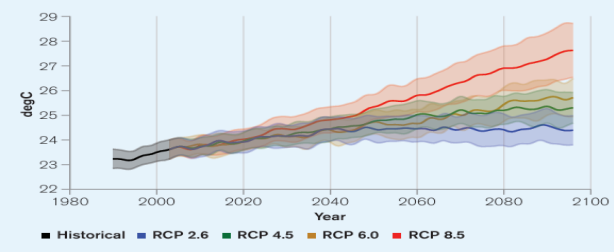
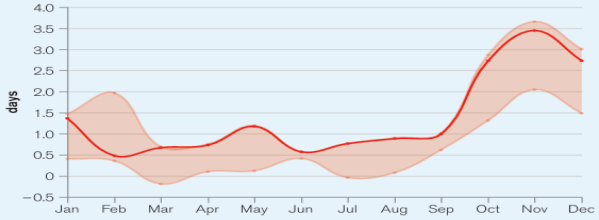


Figure 6: Projected change in hot days per month (Tmax>25°C)[7]



Under a high-emission scenario, Uganda is expected to see variable changes in monthly annual precipitation (Figure 7), with some areas experiencing increases, particularly the western shores of Lake Victoria, the central western region, and the Mount Elgon area. Conversely, northern and northeastern regions may face decreases in rainfall. Significant changes in the intensity and frequency of extreme rainfall events are anticipated by mid-century, impacting major agricultural zones, livestock,

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[4] McSweeney, C., New, N. and Lizcane, G. (2010). Uganda, UNDP Climate Change Country Profiles. URL: https://www.geog.ox.ac.uk/research/climate/projects/undp-cp/UNDP_reports/Uganda/Uganda.hires.report.pdf

[5] McSweeney, C., New, N. and Lizcane, G. (2010). Uganda, UNDP Climate Change Country Profiles. URL: https://www.geog.ox.ac.uk/ research/climate/projects/undp-cp/UNDP_reports/Uganda/Uganda.hires.report.pdf

[6] McSweeney, C., New, N. and Lizcane, G. (2010). Uganda, UNDP Climate Change Country Profiles. URL: https://www.geog.ox.ac.uk/ research/climate/projects/undp-cp/UNDP_reports/Uganda/Uganda.hires.report.pdf

[7] WBG Climate Change Knowledge Portal (CCKP, 2021). Interactive Climate Indicator Dashboard - Agriculture. Uganda. URL https:// climatedata.worldbank.org/CRMePortal/web/agriculture/crops-and-land-management?country=UGA&period=2080-2099

and transportation routes. Overall, there is likely to be an increase in the number of consecutive wet days (with daily rainfall ≥ 1 mm) throughout the year, along with more days of precipitation exceeding 20 mm during both rainy seasons (Figure 8 and 9). While the national average precipitation may increase slightly by the century's end, much of this change will occur through intensified precipitation events in specific areas. Projected changes in rainfall could increase flooding, erosion, and infrastructure damage in low-lying and urban areas, while greater variability may also threaten food and water security if not managed through resilient infrastructure and adaptive farming.

Figure 7: Annual average precipitation in Uganda for 1986 - 2099[8]

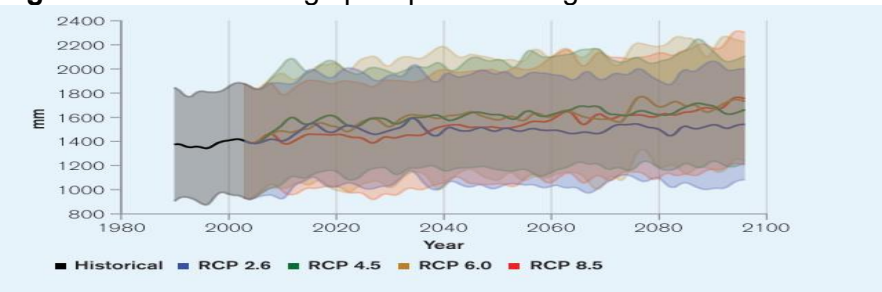


Figure 8: Monthly climatology of Minimum temperature, Mean temperature, Maximum temperature and precipitation (1991-2020)

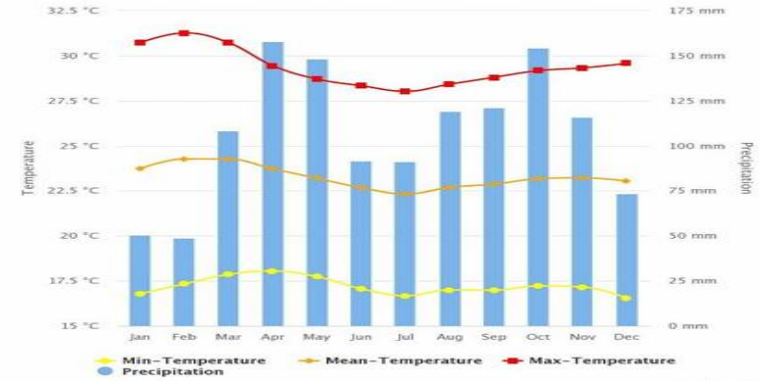
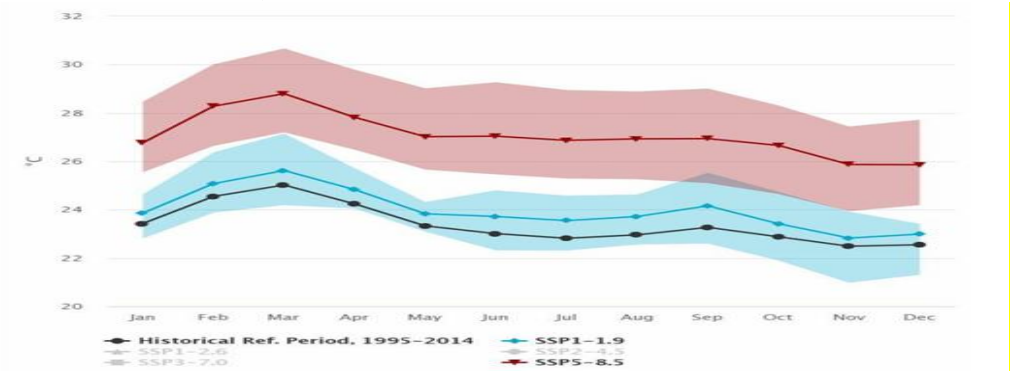


Figure 9: Projected climatology of mean temperature for 2080-2099 (Reference period: 1995 – 2014), SSP1-1.9 and SSP 8.5, Multi-Model Ensemble



[8] WBG Climate Change Knowledge Portal (CCKP, 2021). Climate Data-Projections. Uganda. URL: https://climateknowledgeportal. worldbank.org/country/uganda/climate-sector-water

Table 1: Summary of projected climate change trends under the different SSPs

No.	Climatic variable/ hazard	Historic change (only statistically significant trends)	Historic Baseline (1950 – 2014)	Projected change by 2040
1	Mean Annual Surface Temperature (℃)	Statistically significant increasing trend of 0.30 ℃ per decade since 1951 to 2020 (0.31 ℃ per decade from 1971-2020; 0.26oC per decade from 1991-2020)	22.89 ℃	• SSP2-4.5 = 24.16 ℃ (1.27 ℃ rise) • SSP5-8.5 = 24.55 ℃ (1.66 ℃ rise)
2	Mean Annual Precipitation (mm)	Statistically significant decreasing trend of -102.3 mm per decade since 1951 to 2020 (-111.984 from 1971-2020)	1765.05 mm	• SSP2-4.5 = 1791.29 mm (26.24 mm rise) • SSP5-8.5 = 1863.93 mm
3	No. of hot days (>35℃)	No statistically significant trends (the no. of such days has remained relatively stable per observational records)	3.21 days	• SSP2-4.5 = 7.50 days (4.29 days rise) • SSP5-8.5 = 11.16 days (7.95 days rise)
4	Maximum no. of consecutive dry days (linked to drought)	Statistically significant increasing trend of 1.40 more such days per decade since 1951 to 2020 (+1.67 days from 1971-2020)	16.00 days	• SSP2-4.5 = 14.67 days (-1.33 days decrease) • SSP5-8.5 = 14.85 days (-1.15 days decrease)
5	Maximum no. of consecutive wet days (linked to flooding)	Statistically significant decreasing trend of -4.36 less such days per decade since 1951 to 2020 (4.74 days from 1971-2020; -3.84 days from 1991 2020)	81.00 days	• SSP2-4.5 = 77.90 days (-3.1 days decrease) • SSP5-8.5 = 79.08 days (-1.92 days decrease)

Estimated impacts of climate change in Uganda

According to the World Bank's 2021 Climate Risk Profile for Uganda, rural smallholder households face significant and worsening climate-related risks. Since the 1980s, Uganda has been highly vulnerable to droughts, floods, landslides, and heat waves, with flooding posing the greatest threat, especially in low-lying regions. Each year, floods affect nearly 50,000 people and cause over $62 million in GDP losses. Both flash floods and slow-onset flooding are common in rural northern and eastern areas. Droughts have also severely impacted livelihoods, affecting about 2.4 million people between 2004 and 2013 and causing economic losses of $1.2 billion (7.5% of GDP) during the 2010-2011 droughts. The cattle corridor and northern and eastern regions remain particularly drought-prone.

Projections from the GIZ Climate Risk Profile (2021) indicate that Uganda will face more extreme dry and wet periods, with both droughts and floods becoming more frequent and intense. Average temperatures are expected to rise by 1.2°C to 2.3°C by 2050, and by 1.7°C to 5.6°C by 2100, with northern and eastern regions warming the most. The proportion of people exposed to heatwaves could increase from 0.2% in 2000 to 9.5% by 2080. While annual rainfall may increase by about 67 mm by 2080, heavier and less predictable rainfall will heighten the risks of flooding, erosion, and landslides.

Agriculture is particularly vulnerable. Shifts in species composition and tree cover will alter agro-ecological zones, threatening biodiversity and crop yields. National food production of staples such as cassava, maize, millet, and groundnuts could decline by up to $1.5 billion by the 2050s. Climate change will also strain water resources by increasing evaporation and altering rainfall patterns, reducing groundwater recharge and surface water reliability. Heavy rains may contaminate wells and latrines, cause infrastructure damage, and increase waterborne diseases.

Rising temperatures, increased drought, and erratic rainfall will continue to undermine water security, food production, livestock, and ecosystem health. These climate stresses compound existing

challenges such as land degradation, deforestation, and unsustainable farming practices. Economic losses from inaction between 2010 and 2050 could reach $273-437 billion, or $7-11 billion annually. The fishing sector, which employs about 8% of Uganda's labor force, is also at risk due to reduced water availability and degraded watersheds.

Uganda's economy and communities remain vulnerable due to high dependence on rain-fed agriculture, rapid population growth, high poverty rates, weak infrastructure, and limited financial capacity for adaptation. As of 2022, Uganda ranks as the 18th most vulnerable country and the 28th least prepared for climate impacts (ND-GAIN). Climatic events such as droughts, floods, and erratic rainfall already disrupt agriculture, worsen food and water insecurity, and fuel resource-based conflicts[9] [10] [11].

Busoga sub-region, located in Eastern Uganda, is among the areas highly affected by these climate impacts due to its heightened socioeconomic vulnerability and low adaptive capacity. The region faces severe socioeconomic vulnerabilities, including high rates of both monetary poverty[12] (29.4%) and multidimensional poverty[13] (45.1%)[14]. Also, Busoga records the highest deprivation (36% of the population) in productive employment among all sub-regions. Climate projections indicate worsening conditions, including prolonged dry spells, erratic rainfall, and increased flooding, which have already disrupted agricultural cycles, reduced crop yields by up to 40%, and intensified food insecurity.

In addition, land degradation in the region, driven by wetland conversion for rice and sugarcane farming, inappropriate agricultural practices, and deforestation (including for charcoal production), has severely disrupted essential ecosystem services particularly provisioning services such as soil fertility, water regulation, and habitat integrity. These environmental stresses are further exacerbated by systemic challenges, including high poverty levels, with 18.9% of the population living below the absolute poverty line (Less than one US dollar a day)[15]. Gender inequalities also play a significant role, as 22% of households are female-headed, and these women bear disproportionate burdens due to resource inequities and caregiving responsibilities. Also, high illiteracy rates, rapid population growth, and limited economic diversification, where 38%[16] of the households still locked in subsistence economy, constrain the ability of households and communities to effectively adapt to climate change and achieve sustainable development.

To address the above issues, the Government of Uganda has developed various national strategies and policies including Uganda's Vision 2040; Uganda's National Development Plan (NDP III & IV), Uganda Green Growth Development Strategy, 2017/18–2030/31; National Climate Change Policy; Uganda's updated Nationally Determined Contributions (NDCs), National Adaptation Framework; the National Environment Act; Uganda's National Adaptation Programme of Action (NAPA), and Uganda's National Biodiversity Strategy and Action Plan (NBSAP), among others.

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[9] Future Climate for Africa (2016). Africa's Climate- Helping Decision-Makers Make Sense of Climate Information. Uganda Country Fact Sheet. URL: http://2016report.futureclimateafrica.org/wp-content/uploads/2016/10/CDKNJ4897_FCFA_Print_WEB_15.pdf

[10] Nuwagira, U., & Yasin, I. (2022). Review of the Past, Current, and the Future Trend of the Climate Change and its Impact in Uganda. East African Journal of Environment and Natural Resources, 5(1), 115-126

[11] Twongyirwe, Ronald., Mfitumukiza, D., Bernard, B., Naggayi, B., Odongo, H., Nyakato, Viola., & Mutoni, Grace. (2019). Perceived effects of drought on household food security in South-western Uganda: Coping responses and determinants. Weather and Climate Extremes. 24. 100201. 10.1016/j.wace.2019.100201.

[12] Monetary poverty rate represents the proportion of people living below the national poverty line based on income, while the

[13] Multidimensional poverty captures deprivations across health, education, living standards, employment, and financial inclusion dimensions

[14] UBOS. (2022). Uganda Annual Agricultural Survey 2021 Report. Uganda Bureau of Statistics.

[15] Uganda Bureau of Statistics (UBOS). (2025). Uganda National Household Survey 2023/24 Key Findings Power point Presentation. Kampala, Uganda

[16] UBOS 2024. National population and Housing Census-2024 – Final Report

Despite these progressive policies, implementation gaps persist. Limited access to climate information, financial services, and adaptive technologies leaves communities reliant on short-term coping strategies, such as wetland farming and charcoal production, which accelerate environmental decline. Institutional weaknesses, including poor coordination and under-resourced local governments, compound these challenges.

Given these challenges, there is an urgent need for targeted interventions that enhance community resilience.

1.1. Overview of the project location: Busoga sub-region

1.1.1. Location

Busoga, a region in eastern Uganda, spans approximately 10,318 square kilometers and comprises 11 districts: Bugiri, Bugweri, Buyende, Iganga, Jinja, Kaliro, Kamuli, Luuka, Mayuge, Namayingo, and Namutumba (Figure 1). Geographically, it is bordered by Lake Kyoga to the north, separating it from the Lango sub-region; by River Nile to the west, delineating its boundary with the Buganda region; to the south by Lake Victoria; and to the east by the Mpologoma River, which separates it from the Bukedi and Bugisu regions.

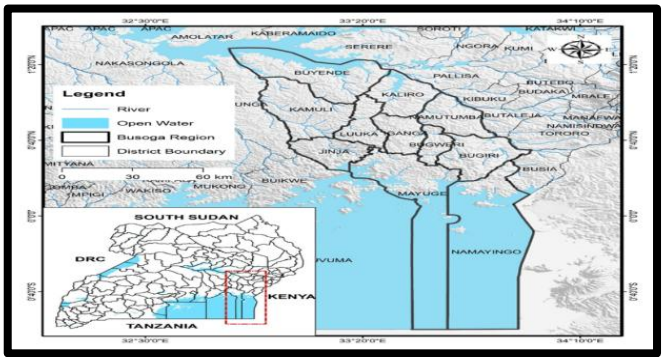

Figure 1: Map of Uganda showing Busoga Sub-region

1.1.2. Topography

Busoga Sub-Region is characterized by its undulating plains, river valleys, lake shores, and wetlands. It is situated at an altitude of approximately 1,000 to 1,300 meters above sea level, making it relatively low-lying compared to highland areas in Uganda. The landscape features gently rolling hills interspersed with lowland areas, particularly in the northern part near Lake Kyoga, where seasonal flooding and wetlands are common.

A significant geographical feature of the Busoga Sub-Region is Lake Victoria, which borders its southern section, including Mayuge and Namayingo districts. The shoreline of Lake Victoria is low-lying and gradually rises inland. In the western part of the region, the River Nile forms a natural boundary, flowing northward from Lake Victoria. The River Nile's valley is characterized by alluvial plains that enhance the fertility of the surrounding land.

Busoga region also includes remnants of forest reserves and isolated hills, with Mabira Forest near Jinja city being the most notable. In the districts of Namutumba, Luuka, Iganga, Bugweri, and Kaliro, the terrain consists mainly of undulating plains with gentle slopes and relatively flat areas. Seasonal wetland formations are prevalent, especially near water bodies (such as Lakes Kyoga and Victoria and Rivers Nile and Mpologoma) and low-lying valleys.

1.1.3. Soils

Busoga Sub-Region features primarily leached red and clay-rich soils that have been deeply weathered

by intense tropical rainfall, particularly in the districts of Iganga, Luuka, and Namutumba. These soils are sandy clay loam to clay loam in texture, rich in iron and aluminum oxides, but low in organic matter and essential nutrients, making them vulnerable to fertility depletion without proper management.

In addition, fertile alluvial soils are found in river valleys and floodplains, especially along the River Nile and Lake Kyoga. These areas support wetland rice and vegetable farming due to their nutrient-rich sediments, although unsustainable farming practices threaten their long-term productivity. Other soil types include acidic and nutrient-poor soils in Bugweri, Kaliro, and parts of Mayuge, which are moderately fertile but prone to acidification. Black clayey soils and vertisols dominate low-lying areas, suitable for crops like rice and sugarcane but susceptible to waterlogging. Challenges to soil productivity include widespread erosion and degradation from intensive land use, loss of natural vegetation, acidification, and nutrient depletion. Seasonal waterlogging also limits agricultural options.

1.1.4. Climate

Busoga region, like the rest of Uganda, has a tropical climate characterized by two rainy seasons: from March to May and from September to December. It receives an average annual rainfall of 1,200 mm, with temperatures ranging from 18°C to 30°C. However, the region faces unpredictable rainfall patterns, which can result in extreme conditions such as severe droughts, flooding, and higher temperatures. These fluctuations disrupt agriculture and livelihoods, leading to crop failures and property damage, thereby increasing the vulnerability of poorer communities.

1.1.5. Vegetation

Busoga sub-region features a forest-savanna mosaic, though human activities have significantly altered its natural vegetation. This landscape includes grasses and shrubs, along with remnants of forests and colonizing savannah trees in certain areas. Dominant plant species comprise grasses like *Pennisetum purpureum* and *Hyparrhenia rufa*, as well as scattered tropical trees such as *Markhamia lutea, Ficus*, and various *Albizia species*.

In districts like Namutumba, agricultural activities have heavily modified the vegetation. The region is home to several forest reserves, including Bukaleeba, South Busoga, Walulumbo, and Iziru, along with various local reserves. However, some reserves, such as Bukaleeba, have been severely encroached upon for commercial tree planting. The high population density in the sub-region further pressures forest cover.

The Iziru Forest Reserve in Luuka (103 ha) and the Bunafu Local Forest Reserve (28 ha) have both experienced degradation due to sugarcane farming and charcoal production. Additionally, parts of the Mpologoma wetland system have been degraded due to intensive rice cultivation and unsustainable resource use in the sub-region.

1.1.6. Population and demographic characteristics

Between the years 2014 and 2024, the population of Busoga sub-region grew at an annual rate of 2.1%, lower than the national average of 2.9%. In 2024, the total population reached 4,372,349, accounting for 9.5% of Uganda's total population of 45,935,046. The households in Busoga have an average of seven members, which is significantly higher than the national average of 4.5 members. More than half of these members are children under 18 years, which places added pressure on adults to meet household needs.

Approximately 33% of households have at least one member with a disability, with the highest prevalence in Namutumba (39%). The most common disabilities are physical (55%), followed by sight (17%) and mental disabilities (15%). The average age of household heads is 50, with younger heads in Kaliro (47 years) compared to Bugweri (54 years). Notably, 22% of households are headed by females, with Bugweri having the highest proportion at 38%, indicating potential vulnerability to climate change impacts.

Agriculture is the primary source of livelihood, with approximately 92% of household heads engaged in farming and 35% involved in non-agricultural activities. On average, two members of a household earn an income, leading to a high dependency ratio, where one income must support three members. Only 36% of households have access to a regular income source, highlighting the seasonal nature of earnings and increasing vulnerability to climate-related shocks.

In terms of education, household heads have completed an average of five years of schooling, with significant district-level disparities. Household heads in Bugweri average seven years, while those in Kaliro and Namutumba average four. Over 60% of household heads have not completed primary education, and 26% have no formal education. This low educational attainment limits access to formal employment and the ability to understand/comprehend critical information, particularly regarding climate change mitigation and adaptation.

1.1.7. Livelihoods and Economic Activities

Agriculture is essential to the livelihoods of communities in the Busoga region, serving as the backbone of the local economy and a primary source of food, income, and employment. Survey results indicate that over 90% of respondents engage in crop and livestock farming, with more than 50% practicing mixed farming, a case in point is Namutumba district, with over 60% of respondents reported using this approach. The most commonly grown food crops include maize, cassava, sweet potatoes and beans. Sugarcane and rice are also significant in the region and mainly grown for commercial purposes, while livestock typically includes sheep, goats, cattle, pigs, and poultry. Fishing is notable in Kaliro, Jinja, Mayuge and Namayingo due to their proximity to freshwater bodies.

In addition to farming, households engage in off-farm/ nonagricultural work, such as salaried or casual labor. Other income sources include salaried employment, vocational work, charitable donations, remittances, and loans. Overall, these findings underscore the central role of agriculture and related activities in supporting household livelihoods in the Busoga region.

1.1.8. Main environmental challenges faced

The Busoga sub-region faces significant environmental challenges, primarily deforestation and wetland encroachment, which are prevalent across all districts. These issues stem from the overuse and mismanagement of natural resources, leading to habitat destruction, reduced agricultural productivity, and threats to wildlife populations. While environmental concerns are similar across the region, specific districts exhibit unique challenges. Iganga, Luuka, and Bugweri report higher instances of land degradation, whereas issues with overfishing are noted in Kaliro district. These challenges are linked to increasing land-use pressures from rapid population growth and urbanization. Additionally, 81.6% of respondents across five districts perceive a rise in environmental degradation, with the highest concern in Namutumba (90.2%). On the other hand, Kaliro district shows a positive trend in restoration, with only 69.4% reporting increased degradation and 24.4% noting improvements. This may be attributed to successful environmental interventions, such as reforestation and community-led conservation efforts.

Conversely, districts like Namutumba and Luuka continue to struggle with high environmental pressures, emphasizing the need for targeted interventions, including afforestation and better waste management. Poor enforcement of environmental regulations and limited access to sustainable agricultural practices further exacerbate these issues.

To address these challenges, a multi-sectoral approach is essential, involving both government and non-state actors to implement sustainable land management, enhance environmental education, and strengthen local governance structures.

1.1.9. Social context

Social dynamics in the Busoga region reveal stark inequalities, particularly regarding gender. Women,

who represent about 22% of household heads, face heightened vulnerability due to their socio-economic roles in food production and caregiving. Additionally, more than 60% of household heads have not completed primary education, which limits their access to and comprehension of climate information and adaptive practices. Community discussions highlight that women and marginalized groups often bear the greatest burden during climate shocks, underscoring the need for inclusive adaptation strategies.

1.1.10. Climate change vulnerability and impacts

In the selected five districts of the Busoga sub-region, longer dry spells are the most commonly reported impact of climate change, affecting over 40% of households in Luuka and more than 30% in Iganga, Kaliro, and Namutumba. This has led to significant reduction in harvests, increasing food insecurity and vulnerability among residents. Testimonies from participatory community discussions highlight the severe consequences of drought on livelihoods and food availability.

Additionally, strong winds are reported as a significant climate impact, affecting crops and homes in all districts, with over 17% of respondents acknowledging their destructive effects. Hailstorms and increased rainfall, leading to flooding, are also concerns, particularly in Namutumba, Iganga, and Bugweri. Flooding poses challenges for farmers who have reclaimed wetlands, and those that farm in the lowlands, as heavy rains can wash away crops and other household assets.

The highest incidences of drought occur during Uganda's dry months, particularly January, February, and from June to August, correlating with known dry seasons. Storms peak in April, May, and August, coinciding with periods of atmospheric instability during the onset of rainy seasons. Increased rainfall intensity during wet months, especially in April and May, leads to flooding and waterlogging, complicating agricultural activities.

Households report irregular rainfall patterns, notably the delayed or early onset of rains in March and September, which disrupts land preparation and planting. These findings align with broader climate risk assessments for Uganda, emphasizing that increased rainfall intensity and unpredictability are growing challenges for agriculture and water management in the region.

Climate change in the Busoga region has multifaceted and overlapping consequences that significantly impact livelihoods and well-being. Key outcomes include widespread food insecurity and reduced crop yields, with nearly all climate hazards contributing to these issues. Households experiencing longer dry spells consistently reported both food insecurity and decreased yields. Similarly, flash floods (72%), reduced rainfall (85%), and hailstorms (63%) were closely linked to hunger, while increased rainfall (51%) and strong winds (53%) resulted in substantial crop losses.

Water scarcity is primarily associated with frequent droughts (55%), rising temperatures (14%), and extended dry spells (37%), indicating increased evaporation and limited water source recharge. Public health risks have also risen, with higher temperatures (29%), flash floods (16%), and heavy rainfall (11%) linked to an increase in waterborne and vector-borne diseases, such as malaria and diarrhea. Livestock health has deteriorated due to increased parasites and diseases, particularly during dry spells (25%) and heavy rains (6%).

Increased incidence of crop pests and diseases are attributed to temperature increases (22%), longer dry spells (14%), and increased rainfall (11%), which create favorable conditions for outbreaks. Extreme weather events, including strong winds (47%), hailstorms (21%), and floods (22%), have caused property damage, heightening household vulnerability. Some climate events, such as lightning (25%), floods (8%), and droughts (8%), have also resulted in fatalities.

Overall, these findings illustrate how climate change exacerbates vulnerabilities in the Busoga sub-region, leading to food insecurity, health risks, water scarcity, and property damage. This highlights the

urgent need for integrated, climate-resilient interventions, including enhanced early warning systems, climate-smart agriculture, public health initiatives, and disaster risk management strategies tailored to the region's specific challenges

1.1.11. Climate adaptation needs and barriers

Despite the region's agricultural potential, the productivity and income of smallholder farmers remain low, perpetuating cycles of poverty and food insecurity[17][18], which in turn heightens vulnerability to climate change[19]. Several factors contribute to these ongoing challenges, including limited access to resources, market restrictions, environmental shocks, and inadequate support from government agencies[20]. High input costs significantly hinder the adoption of modern agricultural practices among smallholder farmers[21]. Research indicates that the costs of improved seeds, fertilizers, and pesticides serve as major barriers[22]. Furthermore, limited access to affordable credit exacerbates this issue, as many farmers lack the financial resources to invest in these essential climate-smart inputs. Without access to these resources, smallholder farmers struggle to boost productivity and generate sufficient income. Access to agricultural inputs, such as high-quality seeds and fertilizers, is essential for improving crop yields. However, farmers in Busoga face significant challenges in obtaining these inputs due to high costs, inadequate supply chains, and limited availability in rural areas. Additionally, access to credit is crucial for enabling farmers to invest in improved methods. Without affordable credit, farmers struggle to purchase necessary inputs or adopt modern technologies. High interest rates, stringent credit requirements, and limited financial literacy further complicate their ability to secure funding.

Inadequate access to extension services further complicates the situation[23]. These services are vital for disseminating agricultural knowledge and technical assistance. However, studies show that extension services in Uganda, including the Busoga region, often fall short in coverage and effectiveness. Farmers frequently encounter difficulties in accessing timely information and practical training on modern techniques, leading many to rely on traditional farming methods that result in lower yields.

The relationship between high input costs and limited access to extension services creates a vicious cycle. High costs discourage investment in new technologies, while insufficient extension services hinder awareness and understanding of those technologies. This trap keeps smallholder farmers locked in subsistence farming, unable to escape poverty and improve their household incomes.

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[17] Lubaale, R. G., Ocan, J. & Adyanga, F. A. (2024). Exploring the Root Causes of Low Household Income among Smallholder Farmers in Kamuli District, Busoga Region, Uganda. East African Journal of Business and Economics, 7(1), 198-216. https://doi.org/10.37284/eajbe.7.1.1949

[18] Nampala, P., Wamala, A., & Kikulwe, E. (2017). Gender differences in adoption of agricultural technology: The case of improved cassava varieties in Uganda. African Journal of Agricultural and Resource Economics, 12(3), 234-245.

[19] Okonya, J. S., & Kroschel, J. (2017). A cross-sectional study of factors influencing banana production in Uganda. Agriculture & Food Security, 6(1), 12.

[20] Lubaale, R. G., Ocan, J. & Adyanga, F. A. (2024). Exploring the Root Causes of Low Household Income among Smallholder Farmers in Kamuli District, Busoga Region, Uganda. East African Journal of Business and Economics, 7(1), 198-216. https://doi.org/10.37284/eajbe.7.1.1949

[21] Nakawuka, P., Mugisa, A., Bashaasha, B., & Wamala, A. (2020). Factors influencing smallholder farmers' decisions to adopt soil fertility management practices in Uganda. Cogent Food & Agriculture, 6(1), 1820658.

[22] Ahebwa, W. M., Katongole, C. B., & Waiswa, D. (2020). Assessing financial inclusion and its determinants among rural smallholder farmers in Uganda. African Journal of Agricultural and Resource Economics, 15(4), 403-418.

[23] Akullo, G., Mugonola, B., Tenywa, J. S., & Isabirye, M. (2017). Agricultural extension service delivery and farmers' perception: A case study of Busoga region, Uganda. African Journal of Agricultural Research, 12(47), 3373-3385.

The impacts of climate variability, including erratic rainfall and prolonged droughts, exacerbate these challenges by leading to crop failures and reduced incomes. The unpredictable nature of climate change complicates long-term planning and discourages investment in adaptive measures. Despite the pressing need for climate adaptation strategies, smallholder farmers in Busoga often lack access to appropriate technologies and practices, such as conservation agriculture and drought-resistant crops. In addition, poor access to reliable and actionable climate data makes it difficult for smallholders to manage on-farm risk.

The 2019 Global Commission on Adaptation report[24] emphasized that communities facing climate change are often the most innovative in developing solutions but lack the resources to implement them. One key barrier to adaptation in Busoga is the limited adoption of climate-smart practices, which can be attributed to a lack of awareness about climate change and inadequate access to inputs and supply chains. Socio-economic factors, such as poverty and limited education, further constrain the ability of farmers to adopt these strategies.

Addressing these vulnerabilities is essential for enhancing adaptive capacity. Improving access to climate information and raising awareness about adaptation strategies can empower communities to make informed decisions. Ongoing environmental degradation, such as deforestation and soil erosion, further exacerbates vulnerabilities, reducing the ecosystems' capacity to support livelihoods.

Poor infrastructure, including inadequate roads and communication systems, limits farmers' access to markets and information, hindering effective adaptation measures. Additionally, gender inequality poses another barrier, as women and marginalized groups often face obstacles to participation in decision-making processes. Their exclusion limits the effectiveness of adaptation strategies, as these groups are typically more vulnerable to climate impacts and possess unique insights into local needs. Addressing these barriers is crucial for fostering resilience in the Busoga region.

PROJECT / PROGRAMME OBJECTIVES

List the main objectives of the project/programme.

The main objective of the proposed project is to strengthen the adaptive capacity of vulnerable local communities in the Busoga sub-region to withstand the negative impacts of climate change.

The specific objectives of the proposed project are:

1. To strengthen the resilience of local agricultural production systems through the promotion of climate-smart agriculture.
2. To promote sustainable land use and conservation practices to protect natural resources and restore degraded ecosystems.
3. To diversify the livelihoods of vulnerable communities to reduce dependency on climate-vulnerable sectors.
4. To strengthen local governance and capacity to manage climate adaptation initiatives effectively, including implementing and enforcing environmental regulations and adaptation strategies

Project / Programme Components and Financing[25]:

Fill in the table presenting the relationships among project components, activities, expected concrete

[24] Global Center on Adaptation (GCA). 2019. Adapt now: a global call for leadership on climate resilience. Global Centre on Adaptation and World Resources Institute.

[25] IE and EE fees calculator: https://www.adaptation-fund.org/document/ie-and-ee-fees-calculator/

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.

Project Components	Expected Concrete Outputs	Expected Outcomes	Amount (US$)
1. Promotion of climate-smart agriculture and water management to strengthen the resilience of local agricultural production systems	1.1.1. At least 500 smallholder farmers trained on climate-smart agriculture 1.1.2. At least 10,000 climate-resilient seed kits are distributed to vulnerable households. 1.1.3. 10 farmer field schools established to facilitate peer-to-peer learning and the adoption of smart agricultural best practices. 1.1.4. At least 500 smallholder farmers trained on post-harvest handling of agricultural produce and supported with post-harvest handling equipment	1.1. Enhanced agricultural productivity and food security due to increased adoption of climate-smart agricultural practices. Climate-smart agriculture	500,000
	1.2.1. 10 community-based solar irrigation systems and 20 rainwater harvesting systems constructed to ensure a reliable water supply for agricultural activities	1.2. Enhanced water security and sustainable water management	1,580,000
2. Sustainable management of forest and wetland ecosystems	2.1.1. 500 hectares of deforested and degraded land restored 2.1.2. Five (05) critical wetlands rehabilitated and managed through community-led efforts 2.1.3. At least two (02) energy-efficient technologies adopted to reduce deforestation and forest degradation 2.1.4. One (01) feasibility assessment conducted and pilot initiative launched for innovative finance models to support long-term sustainability of restoration efforts.	2.1. Enhanced resilience of forest and wetland ecosystems to climate change	700,000
3. Economic empowerment and livelihood diversification of vulnerable households	3.1.1. One revolving fund scheme established to provide local entrepreneurs with access to microfinance, enabling them to invest in alternative livelihoods and diversify their income sources. 3.1.2. Establish business hubs for agro-processing, commercial forestry, and waste-to-value activities	3.1. Improved incomes of vulnerable households	700,000

	3.1.3. Business plans developed for alternative income-generating activities.		
4. Functional community early warning system and response	4.1.1. Early warning systems are established and/or operationalized	4.1. Reduced vulnerability to climate-related disasters through effective early warning systems and preparedness measures	400,000
5. Strengthened Knowledge management, monitoring and evaluation	5.1.1. Develop a functional knowledge management, monitoring and evaluation system/framework.	5.1. Strengthened capacity of local stakeholders in the Busoga region to effectively implement the project, and capture and disseminate knowledge and lessons learned for better management of the effects of climate change at the local level.	300,000
6. Project/Programme Execution cost			430,000
7. Total Project/Programme Cost (1 to 6)			4,610,000
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)			390,000
Amount of Financing Requested (7+8)			**5,000,000**

Projected Calendar:

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

Milestones	Expected Dates
Start of Project/Programme Implementation	January 2027
Mid-term Review (if planned)	January 2029
Project/Programme Closing	December 2031
Terminal Evaluation	30th January 2032

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. Describe the project / programme components, particularly focusing on the concrete adaptation activities of the project, and how these activities contribute to climate resilience. For the case of a programme, show how the combination of individual projects will contribute to the overall increase in resilience. Specify how the project/programme enables devolving decision making to the lowest appropriate level and gives local institutions and communities more direct access to finance and decision-making power over how adaptation actions are defined, prioritized, designed, implemented; how progress is monitored and how success is evaluated.

The proposed project aims to strengthen the adaptive capacity of vulnerable local communities in the Busoga sub-region to withstand the negative impacts of climate change. To achieve this, the following components and concrete adaptation activities are proposed.

Component 1: Promotion of climate-smart agriculture and water management to strengthen the resilience of local agricultural production systems

Agriculture remains the mainstay of Uganda's economy at household and national levels. It contributes approximately 24% to the Gross Domestic Product (UBOS, 2023).[26] However, the sector is still largely dependent on rain-fed farming systems, which are increasingly threatened by climate change. Irrigation is playing an increasingly important role in countering unreliable rainfall by bridging dry spells and boosting crop productivity. Despite Uganda's significant irrigation potential of 3 million hectares, only an estimated 77,000 hectares (2.6%) have been developed to date. To address this gap, the government's National Irrigation Policy aims to expand the total irrigated area to 1.5 million hectares by 2040. In line with this vision, the proposed project will help strengthen climate resilience in the Busoga sub-region by establishing 10 community-based micro-irrigation systems.

One of the major barriers to climate adaptation in Busoga sub-region, is the limited adoption of climate-smart agricultural practices, such as conservation agriculture and drought-resistant crops. This is primarily due to a lack of awareness about climate change, high input costs, inadequate supply chains, and limited access to essential resources. Socio-economic challenges, including poverty, lack of access to credit, and low education levels, further hinder farmers' ability to implement these strategies. In addition, post-harvest loses from pest damage and poor produce handling further reduce quality and quantity of produce marketed and consumed at home.

To address this gap, component one of the proposed project will promote climate-smart agricultural practices to strengthen the resilience of local agricultural production systems in Busoga sub-region and generate the following two expected outcomes.

Outcome 1.1: Enhanced agricultural productivity and improved food security due to increased adoption of climate-smart agricultural practices. Climate-smart agriculture involves practices that sustainably increase productivity, enhance resilience (adaptation), reduce greenhouse gas emissions (mitigation), and enhance the achievement of food security and development goals. The proposed

[26] Wanyama, J., Ssegane, H., Kisekka, I., Komakech, A., Banadda, N., Zziwa, A., Oker, T., Mutumba, C., Kiggundu, N., Kayizi, R., Mucunguzi, D., & Kiyimba, F. (2017). Irrigation Development in Uganda: Constraints, Lessons Learned, and Future Perspectives. Irrigation and Drainage Engineering. 143. 04017003. 10.1061/(ASCE)IR.1943-4774.0001159

project will specifically promote the following climate-smart agriculture practices

a) Crop diversification where farmers will be encouraged to grow a variety of crops to reduce risk from specific climate-related impacts.

b) Implementing efficient irrigation techniques and water harvesting to address water stress.

c) Soil conservation using mulching, use of cover crops, terracing, and agroforestry to improve soil health and reduce erosion.

d) Adopting improved crop varieties such as drought-tolerant and fast-maturing crop varieties to ensure production even with changing rainfall patterns.

e) Adoption of appropriate post-harvest handling practices such as hermetic storage to maintain produce (dry grains and pulses) quality for consumption during periods of low availability or failed seasons.

The following outputs are envisaged:

Output 1.1.1: At least 500 smallholder farmers trained on climate-smart agriculture

Activity 1.1.1.1: Develop training manuals and information, Education and Communication (IEC) materials on climate-smart agriculture. The training manuals and IEC materials should be translated into the local language (Lusoga).

Activity 1.1.1.2: Hold participatory and gender sensitive awareness raising campaigns and workshops on climate-smart agriculture.

Activity 1.1.1.3: Train smallholder farmers on climate-smart agricultural practices topics such as agroforestry, crop diversification, and soil and water conservation, etc.

Activity 1.1.1.4: Collaborate with local agricultural experts to deliver practical demonstrations during workshops

Output 1.1.2: At least 10,000 climate-resilient seed kits distributed to vulnerable households.

Activity 1.1.2.1: Conduct community mobilization campaigns to raise awareness about the benefits of climate-resilient seed.

Activity 1.1.2.2: Identify local suppliers and secure drought-resistant seeds for distribution.

Activity 1.1.2.3: Establish partnerships with local seed suppliers

Output 1.1.3: 10 farmer field schools established to facilitate peer-to-peer learning and the adoption of smart agricultural best practices.

Activity 1.1.3.1: Select key locations for demonstration farms based on community input.

Activity 1.1.3.2: Establish demonstration farms and plant diverse crops using climate-smart techniques

Activity 1.1.3.3: Establish management protocols for each farm.

Activity 1.1.3.4: Organize monthly field days for community members to observe and learn from the demonstration farms.

Output 1.1.4: At least 500 smallholder farmers trained on post-harvest handling of agricultural produce and supported with post-harvest handling equipment

Activity 1.1.4.1: Support the area Zonal Agriculture Research Institute (ZARDI) to translate into local languages the training manuals and information and, Education and Communication (IEC) materials on appropriate harvest and postharvest handling technologies for main crops in the sub region.

Activity 1.1.4.2: Hold participatory and gender sensitive awareness raising campaigns workshops on appropriate harvest and post-harvest technologies.

Activity 1.1.4.3: Collaborate with local agricultural experts (from the ZARDI, local government and NGOs) to deliver practical demonstrations during workshops

Activity 1.1.4.4: Conduct community consultations to identify households extremely vulnerable to food shortages, especially staple grains and pulses.

Activity 1.1.4.5: Identify local suppliers and secure hermetic storage equipment.

Activity 1.1.4.6: Distribute hermetic storage equipment to identified extremely vulnerable households

Outcome 1.2: Enhanced access to water for production.
Under this outcome, the proposed project will enhance access to production through effective water management, which is critical for climate change adaptation, especially in areas prone to droughts and floods (Aggarwal et al., 2021). The proposed project will use community-based approaches to promote local management of water resources for climate change adaptation (Velempini et al., 2016) using strategies such as harvesting rainwater for use during dry periods (Kumar & Saizen, 2023), procuring and installing solar-powered micro-irrigation systems and improving the efficiency of existing traditional irrigation systems, and implementing other effective water-saving techniques in agriculture and households (Kumar & Saizen, 2023).

Output 1.2.1: 10 community-based solar irrigation systems and 20 rainwater harvesting systems constructed to ensure reliable water supply for agricultural activities

Activity 1.2.1.1: Conduct a needs assessment to identify optimal sites for rainwater harvesting and solar-powered micro-irrigation systems.

Activity 1.2.1.2: Procure and install solar-powered irrigation systems and hire local contractors to construct rainwater harvesting systems, ensuring community involvement in the process

Activity 1.2.1.3: Develop training materials on efficient water use, irrigation techniques, and maintenance of water systems.

Activity 1.2.1.4: Train local communities on operation and maintenance of solar-powered irrigation systems

Activity 1.2.1.5: Establish and train Water user committees to manage the established water systems

Component 2: Sustainable management of forest and wetland ecosystems
Busoga sub-region faces severe environmental challenges, including deforestation and wetland encroachment, primarily due to the overexploitation and mismanagement of natural resources. Wetlands are primarily converted for rice cultivation, while agricultural expansion, and reliance on biomass for cooking and brickmaking using traditional hand-molded fired brick production methods, drive deforestation, and climate variability. These activities have disrupted ecosystem services, especially provisioning services, leading to habitat fragmentation, soil erosion, declining soil fertility, and nutrient loading in water bodies.

To address these issues, this component will promote sustainable management of forest and wetland ecosystems.

Outcome 2.1: Enhanced resilience of forest and wetland ecosystems to climate change
Under this outcome, the proposed project will restore 500 hectares of deforested and degraded land through community-led reforestation and wetland rehabilitation.

Afforestation will be promoted to reinstate the ecological functions of forest ecosystems. Local communities with existing nurseries will be selected and trained in tree nursery management, supported with appropriate tree seeds (including species like Grevellia, Markhamia, Maesopsis, Terminallia, Pinus and high value fruit trees like Mangoes, oranges, and Avocado) as well as tools to increase production capacity. Selected individuals in the identified degraded areas will receive training in woodlot and tree establishment and management, after which they will be provided with seedlings for planting. The nurseries will sell any seedlings not purchased by the project to farmers at market prices.

Restoration efforts will target both privately owned and vulnerable public lands. Seedlings will be sold at subsidized prices to recover nursery support costs while allowing for profit. The project plans to produce over 500,000 seedlings to restore approximately 500 hectares of degraded land, with community members contributing land and labor for planting and management. The initiative aims to enhance the sustainability and capacity of nurseries to continue producing seedlings post-project.

In addition, the proposed project will rehabilitate degraded wetlands to enhance their water retention capacity, crucial in flood control. Community members will receive training in wetland rehabilitation and restoration techniques. The wetlands in the targeted catchments will be clearly demarcated, and communities will be provided with tools to implement their specific restoration action plans.

To mitigate forest degradation and deforestation caused by communities' reliance on forests for biomass energy for cooking and brick burning, the project will promote improved cook stoves and facilitate the adoption of Vertical Shaft Brick Kiln (VSBK) technology, which reduces fuel consumption by up to 50% compared to traditional brick kilns.

In addition, the proposed project will explore innovative finance models such as carbon finance from emission reductions to generate additional funding for enhancing climate resilience.

Output 2.1.1: 500 hectares of deforested and degraded land restored

Activity 2.1.1.1: Identify and map out degraded areas

Activity 2.1.1.2: Train selected individuals and/or groups from or near the degraded areas mapped with existing tree nurseries in tree nursery establishment and management

Activity 2.1.1.3: Support the selected tree nurseries with the necessary seeds and tools

Activity 2.1.1.4: Select and train communities in the establishment and management of woodlots to enhance the survival rates of planted trees

Activity 2.1.1.5: Procure and distribute seedlings to the target beneficiaries

Output 2.2.2: Five (05) critical wetlands rehabilitated and managed through community-led efforts

Activity 2.2.2.1: Identify and map out degraded wetland areas

Activity 2.2.2.2: Select and train community members in wetland rehabilitation and restoration activities, with 50% of participants being women

Activity 2.2.2.3: Develop site specific wetland restoration action plans

Activity 2.2.2.4: Provide support to communities to implement the site-specific wetland restoration action plans.

Activity 2.2.2.5: Establish community environmental committees to oversee restoration and enforce conservation bylaws

Output 2.2.3: Energy-efficient technologies adopted to reduce deforestation and forest degradation

Improved energy cook stoves and Vertical Shaft Brick Kiln (VSBK) technology play a crucial role in helping households reduce their fuel wood consumption for cooking, alleviating pressure on forest resources for biomass energy. In the proposed project, community knowledge and skills regarding improved cook stoves and VSBK technology will be enhanced.

The project will support community groups, particularly women's groups, in producing and marketing stoves within their sub-catchments, enabling households to save fuel wood and lessen the strain on forest resources. This initiative will also help women and children spend less time collecting firewood, allowing them to engage in more productive activities while reducing their exposure to harmful smoke and lowering the risk of respiratory complications.

The proposed project will transition brick production from traditional kilns to Vertical Shaft Brick Kilns (VSBKs), offering significant environmental benefits. Traditional kilns emit about 0.5 to 0.7 tons of CO2 for every 1,000 bricks produced. By adopting VSBK technology, the project will reduce emissions by up to 60%, resulting in a decrease of 2,800 tons of CO2 annually. This reduction aligns with Uganda's Nationally Determined Contributions (NDCs) and supports global efforts to combat climate change and improve air quality.

Additionally, VSBK technology significantly reduces greenhouse gas emissions by using less fuel and raw materials, saving around 600 tons of firewood each year, which is equivalent to preserving approximately 150 hectares of forest.

To achieve the above output, the following activities are proposed.

Activity 2.2.3.1: Develop training manuals and IEC materials on improved cook stoves and VSBK technology, translating them into the local language (Lusoga).

Activity 2.2.3.2: Conduct awareness campaigns and meetings to educate communities about the benefits, usage, costs, and availability of cook stoves and VSBK technology.

Activity 2.2.3.3: Select and train local artisans and brick-makers in production, business planning and marketing of improved cookstoves and VSBK produced bricks respectively.

Activity 2.2.3.4: Train local artisans and entrepreneurs on cook stove and VSBK construction, operation, and maintenance.

Output 2.2.4: Sustainable/ innovative finance options explored

The proposed project will explore opportunities to create innovative finance models, such as carbon finance from cookstove and VSBK emission reductions, to generate additional funding for strengthening climate resilience. Improved cookstoves significantly reduce emissions compared to traditional stoves, potentially saving 2.82-3.43 tCO2e per stove per year. This is achieved by reducing fuelwood consumption by 1.72-2.08 tons per year. The global potential for GHG emission reductions from improved cookstove projects is estimated at 1 gigatonne of carbon dioxide per year.

Also, the proposed project will transition brick making from traditional brick kilns to Vertical Shaft Brick Kilns (VSBKs), which has substantial environmental benefits. Traditional brick kilns emit approximately 0.5 to 0.7 tons of CO_2 for every 1,000 bricks produced. By adopting VSBK technology, the proposed project will save around 600 tons of firewood annually, which is equivalent to preserving approximately 150 hectares of forest and reduce emissions by up to 60%, translating to a decrease of 2,800 tons of CO_2 per year.

To achieve this output, the following activities are proposed.

Activity 2.2.4.1: Establish a baseline by conducting a thorough assessment of current carbon emissions in the target areas

Activity 2.2.4.2: Establish and implement systems for measuring and monitoring carbon sequestration and emissions reductions from cookstoves and VSBKs.

Activity 2.2.4.3: Develop detailed project documentation in line with carbon finance standards and methodologies.

Activity 2.2.4.4: Seek third party verification.

Activity 2.2.4.5: Analyze carbon markets to identify potential buyers for carbon credits.

Activity 2.2.4.6: Produce regular reports on project progress and compliance with carbon finance regulations.

Activity 2.2.4.7: Develop strategies for the sale and promotion of carbon credits to potential buyers.

Component 3: Economic empowerment and livelihood diversification of vulnerable households

In Busoga sub-region, over 90% of the population depend on climate-sensitive agriculture as their main source of livelihoods. Therefore, this component seeks to enhance climate resilience to climate shocks and stresses by diversifying livelihoods to reduce dependency on climate-vulnerable sectors. This will involve promoting off-farm income-generating activities, such as small-scale businesses, agro-processing, skills training, and improving access to credit.

Under this component, one outcome is expected.

Outcome 3.1: Improved incomes of vulnerable households
Livelihood diversification enhances household incomes and resilience to climate change by providing multiple income sources, which reduces reliance on a single activity and increases financial stability. It mitigates risks by spreading income across various sectors, so if one area is affected by climate change, others may still thrive. Diversified livelihoods improve food security and nutrition by allowing households to grow a variety of crops. Additionally, engaging in different sectors enhances access to resources, markets, and information, boosting adaptive capacity. Community resilience is strengthened through cooperation and resource sharing, while diversification encourages innovation and the adoption of new practices to effectively respond to climate challenges**.**

To achieve the above outcome, the following outputs and activities are envisaged.

Output 3.1.1: Revolving fund schemes established to provide local entrepreneurs with access to microfinance, enabling them to invest in alternative livelihoods and diversify their income sources.
Revolving funds will be established to provide local entrepreneurs with access to capital, enabling them to invest in diverse income-generating activities and reduce reliance on a single source. By supporting alternative livelihoods, these funds promote economic diversification and enhance resilience to climate change. Also, revolving funds will encourage sustainable practices and empower communities, contributing to overall economic stability. Additionally, revolving funds often include training and support, improving skills and knowledge for adapting to changing conditions. Overall, they facilitate both individual and community resilience against climate variability.

Activity 3.1.1.1: Conduct a needs assessment and design a targeting criterion to identify priority communities and entrepreneurs through a rapid assessment

Activity 3.1.1.2: Design and setup the fund to define the fund structure, eligibility criteria, and governance.

Activity 3.1.1.3: Conduct workshops and meetings to sensitize communities on the revolving fund.

Activity 3.1.1.2: Sensitize and train local communities to form Savings and Credit Co-operative (SACCOs) to manage the revolving funds.

Output 3.1.2. Establish business hubs for agro-processing, commercial forestry, and waste-to-value activities
The establishment of business hubs for agricultural commodity value addition, such as cassava milling, fruit drying, commercial forestry and waste-to-value activities such as making briquettes from wastes and plastic waste recycling, will diversify livelihoods by creating new income opportunities and jobs in the community. These hubs reduce post-harvest losses by transforming surplus produce into marketable products, ensuring farmers benefit from their harvests. Also, agro-processing hubs improve market access for local products, allowing for more stable incomes. Additionally, agro-processing hubs offer training and skill development, empowering local workers. By enabling the production of a variety of products, these hubs also attract different consumer markets, thus, enhancing resilience to climate impacts by maintaining income stability during disruptions.

Activity 3.1.2.1: Conduct a comprehensive assessment of local agricultural products and community needs while involving local farmers, entrepreneurs, and government agencies to gather support.

Activity 3.1.2.2: Identify suitable locations for the hubs and develop necessary infrastructure,

including processing facilities and storage.

Activity 3.1.2.3: Provide training for local farmers and workers on processing techniques, quality control, and business management to enhance skills.

Activity 3.1.2.4: Conduct market research to identify potential buyers and pricing strategies and create marketing strategies to promote processed products and build brand recognition.

Activity 3.1.2.5: Establish public-private partnerships to leverage resources for diverse projects and ensure a steady demand for sustainably produced bricks

Output 3.1.3: Business plans developed for alternative income-generating activities
The development of business plans for alternative livelihoods diversifies income sources by providing a structured approach for pursuing new ventures. These plans include financial projections and risk assessments, helping entrepreneurs understand costs and mitigate climate-related risks. They incorporate market analysis to identify demand and competitive advantages, guiding effective resource allocation. Additionally, the process enhances skills and capacity building, empowering individuals to manage their businesses. By focusing on sustainable practices, these plans promote long-term economic stability and resilience against climate impacts.

To achieve this outcome, the following activities will be implemented.

Activity 3.1.3.1: Conduct a value chain analysis of alternative livelihood options
Activity 3.1.3.2: Select and train potential beneficiaries of alternative income-generating activities (e.g plastic wastes recycling, bee keeping, mushroom growing, commercial tree growing and making briquettes from wastes), including business planning, value addition, and marketing. This initiative will primarily target community members benefiting from the revolving fund, enabling them to effectively utilize borrowed funds, repay loans, and ensure the sustainability of the fund.

Component 4. Functional community early warning system and response
A functional community early warning system (EWS) enhances climate resilience by providing timely and accurate information about climate-related risks, enabling proactive measures. It raises awareness of potential threats, facilitating disaster preparedness planning and effective resource allocation. The system improves rapid response capabilities, minimizing damage during climate events through coordinated actions. By involving community members, EWS fosters local ownership and trust, leading to better participation in resilience-building activities. Continuous monitoring and feedback allow communities to learn from past events and adapt strategies for future resilience.

Outcome 4.1: Reduced vulnerability to climate-related disasters through effective early warning systems and preparedness measures.
The proposed project will reduce vulnerability to climate-related disasters by providing timely climate and weather alerts that enable communities to take protective actions and identify vulnerable areas, allowing for targeted preparedness efforts.

Output 4.1.1: Early warning systems are established and/or operationalized
The proposed project will establish and operationalize early warning systems in the Busoga region, delivering localized weather advisories and real-time alerts to vulnerable communities. This will involve training about 20 community weather monitors to collect and share hyperlocal climate data. Additionally, local "climate champions," with 50% being women, will be trained to lead adaptation efforts. Community Adaptation Committees will also be formed, ensuring 50% female representation, to oversee resource management and decision-making.

Activities

Activity 4.1.1.1: Establish and operationalize localized weather advisory system operational, delivering real time alerts

Activity 4.1.1.2: Train at least 50 community weather monitors to collect and disseminate hyperlocal climate data

Activity 4.1.1.3: Train local "climate champions" (50% women) to lead adaptation efforts

Activity 4.1.1.4: Establish and empower local Community Adaptation Committees, with 50% female representation, to manage resources and decision-making

Component 5: Strengthened Knowledge management, monitoring and evaluation
This component entails the development and roll-out of a gender-sensitive Monitoring and Evaluation (M&E) framework/system to collect, analyze and synthesize data and information generated during the implementation of the project for adaptive management and to inform the design of similar projects in future.

This component also includes learning and knowledge management where success stories, lessons learned, and best practices arising from the implementation of activities throughout the project lifetime will be documented and shared with the relevant stakeholders.

Outcome 5.1: Strengthened capacity of local stakeholders in Busoga region to effectively implement the project, and capture and disseminate knowledge and lessons learned for better management of the effects of climate change at the local level.

To achieve this outcome, the proposed project will establish a comprehensive monitoring and evaluation framework that facilitates continuous assessment of project impacts and outcomes. This will enable informed decision-making, foster accountability, and promote adaptive management practices, ultimately ensuring the effectiveness and sustainability of interventions over time**.** Also, independent evaluations will be conducted to assess the extent of achievement of project objective and outcomes including the development and implementation of environmental and social safeguard plans in accordance with the Adaptation Fund Policies.

Output 5.1.1: A functional knowledge management, monitoring and evaluation system/framework.

The project will develop and implement a gender-sensitive knowledge management strategy tailored to the diverse information needs of various target groups. It will produce gender-sensitive knowledge products to raise awareness and advocacy for climate resilience in Busoga sub-region.

Additionally, the project will document and share success stories, lessons learned, and best practices, including traditional ecological knowledge related to natural resource management, at local, national, and international forums. Learning and exposure visits will be facilitated at both landscape and national levels.

Knowledge generated from the project will be packaged in accessible formats for various stakeholders, including translations into local languages and dialects of Busoga region**.**

To achieve this output, the following activities will be implemented.

Activity 5.1.1.1: Develop and implement a Monitoring and Evaluation (M&E) System and knowledge management systems

Activity 5.1.1.2: Produce regular project progress (technical and financial) reports to capture and track progress on the project's results

Activity 5.1.1.3: Conducting independent mid-term and terminal evaluations to assess the extent of achievement of project objective and outcomes in accordance with Adaptation Fund Policies**.**

Activity 5.1.1.4: Document and share success stories, best practices and lessons learned during the implementation of the project.

Activity 5.1.1.5: Hold learning and exposure visits

B. Describe how the project / programme provides economic, social and environmental benefits, with particular reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project / programme will avoid or mitigate negative impacts, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund. In particular, specify how the project/programme is addressing structural inequalities faced by women, youth, children, people with disabilities, people who are displaced, Indigenous Peoples and marginalized ethnic groups.

This project will generate significant economic, social, and environmental benefits, particularly for the most vulnerable communities and groups, including women and marginalized individuals.

Economic Benefits.
By addressing systemic poverty and climate-induced vulnerabilities, the project empowers vulnerable communities through livelihood diversification, particularly for women and marginalized groups. The establishment of agro-processing hubs and eco-tourism ventures will create jobs for youth, helping to mitigate migration pressures.

The project aims to enhance agricultural productivity and food security by promoting climate-smart agriculture and introducing drought-resistant crops, which will lead to increased yields and higher farmer incomes. It supports income diversification through alternative livelihoods such as poultry farming and aquaculture, thereby reducing economic vulnerability, especially for women and marginalized groups who receive targeted financial support to invest in income-generating activities.

Job creation is a focus, particularly for women and youth, through skilled positions in improved cookstove and brick manufacturing using energy-efficient Vertical Shaft Brick Kiln (VSBK) technology. This approach lowers production costs and enhances profit margins. The project also directs 60% of microloans toward women-led enterprises, promoting economic independence.
Additionally, the initiative provides access to drought-resistant seeds and training, stabilizing incomes for 3,000 households and promoting climate-resilient agriculture. The establishment of irrigation systems and rainwater harvesting will further reduce reliance on erratic rainfall, ensuring consistent agricultural output.

The project fosters economic resilience by connecting farmers to premium markets through partnerships with agribusinesses, increasing profit margins for sustainably grown crops. It also stimulates local economies by developing related businesses such as transportation, distribution, and construction services.

Social benefits

The proposed project empowers vulnerable groups by focusing on gender inclusion and providing tailored support to women and marginalized individuals. This approach enables them to actively participate in decision-making processes and community development. Additionally, training programs

will enhance the skills and confidence of community members in managing resources and adapting to climate change.

Strengthening community cohesion is another key benefit of the initiative. By engaging local stakeholders in project activities, the initiative fosters a sense of ownership and collaboration, which in turn strengthens community ties and resilience. Support networks for women and marginalized groups will further enhance social capital, promoting greater solidarity and support within the community. By involving local communities in decision-making processes, the proposed project will empower local populations and promote inclusive participation in project activities. Also, by establishing Savings and Credit cooperatives, Community Adaptation Committees (CACs), local environment committees, etc., and identifying local climate champions in an inclusive and participatory manner, the proposed project strengthens governance at the grassroots level by enhancing social networks and facilitate collective action during climate shocks. This enhanced governance framework is expected to improve social cohesion, reduce resource use disputes/conflicts, thus, fostering a sense of ownership and collective responsibility, which is crucial for climate adaptation.

Improving health and well-being is also a significant outcome. Increased food security and access to nutritious food will lead to better health outcomes for vulnerable populations, particularly children and women. Moreover, water management initiatives will improve access to clean water, thereby reducing the incidence of waterborne diseases and enhancing overall community health. For instance, the proposed project will improve health outcomes by reducing emissions, especially of smoke from cookstoves and particulate matter from brick kilns by about 60 percent, which decreases air pollution and lowers respiratory diseases, thus leading to better health outcomes for local communities, especially women and youth. This improvement can lower healthcare costs and enhance overall quality of life. Furthermore, training programs associated with the proposed project will enhance the skills of local workers, making them more employable and foster a culture of continuous learning.

The project fosters social equity and inclusive development by prioritizing the most vulnerable groups within the community. It promotes gender equity by ensuring 50% female representation in Community Adaptation Committees (CACs), allowing women to influence resource allocation and adaptation planning. Additionally, the introduction of solar-powered irrigation and improved cook stoves alleviates the care burden on women, freeing up their time for income-generating activities.

Environmental benefits

The proposed project enhances ecosystem health by implementing climate-smart agricultural practices that improve soil health, boost biodiversity, and restore degraded lands, contributing to ecosystem resilience. Sustainable water management practices will protect local water sources, ensuring clean water availability for agricultural and domestic use.

Ecosystem restoration increases carbon sequestration, helping to mitigate climate change impacts. The project plans to plant 500 hectares of native trees, which will sequester carbon, stabilize soils, and provide non-timber forest products like fruits and medicinal plants, benefiting over 5,000 households. Additionally, rehabilitating wetlands will help mitigate flooding, recharge groundwater, and sustain fisheries, which are essential for communities facing protein deficiencies.

Improved cookstoves will significantly reduce emissions compared to traditional models, potentially saving 2.82-3.43 tCO2e per stove annually by reducing fuelwood consumption by 1.72-2.08 tons. The global potential for greenhouse gas emission reductions from improved cookstove projects is estimated at 1 gigatonne of carbon dioxide per year. The project will also transition brick making from traditional kilns to Vertical Shaft Brick Kilns (VSBKs), which have substantial environmental benefits. Traditional kilns emit approximately 0.5 to 0.7 tons of CO2 for every 1,000 bricks produced. By adopting VSBK technology, the project will save around 600 tons of firewood annually—equivalent to preserving about 150 hectares of forest—and reduce emissions by up to 60%, translating to a

decrease of 2,800 tons of CO2 per year. This transition will help reduce pollution and improve air quality, lowering the incidence of respiratory illnesses.

Furthermore, the project includes various training programs to raise awareness and build capacity for environmental stewardship, empowering communities to actively protect their natural resources.

The proposed project will undertake the following measures to avoid or mitigate negative impacts in compliance with Environmental and Social Policy and Gender Policy of the Adaptation Fund.

1. Environmental and Social Impact Assessments (ESIAs) will be conducted prior to activities such as wetland restoration and agro-processing hub construction to identify potential risks, including soil erosion, water contamination, and habitat disruption. Ecosystem-sensitive practices will be implemented, such as using native tree species in reforestation efforts to prevent the spread of invasive species. Additionally, low-impact techniques, like hand-planting seedlings, will be adopted to minimize soil disturbance. Waste management protocols will also be established to recycle agro-processing waste and plastic from seed and tool packaging.
2. To ensure social risk avoidance, the project will engage communities in decision-making through town halls and participatory mapping, securing Free, Prior, and Informed Consent (FPIC) for activities affecting land and resources. A transparent and accessible Grievance Redress Mechanism (GRM) will be established, for community members to report concerns or conflicts arising from project activities. Processes will be established for timely mediation and resolution of grievances, fostering trust and cooperation among stakeholders. The project will adhere to a no-displacement policy, ensuring no physical or economic displacement occurs; activities like wetland rehabilitation will involve encroachers in alternative livelihood programs. Engaging local communities, particularly vulnerable groups and women, in the planning and decision-making processes is vital to ensure their voices are heard and their concerns are addressed. To facilitate this, channels for continuous community feedback will be established throughout the project lifecycle, allowing for adjustments based on local insights and experiences.
3. A gender analysis will be conducted to understand the specific needs and vulnerabilities of women and marginalized groups within the community. This analysis will guide the tailoring of project activities to effectively address these needs. Additionally, targeted training and resources will be provided to empower women and marginalized groups, ensuring their active participation in adaptation initiatives and decision-making processes. Equitable resource access will be ensured by allocating about 50% of microloans, training slots, and leadership roles to women, as well as providing childcare at training sessions to facilitate their participation. The project will also partner with local NGOs to integrate awareness of Gender-Based Violence (GBV) into activities and establish safe reporting channels.
4. The project will promote best practices in agriculture that minimize chemical use, reduce soil erosion, and enhance biodiversity. This approach will support environmental health while fostering economic resilience. Furthermore, water management practices will be implemented to protect local water sources and maintain ecological balance, preventing over-extraction and degradation of aquatic ecosystems. To reduce climate risks, the project will employ adaptive management, adjusting activities based on real-time climate data, such as rescheduling planting if forecasts predict droughts. Communities will also be trained in disaster preparedness for floods and droughts, with emergency supplies like fast-maturing seeds pre-positioned.
5. A robust monitoring and evaluation framework will be established to track environmental and social impacts throughout the project. This framework will include assessments of compliance with Environmental and Social Policies. Monitoring data will be utilized to inform ongoing project adjustments, ensuring that any negative impacts are identified early and addressed promptly.
6. Training will be provided to local governance bodies on environmental and social safeguards, equipping them to oversee project implementation in compliance with relevant policies. Additionally, collaboration with local authorities will focus on developing and enforcing policies that promote

sustainable practices and protect vulnerable populations.

C. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme, focusing on the implementation and execution arrangements, in particular the mechanism which will provide more direct access to finance.

The implementation of the proposed project presents a strategic opportunity for both climate change adaptation and livelihood enhancement. The description below evaluates the cost-effectiveness of the proposed project.

The project focuses on investing in sustainable agriculture by promoting climate-smart practices, which reduce dependency on chemical inputs and enhance soil health, leading to long-term cost savings for farmers. Additionally, the introduction of drought-resistant crops and sustainable practices is expected to significantly boost yields, resulting in higher incomes for farmers and improving their economic stability.

Investments in infrastructure, such as irrigation and rainwater harvesting systems, may have high initial costs, but they provide sustainable water solutions that enhance agricultural productivity and food security over time. By utilizing local materials and labor for these projects, costs can be lowered while simultaneously stimulating the local economy, ensuring that funds circulate within the community.

Diversification of livelihoods through supporting alternative income sources like poultry farming and aquaculture helps reduce economic vulnerability and provides resilience against climate shocks. The initial investment in training and resources for these activities is offset by the reduced risk of total income loss during adverse conditions. Establishing small businesses not only diversifies income sources but also creates employment opportunities, contributing to local economic growth.

Investing in capacity building and training for community members enhances their capacity to adapt to climate change, resulting in multiplicative effects for the community's resilience. Well-trained individuals contribute significantly to maximizing the impact of the initial investment. Furthermore, training programs create a foundation of knowledge that can be passed down through generations, ensuring long-term benefits that extend beyond the project's duration.

Gender inclusion through targeted support for women and marginalized groups leads to improved community resilience and economic outcomes. Investing in these groups yields high returns, as empowered individuals significantly contribute to household and community well-being. Additionally, gender-inclusive approaches foster social cohesion and stability, reducing the risk of conflicts and enhancing community collaboration, which can lower costs associated with social unrest.

The development of a robust monitoring and evaluation framework ensures the efficient use of resources by providing data on effective strategies and areas needing improvement. This allows for timely adjustments to optimize project outcomes and minimize waste. Regular assessments promote transparency and accountability, ensuring that funds are used effectively and that the project remains aligned with community needs.

D. Describe how the project / programme is consistent with national, sub-national and local sustainable development strategies, including, where appropriate, national adaptation plan (NAP), national, sub- national or local development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist.

The proposed project aligns with several key national policies and strategies in Uganda that address climate change, promote sustainable development, and enhance livelihoods. These include:

1. National Development Plan (NDP) IV (2025/26 - 2029/30) strategic directions including Sub-Strategy 1.1.1: Increase agricultural production and productivity; Sub-Strategy 1.1.5: Promote sustainable use of natural resources; and Strategy 2.4: Enhance access to water, sanitation, and hygiene
2. The National Adaptation Plan (NAP) by addressing key climate vulnerabilities identified at the national level, particularly in the agricultural sector. By promoting climate-smart agriculture and water management practices, the project directly supports NAP's goals of enhancing resilience in food production and improving water security.
3. National Climate change policy (2015) aims to address the challenges posed by climate change and to enhance the country's resilience and adaptive capacity. The proposed project directly addresses the National Climate Change Policy's priority to strengthen climate adaptation in vulnerable sectors, such as agriculture, water, and ecosystems. Additionally, promoting women's leadership in adaptation planning aligns with the policy's focus on gender-responsive climate action.
4. Uganda's updated Nationally Determined Contributions (2022) that outlines the country's commitments to combat climate change under the Paris Agreement. Specifically, the proposed project through emission reductions from cookstoves and VSBKs will contribute to the NDC target of reducing greenhouse gas emissions by 22% by 2030 across all sectors, including energy and industry. Also, the proposed project will contribute to the NDC adaptation measures geared towards building climate resilience including emphasizing the need for adaptation strategies to address climate vulnerabilities, involving local communities in developing and implementing adaptation measures; and encouraging investments in green technologies and sustainable practices across sectors.
5. Uganda's National Adaptation Programme of Action (NAPA), 2007. The project addresses urgent needs identified in NAPAs, such as improving agricultural practices and water management to combat climate impacts. This ensures that interventions are both relevant and timely. By focusing on community involvement and local knowledge, the project aligns with NAPA goals of integrating local perspectives into adaptation strategies
6. Uganda's National Biodiversity Strategy and Action Plan (NBSAP), 2015 – 2025. The proposed project aligns with the NBSAP that aims to conserve biodiversity and manage natural resources sustainably and involve local communities in biodiversity conservation efforts to enhance ownership and effectiveness.
7. Uganda's Vision 2040 that aims at transforming the country into a prosperous, industrialized, and middle-income nation by the year 2040. Specifically, the proposed project will contribute to ensuring the conservation of natural resources and biodiversity, implementing strategies for climate adaptation and mitigation; and empowering local governments to enhance service delivery and community participation.
8. Uganda Green Growth Development Strategy (UGGDS), 2017/18–2030/31 that aims to promote sustainable development by integrating green growth principles into the country's economic planning. The proposed project will contribute to achieving UGGDS objective of building resilience to climate change through adaptive practices in infrastructure, and community planning.
9. National Adaptation Framework (NAF) 2016: The proposed project will directly contribute to the achievement of NAF's objective to integrate effective adaptation efforts and climate resilience into national policies and practices to protect vulnerable populations and ecosystems from negative impacts of climate change.
10. The National Environment Act (2019), which is a comprehensive legal framework, designed to promote environmental protection and sustainable development in Uganda. The proposed project will contribute to the National Environment Act of 2019 focus on sustainable resource management, climate change adaptation, and public participation, to create a healthier environment for current and future generations.
11. Revised Energy Policy for Uganda (2023) that aims to achieve a target of a 20% share of renewable energy in the total energy mix by 2030. By promoting energy-efficient brick production methods through VSBK technology, the project supports this target, reducing reliance on non-renewable energy sources in the manufacturing process.
12. The Uganda Gender Policy (2007) that focuses on addressing gender inequalities at all levels of

government and by all stakeholders.

13. Parish Development Model (PDM, 2021). The project aligns with the Parish Development Model by providing microloans and promoting agro-processing, which supports the goal of transitioning 39% of Ugandans from subsistence to commercial farming. Additionally, mobile-based weather advisories enhance digital inclusion and support PDM's emphasis on leveraging technology for rural development

E. Describe how the project / programme meets relevant national technical standards, where applicable, such as standards for environmental assessment, building codes, etc., and complies with the Environmental and Social Policy of the Adaptation Fund. Also describe, as needed, how the project/programme will provide support to local actors and build their capacities to comply with the standards.

The proposed project has been developed in accordance with the laws of Uganda, including:

1. The National Environment Act, 1995 (Cap. 153): Regulates activities impacting the environment and requires environmental impact assessments (EIAs).
2. The Land Act, 1998 (Cap. 227): Governs land use and ownership, ensuring legal operations on acquired land.
3. The Water Act, 1997 (Cap. 152): Regulates water resource management and prevents water pollution.
4. The Local Government Act, 1997 (Cap. 243): Provides a framework for local governance and community participation
5. National Environment (Air Quality Standards) Regulations (2024) aims to improve air quality by addressing pollution sources, promoting sustainable practices, and raising awareness.
6. The Employment Act, 2006 (Cap. 81): Outlines workers' rights, including fair wages, working hours, and conditions.
7. National Forestry and Tree Planting Act, 2003 The National Forestry and Tree Planting Act 2003 is the main law that regulates and controls forest management in Uganda by ensuring forest conservation, sustainable use and enhancement of the productive capacity of forests, to provide for the promotion of tree planting on private and communal lands and through the creation of forest reserves in which human activities are strictly controlled. Specifically, the Act will provide guidance for afforestation, and restoration activities of the proposed project.
8. Uganda National Meteorological Authority Act, 2012. This Act establishes the Uganda National Meteorological Authority as a body corporate and provides with respect to its administration, internal organizations, functions and powers, etc. The Authority is responsible for, among other things, establishing and maintaining systems for the rapid exchange of meteorological and related information, establishing networks of stations for taking, recording and transmitting meteorological observations as well as hydrological and other geophysical observations related to meteorology. Among the Authority's functions, it should interpret, review and recommend appropriate changes in the climate policies, as well as disseminating weather information which are applicable to early warning activities of the proposed project.
9. Uganda NDC Partnership Plan for Climate Action 2018. The five priority areas for Uganda identified in its NDC Partnership Plan are: strengthened operational and gender-responsive policy and institutional frameworks for the effective governance of climate change; increased climate financing for planning and budgeting on the national and local levels; effective and institutionalized measurement, reporting and verification (MRV) systems to monitor greenhouse gas emissions and gender-responsive adaptation measures; strengthened capacity of government officials, civil society, the private sector and academia to effectively integrate NDC and Sustainable Development Goal (SDG) commitments with a gender lens into existing and future programs; and accelerated project financing for NDC implementation61. All project components shall contribute towards the objectives of the Plan.
10. Wetlands, River Banks, and Lake Shores Management Regulations, S.I. No. 3/2000. These regulations protect wetlands, river banks, and lakeshore zones. Landowners, occupiers, or users adjacent to these areas are responsible for preventing degradation or destruction of these ecosystems and must maintain their ecological functions. Project activities will support the conservation of wetlands

ecosystems in the project areas.

11. Uganda Water Action Plan (1995): Framework for the development, management, and wise- use of the nation's vital water resources and sustainable provision of clean safe water to the citizens.
12. The National Environment (Noise Standards and Control) Regulations, 2003. Section 7 of these regulations requires that no person shall emit noise in excess of permissible noise levels, unless permitted by a license issued under these Regulations. Section 8 imparts responsibility onto project developers to use the best practicable means to ensure that noise does not exceed permissible noise levels. This will mainly applies to activities under components 3 of the proposed project.
13. The Uganda Brick Sector Guidelines (MEMD, 2020) aim to promote sustainable practices in the brick manufacturing industry. Key objectives include enhancing production quality, adopting eco-friendly technologies like Vertical Shaft Brick Kilns (VSBK), and establishing quality standards. The guidelines emphasize responsible raw material management, health and safety measures for workers, and capacity building through training. They also outline regulatory requirements to ensure compliance with environmental and building standards. Overall, the guidelines serve as a framework for balancing economic growth in the brick sector with environmental sustainability and improved livelihoods.
14. Building Codes: Agro-processing hubs and community centers wil be constructed in compliance with Uganda National Bureau Of Standards (UNBS) building codes, which include standards for structural integrity, fire safety, and accessibility for persons with disabilities.
15. The project conducts Environmental and Social Impact Assessments (ESIAs) in alignment with Uganda's National Environment Act (2019) and the guidelines set by the National Environment Management Authority (NEMA). This process ensures that activities such as wetland restoration and agro-processing hub construction meet standards for pollution control, biodiversity protection, and waste management. Additionally, the project utilizes Uganda Bureau of Standards (UNBS)-certified materials for infrastructure, including solar-powered irrigation systems and agro-processing equipment, to guarantee safety and durability.
16. Drought-resistant seeds approved by the National Agricultural Research Organization (NARO) are distributed to ensure compatibility with local agro-ecological zones. The project also will adhere to guidelines from the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF) for soil conservation practices, such as contour bunds and mulching, to prevent erosion.

F. Describe if there is duplication of project / programme with other funding sources, if any. Describe how the project/programme will ensure coordination of different initiatives, sub-projects and small grants towards a common goal, enhances collaboration across sectors and outlines how activities avoid duplication and enhance efficiencies and good practices.

There is no duplication with other funding sources. However, several projects support government agencies, district local governments, NGOs, and various community groups by providing knowledge and skills related to climate change adaptation technologies. These include drought-tolerant crop and pasture varieties, rainwater harvesting, irrigation schemes, and ecosystem-based participatory watershed planning and implementation. The proposed project will leverage these existing initiatives by adopting best practices, replicating successful approaches, and integrating with current government-led coordination and project execution arrangements. Also, to enhance synergies and efficiency, the proposed project will also compile lessons learned to increase the available knowledge on adaptation practices. This information will include successes, failures, and insights from previous adaptation interventions, which will inform the implementation of the proposed project as shown in the table below.

Closed and ongoing projects that complement the proposed project

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
1.	Uganda Climate Smart Agricultural Transformation Project (UCSATP) (2023-2028).	World Bank (US$ 350 million)	The Uganda Climate Smart Agricultural Transformation Project (UCSATP) aims to enhance climate-smart agriculture by developing, validating, and disseminating tailored technologies and practices for beneficiaries. It will bolster technical and institutional capacity, improve seed delivery systems, and provide agro-meteorological information services. Key investments include climate-resilient seed production, agricultural mechanization through construction of mechanization centers, irrigation development, animal disease control, and fisheries interventions. The project will also improve market access by enhancing harvesting, post-harvest handling, and value addition. Additionally, it will rehabilitate farm-to-market roads and provide cold chain equipment.	• East Acholi • North and Southeast Lango; • Bukedi • Norrthern Busoga sub-regions (Iganga, Mayuge, Buyende, Kamuli, and Kaliro) • Western and southern highlands • Southern drylands, • Lake Albert crescent and • Bugisu and • Sebei.	The objective of the project is to increase productivity, market access and resilience of select value chains. The project will support investments in technology and market-driven productivity increases in climate smart value chains. These investments will contribute to reversing the effects of climate change thereby sustainably increasing agricultural productivity and household incomes while enhancing resilience to climatic shocks. The project targets 3.5 million smallholder farmers in 69 districts with interventions aimed at boosting productivity, modernizing agriculture, and building resilience to climate change. The project will address chronic challenges facing Uganda's agricultural sector including low yields, poor infrastructure, limited access to quality inputs, and heavy post-harvest losses	The e-voucher system allowed farmers to obtain subsidized seeds, fertilizers, and agro-chemicals from registered dealers linked to a digital platform, thus, streamlining deliveries and promoting transparency	Five key value chains supported in Busoga sub-region, including dairy, coffee, aquaculture/ fisheries, cocoa, and poultry.
2.	Scaling	GEF (US$	The project aims to	• Zambia and	The project improves	This project will	Innovations in

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
	financial and information services for smallholder adaptation (2023-2025)	1,045,890)	increase smallholder farmers' adaptive capacity through scaled agricultural and financial risk reduction services.	Uganda (Karamoja sub-region)	access to capital, fintech, and financial services, including for smallholder farmers transitioning to climate adaptation practices; create a nature-based private financing facility for coastal cities in Least Developed Countries; develop more resilient supply chains through the systematic use of climate data, standards, and certification; support climate-resilient rice landscapes; and expand investment flows into climate adaptation measures, including through new insurance instruments.	crowd in private investment by lowering some of the costs impeding initial investment by service providers, this will be done through investments designed to reduce some of the constraints facing key service providers. With interventions in insurance, credit, and advisory services, which will create a more profitable investment opportunities at scale individually, but also address constraint complementarities	smallholder financial instruments such as insurance and bundled innovations have bridged rural financial market gaps by supporting smallholder farm investment, farm productivity, stabilizing farm incomes and consumption, and long-term resilience to climate shocks. It is important to integrate complementary mechanisms, such as bundled insurance products and risk-sharing arrangements, to address residual risks and enhance lender confidence
3.	Strengthening the adaptive capacity and resilience communities in Uganda's watersheds (2022-2026)	GEF (US$ 8,949,772)	The project focuses on enhancing the adaptive capacity and resilience of communities within Uganda's watersheds to better manage climate change impacts and environmental degradation	Uganda (Bukedea and Sironko and partly the districts of Bulambuli and Kapchorwa)	The project will mitigate the impacts of floods and droughts on local communities as well as on socio-economic sectors, particularly the agriculture sector in the Awoja catchment. It will also	The Ministry of Water and Environment signed Memorandums of understandings (MOUs) with	Signing of MoUs to clarify the roles and responsibilities of each party involved in the implementation of projects helps to prevent

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
					improve climate monitoring and early warning systems, reduce vulnerability of people to the adverse effects of climate change and improve livelihoods, physical assets and sustainable watersheds through improved water storage and reduced land degradation by strengthening institutional capacities for effective climate change adaptation	the district leaders of Bukedea, Bulumbuli and Sironko to spell out roles and responsibilities of each stakeholder in the implementation of the project	misunderstandings and build trust.
4.	Reducing the climate change vulnerability of local communities in Uganda through EbA in forest and wetland ecosystem (2020-2026).	GEF (US$ 4,350,000)	The project aims to reduce the climate change vulnerability of local communities in Uganda by utilizing Ecosystem-based Adaptation (EbA) strategies within forest and wetland ecosystem	Uganda (Kumi and Hoima/ Kibaale districts)	The project will demonstrate on-the-ground ecosystem-based adaptation interventions in pilot sites around forests and wetlands, while providing training to the local and national government to implement nature-based solutions and integrate them into existing forests and wetland management plans. The project will also increase the capacity of local communities to adopt alternative livelihoods and climate-smart agriculture techniques	Through the completion of the Vulnerability Impact AssessmentS (VIAS), assessment of lessons learned /best practice and an identification of appropriate climate-resilient tree species, the project has now identified appropriate methodologies to undertake wetland restoration Through the	Empowering local communities through vulnerability impact studies and risk analysis equips them with the information needed to effectively mitigate and respond to climate-related stresses, enhancing their resilience. Vulnerability impact assessments and risk analyses, combined with climate and weather advisories, prepare communities to make timely and informed decisions

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
						completion of the VIAs, assessment of lessons learned /best practice, and an identification of appropriate climate resilient tree species, and stakeholder engagements, local communities are willing to reforest their lands	about their livelihoods and farming practices, boosting their resilience to shocks. Collaborating with civil society organizations (CSOs) is crucial, as some newer organizations may lack the experience to implement project activities. Ensuring thorough monitoring and background checks for CSOs before engagement is essential. Continuous stakeholder and community consultations throughout the project are vital for ensuring buy-in and long-term sustainability
5.	Building Resilient Communities, Wetlands Ecosystems and Associated Catchments in Uganda (2017-	GCF (US$ 24,140,160)	The project seeks to restore and sustainably manage wetlands and support target communities in wetland areas of Uganda to reduce the risks of climate change posed to agricultural-based livelihoods	Uganda (Mbale, Budaka, Bukedea, Butebo, Butaleja, Kibuku, Namutumba, Kaliro, Ngora, Kumi, Pallisa, Sheema, Mitooma,	The project seeks to restore critical wetlands to improve ecosystem services - such as replenishing ground water, improving flood control, and enhancing the livelihoods of subsistence farming	Facilitating District Local Governments to implement different components of the project, significantly	Continuous engagement with communities and beneficiaries to appreciate the complexities of project and budgetary

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
	2026)			Bushenyi, Rukungiri, Kanungu, Kabale, Ntungamo, Rubanda, Rubirizi, Buhweju, Rukiga, and Kisoro districts)	communities through fishing and agriculture; Enhancing the skills of people to diversify their livelihoods and become more resilient to climate shocks; and Improve the ability of communities in sensitive wetland areas to reduce climate risks and prepare them for climate-related disasters (including through decentralized early warning systems).	improves overall delivery of the project. Increased engagement of communities to appreciate impacts of degradation of wetlands led to voluntary agreement to vacate wetlands for demarcation to be undertaken	constraints, coupled with strong stakeholder engagement in selection of livelihoods Applying the weather forecasts to the timing of project activity implementation is crucial in minimizing disruptions to activity implementation.
6.	Micro Scale Irrigation component under Intergovernmental Fiscal Transfer Program for Results Additional Financing (UgIFT AF) (2019 – 2025)	World Bank (US$ 300 million)	The main aim of the Micro Scale Irrigation program is to enhance the uptake of cost-effective micro-irrigation technology by farmers in Uganda so as improve farm productivity and their standard of living.	Nation wide	The micro-scale Irrigation Program aims at supporting individual farmers to purchase and use micro-scale irrigation equipment. The Micro-scale Irrigation Program will help farmers buy irrigation equipment at a lower cost, teach them how to use the irrigation equipment and when and how to water their crops to improve crop production and adapt to climate change. Through the project, ssmallholder farmers will benefit from financing, local expertise, and online and offline training	The purpose of the farmer co-payment is to serve as a way for determining farmer capacity to operate the system; and enhance ownership and sustainability; and to leverage public resources.	Projects that promote irrigation for women should be aware that targeting women with irrigation technology alone is unlikely to give them full rights over the technology, since the rules of the household often override any project-level rules and expectations Projects should be aware that attempts to empower women may fail if they do not also secure

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
							support from the men within households The weaker the Farmer's tenure security, the higher the risk of not achieving the Program's objectives.
7.	Enhancing Community Adaptation to Climate Change through Climate Resilient Flood Early Warning, Catchment Management and WASH Technologies in Mpologoma Catchment, Uganda (2022-2027)	Adaptation Fund (US$ 9,504,600)	The overall goal of the project is to increase the resilience of communities to climate change risks of floods and landslides through timely response to climate hazards, sustainable community access to water, sanitation and hygiene services and integrated catchment management measures in Mpologoma catchment. The proposed project focuses on supporting local communities to adapt to the effects of floods and landslides through developing and implementing integrated floods early warning systems, climate resilient WASH and catchment management measures in selected sub-catchments of Mpologoma catchment in Uganda.	Mpologoma catchment (Bududa, Namisindwa, Manafwa, Mbale, Tororo, Butaleja, Budaka, Kibuku, Pallisa, Namutumba, and Kaliro districts)	The project aims to strengthen the institutional capacity for planning, designing, implementing, and monitoring integrated Flood Early Warning systems and climate-smart WASH technologies. Additionally, the project will facilitate communities in undertaking adaptation actions to reinforce the resilience of populations and ecosystems against floods and landslides. The main drivers for climate change vulnerability in Mpologoma catchment is high population growth, over dependence on unsustainable rain-fed agriculture and on natural resources, and inadequate options for alternative incomes. The human population in Mpologoma	Effective climate change and disaster policy communication services are vital for enhancing the adaptive resilience capacity of the vulnerable local communities	Community-led actions are crucial for long-term resilience

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
					catchment is susceptible to water and sanitation related diseases due to floods and landslides aggravated by limited, unsustainable and unreliable Flood Early Warning systems and strategies.		
8.	Enhancing resilience of communities to climate change through catchment-based integrated management of water and related resources in Uganda (2017-2022)	Adaptation Fund (US$ 7,751,000)	The overall goal of the project is to increase the resilience of communities to the risk of floods and landslides in Awoja, Maziba and Aswa Catchments through promoting catchment based integrated, equitable and sustainable management of water and related resources. The specific objectives of the project are to: • Increase the resilience of ecosystems by supporting sustainable management of forests, wetlands and riverbanks • Increase the resilience of agricultural landscapes by supporting communities to develop and implement sustainable water harvesting, soil bio-physical and flood control structures.	Uganda (in Awoja, Maziba and Aswa Catchments)		For community-based projects, the mobilization phase is time consuming For Public-private partnerships at the local level, it is important to have prior knowledge of the organisations and populations capacities as well as assess the legal status and capacity of community organizations to be contracted at the beginning of the project. For gender mainstreaming, deliberate efforts should be made to	The establishment of the Catchment Management Committees and their involvement in the selection of the most vulnerable sites to climate change and related hazards are crucial in effective implementation of activities on afforestation and restoration of wetlands and riverbanks. It is important to start sensitization sessions and community mobilization activities at the earliest stage to avoid delays in project implementation.

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
			• Increase resilience of other community livelihood systems by supporting income generating activities with credit and market access • Build the capacity of extension services and institutions at local, catchment, water management zone and national level to better support local stakeholders.			involve women, youth and elderly in all project activities.	
9.	EcoProsperity Project: transforming the economic prospects of 1,200 youths across ten districts in eastern and western Uganda.	Linsi Foundation, Happel Foundation, and Canton Aargau	The overarching vision of this project is to create resilience of young mothers, young women, and men to the impacts of climate change by increasing their access to climate-relevant technical skills and practices, technologies, production inputs, products, and services. This will lead to enhanced productivity and production, an increase in income, and food security and create employment opportunities.	Mayuge, Kamuli, Luuka, Buyende, and Namutumba in Eastern Uganda and Kyenjojo, Kyegegwa, Kagadi, Buhweju, and Mitooma in Western Uganda)	The project prioritizes inclusive economic empowerment - by promoting climate-smart agriculture, introducing innovative farming technologies, and strengthening linkages to private sector markets. The initiative is revitalizing rural economies and enabling young people to build sustainable livelihoods. The project supports young mothers, young women and men in acquiring knowledge and skills that address climate-related challenges which further deteriorate their employability and income. This includes helping them set up their own eco-	Access to affordable and appropriate finance is a catalyst for the growth of businesses	Scaling up from early wins to systemic change requires sustained investment, adaptive learning, and deepened partnerships.

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
					friendly micro and small agriculture businesses through the acquisition of entrepreneurial skills, and climate-resilient innovations and technologies. Additionally, the project will through gender-inclusive enterprises, women-focused business models, and financial services tailored to their needs.		
10.	Stimulating Agribusiness for Youth Employment (SAYE) project (2023 – 2028)	Mastercard Foundation	The project aims to empower young people aged 16 to 35 by improving skills, expanding market access and offering inclusive financing in key sectors including poultry, horticulture, oilseed, dairy and beef value chains. Young women will make up 70 percent of participants, while 3 percent will be young persons with disabilities.	Busoga sub region (Jinja, Mayuge, Iganga, Kamuli, Kaliro, Namutumba, Bugweri, Luka, Buyende, Bugiri and Namayingo).	Under SAYE, Heifer will lead the formation and strengthening of youth- and farmer-led agri-hubs, while local partners will focus on business incubation, skills training, promoting micro, small and medium enterprises, and improving access to financial services. The SAYE project will also focus on diversifying value chains, embracing tech solutions and adopting climate-smart agriculture. These efforts, along with private sector engagement and multiple partners, seek to provide young people with sustainable employment.	Leveraging an agri-hub model boosts young people's access to technical, business and financial products and services. Skilling out of school youth expands their opportunities for wage-employment, and start-up of businesses.	Transforming the market ecosystem drives inclusion and economic resilience for the many young people who currently have trouble securing dignified and fulfilling work Access to financing and business support can help young people leverage the agriculture sector and build productive livelihoods.
11.	Agricultural Governance	Embassy of the	The project aims to improve the production and income	Busoga (Kamuli and Buyende	A-GRIP focuses on the main obstacles to public	Increasing formal and	The use of results-based financing

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
	Results Improvement Project (A-GRIP) (2023 – 2028)	Kingdom of Netherlands (€ 27.8 million)	of smallholder farmers by enhancing public service delivery (access and quality) in agricultural services. The project seeks to strengthen food security and resilient farming systems through increased accessibility, availability and quality of land tenure security, agriculture and food security services in 16 selected districts of the Busoga, Elgon, Kigezi, Lango, and Rwenzori regions in Uganda.	districts), Elgon, Kigezi, Lango, and Rwenzori regions	service delivery and their uptake by Local Governments (LG) in land tenure management, agriculture, and food security (FS) services whose removal will create the largest impact for Small Holder Farmers (SHF) and communities in terms of reduced risk of land grabbing, increased sustainable agricultural production, improved resilience against climate and market shocks and enhanced food security.	equitable land ownership under customary law especially for the most vulnerable populations is critical for enhancing food security and resilient farming systems. The support of community-based organizations (CBOs) in conducting the clients' satisfaction surveys designed to complement the results-based financing verifications, ultimately increase accountability of local government to the public.	(RBF) principle strengthens the existing government systems and structures through payment of financial rewards based on performance of contracted parties against agreed indicators with clear pre-defined results/outputs.
12.	Climate Resilient Agribusiness for Tomorrow (CRAFT) project (2019 –	Dutch Ministry of Foreign Affairs (€ 36 million)	The goal of the project is to make resilient foods more accessible for the growing population in Kenya, Tanzania, and Uganda. CRAFT is promoting thriving	Kenya and Uganda (Kisoro, Mubende, Masaka, Kampala, Wakiso, Tororo, Soroti, Kapchorwa,	In an effort to build climate resilient food value chains in East Africa, the project works with and through public and private partners to create an enabling	To thrive and make sustainable investments, the private sector needs	SMEs have significant capacity for employment generation, economic growth, social

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
	2023)		agribusinesses that are climate-smart, inclusive, scalable and have a clear value proposition to all stakeholders, especially smallholder farmers. Using a private sector-led approach • To increase income for smallholder farmers and SMEs • To increase business performance for agribusiness SMEs and cooperatives due to climate related investments • Improve the enabling environment favorable for large scale roll out of CSA	Bukedea, Lira, Gulu, Nebbi and Masindi districts)	environment – based on field evidence for wide scale adoption of climate smart agriculture practices at all stages of the agricultural value chain. CRAFT promoted thriving agribusinesses that are climate-smart, inclusive, scalable and have a clear value proposition to all stakeholders, especially smallholder farmers. Using a private sector-led approach, CRAFT collaborated with 56 lead Agri-SMES and cooperatives to co-develop and co-fund climate smart business concepts and cases. CRAFT, through its Climate Innovation and Investment Facility (CIIF), provided support to agribusinesses in becoming resilient to climate change. These successful agribusinesses, referred to as 'Business Champions', implement the business cases with the support of the project .	support to overcome barriers, including lack of information and capacity to assess and manage climate related risk within agricultural food value chains, and limited understanding of the potential commercial opportunities that arise through climate action. Increased and sustained investment in climate smart agriculture practices and technologies by smallholders and agri-businesses is essential to the resilience of the service delivery models that provide them	transformation, technological innovation, and building resilience to climate change The effectiveness of private sector engagement in meeting adaptation needs depends on many actors, including awareness, appropriate policy framework, and an enabling environment, as well as the availability of financing.
13.	Uganda Biogas and Electric Cooking Project	African Developme nt Bank	The Project aims to increase access to clean and efficient cooking	Kampala, Mbale, Jinja, Masaka, and Mbarara	The project is expected to significantly enhance indoor air quality, curb	Implementation has just started	Implementation has just started

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
	(UBEP) (2025 – 2028)	(US$13.65 million)	solutions and thereby promote gender equity and reduce the reliance on traditional biomass (fuelwood and charcoal) for cooking. This approach also promotes environmental sustainability and improves health outcomes. The project supports investments in biogas and electric cooking technologies, alongside comprehensive awareness campaigns and capacity-building initiatives designed to foster behavioral change and encourage safe and sustainable cooking practices.		deforestation, and promote climate resilience. By reducing the need for firewood collection, UBEP will also empower women and girls with more time for education and income-generating activities. The project will also generate positive environmental spillovers, including ecosystem restoration and improved agricultural productivity through nutrient-rich byproducts from biogas production. Biogas Infrastructure: Construction of 47 institutional biogas plants targeting schools, markets, and farming communities, expected to cut fuelwood and charcoal use by 50%. Market Development: Support for standards, repair networks, and distribution systems to build a robust e-cooking ecosystem. Training and Technical Assistance: Capacity building for SMEs, technicians, and implementing agencies to ensure scalability and		

No	Name of project	Funding source	Description of the project	Project location	Synergies/overlaps	Best practices	Lessons learned
					sustainability.		
14.	Clean Cooking Programme: Transforming Uganda's Energy Sector (2024 – 2026)	UK Government (£5m)	This programme is designed to revolutionize cooking technologies across Uganda and tackle critical challenges in clean energy access and enhance cooking conditions for millions of Ugandans. The programme comprises three key components: establishing a high-impact Clean Cooking Unit within the Ministry of Energy and Mineral Development through the Global Green Growth Institute to bolster national coordination and attract further sector financing; supporting urban authorities in the Greater Kampala Metropolitan Area to provide clean cooking solutions to at least 6,000 households in informal settlements; and expanding the Modern Energy Cooking Services Program (MECS), which will develop a nationwide supply chain for high-quality electric cooking appliances, train 600 Ugandan technicians, establish national standards, and pilot electric cooking in 100 schools.	Greater Kampala Metropolitan Area	The programme aims to revolutionize the cooking practices in Uganda by introducing cleaner, more efficient cooking methods, to improve health, save energy, and protect the environment.	Addressing supply chain gaps, raising awareness, and creating support systems for consumers, is critical in promoting celan cooking projects	Traditional cooking solutions like firewood and charcoal are becoming scarce and unaffordable, making cleaner alternatives increasingly vital."

G. If applicable, describe the learning and knowledge management component to capture and disseminate lessons learned and how this contributes to building and institutionalizing local capabilities. Provide details on managing traditional and/or indigenous knowledge, where relevant.

The project incorporates a comprehensive learning and knowledge management framework to systematically capture, analyze, and disseminate lessons learned, ensuring adaptive management and responsiveness to community needs. This framework will include a gender-sensitive strategy to meet the information requirements of various target groups. Success stories and best practices will be documented and shared at local, national, and international forums.

Regular reporting will be established to capture key lessons throughout the project lifecycle, including successes and challenges. Knowledge products such as progress reports, operational manuals, and policy briefs will be developed to raise awareness and advocate for climate adaptation.

Lessons learned will be communicated to stakeholders, including local communities, government agencies, and NGOs, through social media, workshops, and seminars. An online repository will be created to provide access to project materials, case studies, and technical guidelines, facilitating knowledge retrieval and application.

The project will also implement feedback mechanisms to gather insights on the effectiveness of training and support provided. Advisory committees made up of local stakeholders will offer ongoing guidance throughout the project.

To ensure alignment with community needs and environmental goals, the project will conduct routine monitoring and evaluation to assess its impact and prioritize continuous improvement. This includes establishing a structured knowledge management framework that incorporates methodologies for data collection, analysis, and reporting.

A robust monitoring and evaluation system will track project progress and outcomes through qualitative and quantitative assessments, allowing for real-time adjustments. Case studies will highlight successful strategies and personal narratives from community members, emphasizing the project's positive impact.

Workshops and training sessions will promote knowledge exchange and skill development, while opportunities for peer learning will enhance collective knowledge. Collaborations with local universities and NGOs will leverage expertise in knowledge management and explore new adaptation strategies.

An online platform will store and share project-related documents, and social media will be used to disseminate updates and lessons learned. Community scorecards will assess satisfaction with project activities, and interactive dashboards will visualize real-time progress for decision-makers. Audiovisual storytelling will document indigenous practices, such as seed saving.

Annual reflection meetings will facilitate stakeholder engagement to review progress and collaboratively plan future activities. Insights from these meetings will inform adaptive management practices. Peer learning networks will be established through farmer-to-farmer exchanges, and climate champion forums will share innovations with policymakers and NGOs.

A mobile advisory system will be used to provide agro-weather tips and training videos to smallholder farmers. An online public repository will archive project reports and toolkits, while community radio and theater will broadcast lessons in local languages.

The project will produce annual policy briefs for district and national governments, translating field insights into actionable recommendations. Collaborations will be formed with Uganda's Climate Change Department to integrate successful models into the National Adaptation Plan and share tools with regional platforms for cross-border replication. Academic partnerships with Makerere University will focus on publishing peer-reviewed articles on community-led adaptation outcomes.

Gender-disaggregated data will be tracked to assess participation and benefits, informing equitable adjustments. Women's knowledge circles will provide safe spaces for sharing experiences, while youth innovation challenges will encourage young people to design low-cost adaptation tools.

H. Describe the consultative process, including the list of stakeholders consulted, undertaken during project preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy and Gender Policy of the Adaptation Fund. Provide details on how the consultative process considered and addressed gender-based, economic and other inequalities and encouraged vulnerable and marginalized individuals to meaningfully participate in and lead adaptation decisions.

In the design of the proposed project, stakeholder consultations were undertaken to ensure that their views, concerns, and opinions were captured and considered. Consultations were undertaken with a total of 55 (35 men: 64% and 18 women: 37%) stakeholders at the local and national levels including Government, Non-Governmental Organizations (NGOs), private sector, local communities, academic and research institutions. The list of stakeholders consulted is provided under Annexes 1.

At the local level, field visits were conducted in five districts of Busoga region where key informant interviews and focus group discussions were held with women, men, and youth. A total of 28 people (19 men and 9 women) participated in key informant interviews, and a total of 115 people (55 men and 60 women) participated focus group discussions.

At the national level, a total of 6 (4 men and 2 women) stakeholders were consulted via emails, telephone calls, and face-to-face discussions to: (i) provide information to key stakeholders about the proposed project and its development processes and requirements; (ii) solicit ideas/ inputs from key stakeholders to triangulate the information collected from secondary literature; and (iii) review the proposed project's draft results framework and roles and responsibilities of partners in the project, and implementation arrangements.

During the consultations, the key stakeholders appreciated the need to develop initiatives focused on building climate resilience due to the droughts and floods that have increased in intensity and magnitude. As such, the stakeholders participated in the review of activities and adaptation measures to be included in the proposed project, defined key stakeholders and discussed their roles, responsibilities and contributions during project implementation. Also, draft project management structures and implementation arrangements, as well as issues of sustainability and ownership, especially by communities and local governments, were discussed and agreed upon.

During these stakeholder consultations, the participation of marginalized and vulnerable groups was considered and interventions deliberately targeting women were proposed and have been incorporated into this project.

At the end of it all, a national stakeholder workshop was held on 17th April 2025 to validate the project concept. A total of 32 (22 men and 10 women) drawn from local and national levels participated in the validation workshop (Annex 2).

l. Provide justification for funding requested, focusing on the full cost of adaptation reasoning.

The project encompasses a range of integrated adaptation strategies, including climate-smart agriculture, water management, and livelihood diversification. This holistic approach requires adequate funding to ensure effective implementation of all components. Investing in comprehensive adaptation measures will yield long-term benefits, reducing future costs associated with climate-related disasters and enhancing community resilience.

The requested funding of US$5,000,000.00 is justified by the full cost of adaptation (FCA) framework, emphasizing the need for immediate investment in climate resilience strategies. By addressing current vulnerabilities and empowering communities, the project aims to create sustainable solutions that benefit both local populations and the broader environment. Below is the detailed justification.

Climate-smart agriculture (US$ 2,080,000): To mitigate crop losses from erratic rainfall, this funding will support the procurement and distribution of certified drought-tolerant seeds and irrigation kits (drip, sprinkler, laser sprays or hose pipe) for vulnerable households. It will also finance the construction of essential infrastructure, including solar-powered irrigation systems and rainwater harvesting facilities, critical for ensuring water security. It will further support water source improvements (desilting water sources and protecting them from encroachment, damage or improper access and use). Although these initiatives require significant upfront investment, they are crucial for long-term agricultural sustainability and economic stability. Additionally, the funding will provide for training facilitators and demonstration plots through Farmer Field Schools and also support establishing and operationalization of water source committees for ensuring source safety and sustainable use**.**

Sustainable land management (US$ 700,000.00): This initiative will support restoration efforts by funding tree nurseries, seedlings, labor, and community incentives to restore 500 hectares of degraded land, which will sequester carbon and stabilize soils. It will also support efforts towards soil and water conservation, water harvesting and soil nutrient management (composting, agro-forestry trees, cover cropping) Additionally, it will aid in wetland rehabilitation, including the removal of encroachments and the establishment of buffer zones to mitigate flooding risks for downstream households. The project will also promote the production and use of energy-efficient technologies, such as improved cookstoves and Vertical Shaft Brick Kilns, to reduce deforestation and forest degradation. Furthermore, it will explore sustainable and innovative financing options resulting from the emission reductions achieved through these initiatives.

Livelihood diversification (US$ 700,000.00): This funding will provide microloans and inputs in kind grants for alternative livelihoods, such as poultry farming and beekeeping, to help break the cycles of poverty exacerbated by climate shocks. It will also support the development of business plans and agro-processing hubs, funding equipment like solar dryers and milling machines to create

jobs and add value to crops. In addition, this funding will be used to equip women with financial literacy and leadership skills. By strengthening local capacities, the project addresses immediate adaptation needs and fosters self-sufficiency.

Early warning systems (US$400,000.00): To develop real-time weather advisories, this funding will support SMS and radio platforms in collaboration with the Uganda National Meteorology Authority (UNMA). Additionally, it will be used to train 50 local community monitors to collect hyperlocal climate data, ensuring timely responses to changing conditions. These early warning systems have the potential to prevent over $200,000 in disaster recovery costs each year.

Knowledge management, Monitoring and Evaluation (US$300,000.00). This funding will be allocated to develop a robust monitoring and evaluation framework to assess project effectiveness and capture lessons learned. This continuous learning component is essential for adapting strategies over time and ensuring accountability. Resources will also be dedicated to documenting and sharing insights through case studies, policy briefs, and digital platforms, facilitating the replication of successful strategies across Uganda. Additionally, funds will be used to train community leaders, ensuring that at least 50% are women, to promote effective knowledge transfer

Mitigation of future costs: Investing in adaptation now will help reduce future costs associated with climate-related disasters, such as crop failures and loss of livelihoods. The requested funding will aid in preventing these costly impacts, ultimately saving resources in the long run. By enhancing resilience, the project acts as a form of insurance for communities, safeguarding their assets against unpredictable climate events.

J. Describe how the sustainability of the project/programme outcomes has been taken into account when designing the project / programme. In particular, describe how the project/programme supports long-term development of local governance processes, and improves the capacity of local institutions (including through simpler access modalities), and how it can ensure that communities effectively implement adaptation actions, facilitate and manage adaptation initiatives over the long term without being dependent on project-based donor funding.

To ensure the long-term sustainability of the project beyond its implementation, the following strategies will be employed:

1. The proposed project will **e**ngage local stakeholders in the planning and design, implementation, and monitoring and evaluation to ensure that the project meets their needs and priorities, which fosters a sense of ownership. Additionally, the project will empower local leaders and organizations to take charge of project activities, which will ensure continuity and relevance to the community. For instance, elected Water user committees and wetland management committees will manage project resources, monitor progress, and advocate for adaptation priorities after the project concludes. Additionally, local leaders, with 50% being women, will be trained to serve as long-term stewards of climate-smart practices and knowledge transfer.
2. Financial sustainability: Seed capital for microloans will be established through revolving funds, creating a self-sustaining cycle for livelihood diversification. The project will also advocate for district governments to allocate funds for climate adaptation in their annual budgets, including agroforestry subsidies and irrigation infrastructure. Furthermore, partnerships with the private sector will link farmers to markets for eco-certified crops and sustainable timber, generating income streams that fund ongoing adaptation efforts. Also, through emission reductions from restoration activities, verified carbon offset programs can be established, with proceeds

reinvested into community projects.

3. The project will utilize low-cost, replicable open-source tools, such as mobile weather apps and soil testing kits, which communities can maintain independently. Investments will be made in durable solar-powered infrastructure, including irrigation pumps, to minimize operational costs.
4. Capacity building: The proposed project will provide ongoing training for farmers and community members in sustainable practices to enable them to adapt and innovate independently. The project will also focus on developing skills in management, infrastructure maintenance, and entrepreneurial activities to enhance self-sufficiency
5. The proposed project is aligned with existing national and local government policies and development plans, which is crucial in securing institutional support and recognition. Furthermore, working with local authorities to advocate for policies that promote sustainable practices will provide incentives for continued community engagement.
6. The proposed project will establish a robust monitoring and evaluation framework to monitor project impact and sustainability, allowing for adjustments based on feedback and changing conditions. Conducting periodic assessments will help evaluate the effectiveness of strategies and make necessary changes to ensure long-term success and relevance.
7. The proposed project will foster collaborations with NGOs, academic institutions, and the private sector to facilitate knowledge sharing, technical support, and resource mobilization. Establishing a network of local farmers and businesses will further facilitate the sharing of best practices and resources for sustainability.
8. The proposed project will ensure that women and marginalized groups are actively involved in decision-making processes, as their participation enhances community resilience and sustainability. Additionally, developing specific programs to address the unique challenges faced by these groups will ensure their needs are met.
9. Environmental stewardship: Training locals to monitor deforestation, soil health, and water quality will empower community-led environmental stewardship through participatory methods. The project will also promote sustainable agroforestry by encouraging tree species with economic value, such as fruit trees and timber, to incentivize long-term maintenance.
10. Knowledge products: The proposed project will produce knowledge products such as operational manuals, IEC materials, policy briefs, project reports, success stories, etc., that can be used to inform future projects.
11. Social sustainability: The proposed project will establish and strengthen structures such as Savings and Credit cooperatives, Local Adaptation Advisory Committees, and Local Environment committees, which structures help to strengthen community ties and social cohesion even beyond the lifecycle of the project

K. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project / programme.

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	The proposed project has been designed in compliance with the provisions of several Multilateral Environmental Agreements and relevant national laws, including the National Environment Act, 1995 (Cap. 153), the Water Act, 1997	Low

	(Cap. 152), the Local Government Act, 1997 (Cap. 243), the National Climate Change Policy (2015), the Revised Energy Policy for Uganda (2023). However, a comprehensive environmental and social assessment will be conducted during the development of the full project proposal.	
Access and Equity	The project will provide equitable access to all targeted vulnerable groups including women, and youth in project sites. To ensure that no one is left out, selection criteria will be developed and agreed upon during the full proposal development phase in a consultative manner.	Risk: Low The elderly and disabled may not be able to benefit from some of the proposed project activities such as VSBK production, which is manual and requires a lot of effort
Marginalized and Vulnerable Groups	The proposed project gives priority to the most vulnerable people in the project sites, including women, youth, smallholder farmers, fishermen, etc.	Risk: Low However, some of the target populations without radios and cell phones or in hard to reach areas may not benefit from climate information. This risk will be overcome by using traditional means of communication and targeting of hard to reach areas
Human Rights	The proposed project respects the rights of the direct beneficiaries. As such, the views of direct beneficiaries including men, women and youth were collected using Free, Prior and Informed Consent (FPIC) approach. These views have been considered in the design of this proposed project concept note.	Risk: Low
Gender Equality and Women's Empowerment	The proposed project has considered gender equality and empowerment in its design. The project enhances health and well-being by increasing food security and access to nutritious food, particularly benefiting vulnerable populations like children and women. Additionally, the project fosters social equity by prioritizing vulnerable groups and ensuring 50% female representation in Community Adaptation Committees (CACs), empowering women in resource allocation and adaptation planning. The introduction of solar-powered irrigation and improved cookstoves also alleviates the care burden on women, allowing them more time for income-generating activities.	Risk: Low A detailed gender analysis should be conducted at the full proposal stage to assess gender dynamics and inequalities in the target project sites and highlight areas that require intervention.
Core Labour Rights		Risk: Low Unequal pay between men and women and child labor are potential risks that could have an impact on the proper execution of activities. The project will remain vigilant to ensure compliance with Uganda's Employment Act, 2006.

		In addition, the proposed project will pay attention to the elimination of child labor during the implementation of project activities.
Indigenous Peoples	Not applicable as there are no indigenous peoples in the target project sites	Risk: Low Not applicable as there are no indigenous peoples in the target project sites
Involuntary Resettlement	No involuntary resettlement is envisaged as project activities will be implemented by communities in their own localities and on their own land.	Risk: Low
Protection of Natural Habitats		Risk: Low Construction activities may lead to temporary disturbances in local ecosystems and habitats of natural habitats. To minimize this, the proposed project will: 1. Choose construction sites that minimize disruption to sensitive habitats and biodiversity. 2. Avoid areas with critical ecological significance or endangered species. 3. Implement best practices during construction, such as limiting the area of disturbance, using low-impact machinery, and scheduling activities to avoid sensitive periods for wildlife (e.g., breeding seasons). 4. Identify and preserve key habitat features, such as trees, wetlands, or water sources that can provide refuge for local wildlife during construction. 5. Develop and implement habitat restoration plans post-construction to rehabilitate disturbed areas and promote the recovery of native flora and fauna.
Conservation of Biological Diversity		Risk: Low Despite the many environmental benefits of the project, including improved soil health, water conservation, and reduced use of chemical fertilizers and pesticides, the restoration of degraded lands may affect biological diversity, if invasive species are used. To mitigate this, native tree species will be used.
Climate Change		Risk: Low The proposed project does not have any negative impact on climate change. The proposed project interventions are aimed at addressing adverse effects of climate change. Nonetheless, the project will undertake extensive consultations with stakeholders to ensure that none of the proposed interventions directly or indirectly increase social and environmental vulnerabilities to climate change. Additional consultations will ensure that a robust suite of adaptation measures will be proposed and

		implemented. Overall, the project activities will promote climate change adaptation and will not result in any increase in greenhouse gas emissions.
Pollution Prevention and Resource Efficiency		Risk: Low The project will contribute to sustainable land management; water use efficiency and water pollution prevention. However, construction of agri-processing hubs can cause pollution. To mitigate this, an environmental and social impact assessment should be conducted
Public Health	The planned climate adaptation interventions will significantly enhance the public health of the beneficiary populations. For example, by promoting improved cookstoves and Vertical Shaft Brick Kilns (VSBKs), the project aims to reduce greenhouse gas emissions and decrease particulate matter from brick kilns by approximately 60%. This reduction in air pollution is expected to lower respiratory diseases by 50%, resulting in better health outcomes for brick makers and nearby communities. Additionally, the project will support alternative livelihoods, further contributing to the health and well-being of beneficiaries. It will also ensure that health and safety standards are established and followed, requiring service providers involved in infrastructure development to submit job and health analyses. Monitoring will be conducted, and a comprehensive environmental and social assessment will be performed if any activity poses a high risk to public health.	Risk: Low
Physical and Cultural Heritage	No investments will be made in areas of physical and cultural importance.	Risk: Low
Lands and Soil Conservation		Risk: Low The project is not expected to cause any significant damage to land and soil. However, clay mining for VSBK production activities has a potential for soil degradation and erosion from clay extraction. To mitigate this, the proposed project will develop and implement site rotation protocols and undertake compensatory tree planting and/or restoration of excavation sites/areas.

PART III: IMPLEMENTATION ARRANGEMENTS

PROJECT IMPLEMENTATION ARRANGEMENTS

IMPLEMENTATION ARRANGEMENTS

The Ministry of Finance, Planning and Economic Development (MoFPED), serving as the National Designated Authority for the Adaptation Fund, will provide oversight in the implementation and use of the funds. The Ministry of Water and Environment, the NIE will receive the funds from the AF and will oversee the proposed project, managing all financial, monitoring, and reporting responsibilities as the Accredited National Implementing Entity (NIE) of the Adaptation Fund. The Ministry of Water and Environment will then manage disbursements to the Executing Entities, Victoria Basin Facility and Struggle Against Poverty, and selected District Local Governments (DLGs) in the Busoga sub-region.

To coordinate project execution, a National Project Steering Committee (PSC) and a Project Technical Committee will be established. The PSC will serve as the highest decision-making body and will be responsible for project oversight, maintaining strategic focus and ensure collaboration with other programs to avoid duplication of efforts. The PSC will comprisee of representatives from key institutions including Victoria Basin Facility (acting as the committee secretary), and Struggle Against Poverty, MoFPED, the National Environment Management Authority (NEMA), the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), the Climate Change Department (CCD), the Ministry of Gender, Labour and Social Development (MGLSD), the Uganda National Meteorological Authority, Microfinance Support Centre, the Ministry of Local Government, and representatives from the private sector and Civil Society Organizations (CSOs), including Non-Governmental organizations (NGOs). Additional organizations may be included as necessary.

Gender representation is a priority for the project, ensuring that women, persons with disabilities (PWDs), and the elderly are included in the PSC. This initiative will empower women by providing them with opportunities for participation in decision-making processes.

For overall technical guidance, the Ministry of Water and Environment will constitute a Project Technical Committee comprising various organizations and agencies connected to the project's core aspects. As the NIE, the Ministry of Water and Environment will handle all financial, monitoring, and reporting tasks related to the project. It will be responsible for comprehensive reporting on project implementation and will maintain accountability to the Adaptation Fund.

The lead Executing Entity will be Victoria Basin Facility supported by Struggle Against Poverty, in collaboration with the respective DLGs in the targeted districts of the Busoga sub-region, who will be responsible for operational planning and day-to-day implementation of project activities.

Local Environment Committees (CMCs) and Community Adaptation Committees will work alongside local government structures at the sub-county, parish, and village levels to engage targeted beneficiary communities. Key beneficiaries will include local community members – women, men, youth, and the elderly.

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

A. Record of endorsement on behalf of the government[27]

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. Rathaman Ggoobi *Permanent Secretary/ Secretary to the Treasury* *Ministry of Finance Planning and Economic Development*	18th February 2026

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 (….list here..) 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 programme.	
Dr Alfred Okot Okidi Permanent Secretary Ministry of Water and Environment Head of the NIE Joseph Lule Implementing Entity Coordinator	
Date (Month, Day, Year): 18th February 2026	Tel. and Email: josephlule2@gmail.com +256773313107
Project Contact Person: Dr Saul Daniel Ddumba and Mr Rashid Mukaire	
Tel and Email: sddumbda@vbf4d.org and apstruggle@gmail.com	

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

Annex 1: List of stakeholders consulted in the field

No.	Name	Gender	Phone number	Email address	Position	District
1	Musenero Bernard	Male	0771674292/ 0750566383	bmusenero@gmail.com	DNRO	Luuka
2	Dr. Batyani James	Male	0759619461/ 0782355068		DPO	Luuka
3	Paulo Diogo	Male	0782936589	d.polo19@gmail.com	DNRO	Kaliro
4	Thomas Kibalya	Male			SAO	Kaliro
5	Abdul Samanya	Male	0779800732	abdisamanya@yahoo.co.uk	DNRO	Iganga
6	Dr. Apollo Musiita	Male	0775632391		DPO	Namutumba
7	Ikaaba Dauda	Male	0772923376	ikaabad@gmail.com	DNRO	Namutumba
8	Bazibu Julius	Male	0779315560/ 0756808014	Juliusbazibu5@gmail.com	Wetland system supervisor	Kaliro
9	Kalange Muhamood	Male	0776838447		DPO	Bugweri
10	Najjuma Sarah	Female	0774679653	najjuma_sarah@yahoo.com	Senior Environment officer	Bugweri
11	Wamukuyu Fred	Male	0705641538		DNRO	Bugweri
12	Agutut Harriet	Female	0701052529		Satelite Manager, BRAC	Iganga
13	Joseph Kyegombe	Male	0701907318 /0764838026	Josephs2012@gmail.com	Executive Director SMAD	Namutumba
14	Makumba Julius	Male	0774931003		SCDO- Ikumbya S/C	Luuka
15	Joseph Kiranga	Male	0753523352		Youth Leader Bukobo Village- Ikumbya S/C	Luuka
16	Rogers Ntogona	Male			Assistant RDC	Luuka
17	Rashid Mukaire	Male		apstruggle@gmail.com	SAP- MD	Iganga
18	Tiwaaku Florence	Female	0771469855 /0755004452	tiwakuflorence@gmail.com	Environment Officer	Iganga
19	Agutut Harriet	Female	0701052529		Satelite Manager, BRAC	Jinja
20	Joseph Kyegombe	Male	0701907318	Josephs2012@gmail.com	ED SMAD	Namutumba
21	Moses Iyereget	Male	0701533124		AMREF	Busoga region
22	Brenda Yariwo	Female	0776156160		ONE ACRE FUND	Jinja
23	Namuganza Naiba	Female	0775358914		SDO- Bukamba	Kaliro
24	Makumba Julius	Male	0774931003		SCDO- Ikumbya	Luuka

Annex 2: List of stakeholders at the national validation workshop

No.	NAME	Gender	EMAIL ADDRESS	POSITION/ ORGANISATION	DISTRICT
1	Mr. Musenero Bernard	Male	bmusenero@gmail.com	District Natural Resources Officer	Luuka
2	Mr. Paulo Diogo	Male	d.polo19@gmail.com	District Natural Resources Officer	Kaliro
3	Mr. Abdul Samanya	Male	abdisamanya@yahoo.co.uk	District Natural Resources Officer	Iganga
4	Mr. Ikaaba Dauda	Male	ikaabad@gmail.com	District Natural Resources Officer	Namutumba
5	Mr. Bazibu Julius	Male	Juliusbazibu5@gmail.com	Wetland system supervisor	Kaliro
6	Mr. Najjuma Sarah	Female	najjuma_sarah@yahoo.com	Senior Environment officer	Bugweri
7	Mr. Wamukuyu Fred	Male		DNRO	Bugweri
8	Mr. Tiwaaku Florence		tiwakuflorence@gmail.com	Environment Officer	Iganga
9	Dr. Kasozi Nasser	Male		Buginyanya ZARDI Director	
10	Mr. Mukaire Rashid	Male	apstrugle@gmail.com	Secretary General	Iganga
11	Ms. Nantale Anne	Female	anantale@yahoo.com	Board Chairperson-Struggle Against Poverty	Iganga
12	Mr. Arthur Kimeze	Male	arthur.kimeze@gggi.org		GGGI
13	Mr. Pablo Martinez	Male	pablo.martinez@gggi.org		GGGI
14	Ms. Florence Mukaminega	Female	mukaminega@gggi.org		GGGI
15	Ms. Liliane Uwanziga Mupende	Female	liliane.mupende@gggi.org		GGGI
16	Mr.Robert Asiimwe	Male	r.asiimwe@alcuganda.com		Consultant
17	Ms. Charity Kibooga	Female	kibooga@alcuganda.com		Consultant

18	Mr. Ocare Denis	Male	docare2009@gmail.com	Ag. Commissioner-PPD	MWE
19	Mr. Joseph Lule	Male	josephlule2@gmail.com	Principal Policy Analyst	MWE
20	Ms. Constance Apule	Female	apuleconnie@gmail.com	S/Economist	MWE
21	Ms. Natukunda Lillian	Female	lilylina1711@gmail.com	S/Economist	MWE
22	Ms. Namwiira Mildred Martha	Female	namiira11@yahoo.com	S/Economist	MWE
23	Joseph Kyegombe	Male	Josephs2012@gmail.com	Executive Director SMAD	Namutumba
24	Kalange Muhamood	Male		DPO	Bugweri
25	Dr. Apollo Musiita	Male		DPO	Namutumba
26	Dr. Batyani James	Male		DPO	Luuka
27	Ogaza Gozan	Male		DPO	Iganga
28	Mr. Innocent Mpiriirwe	Male	mpiriirwe1976@gmail.com		Consultant
29	Mr. George Illebo	Male	tilebo14@hotmail.com		Consultant
30	Ms. Constance Nakiyemba	Female	Consie123@gmail.com		Consultant
31	Mr. Fred Kisaakye	Male	kisaakyefredric@gmail.co m		Consultant
32	Brenda Yariwo	Female			ONE ACRE FUND

Annex 3: Theory of Change