Funding Proposal Template

Application Template for Fully-Developed Proposal and Project Concept Proposal[1]

PROGRAMME ON INNOVATION: LARGE GRANTS PROJECTS

REQUEST FOR PROJECT FUNDING FROM THE ADAPTATION FUND

The annexed form should be completed and transmitted to the Adaptation Fund Board Secretariat by email.

Please type in the responses using the template provided. The instructions attached to the form provide guidance to filling out the template.

Please note that a project must be fully prepared when the request is submitted.

Complete documentation should be sent to:

The Adaptation Fund Board Secretariat
1818 H Street NW
MSN N7-700
Washington, D.C., 20433
U.S.A
Fax: +1 (202) 522-3240/5
Email: afbsec@adaptation-fund.org

[1] Single Country and Regional Concept proposals should complete Part I and Part II of the Project Proposal Template.

ADAPTATION FUND

SINGLE COUNTRY/ REGIONAL INNOVATION PROJECT/PROGRAMME PROPOSAL

PART I: PROJECT/PROGRAMME INFORMATION

Title of Project/Programme: ACCESS (Agroforestry, Community, and Climate-resilient Energy Sustainability Solutions) - Large Innovation Project (as per screening process classification), C category

Country/ Countries: Uganda

Thematic Focal Area[2]: Nature-based solutions and ecosystem-based adaptation

Type of Implementing Entity: Ministry

Implementing Entity: Ministry of Water and Environment

Executing Entities: Mercy Corps

Amount of Financing Requested: 5,000,000 USD

[2] Thematic areas are: Agriculture, Coastal Zone Management, Disaster risk reduction, Food security, Forests, Human health, Innovative climate finance, Marine and Fisheries, Nature-based solutions and ecosystem based adaptation, Protection and enhancement of cultural heritage, Social innovation, Rural development, Urban adaptation, Water management, Wildfire Management.

Project / Programme Background and Context:

1. **Environmental and socio-economic context and Climate Change vulnerabilities at national and project site level:**

1.1 Environmental and Climate vulnerability context

Uganda, a Least Developed Country in East Africa, covers an area of 241,555 square kilometres, including various water bodies. The country's climate is predominantly tropical, characterised by bi-modal rainy seasons, except for the northern region, and is strongly influenced by the Inter Tropical Convergence Zone (ITCZ) systems. (Uganda NDC). Uganda is the world's 13th most vulnerable country to climate change, according to the Climate Vulnerability Index.[3] Communities in Uganda urgently need to adapt to a changing climate, as their livelihoods and resilience depend significantly on natural resources. In particular, Northern Uganda, where the project site is, is heavily dependent on rain-fed agriculture, and because of reliance on the natural environment, this has caused its degradation. Climate change is now acknowledged as a significant threat to disaster risk reduction efforts and a major obstacle to meeting the increasing needs of the most vulnerable populations.[4] Uganda has in the past decade experienced more erratic rainfalls, leading to frequent floods, mudslides and landslides that lead to loss of lives and property. In December 2023 alone, Uganda experienced multiple extreme weather events including floods and landslides which affected 38,547 individuals. Of these, 15,962 people were displaced due to the adverse weather conditions which also affected infrastructure. These figures are part of a consolidated trend that saw from January 2023 to November 2023 a total of 215,299 individuals affected and over 47,467 people internally displaced.[5] Prolonged dry seasons are also frequent, leading to loss of crops and livestock. These changing weather patterns are closely correlated to loss of forest coverage, as there is clear evidence of the interrelation of changes in climate and coverage of forest ecosystems.[6] In the past 20 years, Uganda has lost over a million hectares of tree cover—nearly a third of the country's total. This forest loss is linked to agricultural expansion, wood extraction for energy, increased urbanisation due to high population growth, free grazing animals and wildfires. The need to adapt to a changing climate is stark, considering the high level of reliance on agriculture (40% of Uganda's GDP) for 80% of the growing population. Simultaneously, population growth (3%)[7] also increases the demand for energy, which is often met through combustion of biomass, including timber obtained through illegal logging, contributing to the forest loss of 50,147 hectares/year.[8] According to the Global Forest Resources Assessment (FAO, 2020), an estimated 1.2 million hectares of forest cover (approximately 5% of Uganda's total land area) was lost in the period from 1990 to 2020. The average annual loss of forest cover was 41.300 hectares between 1990 and 2020,[9] and it is expected that Uganda will lose most of its forest cover in less than 25 years, as the National Environment Management Authority (NEMA) had already warned in its State of the Environment for Uganda Report (2008).

[3] University of Notre Dame

[4] https://climateknowledgeportal.worldbank.org/sites/default/files/2021-10/CCKP_Metadata_October%202021.pdf

[5] Uganda Multi-Hazard Infographic - Response/DRR Platform (Published: 24th January 2024)

[6] Climate change impacts and adaptation in forest management: a review

[7] Uganda profile

[8] Uganda's alarming deforestation rate, a broken promise to the Bonn Challenge

[9] Global Forest Resources Assessment 2020

Based on existing climate models and predictions, Gulu, Omoro and Nwoya districts, and the broader Acholi sub-region[10] in northern Uganda are expected to experience significant changes in climate patterns that will in turn expose them to several climate risks: 1. Temperature increases: Acholi sub-region is categorised as a tropical dry climate similar to South Sudan.[11] Moreover, both maximum and minimum temperatures are projected to rise significantly by 2033 in Northern Uganda, continuing the trend observed from 1980-2010[12]. More generally, under a high emissions scenario, monthly temperatures across Uganda are expected to increase by 1.8°C by the 2050s and by 3.7°C by the 2090s[13]. Higher temperatures exacerbate water scarcity, increase the risk of heat stress and heat related illnesses like hyperthermia, reduce agricultural productivity, can lead to proliferation of waterborne diseases like cholera and dysentery and disproportionately affect women who are primarily responsible for water management at household level. 2. Decreased rainfall: the PRECIS model projects a significant decrease in rainfall for Gulu District by 2033. This reduction in rainfall is likely to exacerbate dry spells and drought conditions, impacting agricultural productivity and water availability[14], for example likely reducing millet yields by 2.6% below current averages. 3. Increased frequency and intensity of floods: despite the overall decrease in rainfall, the region may still experience more intense and frequent flood events due to erratic and heavy rainfall patterns. This is consistent with broader trends observed across Uganda, where extreme weather events, including floods, have become more common[15]. Floods destroy household assets, farms and public infrastructure, reduce access to clean water with raising groundwater that easily mises with shallow water wells and collapsed pit latrines, disrupt agricultural activity and daily life generally, making it difficult for people to access, gather and use dry firewood, thereby making it hard for people to cook food. When floods are anticipated, people resort to increased tree felling in an attempt to store up biomass for cooking in such challenging times, contributing heavily to land degradation through increased deforestation. 4. Bushfires: the combination of higher temperatures and prolonged dry spells increases the risk of bushfires. These fires can devastate agricultural lands and natural habitats, further stressing the local ecosystem and livelihoods. 5. Dry spells and droughts: prolonged dry seasons are expected to become more frequent. The longest dry spells are projected to decrease from an average of about 60 days to about 45 days, but with continuing large year-to-year variability, making dry spells more frequent and difficult to predict. Droughts not only affect water availability and agricultural activity but also they increase the effort and time spent by women and youth gathering water or biomass for cooking, hence reducing their daily productive time and in turn reducing their income potential. 6. Other climate-related disasters: Acholi sub-region Gulu is also vulnerable to other climate-related hazards such as landslides and heavy storms. These events can lead to significant loss of life, property damage, and

[10] However, it is also important to note that the Acholi sub-region has not been explored extensively in regard to climate modelling and prediction, as noted in the literature review in https://www.globalgiving.org/pfil/48090/projdoc.pdf

[11] Ibid 19

[12] Oriangi, G., Mukwaya, P., Luwa, J., Emmanuel, M., Maxwell, M., & Bamutaze, Y. (2024). Variability and Changes in Climate in Northern Uganda. African Journal of Climate Change and Resource Sustainability, 3(1), 81-97. https://doi.org/10.37284/ajccrs.3.1.1830

[13] Uganda's Third National Communication to the United Nations Framework Convention on Climate Change, July 2022; https://unfccc.int/sites/default/files/resource/Final%20TNC%20Uganda.pdf

[14] Ibid, Oriangi, G and all (2024)

[15] Uganda's Third National Communication to the United Nations Framework Convention on Climate Change, (2022)

displacement of communities[16]. An increase in the frequency and intensity of floods, droughts, and heavy storms is anticipated. The literature also suggests that the region may face increased risks of landslides and lightning strikes[17]. While it is important to note that these projections are based on various climate models and scenarios, and there may be some uncertainty in the exact magnitude and timing of these changes, the overall trend indicates a warmer climate with more variable and extreme weather patterns, which will likely have significant impacts on agriculture, water resources, and livelihoods in the Acholi sub-region.

Gender-focused impact of climate hazards in Gulu, Omoro and Nwoya districts: The impact of climate hazards is particularly severe in these districts, with a disproportionate effect on women and girls. Women in Gulu and the 2 other districts, who are often responsible for agricultural activities and household water management, face increased workloads and health risks due to changing rainfall patterns and more frequent floods. The district's reliance on rain-fed agriculture makes it especially vulnerable to climate variability, with women bearing the brunt of food insecurity and reduced household incomes during crop failures. Climate-related crop failures and reduced yields disproportionately affect women's income, as they often rely on small-scale farming for their livelihoods. Women and children are more vulnerable to climate-induced health issues, such as waterborne diseases during floods, respiratory illnesses caused by use of dirty cooking fuels such as firewood, or malnutrition during droughts. Women have less access to crucial information about climate risks, and increased time spent on climate-adaptive tasks (e.g. water and biomass collection during droughts) reduces women's opportunities for education, income generation, and community participation. Finally, there are safety concerns, as during extreme weather events like floods, women and girls may face higher risks of gender-based violence in evacuation centres or while travelling longer distances for resources.

1.2 Social-economic Context

Between 1990 and 2010, Uganda had one of Africa's highest GDP growth rates at around 8%, though economic growth since 2011 has barely surpassed population growth. In 2019, annual GDP growth was 6.8%, slowing to 2.9% in 2020, largely due to the impact of Covid-19 (World Bank, 2022). Vision 2040 aims for the country to become a lower middle-income country by 2017 and an upper-middle income one by 2032. As of January 2024, the World Bank categorised Uganda as a Lower Middle Income Country, i.e. one with a per capita income of USD 1 085 or less. Uganda faces several developmental constraints, including a high population growth rate of 3.3% p.a., post-conflict conditions in the North, soil erosion, and degradation, among others. The increase in the population and upcoming developments, including the continuous growth in the refugee population, trigger pressure on natural resources, which is reflected in deforestation and ecosystems' degradation, such as the degradation of wetlands for rice cultivation, brick manufacturing, food, water, and other construction materials.

Climate change has several significant impacts on the livelihood and economic stability of households. The impact will be high on agricultural productivity, as climate change and variability, particularly erratic rainfall patterns and higher temperatures, negatively affect crop yields. This is especially impactful in Gulu, where over 80% of households rely heavily on subsistence agriculture. Specific impacts include

[16] Economic Assessment of the Impacts of Climate Change in Uganda, Ministry of Water and Environment, Republic of Uganda (2015)

[17] Alex N, Basalirwa CPK, Majaliwa JGM, Mbogga SM, Mwavu EN, et al. (2014) Analysis of Future Climate Scenarios over Central Uganda Cattle Corridor. J Earth Sci Clim Change 5: 237. Doi: 10.4172/2157-7617.1000237

water stress on crops, especially maize, during short periods without rain; increased pest and disease problems such as aflatoxin, and the potential proliferation of Striga, a parasitic weed, in sorghum crops due to irregular precipitation and higher temperatures[18]. Droughts and floods will also likely reduce livestock numbers, which will have important implications for food security and household incomes. Loss of livestock due to extreme weather events can directly impact the economic stability of households that rely on animal husbandry. This will result in an income reduction, as most households in Gulu depend on small-scale farming for their livelihoods. Climate-related crop failures and reduced yields directly impact household incomes. The impact is also strong on food insecurity, as crop yields are reduced, and disasters, such as seasonal flooding, can damage rural roads and bridges, cutting off farmers from markets and reducing access to food supplies. The absence of a reliable dry season between rainy seasons causes problems for farmers trying to dry their crops, resulting in poor-quality produce, aflatoxin contamination, and high post-harvest losses from spoilage. Climate change also has a substantial impact on water availability. While some parts may see increased precipitation, warmer temperatures will accelerate evapotranspiration, reducing the benefits of increased rainfall. This will strain water resources, making it difficult for the population to access sufficient water for drinking, irrigation, and livestock. Extreme weather events like heavy rainstorms can lead to flooding and landslides, potentially damaging household assets and infrastructure. People of Acholi sub-region mainly get water from boreholes, shallow wells, springs and motorised wells for piped water systems).[19] The impact of floods could be devastating for sanitation, as rising groundwater and flash flooding can lead to the collapse of pit latrines, contaminating water sources and increasing the prevalence of waterborne diseases. This is a significant health risk, particularly for pregnant women, children and the elderly, and results in additional healthcare costs for households. Finally, households may need to invest in climate adaptation measures, such as building more resilient structures or diversifying their income sources, which could further strain their economic resources.

The interplay of climatic hazards and ongoing climate change affects residents profoundly, impacting genders and age groups differently. Women and youth, in particular, encounter disproportionate challenges due to their inherent socio-economic positions.

Impact on Women:

Given their central role in agricultural and household duties, women face immense burdens from climate hazards. The increased unpredictability and extremity of weather patterns, such as droughts and floods, significantly strain their responsibilities like gathering water, firewood and farming. These duties become more time-consuming and physically demanding, stretching their capacity to support their families and handicapping them from other economic or educational engagements. Furthermore, women's limited access to resources and decision-making platforms curtails their ability to adopt adaptive agricultural techniques or access vital information.

Impact on Youth:

Youth in Uganda encounter direct impacts through disrupted educational opportunities and diminishing job prospects, primarily in agriculture-dependent rural areas. Extreme weather events can damage educational infrastructure and prolong interruptions to schooling. Additionally, climate volatility undermines agricultural reliability, leading to job insecurity and reduced income potential. Health risks

[18] https://www.monitor.co.ug/uganda/magazines/farming/northern-uganda-to-bear-brunt-of-climate-change-1560088

[19] https://openjicareport.jica.go.jp/pdf/12080537_02.pdf

escalate for youth from increased exposure to climate-induced diseases and nutritionally insecure conditions, potentially stunting long-term development.

2. Project Target Area

Following the comments received from the Adaptation Fund through the Ministry of Water and the Environment (MWE) on March 5, 2024, extensive strategic discussions were initiated within the consortium to reassess the project's targeted locations. After careful consideration among the consortium leadership, discussions within the MWE, and consultations with the communities involved, as outlined in the attached letter submitted to the MWE, the proposed project location shifted from Masaka to Gulu and its neighbouring districts (Acholi sub-region). This decision was made to optimise impacts, enhance efficiency, promote sustainability, and improve sequencing, layering, and integration (SLI) with current Mercy Corps projects in the area. Considering the area has a vulnerable community with less adaptive capacity to climate change impacts, it was determined that Gulu and the surrounding districts within the Acholi sub region would better align with the Adaptation Fund objectives as well as meet the needs of the communities involved.

Secondly, implementing the project in Gulu and the greater Acholi areas would enable the consortium to leverage existing climate adaptation initiatives like Mercy Corps' *Powering the Uptake of Climate Change Mitigating Pumps (Pump-Up) project*. In fact, ACCESS will be borrowing the same business model implemented by Pump Up which is already effective in the area, where awareness campaigns on climate resilient technologies are also already ongoing.

The project targeted-area, the Acholi sub-region is in the Northern Region of Uganda and Gulu is its administrative capital. The region is bordered by South Sudan in the North, Karamoja sub-region in the East, Lango sub-region in the South and West Nile sub-region in the West. It occupies a total land area of about 28,278 sq. km, approximately 11.77% of Uganda.[20] The Acholi sub-region which comprises the 8 districts of Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo has for decades been known both for its climate change vulnerability and the 20 year long Lord's Resistance Army (LRA) war.[21] This Northern region of Uganda is home to the largest population of people living in poverty (about twice the national level). 90% of the same population were Internally Displaced Persons following the LRA rebel conflict which subsided in 2006 after a ceasefire agreement between the rebels and the government of Uganda.[22]

Specifically, the project will coordinate its activities from Gulu district, which serves as the main administrative and economic hub for the region. Project activities will take place primarily in Gulu and the neighbouring districts of Omoro and Nwoya. Mercy Corps' experience of delivering social behaviour change and market systems development projects in the sub-region demonstrates that activities implemented in these three core districts are able to influence systems change across the region.

Gulu in particular is a high vulnerability district, exposed to among other hazards; floods, prolonged dry spells, crop pests and diseases, heavy storms, animal vectors and diseases and human epidemics.[23]

[20] https://openjicareport.jica.go.jp/pdf/12080537_02.pdf

[21] Gulu District Hazard, Risk, and Vulnerability Profile

[22] Ibid 33

[23] Gulu District Hazard, Risk and Vulnerability Profile', Ministry for Relief, Disaster Preparedness and Refugees, Republic of Uganda.

The climate of Gulu and its neighbouring districts is tropical dry in nature and with two main seasons: a wet season and a dry season. The wet season in Gulu occurs from April to October, with the heaviest rainfall usually falling between June and September. Gulu district has experienced a huge reduction of its tree cover since 2010 extending over 50% of its land area. Between 2001 and 2023, Gulu lost 42.4kha[24] of tree cover equating to a 6.8% decrease in tree cover since 2000. Additionally, an average of 603kt per year was released into the atmosphere. In total, 13.3Mt of CO_2e was emitted in this period. By 2023, the Acholi districts of Gulu, Nwoya and Omoro had lost a combined 2.8 thousand hectares of forest cover.[25] Gulu district is generally warm, however, extreme seasonal rainfall and temperature variation continues to be consistently attributed to negative human-environment interactions directly affecting rural livelihoods of smallholder farmers since they lose their abilities to plan for the season resulting in poor crop productivity and exposing households to risk of food insecurity and starvation. Agriculture is the backbone of the regional economy. The major source of household incomes is sale of crops. More than 80% of the population is estimated to engage in subsistence agriculture. The monthly household income in Acholi sub region is105,000 UGX (vs national average 190,000 UGX), 77.9% of the population cooks with firewood, and 17.6% of households use charcoal.

Gulu district, with whom consultations have been held in the month of April 2024, has laid out a vision to become a district offering a high quality of life and sustainable holistic development, with natural resource management being one of the key service areas.[26]

3. Problem the proposed project is aiming to solve

3.1 Current situation and gaps

Uganda has been gradually improving its readiness and taking actions to adapt to the impacts of climate change. As part of its adaptation planning processes, Uganda formulated a National Adaptation Plan for the Agriculture Sector (NAP Ag) in 2018 and in 2020, submitted an updated Nationally Determined Contribution (NDC) with an adaptation component that puts emphasis on the need to promote afforestation and reforestation to reduce vulnerability of people and ecosystems, encourage agroforestry to enhance nutrient cycling and integrated pest management, encourage sustainable forest management to enhance forest ecosystem function and increase share of clean energy for cooking to reduce dependence on biomass energy used for cooking.

These efforts demonstrate Uganda's progress towards medium-to-long-term planning for adaptation. However, Uganda's adaptation efforts face several challenges, including inadequate local-level climate adaptation financing, limited individual and institutional capacity, and limited access to international climate finance and support for technology and capacity-building. Addressing these challenges will be crucial for Uganda to adapt to the impacts of climate change effectively.

In May 2022, Mercy Corps conducted an Energy Access Assessment to better understand the connections between climate change adaptation and sustainable access to clean energy while analysing the viability of market-based energy access solutions in last mile communities in Uganda and to recommend appropriate energy access interventions at selected sites. This assessment showed that

[24] https://www.globalforestwatch.org/dashboards/country/UGA/8/?category=forest-change&location=WyJjb3VudHJ5IiwiVUdBIiwiOCJd

[25] Charcoal burning devastates landscapes in northern Uganda | Monitor

[26] Gulu District local government charter

most households in these settlements continue to rely heavily on biomass as the primary source of cooking fuel with firewood for cooking remaining the norm for many households. The lack of an alternative source of fuel for cooking has resulted in the persistent use of biomass fuel (charcoal and wood fuel), with average wood fuel consumption standing at over 2 kg/person/day. Uganda's Environment Report 2016 shows that95% of Uganda's energy is derived from biomass, 90% of Ugandans use fuelwood as the main source of energy with rural households relying on the fuel-inefficient three stone stoves that lose 93% of the energy generated during cooking and lead to increased deforestation.[27] Additionally, according to the Farm Income Enhancement and Forest Conservation Project Baseline Survey Report (2007) and NEMA (2011), on average, a household uses 150 kg of fuelwood per month: 58.9% of the firewood used for cooking is obtained from natural forests, and trees growing naturally on the farm, and 34.6% is collected from the plantation/planted forests (NEMA 2011). However, fuelwood supplies have been rapidly decreasing due to population growth and agricultural expansion which has in turn led to increased deforestation. The National Biomass Study of 2005 indicates that 73% of all the districts in Uganda are experiencing a deficit of accessible woody biomass for fuelwood.

In the Acholi sub-region, deforestation is primarily caused by the widespread use of wood as the primary fuel for cooking. In Acholi, 95% of the population relies on firewood and charcoal collected from bushes, leading to the loss of over 37,744 hectares of trees between 2001 and 2020. There is a small penetration of other cooking alternatives such as electric cooking (0.83.1%), but people are used to allocating part of their incomes to cooking fuels (charcoal and 50% of wood fuel).

Lack of alternative energy solutions to transition from biomass-based cooking to more climate resilient technologies such as solar electric cooking is majorly faced by demand side, supply side, and enabling environment barriers that hinder the development of a sustainable market for these technologies in Uganda.

On the demand-side, low levels of affordability and limited awareness (communities often lack awareness of the availability and usage of climate resilient technologies such as solar technologies) impede the willingness or ability of consumers to purchase alternative cooking energy solutions. This calls for the urgent need to develop or improve flexible payment methods such as pay-as-you go (PAYGO) models and tailored asset financing to support consumers to purchase alternative energy solutions, including increased awareness creation campaigns meant to influence behaviour change towards adoption of these technologies. On the supply-side barriers, lack of market information, lack of distribution and supply chain hinder the production and supply of alternative cooking energy products and affect the ability of suppliers and producers to operate.[28] Lack of affordable working capital for small and growing manufacturers and distributors in the alternative energy products sector such as solar electric cooking business remains a major challenge. This leads to inconsistent supply chain lead times, especially for PAYGO models. Traditionally, long lead times are resolved using credit facilities. However, the high collateral requirements and costs of capital (interest rates exceeding 25% per annum) are passed on to consumers, affecting adoption rates. Additionally, the high upfront cost of e-cooking technologies makes them unaffordable for many households. While financial products like renewable energy loans can help

[27] U-WN-YU-BD FAO Rapid Woodfuel Assessment 2017 Baseline for Bidi Bidi. Source: Here

[28] Open Capital 2023 assessment

lower these costs through instalment payments, the high credit risk discourages financial institutions and distributors from developing and scaling such products.

As stated in Mercy Corps GESI assessment in April 2024 (and reviewed in July 2024) attached, there is a significant gender divide in the Gulu area. Climate change impacts vary significantly among different gender groups and sub-groups, especially in the context of agroforestry. Vulnerability to climate change and the ability to adapt are deeply influenced by socioeconomic factors and access to key livelihood resources. Women, men, boys, and girls living in the Acholi sub-region face heightened risks from climate change and ecosystem degradation, and their capacity to adapt is often dictated by their access to resources such as land, water, climate information, and decision-making power - all of which are typically differentiated by gender and social status. Mercy Corps' consultations in Gulu district in July 2024 focused on assessing women and youth vulnerability in the framework of agroforestry, highlighting that in Northern Uganda, access to resources varies significantly between men and women due to cultural, social, and economic factors. Women often face challenges in accessing and owning land, despite performing most agricultural work. They also have limited access to agricultural inputs, education, and training, which affects their productivity and ability to adapt to climate change. In fact, forestry and agroforestry systems are not gender-neutral. Women have less access to and control over forest resources and fewer economic opportunities compared to men. However, women possess specialised knowledge of forest management and use, crucial for household food consumption and health. Empowering women in the forest sector can generate significant development opportunities and benefits for their households and communities. Recognizing and supporting women's roles in agroforestry and forest management is essential for effective climate change adaptation and mitigation. The gender dimension of energy poverty, with women being direct users of cooking products and responsible for cooking and fetching biomass to burn, poses a further strain on the lives of women and girls and raises protection concerns (sexual harassment and other forms of violence) as they move miles away to collect firewood or burnt charcoal to help prepare their daily meals. Women and girls in rural, off-grid areas are disproportionately affected by a lack of access to alternative cooking facilities. Without access to affordable and sustainable clean cooking solutions, Sustainable Development Goal 7 (Ensure access to affordable, reliable, sustainable, and modern energy for all) will not be met. A very large number of households are now resorting to unhealthy coping mechanisms resulting from shortage of wood fuel that include but are not limited to skipping meals, eating not well-cooked food regularly, preparing foods that are easy to cook, such as vegetables and porridge instead of a desired meal for the day and above all cooking with materials such as crop residues that produces a lot of smoke which risk the health of those charged with cooking responsibilities mostly women and girls.

3. 2 Desired change:

The ACCESS (Agroforestry, Community, and Climate-resilient Energy Sustainability Solutions) project, designed in close collaboration with the local authorities and communities, is primarily an ecosystem-based adaptation program designed to enhance climate resilience in the Acholi sub-region. The project's core focus is on restoring degraded landscapes through reforestation, agroforestry, and Farmer-Managed Natural Regeneration (FMNR) techniques. These nature-based solutions aim to increase tree cover, improve soil health, enhance water retention, and boost agricultural productivity, thereby strengthening the community's adaptive capacity to climate change. The program will build local awareness and capacity for sustainable ecosystem management practices, emphasising the long-term

benefits of landscape restoration. Alongside these efforts, ACCESS will introduce climate-resilient technologies, including solar-powered ECOCA cook stoves, as a complementary strategy to reduce deforestation pressure and improve livelihoods. This holistic approach combines ecosystem restoration with clean energy solutions to address both the environmental and socio-economic aspects of climate adaptation in the region.

ECOCA, in a past pilot, has proven to be economically viable for the most vulnerable: the climate resilient solar resilient technology solar electric cooking technology proposed has been successfully piloted between 2019 and 2022 in the Bidi Bidi refugee settlement with support from ELRHA. The pilot strengthened Implemented by Mercy Corps in partnership with Pesitho, the pilot project aimed to promote alternative cooking technologies through adoption of off-grid solar e-cookers, strengthen Pesitho's supply chain and distribution networks, improved product pricing, developed suitable increase uptake through pay-as-you-cook (PAYC) modalities, and developed a sustainable business model for refugee households. This effort resulted in the sale of 1,200 households transitioning units from reliance on firewood for cooking to use of the solar electric powered cookers in and around the Bidi Bidi settlement.

The project's components and activities will effectively address climate threats in Gulu, Omoro and Nwoya districts through a unified approach that combines nature-based solutions and community-based adaptation strategies:

1. Ecosystem-based adaptation approaches will restore degraded landscapes, enhance biodiversity, and improve ecosystem services, while also providing natural buffers against climate-related disasters.
2. Enhancing water management: Restored ecosystems improve water retention and flood mitigation.
3. Improving agricultural resilience: Agroforestry practices and restored landscapes enhance soil quality and crop diversity, making farming systems more resilient to climate variability.
4. Strengthening community capacity: the 3 components integrate education and training elements, empowering communities to adapt to and mitigate climate impacts independently.
5. Creating sustainable livelihoods: The market-based approach for clean technologies and the promotion of ecosystem services provide alternative income sources, reducing vulnerability to climate-related economic shocks.
6. Reducing deforestation pressure: Clean cooking technologies decrease demand for wood fuel, while reforestation efforts replenish forest cover, creating a positive feedback loop.

Communities in the Acholi sub-region will experience increased climate resilience, improved ecosystem services, enhanced livelihoods, reduced deforestation, and decreased vulnerability to natural disasters, leading to overall improved living conditions and sustainable adaptation to climate change.

Project / Programme Objectives:

The proposed project seeks to enhance climate resilience and improve living conditions in the Acholi sub-region, through a holistic landscape approach that combines ecosystem-based adaptation (EbA), ecosystem restoration, promotion of sustainable land management practices, and increased access to affordable, climate-resilient technologies, including alternative cooking solutions.

ACCESS' **Theory of Change** (ToC) states that:

IF communities in the Acholi sub-region actively engage in ecosystem-based adaptation approaches, including Farmer-Managed Natural Regeneration (FMNR) and agroforestry, with a focus on economically valuable trees, and IF participatory land use planning and sustainable land management practices are implemented, supported by inclusive community structures and equitable benefit-sharing mechanisms, and IF market systems for tree products and ecosystem services are developed, enhancing economic opportunities for local communities, and IF vulnerable households gain access to and adopt climate-resilient cooking technologies like ECOCAs, that reduce biomass consumption, and IF communities increase their knowledge, attitudes, and practices regarding the benefits of climate-resilient technologies and the dangers of dependence on traditional biomass for fuel, and IF project learnings and best practices are gathered, applied, and disseminated to influence wider stakeholders and policy-making, THE communities in the Acholi sub-region will experience increased climate resilience, improved ecosystem services, enhanced livelihoods, and reduced deforestation, leading to overall improved living conditions and sustainable adaptation to climate change.

The ToC is broken down as it follows:

Goal: To enhance climate resilience and improve living conditions in the Acholi sub-region of Uganda through a landscape approach that combines ecosystem restoration, promotion of sustainable land management practices, and increased access to affordable, climate-resilient technologies, including alternative cooking solutions.

Specific Objectives

SO1: Enhance climate resilience and sustainable ecosystem services management in the Acholi sub-region with the implementation of conflict-sensitive, market-driven ecosystem-based adaptation approaches, including Farmer-Managed Natural Regeneration (FMNR) and agroforestry.

SO2: Reduce deforestation linked to biomass fuel collection for cooking by establishing a market for climate-resilient, gender-inclusive, and financially sustainable technologies, including alternative cooking solutions.

SO3: Ensure efficient and effective Project Management and continuous learning and adaptation.

The project's proposed duration is 36 months, running from 1 September 2024 until 31st of August 2027.

Project / Programme Components and Financing:

Project/Programme Components	Expected Outcomes	Expected Outputs	Countries	Amount (US$)
Component 1 - Restore degraded landscapes in the	**Outcome 1.** Increased climate resilience and	**Output 1.1 Enhanced community**	Uganda	2,808,861

Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo) and neighbouring districts through an ecosystem services approach	sustainable ecosystem services management in the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo)	**capacity for implementing and benefiting from Farmer-Managed Natural Regeneration (FMNR) and agroforestry** **Output 1.2** 6,800 hectares of land restored and sustainably managed		
Component 2- Reduce deforestation linked to biomass fuel collection and usage for cooking in the program area through establishing a market for Climate-resilient, gender-inclusive, and financially-sustainable technologies	**Outcome 2.** Increased adoption and utilization of ECOCAs by vulnerable community members	**Output 2.1** Improved knowledge, attitude and practices regarding the benefits and usage of ECOCAs for cooking, lighting, and charging and the dangers of biomass fuel for cooking **Output .2** Increased access to ECOCAs for 1,000 vulnerable HHs and 4 schools	Uganda	1,383,872
Component 3 - Ensure efficient and effective Project Management and continuous learning and adaptation	**Outcome 3** Ensure robust learning, knowledge management, and dissemination framework	**Output 3.1** Relevant knowledge products prepared and disseminated to key Stakeholders	Uganda	**102,875**

6. Project/Programme Execution cost		348,964
7. Total Project/Programme Cost		4,644,572
8. Project/Programme Cycle Management Fee charged by the Implementing Entity (if applicable)		355,428
Amount of Financing Requested		**5,000,000**

Projected Calendar:

Milestones	Expected Dates
Project Start Date	**1 September 2024**
Semi-Annual Report 1 (Narrative and Financial) - 1st September 2024 – 28th February 2025	30th April 2025
Annual Report 2024-2025 (Narrative and Financial) - 1st September 2024 – 31 August 2025	31st October 2025
Semi-Annual Report 2 (Narrative and Financial) - 1st September 2025 – 28th February 2026	30th April 2026
Annual Report 2025-2026 (Narrative and Financial) - 1st September 2025 – 31st August 2026	31st October 2026
Semi-Annual Report 3 (Narrative and Financial) - 1st September 2026 – 28th February 2027	30th April 2027
Project End Date	**31st August 2027**
Final Project Completion Report (Narrative and Financial) - 1st September 2024 – 31st August 2027	30th November 2027

PART II: PROJECT / PROGRAMME JUSTIFICATION

A. PROJECT/ PROGRAMME COMPONENTS

ACCESS is a Large Innovation Project (as per screening process classification) that aims to enhance climate resilience and improve living conditions in the Acholi sub-region through promoting climate-resilient technologies and ecosystems services, with Market System Development (MSD) strategies.

The project is structured around three components:Restore degraded landscapes in the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo) and neighbouring districts; Reduce deforestation linked to biomass fuel collection and usage for cooking in the program area through establishing a market for Climate-resilient, gender-inclusive, and financially-sustainable technologies Mercy Corps and Pesitho led), and lastly improved adaptive management and learning sharings (Outcome 3 - Mercy Corps led).

In Outcome 1, the project aims to restore 6,800 hectares of degraded landscapes in the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo districts) through an ecosystem services approach. To increase climate resilience and promote sustainable ecosystem services management, ACCESS will enhance community capacity for implementing and benefiting from Farmer-Managed Natural Regeneration (FMNR) and agroforestry by conducting comprehensive baseline assessments, providing training, and establishing tree nurseries. Market assessments for tree products and training on agroforestry systems and value addition will be conducted, along with establishing linkages between farmers and markets. The project will also focus on restoring and sustainably managing 6,800 hectares of land by reviving community land management committees, offering training on conflict resolution and sustainable practices, building district-level capacity, and promoting community-led mapping and inclusive land use planning. Additionally, gender-sensitive approaches, community bylaws, equitable benefit-sharing mechanisms, and training on sustainable income-generating activities will be developed, alongside financing schemes to support sustainable businesses and community advocacy for sustainable land management.

In Outcome 2, Mercy Corps will collaborate with Pesitho, a long-standing partner since 2019, to refine and commercialise technology tailored to increase the climate resilience of the target population. As agriculture is practised mainly at household farm-level in Acholi sub-region, ACCESS aims to increase the resilience of farmer households and other climate risk households (elderly and disabled), thus enabling the most vulnerable people in the sub-region absorb climate risks aforementioned. The program will take the initial idea of providing affordable and accessible alternative cooking to refugee and host communities in the recently concluded Journey to Scale project[29] implemented with Pesitho in Yumbe district, West Nile sub-region of Northern Uganda and now tailor that concept to address the climate change risks of Acholi sub-region, to wit; droughts, floods, heavy storms, rising temperatures and deforestation. Under this outcome, the project will apply the proven business model of ECOCA East Africa Ltd (EEA) (a subsidiary of Pesitho) to extend its reach beyond refugee settlements to target 1000 households of 5-7 members and (4) four schools each with about 500 pupils/students in the Acholi sub-region. This coupled with awareness raising will enable affordable and sustainable access to alternative energy sources of cooking through ECOCA, directly benefiting an estimated 7,000 individuals. In schools where ACCESS will be implemented, the program will collaborate with the school boards to promote environmental awareness concepts that support the correct use of forest resources. Additionally, the program will support the reforestation of areas around the institutions with the direct involvement of pupils. The use of ECOCA solar electric cook stoves at household and community level (farmers and schools) respectively, will: reduce the need for firewood and charcoal, directly reducing deforestation and its associated impacts on climate change and biodiversity since the e-cookers do not depend on biomass;

[29] https://www.humanitarianenergy.org/assets/resources/MCPESITHO_Journey2ScalePitch_16062021_%28002%29.pdf

reduce water consumption at household and community level as the solar cookers are highly insulated, thereby releasing very little steam hence negating the need to replenish water in the food while cooking and do not need water to be extinguished. This multiplier effect of water saved will enable the people of Acholi sub-region to better absorb the risk of drought and limited access to clean water during floods; reduce the need to increase tree cutting so as to store up emergency biomass for cooking especially during floods and heavy storms; increase the people's resilience to these risks as the saved water during droughts can be used for the much needed, food preparation, irrigation and WASH activities. Training Acholi community members in ECOCA production, installation, repair, maintenance and cooking advisory will equip them with valuable skills to foster community engagement in adaptation efforts and promote long-term resilience.In Outcome 3, ACCESS aims to ensure dissemination of learning and knowledge management among peer organisations, funding agencies, civil society and private sector actors by sharing lessons learned reports and facilitating national and regional events.

Regarding targeting strategy, ACCESS will be implemented in the Acholi sub-region which consists of 8 districts: Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader, and Omworo. ACCESS interventions will reach 788,765 indirect beneficiaries in these districts. 157,753 people will be directly targeted with awareness campaigns and sensitization on natural regeneration, agroforestry, and climate-resilient technologies. 167 farmer groups will be trained on natural regeneration,with a target of 40% women and youth groups reaching5,000 households in the programme area. The same farmer group members will be trained and sensitized on the benefit of using cimate resilient technologies such as ECOCA with the aim to reach 1000 households during the programme period.Thorough consultations with local authorities, community leaders, and other stakeholders will be conducted at the project inception to ensure that the selected groups are representative and have the potential to benefit significantly from the interventions.

ACCESS will target specific vulnerable groups as follows;

Women and Female-Headed Households: In the Acholi subregion, women, particularly those heading households (35.1 % according to Uganda national survey report 2019/2020), are disproportionately affected by poverty. Women also have limited access to resources and decision-making power and are at risk of gender-based violence. ACCESS interventions will leverage Ecosystem-Based Adaptation (EBA) and agroforestry value chains to empower women and female-headed households by providing training in sustainable agricultural practices and market access. This approach will offer women opportunities to engage profitably in agroforestry, increasing their income while allowing them to spend less time gathering firewood by providing them with ECOCA solar cookers. Adopting alternative cooking energy sources will also aim to reduce health risks associated with indoor air pollution and exposure to gender-based violence. The role of community cooking advisors (behavioural change agents / ecooking champions) will also be spared for the women, thereby promoting community led championing of adaptive technologies and fostering long-term resilience.

Youths: The Acholi region is characterised by high unemployment rates among youth, who face limited educational and employment opportunities, a lack of vocational skills, and restricted access to quality education. Through the ACCESS project, youths will be integrated into the EBA agroforestry value chain, providing them with job opportunities in commercialising climate-resilient technologies, such as the local production, installation, sales, distribution, and maintenance of ECOCA cookstoves. Additional training

in modern agricultural techniques and business management will equip them to capitalize on market opportunities within the agroforestry sector, fostering entrepreneurship and employment while contributing to sustainable environmental management.The youths will be involved in agroforestry projects that will train them in modern farming techniques and business skills, enabling them to earn a livelihood while contributing to environmental conservation.

Elderly and Persons with Disabilities (PWDs); The ACCESS interventions will also focus on the elderly and PWDs, who are among the most marginalised in the community and often dependent on others for their basic needs. The project will prioritise providing these groups with subsidised alternative cooking solutions, offering easy-to-use and climate-resilient technology. This initiative aims to reduce their dependence on others, improve their health status, and enhance their overall quality of life and resilience capacity.

Component 1: Restore degraded landscapes in the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo) and neighbouring districts through an ecosystem services approach/ Mercy Corps and LNGO led

Outcome 1: Increased climate resilience and sustainable ecosystem services management in the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo)
The principal objective of this intervention is to increase climate resilience and sustainable ecosystem services management through Farmer-Managed Natural Regeneration (FMNR), agroforestry and sustainable land restoration. Mercy Corps, in collaboration with a local partner to be identified during the project's inception phase, will employ a Market System Development (MSD) approach to develop agroforestry systems with economically valuable trees that will foster demand-activation. This strategy aims to boost the local economy by linking farmers directly with markets for tree products, providing comprehensive training on sustainable agricultural practices and market navigation. Additionally, it will foster environmental sustainability and enhance the region's resilience to climate change by improving green coverage and promoting biodiversity. Ultimately, the project seeks to create a symbiosis between economic development and environmental stewardship, ensuring long-term sustainability and prosperity for the communities involved.

Output 1.1 Enhanced community capacity for implementing and benefiting from Farmer-Managed Natural Regeneration (FMNR) and agroforestry
Output 1.1 aims to significantly enhance the community's ability to implement and benefit from Farmer-Managed Natural Regeneration (FMNR) and agroforestry, leading to improved environmental sustainability and livelihoods. By empowering local farmers with the knowledge and tools to manage natural resources effectively, the project fosters a sense of ownership and responsibility towards land restoration and sustainable practices. This approach not only revitalizes degraded landscapes but also creates economic opportunities through the cultivation and marketing of valuable tree products. The comprehensive capacity-building efforts and tools provided ensure that communities are well-equipped to sustain these practices independently, thereby increasing their resilience to climate change and contributing to long-term ecological and economic stability.

Activity 1.1.1 Conduct a comprehensive Environmental and Social Impact Assessment (ESIA)

At the project inception phase Mercy Corps will hire a consultant to lead an extensive ESIA to further examine potential impacts and risks and to identify possible measures to avoid, minimise, manage or mitigate environmental and social impacts of the proposed project/programme - ensuring compliance to the AF's Environmental and Social Policy and Gender Policy of the Fund and identify.

Activity 1.1.2: Identify farmer groups operating within the target communities and assess their current capacity and knowledge regarding Agroforestry and climate-resilient technologies

Mercy Corps plans to initiate an engagement strategy with local farming communities by conducting a comprehensive mapping and assessment of farmer organisations, Village Savings and Loan Associations (VSLAs), cooperatives, informal groups, and even individual farmers who may not belong to any formal group. This activity aims to identify 167 entities with whom the project will work and understand the current capacity, knowledge gaps on agroforestry and climate-resilient technologies.

Activity 1.1.3. Conduct a comprehensive baseline assessment of existing tree cover, soil conditions, and market opportunities for tree products in Gulu/ the Acholi sub-region (Gulu, Omoro and Nwoya)
This assessment will map the existing tree cover to understand the extent and distribution of forested areas and identify the types of trees currently growing. Soil conditions will be analysed to determine soil health, fertility, and suitability for different agroforestry practices. Mercy Corps will consult with the Center for International Forestry Research and World Agroforestry (CIFOR-ICRAF) to identify the most suitable tree species for the Acholi sub-region, considering factors like climate, soil conditions, and market potential. Mercy Corps will employ best agroforestry practices tailored to the local context, including FMNR techniques. Utilising ICRAF's research and knowledge base, the baseline assessment of existing tree cover and soil conditions will be informed. Additionally, research from the National Forestry Resources Research Institute (NaFORRI) and other research organisations such as Makerere University's Faculty of Forestry and Nature Conservation and the Uganda Agroforestry Development Network (UGADEN) will also be included. This foundational activity will provide data to guide effective land restoration and agroforestry initiatives, ensuring they are tailored to the local context and have the best chance of success in both environmental and economic terms.

Activity 1.1.4: Training in FMNR initiatives and agroforestry to community-based extension agents
This activity has been designed to increase community engagement and capacity building in FMNR initiatives and agroforestry, and will involve training 60 community-based extension agents who specialize in agroforestry and FMNR and which will lead, supported by Mercy Corps' local partner, all the training sessions under Output 1.1. In fact, these agents will be instrumental in providing ongoing technical support to 167 targeted farmer groups, 40% of which will be women-led. The targeted and trained community-based agents will support the farmer groups in implementing FMNR practices, transforming them into community-based FMNR groups.

.Activity 1.1.5 Training, Demonstration, and Equipping for Farmer-Managed Natural Regeneration (FMNR) Programs
This activity involves implementing FMNR programs through comprehensive training sessions led by the LNGO to the 60 community-based agents that will then train the 167 farmer groups, targeting a total of 5,000 farmers, 40% of which are women. These sessions will be led by the community-based extension

agents supported by the LNGO, and will cover essential FMNR techniques, including the identification and protection of naturally occurring tree seedlings and stumps, as well as sustainable land management practices. To reinforce learning and demonstrate the benefits of FMNR, 55 demonstration plots will be established, with one plot for every three groups. These plots will showcase FMNR practices in action, allowing participants to observe and engage in practical applications of the techniques they have learned. Additionally, ACCESS will provide necessary tools and equipment to support FMNR implementation. Each group will receive a kit containing hoes, rakes, shovels, and machetes, ensuring that community members have the resources needed to carry out FMNR effectively.

Activity 1.1.6 Develop agroforestry systems with economically valuable trees through the strengthening of tree nurseries operators
Technical assistance will be provided by Mercy Corps to support 16 commercial forestry value chain actors (2 in each of the targeted Acholi sub-region districts) to identify and understand the different market segments that exist within the Acholi sub-region. By segmenting the market, these operators will be able to customise their marketing strategies and messages to effectively reach each segment, maximising their impact and market penetration. The technical assistance will support the operators to adapt their business models to be comprehensive and sustainable, outlining key components of their operations, revenue streams, cost structures, distribution channels, and partnerships to forecast and ensure the financial viability and long-term success of their seedlings initiatives. The TA will also include creating a go-to-market strategy for the operators to define the approach and tactics for entering the market and reaching potential customers while deciding on the appropriate marketing channels, messaging, sales techniques, and distribution methods. With this activity, ACCESS aims to ensure the availability of tree species preferred by farmers through the establishment of satellite hubs for nurseries and woodlots functioning as retail outlets in the various project areas.

Activity 1.1.7 Conduct market assessments for tree products
The market assessment will focus on products such as shea butter, fruits, and other non-timber forest products (NTFPs) in local, regional, and national markets. The assessment will identify potential buyers and opportunities for value addition, such as processing and packaging, to enhance the marketability and profitability of these products. Additionally, the assessment will evaluate the role of these tree products in local livelihoods, with particular attention to women and vulnerable groups who often depend on very specific value-chain or focus on products transformation for value addition. It will also assess the sustainability of current harvesting practices and potential environmental impacts, ensuring that increased production does not harm the ecosystem.

Activity 1.1.8 Trainings to community-based extension agents for Agroforestry Systems with Economically Valuable Trees and on value addition and processing of tree products
Under this activity Mercy Corps will be providing training to community-based extension agents on agroforestry systems with economically valuable trees and on value addition and processing of tree products. This activity aims to allow the 60 community-based extension agents to train 2,500 farmer group members (40% of which are women) on various agroforestry techniques, including intercropping and alley cropping, to enhance the productivity and sustainability of their farming practices. The training sessions will cover the cultivation and management of economically valuable trees, such as fruit trees

and nitrogen-fixing species, integrated with crops to maximize land use efficiency and improve soil health. Additionally, farmers will receive training on value addition and processing of tree products, such as fruit preservation, shea butter extraction, and other non-timber forest products (NTFPs). Through these training sessions, farmers will learn how to enhance the quality and marketability of their products, leading to increased income. As a result, it is expected that 2,000 households will report diversified income sources from ecosystem-based activities, including agroforestry products and beekeeping. This diversification will contribute to greater economic resilience and sustainability for the participating households.

Activity 1.1.9 Establish linkages between farmers and markets for agroforestry products
Connections between farmer groups and private sector actors (PSAs) within at least three targeted value chains will be created/strengthened. For each value chain, three PSAs will be engaged to ensure that farmers can effectively market their products, such as fruits, shea butter, and other non-timber forest products (NTFPs). Additionally, Pesitho will be linked with the farmer groups to provide support and expand market reach. Efforts will also be made to increase women's participation in value-chain activities by at least 10%, empowering them and promoting gender equity in the economic benefits derived from agroforestry products.

Activity 1.1.10: Women and youth led awareness raising sessions to increase community engagement in FMNR initiatives and agroforestry
Women and youth participating in the project-promoted agroforestry activities will be leading awareness campaigns in the 8 project-targeted districts reaching 157,000 people, by leading a 3-days awarness raising campaigns every quarter in every project district during the whole project duration, and participating in radio-talk shows.
Output 2.2 6,800 hectares of land restored and sustainably managed
Under this outcome ACCESS aims to restore and sustainably manage 6,800 hectares of land by leveraging an inclusive and participatory approach that empowers local communities and integrates gender-sensitive strategies. By reviving and establishing inclusive community land management committees, providing targeted training on conflict resolution and sustainable practices, and building capacity at the district level, the project ensures that local stakeholders are equipped with the knowledge and skills needed for effective land stewardship. Community-led mapping and inclusive land use planning, along with the development of equitable benefit-sharing mechanisms, ensure that all community members, particularly women and marginalized groups, have a stake in the restored lands. The establishment of community bylaws and enforcement mechanisms, coupled with sustainable income-generating activities and financing schemes, supports long-term economic viability and environmental health. Continuous community monitoring and adaptive management, alongside advocacy for supportive policies, ensure that the restored lands are managed sustainably, leading to enhanced resilience, improved livelihoods, and greater environmental sustainability..

Activity 1.2.1. Revival or establishment of inclusive community land management committees
This activity will involve either reviving existing committees or forming new ones to ensure they are representative and inclusive of women, youth, people with disabilities, and marginalised groups. A total of 40 committees will be established/revived, with five committees in each district at the sub-county level,

to oversee land restoration and management efforts. Meaningful participation of women will be ensured through ensuring your inclusion in committee leadership roles, as these committees will play a crucial role in planning, implementing, and monitoring land restoration activities, ensuring that the voices and needs of all community members are considered and addressed.

Activity 1.2.2. Build capacity at the district level on sustainable resource management (NRM) for natural resources officers (NROs)
Mercy Corps will be training 16 NROs, with two officers from each of the eight targeted districts, to enhance their knowledge and skills in managing natural resources sustainably. The training program will cover various aspects of NRM, including best practices for land restoration, sustainable agricultural techniques, biodiversity conservation, and climate adaptation strategies. It will also address policy and regulatory frameworks, ensuring that NROs are well-versed in the legal and institutional context of NRM. By strengthening the capacity of NROs, the project aims to improve the effectiveness of district-level resource management, fostering a more coordinated and informed approach to sustainable development.

Activity 1.2.3. Provide training on conflict resolution, inclusive decision-making, and sustainable land management practices
This training - co-led with NROs and the LNGO partner - aims to equip the land management committee members with the skills and knowledge necessary to effectively manage land resources and resolve conflicts that may arise during restoration and management efforts. The training sessions will cover various aspects, including techniques for resolving disputes fairly and constructively, strategies for ensuring inclusive decision-making that takes into account the perspectives of all community members, and best practices for sustainable land management that promote environmental health and community well-being.

Activity 1.2.4 Community-Led Mapping and Inclusive Land Use Planning for Restoration and Sustainable Management
Community-led mapping exercises will be led in collaboration with NROs to identify areas for restoration and sustainable management, as well as sites for community-based commercial activities. These areas could include forested regions, watersheds, rangelands, nurseries, and more. The mapping exercises will integrate Disaster Risk Reduction (DRR) strategies into land use planning by identifying and mapping disaster-prone areas and developing land use practices that mitigate risks such as erosion, flooding, and landslides. This will ensure that land use plans not only promote restoration and sustainable management but also enhance community resilience to natural disasters. Inclusive land use plans will be developed to consider the needs of all community members, including marginalized groups, women, and youth. Where necessary, landscape-level management plans will be facilitated to provide a broader framework for sustainable resource management across larger areas. Throughout the project, two community-led mapping exercises will be conducted—one at the start and one at the end—to track progress and ensure adaptive management. Additionally, eight landscape-level management plans will be developed to guide sustainable practices and restoration efforts.

Activity 1.2.5 Conflict and gender-sensitive approach to land restoration This activity will begin with conducting a comprehensive land tenure analysis to understand the existing specific gender and youth tenure barriers, as well as identifying existing or potential land-related conflicts. This analysis will provide critical insights into the challenges faced by women and youth in accessing and managing land. Based on the findings, gender inclusion strategies will be implemented to address these barriers. These strategies will include establishing clear land use agreements that ensure fair and equitable access to land for women and youth. Additionally, dispute resolution mechanisms will be set up to resolve any land-related conflicts effectively and inclusively. As part of this activity, eight land use agreements will be signed with women and youth, formalizing their rights to use and manage land for restoration and sustainable management purposes. Furthermore, 33 women and 33 youth forest management groups will be established, providing these groups with the support and structure needed to actively participate in forest management and land restoration activities.

Activity 1.2.6. Development of community bylaws and enforcement mechanisms The creation of community-agreed bylaws tailored to the specific needs and conditions of the local environment will be implemented to promote sustainable practices, prevent land degradation, and support restoration efforts. The process will be highly participatory, involving community members in discussions and decision-making to ensure that the bylaws reflect their needs and priorities. Special focus will be given to areas with a history of the highest level of degradation, such as Nwoya, Omworo, and Gulu, where three community bylaws will be established. To ensure compliance with these bylaws, community-led monitoring and enforcement systems will be established. These systems will empower local communities to take an active role in overseeing land management practices and ensuring that agreed-upon rules are followed. Regular monitoring activities and reporting mechanisms will be put in place to track adherence to the bylaws and address any violations promptly.

Activity 1.2.7 Development of equitable benefit-sharing mechanisms A transparent system that considers gender and social equity, ensuring that all community members, especially women and youth, receive a fair share of the benefits, will be established. To achieve this, transparent systems for sharing benefits from restored lands will be developed with input from the community to ensure they are fair and equitable. These systems will prioritize gender and social equity, ensuring that all community members, especially women and youth, receive a fair share of the benefits. Community funds will be established to reinvest in land management and community development projects, providing financial support for ongoing and future sustainable land management initiatives. This will help maintain and enhance the restored areas, creating a sustainable cycle of investment and benefit. Targeted support will be provided to women-led initiatives in sustainable land management. This will include financial resources, training, and technical assistance, empowering women to take a leading role in land restoration and management activities. In addition, activities will be developed to engage youth in land restoration and sustainable agriculture. This will include facilitating access to land for commercial nurseries or other income-generating activities, providing young people with opportunities to participate in and benefit from sustainable land management. Through these efforts, it is expected that 2,500 women and youth will gain access to community funds, enabling them to actively participate in and benefit from sustainable land management initiatives. Additionally, 2,720 hectares of land will be managed by women's and youth groups, representing 40% of the total 6,800 hectares targeted for restoration.

Activity 1.2.8. Provide training on sustainable income-generating activities linked to community restored lands (beekeeping, sustainable harvesting of non-timber forest products, rotational grazing for restored pastureland etc)

5,000 people, including 2,000 women, will be equipped with the skills and knowledge needed to engage in profitable and environmentally sustainable practices, through 30 Mercy-Corps-trained community-based extension agents. The training sessions will cover a variety of sustainable income-generating activities such as beekeeping, sustainable harvesting of non-timber forest products (NTFPs), and rotational grazing for restored pastureland. These activities have been chosen for their potential to generate income while promoting environmental sustainability and enhancing the resilience of restored lands. Participants will learn best practices for each activity, including techniques for maximizing productivity and ensuring sustainability. For instance, in beekeeping, they will learn how to manage hives effectively, harvest honey sustainably, and market their products. In sustainable harvesting of NTFPs, training will focus on identifying valuable forest products, sustainable collection methods, and adding value to these products. For rotational grazing, participants will be taught how to manage livestock in a way that supports pastureland recovery and prevents overgrazing. By providing these trainings, the activity aims to empower community members, particularly women, to take advantage of the economic opportunities presented by restored lands. This will not only improve their livelihoods but also incentivize the ongoing maintenance and protection of these areas.

Activity 1.2.9. Develop and implement financing schemes (credits, VSLAs) to enhance the affordability of inputs for sustainable businesses at scale

This activity focuses on the development and implementation of financing schemes aimed at enhancing the affordability of seedlings for SHFs, institutions and commercial farmers interested in agroforestry and reforestation initiatives. Several financing mechanisms are considered and might be implemented to facilitate access to seedlings and their management (fertilisers, pesticides, herbicides), depending on specific targeting criterias.

- Village Savings and Loan Associations (VSLAs): ACCESS will work with existing VLSAs to promote access to finance to SHFs for seedling purchases and management costs
- Consumer financing options and seasonal plans: ACCESS will establish partnerships with one FSP to provide tailored financing products to commercial farmers to support the purchase or scale-up of tree nurseries or seedlings growing. The partnership will focus on developing or refining existing financial products that meet the unique needs and circumstances of local farmers.

Activity 1.2.10 Establish Community monitoring and adaptive management

One comprehensive monitoring system will be established. This system will be designed to collect data on various aspects of land restoration, such as tree growth, soil health, biodiversity, and the success of sustainable income-generating activities. Community members will be trained to use this system, ensuring that they can accurately record and report on these indicators. Regular community reviews will be conducted to evaluate the collected data and assess the effectiveness of current management strategies. These reviews will provide an opportunity for community members to share their experiences, discuss challenges, and identify best practices. Based on the lessons learned and any changing environmental or socio-economic conditions, management strategies will be adapted to improve outcomes and address any emerging issues.

Activity 1.2.11 Promote Community advocacy and policy engagement for sustainable land management
The activity will involve engaging with local and national authorities to advocate for supportive policies. This will include organizing meetings, workshops, and dialogues where community members and leaders can present their perspectives and advocate for policy changes that benefit their land management practices and livelihoods.
The activity will also facilitate community representation in relevant policy-making forums. By ensuring that community representatives participate in these forums, the project will help bridge the gap between policy-makers and local communities, fostering policies that are more attuned to on-the-ground realities and needs. As part of the advocacy efforts, three policy briefs will be produced and disseminated. These briefs will provide clear, evidence-based recommendations for policy changes and highlight the benefits of community-led sustainable land management practices. They will be shared with policymakers, stakeholders, and the broader public to build support for the proposed changes. Furthermore, the project will organize three national-level policy dialogues and engagements with community representation. These events will provide platforms for direct interaction between community members and national policymakers, allowing for the exchange of ideas and collaborative problem-solving.

Component 2: Reduce deforestation linked to biomass fuel collection and usage for cooking in the program area through establishing a market for climate-resilient, gender-inclusive, and financially - sustainable technologies / Mercy Corps and Pesitho led

This component will focus on reducing the reliance on wood fuel through increasing the adoption on the use of climate resilient technologies such as ECOCA which is designed to provide alternative cooking energy solutions for the vulnerable communities.

ECOCA technology is an appropriate technology for adaptation to climate change through contributing to solving the challenge of environmental degradation caused by deforestation. The technology is designed to use only the natural sun to enable households to cook three meals per day for a family of seven (measured on statistics from June - the month with the lowest solar irradiance in Uganda).

Mercy Corps and Pesitho have piloted ECOCA in the Bidi Bidi refugee settlement in Yumbe district, showing how this technology is greatly accepted and matches traditional cooking behaviour - limiting disruption to established cooking patterns - while being suitable for end-users' staple food, including beans. Aside from the innovative technology, the primary benefit of the ECOCA is its extremely low operating costs which means the product gains competitiveness over time, making it distinct from other improved cookstoves. Virtually non-existent operating costs make this a competitive product that can provide savings for households.

Outcome 1: Increased adoption and utilisation of climate resilient technologies (ECOCAs) by vulnerable community members

During the proposed project, Mercy Corps will work with the Ministry of Energy and Mineral Development, Ministry of Water and Environment, the Uganda National Alliance on Clean Cooking (UNACC), community representatives and existing Village Savings and Loans Associations (VSLAs) and the 167 farmers groups targeted under outcome 1 as entry points for community sensitization and awareness creation around the dangers of biomass fuel for cooking to the current and future generations vis a viz the benefits and importance of climate-smart and alternative energy-saving technologies focusing on

behaviour change communication, including IEC materials, radio broadcasting, demonstrations and community drama to increase the demand, uptake and use of the ECOCA.

Output 2.1 Improved knowledge attitude and practices regarding the benefits and usage of climate resilient technologies such as ECOCAs for cooking, and the dangers of biomass fuel for cooking

This output focuses on enhancing the understanding, attitude, and practices of the target population regarding the benefits and usage of ECOCA for cooking, lighting, and charging, as well as raising awareness about the dangers of biomass fuel for cooking. Mercy Corps and Pesitho will deliver awareness-raising and social behaviour change to the targeted beneficiaries around the benefits of using ECOCA whilst strengthening last mile distribution, retail, and after-sales service networks for the private sector. A last-mile distribution network will be established combined with educational programs, mobile demonstrations, peer-to-peer learning strategies, and social behaviour change campaigns.

Activity 2.1.1 Conduct a Gender Equity and Social Inclusion (GESI) survey in schools and within households on biomass wood fuel consumption.

During the inception phase, Mercy Corps will conduct a household-level and school GESI survey to understand average wood fuel collection, what type of wood is collected (tree species), and usage rates. This assessment will serve two purposes: 1) it will help estimate how much HHs and school kitchen wood consumption contributes to the ongoing deforestation rate; and 2) to track changes in HHs and schools' behaviour when it comes to woody biomass fuel usage due to ECOCA adoption. Furthermore, the project will track changes in the tree coverage in the project area during the baseline and endline assessments. Acknowledging that deforestation is driven by many factors beyond dependence on biomass for cooking household-level fuel consumption, the project seeks to verify if the increased adoption of ECOCA - and subsequent reduction of the need to collect solid fuels - can positively contribute to a reduction in the deforestation rate in the project area. This will also provide some evidence on the rate of deforestation in the target areas which is specific to HH and school fuel use, specifically for cooking, thus supporting Uganda's deforestation targets and activities in their drafting of their NDC.

Additionally, Mercy Corps will carry out a Gender, Equity and Social Inclusion analysis (GESI) and formative study during the first year of the project, to map gender issues and norms and barriers that are related to alternative cooking energy technologies. The GESI analysis will also investigate the energy policy and legal framework, the gendered division of labour, access to and control of resources and decision-making power. The results of the GESI analysis will inform the core gender activities as well as overall gender mainstreaming.

Activity 2.1.2 Potential e-cooking technologies customers are mapped and profiled including SHFs, farmer groups, cooperatives, women and youth

To determine the market size, Mercy Corps will identify and profile potential customers in the targeted locations to better understand their needs, preferences, and energy requirements. To establish trends, preferences, and consumer behaviour in this project, 2 assessments will be conducted to determine the market trends, consumer behaviour, and mapping of existing savings groups, cooperatives, and farmers

groups. Based on the assessments, the extent to which the communities are able to embrace alternative energy cooking solutions as well as their willingness to pay for the ECOCA will be ascertained.

Activity 2.1.3 Establish demonstration sites for alternative energy technologies sensitization at community level

The proposed project will establish mobile demonstration sites/sale points in Agago, Amoru, Gulu, Kitgum Lamwo, Nwoya, Pader and Omworo to showcase the benefits and functioning of the ECOCA. This hands-on approach will increase awareness and understanding, encouraging adoption and promoting a positive attitude towards alternative cooking energy solutions. The project will conduct a social and resource mapping and also consult with women and vulnerable groups to identify/ map points that are more and easily accessible for marginalised groups to establish the demonstration sites. In addition, a gender-based violence (GBV) safety audit will be conducted to identify risks and gaps in these locations and put in place mitigation measures to reduce these risks to women and girls.

Activity 2.1.4 Community sensitization through awareness creation and market activation campaigns and demonstrations of climate smart and energy saving technologies through community-level information groups, radio spot messages and jingles and or IEC materials as incentives

This activity aims to raise awareness, generate interest, and promote the adoption of ECOCA technology by demonstrating its benefits and functionality. The activity will utilise community-level information groups, radio spot messages, jingles, and IEC materials as channels to encourage participation and engagement. Community meetings will be organised to provide information about climate resilient technologies, allowing for interaction and questions from community members. The project will also use local radio stations to air messages and jingles promoting alternative energy cooking technologies, reaching a wider audience materials will be developed and distributed that provide information about the benefits and usage of these technologies.

Activity 2.1.5 Establish behaviour Change, Marketing Events / Market Activation Events via retailers/ retailers Cooperative members

Mercy Corps in collaboration with Pesitho, will organise community market fairs or exhibitions where ECOCA will be showcased. The community members will use this platform to experience and learn about the technology firsthand, hence raising awareness, educating, and promoting the benefits of alternative cooking energy solutions The project will organise events, such as workshops, seminars, or community meetings, to educate retailers and cooperative members about the benefits and features of these technologies and how to effectively promote them to the community. By engaging retailers and cooperative members, the activity seeks to leverage existing networks to reach a wider audience and stimulate demand for these technologies. These exhibitions will be highly advertised to ensure that they get a reasonable audience among the target groups.

Activity 2.1.6 Establish robust Community Accountability and Response Mechanism (CARM) system

To ensure that complaints and grievances are addressed in a timely and effective manner, a robust CARM system will be established by Mercy Corps. These complaints can be related to energy products/ services and responsible business practices that will be promoted by the project. CARM provides a channel for all community members to provide feedback, suggestions, complaints, and concerns, in a manner that is safe, confidential, transparent, and accessible, enabling the implementing agencies to make adaptations to program activities and address any safeguarding concerns in the course of project implementation.

Output 2.2 Increased access to ECOCAs for 1,000 vulnerable HHs and 4 schools

The project proposes to enable a total of 1,000 vulnerable HHs and 4 schools across Acholi subregion to access ECOCA Home3 cook stoves and ECOCA School kitchens, respectively, on a (PayAsYouCook) PayGo basis during the project implementation period. The catalytic grant from Adaptation Fund will unlock the market for the initial production of 1000 ECOCA. Additional sales from the revenue and additional funds from other climate finance streams will further allow sales of ECOCA within the implementation period. During the project's inception period, the initial selection of 1000 households and 4 schools will be carried out through a consultative process involving 4000 district authorities and community leaders. This process will enable identifying the most vulnerable community members to prioritize. Selection criteria will be developed based on the findings of GESI assessments, focusing on the needs and priorities of different genders within the community.

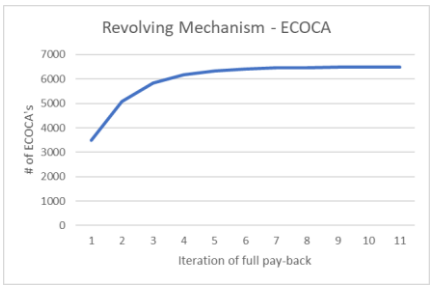
This initiative aims to reduce reliance on biomass for cooking, ultimately reducing deforestation and increasing the adaptive ability of the communities to climate change impacts. Additionally, it seeks to reduce the affordability gap and at the same time reduce indoor air pollution. The institutional ECOCA stoves supplied to schools will be a testing ground to target participants in the future and with additional funding, institutions such as hospitals, restaurants, prisons and barracks (which heavily rely on biomass for cooking) as a step to understanding the market dynamics of urban demand for the institutional stoves. It will also include commissioning and training school staff and cooking personnel. Previous experience shows that Pesitho's PayAsYouCook model bridges the affordability gap by empowering households to pay for the ECOCA in manageable monthly instalments, which can span from 1 to 5 years for the most vulnerable households. This approach is more feasible compared to an upfront payment for the system. The current market price for the full ECOCA package (including cooking base, battery, controls, solar panel, two 6-litre pots, and lights) is $520. Pesitho and EEA have introduced capacity upgrade options, making the ECOCA adaptable to various family structures and cooking needs. The product is available in four variations, with prices ranging from $520 to $850, depending on the battery and/or solar panel capacity.

Although the ECOCA offers good value for money, the upfront cost remains prohibitive for the most vulnerable households. Under this project, a subsidy of $80 will be provided to 1,000 vulnerable families, reducing the initial deposit and requiring only a down payment of $16. Additionally, the project will leverage the World Bank-funded government subsidy under the Energy Access Scale Up (EASP), which provides a $150 subsidy. Together, these subsidies reduce the cost of the ECOCA to $290, enabling the targeted 1,000 households to pay monthly instalments of $16 over 24 months to fully acquire the ECOCA.

The initial deposit and monthly instalments paid by participants will create a revolving fund from which the project implementers will continue to avail more ECOCAs to the project area and surrounding districts

even after the project period. Therefore, the project will solve the affordability gap not only for the participants, but also for the ECOCA producers as Pesitho are not in position to produce the technology and ECOCA East Africa (EEA) do not have the means to distribute it and finance the entire value chain.

Revolving Funds Mechanism				
Baseline		*$ 2,142,000.00*	*3500*	*3500*
Iteration	1	$ 1,008,000	1581	5081
	2	$ 474,353	744	5825
	3	$ 223,225	350	6175
	4	$ 105,047	165	6340
	5	$ 49,434	78	6418
	6	$ 23,263	36	6454
	7	$ 10,947	17	6471
	8	$ 5,152	8	6479
	9	$ 2,424	4	6483
	10	$ 1,141	2	6485
	11	$ 537	1	6486
	12	$ 253	0	6486



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As the project will allow the supply of at least 1,000 ECOCA units in Acholi sub-region, and enable payment on credit via PAYGo, the incoming payments from all the clients will be allocated in a revolving mechanism to bring more ECOCA's to Acholi Sub region. The intention is at least 50% revolving of funds such that 2 ECOCA units sold and fully repaid equals 1 new ECOCA on credit to another family. However the main objective is to reach those families most vulnerable to climate change, as such a lower recovery rate will be achieved to cater for a potential subsidy scheme. For this project a ratio of 0.85 is assumed achievable. In this way, the funding from the Adaptation fund creates a funnel to make a much broader impact within and beyond the project timeline. The continuity is further supported by the enabling environment created, as all necessary structures are built and available, due to the funding given in this project. As a result, additional 2986 ECOCA's can be financed by this project, bringing the total number of households reached up to 6,486.

We believe that the funding from the Adaptation Fund will generate affordability and access to the ECOCA for more than 150,000 households over the next 10 years (medium case) due to the revolving mechanism and support structures established. Based on a worst, normal and best case scenario, the predictions for market up-take as a result of this project over the next 10 years are as the table below.

Year	Projection of Market Growth (HH's) 20% average growth per annum	Projection of Market Growth (HH's) 60% average growth per annum	Projection of Market Growth (HH's) 100% average growth per annum	Means of funding
2025	1,500	1,500	1,000	Adaptation Fund
2026	2,000	2,000	2,000	Adaptation Fund
2027	4,200	5,600	6,000	Revovleving/Carbon/Export finance
2028	5,040	8,960	12,000	Revovleving/Carbon/Export finance
2029	6,048	14,336	24,000	Revovleving/Carbon/Export finance
2030	7,258	22,938	48,000	Revovleving/Carbon/Export finance
2031	8,709	36,700	96,000	Revovleving/Carbon/Export finance
2032	10,451	58,720	192,000	Revovleving/Carbon/Export finance
2033	12,541	93,952	384,000	Revovleving/Carbon/Export finance
2034	15,049	150,324	768,000	Revovleving/Carbon/Export finance

During community consultations conducted in Gulu, the women interviewed confirmed that they spend an average of 80,000 UGX (USD 21) per month on charcoal to cook meals for their family, which they find costly. They also reported being responsible for paying for energy at household level. Those who use firewood, expressed that they spend over 5 hours a day collecting firewood and indicated that with a flexible payment method, they could commit to paying for the ECOCA technology. A detailed willingness to pay assessment on the Acholi region will be conducted at the inception of the project to enable ECOCA design more tailored financing options.

Activity 2.2.1 Establish ECOCA East Africa (EEA) SMC Ltd local production /assembly centre in Gulu

To further the potential for scalability of the business model, this project will support continued development of the EEA supply chain to embed the ECOCA into the local market, helping to reduce costs. To achieve this, the project will include the establishment of a production/assembly centre in Gulu. Mercy Corps will set up an assembly centre in Gulu with Pesitho. The assembly centre will serve as a production hub for ECOCA solar cookstoves for the project area, managed by EEA. The assembly centre will also act as a central service point for the ECOCAs after the project serving the entire Acholi sub-region. Based on experiences from Bidi Bidi, the local establishment of an assembly centre gives very high trust in the organisation and product. The visibility of locally known staff advocating, selling and servicing ECOCA's has shown to generate high trust and satisfaction for purchasing an ECOCA.

To establish the assembly centre, a container solution will be adopted. A minimum of two 40ft containers will be purchased, modified and partitioned to create the assembly section, storage section, battery charging section and a sales office. A container solution is cheaper and faster compared to setting up or hiring larger office space given the short period for project implementation. Project stakeholders will agree where the assembly centre is to be established but in close proximity with the community since it will be community driven.

The staffing strategy for the local production facility in Gulu will prioritise the recruitment of young individuals with a strong interest in technology. Preference will be given to achieving a balanced gender mix, and efforts will be made to ensure that one to two roles are filled by individuals with disabilities. Identification and interviews with potential candidates will be done in close collaboration between project partners, and by leveraging the reach of Mercy Corps presence and local knowledge in the area.

Prior to establishment of the local production centre, a field trip will be arranged to identify and visit potential sites. Pesitho is primarily looking for a rental agreement to minimise the risks of binding capital to one particular location before a certain period of experience is gained in the area. Mercy Corps and Pesitho will collaborate to identify possible established locations with sufficient housing and warehousing for the local assembly. Included in the local assembly installation cost is a fully driven off-grid electrical system to power the facility, which also lowers the requirement for grid electricity and high electricity tariffs.

Activity 2.2.2 Provide technical assistance (TA) to ECOCA ltd to develop a business model and go-to-market strategy identifying viable customer and market segments

Technical assistance will be provided to support ECOCA East Africa, to identify and understand the different market segments that exist within the targeted region. By segmenting the market, ECOCA East Africa will be able to customise their marketing strategies and messages to effectively reach each segment, maximising their impact and market penetration. The technical assistance will support the ECOCA East Africa to create a comprehensive and sustainable business model that outlines key components of their operations, revenue streams, cost structures, distribution channels, and partnerships to forecast and ensure the financial viability and long-term success of the alternative energy cooking initiatives. The TA will also include creating a go-to-market strategy for ECOCA East Africa to define the approach and tactics for entering the market and reaching potential customers while deciding on the appropriate marketing channels, messaging, sales techniques, and distribution methods.

Activity 2.2. 3 Identification, Recruitment and Training of Last Mile Distribution Agents that will take part in the Local Retailer Network for ECOCAs, including women and youth

In parallel, and following the initial market assessment, the program will focus on group formalisation and market activation by strengthening retail and distribution networks including repair and maintenance services. Capitalising on numerous Village Savings and Loan Associations (VSLAs) and farmers groups, with a specific emphasis on engaging youth and women, the program will establish and expand a local Retailer Network for ECOCA. 24 retailers (12 women and 12 men) will undergo training provided by EEA to serve as sales agents and technicians for the product. The process of refining and codifying the supply chain is expected to yield a 15% drop in the market price within two years. Furthermore, Mercy Corps will build the capacity of VSLAs and farmers groups, and existing retail networks to strengthen their business skills - as this has emerged as an area of weakness to support scale and uptake of the ECOCA.

The strategy for enabling sales through the retailer network will be two-fold. First and foremost prioritisation will be given to activate local women as retailers. The first awareness raising will be through cooking workshops arranged by the women. A number of locals will be invited to these cooking workshops, to be introduced to the ECOCA and make food on the ECOCA. These workshops will be

taught by the retailers. The second sales strategy will be regular door-to-door and mouth-to-mouth sales. Sales of ECOCA's will be motivated through commission.

Activity 2.2.4 Identification, recruitment and training of technicians for repairs and after sale services, including women and youth

Mercy Corps will help EEA identify sixteen (16) skilled service technicians who can effectively install, maintain and repair the ECOCA. The selected technicians will undergo comprehensive training on the installation, maintenance and repair of the ECOCA technology. This includes equipping them with the necessary knowledge and skills to handle different components of the ECOCA and troubleshoot any issues that may arise. Pesitho and EEA will train local youth in the assembly, handling, usage, repair, and maintenance of the ECOCAs. From experience in Bidi Bidi settlement, Pesitho/EEA have noticed that women flourish more with the Cooking Advisory role and as such have preserved this strictly to women as they not only enjoy cooking demonstrations but are also more accepted by society when they advise on cooking and handling of cooking technologies. The skills acquired by the locals will reduce the costs of hiring experts and the risk of abandoning the technology by creating a sense of ownership and inclusiveness among the technicians. The technicians trained during the project will earn a commission based on units assembled and will continue to offer repair and maintenance services to project participants, ensuring a long lasting and sustainable maintenance of jobs.

Activity 2.2.5 Establish a robust supply chain management system for alternative energy cooking products, ensuring reliable and timely distribution to the selected retailers and community-based agents

Mercy Corps will support the EEA to create a well-structured and efficient supply chain management system for alternative clean energy products to ensure retailers and community-based agents have a steady and reliable supply of alternative cooking energy products to meet customer demand. The establishment of a robust supply chain management system will play a crucial role in the successful implementation and scalability of the ECOCA technology. It will help streamline operations, reduce stockouts, minimise delivery delays, and ensure that the selected retailers and community-base agents have the necessary inventory to meet customer needs.

The assembly centre to be established under *activity 2.2.1* will serve as a key function in the supply chain to the last mile distribution across Acholi sub-region and it will give a landing point for stock of new ECOCA units and spare parts, as well as serving as a collection point for potential e-waste like used ECOCA batteries.

Activity 2.2.6 Ensure proper-disposal of e-waste in ACCESS assembly service

The local assembly centre to be established under *activity 2.2.1* will also serve as a collection point for potential e-waste like used ECOCA batteries. These centres will provide convenient places for people to safely dispose of their electronic waste, reducing the environmental impact.

To encourage social behaviour change and raise public awareness about the importance of proper e-waste disposal, Mercy Corps and Pesitho will sensitise the cookstove users to return worn-out parts to the assembly centre for repair and reuse or safe disposal for those parts that cannot be brought back to

their useful life. Mercy Corps will conduct quarterly (four campaigns annually) targeted campaigns, to sensitise the public on the environmental and health hazards associated with incorrect disposal methods. By promoting responsible e-waste disposal practices, the project encourages individuals and communities to take action in the management of the environment. This is also in line with the Uganda E-waste policy that acknowledges the need for promoting efficient handling and sustainable management of e- waste, hence safeguarding the country's human life and environment

Mercy Corps will also collaborate with two local businesses, such as electronics retailers, to promote proper e-waste management, to become e-waste collection points, and to provide them with incentives for participating in the program.

Activity 2.2.7 Identify, develop and implement financing schemes (PAYGO, subsidies, VSLAs) to enhance the affordability of the ECOCAs

Mercy Corps will identify and partner with one FSP to develop innovative payment options like PAYGO, PAYC (Pay as You Cook) plans, and other flexible payment plans for ECOCA. With the support of the Ugandan Government, Pesitho will be able to offer the end user a "Lease-To-Own" model dubbed "Pay As You Cook (PAYC)" for all four variants with a cost between USD 16 per month. As such, the selected vulnerable HHs will be offered the products with a down payment of $16, and a monthly lease of USD 16 depending on the variation chosen.[30] This means the energy savings per month increase the monthly lease of the ECOCA and improves the household economy already from the first day of use. It also means a breakeven of the investment can be achieved fast, even with considering cost-of-finance. Depending on the baseline spending of the HH, the following table shows savings and breakeven over 10 years of use of the ECOCA:

[30] From willingness-to-pay studies conducted on the ECOCA, the study in Rakai shows an average energy saving (cooking + access to energy for charging and lights) of $33 per month per HH. With the Lease-To-Own model, the HHs will experience an improved economy already after a few months of using the ECOCA.

ECOCA Price Sensitivity analysis

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ECOCA Costs and Savings	
Replacement factor	80%
Cost of ECOCA	$ 700
Energy savings (month)	$ 15.0
Subsidy	$ -
Rent-To-Own financing	
Interest rate p.a.	*10.0%*
Period (years)	*5*
Down-payment	*$ 80.00*
Cost of finance p.a.	*$ 39.55*
Total Payment	*$ 897.77*
Monthly Payment	*$ 14.96*

Baseline	With ECOCA										Breakeven
Fuel Expenditures (month)	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Years
$ 2	$ -504	$ -308	$ -112	$ 4	$ 80	$ 276	$ 472	$ 588	$ 784	$ 980	4.5
$ 4	$ -485	$ -270	$ -55	$ 80	$ 175	$ 390	$ 605	$ 740	$ 955	$ 1,170	4.1
$ 6	$ -466	$ -232	$ 2	$ 156	$ 270	$ 504	$ 738	$ 892	$ 1,126	$ 1,360	3.8
$ 8	$ -446	$ -192	$ 62	$ 236	$ 370	$ 624	$ 878	$ 1,052	$ 1,306	$ 1,560	3.5
$ 10	$ -427	$ -154	$ 119	$ 312	$ 465	$ 738	$ 1,011	$ 1,204	$ 1,477	$ 1,750	3.3
$ 12	$ -408	$ -116	$ 176	$ 388	$ 560	$ 852	$ 1,144	$ 1,356	$ 1,648	$ 1,940	3.0
$ 14	$ -389	$ -78	$ 233	$ 464	$ 655	$ 966	$ 1,277	$ 1,508	$ 1,819	$ 2,130	2.9
$ 16	$ -370	$ -40	$ 290	$ 540	$ 750	$ 1,080	$ 1,410	$ 1,660	$ 1,990	$ 2,320	2.7
$ 18	$ -350	$ -	$ 350	$ 620	$ 850	$ 1,200	$ 1,550	$ 1,820	$ 2,170	$ 2,520	2.5
$ 20	$ -331	$ 38	$ 407	$ 696	$ 945	$ 1,314	$ 1,683	$ 1,972	$ 2,341	$ 2,710	2.4
$ 22	$ -312	$ 76	$ 464	$ 772	$ 1,040	$ 1,428	$ 1,816	$ 2,124	$ 2,512	$ 2,900	2.3
$ 24	$ -293	$ 114	$ 521	$ 848	$ 1,135	$ 1,542	$ 1,949	$ 2,276	$ 2,683	$ 3,090	2.2
$ 26	$ -274	$ 152	$ 578	$ 924	$ 1,230	$ 1,656	$ 2,082	$ 2,428	$ 2,854	$ 3,280	2.1
$ 28	$ -254	$ 192	$ 638	$ 1,004	$ 1,330	$ 1,776	$ 2,222	$ 2,588	$ 3,034	$ 3,480	2.0
$ 30	$ -235	$ 230	$ 695	$ 1,080	$ 1,425	$ 1,890	$ 2,355	$ 2,740	$ 3,205	$ 3,670	1.9
$ 32	$ -216	$ 268	$ 752	$ 1,156	$ 1,520	$ 2,004	$ 2,488	$ 2,892	$ 3,376	$ 3,860	1.8
$ 34	$ -197	$ 306	$ 809	$ 1,232	$ 1,615	$ 2,118	$ 2,621	$ 3,044	$ 3,547	$ 4,050	1.8
$ 36	$ -178	$ 344	$ 866	$ 1,308	$ 1,710	$ 2,232	$ 2,754	$ 3,196	$ 3,718	$ 4,240	1.7
$ 38	$ -158	$ 384	$ 926	$ 1,388	$ 1,810	$ 2,352	$ 2,894	$ 3,356	$ 3,898	$ 4,440	1.6
$ 40	$ -139	$ 422	$ 983	$ 1,464	$ 1,905	$ 2,466	$ 3,027	$ 3,508	$ 4,069	$ 4,630	1.6
$ 42	$ -120	$ 460	$ 1,040	$ 1,540	$ 2,000	$ 2,580	$ 3,160	$ 3,660	$ 4,240	$ 4,820	1.5
$ 44	$ -101	$ 498	$ 1,097	$ 1,616	$ 2,095	$ 2,694	$ 3,293	$ 3,812	$ 4,411	$ 5,010	1.5
$ 46	$ -82	$ 536	$ 1,154	$ 1,692	$ 2,190	$ 2,808	$ 3,426	$ 3,964	$ 4,582	$ 5,200	1.4
$ 48	$ -62	$ 576	$ 1,214	$ 1,772	$ 2,290	$ 2,928	$ 3,566	$ 4,124	$ 4,762	$ 5,400	1.4
$ 50	$ -43	$ 614	$ 1,271	$ 1,848	$ 2,385	$ 3,042	$ 3,699	$ 4,276	$ 4,933	$ 5,590	1.4
Sparepart costs (incl.)				$ 80	$ 120			$ 80			

PESITHO

Financing mechanisms to be considered:

1. **Pay-as-you-cook (PAYC) model;** The pay-as-you-cook (PAYC) model, will be tailored to suit households' ability to pay. This PAYC model will increase the affordability of the ECOCA ensuring equitable access to the product for vulnerable community members who cannot afford to pay upfront, whilst also enabling Pesitho/ECOCA to gather further market data on PAYGo solutions. In 2022, through a partnership with Cisco and the Elrha Journey 2 Scale (J2S) grant, Pesitho and Mercy Corps introduced an innovative business model, testing the PAYC in Yumbe, West-Nile region. This included technical development of the ECOCA PAYGo technology, and sales using the full PAYGo model in Bidi Bidi. As such the ECOCA is today equipped with the PAYGo technology enabling this lease-to-own model where customers can pay and activate the ECOCA via their mobile money.

Below the ECOCA PAYGo payment plans for customers that wish to finance their ECOCA set:

				Monthly Payment					
ECOCA PAYGo Plans	**Market price**	**Down Payment**	**Interest rate**	**Financing Period (months)**					
Variation	USD	USD	USD	0.5	1	2	3	4	5
ECOCA Home3 1b1p	$ 530	$ 80	10%	$ 76.56	$ 39.24	$ 20.59	$ 14.40	$ 11.32	$ 9.48
ECOCA Home3 1b2p	$ 680	$ 80	10%	$ 102.09	$ 52.31	$ 27.46	$ 19.20	$ 15.09	$ 12.64
ECOCA Home3 2b1p	$ 780	$ 80	10%	$ 119.10	$ 61.03	$ 32.03	$ 22.40	$ 17.61	$ 14.75
ECOCA Home3 2b2p	$ 850	$ 80	10%	$ 131.01	$ 67.14	$ 35.24	$ 24.64	$ 19.37	$ 16.23

The household will own the system after 0-3 years as the full price has been paid off with the down payment and the monthly/seasonal payments. During the leasing period, the end-user will gain additional benefits such as 5 years of warranty and maintenance support with local support, battery takeback with discount offers on a new battery, exclusive deals and financing for other electric appliances, and PAYGo-enabled payments with seasonal allowances (yearly payback threshold). The lifespan of solar products is usually determined by battery and solar panel lifespan. The industry standard and production warranty for most solar panels is 25-30 years,[31] lithium iron phosphate batteries can last 5-6 years or 2,000 - 5,000 charge/discharge cycles[32] and at 5-6 years, the battery capacity reduces to about 80%, therefore cooks much slower. It is expected that in 5-6 years, the ECOCA customer will return the battery to EEA for a take back and then purchase a new battery at a discount. This extends the household's cooking capability for an additional 5-6 years. The process is repeated until the solar panel reaches the end of its life cycle, at which point EEA/Pesitho will dispose of it and the household can purchase a new one from the same company. The rest of the ECOCA components are made from the highest quality material like stainless steel and polished iron but should they deteriorate from natural wear and tear or negligence, Pesitho/EEA offers them as spare parts for sale.

Mercy Corps' prior work in Uganda has shown us that PAYGo technologies enable households and small businesses across refugee and host communities to access and eventually own high-quality, reliable, and sustainable energy products by making small regular payments via their mobile money. This model also enables local private sector actors (energy providers) to enter new markets as they can design shorter-term repayment plans to address the risk of flight. The payment scheme will vary based on the average household income with low-income HHs receiving highly subsidised ECOCA stoves and middle-income ones with neither or minimal subsidies. All funds that are coming back from user repayments will be used for reinvestment into the expansion of the model to cover other households and other locations. This revolving mechanism will be designed to continue even after the project has ended.

Climate Financing: ECOCA business model will leverage other climate financing streams to increase end user affordability and extend the warranty mechanism offered to clients. During the proposed project, Pesitho has already identified potential climate financing opportunities to engage in the establishment of a subsidy programme Depending on the success of the subsidy programme an extended warranty will be given to the users from one year up to five years. It should be noted that the1000 households under the ACCESS project will get the initial 3 years warranty as a benefit of the program. By generating some revenue from the different climate financing mechanisms, the users will be able to receive continuous warranty services (repair and maintenance costs of the ECOCA) while contributing to climate change resilience. If the users extend the lifetime of the ECOCA for another five years, Pesitho can also extend

[31] End-of-Life Management for Solar Photovoltaics

[32] Introduction to LiFePO4 Marine Batteries

the warranty for the same period, making users have access to warranty services for a total of 10 years. During this period, the ECOCA only requires a change of battery, which the user will be able to afford from the extensive savings generated, and the high potential for additional income generated by the user. In the unlikely event that the climate financing mechanisms will not succeed, Pesitho will still ensure the 5 years repair and maintenance, as the local production is an invested permanent solution, where Pesitho will continue operation for a sustainable business beyond the project end.

Comparison of the ECOCA to Electric Cooking Technologyfor alternative cooking energy technologies/start-ups in East-Africa:

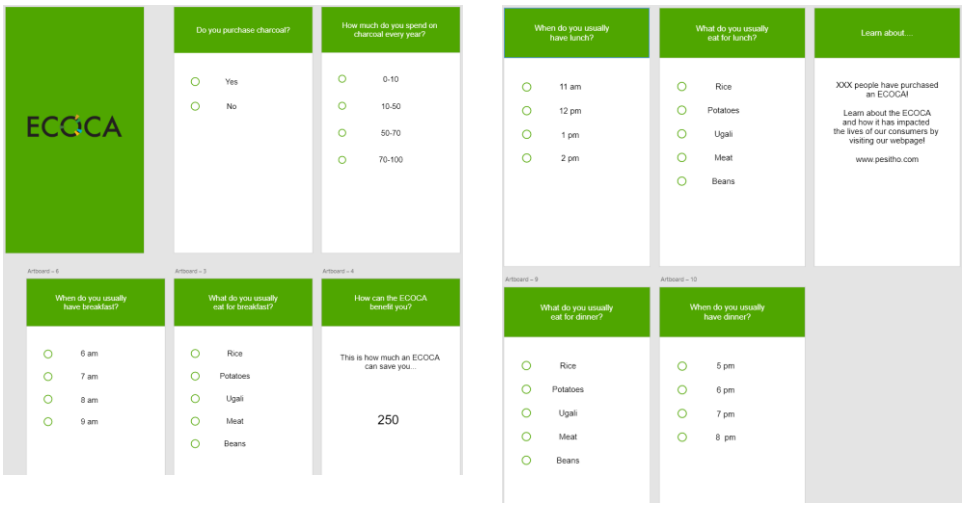
It is important to highlight that ECOCA is a ground-breaking technology, the first off-grid solar-electric cookstove and solar home system designed for Uganda and African cooking in general. There still isn't a fairly comparable technology as the available alternative cooking energy technologies are either improved biomass cookstoves or recently, the electric pressure cooker which is a plug and play gadget and not a stand-alone system. Nonetheless, we will attempt to compare the ECOCA to the electric pressure cooker. This comparison is based on the presumption that the HH is off-grid and is either accessing the ECOCA solar-electric cooking and lighting system or the grid and a 6 litre electric pressure cooker.

ECOCA	PRESSURE COOKER
Stand alone, versatile solar electric system (power generation & storage with cooking, lighting and charging gadgets)	Plug and play electric gadget (cooking pot (Dependent on power source)
Down payment $80 to access ECOCA system per HH (cost of financing)	Down payment of $52 by HH, $65 subsidy by government a credit of $70 to access electricity per HH where no pole is required (wireless split metre)[33] + $11 inspection fee Where one electric pole is required, connection costs range between $620 - $712 before survey costs. Connection fees are much higher where more than one pole is required and this is the case for 70% of the Ugandan population living off-grid
Monthly instalment on whole system (dependent on ECOCA variation chosen) over 0- 5 years	15% of HH's energy bill payable over 8 years)[34] + $1 for a pressure cooker per month (6 litre pressure cooker of $65 cost payable over 5.4 years)
No monthly energy bills after the payment period (0-5 years	Continuous monthly energy bills

Pesitho is currently developing a digital sales tool/APP for trained sales force as a part of the strategy to attract consumers. The app (shown in the picture below), will be deployed on Android phones and tablets giving the sales people a calculation and comparison tool, to convince the consumers about the added value and benefit of purchasing the ECOCA over using current cooking practice.

[33] https://www.era.go.ug/index.php/media-centre/what-s-new/452-the-hybrid-electricity-customer-connection-credit-framework-what-you-need-to-know-2

[34] Ibid 36



The input in this app will be similar to the table above showing the savings over time by switching from current cooking technology to the ECOCA. In this case the salespeople can input variables like; number of persons in the household, current cooking technologies, current expenditures of fuel, current expenditures for electricity etc, including cost of finance. The output, and hereby the selling arguments, will be the savings per day, per week, per month and per year by switching to the ECOCA system, including all the benefits the system provides tailored to the particular household. This tool will be deployed as a component in this ACCESS project.

Comparison of the ECOCA Business model to existing PayGo options for alternative cooking energy technologies/start-ups in East-Africa:

Aspect	ECOCA	MKOPA Solar	Burn Manufacturing	Biolite	Eco zoom
Business model	clean cookstoves on a PAYG basis. Customers pay an initial deposit followed by regular instalments, making the cookstove accessible to low-income households.	Solar home systems and cooking solutions offered on a PAYG basis. Customers make an initial deposit followed by daily, weekly, or monthly payments through mobile money platforms.	Energy-efficient cookstoves and offered on a PAYG basis. Customers pay an initial deposit and then make regular payments over time.	Offers Clean cooking stoves with PAYGO financing options	Clean cookstoves with PAYG options, allowing customers to pay in small instalments.
Regions of Operation	Uganda, Kenya, Tanzania	Kenya, Uganda, Tanzania, Nigeria	Kenya, Uganda, Rwanda, Tanzania	Kenya, Uganda, Tanzania	Kenya, Uganda, Tanzania, Rwanda
Target customers	Rural and peri-urban low-income households, with a focus on the most vulnerable segments	Rural and peri-urban low-income households	Rural and urban low-income households	Rural and off-grid households	Rural and urban low-income households
strengths	Flexible payment plans that span from 1 to 5 years. Customizable product options with capacity upgrades. Partnerships for subsidies to lower initial costs.	Established brand, mobile money integration	High-quality products, sustainability focus	Innovative, multifunctional products	Affordable designs, health improvement focus

weaknesses	Initial deposit may still be a barrier for the poorest households.	Initial deposit barrier, high acquisition cost	Distribution challenges, traditional competition	Higher product costs, need for robust support	Funding dependency, scaling challenges

ECOCA's flexible payment plans and customizable options stand out, particularly with their focus on leveraging subsidies to reduce initial costs, making them a strong competitor in the market for clean cooking solutions in the vulnerable communities.

Activity 2.2.8 Set up a revolving mechanism dedicated for capital flows to enable ECOCA model expansion

This activity focuses on establishing a revolving mechanism dedicated to attracting capital flows to facilitate the expansion of the ECOCA model. The mechanism will provide financial support to manufacturers and distributors, ensuring a continuous and steady supply of ECOCAs to meet market demand and scale up the adoption of clean cooking technologies. The project will develop a framework for the revolving mechanism, outlining its objectives, governance structure, and operational guidelines. The sale of the first 1000 ECOCAs will act as the initial capital to kickstart the revolving mechanism, which will be used to provide working capital loans and production costs to manufacturers and distributors. The project will explore partnerships with financial institutions, impact investors, and development agencies to establish partnerships and secure additional funding for the revolving mechanism. It is expected that the revolving mechanism will be scaled up by reinvesting repaid loans and attracting additional capital to support the continuous growth of the ECOCA model.

Activity 2.2.9 Assessment, training and development of code of conduct for responsible business conduct (RBC) for PSAs

Mercy Corps will conduct an assessment on responsible business conduct to understand and benchmark the existing practices and suggest improvements. All project partners will undergo an initial risk assessment using the RBC risk screening tool (Step I), which will be followed by an in-depth Due Diligence process MC standard due diligence process aims to assess: i) Governance and Organisational Capacity; ii) Financial Systems; iii) General Internal Controls; iv) Documentation; v) Banking and Cash Management; v) Personnel and Payroll; vi) Procurement; vii) Asset Management; and viii) Warehouse/Store Management. These two initial steps will help formulate an initial RBC Action plan (Step III) identifying the major risks to be addressed.

The project led by Mercy Corps will develop or adapt a comprehensive framework that combines a grievance mechanism with a code of conduct, promoting ethical behaviour, accountability, and responsiveness to concerns and grievances. The framework will outline the principles and standards businesses should follow to promote RBC for all the project partners, especially the ESCOs and FSPs. This framework will shape the way of business operations to minimise the adverse impacts of their operations and supply chains, while providing an avenue for the resolution of all complaints and will be closely tied to the project CARM system.

Mercy Corps will train project partners on RBC practices and develop/adopt a code of conduct that outlines the principles and standards that businesses should follow to promote RBC. Following the assessment the project will aim to carry out two (2) training sessions, on the expected responsible business practice for all partners participating in the project activities, this will build trust in the businesses participating in this project at the community level. Throughout the project, the commercial partners will be supported in establishing appropriate mechanisms to report and monitor their RBC compliance.

Component 3: Ensure efficient and effective Project Management and continuous learning and adaptation / Mercy Corps led

Outcome 3. Ensure robust learning, knowledge management, and dissemination framework Improved

ACCESS focuses on ensuring efficient and effective project management as the backbone of successful implementation and on continuous learning, both to respond effectively to potential changing conditions and thereby ensure project success, as well as for knowledge transfer across stakeholders. Under this component Mercy Corps, the local partner and Pesitho will set up a project management and knowledge management structure to ensure lessons learned on Components 1 and 2 throughout the entire project duration.

Output 3.1 Relevant knowledge products developed and disseminated to key stakeholders

Under this output the project management unit, in collaboration with Mercy Corps' Technical Support Unit-Energy Access, will consolidate and disseminate the information generated from the project.

Activity 3.1.1 Set up a consortium project management and knowledge management structure

Mercy Corps, Pesitho and the local partner will set up a project management unit (PMU) with management representatives of each of the partners dedicated to ensuring project quality, external stakeholders engagement and alignment with agencies and donor requirements.

The ACCESS team will hold internal program review meetings every quarter within the PMUto track progress and document learnings. By convening regular scheduled review sessions, the management representatives of each of the partners (Mercy Corps, Pesitho and the LNGO) will assess achievements, challenges, and areas for improvement. The documented learnings will serve as valuable resources for informing decision-making and ACCESS adaptation and learning strategy.

ACCESS will develop and implement a learning agenda that identifies key research and learning questions to be addressed through robust M&E and an emphasis on learning from active experimentation. Throughout the implementation, the project team will identify and document key lessons and best practice.

Activity 3.1.2 Conduct an assessment of the existing policy landscape in refugee hosting areas related to access to energy products and services.

To address the unique policy challenges facing the vulnerable communities, especially the most vulnerable as women, youth and people with disabilities (PWDs), in accessing energy products and services, ACCESS will carry out a detailed assessment of the existing policies and policy frameworks on energy access, products, and services to identify gaps and solutions to address these gaps.

Activity 3.1.3 Disseminate evidence-based recommendations for policy reform and implementation to key stakeholders in the reforestation and agroforestry field

ACCESS will share knowledge products, such as reports, guidelines, best practices, and policy briefs, to key decision-makers, government officials, organisations, farmers, and other stakeholders involved in reforestation and agroforestry initiatives. These knowledge products will help provide research-based suggestions for improving policies and practices related to reforestation and agroforestry with important stakeholders. By disseminating evidence-based recommendations, ACCESS will seek to influence policy reform and implementation processes, foster informed decision-making, and promote sustainable practices in the reforestation and agroforestry sectors.

Activity 3.1.4 Coordinate national-level energy & environment working group, and organize national policy dialogues

Under this activity Mercy Corps will actively participate and support the coordination of 18 national-level energy and environment working group coordination meetings amongst the various stakeholders in the energy sector. ACCESS will also organize national-level policy dialogues and engagements with multiple stakeholders on issues affecting access to energy among the communities. ACCESS will regularly attend the national Working Group on Energy and Environment (WorkGrEEn) meetings to share information, discuss lessons learned and finding as well as opportunities for synergies within Acholi sub-region. In addition, ACCESS will support the Ministry of Energy and Mineral development to convene the annual Renewable Energy conference, energy week and the renewable energy platform will use these as platforms policy influence and building networks energy policy and practice of Ministry of Energy Mineral Development.

Activity 3.1.5 Produce learning products to advocate toward key stakeholders based on project lessons learned

ACCESS will identify and document key lessons, success, and failure factors and produce briefs for policy and decision-makers, project developers, funding agencies, and the private sector. Under the lead of Mercy Corps, the project will identify and document key lessons, successes, and failures and produce 6 briefs for policy and decision-makers, project developers, funding agencies, and the private sector. The project will aim to develop an open-source blueprint for the sector capturing our learnings in supporting the commercial partners to test, pilot, and iterate on promising go-to-market strategies to reach Acholi sub region with alternative solar technologies and to deploy proven approaches at scale.

ACCESS will develop an open-source blueprint for the sector, which will include guidelines, best practices, methodologies, or other resources intended to support the uptake of the ECOCAs technology as a revolutionary way of cooking, in alignment with ACCESS learning agenda.

The project will share its lessons learned through at least three national learning events, two regional learning events, and deliver two learning reports per implementing year.

Project learnings, updates and success stories will also be systematically shared through the Livelihoods & Resilience Sector Working group and in the Environment & Energy Technical Working Group, where Mercy Corps actively participates both at national and regional level.

B. Describe how the project /programme would promote new and innovative solutions to climate change adaptation, such as new approaches, technologies, and mechanisms.

The ACCESS project's innovative EbA approach integrates market-based strategies, conflict-sensitive climate adaptation, and behaviour change initiatives. This nexus approach addresses the complex interconnections between climate change and conflict while also focusing on community attitudes and market dynamics.

Mercy Corps recognizes climate change as a 'risk multiplier' that can exacerbate displacement, conflict, and resource access issues, particularly in fragile regions like Acholi. The market-driven approach ensures scalability and sustainability by fostering local entrepreneurship and creating economic opportunities through agroforestry product value chains and ecosystem services. It promotes climate-resilient technologies like solar-powered ECOCA cookstoves through subsidies and incentives.

The project's conflict-sensitive adaptation addresses potential land-related conflicts and ensures inclusive benefits for all community members. It incorporates Mercy Corps' integrated approach to climate-conflict risks, focusing on how climate affects livelihoods, displacement/migration, and peace. The program will also take the initial idea of providing affordable and accessible alternative cooking to refugee and host communities and now tailor that concept to address the climate change risks of Acholi sub-region, to wit; droughts, floods, heavy storms, rising temperatures and deforestation. This is aimed at having this climate smart technology's multifaceted benefits explored to go beyond reducing biomass for cooking to enabling vulnerable communities like the Acholi absorb its climate risks better and become more resilient.

A key innovation is the focus on changing community attitudes towards forests, shifting perceptions from exploitation to sustainable management through education, awareness campaigns, and demonstrating economic benefits. This behaviour change component is critical for long-term success, fostering community ownership and stewardship.

C. Describe how the project/programme aims to roll out successful innovative adaptation practices, tools, and technologies and/or describe how the project aims to scale up viable innovative adaptation practices, tools, and technologies.

The ACCESS project aims to scale up and roll out successful innovative adaptation practices, tools, and technologies through a comprehensive and integrated approach. Central to this initiative is the restoration of degraded landscapes and the promotion of agroforestry practices. By focusing on reforestation and the use of native and adapted tree species, the project enhances biodiversity and improves ecosystem services, providing natural buffers against climate-related disasters. This approach not only addresses environmental degradation but also supports local communities in adapting to the impacts of climate change. In addition to ecosystem restoration, the project will develop markets for tree products and climate-resilient technologies, providing economic incentives for conservation and sustainable land management. This market-based approach ensures that the adoption of innovative practices is economically viable for local communities, promoting long-term sustainability. Capacity building and community engagement are critical components of the project. Training and education will be provided to local communities on sustainable ecosystem management practices and the benefits of reforestation.

Engaging local communities, including marginalized and vulnerable groups, in planning and implementation will ensure equitable benefit-sharing and foster community buy-in, which is essential for the success of these adaptation practices. Regular monitoring, including by the community, will be implemented to ensure that adaptation practices are effective and do not have unintended negative consequences. This data-driven approach allows for adaptive management, where strategies can be adjusted based on feedback and outcomes. Successful interventions and learnings will be documented and shared to inform policy decisions and support the scaling of effective practices, contributing to broader disaster risk reduction and climate resilience efforts in the region. Finally, the project will promote solar-powered ECOCA cookstoves as a sustainable alternative to traditional biomass fuels. These cookstoves, which have been successfully piloted in the Bidi Bidi refugee settlement, provide a clean and efficient cooking solution that reduces deforestation and improves health outcomes. By integrating these approaches with ecosystem restoration efforts, the ACCESS project aims to enhance climate resilience, improve living conditions, and support sustainable adaptation to climate change in the Acholi sub-region.

~~C.~~D. **Describe how the project provides economic, social, and environmental benefits, with reference to the most vulnerable communities, and vulnerable groups within communities, including gender considerations. Describe how the project will avoid or mitigate negative impacts, in line with the Environmental and Social Policy and Gender Policy of the Adaptation Fund.**

Economic benefits:

From the layout of the project, introducingFarmer-Managed Natural Regeneration (FMNR) and agroforestry, with a focus on economically valuable trees to small holder farmers (including women and youth) in Acholi sub-region specifically Gulu and the neighbouring districts will enhance agricultural productivity and strengthen alternative livelihoods. According to the Uganda National Household Survey 2019-2020, Acholi sub-region is one of the subregions faced with seasonal food insecurity calling for more agricultural production in the region. The report also highlighted Acholi sub-region as having the highest proportion of food poor households. Integrating crops, trees, and other vegetation contributes to various benefits, including improved soil fertility, boosting nutrient availability and promoting healthy crops that increase productivity. Agroforestry practices will also allow farmers to diversify their income portfolio through the various trees such as fruit trees, crops and vegetation within a single landscape which can generate additional income for the community. Women groups and youth groups will be targeted in the business skills development programs for tree nursery establishment, recognizing women's vital role in the agricultural sector. With a focus on augmenting tree cover, bolstering land resilience, and fostering biodiversity, the reforestation and agroforestry component of ACCESS endeavours to address climate change adaptation and livelihood enhancement. Employing Mercy Corps' MSD approach, ACCESS reframes Farmer-Managed Natural Regeneration (FMNR) and agroforestry as IGAs, utilising a community driven and highly sustainable model. By integrating PSAs (commercial tree nursery operators) and FSPs into its implementation, the project cultivates a sustainable economic framework that concurrently supports environmental preservation and livelihood advancement. This strategy empowers local communities and harnesses market dynamics to catalyse positive transformation.

Additionally, the ECOCA solar cook stoves will provide economic benefits by directly contributing to the incomes of the community members. In addition to cooking, the ECOCA has been shown to improve household income and well-being as customers set up small phone charging businesses. The lighting

bulbs and torches have improved safety and supported school-going children doing homework and revisions. The ECOCA can charge over ten phones daily at $0.14 per charge, amounting to $40 monthly. 97.6% of the respondents interviewed during endline evaluation confirmed that the cookstove is timesaving (reduced average time spent on cooking from 3.1 hours to 1 hour), and 71.5% found it more convenient than other traditional biomass-based sources of cooking fuel, meaning the time saved can be deployed by people charged with cooking responsibilities to carry out other income generating activities. The production centre in the Gulu communitywill host the centre as they will have the opportunity to supplement their income by working as technicians, trackers, and cooking advisors across the project area as there is already evidence that trained technicians go the extra mile with the same set of knowledge to support the community by repairing other electronics including radios and basic phones. The project will employ about 15-20 staff in Gulu.

Social benefits:

The project offers direct social benefits by combining agroforestry practices and climate resilient technologies, including;

- **Improved food security**: Agroforestry practices will play a major role in improving food security in the Acholi subregion (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader, and Omworo) by improving the resilience of food production systems against impacts of climate change and ensuring that the communities have access to enough food throughout the year.

- **Social cohesion and increased awareness and knowledge:** Through capacity-building activities, the project will empower vulnerable community members, including women and marginalised groups such as people with disabilities and youth, on climate resilience technologies and practices towards enhancing the resilience of their livelihoods. Youth and women will fully engage in the process with a40 % participation target. Agroforestry activities will also stimulate socio-cultural activity among the targeted beneficiaries. Farmers, for instance, will have opportunities to meet with each other for savings and discuss the cultivation method, choice of tree species or crop varieties, fertiliser management, and so on. This makes the community more engaged and knowledgeable through peer-to-peer discussion and community participation.

- **Reduced protection risks:** Globally, women conduct 91% of the work to obtain fuel and cook, while women and children account for over 60% of all premature deaths from household air pollution. The risks extend to spinal, nerve, and muscle damage while cooking, as well as the risk of rape, abuse, injury, animal attacks, and communal conflict while collecting wood. In Uganda, women and girls can spend up to 19 hours a week on fuel collection and four hours a day cooking over traditional stoves — effectively keeping them from higher-value, income-generating activities and perpetuating gender inequality and economic poverty. By switching to ECOCA, women and girls will gain 19 hours/week that can be used for productive and social activities such as school work and agroforestry activities that help them to add additional income through the sale of tree and crop products while improving community peace and cohesion.

- **Improved indoor air quality:** The household survey report shows that 43% of households in the Acholi sub-region cook from inside their houses with no specific room set as the kitchen, exposing household members to the risk of respiratory infections and other diseases. By fostering the switch from three-stone open fires to ECOCA, a smoke-free option drastically reduces smoke

exposure to PM2.5 and other toxic elements. There have been cases of some males or those who are less charged with cooking responsibilities supporting cooking using ECOCA stoves since they are clean, easy to deploy, and generally user-friendly. Overall, issues and proposed actions have been captured and incorporated in the project design to ensure equitable participation in the project activities and access to project benefits by all groups, including men, women, and elders.

Environmental benefits:

This project aims at conserving, restoring degraded areas, and promoting climate-resilient technologies which can deliver numerous environmental benefits including:

- **Improved Ecosystem service:** FMNR and Agroforestry pose several ecological-based practices that can potentially enhance the ecosystem service for the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader, and Omworo) and increase community resilience in the changing climate. These practices include crop diversification (crop-tree integration), crop rotation, soil conservation (cover crop integration), improved fallows and boundary planting. Cultivating different tree species in agroforestry systems also improves biodiversity, providing a habitat for wildlife. In addition, trees can also prevent soil erosion and landslides (on higher slopes) due to the robust rooting system around the soil matrix. The presence of trees in agroforestry systems can also change microclimatic conditions through shading, which might reduce the sun radiation and buffer the temperature around the farm.

- **Reduction in deforestation**: The project is intended to benefit the environment by guarding against biomass fuels used for cooking and reducing Uganda's carbon footprint (Ministry of Water and Environment projects an increase from 90.1MtC02e in 2015 to 148.8MtCO2e by 2030), deforestation, and creating an opportunity for forest regeneration across the project area. Switching from traditional three-stone open fires to ECOCA removes the pressure on local forests, which are supported by intentional and more permanent woodland regrowth. Regarding charcoal, estimates range from 5 to 10 tons of wood to produce just one ton of charcoal, depending on the type of kiln used. As part of Uganda's Nationally Determined Contribution, a key sector is Agriculture, Forestry, and Other Land Use (AFOLU) - one of the main contributors to Uganda's emissions, including deforestation for energy use. The Government of Uganda is committed to halting deforestation and reversing forest loss by 2030. It is estimated that 9800t CO2eq emissions will be avoided through the proposed project, and annually, 7350t CO2eq beyond the project (not counting the additional market potential and health benefits generated). By increasing the number of trees, the ACCESS FMNR reforestation component will enhance carbon sequestration, effectively removing carbon dioxide from the atmosphere and mitigating its contribution to air pollution and climate change.

- **Electronic waste disposal:** Aware that electronic waste is hazardous for our environment, Mercy Corps and Pesitho will sensitise the cookstove users to return worn-out parts to the assembly centre for repair and reuse or safe disposal for those parts that cannot be brought back to their useful life. On the other hand, Mercy Corps is currently piloting used lithium battery repair and packing with an American-based firm ACELERON, a collaboration that can be leveraged to help clean the project area of e-waste in addition to repair opportunities for worn-out batteries. Furthermore, Mercy Corps entered a partnership with IOM (International Organization for

Migration) to implement the Innovation Norway-funded E-waste Project: Greening Humanitarian Responses through Recovery, Repair and Recycling of Solar Products in Displacement Settings. The projects aim to identify solutions that reduce and manage E-waste from solar lanterns and solar home systems and their accessories that have been distributed in displacement settings through community sensitization activities around e-waste, the establishment of a repair and maintenance service centre and a system for safe disposal of e-waste and a close collaboration with ACELERON.

~~D.~~E. Describe or provide an analysis of the cost-effectiveness of the proposed project / programme.

Agroforestry practices are cost-effective as they combine tree planting with agricultural production. This integrated approach provides multiple benefits from the same land area, maximising resource efficiency. By incorporating trees into farming systems, farmers can improve soil fertility, increase crop yields, and diversify income sources. The initial investment in agricultural equipment, tree seedlings and training is relatively low compared to the long-term benefits of improved ecosystem services, increased agricultural productivity, and enhanced climate resilience.

Farmer-Managed Natural Regeneration (FMNR) is a highly cost-effective reforestation technique as it leverages existing tree stumps and root systems to regenerate vegetation. This approach requires minimal external inputs, relying instead on local knowledge and labor. The cost per hectare for FMNR is significantly lower than traditional tree planting methods, making it an economically viable option for large-scale landscape restoration. Additionally, FMNR can rapidly increase tree cover, providing quicker returns on investment in terms of ecosystem services and livelihood benefits.

Developing Non-Timber Forest Product (NTFP) value chains is a cost-effective strategy for enhancing the economic value of restored landscapes. By creating markets for products such as honey, or shea nuts, the project can generate income for local communities without the need for extensive infrastructure or technology investments. This approach incentivises conservation efforts by demonstrating the economic value of intact ecosystems. The cost-effectiveness is further enhanced as NTFPs often require minimal processing and can be harvested sustainably, providing long-term income streams with relatively low ongoing costs.

By combining agroforestry, FMNR, and NTFP value chains, the project creates synergies that enhance overall cost-effectiveness. For example, agroforestry systems can provide NTFPs, while FMNR can support the rapid establishment of agroforestry plots.

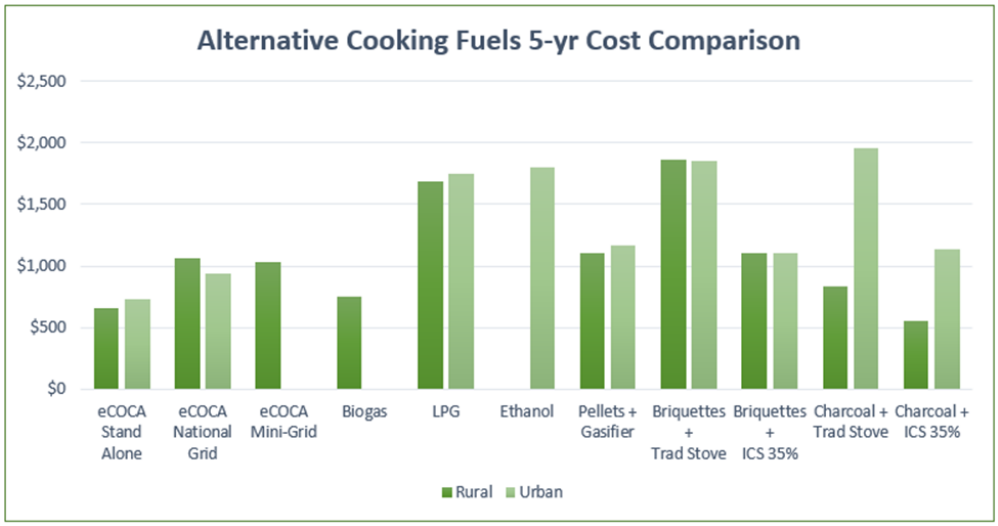
The benefits of solar electric cooking primarily stem from the long-term savings in fuel costs compared to traditional cooking fuels like firewood, charcoal, or LPG, which have shown above-inflation price trends in Uganda.

The initial investment (CAPEX) for solar e-cooking solutions is often higher than that of carbon-intensive alternatives. A battery-supported solar electric unit typically costs more than 500 USD, significantly more than traditional biomass ICS technologies (average 18 USD) or LPG starter kits (approximately 70 USD in Uganda). However, solar e-cooking has zero operational costs (OPEX), making it very cost competitive

when compared to the ongoing fuel costs for firewood or charcoal, which average around 290 USD per year per household (when purchased, not collected).[35]

While it may be possible to use electric cooking for all food, it is assumed that people will continue to use other fuels in accordance with their preferences. Charcoal is the preferred and most easily available fuel in Uganda for many cooking applications. We therefore apply a ratio of 80% of energy needs met by alternative fuels and 20% through the use of charcoal for this comparative analysis. Briquettes are assumed to replace 100% of charcoal use as they are used as a direct replacement of charcoal in charcoal stoves.

Comparison of costs across multiple cooking options without subsidies and using existing cooking practices. (*eCOCA, Biogas, LPG, Ethanol and Pellets include for 20% charcoal use)



Comparison of the ECOCA to other alternative energy Cooking Technologies in Uganda

[35] GACC, 2017. Comparative Analysis of Fuels for Cooking. Lifecycle Environmental Impacts and Economic and Social Considerations

WHAT ARE THE OTHER PRODUCTS ON THE MARKET?

URBAN COOKING ALTERNATIVES - 5-YR COST COMPARISON

FUEL OPTION	TOTAL 5-YR COSTS	% COST COMPARISON WITH CHARCOAL
ECOCA Solar Electric Cookstove	**$726**	**64%**
Ethanol Gas Stove	$1800	158%
LPG Gas Stove	$1749	154%
Pellets + Fan Gasifier	$1169	103%
Briquettes + Traditional Stove	$1849	163%
Briquettes + ICS 35%	$1103	97%
Charcoal + Traditional Stove	$1955	172%
Charcoal + ICS 35%	$1136	100%

**ECOCA, ethanol and LPG include 20% charcoal costs using ICS*

The fuel options listed above are the cooking alternatives that are used in the urban areas of Uganda.
"Charcoal+ICS 35%", "ICS" being an improved cookstove, and "charcoal" being its fuel, is used as index as it is the most common cooking alternative used in the urban areas in Uganda.
Both briquettes (compressed charcoal) and charcoal used with ICS have less expenditures than utilizing them as fuel to a traditional stove.
Using pellets (biofuel made from compressed organic matter) as fuel to the fan gasifier is less expensive than the usage of the traditional stove.
The most expensive fuel options are "Ethanol Gas Stove" and "LPG Gas Stove". As they both utilize gas in order to function, their prices are much higher than any other alternative.
Because the ECOCA Solar Cookstove is electric and runs with solar energy, its costs are exceptionally lower than all the other cooking alternatives. Its cost comparison is 36% lower than the index (charcoal+ICS) and the total cost within 5 years is only $726.

RURAL COOKING ALTERNATIVES - 5-YR COST COMPARISON

FUEL OPTION	TOTAL 5-YR COSTS	% COST COMPARISON WITH CHARCOAL
ECOCA Solar Electric Cookstove	**$663**	**79%**
Ethanol Gas Stove	$751	90%
LPG Gas Stove	$1687	202%
Pellets + Fan Gasifier	$1107	132%
Briquettes + Traditional Stove	$1864	223%
Briquettes + ICS 35%	$1103	132%
Charcoal + Traditional Stove	$837	100%
Charcoal + ICS 35%	$554	66%

**ECOCA, ethanol and LPG include 20% charcoal costs using ICS*

The fuel options listed above are the cooking alternatives that are used in the rural areas of Uganda.
"Charcoal+Traditional Stove" is used as index as it is the most common cooking alternative used in the rural areas in Uganda.
Charcoal used with ICS and the traditional stove is less expensive than the usage of briquettes (compressed charcoal) as a fuel to traditional stove and ICS.
In rural areas of Uganda, the LPG gas stove and the pellets (biofuel made from compressed organic matter) as fuel to the fan gasifier are still an expensive fuel option as it is not common and affordable to many.
In rural areas of Uganda, the cost of the ECOCA throughout a period of 5 years, is $663. The ECOCA, differently from all the other fuels in the market, doesn't only deliver a healthy, save and clean way of cooking, but also electricity. The ECOCA can be used to charge different appliances, and saves time when cooking

When the initial cost is paid upfront, switching from biomass cooking to an off-grid solar e-cooking system would pay off within two years. Even in displacement settings, an affordability analysis shows the financial viability of e-cooking solutions based on current techno-economic performance.

In addition to clear direct financial fuel cost savings, there are a range of non-financial externalities that can be monetized to support the economic case for e-cooking. These include time savings of approx. 800 hours per year from avoided fuel acquisition and preparation (time spent collecting firewood, lighting and waiting for fires to burn) and major health benefits from improved indoor air quality which can account for 1000s of USD per year.

~~E.~~F. Describe how the project / programme is consistent with national or sub-national sustainable development strategies, including, where appropriate, national or sub-national development plans, poverty reduction strategies, national communications, or national adaptation programs of action, or other relevant instruments, where they exist. If applicable, please refer to relevant regional plans and strategies where they exist.

The project is expected to contribute to the various relevant national policies; including the Uganda Vision 2040 whose goal is to transform Uganda from a predominantly low-income country to a competitive upper middle-income status country by 2040. It provides the overall leadership and policy direction for job creation and priority setting. The Uganda Vision 2040 sets out the country's commitment to efforts to attain a green and clean environment. The project contributes to the Kyoto Protocol an international treaty that extended the 1992 United Nations Framework Convention on Climate Change (UNFCCC) that commits state parties like Uganda to reduce greenhouse gas emissions, based on the scientific consensus that 1) global warming is occurring and 2) that human-made CO2 emissions is driving it. The project strives to contribute to Uganda's Vision 2040 and the Kyoto Protocol, by creating clean and green jobs for the youths of Uganga and at the same time reducing carbon emissions through the operationalization of the vertical shaft brick kiln technology. The project contributes to Social Development Goals (SDGs) specifically SDGs 1, 13, 15, and 17[36] which aim at eliminating poverty, climate action life, and land, and promoting partnerships for developing the knowledge base and effective capacity development, Environment, and social policies which the projects allude to. The project is in line with the Climate Change Policy (NCCP) 2015.

Uganda's National Adaptation Plan for Agricultural sector (NAP-Ag) 2018 highlights the negative impacts of climate change on agricultural production and calls for adaptation measures that can boost both cash and food crops, especially building capacity of smallholder farmers to increase yields, and better understanding the impact of temperature rise and rainfall variability on key crops. The plan has specific targets on promoting conservation agriculture practices such as agroforestry and sustainable land management and promoting sustainable forestry, land use and water management that enhances the resilience of agriculture and agrarian communities to a changing climate through clean energy technologies to improve livelihoods and the environment. This proposed project contributes towards achieving these plans.

[36] https://pesitho.com/sustainability-2/

Furthermore, Uganda is developing a National Agricultural Policy (NAP), with a major focus on food security, increased household incomes, improved value chains, increased domestic and international trade, and improved sustainable natural resource management. Some of the proposed NAP-specific goals revolve around "Promoting and encouraging efficient biomass energy production and utilisation technologies to reduce biomass consumption" and "Diversify energy sources by promoting the use of alternative renewable energy sources (such as solar, biomass, mini-hydro, geothermal, and wind) that are less sensitive to climate change. Promote energy-efficient firewood cook stoves and solar and liquefied petroleum gas (LPG) Cookers." Therefore, this project aims to contribute to potential NAP sectors in Forestry and Energy by ensuring that (1) deforestation is reduced; and (2) consistent access to efficient cooking is achieved through solar technologies and reduces reliance on an already depleting natural resource due to both climatic and human pressure.

The project contributes to Uganda's Updated Nationally Determined Contribution (NDC). The country recognizes that climate change is one of the greatest challenges facing humanity. The overarching policy objective is to ensure that all stakeholders address climate change impacts and their causes through appropriate measures while promoting sustainable development. The updated NDC emphasises the need to increase access to clean cooking as one of the key adaptation priorities towards building a climate resilient energy country. The NDC has set clear targets of increasing access to clean cooking technologies from 15% baseline to 65% by 2030. This project contributes to the achievement of the adaptation targets through promoting use of ECOCA cook stoves which will help communities to reduce reliance on biomass for cooking and build their adaptive capacity towards the impacts of climate change.

The Uganda Technology Needs Assessment report 2020 identified promotion of farmers managed natural regeneration for forest landscape restoration as a climate change adaptation priority towards improving the productivity of agricultural lands while increasing tree cover and biodiversity. This project will focus heavily on this aspect towards increasing tree cover in Acholi sub region.

The National Environment Management Policy 1995 sets out the overall policy goals, objectives, and principles for environmental management in Uganda. Its overall goal is sustainable social and economic development, which maintains and enhances environmental quality and resource productivity to meet the needs of present generations without compromising the ability of future generations to meet their own needs. It recognizes that Uganda faces several environmental issues including soil degradation, deforestation, loss of biodiversity, increasing pollution, and environmentally related diseases. These problems are compounded by poverty, low amounts of environmental awareness, and low levels of technology. The policy recognizes climate as a vital natural resource that needs to be monitored to better direct land use, encourage sustainable economic development, manage air pollution and GHG emissions in future programs; and accelerate project financing for NDC implementation. All project components 1, 2, and 3 are in line with the objectives of this overarching policy. The key issues addressed by The National Forest Policy 2001 include maintenance and enhancement of the Permanent Forest Estate, improve the management of forest resources on private and customary land, addressing the underlying causes of deforestation, including lack of policy support, market failure, weak regulation, and rural poverty, capitalise on the economic, social and environmental opportunities in forestry without undermining the resource base, ensure the survival of forest biodiversity and to balance this with the pressing development needs of the country, how to rehabilitate and conserve key watershed forests, how to promote and maintain the greening of the urban environment, as well as ensuring improved tenure to

land and trees that act as an incentive for individuals, and women in particular, and communities to invest in forestry among others. Forestry plays a very important role in enhancing the resilience of ecosystems and some of the activities under component 2 are confirmed to be in line with this policy.

The project is gender-sensitive, as it emphasises and recognizes "gender" as a development concept useful in identifying and understanding the social roles and relations of women and men of all ages, and how this impacts development. This applies to all three project components and efforts shall be made to ensure that all categories of people benefit from the project without discrimination. In this regard, the Uganda National Gender Policy 2007 is an integral part of the national development policies and is a framework for redressing gender imbalances as well as a guide to all development practitioners.

The National Environment (Noise Standards and Control) Regulations, 2003. Section 7 of these regulations requires that no person shall emit noise above permissible noise levels unless permitted by a licence 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 applies to sub-projects under components 1 and 3 that are confirmed to contribute to this specific regulation. Finally, enhancing the use of ECOCA and raising awareness on the effects of charcoal exploitation and trees cutting, ACCESS aligns with the GoU's ban on the sale and use of charcoal and firewood in urban areas, implemented to mitigate deforestation and indoor air pollution, supporting its compliance.

~~F.~~G. 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.

All products imported into the country must meet either local or international standards to protect the health and safety of the public and the environment against dangerous and sub-standard products. Currently, Uganda has not yet developed standards for e-cooking appliances, but such products must adhere to internationally recognized standards of their category. The ECOCA and all its components meet the ISO standards and conform to the entire Pre-Export Verification of Conformity (PVoC) process mandated by UNBS before importing into the country as well as the Imports Inspection and Clearance Scheme

The project is compliant with the Environmental and Social Policy of the adaptation fund. The project falls under category C as it has no adverse environmental or social impacts. The project has been designed and will be implemented in such a way that both women and men are able to participate fully and equitably and receive comparable social and economic benefits not causing any disproportionate adverse effects during the development process.

~~G.~~H. Describe if there is duplication of project / programme with other funding sources, if any.

The project largely seeks to build on and complement existing and past programmes of work being undertaken by government agencies, public entities, NGO and other relevant stakeholders by bringing a stronger focus on building climate resilience. Ongoing environmental interventions that have a complimentary effect on the project will be highlighted during the project design. Continuous review of the ongoing projects will be done to eliminate the possibility of duplication and capitalise on lesson

learning and possible upscaling of successful interventions. Below are some of the past and ongoing programmes aligned to this proposed project;

1. The Project for Restoration of Livelihoods in the Northern Region (PRELNOR) implemented by IFAD 2014-2023. The project aimed to increase sustainable production, productivity and climate resilience of smallholder farmers and increased and profitable access to domestic and export markets.The project key outcomes included better natural resources and sustainable land management and promoted adoption of Renewable Energy Technologies (RET). The project successfully distributed 4000 cookstoves to vulnerable households and 35 solar PV systems were installed in public institutions. RETs interventions are said to have reduced firewood consumption evidenced by reduction in beneficiary institutions' expenses on firewood (up to 67%). Other benefits highlighted included; less smoke produced; better kitchens with a clean cooking environment; less heat to users; reduced cooking time; reduced respiratory diseases; and food kept warm by the cook stoves. Schools that benefitted from solar systems reported improved grades and class attendance by pupils; and increased reading time by the learners. Further, the project recommendations included the need to integrate additional renewable energy technologies that could help reduce energy consumption and dependence on charcoal and firewood. This proposed project will build upon the successes of this project.

2. Powering the Uptake of Climate Change Mitigating Pumps (Pump-Up), the ongoing DANIDA-funded project implemented by Mercy Corps seeks to enable 2,300 farmers in Northern Uganda (Yumbe and Gulu districts), including women, youth, and refugee farming communities to build resilient livelihoods and to adapt to the negative impacts of climate change by developing the market for solar water pumps (SWPs), coupled with training in Climate Smart Agriculture(CSA) and Integrated Water Resource Management. The proposed project's ecosystem-based adaptation approaches, including Farmer-Managed Natural Regeneration (FMNR) and agroforestry components, will complement the climate-smart agriculture practices and leverage the water resource management approaches to increase the ACCESS project's success.

3. The Promoting Rural Development in Northern Uganda (PRUDEV II) project, implemented by GIZ in partnership with the District local government, aims to enhance income and employment by capitalizing on sustainable natural resource management. This initiative is designed to reinforce the resilience of agricultural and food systems while fostering agriculture-based growth and augmenting value addition in these sectors. Notably, ACCESS intends to utilize the established market systems developed under PRUDEV effectively, ensuring that its proposals, particularly in the realm of Agroforestry, are aligned and do not duplicate efforts within the targeted region.

4. Promotion of Renewable Energy and Energy Efficiency (PREEEP) supports the Ministry of Energy and Mineral Development (MEMD) in implementing strategies that increase access to renewable energy and energy efficient technologies. Improving the framework conditions for increased access to clean energy in rural and peri-urban areas.

Lessons learned from previous projects:

The Journey to Scale project was a 20-month project funded by ELRHA (Enhanced Learning and Research for Humanitarian Assistance) aimed at promoting ECOCA. Mercy Corps worked with Pesitho

to 1) strengthen their supply chain and distribution networks, improve product pricing, and increase uptake of products via pay-as-you-cook (PAYC) modalities, and 2) develop a sustainable business model that will provide affordable access to the ECOCA for refugees. Pesitho and Mercy Corps set up the ECOCA assembly line facility in Yumbe, creating 15 full-time jobs; 94% of clients report high satisfaction with a reduced cooking time. Pesitho has currently distributed 1,200 units in and around the Bidi Bidi settlement, however affordability of the products by the refugees and the host communities remains a major challenge.

Below are key lessons learned from the pilot project that were used to inform the design of the ACCESS project:

Increasing Access through Establishment of a local production centre and Awareness messages; The pilot project successfully established two distribution hubs in the Bidi Bidi settlement thus cutting down the distance between the clients and the assembly centre where actual production takes place. This ensured a steady supply of the ECOCA resulting in increased uptake of cookstove-related goods and services. The knowledge and awareness of community members around the benefits of alternative clean cooking have also improved; with most community members becoming e-cooking champions and change agents.

Affordability: A design study conducted at the onset of the project showed that 97% of the respondents expressed willingness to acquire the solar-powered cookstove. Mercy Corps and Pesitho met this demand through the successful sale of 221 ECOCA units - out of which 23 were PAYGo systems. The team has undergone an informative learning journey on clean cooking-related carbon financing, which is a key component of the financial model of Pesitho. Through carbon financing, Pesitho can scale up its outreach by increasing access to pre-financing for sales and distribution of ECOCA. While Pesitho had already absorbed the costs for project development and verification methodology under UNFCCC that will in turn result in lower costs for the end-users, Pesitho and EEA are also part of the discussion on the much-needed revision of carbon credit calculation for electric cookers and a fair balance between all cookstove technologies, to reflect realistic carbon emission reduction. Carbon credit remains an area of interest for Pesitho and EEA as this scheme is strategic for the users both at the household and institutional level through lowering the cost of acquiring the cookstoves and attracting debt investors to the sector increasing Pesitho and EEA's production capacity. Creating premium carbon credits remains a lever for Pesitho to lower the price of the ECOCA, to make it even more affordable for bottom-of-the-pyramid households. A premium credit is one with both environmental and social attributes. Credits from the ECOCA will contribute to several Sustainable Development Goals (SDGs), such as 1- no poverty, 2- zero hunger, 3 - good health and well-being, 4 - education, 7 - affordable and clean energy, and many more. Pesitho and EEA are also concluding a Memorandum of Understanding with Equity Bank Uganda Limited through its 'Equi Green Loan' so the bank can provide end-user financing thereby reducing the potential burden of the initial deposit on the ECOCA for lower-income households.

Sustainability: The project showed the importance of localising production and building local capacity for production, distribution, repair, and maintenance systems to ensure lean operation, local ownership, and sustainability. As such, Mercy Corps in collaboration with Pesitho established a network of 15 young retailers (three women) - all below 35 years of age - across the project area and trained them as technicians, marketers, and data collectors. The project also assembled the retailers into cooperatives

that deal in climate-smart products to ensure that relevant products continue to be sold and marketed during and after the project. Furthermore, Pesitho established ECOCA EEA Limited, a local Ugandan Company (a subsidiary of Pesitho) to oversee local Ugandan production of ECOCAs, the retailer network, and provide technical advisory for on-site customers and stakeholders including debts management of the PayGo system. EEA will continue to maintain and monitor the solar cookstoves after the project ends.

H.I. Describe the learning and knowledge management component to capture and disseminate lessons learned.

The learning and knowledge management of this project falls under Component 3 (Ensure robust learning, knowledge management, and dissemination framework) and will be managed closely by ACCESS Program Managers from Mercy Corps, Pesitho, and EEA, dedicated MEL Officer, and Program Communication Assistant with the support of the Country MEL Manager. The learning and knowledge management side of this component focuses on:

Continuous Monitoring: Monitoring activities will feed into an iterative process to continually improve the project activities through real-time analysis of data and the production of relevant reports. ACCESS will begin with analysing existing Market Assessment, Willingness to Pay assessment, and Market Segmentation analysis reports that Mercy Corps has been leading in the Acholi sub region. The findings of which will add to the vulnerability criteria used for the selection of project participants and will be followed by a Baseline and Mapping Assessment. Throughout the project, routine data collection will take place monthly to track progress towards our indicators through surveys, FDGs, KII, and spot checks among others. ACCESS will also conduct Midline and Endline Assessments to check progress towards outcomes and the extent of the intervention in reaching the overall goal. The data and information from the midline and endline are important for learning and that will feed into improving programming.

Furthermore, a Community Accountability Reporting Mechanism (CARM) has been developed in Uganda as part of Mercy Corps' global initiative to prevent exploitation and abuse. CARM provides a channel for all community members to provide feedback, suggestions, complaints, and concerns, in a manner that is safe, confidential, transparent, and accessible, enabling Mercy Corps to make adaptations to program activities and/or address any safeguarding concerns. The proposed project will collect feedback through a toll-free number, WhatsApp, and email and by setting in place a context-appropriate structure (e.g., community ambassadors, etc.). The feedback will then be safely stored in a centralised database for further analysis and closure of the feedback loop. For any feedback - positive or negative - related to the implemented activities the program team and CARM focal point will meet monthly to address the issue and make necessary programmatic adaptations to make sure that the project remains responsive to the community needs. These observations will constitute an essential part of the lessons learned during program implementation.

Learning and Adapting: This will involve a process of systematically documenting all aspects of the project implementation through a well-articulated Knowledge Management Strategy and Learning Plan that will be revisited quarterly to ensure that the strategy remains relevant to the project objectives and evolving context. Learning questions and learning agenda will be established to guide the documentation of evidence and products /materials to be utilised for learning. The project will operationalize monthly meetings and quarterly review sessions with its PMU that will capture lessons learned to be shared with

key partners and stakeholders (to be identified in the project inception phase, when finalising the learning agenda) through three national learning events, two regional learning events and seven learning reports (2 per implementation year). This will foster broader knowledge sharing and adaptive management. The program will ensure documentation of best practices, lessons (learning products), and development of policy briefs and publications in partnership with research institutions or industry groups. Mercy Corps will use its existing network of contacts to disseminate knowledge. Mercy Corps sits on the steering committee of the Global Plan of Action for Sustainable Energy in Situations of Displacement; is part of the Action Group of the Smart Communities Coalition, and co-chairs the Safe Access to Fuel and Energy working group. Results and lessons learned from this partnership will be shared across these platforms and including the Clean Cooking Alliance, Uganda Clean Cooking Alliance, and Ministry of Energy and Environment as we work to create stronger communities of practice across the clean cooking sector. Mercy Corps' Energy and Climate Technical Support Unit will provide support for program implementation excellence in addition to the development and dissemination of learning materials. The dissemination will take the form of online and/or in-person workshops. At project closure, ACCESS will develop a comprehensive Endline and Learning report.

~~I.~~J. **Describe the consultative process, including the list of stakeholders consulted, undertaken during project / programme preparation, with particular reference to vulnerable groups, including gender considerations, in compliance with the Environmental and Social Policy of the Adaptation Fund.**

To develop this project, multiple consultations were made with the Ministry of Energy and Mineral Development (MEMD) responsible for the implementation and coordination of all energy related activities in Uganda and the Ministry of Water and Environment (MoWE) as the key national authority overseeing the implementation of climate change initiatives and the NDC. The recommendations and suggestions from the two ministries was used to design this project in line with the government priorities on building a climate resilient energy sector and improving ecosystem resilience towards addressing climate change

Consultations were done at the district level through a one day refinement workshop. The main purpose of the workshop was to obtain the inputs and contributions of the district level stakeholders in terms of overall design and relevance of interventions in line with the district plans. In addition, the consultation was aimed at ensuring and facilitating alignment, alliance and compliance with national and local policies, rules, regulations as well as ongoing programmes and projects in line with the AF's. In principle, the selection of stakeholders was guided by the activity of mapping stakeholders in the climate change, and agricultural sector. Mercy Corps in collaboration with the government led the identification of key stakeholders involved in these sectors including technical government representatives and communities representatives; The consultation proceeded as follows:

30 participants (19 men and 11 women) attended the consultation workshop including technical staff from environment, forestry and agricultural departments from Gulu and the neighbouring districts (of Omoro and Nwoya), farmer cooperatives and CSOs involved in environmental conservation. A detailed presentation of the project idea was done, including demonstrations on the ECOCA technology. The participants deliberated and discussed the intervention framework. The participants appreciated the proposed project and confirmed that the project aligns with the district's plans.

Participants were then split into groups to discuss different aspects of the project. This was followed by plenary discussions where all the participants were given the opportunity to provide feedback. Participants in the discussion provided several key recommendations for the project. These included the importance of involving the government in the selection of institutions to be included in the project, particularly schools and tertiary institutions. It was also suggested that beneficiaries should encompass both rural and urban populations, with a focus on rural communities due to their involvement in charcoal production, a significant factor in deforestation. Notably, urban populations were identified as key consumers of charcoal, suggesting a high willingness to pay for alternative technologies. Sensitization efforts were deemed necessary not only for promoting the new technology but also for encouraging tree planting activities to replace lost trees. To facilitate adoption, financing plans should allow for seasonal payments and consider incorporating insurance into the model. Women were highlighted as important targets for the project, given their direct involvement as users. The selection of geographies for intervention, particularly degraded land, should involve a catchment system and consultation with the government. It was recommended to ensure that local farmers benefit from carbon credits as an incentive for tree planting. Moreover, government involvement in the identification of tree species was deemed essential. Collaboration with Financial Service Providers (FSPs), Savings and Credit Cooperative Organizations (SACCOs), and Village Savings and Loan Associations (VSLAs) for access to finance was also encouraged. Lastly, behaviour change activities were underscored as critical, considering the prevalent dependency on traditional practices.

Three women's groups in Gulu district were consulted to understand their cooking needs and challenges. 24 women of varying ages participated in the consultation. They were asked about their cooking methods, the type of fuel they use, the accessibility of the fuel type, its cost, and their willingness to transition to alternative cooking sources. The feedback revealed a strong willingness among the women to shift to solar electric cookers. They expressed that they spend over 5 hours a day collecting firewood and indicated that with a flexible payment method, they could commit to paying for the ECOCA technology. Currently, the women confirmed that they spend an average of 80,000 UGX (USD 21) per month on which they find costly. They also reported being responsible for paying for energy at household level.

Further detailed consultations will be done at the inception targeting direct and indirect beneficiaries on the ground within the selected geographical areas to provide views on impacts of climate change on their livelihoods and proposed solutions for adaptation.

~~J.~~K. Describe how the project/programme draws on multiple perspectives on innovation from e.g., communities that are vulnerable to climate change, research organisations, or other partners in the innovation space, in the context in which the project/programme would take place

The project actively incorporates diverse viewpoints on ECOCA innovation, drawing from various stakeholders including communities vulnerable to climate change, research organisations, and other partners within the innovation sphere. For instance, engagement with communities during the consultations enabled the project to identify local needs, challenges, and opportunities, ensuring that solutions are tailored to address specific circumstances and realities on the ground.

Desk research done by other organisations contributed valuable insights, data, and expertise, enriching the project with evidence-based approaches and best practices on electric cooking. By incorporating multiple perspectives on innovation, the project benefits from a holistic and inclusive approach, driving meaningful and sustainable change within its target context.

~~K.~~L. Provide justification for funding requested, focusing on the full cost of adaptation reasoning

The proposed project activities comply with the full cost of adaptation reasoning because the costs proposed are interpreted as "the costs associated with implementing concrete adaptation activities that address the adverse effects of climate change," as specified in the OPG main text. This states that in the OPG Annex 5 "the proposal should demonstrate that the project/program activities are relevant in addressing its adaptation objectives and that, taken solely, without additional funding from other donors, they will help achieve these objectives.

Component 1: Restore degraded landscapes in the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo) through an ecosystem services approach | $ 2,808,861.

These costs are related to conducting initial studies to develop Outcome 1 activities and hiring consultants to support them, such as the Environmental Impact Assessment (EIA), baseline assessments of existing tree cover, soil conditions, and market opportunities for tree products, as well as market assessments to unlock ACCESS's component 1 MSD approach and land tenure analysis. These studies include car hires and enumerators.

Key costs under this component are also dedicated to training, co-facilitated by local authorities to ensure their ownership of the process. These trainings focus on sustainable natural resource management (NRM), conflict resolution, income-generating activities linked to community-restored lands, Farmer-Managed Natural Regeneration (FMNR) programs, and agroforestry systems with economically valuable trees, as well as on value addition and processing of tree products. These trainings are often led by community-based extension agents, incentivized with monthly stipends, and include refreshments for the farmers attending the capacity-strengthening sessions, as well as facilitation fees for accommodation and transport for participants coming from different locations.

To strengthen hands-on learning and showcase first-hand the benefits of the approaches promoted by the project, costs for farmers' field schools and demonstration sites have also been included. Costs related to the development of educational materials for trainings and awareness-raising sessions on FMNR initiatives and agroforestry are included as well. The budget lines also cover costs related to working with Private Sector Actors (PSAs) and Financial Service Providers (FSPs) to establish linkages between farmers and markets for agroforestry products and to enhance the affordability of inputs for sustainable businesses at scale.

Additionally, the costs of leading dialogues and inclusive sessions to sustainably identify areas for restoration and management, establish inclusive land use plans, land use agreements, and dispute resolution mechanisms have been budgeted. Lastly, the budget includes the establishment of participatory monitoring systems to track progress in land restoration and management, regular community reviews to adapt management strategies based on lessons learned and changing conditions,

and engaging local and national authorities to advocate for policies that support community-led sustainable land management, FMNR, sustainable livelihoods, agroforestry, and climate adaptation.

Component 2: Reduce deforestation linked to biomass fuel collection and usage for cooking in the program area through establishing a market for climate-resilient, gender-inclusive, and financially-sustainable technologies | $ 1,383,872 The budget includes:

- Behaviour changes communication activities (radio talk shows, jingles, etc.) costs including but not limited to IEC material (flyers, banners, t-shirts, etc.), procurement of mobility equipment (tri-cycle, motorcycle, and bicycles, etc.) to support movement and delivery of solar units and services within the project area, onboarding cost and stipend for last mile distribution agents.
- Costs related to creating access to alternative energy for cooking with the ECOCA for an estimated 8,000 individuals (1,000 HHs and 4 schools). The ECOCA comes in four versions with different price tags in the range of $520 to $850 including PAYGo option. The average price will be known after the clients have made their purchase. In the event clients choose ECOCA variations that are less than $700 (estimated average), the project will be able to reach more than 1000 people in the first year of the project, and more than 10,000 people in the second year. After 10 years, at least 500,000 people are predicted to be in a household with an ECOCA, as a direct effect of this funding, and the project established.
- Costs related to the Installation of Pesitho ECOCA for four schools' institutional kitchens. The school kitchens are estimated to accommodate 500 students per school. When we select the schools and design the final solutions, the price will vary per school, but we will at minimum be able to provide school kitchens for at least 2000 students. The institutional ECOCA version is now on the open market and can be tailored to serve other institutions like hospitals, restaurants, barracks, etc.. Pesitho can design institutional kitchens serving 100-6000 people on a daily feeding program and can also customise the energy needs of an institution by cooking 1-3 meals a day. Besides cooking, these institutional ECOCAs can also be designed to provide lighting to the institution’s building(s) or premises.
- Costs related to building local production facilities and networks for retail, including service and maintenance. Women and youth are trained and employed giving opportunities for strengthened household economics. Employment creates better opportunities for resilience and resistance to climate change. The costs also covers training
- The overall budget for this outcome includes training local youth to become technicians and salespeople for the repair and maintenance of cooking stoves and maintaining and training personnel for the local production facility.
- It also includes costs related to onboarding a local financial institution to develop pro-poor financial products including offering tailored financial literacy training (to savings groups - Village Savings and Loans Associations (VSLAs), SACCOs, and or farmers organizations), learning visits to select and organize groups and project participants and associated training cost including that of an external facilitator/s. The overall budget for this outcome includes costs related to the formation and formalisation of business groups such as the assembly centre, and cooperatives, and their

strengthening activities including but not limited to training and meeting costs, procurement of consultants to produce and make available learning video and audio to promote learning and adaptation including awareness creation in line with the new clean cooking innovation. Cost for subsistence allowance for technicians offering support across the project areas covering accommodation, meals, and communication.

Component 3: Ensure efficient and effective Project Management and continuous learning and adaptation | $102,875.

Costs under this component cover:

- Dissemination of evidence-based recommendations for policy reform and implementation to key stakeholders in the reforestation and agroforestry field. The costs will cover learning events, production of the learning materials advocate toward key stakeholders based on project lessons learned, conducting policy analysis and research. Included are costs related to coordinate national-level energy & environment working group, and organize national policy dialogues

M. **Describe how the sustainability of the project / programme outcomes has been taken into account when designing the project / programme.**

The project employs a comprehensive strategy that prioritises farmer-led natural regeneration and agroforestry, intertwining these core elements with resilience-enhancing practices to mitigate the adverse effects of climate change. This approach ensures the sustainability of the project outcomes by embedding the interventions within the ecosystem's natural cycles and leveraging local community engagement and capacities. This strategy is critical to establishing and maintaining systems that continue to benefit the stakeholders long after the project has concluded.

Central to our strategy is the localisation of agroforestry practices, emphasising the empowerment of local communities through capacity building in sustainable agricultural techniques, restoration activities, and the active involvement of community groups and district government officials. This initiative will foster local ownership and a sustained commitment to the project's ecological goals. By focusing on Farmer-Led Natural Regeneration (FLNR), we aim to enhance the landscape's ecological functions and productivity, promoting biodiversity and boosting agricultural yields sustainably.

Alongside these environmental initiatives, the project incorporates the distribution of ECOCA solar cookstoves. Although not the primary focus, the integration of ECOCA cookstoves aligns with the project's environmental objectives by reducing dependency on traditional biomass for cooking, thereby lessening deforestation pressures and promoting cleaner cooking solutions. Local assembly and distribution of these cookstoves will be facilitated, engaging local enterprises and creating economic opportunities within the project's framework. This adds a sustainable business model and ensures the continued availability and maintenance of the cookstoves within the community, contributing to long-term environmental benefits.

The project will leverage the participation of participants from village savings and loans groups (VSLAs) in its agroforestry activities, ensuring the sustainability of these initiatives through the financial mechanisms these groups provide. Engaging in savings and loan groups allows for the

continuous investment in necessary inputs for agroforestry practices, establishing a self-sustaining cycle of investment and returns.

In addition to these direct interventions, the project collaborates with regional and district authorities and other government entities to ensure the continued support of the target beneficiaries post-project. By enhancing local government capacities in integrated landscape management, we ensure that the investments and methodologies introduced by the project are maintained and potentially adapted to other regions. This governmental engagement includes incorporating successful approaches into District and Regional plans and budgets.

The project also establishes and institutionalizes connections between communities, local government officials, and across sectors and borders to monitor and ensure the continuity of the program's achievements. Through capacity-building efforts and structured dialogues, the established structures and implemented interventions are designed to outlast the program's duration. By aligning with national and sub-national strategies, the project guarantees that its elements are integrated into broader regional programs and efforts.

An exit strategy, collaboratively developed with all stakeholders, will consider the various aspects of sustainability—environmental, economic, technical, social, and institutional. This comprehensive plan ensures that the program's benefits and methodologies are not only sustained but can be scaled and replicated, with customisation, first to other sub-regions in Uganda and then to other East African countries. Lessons learned and experiences from the project will be documented and shared to inform future programming and planning by the government and other regional partners, contributing to the institutionalization and scaling of best practices.

~~L.~~N. Provide an overview of the environmental and social impacts and risks identified as being relevant to the project.

The project has been screened for environmental and social risks as per the Environmental and Social Policy of the Adaptation Fund. The project does not pose any significant adverse environmental or social impacts. Any potential negative effects are expected to be small, confined to the project area, reversible, and can be avoided, minimised, or addressed through established environmental and social management practices.

Ecological risk: Introducing new crops or tree varieties could disrupt local ecosystems and harm biodiversity. Non-native species might outcompete native flora, leading to a reduction in biodiversity. This can disrupt ecological interactions, potentially leading to the decline of certain species. To mitigate the potential risks associated with promoting new crops or tree varieties, the ACCESS project will adopt a science-based approach to ensure ecological compatibility and sustainability. The project will prioritise the use of native species and those well-adapted to local conditions, minimising the risk of introducing invasive species that could disrupt local ecosystems and harm biodiversity. Thorough ecological assessments will be conducted before introducing any new crops or tree varieties to evaluate their potential impacts on local biodiversity and

ecosystems. This data-driven approach will help identify and mitigate risks early on. The project will implement diverse planting schemes rather than monocultures, supporting a wider range of biodiversity and enhancing ecosystem resilience. Establishing buffer zones around sensitive natural habitats will further protect these areas from potential negative impacts of new species. If any negative effects are detected, adaptive management strategies will be implemented promptly to address these issues. This ensures that the project can respond to unforeseen challenges and adjust practices as needed. The project will also incorporate traditional ecological knowledge from local communities, ensuring that introduced species and practices are compatible with existing ecosystems and conservation efforts. Engaging local stakeholders helps identify potential risks early and develop culturally appropriate solutions. By emphasising agroforestry systems that combine trees with crops, the project aims to create a more diverse and resilient landscape that supports both agricultural production and biodiversity conservation. Training local communities and project staff on sustainable land management practices will ensure long-term protection of natural habitats. This capacity-building effort empowers local stakeholders to manage and protect their environments effectively. Additionally, the project will engage with local and international conservation experts such as Center for International Forestry Research and World Agroforestry to provide guidance on species selection and management practices, ensuring that the project benefits from the latest scientific knowledge and best practices. Through these measures, the ACCESS project aims to promote new crops and tree varieties in a way that supports biodiversity, conserves natural habitats, and benefits all community members equitably, minimising the risks of maladaptation and ensuring sustainable and ecologically sound interventions.

Social risk: If new crop or tree varieties are not carefully selected and managed, they could reinforce existing inequalities. Marginalised groups might not have access to the benefits of these new species, or they might bear the brunt of any negative ecological impacts, such as reduced access to forest and land resources. To mitigate the risk, the project will deliberately and carefully target women, youth and marginalised groups, following the principle of 'do no harm', and train them and equip them so that they can economically benefit. Sensitisation with the community will be conducted so that they have a sustained access to forested areas.

Environmental risk (E-WASTE): The problem associated with end-of-life and waste from electric and electronic equipment (EEE) within a given period and acquisition-related issues which the ECOCA cookstoves fit is broadly recognized as a serious environmental and social concern. The increasing penetration and generation rate of electronic products including those that support alternative and clean cooking that comes with periodic replacement cycles of their parts is the major reason for the current exponential growth of the amount of electronic waste (e-waste) in Uganda. Improper disposal of e-waste such as worn-out solar panels, batteries, wire cables, and circuit boards poses environmental, health, safety, and security risks. This will require even more vigilance in Gulu district which borders one of the world's largest freshwater bodies providing a huge habitat for a wide range of aquatic life. The National Environment Management Authority (NEMA) Uganda together with the National Enterprise Corporation (NEC) launched the first National E-waste Management Center for Uganda in 2021 to counter the above challenge which the project will position its project participants to benefit from in a bid to mitigate risks. E-waste management will also provide excellent opportunities for material recovery, refurbishment, and possible reuse. Pesitho/EEA will offer to take back batteries at the end of life from households

and also provide new ones at a discount. The Assembly Center will also be used to collect end-life solar panels and other ECOCA components. During the community awareness program on radio, through drama and physical meetings, proposal disposal of electronic waste will be emphasised, and households encouraged to return end-life components or notify retailers/technicians of the same for collection. Pesitho is also exploring the possibility of building backup battery packs from re-charged end-life batteries or partnering with an entity already doing this. Furthermore, Mercy Corps will leverage the partnerships developed under IOM E-WASTE projects (e.g. WEEE Center) to promote linkages with the project and ensure different options are available for a proper management of e-waste for a safer environment.

Participants Engagement: Based on the initial baseline assessment, segmentation, and willingness to pay the assessment, the program will target all categories of household (HHs) especially those with persons with special needs (physically disabled, chronically ill, living with orphans <18 years, elderly > 65+ years), female headed HHs, HHs with pregnant and/or lactating women, and HHs with children <5 years. The program's target groups include individuals that are part of VSLAs, cooperatives, SMEs, and local authorities (formal and informal). The focus on women and female youth is driven by the fact that they are often responsible for supporting the household, including wood collection, food preparation, and generating income through SMEs. GBV is a significant concern for women and female youth. A major consideration of this program is how to effectively address women's time poverty and work burden and introduce products and knowledge that improve their well-being. Furthermore, people with special needs will be considered in both the targeting and approaches adopted across the program, including increased barriers to accessing support and information. The project will recruit mostly youth and women as retailers, assembly, and/or maintenance technicians and also preserve the role of Cooking Advisors for women.

The action will use proven approaches in identifying the target population and ensuring their input and participation, which includes a step-by-step vulnerability mapping, stakeholder input, and verification process. This process will be supported by Mercy Corps' robust M&E systems. The targeting approach will involve multi-stakeholder participation and engagement throughout the lifecycle. This includes a consultation process with local community members and leaders and government agencies and development partners.

In line with AF guidelines, the table below outlines the approach in addressing those risks identified that require mitigation.

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 project will ensure compliance with all international, regional and national laws and regulations. Participatory consultations with all related ministries and other key stakeholders will be

		conducted at the inception and throughout the project implementation period to ensure compliance with the national and international laws and standards.
Access and Equity		The project will ensure that women and men participate fully and equitably throughout the project cycle in order to ensure gender responsive outcomes and results. A Gender Assessment and Gender Action Plan have been developed to ensure that women and men are meaningfully engaged in project activities, and realise an equitable share of project benefits.
Marginalized and Vulnerable Groups		The project will target the vulnerable communities in the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo). Further consultations will be made during full proposal development to find the best approach and criteria to reach these groups particularly focusing on women and girls, youth, persons with disabilities and indigenous groups to ensure participation and equal access.
Human Rights		The project will respect international human rights. Human rights principles will be integrated in the project implementation to enhance climate change resilience in the targeted region.
Gender Equity and Women's Empowerment		A further detailed gender analysis has been carried out to ensure that all gender aspects are fully incorporated.
Core Labour Rights		Uganda Labour laws will be considered and adhered to during project implementation All appropriate health and safety measures will be taken into consideration in accordance with both national and international standards. Compliance will be monitored through progress reports, supervision missions, the mid-term review, and terminal evaluation.

Indigenous Peoples		The project will target all groups including indigenous and minority groups. A wide and targeted stakeholder consultations will be undertaken at the inception of the project to ensure inclusion of these groups in the target beneficiaries.
Involuntary Resettlement		No involuntary resettlement is foreseen. The project will work with communities in their location and on voluntary basis
Protection of Natural Habitats		The proposed project is designed to undertake Nature-based Adaptation solutions that will bring positive benefits to degraded ecosystems. Further environmental assessments will be conducted during the project implementation to identify any potential risks to the natural habitats. E-waste management strategies will be put in place to eliminate degradation of natural resources through improper disposal of ECOCA technology
Conservation of Biological Diversity		There is no risk to the conservation of biodiversity as no invasive plant species will be planted. Reforestation will use indigenous species and will be designed in consultation with the government and other key stakeholders ensuring compliance with the national laws on biodiversity conservation.
Climate Change		The project is designed to reduce the negative impacts of climate change and enhance the resilience of ecosystems and populations to Climate.
Pollution Prevention and Resource Efficiency		The project activities will contribute to sustainable land management, efficient water use and prevention of water and indoor air pollution
Public Health		The project activities do not lead to any negative impact on public health.
Physical and Cultural Heritage		The project will promote local knowledge on reforestation and agroforestry and train communities to handle the new technologies without affecting cultural heritage.The programme

		will not implement activities that will target specific physical assets in the project sites
Lands and Soil Conservation		The project aims to improve vegetative cover, plant resilient and diverse indigenous plant species and improve soil management and fertility through agroforestry practices

~~M.~~O. Grievance Mechanism

A mechanism will be established to effectively address grievances or answering questions from project affected people as well as indirect stakeholders. The mechanism will be a core component for managing operational risks, enhancing community engagement, social inclusion, promoting accountability and transparency, to support the project's achievement of its objectives and enhance social and environmental sustainability according to AF guidelines.

Complaints will be addressed by different stakeholders—Mercy Corps, Pesitho and other project partners. Mercy Corps will oversee the implementation of the grievance mechanism through its Community Accountability Reporting Mechanism (CARM), developed in Uganda as part of Mercy Corps' global initiative to prevent exploitation and abuse. CARM provides a channel for all community members to provide feedback, suggestions, complaints, and concerns, in a manner that is safe, confidential, transparent, and accessible, enabling Mercy Corps to make adaptations to program activities and/or address any safeguarding concerns.

All direct beneficiaries of the project and other related stakeholders will be informed about the CARM mechanism for resolution of conflicts and the complaint-handling mechanism of the project. Mercy corps with project partners will develop public information materials (leaflets and brochures) that explain the project, roles and responsibilities complete with detailed contact information of persons in charge (name, position, address, phone, email), and including access to information regarding the ad hoc complaint handling mechanism for the AF.

PART III: IMPLEMENTATION ARRANGEMENTS

A. Describe the arrangements for project/programme management at the regional and national level, including coordination arrangements within countries and among them. Describe how the potential to partner with national institutions, and when possible, national implementing entities (NIEs), has been considered, and included in the management arrangements

The project implementation is arranged as below:

No	Organisation	Roles and Responsibilities
1	Ministry of Water and Environment	● The accredited National Implementing Entity ● Oversee overall financial and monitoring aspects of the project. ● Reporting of project consolidated results to the Adaptation Fund ● Approval of project annual work plan and budget from the Executing Entity ● Approval of annual financial and technical reports from the Executing Entity ● Provide administrative and management support to the executing entity
2	Mercy Corps	● The Executing Entity ● Coordinate project management and implementation. ● Lead project' reporting through the consolidation of partner reports and submission of comprehensive final reports to the donor ● Ensure that the project creates an impact on the targeted beneficiaries. ● Lead on Project Monitoring and Evaluation (M&E) and Community Accountability ● Ensure compliance of project interventions with the national frameworks ● Prepare and submit semiannual and annual work plans and budgets to MWE. ● Provide semiannual and annual progress reports to MWE. ● Provide designated key personnel for coordination of project execution such as the Project Manager, Project Officer, and Monitoring, and Evaluation Officer ● Ensure liaison on project activities among and between the MWE, target beneficiaries, and key relevant key stakeholders

3	Pesitho	● Ensure the supply of ECOCA units. ● Build local production excl. building. ● Train technicians with ongoing support/training ● Train sales force ● Train cooking advisors ● Training of Trainers ● Build School Kitchens ● Train service technicians ● Investigate and integrate carbon credit schemes. ● Manage PAYGo and token generation incl. user management. ● Technology and quality monitoring ● Establish and manage revolving mechanism
4	Local NGO (to be identified), with MC support	● Map communities, identify sites for satellite nurseries ● Provide trainings on agro-forestry to small holder farmers ● Promote social behaviour change and run sensitisation campaigns to incentive reforestation ● Identify degraded areas for reforestation together with local authorities ● Map community sites for demonstration sites
5	Retailers and VSLAs	● Participate in direct implementation of project interventions. ● Participate in planning and implementation of project interventions
6	Beneficiaries (Youths, Women, People with disabilities)	● Participate in direct implementation of project interventions
7	FInancial Service Providers (FSP)	● Deliver tailored financing products to farmers to support the purchase or scale-up of tree nurseries or seedlings growing and for ECOCAs purchase.

B. Describe the measures for financial and project/programme risk management

Included in the table below.

C. Describe the measures for environmental and social risk management, in line with the Environmental and Social Policy for the Adaptation Fund.

Principle	Residual risk	Likelihood	Impact	Mitigation measures	Responsible

Environmental Risk Protection of natural habitats	The production and disposal of ECOCA technology may result in unintended environmental consequences such as improper waste management or water pollution.	Low	High	Environmental assessments and sustainable practices will be incorporated to mitigate these risks. Sustainable e-waste recycling centres will be established and awareness campaigns conducted on proper disposal or e-waste.	Mercy Corps/ Pesitho
Social Risk Gender Equity And Women's Empowerment	Women's status and representation may limit their meaningful participation in project activities	Medium	High	The project will ensure that women and men Participate fully and Equitably throughout the project cycle in order to ensure gender responsive outcomes and results. In addition to the consultations done already, women will be consulted on-site, during deployment of various project components. A Gender Assessment and Gender Action Plan have been developed to ensure that women and men are meaningfully engaged in project activities, and realise an equitable share of project benefits. Gender disaggregated data on gender responsive indicators and integrating of gender mainstreaming is reporting of all components will be adopted.	Mercy Corps/ Pesitho,

Financial Risk	Misuse, corruption, fraud and bribery	Low	High	Mercy Corps and Pesitho have rigorous financial controls in place for their operations and monitoring for its partners, reducing the risk of fraud occurring and also increasing its likelihood of detection if it does. This will be monitored in the project-specific risk register and issues log.	Mercy Corps and Pesitho
Institutional Risk	Safeguarding violation	low	High	The project will ensure signatory and compliance with Mercy Corps Code of Conduct for all staff and key partners, followed up by Safeguarding training and regular coaching/mentoring on safeguarding.	Mercy Corps

D. Describe the monitoring and evaluation arrangements and provide a budgeted M&E plan

Monitoring and Evaluation

Led by Mercy Corps, in coordination with Pesitho and the identified LNGO, the ACCESS program will establish an effective system to monitor and evaluate program implementation; use data to drive decision-making in enhancing quality implementation; generate concrete evidence to account for impact; use the data and evidence generated to improve programming and contribute to learning. Deploying Mercy Corps' MEL policy and minimum standards, monitoring, and evaluation processes will ensure high-quality disaggregated data collection and management (at minimum, by gender, age, and disability), and effective performance measurement through quarterly analysis, dissemination, and utilisation of lessons learned to facilitate integration and program adaptation.

Supported by the project manager, the MEL activities will be overseen by a dedicated MEL officer which will play a pivotal role as the focal point for Mercy Corps and Pesitho in the harmonisation and standardisation of tools and data management systems across the program to ensure consistent and accurate routine monitoring, data collection, quality assurance and reporting of activities and milestones (see below). Mercy Corps Uganda country MEL manager will provide overarching technical and back stocking support. At the inception stage, the program MEL plan, performance indicators, draft data collection and analysis plan, learning agenda, roles, and responsibilities will be clearly defined in consultation with the funder.

A broad-scope baseline (including on market-related aspects) with targeted participants and any groups will be undertaken to establish access, affordability, and willingness to pay for alternative cooking energy solutions. A household level survey on wood fuel consumption will be also undertaken to estimate how much HHs level collection and consumption contributes to deforestation in the areas and as well as to track the impact the project has in incentivizing the reduction of wood collection and therefore contributing to diminish the overall deforestation rate. As continuous support and in strengthening implementation, routine data will be collected including post-distribution monitoring assessments as after-sales service of the alternative cooking energy products to better understand the implementation processes, utilisation of the products, gather emerging urgent needs of the participants, and areas of improvement as relates to the energy cooking system. Performance evaluation will gather data from participants and their households, as well as smallholder businesses utilising the ECOCA energy system. The evaluation will broadly look at information related to access and affordability of the energy cooking system; utilisation (attitude and behaviours); gains through using the energy system (time and income); environmental protection realised. A mixed-method approach to the evaluation will be adopted applying quantitative and qualitative methods.

During the implementation of the project, Mercy Corps will continue to collect and respond to community feedback through the implementation of its Community Accountability and Reporting Mechanism (CARM). CARM has been developed in Uganda as part of Mercy Corps' global initiative to prevent exploitation and abuse. CARM provides a channel for all community members to provide feedback, suggestions, complaints, and concerns, in a manner that is safe, confidential, transparent, and accessible, enabling Mercy Corps to take safeguarding decisions and community-informed program adaptations to the proposed activities.

Quality Assurance, Data, and Information Management
Using ONA, which is Mercy Corps' recommended MEL Tech platform, data will be collected by deploying tools on tablets and/or smartphones for digital data collection. The collected data from the field will be uploaded onto the server (cloud) to be retrieved, cleaned, analysed, and interpreted to produce reports. The projects' results framework will be hosted onto the Tola Data system where all the indicators will be uploaded, monitored, and tracked through monthly updates of results linked to evidence filed on Google Drive /SharePoint. All data will be disaggregated by sex, age, and disability whenever possible.

Regular data quality assessments on agreed indicators will be assessed in line with Mercy Corps MEL policy and minimum standards to check for their validity, reliability, timeliness, precision, and integrity. Data will be maintained through strict compliance with Mercy Corps policies and global policies (e.g., GDPR) to safeguard and prevent unauthorised access or distribution of personally identifiable information, demographically identifiable information, and other sensitive data.

Project monitoring and evaluation costs| $ 96,482

Key Monitoring and Evaluation activities are highlighted in the table below and the attached budget for a total cost of $ 96,482 for 36 months of implementation to cover: Inception Studies, CARM Budget (toll-free line rollout, training, IEC material), Regular monitoring (spot check, etc.), Midline, Endline & Learning Reports, Program quarterly internal review meetings targeting all relevant stakeholders aimed at tracking progress and documenting learnings, Communication Materials, Graphic Design, Video/audio Production, Including, Final Performance Internal Review (FIPR), Closeout meeting.

Monitoring and Evaluation			
Deliverable	**Deliverable breakdown**	**Method of data collection**	**Frequency of data collection**
Inception Studies Baseline and Assessment studies	- 4 Assessment reports produced: - 1 Baseline Assessment - GESI assessment - Conduct risk and vulnerability assessments - 1 Willingness to Pay studies. - 1 HHs Survey on wood fuel consumption	Surveys, FDGs, KII	At the beginning of the project
Quarterly joint monitoring, spot checks + reviews	- 8 joint monitoring and spot checks	Spot checks Report	Quarterly
Lessons learned briefs	- 3 lessons learned briefs produced	Learning briefs	Quarterly
CARM sensitization and feedback collection	- At least 8 CARM sensitization and feedback sessions held	CARM report	Quarterly
Midline Assessment	- 1 midline conducted	Midline report	After 15 months
Endline Assessment	- 1 endline conducted	Endline report	End of project (36 months)
Procurement of core administrative costs			
Payment of Staff Salaries	Dedicated Project staff and Support staff	Staff Contracts	Daily

E. Include a results framework for the project/programme proposal, including milestones, targets and indicators.

Component	Result Level	Indicators	Target	Data collection method	Frequency of data
	Goal: To increase the resilience and improve living conditions in the Acholi sub-region of Uganda through a landscape approach that combines ecosystem restoration, promotion of sustainable land management practices, and increased access to affordable, climate-resilient technologies, including alternative cooking solutions in the Acholi sub-region, Uganda.	**Indicator 1: Number of participants (direct and indirect) Donor Indicator** **Indicator 2: Net additional full time/part time/short term/seasonal equivalent jobs created in target enterprises as a result of the program or intervention per year and cumulatively** **Indicator 3: % of participants who report a a perceived reduction of the risk of gender based violence as a result of access to climate-resilient technologies** **Indicator 4: % of participants reporting improved resilience to climate shocks (e.g., droughts, floods) as a result of the intervention** **Indicator 5: % increase in income from agroforestry products (e.g., fruits, shea butter) for participating households** **Indicator 6: % increase in vegetation cover in disaster-prone areas (serving as natural buffers against hazards)**	Direct 157,753 and Indirect 788,765 90 60% 80% 50% 20%	Household Surveys, annual surveys, midterm assessment, Count of the participant's database, Job creation tracking templates, Market assessments, Field observations or monitoring visits	Bi-annual,Baseline, endline and annual

Component/Specific objective 1 - Reduce deforestation linked to biomass fuel collection and usage for cooking in the program area through establish a market for Climate-resilience, gender-inclusive, and financially-sustainable technologies	Outcome 1. Increased climate resilience and sustainable ecosystem services management in the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo)	Indicator 1.1: Hectares of lands under improved natural resource management Indicator 1.2: # of households reporting diversified income sources from ecosystem-based activities (e.g., agroforestry products, beekeeping) Indicator 1.3: Hectares of land restored through agroforestry and reforestation efforts	6,800 2,000 6,000	GIS mapping, Remote sensing or satellite imagery analysis, Field observations or monitoring visits, Field observations, monitoring visits, Surveys	Annual, Baseline and endline
	Output 1.1: Enhanced community capacity for implementing and benefiting from Farmer-Managed Natural Regeneration (FMNR) and agroforestry	Indicator 1.1.1: % increase in knowledge among people adopting reforestation and agroforestry practices Indicator 1.1.2: % of participants (disaggregated by age, gender) who have adopted climate-smart agriculture practices and agroforestry techniques on their farms	80% 70% 5,000	Baseline, Endline,Households survey, Count on the signed attendance sheets, Event MEL monitoring checklist	Quarterly and Annually

		Indicator 1.1.3: # of households practicing reforestation and agroforestry Indicator 1.1.4: % of participants who have adopted the recommended practices in the financial literacy training sessions Indicator 1.1.5: % of women and youth actively participating in land restoration committees Indicator 1.1.6: % increase in women's participation in value-chain activities	80% 40% 10%		
	Ouput 1.2: 4,800 hectares of land restored and sustainably managed	Indicator 1.2.1: % Trees surviving after one year Indicator 1.2.2: # of hectares restored through community managed reforestation Indicator 1.2.3: # of hectares restored through ECOCAs subsidies Indicator 1.2.4: # of hectares managed by women's and youth groups	80% 4,800 2,000 2,720	Household Surveys, Tree planting and survival rate tracking templates, Remote sensing or satellite imagery analysis, GIS mapping	Annually
Component/Specific Objective 2 - Restore degraded landscapes in	Outcome 2. Increased adoption and utilization of ECOCAs by vulnerable community members	Indicator 2.1: # of participants (disaggregated by age, gender, and status (refugee/host) that have gained access to renewable energy as a result of ACCESS support Indicator 2.2: % of participants who regularly use ECOCAs for cooking	6,000 (6,000 Ecoca x avg HH of 6)	Household Surveys, annual surveys, midterm assessmentand count of the	Quarterly, Annual

the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo) through an ecosystem services approach			80%	distribution or sales records	
	Output 2.1. Improved knowledge attitude and practices regarding the benefits and usage of ECOCAs for cooking, lighting, and charging and the dangers of biomass fuel for cooking	Indicator 2.1.1: # of people reached with awareness campaigns on the benefits of ECOCAs Indicator 2.1.2: % of participants with improved knowledge of the benefits and uses of cleaned cooking	157,753 92%	Household Surveys, annual surveys, midterm assessment	Annual
	Output 2.2. Increased access to ECOCAs for 8,000 vulnerable HHs and 5 schools	Indicator 2.2.1: # of ECOCA (disaggregated by age, gender) that have been provided distributed to HHs through the ECOCA initiative Indicator 2.2.2: # of hhs accessing subsidized ECOCAS Indicator 2.2.3: # of schools accessing clean cooking energy through the ECOCA initiative	1,000 1,000	Count of the ECCOA distribution and sales records	Quarterly
Component/Specific objective 3 - Ensure efficient and effective Project Management and continuous learning and adaptation	Outcome 3 Ensure robust learning, knowledge management, and dissemination framework	Indicator 3.1 # of Policy reforms or initiatives implemented or influenced on offgrid energy solutions Indicator 3.3 # of project learning briefs produced	1 policy initiative adopted 6 products	Review of the policy review documents	Annual
	Output 3.1 Relevant knowledge products prepared and disseminated to key Stakeholders	Indicator 3.1.1: # of learning events conducted at district, regional and national level Indicator 3.1.3: # of NGOs, INGOs and PSAs actively participating in Energy & Environment Group	6 learning events (1 national, 1 regional) 20	Review of the learning products	Bi-annual

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

Project Objective(s)	Project Objective Indicator(s)	Fund Outcome	Fund Outcome Indicator	Grant Amount ($)
Goal: To increase the resilience and improve living conditions in the Acholi sub-region of Uganda through a landscape approach that combines ecosystem restoration, promotion of sustainable land management practices, and increased access to affordable, climate-resilient technologies, including alternative cooking solutions	**Indicator 1: Number of participants (direct and indirect) Donor Indicator** **Indicator 2: Net additional full time/part time/short term/seasonal equivalent jobs created in target enterprises as a result of the program or intervention per year and cumulatively** **Indicator 3: % of participants who report a a perceived reduction of the risk of gender based violence as a result of access to climate-resilient technologies** **Indicator 4: % of participants reporting improved resilience to climate shocks (e.g., droughts, floods) as a result of the intervention** **Indicator 5: % increase in income from agroforestry products (e.g., fruits, shea butter) for participating households** **Indicator 6: % increase in vegetation cover in disaster-prone areas (serving as natural buffers against hazards)**	Outcome 6: Diversified and strengthened livelihoods and sources of income for vulnerable people in targeted areas Output 1.1: Risk and vulnerability assessments conducted and updated	6.2. Percentage of targeted population with sustained climate-resilient alternative livelihoods 1.1. No. of projects/programmes that conduct and update risk and vulnerability assessments (by sector and scale)	4,644,572
Project Outcome(s)	**Project Outcome Indicator(s)**	**Fund Output**	**Fund Output Indicator**	**Grant Amount ($)**

Outcome 1. Increased climate resilience and sustainable ecosystem services management in the Acholi sub-region (Agago, Amuru, Gulu, Kitgum, Lamwo, Nwoya, Pader and Omworo)	Indicator 1.1: Hectares of lands under improved natural resource management Indicator 1.2: # of households reporting diversified income sources from ecosystem-based activities (e.g., agroforestry products, beekeeping) Indicator 1.3: Hectares of land restored through agroforestry and reforestation efforts	Output 2.1: Strengthened capacity of national and sub-national centres and networks to respond rapidly to extreme weather events Outcome 5: Increased ecosystem resilience in response to climate change and variability-induced stress	2.1.1. No. of staff trained to respond to, and mitigate impacts of, climate-related events (by gender) 2.1.2 No. of targeted institutions with increased capacity to minimize exposure to climate variability risks (by type, sector and scale) 5. Ecosystem services and natural resource assets maintained or improved under climate change and variability-induced stress	2,808,861 1,383,872
Outcome 2 Increased adoption and utilization of ECOCAs by vulnerable community members	**Indicator 1.1: % of vulnerable community members reporting increased access to energy for cooking** **Indicator 1.2: % of participants (disaggregated by age, gender, and status (refugee/host) with improved knowledge of the benefits and uses of ECOCA** **Indicator 1.3: % of participants who regularly use ECOCAs for cooking**			
Outcome 3 Ensure robust learning, knowledge management, and dissemination framework	**Indicator 3.1** # of Policy reforms or initiatives implemented or influenced on alternative cooking energy **Indicator 3.2** # % Budget burn rate Indicator 3.3 # of project learning briefs produced	Output 8: Viable innovations are rolled out, scaled up, encouraged and/or accelerated.	8.2.1 No. of key findings generated from an innovation practice, tool, and/or technology 8.2.2 No. of learning and sharing initiatives undertaken, including communication initiatives	102,875

G. Include a detailed budget with budget notes, broken down by country as applicable, a budget on the Implementing Entity management fee use, and an explanation and a breakdown of the execution costs.

The budget and budget description are attached.

H. Include a disbursement schedule with time-bound milestones

	Upon signature of Agreement	One Year after Project Start a)	Year 2b)	Year 3	Year 4 c)	Total
Scheduled date	Sep-24	Sep-25		Sep-26		
Project Funds	2,085,282	1,866,870		692,420		4,644,572
Implementing Entity Fees	135,464	151,319		68,645		355,428
Total	**2,220,746**	**2,018,189**	**0**	**761,065**	**0**	**5,000,000**

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

A. Record of endorsement on behalf of the government[37] *Provide the name and position of the government official and indicate date of endorsement for each country participating in the proposed project / programme. Add more lines as necessary. The endorsement letters should be attached as an annex to the project/programme proposal. Please attach the endorsement letters with this template; add as many participating governments if a regional project/programme:*

(Enter Name, Position, Ministry)	Date*: (Month, day, year)*
(Enter Name, Position, Ministry)	Date*: (Month, day, year)*
(Enter Name, Position, Ministry)	Date*: (Month, day, year)*

[37] 6. 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.

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 of the Adaptation Fund and on the understanding that the Implementing Entity will be fully (legally and financially) responsible for the implementation of this project/programme.	
Name & Signature Implementing Entity Coordinator	
Date: *(Month, Day, Year)*	Tel. and email:
Project Contact Person:	
Tel. And Email:	

Letter of Endorsement by Government

[Government Letter Head]

[Date of Endorsement Letter]

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

Subject: Endorsement for [Title of Project/Programme]

In my capacity as designated authority for the Adaptation Fund in [country], I confirm that the above (select national or regional) project/programme proposal is in accordance with the government's (select national or regional) priorities in implementing adaptation activities to reduce adverse impacts of, and risks, posed by climate change in the (select country or region).

Accordingly, I am pleased to endorse the above project/programme proposal with support from the Adaptation Fund. If approved, the project/programme will be implemented by [implementing entity] and executed by [national or local executing entity].

Sincerely,

[Name of Designated Government Official]
[Position/Title in Government]