Acorn

This document represents the basic layout and describes the required input for an ADD (**Acorn Design Document**).

Of each project within Acorn an ADD should be provided. The ADD should be stored and made available on the Acorn platform for the stakeholders concerned. This report is drawn up in close collaboration between the local partner and Acorn staff members. The local partner is responsible for providing all required information and performing the assessments. Acorn is responsible for the quality and continuously updating of the ADD. The ADD can be requested by validation and verification bodies and certifiers for third party oversight or quality checks at any given time.

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Farm Africa Acorn Design Document

Kenya | Embu

Date of Submission: March 2023

Part A: Project Summary

Question	General Information	Answer
1	**Project title**	Incentivising Regenerative Agriculture Project farmers to an Agroforestry System in Eastern Kenya
2	**Project location - country, region & district** (attach map if possible)	Kenya: Embu district. Please refer to Annex 1 for a map of the project areas. The project intends to onboard farmers in Tharaka Nithi when scaling.
3	**Ecoregion(s)**	Northern Acacia-Commiphora bushlands and thickets, and East African montane forests.
4	**Local partner representative** (name & position)	*Information removed for data protection purposes*
5	**Local partner mission statement**	To promote sustainable agricultural practices, strengthen markets and protect the environment in rural Africa.
6	**Contact details** (phone, email, & address)	*Information removed for data protection purposes*
7	**Main cash crop(s)**	Sorghum, maize, legumes (cowpeas), and beans (green grams).
8	**Project target group**	We are targeting small holder farmers with less than 10 ha of land in the regions of Embu and Tharaka Nithi. Our target group is any farmer who meets the eligibility requirements of the Acorn Framework to allow all farmers that wish to transition to agroforestry an equal chance join the project.
9	**Number of existing participants**	17,674 smallholder farmers
10	**Potential number of additional participants**	46,000 small holder farmers (Approx. 30,000 in Embu and 16,000 in Tharaka Nithi).
11	**Estimated total size of project area (ha)**	14,154.87 hectares
12	**Describe the project's aims and objectives** (e.g. the problems this project will address)	To contribute to the development of a food and farming system within a sustainable framework by employing regenerative, context-specific innovation and models that appreciate local diversity and attain climate resilience and food security for small holder farmers in Kenya.

13	**Describe how smallholder farmers/communities were involved during the design of the agroforestry project.** (Provide evidence of participation, e.g. workshops, meetings)	Needs assessment and baseline surveys were carried out at the onset of Phase I (project design) of the project through 412 (43% male and 57% female) in person farmer interviews with a structured questionnaire, from 10th September 2020 to 21st September 2020. The topics addressed in the needs assessment were: tree species planted and the agroforestry design and trainings received on agroforestry. During this assessment and meetings, farmers raised the issue of needing income diversification and a financial incentive for planting trees. From this outcome, Farm Africa investigated and sought out carbon finance with Acorn. During project initiation a face to face county level meeting was also carried in the project area with 167 smallholder farmers (including a mix of women, youth, elderly and other disadvantaged groups, including the illiterate, tribal groups, and those with smaller land sizes).Topics discussed were project objectives, criteria for selection of village based advisors (VBAs), modalities of engagement with stakeholders and participants. At the start of the Acorn project intervention, Farm Africa together with a neighbouring Acorn project (Trees for Kenya) held a meeting with farmers as a precursor to the ongoing project council meetings that will take place as part of the project intervention (see Annex 6).
14	**Provide a general description of current socioeconomic conditions in the project area** (income, poverty level etc.)	**EMBU COUNTY** Self-employment in the county is very high. More than 55 percent of the population are self-employed with 11.2 percent doing family business and 44.3 percent are engaged in family Agricultural holdings. Businesses such as small-scale retails, wholesaling and jua kali sector contributes significantly to self-employment in urban and market centres. In rural areas, the engagement is mainly in cash crop farming including tea, coffee, miraa and dairy farming. The majority of the labour force is engaged in tea, coffee and miraa picking, transport sector (Matatu and Bodaboda), sand harvesting and stone quarrying among others. The labour force is mainly unskilled with high incidences of child labour especially in Mbeere south and north sub-counties. Unemployment levels In Embu County, an average of 5.0 percent of the population is unemployed, which is slightly lower than that of the Country (7 percent). The unemployment is highest in Mbeere South at 7.7 percent and lowest at Mbeere north sub-counties. **THARAKA NITHI COUNTY** The number of people on wage employment is estimated to be 9,188. These are people working for the government institutions and other private institutions such as financial institutions and retail shops. There are

few public and private hospitals in the county, which serve as a source of employment. A huge percentage of the county population is self-employed with several established businesses in the town centres. Majority of the people in the rural areas engage in livestock and crop farming, private businesses and other forms of income generating activities. In the county's urban centres mobile phone banking is on the rise and therefore such businesses are on the rise. The productivity level of tea, coffee, bananas, beans and maize is high in the upper zone of the county while the productivity of green grams, millet, sorghum and black beans is high in the lower zone of the county. The County has a lot of untapped potential in economic activities such as trade and tourism. Notably, wholesale and retail trade are predominant economic engagement both in the urban and village centres. With the advent of youth and women fund at the county, people have been in the forefront in coming up with proposals in order to access capital to initiate trade activities. However, a majority of new entrepreneurs lack the required skills to undertake business ventures. According to the 2009 census, Tharaka Nithi County has 202,887 (55.5%) people in the labour force category. A majority of these people are concentrated in the urban areas. Most people work in government offices, businesses and farming. However, some of these people are unemployed, underemployed or in wrong careers. Unemployment Levels As indicated earlier, about 72% cent of the county's population are between zero and 35 years of age of which. 29% aged 18 to 35 years. A majority of this group are youth who have completed their education but unable to access employment. Most of these young people abuse alcohol and other drugs. As a result, there is high insecurity in the county. The young people should be sensitized on available resources in the county offered by the government. These government initiatives include the Youth, Women, Revolving Loan Funds and other small and micro enterprises funds. Such funds would give them capital to start income generating activities.

| 15 | **Describe how the agroforestry intervention proposed is expected to impact the following;** | **a. Food security/nutritional intake:** Droughts are frequent and severely reducing per capita food production. An estimated 12 million people (UNEP 2009) of the country's population depend directly on land and as the population continues to grow, the resource is expected to become increasingly degraded unless urgent remedial measures are taken. Macadamia nuts, citrus, mangoes and avocado fruits are a reliable source of vitamins at household level. These will be grown to improve nutrition both for domestic use and for surplus for markets. Farmers will sell the surplus in the local |

		markets and other towns the project area and will generate additional income that can be used to purchase nutritious food.
		b. Farmer financial state: This will improve farmer income status through income generating activities including fruit tree and agroforestry nurseries and sale of surplus mature fruits. Farmers will establish tree nurseries (one nursery shared per ward level) and sell tree seedlings to farmers in the areas. Farmers will also earn extra income from sale of honey and other bee products promoted in this project. Farmers in the program will also earn carbon credits through carbon trading since the trees provide carbon sinks.
		c. Gender Equality: This project does not target gender equality as an indicator in this project, however will ensure inequalities are not reinforced by onboarding and training both men and women and involving them equally in the design of the agroforestry system to ensure enhanced livelihood at household level.
		d. Farmer access to resources: Many indigenous species, products of long-term evolution of the ecosystem, do not tolerate heavy land use by farmers, grazers and settlers. Indigenous plant species are indeed on the decline while exotic and common species are on the increase. This means that availability of wild resources that people value, like food plants, medicinal plants, and other traditional plant resources are declining. By supporting farmers to create their own nurseries to raise seedlings this increases access to planting materials for other farmers. When fruits reach peak productive age farmers will be earning regular seasonal income from sale of nuts and fruits which will increase the household income hence ability to purchase other needed resources for maintenance of the farm or household. Farm Africa provide seedlings at a discounted rate and support the establishment of shared farmer run nurseries. In this project, farmers are also liked to stakeholders whose core business is beekeeping.
		e. Biodiversity on farms: As cultivated areas expand, the continuum of natural ecosystems has fragmented into smaller patches reducing the diversity, complexity and distribution range of ecosystems and the species found in them. As the natural vegetation continues to be replaced by croplands, key species have migrated or have become locally extinct, giving way to the more common species (largely herbaceous weeds and pests). The proposed trees are flowering and flower at different seasons of the year and will attract pollinators that are key in fruit tree farming and pulses. The farmers will set up beehives in the farms to house bees. Prevention of Soil Erosion will occur as the roots of the trees will firm up the soil crops.

		As mentioned under 15.d above, Indigenous plant species are indeed on the decline while exotic and common species are on the increase. Farm Africa will mitigate this loss by incorporating native/indigenous tree species in the agroforestry design such as *Moringa stenopetala* which has a high nutritional and medicinal value.
16	**Describe any known local land degradation/deforestation processes or trends, and drives of these** (e.g. population increase, fire, conversion for agriculture)	The main contributors to environmental degradation in the county include, sand harvesting, land degradation, deforestation especially in farming areas, illegal logging and charcoal production in ASALs in Mount Kenya forest and wet land encroachment especially near major waterways in the county. In addition, the practice of farming on hilly areas particularly in Mbeere Sub counties has also resulted to soil erosion, which adversely affects the environment. Extraction of other building materials such as rocks and mud to make bricks also continues to degrade the environment.

1. Charcoal Production Over 11 percent of Households in Embu County use charcoal energy. Manyatta sub-county has the highest level of charcoal use at 20 percent, which is higher than Mbeere South, which stands at 7 percent. Despite being a major contributor to socio-economic development and employment, its intensive use greatly affects our environment due to increase cutting down of trees, which degrades the land. Over the years, the dependency on charcoal use in the county has decreased and this is due to increased sensitization and development of new land management techniques. The mainstreaming land management project trained locals from Mbeere Sub-County on efficient and modern ways of producing charcoal and many households now appreciate the introduction of modern kilns since you use very little branches instead of cutting down an entire tree, which is helping in conserving and restoring the areas environment. By introducing fruit trees which have multiple benefits, farmers will generate more sustainable income from sale of fruits and nuts, reducing the risk of trees being cut down for charcoal production.

2. Land degradation This is the decrease in the quality of water, vegetation, and soil commonly caused by human induced activities. In Embu County, land is mostly used for agricultural and pastoral purposes. Agro- ecological zones in Embu are mostly Semi-humid to Arid. Land degradation is mostly caused by soil erosion, depletion of soil nutrient, loss of agro-biodiversity, overdependence on rain for farming activities and inappropriate regulatory and legal framework. Increased number of livestock and pastoralist population especially in Mbeere North and |

South sub-counties has led to increased grazing which consequently increases the level of land degradation. Lack of new and appropriate technologies has resulted to increased risks of landslides, which pose threats to the locals. In addition, it is evident that the average land ownership has greatly reduced over the years and this has led to concentration and overproduction of farming activities, which has led to depletion of soil nutrients.

3. Loss of soil productivity The inherent infertility of soils and soil erosion are major production constraints. On pasture land, the combination of overgrazing and raindrop impact cause soil compaction and surface sealing, leading to low infiltration rates and high runoff, water logging, and flooding. On croplands continuous cropping by resource poor families has caused further nutrient mining and decline in soil fertility. This is exacerbated by inadequate use of technology and/or application of integrated crop- livestock, agro forestry farming systems and poor irrigation practices in the irrigated lands. The result is a downward spiral of degradation, with poor soils and vegetation cover influencing agricultural productivity, ecosystem resilience, the hydrological regime, and food security and poverty. Reduced soil biota and biological functions due to soil degradation related to loss of soil organic matter (the substrate for soil life) and breakdown of the complex soil food web.

4. Deforestation of hilltops and dry lands Encroachment of agriculture into marginal land and increasing demand for fuel wood, charcoal, and timber is causing rapid deforestation particularly in Mbeere North and Mbeere South sub counties where barely every hill is under freehold. Lack of gazettement of the particularly significant hills like Kiangombe, Kianjiru and Kiambere and associated political influence has undermined sustainable management and conservation effort implemented by KFS and the local community. Other particularly threatened areas are riverbanks, hilltop forests and bush lands, which are facing increasing pressure from newly converted farmers from pastoralists. Example of such areas within the project sites are Kiambere hill in Mbeere South sub-county. These areas are considered biodiversity hotspots and of high ecological importance due to the abundance of indigenous tree species, availability of medicinal plants, wildlife and non-wood forest products. Conservation of natural forest in hilltops is vital for maintenance of ecosystem services such as hydrological regulation and biodiversity conservation. In addition, economic factors

such as low incomes and inadequate participation in the market economy have kept production at subsistence level, with minimal investment in improved practices. Cultural believes amongst the pastoralists and farmers that "nature is bountiful with infinite resources" have contributed to the unsustainable practices. Another contributor of land degradation is deforestation of dry lands and marginal lands particularly in Mbeere. This is mainly caused by exploitation of fuel wood for biomass fuel to supply the neighbouring KTDA in Embu and Kirinyaga, opening of new farmlands and charcoal production. Most of the affected trees are mainly indigenous varieties and the indigenous mango trees. By introducing fruit trees which have multiple benefits, farmers will generate more sustainable income from sale of fruits and nuts, reducing the risk of trees being cut down.

5. Recurrent droughts

The low lying arid zones of the county are prone to cycles of drought, increasing climatic variability and lack of knowledge among farmers to cope with unreliable rains have exacerbated the situation. While farmers are already dealing with the climate variability experienced in the last decades, the threat of significant climate change will make it harder for communities to keep adapting their practices accordingly. Based on climate change scenarios, it is estimated that the arid zones of the country will experience significant changes in precipitation and temperatures, with some places becoming wetter and others drier. These changes may pose dramatic impacts on the phenology, distribution and composition of grass species that form pastures for livestock, and upon which many people depend for their livelihoods.

6. **Sand Harvesting** This activity is taking place mainly along the river, spring basins and valleys in Mbeere mainly for commercial exploitation. The activity contributes to the following negative impacts: ⌉ Depletion of sand ⌉ Deepening of estuaries and rivers ⌉ Soil erosion ⌉ Water pollution ⌉ Drying up of the springs ⌉ Loss of biodiversity ⌉ Damage to roads and drifts. The activity is prevalent in Marivwe seasonal stream, Thura, Ciakithanga and other streams. The community feels that this activity needs to be controlled. Studies conducted in Mbeere sub-counties by KNA indicate that schools such as Igumori secondary school in Mbeere south sub-county students are forced to bring curtains from home so as to cover the windows due excess dust from speeding trucks ferrying sand.

7. Brick making in major wetlands brick making mostly takes place in wetland areas that have clay soils. This was seen to be increasing as more people in shopping centres use the bricks due to lack of suitable alternatives. This activity was also observed to be a significant use of fuel wood thus contributing to loss of tree cover near wetlands.

8. Quarrying A number of quarries exist within the county the major ones being Nganduri, Wachoro and Kanyueri area in Ishiara. The uncontrolled small-scale quarrying along riverbeds is a major contributor to riverbank erosion along some streams in the county. There is high demand for building materials including rocks and ballast, which has led to the increased mining activities within the county. There is very little rehabilitation that has been done and consequently, abandoned dangerous pits have been left. Quarry owners lack appropriate equipment, awareness on modern rehabilitative techniques which are costly and the absence of strict legislations that guide quarry operations. Most quarry workers are poor and claim that they are paid too little, yet they undertake very difficult tasks of extracting rocks and crashing ballast. High health risks including injuries by rocks or tools and falls are common. For instance, some have already lost their eyesight, sustained injuries, while there are reported death cases as a result.

9. Land pollution The major form of pollution is land pollution is from poor solid waste (non-hazardous garbage, rubbish and trash from homes, institutions, commercial and industrial facilities). Due to poor collection of waste in residential areas and towns it has led to the dumping of wastes such as plastics, foodstuffs, rubber, metals, leather and glass along the roads and foot paths. Most of this waste is non-biodegradable especially polythene paper despite the plastic bag ban which became effective from September 2017. The county government does not have an efficient refuse removal system and refuse disposal landfill.

10. Water pollution in the county is mainly from coffee industries, which discharge wastewater into watercourses after pre- treatment, or directly through seepage pit. Poor agricultural practices are also to blame for water pollution in the county as persistent agrochemicals from unsustainable agricultural practices may get eroded off into river courses. Farmers use pesticides and inorganic fertilizers, which may deposited

		in watercourses through surface runoff if erosion is not checked off in farmlands. Farm Africa will include training on the use (amount and type) of fertilisers and pesticides as part of the project. Sustainable land management can be achieved by using a powerful national land use regulatory framework, minimizing land degradation through appropriate soil and water management strategies, reclamation of dry lands, protection of forests and other critical ecosystems, agroforestry and promotion of conservation agriculture and water harvesting technologies. The major effects of environmental degradation include soil erosion which also contributes to loss of soil fertility, drying of rivers due to encroachment on river banks and wet land areas and wildlife migration to other areas due to deforestation. Farm Africa will train farmers in soil and water management practises (mulching, grass strips and terracing to control soil erosion and conserve water in the soil) as part of this project.
17	**Describe whether there is a low, medium or high risk of deforestation in the region where the project in located**	There is a high risk of deforestation in the project area without the project due to the high demand for timber, fuel, charcoal and from brick lacking activities as mentioned in row 15 above.
18	**Please select the following type of land use that best describes the project area**	Mixed crops and marginal land.
	Land Tenure	
19	**Estimated average plot size per farmer (ha)**	0.74 hectares per farmer.
20	**How is land tenure organised among participants** (formal titling, informal titling or land mapping)	**EMBU COUNTY** 46.4 percent of the poor population in Manyatta and Runyenjes constituencies have title deeds for their land and 53.6% the land is jointly owned by the head of the family (evidenced by allotment letters issued by ministry of lands). This is prevalent in land inheritance where the first born or original parent is named in the title deed and more common for female headed and youth headed households. In Mbeere North and Mbeere South sub counties, most of the land is owned at the family level but is freehold. The participating farmers in the project have their own land or family land. Mostly the head of family is the custodian of the land and the project participant, hence the title deed is under his or her name. The payment will be made to the participant and Farm Africa hope, by educated training and involving the family members in the project, it will trickle down to them. Farm

		Africa will keep the records of participants and their beneficiaries.
		THARAKA NITHI COUNTY Seventy percent of land is in the lower part of Tharaka constituency and Igambangombe and land tenure is evidenced by allotment letters issued by the ministry of lands, while 30% have title deeds. See Annex 2 for evidence of land tenure documentation types.
	The Agroforestry System	
21	**Is this project new or existing agroforestry or a combination**	Combination of existing and new agroforestry (9% existing and 92% new).
22	**Type of trees that have/will be planted under agroforestry scheme** (shade, fruit-bearing, medicinal)	Phase I includes farmers who have already planted trees in their plots. Here, the project intervention will promote both fruit and nut-bearing trees, including avocado, macadamia, *moringa stenopetala*, mangoes and citrus, and three leguminous and nitrogen-fixating trees, including: *Gliricidia sepium*, *Calliandra calothyrsus,* and *Grevillea robusta.* Phase II approaches new agroforestry, meaning, farmers who have not yet planted trees in their plots. Here the aim is to promote fruit and nut-bearing trees, such as macadamia, avocado, and citrus, and medicinal trees, such as *Moringa stenopetala.* Currently, the project focuses on Phase I and details regarding the agroforestry design for Phase II will come at a scaling scenario of the project.
23	**Describe how the agroforestry system is expected to impact the land** (e.g. more shade, less pests, less inputs – fertilisers, presence of pollinators)	Agroforestry will increase soil organic matter and available nutrients thus increasing farm productivity levels. The incorporation of fertilizer trees in the farms by planting fast growing leguminous trees, using leaf biomass as green manure and using nitrogen-fixing trees has provided necessary nutrients to food crops in the county. Prevention of Soil Erosion will occur as the roots of the trees will firm up the soil crops. Tree cover ensures that carbon sink and sequestration while at same time firming up soil thus preventing soil erosion.
	Project Additionality	
24	**Is the project incorporated by any other accounting program (e.g. compliance, voluntary or national GHG program)? If yes, describe how project ensures no double counting will take place.**	No, the project is not incorporated by any other accounting program.

25	**In what year and season will/were the first trees planted?**	In phase I, existing farmers began planting trees in October - December of 2020.
26	**Was the project established with the intention of receiving carbon finance for trees planted?**	No. The main goal of the project in 2020 was increased food security for the smallholder farmers through agroforestry offering soil nutrition and consumable tree products. During the needs assessment at the start of the project, it was identified that farmers needed more of a financial incentive to plant trees under agroforestry (more income diversification). The opportunity for carbon finance incentivises farmers to adopt and maintain agroforestry.
27	**Is this project mandatory under any national or local laws?** (List relevant forestry regulations, national climate change commitments etc.)	No. Kenya is a signatory to UNFCCC Paris agreement but their NDC does not mandate agroforestry projects.
28	**Without the project's involvement, would farmers have the necessary resources, skills, knowledge, finances, or network to successfully transition to a long-lived agroforestry system?**	No. The farmers lacked adequate knowledge on agroforestry and support on subsidized trees for planting. Farm Africa with carbon finance will intensively train the farmers on agroforestry designs and support a subsidized tree seedling scheme for the farmer to enhance uptake.
29	**What is the main driver encouraging farmers to transition to agroforestry?**	Better soil health, income diversification, increased productivity and enhanced climate resilience. However, farmers were not aware of these benefits though agroforestry until Farm Africa raised awareness.
30	**Was the promise of carbon credits the enabling factor for farmers to transition to agroforestry?**	Farmers are eager to transition to agroforestry after Farm Africa educated them on the benefits of agroforestry. However, both Farm Africa and farmers need an extra financial incentive of carbon finance to plant and maintain their trees long term (e.g. through carbon income generated into nursery establishment and training). It may not have been the main reason for the first farmers who began in 2020, however it was the key finding of the needs assessment for these farmers and the enabling factor for the 46,000 new farmers that will transition at scale.
31	**What are the biggest challenges faced by farmers?** (climate change, volatility in commodity prices, low productivity,	- Adverse effects of climate change, - Land degradation - Declining soil fertility

	access to resources, financial security, crop damage from wildlife, human conflict etc.)	• Limited access to extension services (agroforestry designs, farm planning and layout, tree nursery management and integration) • Weak input and output market linkages (no structured linkage between input providers and farmers and no reliable market for farmers produce) • Fragile semi agro-ecological zones
High-over business case		
32	**If existing agroforestry, how has this project been funded to date?** (financed by the local partner, the farmers, grants/funding, or a combination)	The project set up is premised on a Phase I funding by AGRA of the Regenerative Agriculture project. In Phase I, Agroforestry was one of the components promoted with an initial aim of soil sequestration hence the type of forestry promoted was leguminous trees.
33	**Briefly describe the costs for the farmer in this project** (e.g. seedlings, fertilisers, labour)	The project will a cost share mechanism with the engaged farmers. In this case, the project (Farm Africa) will cater for the costs of 50% seedlings, seedling transport and training. The farmer will cater for 50% of the seedling costs, organic manure and labour. Type of cost: Seedlings average cost 0.8 euro per seedling. Each farmer will plant 180 seedlings in 3 years Inorganic manure :farmers will adopt inorganic manures and mulching instead of synthetic fertilizers. Hence the fertilizer costs have been reduced. The labour cost for planting holes will become a part of the farmers cost share. Seedling distribution of seedlings will cost on average 300 kshs (Kenyan Shillings) per farmer which equals 2.46 euros per planting year. Farm labour: Farmer and family members mainly provide farm labour. In the agroforestry systems, the tree care is integrated with other farming activities. The approximate farm labour cost for 0.8ha for one year is 200Euro per farmer.
34	**Briefly describe the costs for the local partner in this project** (e.g. seedlings, onboarding, data collection, training, farmer engagement, planting materials etc.)	The local partner will cater for the 50% seedling costs (as indicated in the business case). The cost of seedlings: • 0.8 euro per seedling of fruit and nut tree x 180 trees in 3 years per farmer; • 0.1 euro per seedling of leguminous tree x 180 trees in 3 years per farmer; The cost of the seedlings transport is estimated at 0.01 x 180 trees in 3 years per farmer; The training cost is estimated an average of euro 15 (kshs 1800) per farmer per year for each year ie. 3 years; The project monitoring costs i.e., Data collection and monitoring and staff costs breakdown is as below for the first 3 years:

		1 year staff costs (training costs of the 300 VBAs)	Annually	14.76
		Project Manager	Annually	0
		Technical Manager	Annually	1000
		Data analysis M@E Coordinator 5 mandays @ 1500 per manday (=KES 75,000)	Annually	615
		Project officers	Annually	820
		Project coordinator/manager	Annually	2000
35	**How will this project be financed and by whom during the design/implementation stage** (e.g. financed by the local partner, the farmers, grants/funding, or a combination)	Phase II of the project will incorporate the carbon offset potential of agroforestry. The project design and the planting of the first trees is financed through the IKEA-AGRA Regenerative grant.		

Part B: Eligibility Checklists

Local partner eligibility checklist			
Topic	Sub-topic	Requested information	Result
Organizational capacity	Organizational structure	Provide a description of your organizational structure and roles of each organization involved for the project (attach diagram/table in annex).	Farm Africa is an international non-governmental organisation with over 35 years' experience. The organization designs and delivers development programmes, with around 30 active programmes currently being implemented, in Ethiopia, Kenya, Uganda, Tanzania and the Democratic Republic of Congo (DRC). Farm Africa is the implementing agency for the Regenerative Agriculture project called Building regenerative, sustainable and profitable smallholder agricultural transformative systems in upper eastern Kenya funded by AGRA -Alliance for Green Revolution in Africa. See Annex 3 for an organisational hierarchy.
	Organizational capacity	Provide a description of your "on the ground" capacity to undertake long-term community-led project(s) and implement agroforestry.	Farm Africa has been working with small-scale farmers, women and young people for over 35 years to help them find new ways to make a living and lift themselves out of poverty by promoting the sustainable management of fields, forests, grazing lands and water resources thus building communities' resilience to climate shocks. Farm Africa has been implementing the Regenerative Agriculture project since 2020 in Embu County and now in the second phase, it is being implemented in Embu and Tharaka Nithi counties. Agroforestry with mainly fruit trees is one of the practices that has been promoted as an approach of conserving the environment while at the same time

		contributing to improving soil health and the livelihoods of the farmers.
Sustainability	The local partner agrees with the Rabobank's sustainability policy.	Yes
GDPR	The local partner's current data handling policies are compliant with GDPR regulations.	Yes
Participant organization	Describe how the project is organized, or in the process of being organized, into cooperatives, associations, community-based organizations or other organizational forms able to contribute to the social and economic development of the participants and their communities, and which is democratically controlled by the participants.	The project targets 50,000 farmers and 320 Village-Based Advisors (VBAs) and aims to contribute to the development of food and farming systems within a sustainable framework by employing regenerative, context-specific innovations and models, that appreciate local diversity to attaining climate-resilience and food security for smallholder farmers. This will be achieved by enhancing productivity of farms and landscapes by employing appropriate mix of regenerative agriculture and input delivery systems; and developing, validating and sharing context-specific, private sector business models for the development of circular, regenerative agriculture. This will lead to an increase in farmers household income from crop production through RA. Participants are organized in groups of 200 farmers for one VBA (lead farmer), democratically selected by the group of farmers based on their ability to travel, communicate, and greater knowledge than the rest of the participants. Within these 200 farmers : 1 VBA groups, the participants are subdivided into smaller groups composed of 20 farmers (therefore, one VBA manages 10 groups) who meet on a regular basis, either weekly

	or biweekly, depending on the VBA's approach.	
Project effects	The project strives to not contribute, or does its utmost to avoid, environmental or (agricultural) biodiversity harm.	Yes
Entity	The local partner is an established legal entity that takes responsibility for the project and for meeting the requirements of the Acorn Framework for the duration of the project.	Yes
Local presence	The local partner has a strong in-country presence and the respect and experience required to work effectively with local participants and their communities.	Yes
Local policies	The local partner has a solid understanding of local policies and can confirm that the country's policy allows individual CRUs to be sold.	Yes
Influence	The local partner is capable of negotiating and dealing with government, local organizations and institutions.	Yes
Resources	The local partner is focused and has the organizational capability and ability to mobilize the necessary resources to develop the project (e.g. including access to seedlings, inputs, agronomic knowledge, monitoring and technical support).	Yes
Data collection	The local partner can provide reliable data (i.e. GPS polygons, phone numbers, other KYC data).	Yes
Training	The local partner has the ability to mobilize and train participants, and implement and monitor project activities.	Yes
Condition (i)	The local partner recognizes that the participant's involvement in the project is entirely voluntary.	Yes
Condition (ii)	The local partner recognizes that participants own the carbon benefits of the project intervention.	Yes

	Participant payments (i)	The project coordinator ensures that payments are made in a transparent and traceable manner.	Yes
	Participant payments (ii)	The project coordinator ensures that mobile payments to participants are either already possible or there are no foreseeable obstacles for this in the near future.	Yes
	Contributions	The local partner does not draw more than 10% of sales income for ongoing coordination, administration and monitoring costs. Exceeding this percentage is only possible in exceptional circumstances where justification is provided and Acorn formally approves a waiver.	Yes
	Participant identity	The local partner is able to collect and provide proof of participant's identity.	Yes
Tenure & rights	Land-tenure and carbon rights (i)	Provide a description of how land tenure is organized amongst the target project participants	The land tenure is freehold with farm holds having individual titles (title deeds or allotment letters from ministry of lands – see Annex 2).
	Land-tenure and carbon rights (ii)	The project applies to land over which the participant/community has (formal/informal) ownership or long-term user rights.	Yes
Sustainable land use activity	Land use	Provide a description of the current land use activities, before the start of the project intervention, within the project.	Participants use their land to grow mixed crops (coffee, sorghum, maize, beans, green grams, macadamia, avocado, mangoes, citrus, cowpeas). The two counties are characterised with predominantly rural settlement pattern. There is a concentration of people along the major permanent water source such as rivers and dams where irrigation, farming and fishing activities are carried out. The settlement is also influenced by social economic activities, rainfall and soil fertility. Mbeere South and North, Igamba ngombe, and Tharaka south and North receive less rainfall, hence the

		scattered population compared to Manyatta, Runyenjes and Maara sub-counties that receive more rainfall.
Project design	The project is/will be designed to promote sustainable land-use and has/will have a feasible business case underwritten by agronomist(s) and community representatives.	Yes
Deforestation	The local partner confirms that no deforestation has taken place five years before the start of the project intervention (project baseline). If this cannot be confirmed, a description of the cause of the deforestation is provided, including the measures that have been taken to prevent deforestation from happening again.	No. Some farmers practicing agroforestry (few) were selling their trees to the tea factories as fuel wood leading to level of degradation. However, for this new agroforestry design we are promoting fruit and nut tree due to their high economic benefit that supersedes the economic benefits of fuel wood. The training provided to farmers by Farm Africa, paired with the incentive of CRUs, will mitigate selling of trees for wood.
Additionality	The local partner ensures project additionality and ensures a durability period of 20 years.	Yes
Existing agroforestry (i)	Agroforestry at the farm level has been implemented less than 5 years before the start of the project intervention.	Yes
Existing agroforestry (ii)	Participants and local partners confirm that previously sequestered CO_2 on the land has not yet been monetized.	Yes
Existing agroforestry (iii)	Existing agroforestry has been funded largely by donors/grants.	Yes
New agroforestry	There is sufficient supply of seedlings, inputs, water and other required resources.	Yes
Naturalized species	The local partner promotes the use of native species. The use of naturalized species is acceptable under the conditions outlined in the Framework.	Yes

| | Current habitat | Provide a description of the current ecosystem and species of the project area. | Embu and Tharaka Nithi counties have large diversity of ecological zones and habitat, including lowland and mountain forest, semi-arid scrublands and inland aquatic ecosystems. Mbeere South and North, Igamba ngombe, and Tharaka south and North receive low rainfall, compared to Manyatta, Runyenjes and Maara sub-counties that receive higher rainfall. Animal species that can be found in the project area include monkeys, birds, rabbits, gazelle, antelope, elephant, mongoose, hornbill, weaver birds and squirrels. See Annex 10 for list of tree species present in the present project area and project area at scale. |

Participant eligibility checklist			
Topic	Sub-topic	Requested information	Result
Organizational Capacity	Smallholder labour force	Participants are not structurally dependent on permanent hired labor, and manage their land mainly by themselves with the help of their families.	Yes
	Smallholder farm size	The cultivated land of participants does not exceed 10 ha.	Yes
	Resources	Participants have the ability to mobilize the necessary resources to implement the project.	Yes
	Data collection	Participants can allow reliable data to be collected for the project (i.e. GPS polygons, phone numbers, other KYC data).	Yes
	Condition (i)	Participants are aware that their decision to participate in the project is entirely voluntary.	Yes
	Participant identity	Participants are able to provide proof of their identity.	Yes
Tenure &	Land-tenure and carbon rights (i)	Provide a description of how land tenure is organized.	The land tenure is freehold with farm holds having individual titles (title deeds or

			allotment letters from ministry of lands – see Annex 2).
	Land-tenure and carbon rights (ii)	The project applies to land over which the participant/community has (formal/informal) ownership or long-term user rights.	Yes
Sustainable land use activity	Land use	Provide a description of the current land use activities within the project.	Participants use their land to grow mixed crops (coffee, sorghum, maize, beans, green grams, macadamia, avocado, mangoes, citrus, cowpeas). The two counties are characterised with predominantly rural settlement pattern. There is a concertation of people along the major permanent water source such as rivers and dams where irrigation, farming and fishing activities are carried out. The settlement is also influenced by social economic activities, rainfall and soil fertility. Mbeere South and North, Igamba ngombe, and Tharaka south and North receive less rainfall, hence the scattered population compared to Manyatta, Runyenjes and Maara sub-counties that receive more rainfall.
	Deforestation	Participants confirm that no deforestation has taken place five years before the start of the project intervention (project baseline). If this cannot be confirmed, a description of the cause of the deforestation is provided, including the measures that have been taken to prevent deforestation from happening again.	No. Some farmers practicing agroforestry (few) were selling their trees to the tea factories as fuel wood leading to level of degradation. However, for this new agroforestry design we are promoting fruit and nut tree due to their high economic benefit that supersedes the economic benefits of fuel wood. The training provided to farmers by Farm Africa, paired with the incentive of CRUs, will mitigate selling of trees for wood.

Additionality	Participants ensures project additionality and is aware that the project has a durability period of 20 years.	Yes
Existing agroforestry (i)	Participants confirm agroforestry at the farm level has been implemented less than 5 years ago.	Yes
Existing agroforestry (ii)	Participants confirm that previously sequestered CO_2 on the land has not yet been monetized.	Yes
Existing agroforestry (iii)	Participants have received donor/grant funding for a significant part of their existing agroforestry practices.	Yes
Current habitat	Provide a description of the current ecosystem and species of the project area.	Embu and Tharaka Nithi counties have large diversity of ecological zones and habitat, including lowland and mountain forest, semi-arid scrublands and inland aquatic ecosystems. Mbeere South and North, Igamba ngombe, and Tharaka south and North receive low rainfall, compared to Manyatta, Runyenjes and Maara sub-counties that receive higher rainfall. See Annex 10 for list of tree species present in the present project area and project area at scale. Animal species that can be found in the project area include monkeys, birds, rabbits, gazelle, antelope, elephant, mongoose, hornbill, weaver birds and squirrels.

Part C: Additionality Assessment

Positive list	Demonstrate that the project meets requirements (a) and (b) and at least one of the requirements (c) and (d).	
	(a) The project area is located in a country or region with a recent UNDP Human Development Indicator[1] below or equal to 0.8.	The HDI score of Kenya is below 0.8, measuring 0.575.
	(b) The project shall not be mandatory by any law or regulation, or if mandatory, the local partner shall demonstrate that these laws and regulations are systematically not enforced.	See the UNFCCC nationally determined contribution of Kenya (2020), the Draft National Forest Policy (2020), and the National Climate Change Action Plan 2018 - 2022, under which agroforestry projects are not mandatory.
	(c) The project is located in a region with a mean annual precipitation of less than 600 mm[2].	No, the annual rainfall is measured at 1057 mm in both Embu and in Tharaka Nithi regions.
	(d) The project area is (predominantly) located in a country or region with a recent UNDP Human Development Indicator below 0.6.	The HDI score of Kenya is below 0.6, measuring 0.575.
Barrier analysis	Demonstrate that the project intervention would not have taken place due to a least one of the following barriers.	
Type of barrier	Situation without project	Situation with project
Financial and technical barriers	In the project area, there is low productivity, hence no produce available for sale leading to low incomes, which in turn leads to high poverty levels. Farmers could not access loans for planting materials as the available loan schemes have high interest rates and farmers shy away due to lack of collateral as a requirement. The farmers did not have knowledge on carbon markets or access to them. The limited finances of Farm Africa and farmers only allowed 4096 farmers raising cereal and pulses in Embu County to begin their agroforestry transition since 2020 Oct-Nov. However, in 2020, there as a lack of knowledge on the technical benefits of agroforestry on food crop production. Farmers also lacked adequate capital (considering the overall cost of seedlings includes hiring transport due to their bulky nature) to buy certified seeds/seedlings and nursery materials such as potting bags, manure, fertilizers and chemicals for use to	The carbon finance provided by Acorn to farmers will help them purchase more planting materials to continue planting and optimising their agroforestry system (existing) and allowing them to transition to agroforestry (new). This carbon finance will ensure they have a financial buffer and additional source of income so they can afford food, education and medicine and not need to cut down trees in times of severe financial hardship. The promise of carbon finance will help more farmers transition to agroforestry because they are rewarded for their effort in changing farming practices. The 4096 farmers who have recently begun the transition to agroforestry are the ones in the Phase I of the regenerative project reached with

establish nurseries. Farmers also lacked knowledge on species for use in an agroforestry design, germination of agroforestry seeds and nursery management. In the project area there is limited access to high quality preferred and certified planting materials and seedling species (*true to type per species, seeds or grafting material sourced from a certified traceable farm, non-diseased, correctly potted in correct sleeve sizes, recommend plant height, from a certified nursery, for fruit and nuts they must are certified by Horticultural Crops Directorate and Kenya Plant Health Inspectorate Services, and a licence issued on the same for other agroforestry trees that are certified by Kenya forestry Research Institute).* Before the project, farmers would travel for long distances to acquire seedlings and would obtain low quality seeds that are not true to type. Farmers also struggled with low purchasing power for fertilizers and organic manure in the drylands where livestock keeping isn't a dominant livelihood activity. Regarding input -output markets, the extension to farmer ratio in Kenya stands at 1:1100 and farmers travel more than 5 kms to access agricultural inputs and markets.

trainings. With financial support from carbon income for Farm Africa the project will integrate agroforestry designs and systems within cereal and pulses value chains in both Embu and Tharaka Nithi counties to reach 50,000 regenerative agriculture farmers, most of which are new to agroforestry. With the carbon finance, Farm Africa will also support the establishment of 30 certified tree nurseries at village level by subsidizing the nursery materials (seeds, manure, fertilizers and chemicals) and training VBAs on nursery management. With this project, the VBAs and nursery operators will be supported for a reconnaissance visit to established nurseries for learning and fact finding. Farm Africa advocate for a cost share model, where the farmers contribute a set percentage (approx. 50%) towards the seedling costs and other inputs. The nursery establishment and technical assistance will come out of the 10% CRU. The technical assistance that Farm Africa will provide to farmers to overcome their barriers includes:

1. Mobilization and sensitization on the benefits of agroforestry
2. Learning exchange visits
3. Linkage meetings between VBAs and input-output markets
4. Establishment of agroforestry tree nurseries
5. Induction training of Village Based Advisors
6. Bi-annual review meetings

*See overall conclusion below for more detail on each of these.

Overall conclusion:

This agroforestry project led by Farm Africa was established in 2020. At this time, farmers were planting 20 trees per year over a period of 3 years for community purposes, however, raised concerns on being able to continue planting or maintain trees over the long-term due to a lack of seedlings, knowledge on agroforestry and an additional financial incentive for planting trees. Due to the findings of limited seedling availability and lack of financial incentive for trees planted from the needs assessment, carbon finance was requested from Acorn. With Farm Africa providing farmers with seedlings and training on agroforestry practices, up to 50,000 farmers with 126,467

hectares of land in total can plant fruit/nut bearing, medicinal, and nitrogen fixing trees in their transition to agroforestry and combat the effects of climate change, land degradation, and declining soil fertility.

To overcome the main barriers farmers face (lack of knowledge and limited resources), Farm Africa will use their 10% of CRUs to contribute to the following technical assistance for the farmer to ensure a successful transition to agroforestry:

1. <u>Mobilization and sensitization on the benefits of agroforestry</u> (types of trees suited for the agroecological zones, how to set up tree nurseries and management practices of agroforestry systems). This will be undertaken by the village based advisors, Farm Africa project officers and government extension officer.

2<u>. Learning exchange visits</u> at the start of the project by a minimum of 20% of the VBA (Village Based Advisor[3]) and lead farmers to establish agroforestry farm and cascade knowledge down to other farmers. Farm Africa learnings on farmer adoption influences indicate that 'other farmers' are high influencers of new farming practices and technologies. The rationale of the farmer-farmer visit is to co-learn and for the VBA's to experience first-hand (visualize) successful agroforestry systems. Notably, the VBA selected are lead agents/influencers on farming in the target locations. The best performing farms are used as demonstration fields for other farmers to visit (anytime) for peer learning purposes. Carbon finance will increase the amount of demonstration farms and visits farmers and VBA can make.

3. <u>Linkage meetings between VBAs and input-output markets</u>. The VBA model is built to bridge the extension services and access to agricultural inputs and markets gap by rural farmers. The VBA to input-output markets linkages, i.e. KEFRI-Kenya Forest Research Institute, KALRO-Kenya Agricultural and Livestock Research Organization, Buyers (Fruits and nuts off takers), and agrodealers reduces the mile to access gap for farmers and this increases adoption of new practices/technologies and assures farmers of a better farm gate price for their produce.

4. <u>Establishment of agroforestry tree nurseries</u>. Farm Africa have the role of helping them to source seedlings, potting bags and manure and supervisory role while seeding and general nursery management.

5. <u>Induction training of Village Based Advisors</u> on agroforestry design and systems. A VBA is a model farmer who trains other farmers in the village. Each of the 250 village based advisors will train their allocated 200 participants in person through groups with theoretical and practical aspects where applicable. The VBA model provides a ToT (training of trainers) pack to the VBA. Farm Africa will develop agroforestry training materials and brochures for distribution to the VBA's and farmers based on the following topics:
- ✓ Tree nursery establishment and management
- ✓ Agroforestry designs and systems
- ✓ Planting(hole making and manuring)
- ✓ Crop nutrition
- ✓ irrigation
- ✓ Pest and disease management
- ✓ Tree husbandry
- ✓ Fruit maturity indices and harvesting
- ✓ Postharvest handling and Value addition

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[3] Village Based Advisor is the equivalent of an agricultural extension officer

Farm Africa is introducing *Agribot*, an e-extension mobile app with a farmer feedback loop. The farmers continue receiving new information and alerts for meetings here. Since the VBA model has a component of income generation through the input and output marketing, the VBA regularly visits the farmers individually for extension support and to follow up on this. The agroforestry component will be integrated in the VBA e-extension follow up – thus the trainings are embedded with other activities. The frequency of the meetings, i.e. Farm Africa to VBA, VBA-VBA and VBA to farmer are synched with the project activities, planting seasons and other activities (e.g. input application and harvest schedules of the farmers). In this project, the VBA's and farmers have pre-set schedules for meetings but guided by farm calendars.

6. Bi-annual review meetings (project council). Those attending include participant farmer representatives (nominated by farmers), VBA representatives, county government representatives, project staff, and KEFRI. The meetings are to review the progress of the project to understand challenges, give feedback on the progress and action planning and make decisions based on farmers needs and experience.

Farm Africa's network of participants is constantly expanding with a potential for 50,000 farmers. The first trees planted in 2020 are few compared with what will be planted over the following years by existing and new farmers. The Acorn project in the region will act as an eye opener to many farmers on how they can access the carbon market and carbon credits and understand the importance of ecosystem services offered by trees. If farmers who transitioned to this long-term agroforestry system are not rewarded with income from the carbon credits as agreed, they may be discouraged from maintaining and scaling up their agroforestry systems. Providing carbon finance to compensate Kenyan farmers is the only practical way to achieve scale and proof of concept.

Part D: Farmer Survey

Number of participants surveyed	Total number of project participants	Percentage of total participants included in baseline
103	15,118 (4,096 participants at the time of survey completion)	0.7% (2.5% at the time of survey completion)

Area	Indicator	Metric	Source	SDG	Result
Local livelihood	**Farmer income**	(Carbon revenues + farm revenues) – operating expenses	Survey (information collected on the Acorn platform)	1, 2, 8	1,486.60 Kenyan shillings
	Agricultural land use and productivity	Farm output value per hectare per crop type [kg/ha/crop]	Survey (information collected on the Acorn platform), FAO TAPE Tool	1, 2, 8	2,316 kg/ha/year
	Nutritional variety	Number of food groups in the diet (see Appendix 7.9)	Household Dietary Diversity Score (HDDS) index survey[4]	1, 2	Farmers consume on average 3 food groups.
Environmental improvement	**Agricultural biodiversity**	Crop/animal/pollinators count	Gini-Simpson Index survey[5]	2, 15	52% (acceptable)

1. **Famer income**
    I.) Describe the current financial state of farmers and how project intervention is expected to positively/negatively impact these.

The farmers in the project area are low-income earners as they dedicate their practices to subsistence agriculture, a value chain associated with low-income generation. This is supported by the survey response, as 53% of the surveyed farmers describe their financial state and access to resources as being low, or not enough. In addition, approx. 20% of Embu county's residents have no formal education which is also reflected in the survey as 48% of participants said that they cannot afford the full amount necessary for education for themselves or their families.

Without the support of this project, farmers wouldn't have all of the necessary resources for their farms, as most surveyed participants answered that they cannot afford resources (20%), even though they are readily available (29%). Others, can only afford some resources (31%). Therefore, the integration of an agroforestry system will bring about income generating activities including fruit tree and agroforestry nurseries and sale of surplus mature fruits. Farmers will establish tree nurseries (one nursery shared per ward level) and sell tree seedlings to farmers in the areas. Farmers will also earn

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[4] *Swindale & Bilinsky, 2006*

[5] *Izsák & Papp, 2000*

extra income from sale of honey and other bee products promoted in this project. In addition to this, the program will enable farmers to earn an extra revenue from carbon credits through carbon trading since the trees provide carbon sinks.

II.) Please describe the type and amount of income and expenses you have on the farm each year.

74% of surveyed participants identified selling of crops in markets as their main income source. Followed by this, 43% of farmers also acquire income livestock products, 31% from selling fruits from trees and 10% from other sources (see Table below for examples). The annual, average operating expenses is -1,486.60 Kenyan shillings (KES). With project intervention, the revenue is expected to increase from the marketable-tree-products. In addition, Farm Africa will aid farmers transitioning to agroforestry systems by making resources more readily available and at diminished costs (ex.: by establishing agroforestry nurseries).

Average annual farm revenue per farmer	Description of revenue sources (crops for market, livestock products, selling fruit from trees)	Average annual operating expenses per farmer	Description of Expenses (food, seeds, fertilisers, feed, pesticides, livestock purchases, veterinary costs, labour, fuel, transport, taxes, loan interest, rent)
12,618.95 KES	• Crops for market - maize, beans, poultry, tea and coffee) • Livestock products – milk, eggs, and organic fertilizer/manure • Selling fruit from trees – sales of avocado, macadamia nuts, bananas and mangoes • Others – selling tea bonus, honey and firewood.	14,105.55 KES	• Crops for market – labour, seeds, fertilizers, pesticides, and transport • Livestock products – animal feed, fertilizer, veterinary costs, labour, transport, loan interest, fuel • Selling fruit from trees – fertilizer, labour, transport, loan interest, fuel and pesticides • Others – transport and pesticides.

2. Nutritional Variety

I.) Describe farmer nutritional intake currently and how project intervention is expected to positively/negatively impact this.

The majority of farmers (54%) can afford to feed themselves and their families every day for all meals, however, only for a small variety of food, as most (90%) eat a small range of the same foods every day which is verified by the average of 3 food groups consumed each day (see table below). Their diets mostly consist of cereals (maize, wheat and rice), vegetables (kale, potatoes and wild/local vegetables) and dairy products (milk and yoghurt.

On average, farmers skip meals (58% of surveyed participants). Farmer's diet is mainly sourced from markets and their farms. Some farmers grow a variety of vegetables in their farms in home gardens and kitchen gardens for home consumption. Others, buy food crops that they don't grow from traders, or when the ones they plant are out of season.

The agroforestry design foresees the plantation of fruit-bearing trees, such as macadamia nuts, citrus, mangoes and avocado fruits, which are a reliable source of vitamins at household level. This will be especially advantageous as 72% of surveyed farmers had not eaten fruit in the last 24 hours and do not sot every day, representing a lack of fruit nutrition from the project's participants. Therefore, the agroforestry design proposed will be implemented to improve nutrition both for domestic use and for surplus for markets, generating additional income that can be used to purchase more nutritious food.

II.) HDDS Index Survey Results.

Food group number	Food group type	Amount of farmers consuming each food group (%)
1	Cereals	90
2	Root and tubers	27
3	Vegetables	47
4	Fruits	28
5	Meat, poultry, offal	8
6	Eggs	18
7	Fish and seafood	2
8	Pulses, legumes, nuts and seeds	27
9	Milk and milk products	27
10	Oils and fats	29
11	Sweets	10
12	Spices, condiments and beverages	16
Average number of food groups consumed: : 3		

3. Agricultural Biodiversity
I.) Describe the current state of biodiversity and how project intervention is expected to positively/negatively impact this.

There is a current loss in biodiversity due to land degradation and habitat fragmentation. The expansion of cultivated land reduces the diversity, complexity and distribution range of ecosystems and the species found in them. Currently, species have migrated or have become locally extinct, giving way to the more common invasive species (largely herbaceous weeds and pests). Structural changes in the plant cover, notably the loss of shrubs and trees, partly through browsing, but also through gathering of fuel wood and clearing and burning for agriculture has increased the exposure of the soil surface to accelerated water and wind erosion, removal of fertile top soils and loss of nutrient and seed stores. In some places, this has led to the exposure of barren, locally hard setting subsoil, which resist vegetation. This is accompanied by changes in soil surface conditions, notably compaction through trampling by livestock, leading to deterioration in soil - plant - water relationships, decreased rainfall use and reduced germination rate, particularly of the palatable species.

Farmers grow food and cash crops - coffee, tea, bananas, maize, bean, sorghum, green grams, millet, and some vegetables - and livestock, - including cattle, goats, sheep, and poultry. Most farmers (approx. 50% of the surveyed participants) state their farm biodiversity as low, as they grow between 1 to 2 different crops, have up to 5 different plant/tree species, and have little to an inexistent sighting of wild animals. Others (approx. 40%) state that their farm's biodiversity is medium, meaning they grow between 3 to 5 different crops, up to 20 different plant/tree species, and little to a moderate sighting of wild animals.

These perceptions reflect in the results from the Gini-Simpson Index, which scored 52%, meaning that the biodiversity is considered acceptable in the project area. However, there is a risk of expanding cultivated areas, which will replace natural vegetation for crops and livestock and consequently lead to decreased biodiversity; key species migrate or become locally extinct and natural vegetation continues to be replaced. Therefore, with the implementation of agroforestry trees and some farmers implementing beehives, they will be able to increase productivity on their existing land and not need to expand the cultivated area. In this project the planting of fruit-bearing trees will attract more pollinators (as they flower at different times of the year), and provide shade and refuge for other animals, thus increasing the overall biodiversity. In addition, the project will develop a monitoring template that gathers from the project council on the species of animals within the specific regions.

II.) How many farmers perform beekeeping?

Out of the 35 surveyed farmers, approx. 23% participate in beekeeping activities. In total, the project area has about 50 farmers exercising this activity.

III.) Gini-Simpson Index Results.

Crops	Area	pi	p2	Livestock	number	equivalent	pi	p2
Arrowroots	0.5	0.002	0.000	Cows	186	1*186	0.806	0.650
Avocado	0.2	0.001	0.000	Sheep	245	0.1*245	0.106	0.011
Banana	27.8	0.127	0.016	Chickens	1182	0.014*1182	0.072	0.005
Beans	33.6	0.153	0.023	Pigs	37	0.027*37	0.004	0.000
Cassava	0.8	0.004	0.000	Rabbits	116	0.02*116	0.010	0.000
Coffee	7.2	0.033	0.001	Duck	31	0.01*31	0.001	0.000
Cowpeas	19.1	0.087	0.008	Donkey	6	0.00*6	0.000	0.000
Green gram	35.0	0.159	0.025	Deer	1	0.00*1	0.000	0.000
Kale	1.0	0.004	0.000					
Khat	1.0	0.004	0.000					
Macadamia	0.7	0.003	0.000					
Maize	57.3	0.261	0.068					
Mangoes	0.3	0.001	0.000					
Millet	2.9	0.013	0.000					
Miraa	2.7	0.012	0.000					
Musa	0.8	0.004	0.000					
Napier Grass	0.8	0.003	0.000					
Onions	0.2	0.001	0.000					
Pawpaw	1.0	0.005	0.000					
Persea americana	0.1	0.001	0.000					
Peas	5.4	0.024	0.001					
Potatoes	1.2	0.006	0.000					
Sorghum	12.6995	0.058	0.003					
Soybean	2.6	0.012	0.000					
Sunflower	0.4	0.002	0.000					
Tea	4.35	0.020	0.000					
Tomatoes	0.15625	0.001	0.000					
Vegetables	0.125	0.001	0.000					
Total	219.8		**0.146**	**Total**		77		**0.667**

Total (%)			85	Total (%)				33
Natural vegetation, trees and pollinators								
	Description							Value
Productive area with natural vegetation	Most farmers (40%) report having a productive area between 10 and 20% on their farm, followed by a similar majority (28%) reporting having a smaller amount (less than 10%).							**0.25**
Pollinator Presence	Most farmers describe having regular presence of small pollinators, including bees and ants; the occasional presence of beetles, butterflies, moths, flies, mosquitos and sunbirds, and rare presence of bats and hummingbirds. Wild animals seen on the farms include monkeys, birds, rabbits and gazelles, of which all were seen occasionally by the farmers.							**0.33**
Beekeeping	31% of the surveyed farmers perform beekeeping, and of these, the majority (63%) has wild bees.							**0.5**
Total								**36%**
Agricultural Biodiversity Score			**52%**					

IV.) List pollinator species in the project area.

Present in project area	Pollinator type
Regularly	Bees, bats
Moderately	n/a
Sometimes	Beetles, butterflies, moths, flies, mosquitos, sunbirds
Rarely	Bats, hummingbirds

V.) List wild animal species in the project area.

Species (latin name)	Prevalence (Regularly/Sometimes/Rarely)
Monkeys	*Sometimes*
Birds	*Moderately*
Rabbits	*Sometimes*
Gazelle	*Sometimes*
Antelope	*Sometimes*
Elephant	*Sometimes*
Mongoose	*Sometimes*
Hornbill	*Regularly*
Weaver birds	*Regularly*
Squirrels	*Regularly*

VI.) List species with a high local environmental and social conservation value in the project area, and if influenced by project intervention, describe relevant monitoring objectives/plan.

Species (Latin name)	Threat Classification (Culturally Significant/ Vulnerable/Endangered/ Critically Endangered)	Project Influence (Positive /Negative)	Justification for influence	Monitoring Objectives/Plan

Mangifera indica	Cultural significant	Positive	Fruits
Adansonia digitata	Cultural significant	Positive	Fruits, traditional beehives
Acacia spp	Cultural significant	Positive	Fire wood, animal feeds
Azidirachta indica	Cultural significant	Positive	Herbal medicine, timber, pesticides
Macadamia integriflora	Cultural significant	Positive	Nuts
Citrus Spp	Cultural significant	Positive	Fruits
Persea americana	Cultural significant	Positive	Fruits, Edible oil
Grevillea robusta	Cultural significant	Positive	Firewood/Timber and nitrogen fixation
Mangifera indica	Cultural significant	Positive	Fruits
Moringa oleifera	Cultural significant	Positive	Herbal medicine, organic fertilizer
Cajunis cajanas	Cultural significant	Positive	Food crop
Phasiolus vulgaris	Cultural significant	Positive	Food crop
Vigna radiata	Cultural significant	Positive	Food crop
Cajunis cajanas	Cultural significant	Positive	Food crop
Zea mays	Cultural significant	Positive	Food crop
Glericidia sepium	Cultural Significant	Positive	Animal feeds, organic fertilizer
Cordia sps	Vulnerable	Positive	Firewood/Beehives
Croton sps	Vulnerable	Positive	Biofuels
Caliandira sps	Cultural significant	Positive	Fodder
Leucaena	Cultural Significant	Positive	Fodder
Vitex keniensis	Endangered	Positive	Timber/Medicinal

Farm Africa will use the project council meetings to discuss with the farmers about the presence and health of these species.

4. Agricultural Land Use and Productivity

  I.) Please describe your current productivity level, challenges around productivity and yield from farm outputs.

Most farmers describe their productivity levels being average (66%) for reasons of 1) droughts, 2) high input and planting costs, and 3) diseases.

Therefore, the impact of project intervention would be positive due to the promotion of sustainable land use through a well-designed and equipped agroforestry system, as Farm Africa will assist the farmers in transitioning by establishing agroforestry tree nurseries, thus providing farmers with the quality seedlings and manure, training in various topics, which all will influence an increased yield of crops. In addition, the trees planted will contribute to the overall farm productivity after the trees are fully productive by acting as windbreaks, attracting pollinators, and by its nitrogen-fixating properties.

II.) Please fill in the survey in Table 10 depending on the yield of your cash crop and total farm yield, including the percentage of productivity that accounts for crops other than the cash crop.

Average yield of cash crops (kg/ha/year)	Average total farm yield (kg/year)	Other crops contributing to productivity and their average amount (%)
2,316 kg/ha/year of coffee, sorghum, maize, beans, green grams, macadamia, avocado, mangoes, citrus, and cowpeas combined	2,841	Other crops, such as arrowroots, cassava, khat, musa, soybean and sunflowers contribute approx. to 25% of the total farm's productivity.

5. Indicator Monitoring

I.) Describe the monitoring objectives for any expected impacts on farmer livelihood and the environment from project intervention. If there are any negative impacts expected, describe the relevant mitigation actions.

Livelihood / environmental indicator	Impact description	Mitigation action (if negative impact expected)	Monitoring frequency and method	Responsible party
Nutritional Variety	Expected to improve household dietary diversity and reduce malnutrition through farmers planting fruit trees and generating an increase and additional income (marketable products and CRU sales).	There are no negative impacts expected are these indicators are all expected to increase positively through the project intervention as the current state of each indicators at the start of the project was poor.	Annually through FA's surveys, and every three years through Acorn's KPI's monitoring surveys.	FA and Acorn
Agricultural biodiversity	Expected to contribute to increased tree/crop diversity in farms by including 8 key native or naturalised species in the agroforestry design that offer multiple environmental benefits such as provision of fruit and shade to attract native wildlife and pollinators.		Quarterly through FA's surveys, and every three years through Acorn's KPI's monitoring surveys.	FA and Acorn
Farmer income	Expected to improve farmer income status through agroforestry design and systems which increase productivity and provide marketable products such as fruits,		Annually through FA's surveys, and every three years through Acorn's KPI's	FA and Acorn

	in addition to the CRU revenues from tree growth.	36	monitoring surveys.	
Agricultural land use and productivity	Expected to increase by 30% over the life of the project due to the 8 tree species that are promoted in the agroforestry design that produce fruits and medicines. The benefits of the trees planted on soil structure and health will also increase productivity of current cash crops in the long term.		Annually through FA's surveys, and every three years through Acorn's KPI's monitoring surveys.	FA and Acorn

Part E: Carbon Baseline Assessment

Carbon Baseline	
Requested information	Answer
Describe how land tenure has been demonstrated	EMBU COUNTY Approx. 46% of the population in Manyatta and Runyenjes sub-counties have title deeds for their land, and the remaining 54% have land jointly owned by the head of the family (evidence by allotment letters issued by ministry of lands). In Mbeere North and South sub-counties, most of the land is owned at the family level, but is freehold, and a minority of 22.3% have title deeds. THARAKA NITHI COUNTY Approx. 70% of land tenure is evidenced by allotment letters and the remaining 30% have title deeds. Please refer to Annex 2 for an example of land tenure document.
Describe potential land tenure issues and measures taken to mitigate these	Potential Issue 1: Change of land ownership, which can arise from a land being subdivided, leased long-term and sold. Mitigation Issue 1: Farm Africa will monitor changes in ownership through a farmer feedback mechanism in the communities. This will also engage the community leaders and village based agents to inform of any changes to land ownership. The national regulations regarding land sale requires approval by the local administration, - Land Boards – and preauthorization from the family members. Farm Africa will proactively develop a land dispute resolution mechanism, which will require the involved parties to stipulate formal agreements (parties + local administration) to circumvent conflict and assure that CRU revenue is channeled to the project participant. Although, currently none of the farmers engaged with the project face this risk, Farm Africa has committed to reviewing the risk every 3 years to also take into account changes in county governance. Therefore, these farmer feedback and dispute resolution mechanisms will assist in tracking of the changes in ownership. Potential Issue 2: Change of land use due to changes in land jurisdiction (conversion from agricultural use to commercial use). Mitigation Issue 2: Having stipulated formal agreements with the farmers and advising them on the long-term benefits of agroforestry. The project will make deliberate efforts not to enlist farmers who are very close to towns or major centers, as these areas might face a higher risk of changes in land jurisdiction. Potential issue 3: Most of the participants households are male headed (90%). The male (family head and title deed holder) works away from home and the wife manages the land Mitigation action 3: In these households Farm Africa engages with participants in a whole family approach, not just with the registered person of the household.

Description of current land use	The land is used by the family members for either food crops, cash crops or livestock rearing. All cultivated species are both cash and food crops to be sold at markets and consumed by the farmers. These include fruits like avocado, mangoes, citrus, bananas, and others like macadamia, khat, coffee, tea, maize, beans, grams and peas. Cash crops cover approx. 11% of the arable land compared to food crops. Most farmers use pesticides, rather than manual control, to prevent and combat pest infestation on their farms. The most common type of pesticide used is insecticides, which farmers use about 1 ton/ha/year on average. Most farmers also use fertilizers, most commonly in the organic form, accounting for approx. 4 tons/ha/year. Without project intervention, the tendency would be to use more of the land on perennial mono-cropping of cash and food crops, and incentives to log existing trees for timber and firewood would increase.
Description of current habitat species	Embu (current location) and Tharaka Nithi (additional location at scale) are both are very diverse in ecological zones and habitats, including lowland and mountain forest, semi-arid scrublands and inland aquatic ecosystems. Species observed in these counties include oaks, teaks, eucalyptus and acacias. Fruit trees include mango, lemons and tamarinds. Animal species that can be found in the project area include monkeys, birds, rabbits, gazelle, antelope, elephant, mongoose, hornbill, weaver birds and squirrels. If farmers didn't participate in this agroforestry project, biodiversity would be expected to decrease, leaving cultivated areas to expand and continuously fragmenting natural spaces, replacing natural vegetation with crops, thus reducing the diversity of ecosystems, fauna and flora. Without the proposed agroforestry trees, in this case flowering trees, pollinators wouldn't be attracted and would lead to a cascading effect in reduction of biodiversity.
Description of deforestation potential	The project area surroundings (Embu county) faces some deforestation trends, as described in Question 16 of the Project Summary. However, no deforestation has taken place in the past 5 years as demonstrated in question 3 below. Nevertheless, the integration of agroforestry in the project area will act as a mitigation action against any future and potential deforestation as its design includes trees of multiple benefits to farmers, such as fruit-bearing, fodder and medicinal trees, which have higher economic benefit than that of fuel wood, thus creating incentive to maintain the trees on the ground long-term.
Description of trees species <2m and their distribution	Trees species that exist in the project region that are <2m in heights include: *Persea americana, Macadamia integriflora, Mangifera indica, Cordia spp, Senna spp, Citrus spp, Caliandira*

	spp, Leucaena spp, Vitex keniensis, and *Grevillea robusta*. See the table under question 1 below for estimated distribution.
Number of existing trees	98,897; see tree species list below for description
Number of existing trees older than 5 years	59,287
Coverage percentage of existing trees older than 5 years	60%

1. Existing tree species list <2m).

Species <2m *(Latin name)*	Distribution
Grevillea robusta	High
Persea americana	Medium
Macadamia integriflora	Medium
Mangifera indica	Medium
Cordia spp	Medium
Croton spp	Low
Citrus spp	Medium
Caliandira spp	Low
Leucaena spp	Low
Vitex keniensis	Low
Senna spp	Medium

2. Existing tree species list (>2m).

Species >2m *(Latin name)*	Number	Species >2m *(Latin name)*	Number	Species >2m *(Latin name)*	Number
Abelia sp.	2	*Dombeya kirkii*	56	*Musa sp.*	7678
Abutilon theophrasti	32	*Dombeya rotundifolia*	57	*Myoporum laetum*	1
Acacia dealbata	1513	*Duranta erecta*	5	*Neoboutonia macrocalyx*	6
Acacia gerrardii	3	*Ebenopsis ebano*	4	*Neolamarckia cadamba*	5
Acacia mellifera	2	*Ehretia anacua*	27	*Notholithocarpus densiflorus*	1
Acacia nilotica	1	*Elaeis guineensis*	15	*Ochroma pyramidale*	7
Acacia sp.	42	*Eleutherococcus senticosus*	3	*Ocimum suave*	5
Acacia xanthophloea	2	*Entandrophragma angolense*	7	*Ocotea usambarensis*	19
Acrocarpus fraxinifolius	87	*Entandrophragma excelsum*	4	*Olea welwitschii*	3
Acrocarpus sp.	1	*Eriobotrya japonica*	221	*Olearia semidentata*	1

Actinidia deliciosa	1	Eriolaena spectabilis	2	Oncoba routledgei	31
Actinidia sp.	32	Erythrina abyssinica	203	Parinari curatellifolia	29
Adansonia sp.	6	Erythrina variegata	1	Passiflora edulis	52
Afrocarpus falcatus	9	Eucalyptus camaldulensis	416	Paulownia tomentosa	49
Ailanthus altissima	1	Eucalyptus globulus	1273	Peltophorum sp.	1
Albizia anthelmintica	1	Eucalyptus robusta	1655	Pennisetum purpureum	63
Albizia julibrissin	5	Eucalyptus saligna	188	Persea americana	3016
Alchornea sp.	1	Eucalyptus sp.	171	Persea borbonia	7
Amorpha fruticosa	18	Euphorbia sp.	7	Phellodendron amurense	15
Ananas comosus	2	Euphorbia tirucalli	20	Phyllodium pulchellum	2
Annona glabra	1	Faurea saligna	59	Piliostigma thonningii	56
Annona muricata	5	Ficus amadiensis	9	Pinus elliottii	3
Annona reticulata	2	Ficus americana	639	Pinus sp.	3
Annona sp.	3	Ficus aurea	2	Pistacia atlantica	6
Annona squamosa	37	Ficus auriculata	5	Platanus occidentalis	12
Anthocleista glandiflora	4	Ficus carica	1	Plumeria rubra	94
Antiaris toxicaria	20	Ficus lutea	2	Podocarpus sp.	2
Antidesma venosum	1	Ficus microcarpa	13	Populus nigra	1
Arbutus xalapensis	1	Ficus natalensis	4	Prunus africana	128
Argyreia nervosa	18	Ficus sp.	17	Prunus caroliniana	12
Artabotrys hexapetalus	2	Ficus sur	12	Prunus laurocerasus	1
Artocarpus heterophyllus	1	Ficus sycomorus	6	Pseudobombax ellipticum	2
Asclepias syriaca	2	Ficus thonningii	6	Psidium guajava	171
Asimina triloba	2	Ficus virens	10	Ptelea trifoliata	2
Aspidosperma polyneuron	5	Firmiana simplex	1	Pueraria sp.	18
Azadirachta indica	5	Fissistigma oldhamii	1	Quercus acutissima	2
Azanza garckeana	10	Flueggea virosa	9	Quercus fusiformis	1
Balanites aegyptiaca	28	Fragaria ananassa	3	Quercus humboldtii	1
Balanites glabra	3	Fraxinus americana	6	Quercus robur	5
Bamboo sp.	3	Fraxinus excelsior	8	Quercus rugosa	1
Bambuseae	35	Fraxinus pennsylvanica	3	Quercus sp.	1

Barbarea vulgaris	266	*Gardenia jasminoides*	1	*Rauvolfia sp.*	4
Bauhinia sp.	1	*Gleditsia triacanthos*	7	*Rhus natalensis*	2
Bauhinia variegata	19	*Gliricidia sepium*	15	*Rhus tenuinervis*	11
Bischofia javanica	230	*Glochidion zeylanicum*	3	*Rhus vulgaris*	10
Bischofia sp.	15	*Gmelina arborea*	2	*Ricinus communis*	26
Brachylaena huillensis	3	*Grevillea robusta*	10194	*Ricinus sp.*	1
Bridelia atroviridis	6	*Grevillea sp.*	60	*Saba comorensis*	62
Bridelia micrantha	72	*Grewia bicolor*	30	*Saccharum officinarum*	516
Bursera simaruba	30	*Grewia similis*	1	*Saccharum sp.*	212
Byrsonima crassifolia	1	*Grewia sp.*	2	*Salix pseudomonticola*	5
Caesalpinia volkensii	1	*Guazuma ulmifolia*	1	*Sambucus sp.*	1
Cajanus cajan	62	*Guettarda sp.*	130	*Sapindus saponaria*	45
Calliandra calothyrsus	21	*Handroanthus chrysanthus*	12	*Senna lindheimeriana*	9
Calliandra sp.	1	*Helianthus annuus*	91	*Senna siamea*	1
Camellia sinensis	7	*Helicia reticulata*	1	*Senna sp.*	1
Cananga odorata	45	*Hibiscus tiliaceus*	2	*Senna spectabilis*	2
Capparis tomentosa	13	*Hymenodictyon flaccidum*	36	*Shorea sp.*	1
Carica papaya	101	*Indigofera sp.*	1	*Shorea wangtianshuea*	1
Carya glabra	9	*Indocalamus tessellatus*	35	*Solanecio mannii*	24
Cascabela thevetia	32	*Jacaranda mimosifolia*	22	*Solanum betaceum*	87
Casearia velutina	1	*Jatropha curcas*	18	*Solanum melongena*	1
Castanospermum australe	1	*Juglans regia*	2	*Sorbus aucuparia*	9
Casuarina equisetifolia	2	*Juniperus procera*	2	*Sorghum sp.*	350
Catha edulis	30	*Juniperus virginiana*	76	*Spathodea campanulata*	177
Cayratia japonica	1	*Kenya_unknown_species*	48	*Spathodea sp.*	1
Ceiba speciosa	1	*Khaya senegalensis*	109	*Swietenia mahagoni*	38
Celtis gomphophylla	158	*Khaya senegaliensis*	54	*Symphonia globulifera*	78
Cenchrus purpureus	5663	*Khaya sp.*	48	*Symplocos paniculata*	11
Ceratonia siliqua	1	*Kigelia africana*	5	*Syzygium cordatum*	151

Cercis siliquastrum	9	Lagerstroemia indica	4	Syzygium cumini	8
Chionanthus virginicus	2	Lagerstroemia speciosa	2	Syzygium guineense	14
Chonemorpha splendens	3	Lannea triphylla	4	T4K_unknown_spe cies	200
Chrysobalanus icaco	1	Lantana camara	31	Talipariti sp.	47
Chukrasia tabularis	1	Lantana sp.	5	Talipariti tiliaceum	1
Citrus aurantium	44	Laurus nobilis	45	Tamarindus indica	52
Citrus limon	91	Lepisanthes sp.	1	Tectona grandis	10
Citrus reticulata	1	Leucaena leucocephala	193	Tectona sp.	1
Citrus sinensis	107	Litsea grandis	2	Terminalia browii	1
Clausena anisata	51	Lonchocarpus eriocalyx	1	Terminalia brownii	79
Coccoloba uvifera	24	Macadamia integrifolia	153	Terminalia catappa	8
Cocculus carolinus	1	Macadamia sp.	1782	Terminalia kilimandscharica	4
Coffea arabica	32018	Macadamia tetraphylla	1601	Terminalia prunioides	56
Coffea canephora	30	Macaranga sp.	1	Tetradium daniellii	2
Coffea robusta	867	Macaranga tanarius	10	Thespesia garckean	56
Combretum collinum	181	Macroptilium atropurpureum	2	Thespesia garckeana	63
Combretum molle	88	Malus domestica	12	Thespesia sp.	2
Combretum zeyheri	11	Malus pumila	25	Tilia americana	4
Commiphora eminii	13	Mangifera indica	3571	Tillandsia recurvata	1
Commiphora sp.	2	Manihot esculenta	98	Tithonia diversifolia	6
Cordia abyssinica	43	Manihot sp.	4	Trema orientale	2
Cordia africana	12	Markhamia lutea	18	Trema orientalis	6
Cordia alliodora	3	Medinilla sp.	1	Trema tomentosa	3
Cordia monoica	2	Melia azedarach	17	Trichilia emetica	27
Cordia sp.	6	Melia volkensii	86	Tylosema esculentum	4
Corymbia citriodora	1	Melicoccus sp.	1	Uncaria rhynchophylla	2
Crateva religiosa	1	Milicia excelsa	53	Unknown_average _wood_density_Sol idaridad_Kenya_20 22	25
Crotalaria agatiflora	1	Millettia dura	1	Unknown_Farm_Af rica_Kenya_2023	150
Croton macrostachyus	135	Millettia pachycarpa	1	Unknown_Solidarid ad_Uganda_2022	3

Croton megalocarpus	148	*Mitragyna stipulosa*	2	*Vachellia xanthophloea*	3
Cupaniopsis anacardioides	1	*Mitragyne stipulosa*	4	*Vangueria madagascariensis*	1
Cupressus lusitanica	2	*Morella cerifera*	1	*Vernicia fordii*	4
Cupressus sp.	4	*Moringa oleifera*	133	*Vernonia auriculifera*	1
Cycas revoluta	16	*Moringa sp.*	1	*Vitex doniana*	17
Cyphomandra betacea	15	*Morus alba*	15	*Vitex keniensis*	203
Cyphomandra hartwegii	9	*Morus alba*	15	*Vitex payos*	29
Delonix regia	2	*Mouriri pusa*	4	*Vitex sp.*	3
Dichrostachys cinerea	1	*Musa acuminata*	1500	*Voacanga thouarsii*	7
Diospyros abyssinica	1	*Musa basjoo*	133	*Yucca elephantipes*	2
Diospyros kaki	1	*Musa paradisiaca*	12	~~*Zea mays*~~	~~17669~~
Diospyros sp.	1				

3. Provide T-5 check data to evidence loss of tree cover over the past five years from project start date.

Outcome	Number	Plot ID	Reason for failure
PASS	14,782		

FAIL	5	KE248993 - 445932
		KE141848 - 159543
		KE143241 - 163755
		KE143496 - 164530
		KE070897 - 86738
			These 5 plots are not eligible to generate CRUs before the check is redone in the following year and appropriate evidence is provided. Reasons for failure include:
			  i) Improper planting of trees (i.e, spacing), affecting the crops, led the farmer to harvest the trees;
			  ii) Disagreement between neighbours due to boundary planting, leading to the harvest of trees;
			  iii) Harvest of exotic tree species (i.e., eucalyptus) with the intention to have room for more livelihood and environmental beneficial species;
			  iv) Harvest of diseased trees (i.e., tree dried up after

			been infected with termites); Depending on the reason of failure, farmers have been advised by Farm Africa on how to proceed with agroforestry and be included in the project at a later stage.

4. Provide a description of the ecoregion(s).

Northern Acacia-Commiphora bushlands and thickets

Tropical grasslands, savannas and shrublands, extending from the southeast corner of Sudan and northeast Uganda through much of lowland Kenya, reaching as far as the border with the Northern Swahili Coastal Forests, characterizes the ecoregion of Northern Acacia-Commiphora bushlands and thickets. Because this ecoregion falls within the season tropics, the mean maximum temperatures are 30°C in the lowlands, falling to around 24°C in the higher elevations, and the mean minimum temperature ranges from 18 to 21°C. Annual rainfall ranges from 200 mm in the drier areas near Lake Turkana to about 600 mm closer to the Kenyan Coast. Most precipitation falls in the long rains, typically from March to June, with less falling during the short rains of October to December. However, it is not uncommon for one or both rainy seasons to fail due to altered weather patterns. During drier periods, the desiccated vegetation becomes highly flammable and large parts of the ecoregion burn yearly.

The vegetation is predominantly Acacia-Commiphora bushland and thicket. Common plant genera include Acacia, Commiphora, Boswellia, Aristida, Stipa, and Chloris grasses. Fauna species include endemic rodents, such as Cosens' gerbil, diminutive gerbil, Percival's gerbil, and Loring's rat, and highly threatened species, such as the antelope hirola, elephants, and black rhinos. Other large carnivores include lions and cheetahs, with significant populations of reticulated and Masai giraffes. The pancake tortoise is a threatened reptile overexploited for the pet trade. The ecoregion also supports several species of arid-adapted ungulates: Grevy's zebra, beisa oryx, gerenuk, and lesser kudu.

The habitats and species of this ecoregion are increasingly threatened by unsustainable water use, frequent grassland burning, tree cutting, and farmland expansion. Illegal hunting for skins, ivory, and rhino horn has also severely reduced populations of large animals, particularly elephants and rhinoceros.

***East African montane forests***

The East African montane forests covers 4 countries Kenya, Tanzania, Uganda, and South Sudan, and extend across a total of 65,500 square kilometres. The ecoregion occupies elevations above c. 1,500 m altitude. The climate of these mountains is wetter than the surrounding lowlands, but has a pronounced rain shadow, with the eastern and southern faces being significantly wetter. The climate in this ecoregion is temperate and seasonal, with night temperatures falling below 10°C in the cold season and rising to above 30°C during the day in the warm season. At the higher elevations frosts are possible. Rainfall varies between 1,200 and <3,000 mm per annum, with a distinct wet (October–December and March–June) and dry (January–February and July–October) season. The biome of this ecoregions is classified as tropical and subtropical moist broadleaf forests.

The threatened black rhinoceros and African bush elephant—some of the most charismatic and endangered megafauna in Africa—live amongst these montane forests in the Rift Valley of East Africa, created by the cracking of the African plate system and the volcanoes typical of this ecoregion—including Mount Kilimanjaro, Mount Kenya, and Mount Elgon. The conservation status of this ecoregion is considered critical/endangered.

Part F: Project Activities

1. Describe the agroforestry system to be implemented as part of the project using the figure below (silvopasture/agrisilviculture/agrisilvipastoral).

Farmers will be implementing agrisilvicultural systems in mostly semi-arid regions of Kenya. The agroforestry system integrated by the farmers will contain a mix of fruit-bearing, leguminous, medicinal, and shade trees, crop farming for subsistence purposes, and animal rearing. The trees are planted along the farm borders and in the homestead for shade, except for the fruit trees which are intercropped with cash crops.
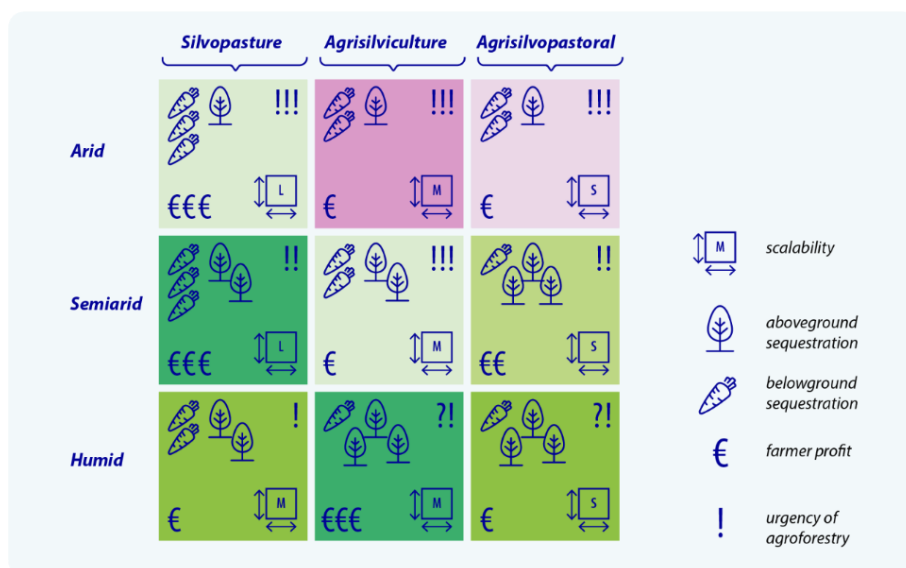
2. For each agroforestry system fill out Table 2 below (use additional tables if necessary):

		Species details		
			If naturalised, please describe its likely:	
Type	**Species**	**Native, naturalised or invasive?**	**Livelihood benefits that make it preferable to any alternative native species**	**Impact on biodiversity or other provision of key ecosystem services in the project and surrounding areas**
Tree	*Persea americana* (avocado)	Naturalised	Avocado is considered a superfood for its oil-containing medicinal properties. In addition, this food-bearing tree requires fewer inputs, protects against crop loss, and provides high-income returns.	This species provides soil stabilisation and provides shade for soil and crops.
Tree	*Mangifera indica* (mango)	Naturalised	This food-bearing tree provides mango fruits and juices that are a high source of Vitamin C. They require fewer inputs, protects against	This species provides soil stabilisation, water filtration, and shade, and attracts pollinators.

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			crop loss and provides high-income returns.	
Tree	*Citrus spp* (citrus)	Naturalised	This food-bearing tree provides citrus fruits and juices that are a high source of Vitamin C. They require fewer inputs, protects against crop loss and provides high-income returns.	This species provides soil stabilisation, water filtration, and shade, and attracts pollinators.
Tree	*Macadamia integriflora* (macadamia)	Naturalised	This food-bearing tree provides a superfood (macadamia nuts) rich in vitamins, minerals, fibres, antioxidants, and healthy fats. In addition to this, they require fewer inputs, protects against crop loss and provides high-income returns.	This species provides soil stabilisation, water filtration, and shade for soil and crops.
Tree	*Moringa stenopetala*	Native	This superfood with medicinal properties due to its high content in vitamins, minerals and antioxidants. They also require less inputs, protect against crop loss and provide high income returns.	This species is drought resistant and provides soil stabilisation, water filtration and shade.
Tree	*Calliandra calothyrsus*	Naturalised	These three species are valuable for fodder for animals, they can be used as a mulch, require less inputs, and protects against crop loss.	These three species are nitrogenous- enriching, resulting in an increase in soil health and fertility, and crop health.
Tree	*Gliricidia sepium*	Naturalised	Can provide fencing (living fence), green manure, shade for those working on the farm and fodder.	A fast growing, nitrogen fixing tree that has significant benefits for soil fertility/stabilisation and crop health in an agroforestry system.
Tree	*Grevillea robusta*	Naturalised	Can be used to treat sore throats, earache, chest problems, flu and toothache. This tree also provides yellow and green dye for silk.	A fast growing flowering tree that attracts pollinators, provides shade for crops and enhances soil stabilisation.
Growth management				
Preparation and Planting		For *Persea americana*, *Mangifera indica*, *Citrus spp*, and *Macadamia integriflora* species, the seedlings are grafted with the scission		

	attached to a rootstock to improve the species resistance and productivity. Grafting of a tree species is done by taking the 'weaker' plant and grafting it on the rootstock of a stronger plant so as to tap into the stronger genetic value of the latter. Advantages of grafting include better resistance to pathogens, drought and other environmental stresses, more vigorous growth, and higher yield. These advantages also allow for fewer inputs such as pesticide applications and an extended harvest season. These grafted seedlings are then transplanted at 6 weeks onto the fields into holes measuring 60x60 ft. and spaced between each other by:
	• 6 meters for avocado and mango;
	• 4m for citrus trees;
	• 9m for macadamia;
	For *Moringa stenopetala*, the seeds are first raised in a nursery for 12 weeks, and for the *Calliandra calothyrsus*, *Gliricidia sepium*, and *Grevillea robusta*, their seeds are raised in a nursery for about 8 weeks. After 12 and 8 weeks, the seeds are transplanted into the fields onto holes measuring 60x60 ft. and spaced between each other by:
	• 12m for *Moringa stenopetala*;
	• 3m for *Calliandra calothyrsus, Gliricidia sepium* and *Grevillea robusta*
	These transplanted seedlings are mixed with organic manure and topsoil to provide a good media base for planting. At young stage (aged between 1 day to 1 year; when the grafted seedling has been transplanted into the farms and planted), base fertilizers can be used, including phosphates and nitrogenous fertilizers; however, the project intends to use organic manures.
Tree/Shrub Management	Organic manure is added during the planting of the grafted seedlings, during the hole preparation, in addition to phosphate fertilizers, to boost root development. Organic manure is re-applied after 6 months. Nitrogen fertilizers can be introduced every 6 months, during the vegetative growth of the plant, as a top dress and to ensure healthy leaves which will provide food for the flower and fruit development.

Pruning will be done once a year, mainly for fruit-trees, after a plant assessment. Normally, this is done after a heavy harvest as it leads to dried branches. Therefore, pruning is done to ensure that the plant is well aerated to avoid creating environmental conditions for infectious diseases and to ensure spraying can be done effectively.
For *Gliricidia sepium*, pruning will also occur yearly on the secondary lateral branches (approx. 25% of biomass removal) to guide the species' growth upwards and prevent extreme overshading, which damages the crops' productivity. This tree can be used as windbreakers in the field (mainly in the form of border planting), which in turn allows for the creation of a colder microclimate which increases the productivity on their farm. In addition, this species' pruning by-products include leaves and branches, which are intended |

	for fodder for livestock, green manure, and to a shorter extent, firewood. Pruning will only be done when this species has reached maturity, which is not the case for most farmers. To support this activity, training on this species' management is done when farmers receive the seedlings and will be ongoing to define the trees' management better. This will be possible as Farm Africa is an agroforestry expert with two agronomists working for the organization. Finally, spraying will be determined based on scouting, as needed. Scouting is the process of assessing the health of the crops by periodically checking the leaves and the branches for any infectious diseases or pest infestations, so as to make good decisions on control and treatment measures. This is also mostly done for fruit trees.
Crop Management	Annual and perennial cash crops - sorghum, maize, legumes, green grams,– will be intercropped within the agroforestry system, along with the legumes (mainly beans and specifically pulses, that produce dry seeds for consumption) being intercropped with maize and sorghum. Based on farmer preferences, the crops are planted each year at the beginning of the seasonal rains (between March and May and between October and December). Farm Africa's target for the project, is to reach a minimum of 180 trees per hectare per farmer for a combination of 3-5 tree species (listed above).

3. Describe the project's agroforestry design/implementation plan (taken from the business case), including;

Phase I describes Farm Africa's existing agroforestry intervention aimed at 4,096 farmers in Embu County. The targeted agroforestry trees are fruit and nut-bearing trees for their livelihood benefits and leguminous species due to their great capacity for soil carbon storage and their nitrogen-fixating properties, which will help the crops' productivity. These leguminous species are Gliricidia sepium, Calliandra spp., and Grevillea robusta. Farm Africa's approach to ensuring training on agroforestry design and systems is through the training of trainers model. In addition, it will promote a tree nursery establishment and management, providing farmers with seeds for the three leguminous species.

Tree Specie Overview

#	Specie type	# trees per hectare year 1	# trees per hectare year 2	# trees per hectare year 3	Seedling costs (EUR)	Market price (EUR/kg)	Survival rate(%)
1	Persea americana	14	12	12	0,7	0,32	90%
2	Macadamia intergriflora	14	12	12	0,7	0,48	90%
3	Mangifera indica	14	12	12	0,7	0,08	90%
4	Moringa oleifera	13	12	12	0,7	0,04	90%
5	Citrus spp	14	12	12	0,7	0,4	90%
6	Gliricidia sepium	13	12	12	0,1	0	90%
7	Calliandra calothyrsus	13	12	12	0,1	0	90%
8	Grevillea robusta	13	12	12	0,1	0	90%

Currently, the project focuses on Phase I and the farmers it encompasses, as well as improving its agroforestry design, such as tree management and care. Phase II targets a potential number of 50,000 additional farmers in Embu and Tharaka Nihti counties at scale and includes fruit, nut-bearing, and medicinal trees as part of its future agroforestry design.

Trees will be planted during the short-rain season, which in Kenya occurs between October-December, and during the heavy-rain season, between March and May. In Year 0 of the project, 4,000 trees were aimed to be planted, but due to a drought this wasn't possible. The planting scheme will be resumed in 2023. In the following years, the number of trees planted is expected to increase significantly as the

number of onboarded farmers increases. Each farmer will be expected to plant a minimum of 180 trees each within 3 years (x 90% survival rate, resulting in 162 trees per hectare). The proposed approach is to have 16,000 farmers plant trees in 2023 and 17,536 in 2024, as seen in the table below:

Project Year	Year 0 (2022)	Year 1 (2023)		Year 2 (2024)	
Planting season	October – November	March – May	October – November	March – May	October – December
Number of farmers	4,096	3,000	13,000	10,000	7,536
Number of trees planted	100	216,000	510,912	300,000	800,000 to be planted

On a scaling scenario, beyond the above planting timeframe, the aim is to have farmers plant more diverse trees in larger populations, based on their discretion and on the suitability for the existing agroecological zones.

Farm Africa has a model for the supply of seedlings based on public, private, and community-based nurseries. These include KEFRI (for the provision of forest trees), KARLO (for the provision of fruit, nut, and fodder trees), ICRAF (for the provision of forest and medicinal trees), and certified KEPHIS (Kenya Plant Health Inspectorate Service) nurseries. So far, one commercial nursery has supplied seedlings, and twelve have vetted to supply 7,536 seedlings for the following 2024 season. As for community-based/VBA owned nurseries, six were given technical support from Farm Africa. The seedlings handout are monitored during the actual seedlings handout events. Because seedling takes place in the 2 rainy seasons, the total amount of seedlings distributed can be summarized and monitored per distribution and planting season.

The proposed agroforestry system is expected to positively impact the land by providing more shade to crops, and increase soil organic matter and available nutrients through decomposition of dead leaves (green manure), thus increasing crop productivity. By incorporating fast growing leguminous and nitrogen-fixing trees it will further provide nutrients to food crops. Higher productivity and more shade will also attract more insects and pollinators, thus increasing the overall biodiversity of the area. Finally, tree cover will not only ensure carbon sequestration but also preventing soil erosion, through roots binding the soil to sloping ground.

To ensure that the trees already existing in the project area, before Acorn project intervention, do not perish due to competition with the trees planted during this project or are damaged due to project activities, farmers will be sensitized on the importance of maintaining the trees, through training sessions and through the VBAs' extension work. In addition, the targeted number of trees planted won't exceed the maximum tree density per unit area. For the tree species identified under Question 2 in this section, the project target requirement is in average 60% of the different recommended trees density.

Part G: Project Council

1. Describe the project council governance structure, showing that participants or community groups collectively nominate project representatives who have the capacity to operate and make decisions on their behalf and determine a decision-making mechanism for the project council.

The project council will be constituted as shown in the figure below, and with the following roles:

i. *Farm Africa: as the Local Partner, Farm Africa is the mobilizer of the project council and provides project oversight;*
ii. *Super Village Based Agents (SVBAs): representatives and advisors of VBAs (1 SVBA:12 VBAs), and the latter are the drivers of agriculture extension in support of the county government extension system. The VBAs provide field follow up and help to manage the farmers' agroforestry system*
iii. *County government: The county department of agriculture and environment are collaborators and provide arbitration;*
iv. *Kenya Forestry Service and/or Department of Environment (one official represents both organizations as they work hand-in-hand): Collaborators and provide technical advisory;*
v. *Local administration (Chiefs and village headmen): provide arbitration;*

The Project Council is set to meet twice a year at the social hall within the county; one will take place in Embu county, where the venue will be set up in the KOATEC-Tenri and the second will take place in Tharaka Nihiti, the venue will be at the Malimanti Home Lodge. This will be enforced by the MEL (Monitoring, Evaluation and Learning).

The VBAs are farmers from the community (approx. 95% of the VBAs are also participants of this carbon project) and are nominated by the Ministry of Agriculture (who provides advisory support to the community on the selection of VBAs), based on a set of criteria (under question 8 of Part H) including being democratically selected by the community.

Farm Africa ensures adequate representation of other interest groups, such as women and youth, by ensuring empowerment concepts cut across in the organization to promote gender inclusion and equity. One example is the VBA model favoring the youth and women. Because this position demands traveling, coordination of trainings, input distribution and marketing, it is suitable for the youth. As for women, Farm Africa identifies this group as being very resourceful in reaching out to the community as they are mostly found in larger groups and can easily reach out to villagers. In addition, they are more in touch with the home needs and adopt business concepts faster to improve their livelihood.

2. Describe how project council allows participants to provide feedback on the project design and implementation.

On average, one SVBA represents between 10 to 12 VBAs, and one VBA represents 250 farmers. Within this bottom level, farmers are organized into farmer groups, each composed of 20-25 farmers (therefore, each VBA oversees 10-12 farmer groups). In each farmer group, there is a chairperson in place who is responsible for scheduling the farming meetings and communicating them to the VBAs, as they work with the schedule of the farmers and not the other way around. Nevertheless, depending on the urgency of a message that needs to be communicated to the farmers, the VBAs can call for urgent meetings.

Communication channels between the SVBAs and VBAs include meetings (when an activity occurs, such as training) and WhatsApp groups. The communication channels between the VBAs and farmers include meetings, training, farmer field days and existing WhatsApp groups (at the ward level). For decisions to be made, such as in-kind payments, the VBAs are responsible for conducting assessments with the farmers, where each VBA collects views from the farmers and takes it up to the Super VBAs. These assessments can be done through a simple questionnaire for an individual farmer to fill in or through collecting signatures based on a decision made after a discussion within the farmer groups.

There will be biannual open feedback sessions between the farmers and members of the project council – VBAs and technical staff, – set before the actual Project Council. The aim of this is to have farmers bringing their concerns to develop an agenda and bring into the official Project Council. Women members have a woman representative who reports and presents their issues at the council.

There will also be another session where individual members or representatives are allowed to present their notes and issues which are discussed openly. These sessions are in place for monitoring purposes, mainly.

The feedback loop is complete when the members are given feedback through minutes of the council meeting and are allowed two weeks to respond before they can be signed. A communication platform is established through emails and WhatsApp. Farm Africa will provide minutes of each meeting to Acorn.

3. List the lead farmers that have been nominated by participants to represent project participants during project council meetings to voice concerns and needs, and actively engage in decision making.

Farmer #	Gender	District	Years participating in council
Farmer 1	Female	Kagaari South	1
Farmer 2	Male	Mwea	1
Farmer 3	Male	Runyenjes Central	1
Farmer 4	Male	Runyenjes Central	1
Farmer 5	Male	Ruguru/Ngando	1
Farmer 6	Male	Kagaari North	1
Farmer 7	Male	Evurore	1

List to be updated after Project Council, with new governance structure takes place.

4. Describe the grievance mechanism for this project, including;
    I.) The method for communicating grievances (WhatsApp/phone, email, Facebook, meeting, letters, anonymous box etc.).
    II.) How you ensure that complaints and/or recommendations can be done at any time and can be identified or be anonymous.
    III.) The process in place to ensure grievances raised are dealt with in a transparent, fair and timely manner (e.g. chain of escalation).
    IV.) Describe how the grievance mechanism is communicated to participants.

Farm Africa has established mechanisms of communication through digital means, such as WhatsApp, phone, email, but also through meetings, letters and anonymous boxes. Another form of communicating grievances is through the community feedback loop, which consists of feedback being addressed through the local administration and the community members. The feedback loop is

complete when all members of the community have given feedback on the resolutions of an issue raised. To prevent animosity, the project adopts the government 'nyumba kumi' system where for every 10 homesteads, there is a headmen appointed by the community to provide arbitration of family and community complaints. The headmen is supported by a local council comprised of men and women from the community to provide leadership and communication during the arbitration process. Additionally, the Project Council and the VBAs' network will also support in dispute resolution of issues.

These communication mechanisms allows for complaints and/or recommendations to be done at any time and to be either identified or anonymous. In addition, Farm Africa has a complaints delivery mechanism through toll-free lines and group officials whom can channel messages, mostly through SMS messages and word of mouth. The project beneficiaries are made aware of this communication channel for grievances affecting any community that Farm Africa has projects in. The project officials and the VBAs also record all grievances and take them to the relevant authorities and report these to Acorn within 35 days. At the community level, this is done through the 'nyumba kumi' system. If a dispute is sensitive and requires anonymity, the identity of the party informing is hidden in adherence to Farm Africa grievance handling policy.

Disputes at the project level are escalated from the home cell unit to the project local council and arbitrated by the project officers, local administration and county administration. If any disputes arise, this will be recorded and action taken outlined. Farm Africa will furnish Acorn a report of the disputes and resolutions pathways agreed.

Participants are informed about the grievance mechanisms through public and group barazas or co-operative meetings, as standard operation The co-operative meetings occur at local level, and the public barazas, which are open forums, meet on a monthly basis at the chief (local administration) office. In these meetings and open forums, several topics are discussed, such as agroforestry and community issues, where farmers have the opportunity to expose any grievance. These meetings are established and undertaken already before project intervention. The chief is supported by village headmen representing each village who report directly to the chief. The village headmen visit each homestead at least once per fortnight or every week. The headmen are assisted by the Nyumba Kumi heads who are in touch with homesteads daily. Participants/attendants details are recorded in each meeting and minutes recorded (these will not be availed since they are government records, the only records that can be availed are those relating to the project that are discussed in the meeting). Farm Africa will ensure that Acorn receives all the documents relating to agenda that touches on the agroforestry project.

5. List any grievances that have been raised outside of project council meetings and the actions taken to resolve them.

No grievances were reported from the first Community Meeting, held on the 23rd of January 2023. Participants demonstrated interest in discussing topics like decision criteria to identify participant farmers, representation of new members from future-scaling areas, collaboration between VBAs of both Trees for Kenya and Farm Africa to avoid double registration of farmers, and carbon finance.

Grievance reported	Action taken	Responsible party
None	N/A	N/A

6. The project has submitted at least 2 project council reports (or relevant meeting minutes) **after the first year.** These project council reports demonstrate participants engaged in and contributing to the project design in areas such as the grievance mechanism, farmer payments, the agroforestry design, socio-cultural values and monitoring of impacts.

The first community meeting took place on the 23rd of January, 2023, as a precursor to the official project council, where Farm Africa and Trees for Kenya's farmer representatives were present (two from each organization). This meeting was set up with the goal of project alignment as each organization is developing its own project with Acorn in the same counties of Kenya. The meeting resulted in an agreement that each Local Partner would facilitate one Project Council meeting yearly to add up to two per year, as stated in the Acorn Framework. In addition, both local partners will start a WhatsApp group with the Project Council attendees. The Project Council will scale as more farmers are onboarded. The evidence of this meeting can be found in Annex 6. The two project council reports of year 1 will be submitted to Acorn and displayed in the year 2 Acorn design document and the annual report.

Part H: Organisational Capacity

1. Describe your legal status as a local partner and attach certificate of registration (e.g. NGO, local co-op or trader).

The legal status of Farm Africa is as an NGO (see certificate of registration in Annex 13).

2. Describe your in-country presence and relationship with participants and communities in the project area.

Farm Africa has been working in Kenya for over 37 years by supporting small-scale farmers, women and youth to find new ways to make a living and lift themselves out of poverty in a context where much of the country is classified as arid or semi-arid with increased frequency of drought and competition over scarce water resources, coupled with the outbreak of animal disease.

In line with this mission, the organisation implemented the Regenerative Agriculture project (before Acorn), with its first Phase running from July 2020 to October 2021 in Embu County. By training 50 farmer groups, each with 200 members, the project increased production and incomes, and boosted the resilience of 10,000 farmers in Embu through regenerative agricultural practices that improved soil health and food security in the face of climate change. Not all of these 10,000 farmers were interested in being onboarded to Acorn (with 4073 participants in phase I). At scale, the project is in Phase II targeting 50,000 farmers outreach in two counties of Tharaka Nithi and Embu. The regenerative agriculture practices promoted include cultural practices such as mulching, intercropping, mixed farming, organic manures, agroforestry, fertilizer microdosing and minimum tillage.

3. Briefly describe how you contribute to the social and economic development of the participants and their communities.

Farm Africa supports smallholder farmers, farm workers and agro-pastoralists across eastern Africa to increase their productivity, household incomes and resilience to shocks caused by climate change, extreme adverse natural events (droughts, storms, flood, landslides etc.) and market-related events (such as fuel, food, input and output price fluctuations, volatilities and price hikes). Through community empowerment programs, we help rural communities to increase the quality and quantity of what they produce and build their links to markets, while protecting the environment for years to come. The programs we have implemented have focused on:

- *Improving access to high-quality agricultural inputs, such as improved seeds, fertiliser, irrigation and animal feed, and gain access to the finance needed to buy them;*
- *Improving access to market and climate information to produce food that is in high demand and support farmers to adapt farming practices to climate extremes such as drought and flooding;*
- *Training farmers on good agricultural practices by demonstration plots managed by other farmers and through Farmer Training Centres;*
- *Contributing to reduced food loss through the establishment of improved storage facilities such as moisture-controlled warehouses, preserving produce like chillies using solar dryers and building links to markets are some of the ways farmers can reduce post-harvest losses, meaning higher incomes and a lower carbon footprint;*
- *Improving women economic empowerment through support to business financial literacy, access to markets and implementing gender transformative actions;*
- *Improving marketing by supporting farmers aggregate produce and sell them in bulk, or adding value to produce by processing and packaging it, such as producing oil from sunflower seeds or making butter from milk, are ways that farmers can attract buyers and secure higher prices.*

4. What is the experience of the local partner working with farmers and in the project location (organising land tenure, implementing agroforestry, providing training etc.).

Farm Africa has the technical capacity and expertise to provide training on business, agriculture/agroforestry. Farm Africa works directly with communities in rural areas of East Africa. In Embu and Tharaka Nithi counties, Farm Africa is a mobilizer of agriculture development and collaborates with local governments in development projects.

5. Describe how the project will securely store project information, including project designs, business case details, proof of payment, record of participants events and monitoring results.

Farm Africa maintains a data repository in both hard and soft copies for at least 7 years after the end of the projects. These are stored in a centralized data storage unit in the country office in Nairobi. The project does online payments to project beneficiaries for fare refunds and with well-documented attendance records, that will also be stored in the same format and time.

6. List relevant local, national and international policies, laws and regulations and demonstrate how the project is aligning project activities to comply.

The project aligns with various national strategies including the Kenya National Agroforestry Strategy (2021-2030), and the Kenya Climate Smart Agriculture Strategy (2017-2026). The strategies highlight the country's objectives of abating up to 4.1 MtCO$_2$e by 2030 through implementing agroforestry over 281,000 hectares between 2015 and 2030, to increase total area under agroforestry at farm level, adapting to climate change, building resilience of agricultural systems while minimizing emissions for enhanced food and nutritional security and improved livelihoods. All these are objectives for the Acorn project, therefore the intervention aligns with the goals of both the county and national government in Kenya,. Kenya's NDC seeks to abate greenhouse gases emissions by 32% by 2030 in line with the country's sustainable development agenda through a low carbon and climate resilient development pathway covering various sectors including agriculture, land-use and forestry which the project will also contribute to significantly.

7. Describe project's mechanisms to identify and address barriers to participation for groups that could be excluded based on the basis of gender, age, income or social status, ethnicity or religion, or any other discriminatory basis.

Farm Africa has a gender and social inclusion policy (Annex 11) that is implemented in all the projects, with a set gender ratio for the projects of 1:3 to ensure that either gender has at least 30% representation. In addition, Farm Africa's council members election process has a requirement for 30% gender inclusion (e.g. if the chairperson is a male, the vice chairperson is female).

Having regular feedback mechanisms with community members on the project areas, such as the bi-annual VBA group meetings with the project's participants will help in addressing challenges identified on the ground. Farm Africa will also adopt the Acorn stakeholder analysis tool to identify and prevent instances of discrimination.

8. Describe process for onboarding participants (e.g. selection criteria).

The first step to select the project participants, is to select the Village-Based Advisors, as they will be the ones with access to the farmers. The Village-Based Advisors are also farmers and project participants (approx. 95% of them), however more experienced and capable of assuming more responsibilities. They are selected based on a set of criteria determined by Farm Africa (presented on the figure below). Then, the onboarding process of participants is done through a mobilization action conducted by the VBAs. This mobilisation constitutes of a nomination process done by the agriculture

officers and local administration, and is materialized in community meetings called Baraza's. These meetings are called through the administrative office i.e. chiefs of district commissioner. Here, the VBA is able to address the farmers and provide his contact for those who would want to join the initiative. Another way is using training forums organised by other stakeholders within their villages to introduce themselves and the project. In addition, the VBA may include any other farmer who is interested as long as they register them and forward their names to the Agricultural office. This is because some farmers may not be registered in groups, and therefore not registered in the Agricultural office records.

The onboarding of participants also requires working closely with the technical teams of the agricultural department and the public administration. These are a group of professionals who work together to support the technical aspect of the project. They include specialists from research institution and County government together with the Farm Africa technical staff. They are the ones who provide training to the VBAs and follow up on their practices to ensure they are following and are up to speed with the content and understanding.

Characteristics and Selection of VBAs

Basic qualifications - characteristics	Selection of VBAs
• Some significant high school education • The VBA can be trained by and recognized by the Ministry of Agriculture's Extension Services. • Personable - can work with all farmers input and output dealers • Good communicator - to be able to mobilize and accurately pass messages to farmers • Passionate about agriculture • Is democratically selected by farmers in the community to advise and serve ALL farmers. • Has the capacity to invest in business or already in small business Facilitator needed to avoid bias of opinion leaders – role of implementing partners	• Selection criteria include: • Trusted by farmers in their villages, Honest, Respected • Willingness to learn and adopt new technologies • Willing to share knowledge and information with ALL farmers in the Village • Technical and entrepreneurial tendencies • Gender consideration: a criteria should be set to encourage 50% female and youth participation • Time available for the business and associated activities

On the participant level, adequate representation of other interest groups is also in place as the criteria for project engagement includes 1) selection of poor farmers in the community, as recommended by the county government and local administration, and 2) nomination of vulnerable groups by the community.

Nominated participants are chosen based on two target groups of farmers that display the following criteria

Group 1

Farmers who already have established farms for agricultural production and are capable of financing their projects (this accounts for 10% of the nominated participants),

Group 2

Farmers who possess land, with or without tile deeds, but experience food insecurity as they cannot fully utilize their land to produce food and may rely on other odd jobs to replenish their incomes and livelihood (this accounts for 70% of the nominated participants) and, 3) farmers who are upcoming, meaning those who have entered into the farming business and are geared towards excelling in the same. They have been exposed to some trainings and are willing to invest in the technologies they have learnt. These include the youth and some women farmers, and overall they are faster at accepting new ideas (remaining 20%).

9. Describe project employment policies regarding employment of youths, women, and disadvantaged groups.

Farm Africa has an gender and social inclusion policy (Annex 11) which details its commitment to ensuring equal opportunities in employment and that no one receives less favourable treatment on the grounds of race, colour, nationality, ethnic, tribal, or national origins, language, sex, pregnancy, marital status or civil partnership status, family responsibility, age, disability, sexual orientation, gender re-assignment, HIV status, political opinion, Trade Union membership or religious belief. This policy applies to recruitment and selection, training and development, opportunities for promotion, conditions of service, benefits and facilities and pay; health and safety and conduct at work, and to termination of employment, including redundancy. Farm Africa believes in the value of a diverse workforce in which the experience, knowledge and perspective of each individual is respected and contributes effectively to the organisation's work and objectives. Allegations regarding potential breaches of this policy will be treated in confidence and investigated in accordance with the relevant procedure.

The project only works with those above 18 yrs. of age and has done deliberate efforts to reach the youth, women and disadvantaged groups. The approaches taken to include youth and disadvantaged groups includes, recruitment of young people into the VBA scheme, peer empowerment through mentorship of young people and women, inclusion and special considerations for disabled members.

10. Describe how women are involved in the project but NOT as farmers (i.e. partnering nurseries, training).

Women are provided equal opportunities in B2B partnerships within the project. The project currently engages 320 VBAs of which more than 60% are women, who are involved in carrying out the training for farmers and other community members. In addition, women make up 50% of the regenerative agriculture project council. This is due to the election rules in place for the council, stating a 30% gender representation, resulting in more women having been elected into positions of leadership.

Youths are more involved in nurseries, with activities including nursery establishment through accessing seeds, preparation, management and maintenance of the nurseries. In addition they are also responsible for procuring farmers interested in buying the seedlings as an income generating activity.

Women VBAs are more involved in the provision of demo plots training in the special women groups. These groups are composed with women in vulnerable situations, such as those with disabilities and who have HIV/AIDS, those that have been in gender violence situations and widows, with the aim of encouraging and giving hope to live a normal life despite the surrounding environments. They empower each other in various skills that will assist in bringing incomes to their families, thus enhancing cohesion within the families in the communities.

Women are more clustered in women groups when compared to men due to the many social benefits of a group. These benefits include access to information, either related to agriculture or any other social issue, access to finances – women usually have a savings scheme in which they save and borrow to take care of their needs, - hearing advice from their peers and experts, sharing knowledge and experiences, all with an emphasis on making connections and collaboration. Women in groups also bring a perspective that values not only competition but also collaboration to organizations and teams.

11. Describe how the project will promote knowledge sharing among participants and the community.

Knowledge sharing among participants and the community is done through documentation of success stories, demo plots, - where all the agricultural practices are demonstrated for training purposes to

both the VBAs and the farmers. The outcomes, experiences and learnings from the demos are reported and shared, - and through holding annual experience-sharing forums among farmers.

The demos where training and demonstration of practices and techniques are showcased matures into a field day once the crop cycle is complete. The field days facilitate many non-project farmers to visit and learn about Regenerative agriculture approaches. These non-project farmers are mobilized through public invitations that are done by the governmental agriculture offices, Administrative offices, and word of mouth from farmer to farmer.

Farm Africa will continue planning and facilitating the demos and field days approach as a scaling mechanism for the cultural and agroforestry models among farmers.

The project council promotes the Regenerative agricultural approaches among farmers and in the community supported by the local administration and the county agricultural office. Additionally, the council members are invited to other stakeholder forums to present the learnings of the project.

Part I: Financial Feasibility

1. Provide a detailed business case for the project, including:
   - the expected annual income from agricultural production and carbon sequestration
   - the expected costs associated with the transition to agroforestry and the generation and trading of CRUs (e.g. planting materials, fertilizer costs, temporary labor cost)
   - The expected productivity changes that will result from project interventions

Farm Africa has developed a Business Case (see Annex 4) in which each of the project participants adopts and increases the agroforestry systems in their farms, resulting in an increase in productivity of up to 30% over the life of the project. The agroforestry systems adopted will include fruit, leguminous and medicinal trees with the goal of increasing farm diversity, climate resilience to high temperatures and income generation. See Part F for details on the agroforestry design. The project has a cost share mechanism with farmers where Farm Africa will cater for the costs of 50% seedlings, seedling transport and training and the farmer will cater for 50% of the seedling costs, organic manure and labour. The project monitoring costs for i.e. data collection and monitoring and staff costs breakdown is as below for the first 3 years:

1 year staff costs (training costs of the 300 VBAs)	Annually	14.76
Project Manager	Annually	0
Technical Manager	Annually	1000
Data analysis M@E Coordinator 5 mandays @ 1500 per manday (=KES 75,000)	Annually	615
Project officers	Annually	820
Project coordinator/manager	Annually	2000

Below is a breakdown of the key findings of the business case:

Number of beneficiaries	54,000 farmers
Timeline	20 years starting 2019
Total Investment (Cost of Project)	9,297,769 Euros
Estimated CRU Revenue for Farmers	29,904,000 Euros
Estimated CRU Revenue for Local partner	3,738,000 Euros
Price per CRU (Carbon Removal Unit)	20 euro/CRU
Minimum % CRU benefits that flow to the farmer (excluding interest rates)	80%
Maximum %CRU benefits to the local partner	10%
Maximum % CRU benefits withheld by Acorn (monitoring, registering and verification)	10%
Incentive paid for each surviving tree (only when there is no CRU)	0.08 euro
Expected tree survival	90%
CRU per farmer (rounded) per year (from year 3)	2 tonnes

2. What measures are in place to ensure that you do not draw more than 10% of sales income for ongoing coordination, administration and monitoring costs? (e.g. earmarked funds or separate account for farmer payments).

There is an established benefit sharing mechanism- Farm Africa adopts and will comply with Acorn Carbon benefit sharing rations of 80% benefit to the farmer and 10% to the local partner for

administrative incurrences. Farm Africa doesn't disburse payments in cash but electronically or digitally. In the Acorn payments, Farm Africa will utilize mobile money platform MPESA that transfers payment digitally to the receipts mobile bank so you can clearly track the amount of money for farmers payment.

Part J: Payments and Benefit Sharing

1. Provide evidence on how CRU payments will be disbursed to participants and equate to at least 80% of proceeds.

All the farmers engaged in the project have a registered mobile number which they own and have control over. The Acorn payments will be channeled to either a bank account or mobile money platform, MPESA, based on the preference of the farmer and amount of CRU revenue (i.e., if amount is high, bank transfer might be applicable). This option will be checked during a verification of contact information prior to the payment of carbon income, as it is common for participants to change their contact information regularly. Records of payment will be kept, either evidence of bank transfer or transfer statements provided by MPESA. Farm Africa maintains each farmers' payment and financial transactions records in a central repository in electronic format (Farm Africa records data bank - Nairobi) and on a cloud repository maintained by Farm Africa UK, all of which are complaint with GDPR.

2. Describe what proportion of cash payments will be disbursed to farmers.

There is an established benefit sharing mechanism in which Farm Africa adopts and will comply with Acorn Carbon benefit sharing rations of 80% benefit to the farmer and 10% to the local partner for administrative incurrences. From the 80% of the carbon revenue for farmers, 50% will be paid entirely through mobile money transfer called MPESA, and the remaining 50% will be in-kind. Farm Africa doesn't disburse payments in cash but electronically or digitally. For the Acorn payments, Farm Africa will utilize mobile money platform MPESA that transfers payment digitally to the receipts' mobile bank. Additionally, Farm Africa together with the project beneficiaries will explore a savings schemes in which the participants can save part of the money in a Village Savings Loans Association (VSLA) for later lending to members to unlock access to finance hindrance faced by many farmers in Kenya. The VBAs have an already established VSLA group and this approach will be introduced and scaled to project participants.

These VSLAs provide the farmers with a platform for joint saving as a group and the farmers can then access credit facilities form the VSLAs in form of loans at low interest rates. VBAs also enjoy the same benefit as the farmers of having savings and access to credit facilities.

3. Describe what proportion and type of in-kind benefits will be provided to farmers.

Benefit	Examples	Description	Amount of Payment (%)
Inputs	• Seedling costs • Sapling costs • Fertilizer	*Seedling costs*	*50%*
Education	• Training costs • Agronomist consultation costs	*Not applicable*	*Not applicable*
Operation	• Mobile communication costs • Mobile payment costs • Fencing	*Not applicable*	*Not applicable*
Livelihood	• Land tenure consultation costs	*Not applicable*	*Not applicable*

Part K: Stakeholder Analysis
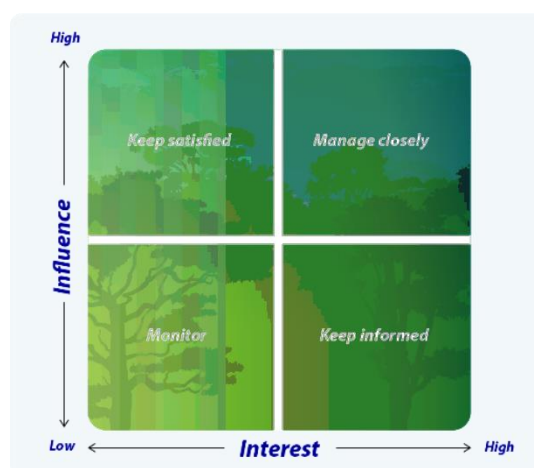
1. Referring to the stakeholder analysis figure above, describe the interest and influence each stakeholder has in the project and justify the reason for this in the table below. All stakeholders that receive outcomes other than "Monitoring" must be informed of the project (e.g. newsletters) and their views/approval sought where necessary. Please add rows for additional stakeholders as necessary.

Stakeholder	Interest	Influence	Justification	Outcome	Informed
Participants/ Farmers	High	High	Project participants have been informed and engaged in a participatory manner, through meetings, field visits, project council meetings (see Annex 7), and a payment ceremony on the 28th of February, with the participation of ~50 farmers and VBAs, to raise awareness on the several benefits of agroforestry, including livelihood, environmental and carbon finance.	Manage closely	Yes
Local communities	High	High	Local communities have been informed and engaged in a participatory manner, during design and mobilization (see Annex 7). The payment ceremony on the 28th of February, counted with community members such as students and a soil scientist (Dr Rebecca Kipyegon) from the University of Embu,	Manage closely	Yes

			primary school children, the Forest Conservator and the Departments of Agriculture and Environment, as well as the Local Administration. The community holds great influence in the participating farmers, while also providing a link to the national government.		
National Government	High	High	A letter has been sent to the national government to inform them of the project and its intention to generate and trade CRUs on the voluntary carbon market (see Annex 5). A memorandum of understanding between Farm Africa and the Ministry of Agriculture, Embu County Government and the Ministry of Agriculture, Livestock Development, Fisheries and Co-operative, has been signed on July 2022. Carbon market developments and laws being introduced demonstrates the increasing interest of the national government in this scope. The planting of trees, as an effort to mitigate climate change, is supported by Kenya and can be evidenced by the National Tree Planting Day (12th of November of 2023), and the national target of reaching 15 billion planted trees by 2032. The payment ceremony (28th of February), counted with the	Manage closely	Yes

			presence of several governmental stakeholders (Department of Agriculture and Environment, under County Government, the Forestry Department representing the national government and Local Chief also representing the national government). Finally, Acorn is also taking an approach for all the projects in Kenya in the context of the new law regarding carbon projects. With two years to comply with proper registration, Acorn is seeking legal guidance from Kenyan lawyers to comply and communicate with the government.		
Local government	High	High	Collaboration with county government and its agriculture related departments e.g. collaboration with forest agency services. The payment ceremony that took place on the 28th of February, counted with the presence of several governmental stakeholders (i.e., Departments of Agriculture and Environment, under the County Government, the Kenya Forest Service, and the Local Chief) that represent the national government. The stakeholders present in the ceremony are crucial for the mobilization of farmers. Finally, representatives of the local administration are	Manage closely	Yes

			present in training meetings, in order to take back the information to the regional government. Furthermore, Farm Africa participates in the County Caucus Meeting, which takes place three times a year where policies and extension models are discussed to assist on the application of agroecology.		
Donors	High	High	Tracking of the project related activities and incomes and benefits to the community. The two financing entities for agroforestry application and fertilizer facilitation are IKEA and AGRA (funds are transferred to Farm Africa from AGRA). Farm Africa has regular meetings with both entities to report on the project's developments. Scaling will be made possible due to their interest.	Manage closely	Yes
NGOs	Low	High	Collaborations and knowledge sharing e.g. collaboration with farmer associations. Collaboration with Trees For Kenya, due to the project intervention taking place in the same counties, through initial Project Council meetings and other engagement activities, such as the Payment Ceremony (28th of April). Furthermore, the lessons from the project with Acorn will be passed to other projects of Farm Africa, in collaboration with other NGOs.	Monitor	Yes

Technical/ agronomical partners	High	Low	Knowledge sharing e.g. ongoing assistance from local agronomists. Farm Africa's project staff is composed of agriculture experts (i.e., the project coordinator), and environmentalists. Furthermore, the departments of Environment and Agriculture, the Subcounty Agricultural Office are involved during mobilization and training sessions to provide technical/agronomist input.	Keep informed	Yes
Financial partners/ institutions	Low	Low	Access to finance for the farmers e.g. provide loans for farmers to afford planting resources, has not taken place in the scope of the project. Carbon finance is in place (together with financing from donors) for the project's financing.	Monitor	Yes
Procurement services (nurseries)	High	High	Projections on the demand of the planting materials e.g. planting materials from local nurseries. Farm Africa has a model for the supply of seedlings based on public, private, and community-based nurseries. These include KEFRI (for the provision of forest trees), KARLO (for the provision of fruit, nut, and fodder trees), ICRAF (for the provision of forest and medicinal trees), certified KEPHIS (Kenya Plant Health Inspectorate Service) nurseries, and community-based/VBA-owned nurseries.	Manage closely	Yes

Local authorities	High	High	Arbitration of disputes, monitoring of project activities e.g. project activities must abide by local laws and regulations. Farm Africa actively involves the county government (Local Administration, and the Departments of Agriculture and Environment) in farmer engagement activities, such as Project Councils and Farmer Payment Ceremonies.	Manage closely	Yes

Part L: Reversal Risk Assessment

Project phase	Drivers behind reversal risk	Risk level	Justification
Project adoption/ start	Limited education or inadequate understanding of agroforestry	Low	Farm Africa ensures that all farmer trainings are accessible to all the farmers, regardless of gender, illiteracy, status and distance, will be able to access and benefit from the programme. The trainings take place in a lead farmer's farm or central meeting area that is accessible to all farmers. To ensure women participation, the trainings are done at pre-agreed timelines and during periods of the day when women aren't busy with household and childcare responsibilities. The project uses a "woman clock" to determine the times when women are free for social gatherings/meetings. The trainings are conducted in the local dialect and Swahili language. The cultural approaches implemented in the Regenerative Agriculture project are pre-agreed with the communities to ensure that they align with the local traditions. The farmers chose the agroforestry trees based on the ecological zone they're in, and then they subdivide these into three subzones, - upper, middle and lower, - for which each will have the best suited agroforestry trees. Training will be based on a strong understanding of agroforestry as the technical assistants and Farm Africa's Field Officers are trained agronomists. Additionally, the training materials will be created in collaboration with the project partners, the county's Agriculture Department and research institutes.
	Marginal community support or low community involvement	Low	Farm Africa already has in place Village Based Advisors' (VBA) manual for farmer training. In addition to this, Farm Africa will develop flyers and brochures on the Acorn agroforestry initiative that will be distributed to the community highlighting the anticipated benefits and impacts of the project. Farm Africa has an elaborate monitoring and evaluation system which includes community surveys, feedback loops, and focus discussions that are carried out at regular intervals. Monitoring is conducted every season to measure the crop output and performance of the land. The project council meets biannually to discuss farmer

| | | | needs, grievances and feedback. For immediate dispute resolution, Farm Africa arbitrates the disputes through the local administration-depending on the urgency of the matter, disputes are scheduled within seven days of reporting and the matter arbitrated. Currently, the disputes are mainly family matters which are handled at the family level and have not affected the project.

In addition, the VBAs from Farm Africa will collaborate with those from Trees for Kenya to identify farmers from each organization and avoid double registration. |
| | Inadequate operational capacity (limited experience, no local presence) | Low | Farm Africa has been involved in agroforestry practices for 2 year now and has been active in the community of the project area for 37 years, which shows that it has the technical capacity and expertise to provide training on business, agriculture and agroforestry. Farm Africa helps rural communities to increase the quality and quantity of what they produce, through community empowerment programs such as training farmers on good agricultural practices by demonstration plots managed by other farmers and through Farmer Training Centres. |
| | Insufficient (local) nurseries | High | Farm Africa has a model for the supply of seedlings based on public, private, and community-based (VBA managed) and/or VBA-owned nurseries. These include KEFRI (for the provision of forest trees), KARLO (for the provision of fruit, nut, and fodder trees), ICRAF (for the provision of forest and medicinal trees), and certified KEPHIS (Kenya Plant Health Inspectorate Service) nurseries. So far, one commercial nursery has supplied seedlings, and twelve have vetted to supply 7,536 seedlings for the following 2024 season. As for community-based/VBA owned nurseries, six were given technical support (on potting, grafting and requirements for KEPHIS certification) from Farm Africa.

Procurement of seedlings will take place in stages, and per area, as Farm Africa will categorize each county by sub-counties (i.e., Embu county has four sub-counties). Farm Africa is determining the preparedness of farmers to plant all seedlings (i.e., land size, space and number of holes required through the existent governance structure, etc.) to fix how many seedlings to distribute per farmer. Distribution will be done in |

			2 periods (rainy seasons) of the year. For each county, the distribution will start in one region and will take place in a central place (i.e., schools or community resource centres) for farmers' accessibility. The VBAs will be responsible to inform and mobilize the farmers for seedling pick-up.
			The monitoring of tree seedlings handouts take place through forms filled in by the staff/VBAs, and are subsequently registered at the head office. The seedlings handout are monitored during the actual seedlings handout events. Because seedling takes place in the 2 rainy seasons, the total amount of seedlings distributed can be summarized and monitored per distribution and planting season. The VBAs will further monitor the project's implementation through farm visits and communicate back to Farm Africa through the existent communication channels.
	Animal or human interference	Low	The risk of damage to/loss of crops due to animals or human interference is low in the project area.
			The farm areas are privately owned, the borders are clearly defined, and the neighbors are made aware. Trespassing is frowned upon in the community and prosecutable by law. To further increase protection, the farms are fenced with live fences or barbed wire.
Project progress	Negative project cash flow	Low	The project design and planting of the first trees has been financed through the IKEA-AGRA Regenerative Agriculture project.
			The project has a cost share mechanism with the engaged farmers. Farm Africa, through the AGRA funds, will provide capacity building for the farmers and linkages to financial institutions such as banks and microfinance providers.
			The organization has undertaken a project risk analysis and has mitigation measures in place. The mitigation strategies include 1) a cost sharing mechanism which will allow for farmers over the years to become independent on funding for project activities and sustain their own operations, 2) setting up of Village Savings Loan Associations where farmers unlock local access to finance and, 3) the training on business and financial management increases the farmers bankability.

	Poor agroforestry schemes	Low	The project encourages species and genetic diversity, promoting a variety of tree species to be planted under the agroforestry system, which includes nitrogen-fixating trees (*Calliandra calothyrsus* and *Gliricidia sepium)*, trees with multiple benefits of shade, animal fodder for leaves (*Grevillea robusta)*, and trees for food and medicinal purposes (*Moringa stenopetala)*, and fruit trees(*Persea americana*, *Mangifera indica*, *Citrus spp*. and *Macadamia intergriflora).*
	Change of land ownership and coverage	Medium	When onboarding, the participant is the current land owner, which is reflected in the land tenure documentation. In case of change, such as an inheritance case, the VBAs shall report it to the project's staff and Local Administration through the existing communication channels (see CAR 02/23) and Project Council meetings. The secure connection with farmers due to the well-established VBA structure and close contact with the project participants allows for Farm Africa to be informed on these cases. In addition, stakeholders like the Local Administration collaborate with Farm Africa and is highly regarded (per the land laws of Kenya, any land sale within the community must be approved by the local Administration and the family members) in the project area; they can provide input on how to solve issues relating to this topic.
			The land sale is not a common practice in the project area; however, land subdivision is. For the latter, the VBAs will inform the local partner of cases where land tenure changes from their close contact with the participants (as VBAs are community members), and the project council members will also communicate these situations. In the cases of land subdivision, agreements will be made with the family members to subdivide the CRU money, and these will take the form of a signed consent between the family members on how to divide the money or through a decision communicated to the Local Administration on how to split the amount.
	Political instability (e.g. war, economic crisis)	Low	Farm Africa receives timely alerts from INSO (International NGO Safety Organisation) Kenya on any local and national anticipated civil disturbances/ disruptions, thus being able to keep up-to-date on local and national political conditions.

Natural risks:	Medium	A risk survey was conducted at the start of the project to identify types of risks, included below:
- Fires		• Low risk for fire and extreme weather.
- Pests & disease		• Medium risks for pests, diseases outbreak and drought.
- Extreme weathers		To mitigate these, the project is implementing the regenerative agriculture approach to help farmers become adaptive to climate change. The VBAs and agriculture extension officers (government employees working in the department of agriculture whose main role is to provide agriculture extension and advisory services to farmers) conduct pests and disease surveillance. The project collaborates with the research institute and the county government to report on the identified risks. The farmers are also trained on safe use of pesticides and on timely control of pests and diseases. Every household is trained on fire preventative measures and identifies an assembly point in case of fire.
- Other events		

There are on-farm training on early-warning systems done by Ministry of Agriculture and National Disaster Management Authority. VBAs in Embu and Tharaka Nithi County have also been trained on-farm and off-farm (household, industrial areas) adaptation strategies to cope with climate hazards that affect agricultural production and food security. In addition, good agricultural practices training to cope with pests and disease is also on track. These will be administered alongside the crop production cycles and repeated every cycle as each might bring forth diseases and pests that differ based on climatic conditions (ex.: fungal diseases in wet weather and bacterial diseases in dry weather).

Finally, the county governments also hold barazas, - these usually have around 100 attendants per session, - where farmers are trained on mitigation strategies. To ensure the trainings and messages are effective, the project collaborates through the provision of 1) public address systems, such as microphones, speakers and other instruments to support the sound, 2) generators as some rural areas don't have electricity, and 3) fuel for both generators and vehicles that will transport the equipment mentioned above. Farm Africa summarizes this information, in addition with contact information, on leaflets which are printed out for the

			attendants. In case of a potential threat, the county government conducts door to door campaigns and meetings to sensitize the community.
Project maturity	Logging risk	High	The risk of deforestation in the project area is high, due to high demand for timber, fuel, charcoal and from brick lacking activities (see question 16 of Project Summary)..
	Waning or short-lived local partner commitment	Low	Agreements are signed as part of this project with Acorn, the local partner and the farmer, demonstrating their commitment to the longevity of this project. The ACORN supply team will keep communication open with the local partner and evaluate their commitment to the project.

1. List any reversal risks in Part L that are high-risk, provide appropriate mitigation actions, and describe how often these risks will be monitored.

Risk	Mitigation action	Monitoring Frequency	Responsible party
Logging	The agroforestry design will include fruit trees which have multiple benefits, such as income from sale of fruits and nuts, reducing the risk of trees being cut down.	Acorn will monitor for a loss in biomass annually and Farm Africa will monitor this through VBA's group meetings (these meetings take place on the farmer's land, and alternates between farmers) and survey farmers.	Farm Africa and Acorn
Insufficient nurseries	Farm Africa has set up a procurement team within its organization, dedicated to planning and distribution of seedlings. Team members are divided between regions so that specific advise can be collected. Within this, the team is developing a micro planning tool for the purchase and distribution of seedlings. This will take the form of an excel document where it will	Distribution will be done in 2 periods (rainy seasons) of the year. For each county, the distribution will start in one region and will take place in a central place (i.e., schools or community resource centres) for farmers' accessibility. The VBAs will be responsible to inform and mobilize the farmers for seedling pick-up. The monitoring of tree seedlings handouts take place through	Farm Africa

	include the list of farmers, per area, and number of seedlings to be provided. During the distribution, farmers will sign a list and provide confirmation as input to the tool. For the monitoring of implementation, the VBAs will visit farmers and the Project Council will also serve as a medium for monitoring. Furthermore, Farm Africa is continuously building capacity for the development of several small-scale community-based nurseries across the project area to ensure the provision, on the long-term, of seedlings, all year round. This will also serve as demonstration to the participating farmers on how they themselves can produce seedlings. For the commercial seedlings, Farm Africa is planning ahead based on the nurseries capacity.	forms filled in by the staff/VBAs, and are subsequently registered at the head office. The seedlings handout are monitored during the actual seedlings handout events. Because seedling takes place in the 2 rainy seasons, the total amount of seedlings distributed can be summarized and monitored per distribution and planting season. The VBAs will further monitor the project's implementation through farm visits and communicate back to Farm Africa through the existent communication channels	

Part M: Technical Specifications

1. Applicability Conditions

In the table below, explain how this project meets the applicability conditions of the Acorn Methodology:

	Applicability Condition	Met	Reasoning
A	The Project Interventions meet the Agroforestry definition (see Section 3 of Acorn methodology v1.0) and any trees planted are Native or Naturalized species.	Yes	As elaborated in part F Project Activities and business case.
B	The Project Area must not have been cleared of native vegetation within 5 years of the start of the Project Intervention.	Yes	Initially, a verbal check was performed with the local partner who confirmed this and t-5 checks from remote sensing measurements confirmed it as well
C	Individual plots within the Project Area are between 0.1 and 10 ha and are not on wetlands.	Yes	Confirmed through polygon checks
D	All land within the Project Area is either cropland or degraded land under the Baseline Scenario	Yes	Initial verbal explanation in carbon baseline by local partner and land cover check performed confirmed
E	The project interventions must not include activities that increase the total number, weight or number of grazing days for any livestock type, relative to the baseline scenario.	Yes	Explained to participants and to be confirmed by sample-based agricultural biodiversity check over the coming years
F	The project intervention must not include the planned harvesting of planted trees during or after the crediting period.	Yes	Covered in local partner contract
G	Heavy machinery must not be used for site preparation or management.	Yes	Not applicable for these smallholder farmers and covered in the local partner contract
H	The project intervention must not increase the use of synthetic (nitrogen-containing) fertilizers relative to the baseline scenario.	Yes	Covered in local partner contract
I	Soil disturbance attributable to the project intervention must not occur on more than10% of a plot that is under any of the following types of land: - Land containing organic soils; - Land which, in the baseline, is subjected to land-use and management practices and receives inputs listed in Annex 4 of Acorn Methodology	Yes	The SoilGrid confirmed that project is not on high organic soils, with the following results thickness detail >200cm, SOC content less than 20%, but 1,2% and clay of 52%

2. Adjustment Factors

This table below gives an overview of the adjustment factors applied for this specific project.

AdjF	Factor (%)	Reasoning
Leakage	0%	See reasoning below in the leakage assessment.
Uncertainty	-	*To be re-calculated after new biomass measurements.*
Pre-project	25%	Calculation results can be found in Source: *AdjFs_FA_Kenya*

Leakage Assessment

Estimated reduction in project productivity (%)	Cash crop(s) contributing most to project productivity	Proportion of project land used to grow cash crops (%)	Type of land production will be shifted to
0%	Sorghum, maize, legumes, and green grams.	70%	Crop land

I.) Describe the potential leakage situation of the project over its lifetime.

There is no expected loss in productivity due to project intervention, and no displacement of farmers activities. The planting of diverse trees species on the existing farmland will create more revenue for farmers through marketable tree products (e.g. fruit). Farm Africa expect that productivity levels will increase from about 5 years after farmers plant trees and will reach up to 30% over the life of the project. Farm Africa will annually monitor any changes in productivity over the project's lifetime. Through monitoring surveys, Farm Africa will be able to conduct periodic output measurements to determine farmer crop yield improvements. In addition, a baseline study was conducted at the start of the project to serve as a guide in determining the farmer crop yield improvements and monitor any changes in household income. Additionally, Farm Africa has established a baseline for the soil fertility through soil tests in laboratory and periodically (biannually – after every crop cycle) monitors changes in the soil pH and nutrient levels.

To prevent and mitigate any potential leakage situation, Farm Africa will ensure farmers are trained and that they maintain a minimum of 200 trees in 0.8 hectares in their farms for a long-term period, which is reflected by the choice in agroforestry trees (fruit-bearing and medicinal trees).

II.) Describe the land between farms and a maximum of 5km outside of the project area (i.e. crop land, degraded land, forest).

The land between farms and within a 5km radius is farm land/crop land. Most farm lands are located side by side. In some areas they are separated by roads, forests and ragged landscapes comprised of small hills with shrubs. Due to this, many of these farmers are likely to copy the agroforestry system once the benefits start being visible.

Shrub land	Grass land	Crop land	Built-up	Bare/Sparse vegetation	Permanent water bodies	Herbaceous wetland	Tree cover <60%	Tree cover >60%
24,48	8,781	20,70	1,31	0,04	0,02	1,18	40,40	3,14

III.) List farmer activities (performed before project implementation) that will be displaced from project interventions and lead to an increase in emissions outside of the project area, if any.

Displaced farmer activity	Area activity displaced to
Not applicable	Not applicable

IV.) If leakage is like to be significant, outline the leakage mitigation and monitoring plan below

Source of leakage	Mitigation action	Monitoring Frequency	Responsible party
No significant sources	Not applicable	Not applicable	Not applicable

3. Root-Shoot

Ratio	Reasoning
0.32	Applied the default value for the calculations as alternative literature is very limited to no existing and IPCC values could not yet be sufficiently matched

Annex 1: Map of project location & ecoregion(s)

Information removed for data protection purposes

Annex 2: Land tenure documentation (sample-based)

Information removed for data protection purposes

Annex 3: Organisation structure

Information removed for data protection purposes

Annex 4: Local partner and farmer business case

Provided (document titled Annex 4).

Annex 5: Letter to national government

Memorandum of understanding between Farm Africa and the Ministry of Agriculture, Embu County Government and the Ministry of Agriculture, Livestock Development, Fisheries and Co-operative, dated July 2022. Provided (documents titled Annex 5.1. and Annex 5.2).

Annex 6: Project Council Reports

Community Meeting and Project Council Reports provided (documents titled Annex 6.1 and 6.2).

Information removed for data protection purposes

Information removed for data protection purposes

Annex 7: Evidence of Participation

2 x meeting minutes and multiple training lists available from Acorn to demonstrate evidence of participation until the first project council meeting takes place in 2023. Provided (documents titled Annex 7.1 and Annex 7.2).

Information removed for data protection purposes

Annex 8: Participant Agreement

Information removed for data protection purposes

Annex 9: Local partner contract

Information removed for data protection purposes

Annex 10: Baseline habitat species

Tree species predominant in Embu and Tharaka Nithi.

EMBU COUNTY		THARAKA NITHI COUNTY	
Botanical Name	**Common name**	**Botanical Name**	**Common name**
Prunus africana	African Cherry	*Prunus africana*	African Cherry
Markhamia lutea	Nile Tulip	*Markhamia lutea*	Nile Tulip
Croton megalocarpus	Prota/ Croton	*Croton megalocarpus*	Prota/ Croton
Melia volkensii	Mukau	*Melia volkensii*	Mukau
Gmelina arborea	White teak	*Amelia arborea*	White teak
Sapindus saponaria	Western soapberry	*Sapindus saponaria*	Western soapberry
Delonix regia	Royal Poiciana	*Delonix regia*	Royal Poiciana
Vitex keniensis	Meru Oak	*Vitex keniensis*	Meru Oak
Cordia Africana	Sudan teak	*Cordia Africana*	Sudan teak
Grevillea robusta	Grevellia	*Grevillea robusta*	Grevellia
Casuarina	She oak	*Casuarina*	She oak
Adansonia spp	Baobab	*Baobab*	Baobab
Podocarpus spp	Yellow wood	*Podocarpus spp*	Yellow wood
Eucalyptus spp	Eucalyptus/ Blue gum	*Eucalyptus spp*	Eucalyptus/ Blue gum
Azadirachta indica	Neem tree	*Ficus spp*	Neem tree
Cassia fistula	Yellow cassia	*Cedrus elegans*	Cider
Butea monosperma	Flame of the forest	*Kigelia africana*	Sausage tree
Leucaenia luecocephala	Leaucaena	*Azadirachta indica*	Neem tree
Calliandra spp.	Powder puff	*Cassia fistula*	Yellow cassia
Acacia spp.	Acacia	*Butea monosperma*	Flame of the forest
Callistemon spp	Bottle brush	*Leucaenia luecocephala*	Leaucaena
Tamarind spp.	Tamarind indica	*Calliandra spp.*	Powder puff
Citrus spp.	Oranges/lemons	*Vitex keniensis*	Meru oak
Mangifera indica	Mango	*Acacia spp.*	Acacia
Mangifera indica	Mango	*Callistemon spp*	Bottle brush
		Albizza spp	Alizia
		Spathodea campanulata	Nandi flame
		Citrus spp	Lemons/ Orange
		Mangifera indica	Mango

Annex 11: Gender and social inclusion policy

Farm Africa is committed to providing staff with feedback on their performance and with professional development opportunities in order to more effectively achieve Farm Africa's objectives. Staff development can take a variety of forms, from the opportunity to work on a project or on-the-job coaching to more formal training. Any staff development must be appropriate to the needs of the organisation and must be cost-effective.

Farm Africa aims to provide salary, benefits and other terms and conditions that are comparable with those of most similar INGOs in the countries we operate in. We will undertake periodic reviews of salaries and benefits to ensure that we remain competitive.

4.1 Workplace Inclusion and Diversity Policy

4.1.1 Introduction
Farm Africa recognises the importance of diversity and inclusion, we understand that the performance and engagement of our staff is central to our success. We are committed to creating an inclusive working environment, in which every individual is able to fulfil their potential and maximise their contribution. We recognise and value the creative potential that individuals of different backgrounds and abilities bring to their work.

Our employment policies and practices reflect a culture where decisions are made solely on the basis of individual capability and potential in relation to the needs of the business. We consider the following to be 'Protected Characteristics' and covered by this policy: age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, race (including ethnic origins, nationality and colour), religion or belief, sex and sexual orientation. In addition, other personal factors such as part time and fixed term status provide no basis for less favourable treatment. Discrimination, bullying or harassment will not be tolerated.

We also recognise the value of a representative and diverse workforce in helping us understand the needs of the communities we work with in Africa.

All staff are responsible for ensuring that this policy as well as Farm Africa's Code of Conduct are actively applied. Staff should also be aware of their personal responsibility to each other, the people we work with, volunteers and everyone who comes into contact with Farm Africa.

4.1.2 Scope
This policy and procedure applies to all staff, including senior managers, volunteers, consultants, agency workers, trustees and partners.

4.1.3 Standards of behaviour
Farm Africa's Code of Conduct details the standards of behaviour we expect from all staff, including senior managers, volunteers, consultants, agency workers, trustees and partners.

4.1.4 Policy Application
We are committed to a positive policy of promoting equality of opportunity, providing an inclusive workplace and eliminating any unfair or unlawful discrimination. This applies to all employment policies and practices including those relating to:

- recruitment and selection;
- terms and conditions of employment;
- working environment;
- training and development;
- promotion and career progression;
- redundancy and re-deployment.

This policy is supported by appropriate anti-harassment and bulling, disciplinary and grievance policies as well as the code of conduct.

These procedures ensure that any member of staff who believes that he or she may have been unfairly discriminated against can raise their concerns formally. Our staff will not be victimised for making such a complaint in good faith. We will deal with complaints seriously, in confidence and as soon as possible.

Disciplinary action will be taken against any member of staff who is found to have committed an act of unlawful discrimination. Serious breaches of the policy will be treated as gross misconduct. Allegations of discrimination which are not made in good faith will also be treated as a disciplinary matter. Confidential records of ongoing matters dealt with in accordance with this policy will be kept.

4.1.5 Diversity and Inclusion
Farm Africa recognises that all people bring different qualities, abilities, skills, knowledge, experiences, perspectives and attitudes to work and that valuing and making the most of these differences can improve the workplace for individuals and make Farm Africa a more effective organisation.

Diversity includes, but is not limited to, differences in gender, age, language, cultural background, sexual orientation and gender identity, health / medical condition, religious beliefs, physical ability, appearance, working style, educational level, professional skills, work and life experiences, socio-economic background, job function, marital status and family responsibilities.

4.1.6 Recruitment and selection
Farm Africa recognises the value of diversity in our workplace and strives to promote fairness and equal employment opportunities. The decision to employ or engage an individual is based on merit, potential and the individual's ability to carry out the role. Farm Africa staff have received unconscious bias training to help them understand bias and how to prevent it affecting employment decisions.

4.1.7 Diversity practices
Our staff are made aware of the Diversity & Inclusion policy during their employment, in appropriate ways, including but not limited to:

- During recruitment and induction;
- Training and development programmes;
- Employee communications material.

4.1.8 Responsibilities
Our staff are responsible for the practical application of the Diversity & Inclusion Policy, which extends to the treatment of job applicants, staff, customers, contractors, suppliers and visitors.

Our staff have a personal responsibility to advise their Line Managers, Human Resources Representatives or to follow the grievance procedures if there is a belief that any discrimination has occurred. Any act by a member of staff to encourage a colleague to discriminate against another either in language or behaviour may be deemed to be an act of inciting another to discriminate or aiding and abetting that act of discrimination and we will take this very seriously.

Special responsibility for the practical application of our approach to Diversity & Inclusion falls upon Managers and Human Resources Representatives who are involved in day-to-day supervision and management of staff and of recruitment, selection, promotion, and training of staff.

Our Managers have a personal responsibility for ensuring that this policy is communicated, understood and applied within their own areas. Any queries in the application or interpretation of this policy should be discussed with Human Resources, prior to any action being taken.

The Head of Human Resources is responsible for ensuring the maintenance, review and updating of this policy.

4.1.8 Breach of Policy

All individuals covered by this policy are expected to adhere to the standards of behaviour contained herein at all times. Anyone representative of Farm Africa who is found to have breached this policy will be disciplined accordingly, which may lead to, and include termination of employment or engagement.

4.2 Non-Harassment and Bullying Policy

4.2.1 Definition of Bullying and Harassment

The terms 'bullying' and 'harassment' are often used interchangeably, but typical definitions are:

Harassment can be defined as unwanted, unreasonable or offensive conduct affecting the dignity of women and men at work. Men as well as women can be victims of harassment. For the purposes of these guidelines on Non-Harassment, this definition covers harassment based on race, colour, nationality, ethnic, tribal, or national origins, language, sex, pregnancy, marital status or civil partnership status, family responsibility, age, disability, sexual orientation, gender re-assignment, HIV status, political opinion, Trade Union membership or religious belief. Whether or not someone is being harassed must be seen from the perspective of the individual.

Bullying may be characterised as offensive, intimidating, malicious or insulting behaviour, an abuse or misuse of power through means intended to undermine, humiliate, denigrate or injure the recipient.

Harassing or bullying behaviour does not have to be a conscious act and it can range from extremes such as physical violence to less obvious forms like ignoring someone. It can be delivered in a variety of ways – with or without witnesses and be persistent behaviour over a period of time, or a one-off act and can include:

- Unwanted physical contact, gestures or threats.
- Unwanted verbal contact such as unwelcome remarks, jokes, gossip, banter, songs, nicknames, innuendo or insults about any personal and/or protected characteristic.
- Distribution of emails, texts or data on social networking sites containing unwelcome remarks, jokes, gossip, banter, songs, nicknames, innuendo or insults about any personal and/or protected characteristic
- Persistent criticism of professional performance which are typically unpredictable, untimely, without evidence or context and unfair. Comments or actions in private or in public which are intended to undermine, belittle or humiliate or demean the individual involved.
- Isolation or non-cooperation and exclusion from social activities or conversely, pressure to participate in social events or religious/politic groups
- Shouting at employees, setting impossible deadlines, constantly changing demands
- Refusal to comply with reasonable requests.
- Unreasonable refusal to adjust the working conditions or environment
- Failure to safeguard confidential information
- Coercion, including threats of dismissal or loss of promotion for sexual favours

Annex 12: Grievance Mechanism

15.1.1 Purpose
The purpose of this procedure is to ensure that all staff are able to raise any grievances they may have arising from their employment with Farm Africa. Anyone wishing to use the grievance procedure in good faith may do so freely and without prejudice to their position in Farm Africa. The procedure applies to all staff and, irrespective of grade or duration of service.

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Please note that this procedure does not apply to non-Farm Africa staff such as agency staff.

15.1.2 Principles
All employees will be given:

- The opportunity to deal with grievances fairly, quickly and as close as possible to the point of origin to help prevent minor disagreements from developing into more serious disputes.
- A fair hearing by a specified manager concerning any grievances she/he may have.
- Formal grievances will normally be investigated and the stage 1 meeting to discuss the grievance will normally be carried out by the line manager of the member of staff with the grievance. Where the member of staff feels that the matter is too personal to discuss with their line manager, or if the grievance relates to the manager, it can be raised either with the HR Manager/Representative or a senior manager.
- All staff with a grievance have the right to be accompanied to meetings at each stage of the grievance process, either by a colleague or trade union representative. If the companion of choice is unavailable on the date of the meeting, Farm Africa will rearrange the meeting at a more mutually convenient time within the next 5 working days.
- The member of staff with the grievance must take reasonable steps to attend all meetings. However, if they are unable to attend the meeting for a legitimate reason it will usually be postponed and reconvened at a later date. If the member of staff fails to attend without explanation, Farm Africa may proceed in their absence.
- The right to appeal at each stage of the procedure.
- The grievance procedure should not be used for appeals against disciplinary decisions. That

Annex 13: Local Partner Certificate of Registration

Information removed for data protection purposes