Horizon Laikipia & Nyeri PIN

"Generating Carbon Credits through Native Tree Regeneration"

Contents

Horizon PIN: Summary Information

Project Title	**Horizon Laikipia & Nyeri PIN** Generating Carbon Credits Through Native Trees Domestication
Project Location:	Laikipia and Nyeri Counties, Kenya Laikipia County/Coordinates: 0.3606° N, 36.7820° E Nyeri County/Coordinates: 0.4371° S, 36.9580° E
Project Coordinator	Horizon Business Ventures/ Help Self Help Centre Bernard Muchiri PO BOX 15-10105 Naromoru, Kenya +254 720005717 bvhorizon@gmail.com https://hbv.co.ke
Summary of Proposed Activities	• Reforestation in degraded areas of public forests- Mount Kenya, Aberdares, Public Hills. • Restoration of river line ecosystems through tree planting • Domestication of native trees on-farm through agroforestry • Restoration of soil cover through cultivation of economic shrubs/herbs that coppice after harvesting (farm regeneration) • Training and supporting the local community groups in tree propagation and nursery management • Training of farmers in best tree/crops planting practices, conservation agriculture & agroforestry, farming as business • Follow-up and Monitoring of tree survival rate and performance
Summary of Proposed Target Groups	The target beneficiaries are small-holder farmers, owning 0.25-3 ha of land. Although women provide 89 per cent of labour in subsistence farming and 70 per cent of cash crop labour (Kenya Land Alliance 2014). The main activity on these areas of land is mixed farming- crops and livestock. Farming is either rain fed or horticulture. There is a sizable allocation for grazing pasture; many people also plant trees. The project will help participants to integrate both native trees and permanent crop cover into the farming system, thereby stabilizing the production systems and generating more resilient income sources. Through these activities farmers will earn extra household income, further stabilizing the livelihood system. Farmers are part of a growing global community contributing to the fight against climate change- increasing their networks and building social confidence.

A.Project Aims & Objectives

This project aims to address the problem of high poverty incidences due to failures in traditional agricultural systems caused by climate change, which leads to increased deforestation. In this project, forest adjacent communities (FAC) are encouraged to adopt alternative less climate sensitive livelihood systems (such as producing non-timber forest products [NTFPs]) that motivate them to conserve biodiversity and protect forests. Activities will include farmers' integration of high value drought resistant and low input essential oils crops, reforestation of degraded parts of public forests, tree domestication on-farm as future feedstock for NTFPs, and other nature based activities (agro-tourism, bee farming, bird watching, nature trails) to provide complimentary livelihoods.

This PIN, and its associated Project delivery, will be coordinated by Horizon Business Ventures HBV)/Help Self Help Center (HSHC).

HBV was established in 2008, but commenced actual business operations in 2016.

The business is based on production and marketing of natural essential oils-both forest and farm derived.

Help Self Help Centre (HSHC) is a Kenya based NGO established in 1993; its aim is to fight poverty amongst small-holder farmers in the Mt. Kenya region through strengthening the small-holder farmers position in the essential oils and fruit value chains, promoting entrepreneurship based on agricultural and forest products.

Currently, focused on the production of tree oil products (cape chestnut, marula, eucalyptus, wild basil, lippia, geranium, tea tree etc) and fruit value added products (tree tomato, strawberry, goose berry and passion).

Both Horizon Business Ventures(HBV) and Help Self Help Centre (HSHC)strongly support land productivity improvement, biodiversity, indigenous property rights, land tenure improvement, job creation and poverty reduction. HSHC will undertake responsibility of project development (stake-holder's mobilization, monitoring, reporting) including while HBV role is project management (contracts, payments, reporting).

The core values and goals of this project are:

Environmental

- Land restoration
- Improved land management
- Productivity improvement
- Develop new best practice
- Carbon capture
- Forest and biodiversity conservation
- Habitat and ecosystem protection
- Climate resilience
- Sustainability and inclusion

Social

- Social and gender empowerment
- Social inclusion
- Increased optimism/enterprise, especially within youths
- Improved livelihoods
- Better health
- Greater Education & Training (local skills pool)

Economic

- Poverty reduction
- Job/ creation
- Improved purchasing power/value chain position
- Alternative income opportunities

Project Scale

This Project is being implemented for, and by, the local landowners and farmers; they are the absolutely critical to the successful delivery of this Project, its core objectives, and in making this project sustainable.

The Scale can be defined as follows:

- Total Land area: **30,500 ha (The pilot area will cover 5000ha in Ngobet, Gakawa and Kabaru**)
- Total trees planted: **3 million trees (30,000ha)**
- Total area under cover crops: **Permanent shrubs/herbs (500ha)**
- Timelines: **The project will be phased over a 10-year period**

To achieve the strongest and most significant impact and outputs, HSHC/HBV are also committed to ensuring that our landowners and farmers participate with their back yards. All participating farmers will have legal ownership title to their land.

B. Proposed Project Area

Description of Project Location

The project will take place in Laikipia East and West and Kieni East and West (Nyeri). However, a pilot will take place with a number of selected farmers in Gakawa (Kieni East) Muiga (Kieni West) and Ngobet (Laikipia East). The number of farmers would be between 500-700 (occupying 5000ha), participating under certain criteria developed by the project. The successful pilot project will then be extended to 5000 farmers, covering an area of 30000 ha. This will be in addition to two forest blocks (Kabaru, Gathiuru) in the Mount Kenya forest, will be covered in the project, in partnership with the Kenya Forests Service.

The project areas are:

1. Laikipia County

Laikipia County is one of the 47 counties of Kenya, located on the Equator in the former Rift Valley Province of the country. Economic activity in the county consists mainly of tourism and agriculture, chiefly grain crops, ranching and greenhouse horticulture.

The county encompasses the high, dry Laikipia Plateau, and has a cool, temperate climate with both rainy and dry seasons. Laikipia is a cosmopolitan county and is county number 31.

The county has two major urban centres: Nanyuki to the southeast and Nyahururu to the southwest.

Its capital is Rumuruti; the land area is 869,600 ha (8,696 km^2); the population is 518,560 (COUNTY INTEGRATED DEVELOPMENT PLAN 2013-2017).

Laikipia County Borders Mount Kenya forest to the South and hosts the famous Ol Pejeta Conservancy.

The County lies between latitudes 0° 18″ South and 0° 51″ North and between longitude 36° 11″ and 37° 24′ East.

The altitude of Laikipia County varies between 1,500 m above sea level at Ewaso Nyiro basin in the North to a maximum of 2,611 m above sea level around Marmanet forest.

The other areas of high altitude include Mukogodo and Ol Daiga Forests in the eastern part of the county at 2,200 m above sea level.

The County consists mainly of a plateau bordered by the Great Rift Valley to the West, the Aberdares mountain ridge to the South and Mt. Kenya to the South East.

2. Nyeri County

Nyeri County is one of the 47 counties in Kenya and is located in the central region of the country. The County lies between Mount Kenya and the Aberdare ranges with Agriculture as the main economic activity. Coffee, tea, horticulture and milk are the key production system.

The county experiences equatorial rainfall due to its location within the highland zone of Kenya

Nyeri Town is the biggest urban centre

The land area is 236,100 ha (3,337.2 Km2); the population is 845,863(NYERI COUNTY INTERGRATED DEVELOPMENT PLAN (2018- 2022).

Nyeri hosts the tomb of Robert Baden Powell, the founder of the Scout movement. It is also the home town of the late Nobel laureate Wangari Maathai.

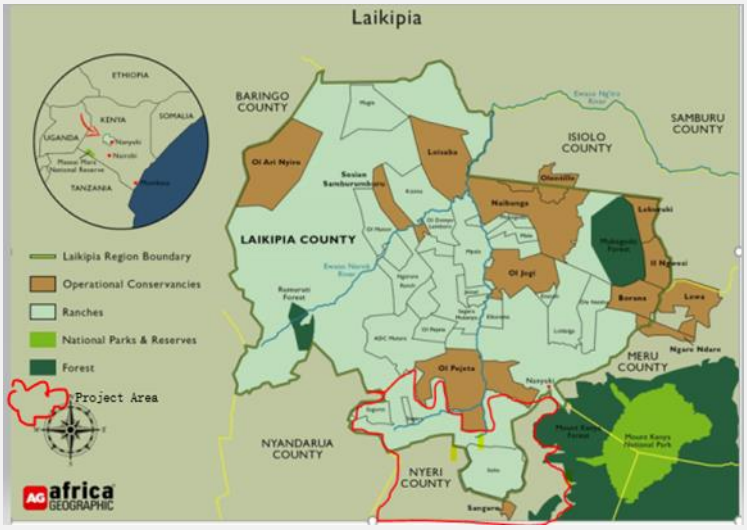
It is situated between longitudes 360 38″ east and 370 20″ east and between the equator and latitude 00 380 south.

The main physical features of the county are Mount Kenya (5,199m) to the east and the Aberdare ranges (3,999m) to the west.

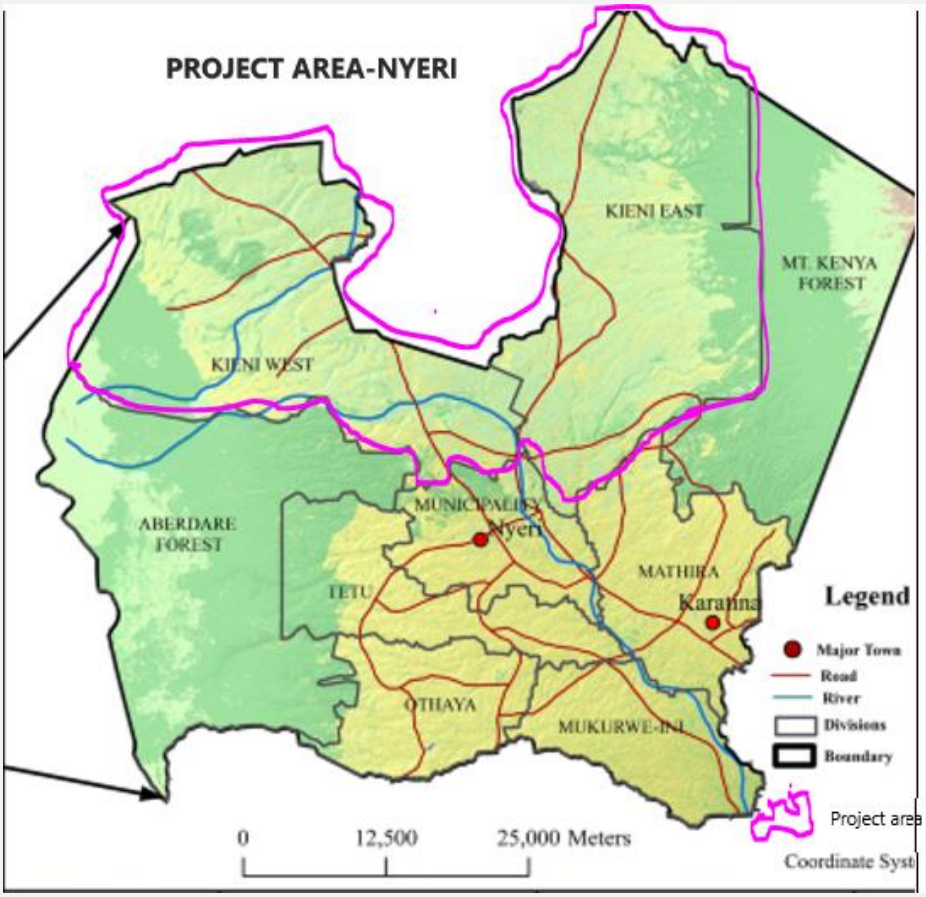
The western part of the county is flat, whereas further southwards, the topography is characterized by steep ridges and valleys, with a few hills such as Karima, Nyeri and Tumutumu.

Location maps, boundary maps (project area marked in red and pink)

1. **Laikipia County**



2. **Nyeri County**



Current & Proposed land use

The main economic activities within the Project areas are horticulture, dairy farming, tourism, manufacturing, retail and wholesale trade.

The land includes pastureland, rangeland, forests, wildlife, undulating landscapes and rivers among others.

- The high and medium potential land (high rainfall of 1000-2000mm/year, rich volcanic soils areas) constitutes 20.5% of the total county's land area making it suitable for crop farming. This area is dominated by coffee and tea as cash crops.
- The remaining 79.5% is low potential (rainfall 700-1000mm/year) and suitable for irrigated horticulture, livestock and wildlife. The area is dominated by subsistence farming, mixed commercial farming (crops and milk), large livestock, ranching and tourism.

The proposed land use in this project is agroforestry and sustainable cropping where essential oils based crops (tea tree, rosemary, Geranium, immortelle) will form a significant part of the cropping system, currently dominated by maize and beans. The agroforestry will be dominated by economic indigenous (cape chestnut, croton, cedar, sandal wood, warbugia, prunus) and naturalised (eucalyptus) trees/plants species. Within the proposed project intervention areas, domestication & agroforestry, integration of essential oils crops into the small-holder farming system is on-going at a low scale. This has been discussed and agreed with the farming community.

The essential oil crops don't have to be planted every season (coppicing properties) and form a good cover crop against soil erosion.

Physical description of the land, habitat types

1. Laikipia

"Laikipia" is a Maasai word equivalent to trees plain reflecting the large highland plateau.

92.5% of the Laikipia County lies in the semi-arid/semi-humid to very arid areas (agro-climatic zones IV-VII) while the other part 7.5% lies within the semi-humid to humid areas (agro-climatic zones I-III) (Jaetzold and Schmidt 2010; Wiesmann et al., 2014). The Project area experiences a relief type of rainfall due to its altitude and location.

In Laikipia County, **agriculture and livestock are the main sources of livelihood**. Agriculture is practiced both on a commercial and subsistence basis and contributes more than 75% of household incomes. Furthermore, **over 60% of the county's population derives their livelihoods from the sector** (G.K, 2014a). About **43% of the population are in absolute poverty** while **27.2% rely on food aid during food shortages**.

Farmers in Laikipia County rely on rain fed agriculture and this makes them **more vulnerable to climate variability** especially during drought periods. Irrigation infrastructure is expensive and knowledge on diversification is inadequate.

Rainwater harvesting through rooftops, water pans and small dams are widely practiced and go a long way in providing water during dry spells for domestic, livestock and irrigation purposes.

Climatic Conditions

Rainfall in the county is relief or orographic rain due to its altitude and location. The annual rainfall average varies between 400mm and 750mm though higher rainfall averages are experienced in the areas bordering Aberdare Ranges and Mt. Kenya. The plateau receives 500mm of rainfall annually, the drier parts of Mukogodo and Rumuruti receive slightly over 400mm annually,

The county is endowed with pastureland, rangeland, forests, wildlife, undulating landscapes and rivers among others. It has gazetted forest area totalling to 58000 ha (580 Km^2) comprising of both the indigenous and plantation forests. The indigenous forests include Mukogodo and Rumuruti while plantation forests include Marmanet and Shamaneik. Laikipia County is richly endowed with wildlife widely distributed in most parts of the county extending to Aberdare, Samburu, Meru and Mt. Kenya wildlife corridors.

The rest is found in-group ranches predominantly owned by the Maasai, in the gazetted forests of Mukogodo, Rumuruti and Marmanet and other uninhabited tracts of land in the county.

Land in Laikipia County has low agricultural potential (GoK, 2014a) and this hinders production.

Only 20% of the total land in the county lies in the high and medium potential category where crop cultivation is viable.

The total area under crops is about 198,400 ha of which 80% is under food crops. The low potential areas, equivalent to 79% of total land area, is unsuitable for crop farming but for livestock rearing and settlement. The percentage of landowners with title deeds is 65.3%.

As per the Climate Risk Profile the Laikipia County, has a climate vulnerability index of 0.3841[1]..

Biodiversity & species

The major type of wildlife in Laikipia include Elephant, Giraffe, Hippo, Buffalo, Zebra, Wildebeest, White Rhino, Black Rhino, Lion, Cheetah, Hyena, Leopard andWild Dog. Laikipia is home to more than 70% of the world's remaining Grevy's zebra population. It also has healthy numbers of wild dogs. The Sweetwaters Chimpanzee Sanctuary at Ol Pejeta supports the country's only chimpanzee population. Rare species in the area include the endemic Jackson's hartebeest, Grevy's zebra and reticulated giraffe.

Laikipia also boasts the second highest population of elephant in Kenya, with around 6000 residents in the area,

More than 350 recorded species make Laikipia Plateau a great birding destination – this includes many north Kenya specials. The variety in habitats reflects in the variety in birdlife ranging from arid ground dwelling birds like sandgrouse to colorful forest species such as turacos and grassland species such as bustards. Raptors are well represented as well. Others notable Birds in Laikipia include Black-winged lapwing, Crowned hornbill, Grey Crowned Crane, Hildebrandt's Starling, Abyssinian nightjar, African finfoot, Crowned eagle, Donaldson-Smith's nightjar, Four-banded sandgrouse, Hartlaub's turaco, Lesser kestrel, Lichtenstein's sandgrouse, Martial eagle

Threatened species include Jackson's hartebeest, **African wild dog (***Lycaon pictus***): Grevy's zebra (***Equus grevyi***): Rhinos and** sitatunga **antelope, Black Leopard,** Beisa oryx and gerenuk,

Indigenous plant species: Olea, Africana, Warbugia ugandensis, Acacias, cape chestnut. Leleswa, Sandalwood, Prunus Africana etc The latter four are to be addressed by the project, Sandalwood and Prunus Africana are already considered as threated species.

Legally designated/protected conservation areas within/adjacent to Project

Laikipia county has gazetted protected forest area totalling to 580 Km2 comprising of both the indigenous and plantation forests.

The indigenous forests include Mukogodo and Rumuruti while plantation forests include Marmanet and Shamaneik.

Laikipia County is richly endowed with wildlife widely distributed in most parts of the county extending to Aberdares, Samburu, Meru and Mt. Kenya wildlife corridors.

Most of the wildlife is found in the large-scale private ranches, which occupy over 50 per cent of the total area of the county. The county hosts many Conservancies such as Ol Jogi Wildlife, Ol Pejeta, Ol Lentille, Loisaba, Lewa Wildlife, Olpajeta, Mount Kenya Wildlife, Loisaba, Mugie Wildlife, Ol Jogi Ltd, etc.

Socio-Economic situation

Agriculture is practiced both on a **commercial and subsistence basis** and contributes to 75% of the household incomes in the County. Furthermore, over 60% of the county's population derives their livelihoods from the sector (GoK, 2014a).

[1] The ability of the county to cope with climatic extremes, given in scale of 0-1). NB 0 is most vulnerable.

According to the Agricultural Sector Development Support Programme (ASDSP), livestock rearing and crop farming employed a total of 141,383 people (2012) forming 47% of employed population.

Out of the total County population of 479,072, 43% lives in absolute poverty and makes up 0.55% of the overall national population under absolute poverty.

Urban poverty stands at 71% while rural poverty is at 39%. Given these characteristics, 27.2% of the population experience food poverty and rely on food aid during food shortages.

Furthermore, according to the Kenya Demographic and Health Survey (2014), 26.9% of the children in the county are stunted while 4.4% are wasted (KNBS, 2014). The literacy levels in the county are relatively high with those able to read and write representing 86.1% of the population and this is expected to rise with increase in uptake of free primary education. (GoK, 2009a).

The majority of the population 92.5% rely heavily on firewood for cooking and this puts a lot of pressure on the dwindling forest resources.

2. Nyeri County

Agriculture is an important sector in Nyeri County. It **employs approximately 66%** of the labour force and contributes about 57% to household incomes (GoK, 2013).

Productivity in the sector is low, as it faces **several challenges** such as **poor agricultural credit access, land degradation, poor access to agricultural inputs, crop livestock diseases** and **most importantly climate hazards**. Problematic climatic challenges in the county are drought, extreme temperatures, frost and floods.

The monthly mean temperature in the county is about 12.8-20.8° C (GoK, 2013). Rainfall is bimodal, with the long rains, normally 1,200 -1,600 mm, coming between March and May and the Short rains, normally 500 -1500 mm, coming between October and December (Ibid). There are year-to-year variations of amounts of rainfall received as well as variations across regions within the county. Some regions for instance in Agro-ecological Zone LH2, LH3 and LH4 receive trimodal rainfall where the middle rains come between July and August.

Land use system and ownership

The county has a total area of 98750ha (987.5 Km^2) and 75850 ha (758.5 Km^2) of arable and non-arable land respectively. The larger part of the arable land is used for food crop while the rest is used for cash crop farming, livestock rearing and farm forestry. The mean holding size is one hectare for majority of the small holders, though the land holding is larger in areas such as Kieni, the proposed project area (2.5 ha). Medium to large farmer's ranges from 5-22.5ha in size.

The percentage of land with Title Deeds is over 85 %. The main reason for lack of the title deeds by some farmers is conflict between family members while other landowners in settlement schemes have never been issued with title deeds. Secure land tenure is an incentive for farmers to invest in long-term soil and water conservation measures because the security of the investments is assured and legally binding.

Climatic Conditions

The county experiences equatorial rainfall due to its location within the highland zone of Kenya.

The long rains occur from March to May while short rains are experienced in October to December, but occasionally this pattern is disrupted by abrupt and adverse changes in climatic conditions.

Annual rainfall ranges between 1,200mm-1,600mm during the long rains and 500mm-1,500mm during the short rains. In terms of altitude, the county lies between 3,076 meters and 5,199 meters above sea level and registers monthly mean temperature ranging from 12.8ºC to 20.8ºC.

Biodiversity & species

Aberdares National park and Mt. Kenya has the following animal species; african elephant, rare black leopard, spotted hyena, olive baboon, and black and white colombus monkey, sykes monkey, the cape buffalos, warthogs, common zebra, bushback, reedback and lions among others.

The number of bird's species in Nyeri County is 673; those threatened are 26. The number of introduced species: 2.

Common birds species include: Red-chested Cuckoo, Silvery-cheeked Hornbill, Black Cuckooshrike, African Paradise Flycatcher Chestnut Weaver, Common Buzzard, Swift Apus, Eurasian Bee-eater, Barn Swallow, Common House Martin, Willow Warbler, Blackcap, Tree Pipi , Francolins, Bustard, Sand grouse, Turaco, Cucko, Eagles, Guinea fowls, quails, pigeons and falcon birds

Plants in Nyeri are dominated by Ficus Sycomorus, Spathodea companulata, Prunus Africana, markhamia lutea, cordia Africana, vitex keniensis, Spathodea Companulata, Newbutonia macrocalyx and Macaranga capensis, Ocotea usambarensis, Aningeria adolfi friendrici, syzygium guinesee, (Juniperous procera), Podo (Podocarpus latifolius) and the Olives (Olea europea, Olea capensis, Olea hochstetteri).

Calondendrum capense, Cape Chestnut, Ekerbergia capensis, Cassipourea malossana, Nuxia congesta, Leleswa. Prunus Africana, and **Leleswa** will be addressed by this project.

Legally designated/protected conservation areas within/adjacent to Project

The county has 2 gazetted forests (Aberdare ranges and Mt. Kenya) mainly of indigenous and plantation trees with a size of 86170 ha (861.7 Km^2). The ungazetted forests are nine (9) namely; Karima Hill, Tumutumu Hill, Gachirichiri, Wagere, Karundu, Karindi, Thangathi, Ngamwa Hilltop and Gachuthe

The County has two National parks which are Mt. Kenya and the Aberdares and two private conservancies – Solio Ranch and Sangare Wildlife.

The project activities will take place in Kabaru and Gathiuru Forest blocks within Mount Kenya forest.

Socio-Economic situation

Out of the total arable land in Nyeri, 61% (60,662 ha) is under food crops whereas 22% (21,593 ha) is under cash crops (GoK, 2014). In 2014, maize occupied approximately 62% of land under food crops whereas Irish potatoes occupied 7%. Agriculture in the county is largely dependent on rainfall since only 16% of the potential land for irrigation has been exploited (Kenya Open Data).

Out of the total potential labour force of 421,298 persons, 347,502 are employed, resulting in a 17.5% unemployment level in the county. The dependency rate in the county therefore stands at 51% of the total population. Apart from affordable credit, there is need of establishing cottage industries to add value on farm produce and hence create more employment.

The climate vulnerability for the county is 0.245 (where 0 is most vulnerable and 1 is most resilient), which is among the lowest in all the counties (GoK, 2013c). This makes it clear that farmers' welfare and quality of life are instrumental factors that promote the adaptive capacities to climate change.

C. Information on Target Communities

The target groups are five thousand farmers residing in Kieni East & West (Nyeri) and Lamuria (Laikipia) Sub-counties, located between Mount Kenya and Aberdare ranges.

The majority of the population is Kikuyus (90%). Other ethnic groups include Meru, Maasai, Turkana, Somalis, who make the other 10% of the population. All these communities have a patriarchal system of governance. The marginalised groups within these categories include women and girls (esp Maasai, Turkana), women headed households, HIV affected households and internally displaced but recently settled households.

The patriarchal system means women decision making powers are relegated, especially at household level. Land ownership and farm level asset base is largely at the hands of men. However, women, especially in the Kikuyu and Meru community are increasingly owning property and taking over family decisions, regarding land, children, asset accumulation and disposal.

Age recognition has largely broken down among the different age groups, and replaced with wealth, conduct and leadership positions. Young people are increasingly disengaging from social-cultural attachment and becoming independent.

There are many social structures around the farming communities including

- Farmers associations
- Cooperatives
- Farmers' producer organizations
- Tree nursery groups
- Women's groups (saving groups)
- Youth organizations

D. Land Tenure & Carbon Rights

Land ownership & structure, Land Size & Tenure

The average land size in Laikipia East & West is 2ha/household. However, there are large disparities as many individuals owns large tracks of land (100 acres plus). In Kieni East & West, the average land size is 2.5ha. There are also disparities as many individuals have between 20-60 acres. Land ownership is titled and the settlements are permanent in all the project areas (KE, KW, LE, LW). Some reforestation activities will take place on public land. The land tenure for the public forests is held by Kenya Forest Services (KFS) on behalf of the national government, while are the responsibility of the County governments.

Conflicts

Other than individual issues, there are no land tenure conflicts within the Project area.

Ownership of Carbon Rights

Farmers will hold the Carbon Rights ownership while HBV will sell carbon credits on their behalf, taking the position of **management/ coordination.**

Both the national government and the two county governments are only considered as facilitators and **have no interest in revenue sharing**. However, the situation, in terms of benefit sharing is not very clear when it comes to activities implemented within the public forests. From Government research, meetings, discussions by HBV during 2021, there appear to be no government policies or legislation that would inhibit or prevent the project participants, the landowners, from claiming the carbon.

Equitable benefit sharing and community engagement in natural resource management are emphasised as principles of both law and policy in Kenya. The Constitution of 2010, under Article 69(1)(a), places the obligation to ensure sustainable exploitation, utilisation, management and conservation of the environment and natural resources on the State. In addition, the State is obliged to ensure that there is equitable sharing of the accruing benefits. In a broad sense, the Constitution therefore contains principles regarding benefit sharing (in terms of both equitable distribution and public participation) that should apply to REDD+. In the case of this Plan Vivo project, 60% of income generated from carbon credits will go to the participating farmers and their organisations.

In addition, the National Land Policy discusses benefit sharing as a way of integrating the economic, social and environmental imperatives of land activities. The policy recommends that strategies should be developed to ensure that benefit sharing arrangements take into account the nature of the resources involved and the contribution that diverse actors make to the management of the resources

Kenya's Nationally Determined Contribution (NDC)

Kenya submitted her **Nationally Determined Contribution (NDC)** on 28th December **2016**.

The NDC sets out both **adaptation and mitigation contribution** based on conditional support.

The mitigation contribution intended to **abate greenhouse gas (GHG) emissions by 30% by 2030** relative to the business as usual (BAU) scenario.

This target was taken as half of the potential emission reduction by 2030, i.e., **100 MtCO2eq emission reduction by 2030**. It was also meant to mainstream climate change adaptation and resilience in all sectors.

The updated NDC Target Abate GHG emissions by 32% by 2030 relative to the BAU scenario of **143 MtCO2eq**; in line with the country sustainable development agenda and national circumstances.

The net results of the 2020-2030 projections for the updated NDC target are as follows:

- The Total Emission Reduction Potential is **86 MtCO2e by 2030** compared to the INDC target of 43MtCO2e.
- Out of the 86MtCO2e, the energy sector has an ERP of 48MtCO2e.
- Out of the 86MtCO2e potential, Kenya committed 46MtCO2e to NDC target, hence 32% of the original BAU.
- The remaining 40MtCO2e is secured for carbon credits/ trading. All sectors have been allocated percentages for potential trading.
- The BAU remains 143MtCO2e by 2030.
- Kenya could achieve more without trading but sectors have already made commitments

Kenyan Carbon Rights Policy

Carbon credit schemes in Kenya fall under two categories:

1. those under the compliance market; primarily the **Clean Development Mechanism (CDM)**
2. those under the **Voluntary Carbon Market (VCM)**

Kenyan Climate Change Policy, Targets, Performance

Accordingly, this Policy reflects the Government's commitment to formulating a proactive, coherent and integrated climate change response that focuses on reducing vulnerability and building the

resilience of the Kenyan people, property, environment and economy.

The Policy will position Kenya to capture the economic, social and environmental benefits of the transition to a low carbon, climate resilient economy.

Formulation of this Policy was initiated within the framework of the National Climate Change Action Plan (NCCAP, 2013-2017) whose objective is to encourage low carbon climate resilient development through implementation of the NCCRS. This Policy has been informed extensively by the NCCAP process and outputs.

E. Project Interventions & Activities

There are four key project activities

1. Indigenous Tree planting on-farm (tree domestication & agroforestry)
2. Reforestation in treeless public forest landscape (to be negotiated with KFS)
3. Enrichment planting in both public forest and hills, where significant genetic erosion has taken place.
4. Essential oils shrubs and herbs cultivation on-farm as cover crop
   Activity 1 & 3 are on-going. HSHC has previously participated in reforestation activities and was involved in supporting Participatory Forest Management plans (PFMP).

The Project will implement a **4-Step Strategy or Process** to achieve carbon capture and generate the PV Certificates/Carbon Credits:

- **Promote:** the planting of 3 million indigenous trees on-farm within 5-10 years
- **Plant:** 1 million indigenous seedlings in degraded parts of public forests within 5 - 10 years
- **Regenerate and protect:** Re-Planting indigenous tree of 500,000 seedlings in forests/hills, increasing awareness and understanding of their environmental and economic importance within our communities
- **Lead and support:** Planting of 500 ha of cover crops in the form of semi-permanent essential crop using best land management practices (no chemicals, zero tillage, AF)

Activities

The following activities are planned in the project

- **Public awareness and information dissemination**. This activity will be implemented to ensure that a wide range of concerned stakeholders are fully informed about the rehabilitation techniques, management mechanism and long-term economic and environmental benefits of the project.
- Development of **land use and management plans with participating farmers/groups .**
- **Training and extension**. Project preparation, promotion workshops and meetings involving different stakeholders. Training for the local people and governmental officials on baseline surveys, such as monitoring plant growth, survival rates/patterns, soil profiles, etc.
- **Institutional building and capacity strengthening** involving mainly mobilization of relevant stakeholders and training them in technical, management etc skills necessary for planning and implementation of project activities.
- **Training project and partners** staff on technical and administrative topics including benefit – sharing model linked to the project
- **Training community groups**, in community development, best harvesting and practices, natural resource management, climate adaptation strategies, tree propagations, nursery management, domestication and agroforestry.
- **Planting of 4.5 million indigenous tree seedlings** among small-holder farms, forest/hills degraded areas, PELIS areas, and public places. Support involves providing capacity to establish nurseries (materials), trainings, seedlings distributions systems
- **Expanding the area under sustainable forest management**- the harvesting of NWFPs – to 39,000ha. This means reducing illegal forest activities and protecting thousands of young seedlings.

- **Expanding area under essential oils-cover crops to 500ha**- These are semi-permanent crops, with characteristics to coppice after every harvesting and form an effective cover crop against water and wind erosion. Support is through access to quality seedlings
- **Rehabilitation of major river lines** (Ngobet, Tigithi, Burguret, Nanyuki, Uwaso Nyiro) with 200000 bamboo tree seedlings to enhance stabilization, ecological capacity, restore of degraded areas, enrich fish population.
- **Establishing community-based management**. This activity will aim to explore various management regimes to have the villages/households organized for the planting efforts and declare their ownership and access rights to the land.
- **Community development activities**: In order to achieve long-term carbon storage benefits, it was necessary to implement parallel activities designed to meet the short-term development needs of the local communities
    - Establish seed collection centres/tools to harness seed harvesting and delivery(on-going)
    - Bee keeping and honey production/processing (very small scale)
    - Installing solar power to existing boreholes (some boreholes have solar power)
    - Fruit and beverage processing to value added products(on-going)
    - Construction of ponds for fish farming (not started)
    - Eco-tourism/agro-tourism (not started)
- **Monitoring and Evaluation**

Key Outputs

Include forestry/farm development, processing facilities to be built, Inter-planting, strengthen of local supply chain.

- **10 large community tree nurseries** established with capacity to produce 500,000 seedlings/annum, significantly contributing to the local tree cover and future reduction of pressure in public forests
- **One farm demonstration site** established for educating/training target group in best agriculture and tree management practices, multiplication and distribution of quality essential oil crops planting materials, and bamboo seedlings to farmers. 1,000,000 essential oils crops seedlings and 20,000 (bamboo) seedlings will be distributed and planted by farmers per annum. The demonstration farm will be managed by a project committee involving farmers, groups, and HSHC,
- **20 women-managed seed collection centres** established with capacity to receive and deliver 1.2 million tons of seeds/annum. This has an estimated earnings potential of USD600,000, going directly to households annually.
- **Expanded essential oils processing facility**, the key driver in the value chain, expected to generate 273 regular and 600 semi-permanent jobs opportunities in grading, semi-processing, processing, transport and marketing.

All these will be geared towards maximising returns at farm level, creating alternative local income and employment opportunities, strengthening sustainability of the enterprise and bringing additional areas of forest under sustainable management.

- Among the **4,000 estimated participants**, the project will generate **a pool of local skills** in a number of areas including advocacy, technical, management, financial and business that

will prepare the community to handle future development issues and relationships.

- The project (tree based income, restoration activities, IGAs, tree cover) will increase the **household and landscape adaptive capacities to climate change**.
- The tree based extra income has huge implications to the local household economy and increases beneficiaries' adaptive capacities and response option to react to climatic shocks.
- An important achievement is the community **attitudinal shift towards natural resources**, as forest previously perceived as a detriment to livelihoods are increasingly seen as an asset and regarded with great pride by forest adjacent community.

- The intended benefits, particularly for the communities of differing tribes and geographies, are very significant and these include:
  - **enhanced both local and community social capacity and cohesion through training groups in management organizations and networking.**
  - **stronger local governance,** and, most importantly, through emerging of grassroots organization relevant to the project with improved internal structures
  - **increased recognition of women** in rural communities, due to new found economic power.

The uniqueness of the project's work is that it is:

- **introducing new products** to the **market,** from
- **previously wasted but renewable forest resource (NTFPs),** with
- **multiplier effects** on **poverty, biodiversity, climate adaptation** and **mitigation**.

Social/Community benefits include:

Job Creation	**Reforestation**	**Environmental Improvement**
Reduced Erosion	**More Children in Education.**	**Better Health Care Access**

Due to improved livelihoods brought by extra income generated by households and job opportunities created within the value chain, households will have extra money to invest in children's education and health of the whole family.

The Projects work will focus on creating non-extractive economic values to forests resources using an innovative 3Bs model -Biodiversity, Business and Bread.

This approach will ensure a **balance between environmental sustainability, profits,** and **household income**.

Through the sustainable management of NTFPs, our initiative has increased adaptive capacities and response options of farmers to react to (climatic) shocks, as tree-based systems are less vulnerable to changing climate.

We have proven that **collecting nuts for essential oil pressing** is an effective way to **reduce poverty, mitigate against climate change** and **preserve forests**.

Unlike other initiatives, this Project model (market-led conservation) success is determined by a high degree of **community participation** and **the associated benefits linked to conservation**.

Ultimately the project will be **community-based** and **self-sustaining** through a locally organised team.

Horizon produce and market natural essential oils, from forest nuts, twigs and leaves (NTFPs) to take advantage of the growing global demand for natural products, within the cosmetic and food industries.

HBV expects the project to contribute:

- **273 job opportunities, 600 semi-permanent jobs**
- Bring **39,000ha of forest under sustainable management**
- Bring **USD 400,000/annum** to the local economy. The estimated amount of money that will be generated directly by the community through sales of seeds, biomass, agro-tourism, honey, mushrooms etc. This does not factor funds coming from carbon credits.
- **Increase community adaptation** capacity to climate change
- **Improve health** of the population as they adopt heathy natural skin care products
- **Added dynamism to the local economy** due to associated secondary industries
- **Improved nutritional levels –** household - especially for school going children, as purchasing power of household and food diversified sources (fish, fruits) increase
- **Restoration of wildlife** - insects, birds, lizards, small mammals –as vegetation cover and diversity of trees are restored
- **Restoration of ecosystem services** – the functions of rivers and forest restored- bringing renewed life to the villages

Ultimate Goals/Impact

Include **reduced poverty, addressing climate change, regenerating farming/forestry practices, biodiversity and local economic stimulus:**

- **maximizing resilience**
- **reducing the impact** of climate change on productivity of agriculture and forest systems
- **reducing carbon, nitrogen and water footprints** under changing climates.

The Project is expected to generate an **extra income of $560/annum per household from the collection and sales of seeds/leaves biomass;** a significant within a landscape where an average household earns $720/annum from agriculture activities. With the Plan Vivo project, additional income will be generated from carbon credits and other activities such essential oils crops, agro-tourism, honey, mushrooms etc.

It creates employment opportunities, starting from **50 regular jobs during the first 3 years** and projected to **reach 273 in five years**. The income and employment opportunities bring **economic empowerment** to the **youth** and have implications to **poverty reduction** among the population.

This project has the potential to foster rural economic growth and bring vibrancy and renewed hope to communities that are losing ground to climate change, by making them less dependent on climate sensitive agriculture. The ***business model*** which follows a **value chain approach** and **public/private partnership** allows strategic investment partnership and future borrowing of loans from such entities **as African Climate Change Fund, African Development Bank** and **Common Fund for Commodities (CFC)**.

Illegal logging of trees

Due to high poverty levels in the project landscape, illegal logging of trees in both public forest and farmland, as means of livelihood will continue unabated.

The Project's Solution:

To protect hundreds of Ha of forest in the Mount Kenya region, restore hundreds of more acres, in a regenerative and sustainable way through helping communities garner meaningful income from non-extractive forest resources, instead of cutting the trees down.

The Horizon intervention introduces a market-led conservation approach, motivating communities to conserve not only existing tree population and habitats, but integrate trees on-farm.

Using an innovative inclusive business model and technology that balances biodiversity, business and bread (3Bs), the project is able to transform negative mindset to natural resources that in the long term contribute to conservation efforts. Apart from forest fires and prolonged drought due to changing climate, no other natural disasters have been recorded in the project area.

Green Earth Appeal funds, research and evidence demonstrates that in a tropical climate a tree will sequester a minimum of around 25-50kg of CO2 per year for a useful life span of 40 years (i.e. minimum 1000 KG per tree planted in its 40-year useful lifetime[2]).

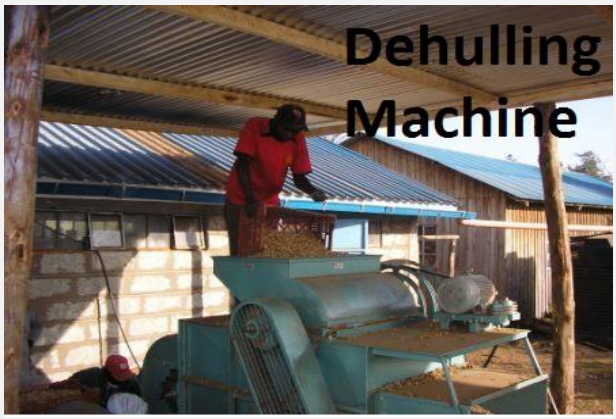
Tropical forests and the greenhouse effect[3]: Further research into sequestration rates carried out by Dexter Dombro CEO of Amazonia Reforestation. His studies backed up by Science Daily, state

[2] www.unep.org/billiontreecampaign

[3] Myers, N., and T. J. Goreau. 1991.

that natural African tropical forests absorb approximately 600 kg (1,323 lbs) of carbon per hectare per year(Green Earth Appeal). We estimate that 39,000 ha of forest

under the "sustainable management" conservation certification, fixing 23400 tons of carbon per year. HBV are 100% committed to achieving greater understanding, positive action and adding value to local farming & agricultural practices.



To gain these outputs with the Project's communities HBV will lead positively by example and simultaneously:

- Promote the **economic value** attributes of the **indigenous trees:** the nuts and biomass for processing into essential oils
- **Motivate communities** to participate in forest conservation efforts
- Ensure full understanding of the **economic impact and value elements** that are associated with these trees
- **Motivate the farmers** to participate positively in domestication efforts and agroforestry

F. Identification of Any Non-Eligible Activities

Additional activities supported/implemented by the Project include the following.

1. **Skills transfer**

   Education and training are also central to the activities and focus of HBV; this Project will enable HBV to actively position, promote and deliver key capacity building including:

   - Tree propagation and management
   - Nurseries establishment and management
   - Best seeds collection practices
   - Technical details of crop agronomy
   - Business and entrepreneurship

2. **Physical structures**

   The success of this Project necessitates that HBV to introduce a number of physical and infrastructure developments and positioning:

   - Tree nurseries tools and materials (bags, wheelbarrows, pangas, rakes)
   - Green houses for propagation purposes
   - Community managed seed collection Centre's (weighing, recording, storage)
   - Bicycles to transport seeds
   - Expanded processing facility

3. **Agri- and Eco-Tourism**

   The project will help communities to conduct research to come up with an inventory of local Agro-tourism and eco-tourism sites. This is expected to take many forms:

   1. Specialized farm visits e.g. agro-forestry, fish, bee
   2. Active farms and actively participating in the activities on the farm.
   3. Home stays where you not only see the farming practices but also have a chance to participate in the real activities such as milking the cows, harvesting/seeds/leaves, delivering to the factory among other experiential tours
   4. Organized nature-trails within forests
   5. Botanical walks
   6. Educational (oil extraction making)
   7. Cycling trails
   8. Camping facilities.

   All these will:

   - Generate supplemental income for the community
   - Create financial incentives for protection and enhancement of local natural resources
   - Stimulate increased economic development opportunities for the community by bringing tourists into town who may eat, shop and lodge locally

4. Education Partnerships-HBV/Universities

The project will offer internship opportunities to university students geared towards

1. Providing meaningful, practical work related to a student's field of study or career interest, career exploration and development, learn new skills, develop talent.
2. Offering HBV/HSHC opportunity to bring new ideas, knowledge and energy into the workplace.

This short-term internship opportunity (3-6months) will target high school students, college and university students, or post-graduate adults.

The intern will be expected to pay for their own up-keep and therefore will bring business to the local economy.

Their impact – on all levels

The impacts of this Project are multiple, individual and inter-related/inter-dependent:

- Reduction in poverty incidence
- Higher purchasing power of households
- Improvement in education
- Uplift in general health and well-being standards
- Availability of affordable seedlings that promote a culture of tree planting
- Enhanced landscape tree cover
- Large pool of trained local cadre in technical skills
- Mature value chain that is generating income and jobs
- Increased soil cover, reduced soil erosion
- Increased species diversity: plants and, in long run, fauna, as well as healthier ecosystem
- Sustainable management of natural resources.
- Reduction of airborne particles.

G. Long-Term Sustainability Drivers

To ensure the Project is self-sustaining after the carbon/PES revenues cease will require, and commit to inclusion; this will positively impact/compare with a "no-project" situation as follows:

Local situation: with project	**Local situation: no project**
• More jobs and income opportunities • Reduced pressure on natural resource base • Increased supply of raw materials on-farm • More forest cover and resilient landscape • Alternative tree-based resilient economic pathway • Households more adaptable to climate shocks • 3Bs model & market-led conservation approach • More mature essential oils value chain • Inclusive economic environment • Enhanced gender equality • Off-shoots of other economic activities e.g. ecotourism, agri-tourism, honey, secondary industries	• Increased pressure on the depleting forest resources • Genetic erosion • Increased poverty levels • Increased youth unemployment and gender exclusion • Less forest cover • More climate vulnerability • More land degradation and exposure to erosion

As described above, the sale of essential oils through the project allows it to be self-sustaining after the income from carbon credits has ceased.

H. Applicant Organization & Proposed Governance Structure

Project design/strategy

The main players in this project include:

- Donor (firm and individual)
- HBV - coordinating entity – monitoring, certifying, registering carbon credits, fund management, payments
- HSHC- Farm level technical coordination & community mobilization
- Alastair Clyne/Silva, UK – Strategic Direction and Commercial Advice
- Certificate authority
- Buyer of carbon credits
- Land Owners (mainly farmers, community, KFS) to carryout tree planting, afforestation/reforestation and forest management
- Government (County, national)

HBV will provide core project management, obtaining support from firms/individuals, cooperation with local government (promotion/organization), employing forest-planting entities.

HSHC will deal with technical issues (agroforestry, reforestation other income activities), community mobilization, farm –level monitoring of compliance, relationships with other stakeholders

The local government is involved because it is the competent authority on land use and can promote the project by policy support and subsidies.

Our preliminary analysis show that although the stakeholders have diverse interests and different goals, a win-win solution is still possible through their joint participation and compromise in the voluntary forest carbon offset project.

A governance structure, constructed with stakeholder participation, emphasizing equitable benefit balance, inclusiveness, and information flow will be put in place.

A comprehensive discussion on the roles, behaviors, and conflicts resolution among the stakeholders will be carried out based on a stakeholder model and a Power-Benefit Matrix.

Since transaction costs could be huge when negotiations are conducted with individual farmers for each piece of land, farmers are expected to form groups (associations, cooperatives) and select representatives to negotiate with HBV/HSHC.

The main driver of this initiative will be the business angle, promoted by HBV, linked to processing the essential oils - stimulating raw material demand and consequently sustaining the farmer's motivation to integrate trees/crops on-farm and consequently participate in the forest conservation effort.

NB: In case of protracted and bureaucratic negotiations with the national/county governments as concerning the project involvement in public forest, HBV will choose to implement the project that only involve farm- level activities.

Project Organizational Structure

Horizon Business Ventures ltd is a legally registered (2008) social enterprise company, active in the extraction of essentials producing a wide variety of base & essential oils extracted from different

plants such as cape chestnut, baobab, Wild basil, Leleshwa, Lippia spp, in commercial quantities for cosmetic, food and pharmaceutical industries. Recently HBV also introduced farm-based essential oils crops (tea tree, rosemary, immortelle) to ensure efficiency and consistency in the operations (staff time, machines usage) as forest based feedstock is seasonal. Business model is business to business(B2B).

HBV has two directors, Bernard Muchiri & Mary Gachanja, the former holding majority of chairs. The Project governance structure will comprise of:

Project advisory board (4)

- HBV Director (Bernard Muchiri): Overall coordination. relations with other stakeholders
- HBV Director (Mary Njeri): Community mobilization
- New board member (to be incorporated): Technical Strategic Business/Sustainability Advisor
- Alastair Clyne/Silva: Strategic/Technical International Advisor

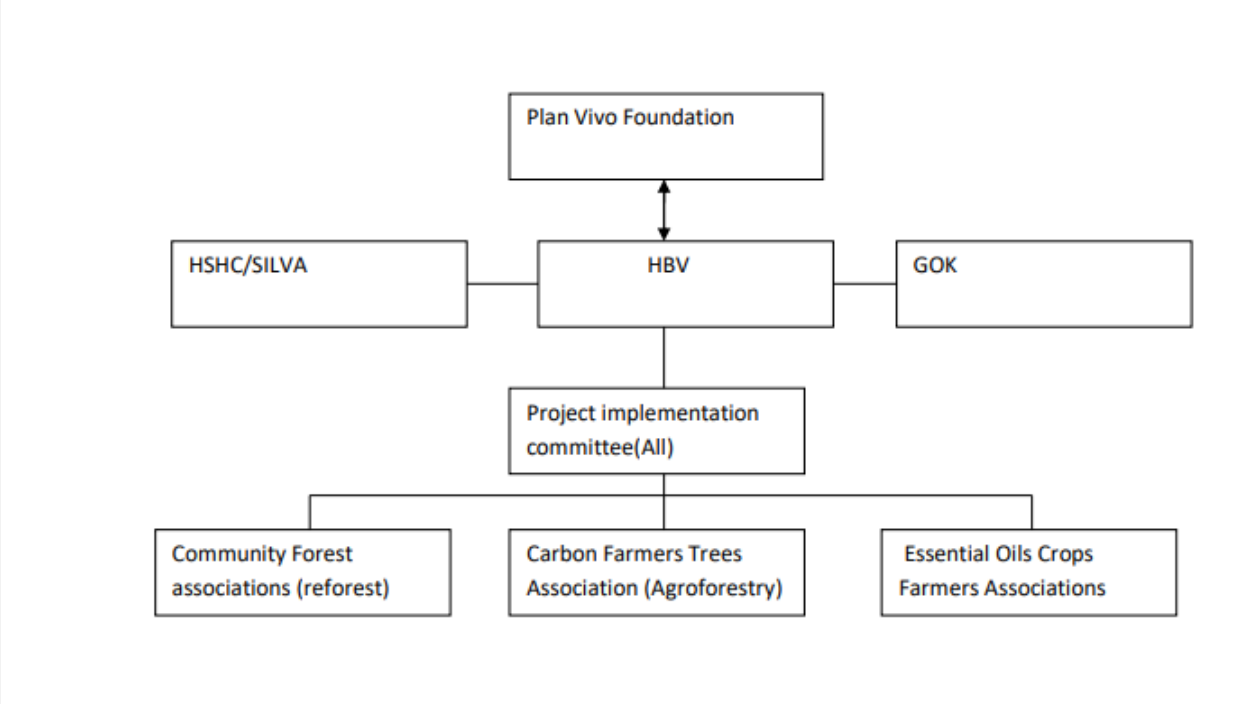
The board will be supported by a technical team comprising:

- Manager
- Technical officer
- Compliance officer
- Monitoring officer
- Financial officer

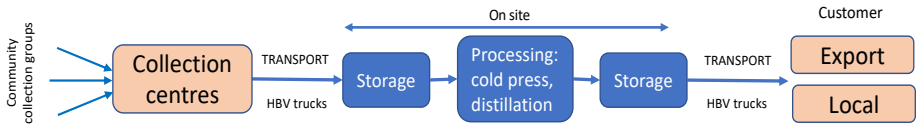
Project Coordinator: Horizon Business Ventures limited; responsible for project governance:

Legal Status: Legally registered in Kenya as a Limited Company

Enterprise Structure & Relationships.



Business Process Steps: "Buy – Make – Sell"		
"Buy": sourcing raw materials	*"Make"*: processing raw materials to final products	*"Sell"*: marketing and sales



Key steps	Organize community in collection groups Delivery to SCC's Weighing, grading, sorting, recording Daily delivery to HBV facility	Storage of raw materials Process immediately (leaf biomass) or later (seeds) Storage in tin (essential oils) or plastic (base oils) containers. 5, 10, 20 l Analysis, Quality control Cleaning, maintenance, repairs Expansion projects, project management	Marketing: referrals, social media, exhibitions, repeat orders Order taking and delivery Cash collection Complaint handling (not yet: Contracting, spot, long term)
Actors, agencies, service providers	KFS: collection areas (forest blocks) – licensing, access, training, witness CFA: monitor, community interest HSHC: Social mobilizing, capa. building KWS: Regulation in nat'l parks	KFS, CFA, HSHC enhance link communities - HBV County Govm't: cess fee on vehicles Nat'l. Environm. Auth.: Envir. assessment, permits KBS (standards): OK on final product Kenya Export Council: OK for product for export	Cinabar: customer Arbor: customer BID: Mulima: customer
Cost items, cash flow	Cash payment to SCC's Small commission to CFA	Variable costs: raw materials, energy, containers Direct Fixed Costs: Salaries Overheads: internet, insurance, materials Investment in expansion projects Carbon credits?	Revenues, cash (M-Pesa) payments
Capacity drivers	Land, collection points	Equipment, operational staff Storage facilities (raw mat'ls and final product)	Market: customers, regional/ international. Sales channel: Distributors or direct

Resource Requirements (now or for growth)	Training groups/farmers Seed collection Centre's Tree domestication support (NGO's) Propagation materials (farm expansion) Total est. USD 150k, NGO's, not from HBV	Recruitment: Ops Mgr, Quality contr., Mktg/Sales Mgr. Staff training (mangt, tech, market, customer services) Logistics (motorbike, I ton pick-up) Machines (Dist, cold press, lab) Total est. USD 260k (once-off costs plus 1 year salaries of new staff)	Marketing/branding Packaging materials Certifications Total est. cost USD 40k
General Actors (financial mobilizations)	Grant providers (e.g. DOEN), Financial services providers - social investors (loan, equity) e.g. GCTF, Acumen Carbon credit e.g. manufacturing companies with large carbon footprints		

Challenges across the business	Fund raising capacity Lack of impact stories Limited networks Lack of liaisons individual/ offices(USA, Europe)	Short /weak financial history Lack of strong social enterprise' tag' Ambitious requirements of social enterprise investors e.g. ACUMEN, business with a minimum annual revenue USD 2m Complicated and costly carbon credit requirements	Need to demonstrate social enterprise impact

Capacity and experience

Horizon has 5 years' experience in processing and marketing of oils, dealing with farmers and government.

Additional partnerships

Horizon has additional partnerships and strategic collaborations with:

- Donors
- Food industry
- Ethical Cosmetic industry

Roles and Responsibilities

	HBV	HSHC	SILVA
Administration			
Registration and recording of management plans and sale agreements	✓		
Managing the use of project finance in the Plan Vivo and making payments to producers	✓		
Coordinating and recording monitoring		✓	
Negotiating sales of Plan Vivo Certificates	✓		✓
Reporting to the Plan Vivo Foundation	✓		✓
Contracting project validation and verification	✓		✓
Managing project data	✓	✓	
Technical			
Providing technical support and training to producers in planning and implementing project activities		✓	
Developing, reviewing, and updating technical specifications	✓	✓	
Evaluating management plans	✓	✓	
Monitoring carbon, livelihoods, biodiversity, and ecosystem services		✓	
Social			
Conducting preliminary discussions and continued workshops with communities		✓	
Gathering socio-economic information for project registration and reporting purposes		✓	
Helping groups/individuals to demonstrate land-tenure		✓	
Advising on issues such as mobilization, setting up bank accounts, dispute resolution, etc.	✓	✓	

Applicant organization

A brief summary of Horizon's history/achievements is provided below.

HBV was established in 2008, but commenced actual business operations in 2016; starting with non-commercial processing and sales on biodiesel from croton seeds, the croton oils were also sold to the paint industry, a component that was largely funded by HSHC.

Later HBV stopped the production of biodiesel and translated into essential oils; with the new processing factory fully operational by 2018. HBV have since captured a large portion of the Kenyan ethical cosmetic industry with their natural and forest based oils.

Another key achievement is the creation of 9 permanent jobs and 303 semi-permanent jobs. HBV is currently working with 800 farmers at both public forest and farm level.

Agriculturally HBV have:

- Facilitated **planting of 261,000 indigenous trees**
- Put **13,000 hectares of forest under sustainable management**
- **Reduced illegal forest activities by 60% in Kabaru forests (KFS preliminary annual data)**
- **Expanded acreage of farm based oil crops to 89 acres**

These are achievements for which HBV are rightly proud and widely acknowledged and respected.

Current activities and long-term (10 Year) objectives

Current activities include:

- Building a unique value chain with multiplier impacts on poverty, biodiversity and climate change in the rural context
- A local pool of expertise in natural resource management, agroforestry, tree domestication and nature based entrepreneurship.
- Building a network of farmers as suppliers of essential oils raw materials
- Processing and marketing of essential oils
- Farm level domestication of trees and expanding acreage of crops

Long-term (10 Year) objectives

1. To build a strategic coalition with both public and private sector that mobilize new resources that address environmental problems through market based mechanisms for sustainable development
2. To build a long-term community development-oriented carbon sequestration strategy that is economically viable, socially and environmentally responsible.
3. To improve ecosystems functioning of degraded farming landscape in Kenya lands through the development of more intensive Agri- silvo-pastoral systems that provide global environmental services and local socio economic benefits.
4. To acquire expertise in global environmental projects.

Bios

- Grassroots orgs Capacity development: technical, management, business, entrepreneurship
- Skills in creating and managing relationships with stakeholders-farmers, associations, community groups, government, donors, NGO, private sector.
- Development of unique value chains- Agriculture(fruit) and Nature based

- Expertise in market-led conservation approach and 3Bs model (Biodiversity, Business, Bread) that balances conservation, profit and rural income.
- Expertise in farm level extension, tree nursery management and capacity building of farmers.
- Experience in fundraising - ICCO Netherlands, FAO, World Bank, Finnish Embassy, EEP E&S Africa, ACT, Genesis Charitable Trust Fund, SWITCH AFRICA, E4Impact, HAM Foundation.

Founders/Directors

Mary Njeri: Founder /Director	Bernard Muchiri: Founder/Director	Joseph Odiembo: Director

Management

The management involves a Business manager, Technical officer and financial officer

Advisors/Associates

Jeroen Brons-Belgium

I. Community-Led Design Plan

Community participation/ongoing consultation

The Project design/success (development and implementation) is totally founded and reliant upon the full belief, trust and inclusion of our local communities. We have been working with the participating communities in a number of activities detailed in this project. The proposed project

focus on integrating farmers in the carbon credit scheme, intensifying and expanding activities that has passed "prove of concept" from the perspective of old and new farmers respectfully.

HBV/HSHC's natural land improvement/development approach will ensure rural and village communities have a sense of ownership and commitment to the proposed project. Key success criteria will be their active participation in:

Project Design & Delivery

- The Project Design & Development
- The participatory Project's Implementation
- The on-going Project Planning, Monitoring and Management

Project Consultation

- Inputs and recommendations from community member
- Series of focus group discussions, key participant interviews
- Risk and mitigation meetings
- Hosting community 'awareness' meetings with leaders and small holders
- Networking and relational development with key stakeholder i.e. county government
- Sharing of HBV and Project commitments and benefits at all times

Project development

- Working closely with local communities to develop management plans to restore forests and prevent further deforestation/degradation
- Developing activity-based monitoring plans
- Assessing benefits achieved – carbon/PES, social, jobs, training etc.
- Clear management, financial, monitoring processes - incorporated into new Plan Vivo activities/agreements with a clear model/understanding of:
    - Plan Vivo certificate sales
    - Benefit distribution to landowners/partners
- Agreeing resource requirements and timelines
- Communities, landowners, partners having complete understanding of PV system/support
- Full awareness/commitment to objectives/expectations and all requirements/obligations
- Agreed support/collaboration for all project implementation
- Community-led process for development project activities, inc. FPIC (see table below)

Free Prior and Informed Consent (FPIC) process

Compliance with FPIC processes, ensuring understanding, participation by the Project communities for environmental protection, and the involvement of marginalised groups – in terms of:

- **Sustainable Forest Management:** a total Project commitment
- **Conservation partnerships:** to ensure compliance and governance
- **Performance- based finance:** to fund project activities: ecosystem services, climate

change mitigation, projects' contribution and external party payment basis

- **Payments for Ecosystem Services (PES)/carbon markets:** to ensure awareness of markets for ecosystem services/emission reduction/PV certificates and the associated disciplines, monitoring and reporting requirements
- **Delivery:** positioning community "owners" & ambassadors; template that can be replicated

J. Additionality Analysis

Type of barrier	Description of Specific Barriers	How barriers will be overcome by project activities
Financial/economic barriers	• Insufficient financial resources to develop and start the project, including community payment system before carbon credit revenues.	• Funding must secured from donors to implement initial project, requirements and develop systems for payments to the target group.
Technical barriers	• The project does not currently have required skill/knowledge and human resources necessary to implement and manage the project • Communities without awareness and skills to initiate project development processes and activities	• We will recruit a qualified project coordinator • Training will be undertaken for all project staff and community field workers include mapping; monitoring, compliance, biomass inventories; participatory threat assessment and derivation of baselines; principals of carbon quantification
Institutional/political barriers	• Lack of regulations regarding forestry and land-use, or poor enforcement of such regulations.	• Support will be given for community members to develop their own by-laws and rules to ensure compliance of every participating member.
Ecological barriers	• Unpredictable rains, prolonged drought, natural events such as forest fires, land-pressures such as intensive grazing, application of chemical inputs	Farmers will be encouraged to plant trees during seasonal rains, use water conservation techniques, invest in drip irrigation. Generally once established the proposed trees/crops can withstand water stress.
Social barriers	• Poor organization and mobilization of local	• Capacity development for local institutional structures

	communities and groups,	will be strengthened in organisational, management, financial, networking.
Cultural barriers	• Traditional knowledge, laws and customs, that mostly recognise men as owners of land, while the project participants are mainly women	**Men who hold the titles of land will be involved in the project to promote buy-ins.**

Project Eligibility

Compliance with legal and land tenure agencies and interests	✓
No legislative decrees or conflicts	✓

Project Benefits

Alleviating poverty	✓
Creating skills, economic opportunities for local people	✓
Regenerating neglected or abused land	✓
Protecting wildlife	✓
Planting and returning land to environmentally beneficial use	✓
Planting and returning land to economically beneficial use	✓
Creating commercial products and outputs	✓
Contributing to local economic growth/dynamism	✓
Conserving biodiversity, arresting genetic erosion	✓

K. Notification of Relevant Bodies & Regulations

Regulatory Bodies

Horizon has notified and will collaborate on the Project with:

- **NEMA - Environmental Impact Assessments (EIA)**

The National Environment Management Authority (NEMA), is body established under the Environmental Management and Co-ordination Act No. 8 of 1999 (EMCA) as the principal instrument of Government for the implementation of all policies relating to environment. The supreme objective underlying the enactment of the body was to bring harmony in the management of the country's environment. The object and purpose for which NEMA was twofold: to ensure sustainable management of the environment through exercising general supervision and coordination over matters relating to the environment and; to be the principal instrument of government in the implementation of all policies relating to the environment.

- **KEBS - Kenya Bureau of Standards**

The Kenya Bureau of Standards (KEBS) was established by an Act of Parliament - the Standards Act, Chapter 496 of the Laws of Kenya in 1974.

The aims and objectives of KEBS include preparation of standards relating to products, measurements, materials, processes, etc., and their promotion at national, regional and international levels; certification of industrial products; assistance in the production of quality goods; improvement of measurement accuracy and circulation of information relating to standards.

- **KFS - Kenya Forest Services**

The Kenya Forest Service is a state corporation that was established under the Forest Act, 2005 (henceforth referred to as the Act). Commencing its operations in February 2007, KFS expressed mandate is: To enhance development, conservation and management of Kenya's forest resources base in all public forests, and assist County Governments to develop and manage forest resources on community and private lands for the equitable benefit of present and future generations.

Project Partners

- Help Self Help Centre
- Eco-agribusiness
- Alastair Clyne/Silva, UK
- HACC, Philippines

Project Enablers and/or Supporters

- Kenya Forest Services(KFS)
- Community forest associations
- Agriculture associations
- County governments (Nyeri, Laikipia)

Political Enabling

- Kenya Government
- County governments

Letters of Support/Approval

- County Governments

Horizon Compliance Statement

Horizon Business Ventures Ltd
Email: bvhorizon@gmail.com
Website: www.hbv.co.ke

P.O Box 15 - 10105
Tel: +254720005717
Naromoru, Kenya

July 2021

To whom it may concern

This is to confirm that Horizon Business Ventures Ltd (HBV), a Kenyan registered company declares the following:

That HBV and all its activities, representatives, partners and agents will comply with all relevant national and international regulations in relation to its operations, current and new, in relation to its Generating Carbon Credits Through Native Trees Domestication project, essential oils production, tree/soil maintenance and protection, watershed management, land productivity improvement and biodiversity.

This compliance also extends HBV's stated values and obligations in regards to indigenous property rights, land tenure improvement, environmental governance and Carbon/CO2 related procedures and initiatives, job creation and poverty reduction.

Best regards

Bernard Muchiri
Co-founder/Director

Mary Gachanja
Co-founder/Director

GOK Letter

HELP SELF HELP CENTRE

Tel: +254-720005717
E-mail: info@hshc.or.ke
Web: www.hshc-kenya.or.ke

P.O Box 40603
00100-GPO
Nairobi, Kenya

17th August, 2021

Mr Kinyua
CEC
Department for Environment, Water and Irrigation
County Government of Nyeri

Dear Mr Kinyua,

REF: Generating Carbon Credit Through Natives Trees Domestication/Agroforestry Project in Nyeri County

This is to bring to your attention that Help Self Help Centre (NGO) & Horizon Business Ventures Ltd (HBV), a Kenyan registered company are pursuing a Carbon Credit Project in Nyeri County. The project "Generating Carbon Credit Through Natives Trees Domestication Project in Nyeri and Laikipia County" is to be implemented through Plan Vivo Foundation.

The Plan Vivo Foundation is a registered Scottish charity, set up to develop and oversee the Plan Vivo Standard. The Plan Vivo Standard provides a support framework for smallholders and rural communities, principally in the developing world, to manage their natural resources more sustainably. The supported activities provide climate, livelihood and ecosystem benefits. The Foundation support projects and communities tackle the global climate crises, by implementing projects capturing carbon to achieve PV certificates which can then be sold to help funds operations.

The project is a collaboration between Help Self Help Centre, Horizon Business Ventures and Heroica's (UK) and aims to capture carbon credit through integrating both native trees and permanent crop cover into the farming system, thereby stabilizing the production systems and generating more resilient income sources. The target beneficiaries are small-holder farmers, owning 0.25-3 ha of land, mostly the youth.

This email is to seek collaboration/partnership with the County Government of Nyeri in the pursuit and implementation of this project. The project benefit sharing model will be discussed in details by partners, but in essence farmers receive 60% of generated funds.

We look forward to your favorable reply.
Best regards

Bernard Muchiri
Director

Strengthening capacity for Self-Help

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P.O Box 40603
00100-GPO
Nairobi, Kenya

17th September. 2021

Julius Kamau
Chief Conservator of Forests
Kenya Forest Services(KFS).

Dear Julius,

REF: Generating Carbon Credit Through Natives Trees Domestication/Agroforestry Project.

This is to bring to your attention that Help Self Help Centre (NGO) & Horizon Business Ventures Ltd (HBV), a Kenyan registered company are pursuing a Carbon Credit Project in Nyeri and Laikipia Counties. The project "Generating Carbon Credit Through Natives Trees Domestication/Agroforestry Project"is to be implemented through Plan Vivo Foundation.

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This email is to seek collaboration/partnership with KFS in the pursuit and implementation of this project. The project benefit sharing model will be discussed in details by partners, but in essence farmers receive 60% of generated funds.

We look forward to your favorable reply.

Best regards

Bernard Muchiri
Director

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P.O Box 40603
00100-GPO
Nairobi, Kenya

17 September 2021

Prof. Geoffrey Wahungu
Director General of National Environment Management Authority
Government of Kenya

Dear Prof Wahungu

REF: Generating Carbon Credit Through Natives Trees Domestication/Agroforestry Project

This is to bring to your attention that Help Self Help Centre(NGO) & Horizon Business Ventures Ltd (HBV), a Kenyan registered company are pursuing a Carbon Credit Project. The project" Generating Carbon Credit Through Natives Trees Domestication Project in Nyeri and Laikipia County" is to be implemented through Plan Vivo Foundation.

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This email is to seek collaboration/partnership with NEMA in the pursuit and implementation of this project. The project benefit sharing model will be discussed in details by partners, but in essence farmers receive 60% of generated funds.

We look forward to your favorable reply.

Best regards

Bernard Muchiri
Director

L. Identification of Start-Up Funding

Project financing

During this development phase, and prior to the full project registration, HBV has allocated internal resource and will support this through a programme of:

- Fundraising
- Local mobilization
- HBV/HSHC contributions, primarily technical, but with financial back up

HBV also see this as an excellent opportunity to raise awareness of carbon capture and the benefits such Projects can deliver to so many, in so many important ways.

It will also enable HBV to raise its own profile, HBV journey, values; social and environmental ambitions, the value of collaborating with Plan Vivo, the inherent Climate message and the profile of the amazing Kenyan landscape and people.

Project readiness

HBV is a strong and mature company; for this Plan Vivo Project it will apply its well-established processes and disciplines:

- Established management/operational procedures and policies
- Motivated local management team
- Respected Training programs

This is an excellent base on which to implement a successful Plan Vivo Project and to achieve its potential in making major, sustained contributions within our environmental and social commitments/objectives.

Our planet and Carbon/PES finance is a top priority for HBV in 2021 and the implementation years that follows.

HBV are in the excellent position to support our local people and communities through mitigating climate change, alleviating poverty, delivering major biodiversity enhancement and governance, and in an important way through leading by example!

Glossary

Selected acronyms and abbreviations used in PIN:

3Bs	Biodiversity, Business and Bread
NTFPs	Non timber forest products
SCCGs	Seed collection Centres
B2B	Business to Business
FAC	Forest Adjacent Communities
KE	Kieni East
KEBS	Kenya Bureau of Standards
KFS	Kenya Forest Service
KW	Kieni West
LE	Laikipia East
LW	Laikipia West
NBE	Nature Based Enterprises
NEMA	National Environment Management Authority
NTFPs	Non Timber Forest Products
PV	Plan Vivo

References

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- National Climate Change Action Plan (NCCAP), 2013-2017.
- Myers, N., and T. J. Goreau, Tropical forests and the greenhouse effect, 1991
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