



KISIMA



FOUNDATION

| REPORT NO. 6 |

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THE KISIMA FOUNDATION

DIRECTORS: CHARLES DYER, MARTIN DYER, KISIMA FARM LIMITED

EXECUTIVE OFFICER: NTEERE GITONGA

EDUCATION

The Gundua Primary & Secondary Schools

The Gundua Primary and Secondary Schools continue to provide a high level of education to many children in Buuri Sub-County. The Gundua Foundation has procured a new 32-seater bus which will be shared by schools in the area. Schools can request to use the bus for educational and extracurricular activities. The bus was received with huge excitement from the students!



Teachers and pupils welcome to new bus with singing and dancing

The building of a girls dormitory has started at Gundua Secondary School. It will allow girls to board at school rather than have to travel to school each day.



Students showing where the dormitory will be built



Foundations of the dormitory

Feeding Program

The feeding program started up again once schools opened and around 2,400 children from 6 schools benefitted from the program.



Porridge at Gundua Primary School

Tree planting

At Mugumone School over 100 avocado trees were planted by the students in November and December and the children in grades 5,6 & 7 adopted trees to take home and plant.



Planting trees at Gundua Primary School

Distinguished Son of Meru award

Charlie Dyer, one of the Directors of the Kisima Foundation was recently awarded a Distinguished Son of Meru medal and attended an award ceremony in Meru town. Individuals were selected for their contribution and work for bettering the community.



Distinguished Son of Meru award ceremony

HEALTH

The Gundua Health Centre

On 1st September 2021, Nanyuki Cottage Hospital (NCH) formally took over the running of the Gundua Health Centre (GHC). The GHC has been offering health services to the local community since April 2012.

The health services provided during that period included curative services, maternal health care and delivery, child health, family planning, HIV counseling and testing, immunization, dental care, laboratory, and mobile outreach services. Health education was provided to patients visiting the health facility as well as through mobile outreach clinics at schools, farms, and community welfare groups.



The new in-patient unit at GHC

As of 31st August 2021, the clinic had treated 72,890 people, 520 mothers had delivered safely at the maternity unit, 50,188 laboratory tests had been carried out and 4,264 people had been treated by visiting dentists.

Since the takeover, NCH has upgraded the health facility from Level 3B to level 4. It has established an in-patient unit making it possible for patients requiring hospitalization to be admitted into the wards. A theatre has also been built for surgical operations. The dental clinic and other specialized clinics will be offered once a week and increased thereafter, depending on their demand. NCH also intends to introduce other services in line with its strategic plan.

The priority of the GHC/NCH is to provide healthcare to patients through the NHIF capitation fee model for outpatient care and the NHIF micro insurance inpatient care.



Many thanks to our main sponsor Apotek Hjärtat, all clients, and other stakeholders for supporting the clinic for close to 10 years of its existence. We are excited by the next phase as Nanyuki Cottage Hospital takes over the mantle and aspires to improve the delivery of health care in the Kisima area.



Covid-19 vaccinations

Thanks to support from the Nanyuki Cottage Hospital, 501 staff were inoculated for Covid-19 in October, November and December. This means that 95% of permanent employees at Kisima Farm have now been vaccinated and we look forward to ensuring the rest of our employees have access to these critical vaccines!





an 11kg cabbage grown on the demo site

AGRICULTURE

Kisima Seed Potatoes

Kisima continues to be the largest supplier of seed potatoes in Kenya, working with the Kenya Plant Health Inspectorate Services (KEPHIS), the International Potato Centre (CIP), the Kenya Agricultural & Livestock Research Organization (KALRO) and HZPC. We produce over 2,000 tonnes of certified potato seed and currently grow 12 varieties.

Potatoes are the second most important food crop in Kenya, grown by 800,000 smallholders on 158,000 hectares and requiring 300,000 tonnes of seed per year. National certified seed production is currently less than 2% of the actual demand. Kisima meets around 50% of this seed production, consequently playing a significant role in smallholder agriculture.

Testimonials

Purity Gatwiri is a farmer in Maili Tano area, Isiolo County. Purity planted 10 bags of certified seed (Voyager variety) on a half acre plot. She harvested 150 bags which each weighed 50kg and she sold the harvest at Ksh 36 per kg.



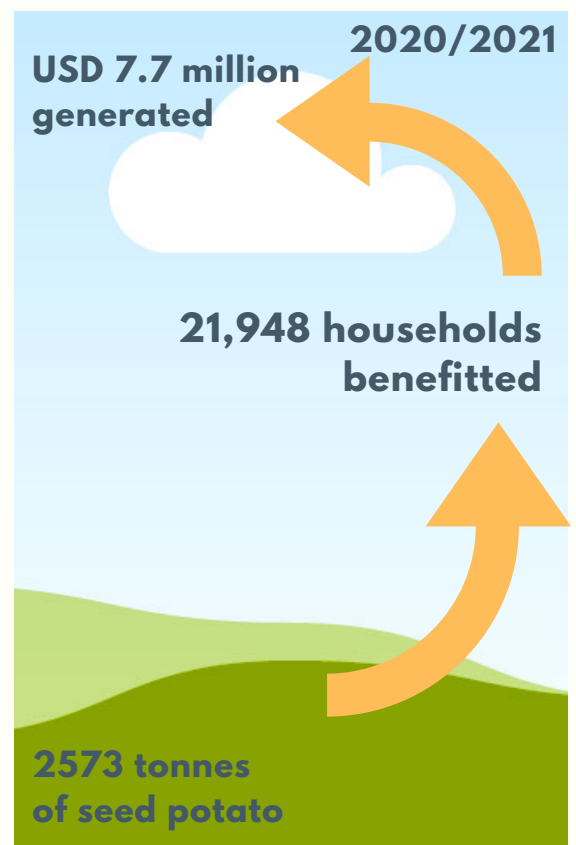
Mr Kinyua is the Agricultural Office for Antuibui Ward, Meru County. He stated that the Meru County Government were encouraging crop diversification due to the declining Miraa markets, with potatoes being one of the primary crops. To date Igembe North Sub County has purchased over 70 tonnes of Kisima Certified seed which has been distributed to farming groups in the area. The bulk of this is under the National Agriculture and Rural Inclusive Growth Project (NARIGP).

Agri Information Centre

The Agri Information and Demonstration site has remained active throughout the year. The March field day went ahead as planned with a permit from the Public Health Authority and Covid-19 protocols were observed. There were 16 exhibitors at the field day and over 460 people attended the event. The August field day was cancelled due to Covid 19 and the consequent restrictions on public gatherings. Since June over 300 farmers have undergone training on the site and individual farmers drop in daily.

A demo site has been set up that aims to promote efficient water use in farming and the use of organic farm inputs. The demo site will provide monthly training sessions with farmers. The plot has also proved that drip irrigation and organic fertilisers do work - the cabbage pictured weighed 11kgs!

We work alongside the Syngenta Foundation, the Cereal Growers Association (CGA), and the Department of Agriculture for Meru County.





Checking the WRUA reading

WATER

Kisima Farm plays a key role in the management and protection of the Kisima Spring which supplies over 20,000 people in Buuri Sub-County with water. Kisima supports the Water Resource Users Association (WRUA) and leads the way in adhering to water regulations and rationing. This has been incredibly important during 2021 as, due to the unusually dry weather conditions, water rationing has been in place since August.

Kisima Floriculture utilizes Aqua Check units to ensure only the necessary amount of water is used for growing roses. These units control the amount of water used on the roses, providing checks from the top level down to 90cm to indicate the saturation point. This method is very efficient and results in zero water wastage. Furthermore by measuring soil temperatures and humidity around the plant we can measure both the transpiration and respiration rates of the plant.

All rainwater is harvested and stored in lagoons and Kisima Farm does not use borehole water for floriculture. The wetlands at the entrance to Floriculture were opened up to increase biodiversity, water storage, and carbon. Sunflowers are used as an additional plant for the wetlands filtration system as well as to encourage bees and other insects to the area. Sunflower is one of the only plants that remove heavy metals from soil.

ENVIRONMENTAL

Sustainability

Kisima Floriculture has established wormeries and has created 'worm juice' to supplement the need for fertilizers for our plants. The worm juice works as a natural fertilizer. The defoliated leaves and rose waste are used as the 'food.' The worms then eat and digest the broken down waste and produce the juice material. This is the purest form of organic fertilizer and is used every week alongside the traditional fertilizers.

Kisima Farm and Floriculture departments both have solar panels installed which provide part of their electrical needs daily.

FARM - 60kwp

Saving 220 tonnes of

= 5,269 


= 880,918 km 



FLORICULTURE - 80kwp

Saving 384 tonnes of

= 8,674 

= 1,357,562 km 



ZARI (Wilson) - 80kwp

Saving 205 tonnes of

= 5,221 

= 817,031 km 



Data from Fronius since 2017

Gold Accreditation Standard

Kisima Floriculture has been certified to the Gold accreditation standard, the highest possible standard in Kenya by the Kenya Flower Council. This is a real achievement and sets us on the path to social and environmental sustainability excellence.



Celebrating Gold accreditation



Forestry nursery

ENVIRONMENTAL

Forestry

Sustainable forestry is the practice of managing forests to meet current needs for forest resources and revenue without compromising the availability of forests for future generations. Kisima maintains a plantation forest estate that primarily comprises *Pinus radiata*, *Pinus patula*, *Cupressus lusitanica* and *Eucalyptus*. We are growing our nursery to include a wide variety of indigenous species. These will ensure the diversity of trees we plant on the farm and those that go to tree planting projects in the Mt. Kenya area.

In 2021 Kisima Forestry has planted 13,000 seedlings of which 7500 are *Pinus radiata*, 1500 are *Cupressus lusitanica* and 4000 are assorted indigenous species (*Acacia sp*, *Dodonaea viscosa*, *Rhamnus staddo*, *Dovyalis abyssinica*, *Juniperus procera*, and *Oncoba Spinosa*.)

In 2021 we have felled about 6,000 stems of Cypress, Pines, and Eucalyptus for timber.

Carbon

Kisima Farm recently underwent a carbon footprint assessment by Green Earth Climate Action (GECA). The assessment took into account 3 CFA Scope Factors:

Scope 1 was fuels, bioenergy, refrigerant, and passengers & delivery vehicles.

Scope 2 was electricity.

Scope 3 was off-farm activities, primarily air freight for flowers.

Scopes 1 & 2 came to a total of 1,145.43 tCO₂e. Meanwhile our forestry and managed land use sequester 3,485.16 tCO₂e. Therefore

Kisima Farm is carbon neutral on the farm, as our on-farm activities are offset by our forestry and land use which is fantastic.

However, off-farm (scope 3) has a massive impact and therefore Kisima Farm is not carbon net-zero. In the coming year, we will be looking into how we can reduce both on-farm and off-farm carbon emissions as well as increase on-farm carbon sequestration.

In early December our first sea freight container left for Europe packed with flowers. The container will arrive in the first week of January and it will be very interesting to see how this trial goes with regards to reducing our air freight carbon emissions for floriculture.



Packing the roses for sea freight

Conservation

Kisima works closely with the Mt Kenya Forest Trust, supporting anti poaching horse patrol teams, planting seedlings, providing medical support to communities and protecting wildlife and forest on the mountain.

The MKT provides environmental education to over 20,000 children each year on the importance of the mountain ecosystem. They arrange visits to the mountain for the children, provide literature and show environmental films.

The mountain has been recognized as a UNESCO World Heritage Site for its biodiversity, geology and cultural importance and the protection of its plants, birds and wildlife is of utmost importance. Over the past decade MKT has planted over 1.5m trees and their rangers cover over 700 sq km per year.

The Mt Kenya-Ngare Ndare Elephant Corridor runs through the farm, which is inhabited by many species of wildlife. The corridor allows the free movement of elephants and other wild animals between Mt Kenya and the rangelands to the north.

We also work with the Ngare Ndare Forest Trust on conserving and protecting the Ngare Ndare forest on Kisima's northern boundary.