

REFORESTING

SUSTAINABLE AGRICULTURE
AND LAND MANAGEMENT
IN KENYA



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**KENYA
AGROFORESTRY**

With the support of



 **7 750** HECTARES UNDER
AGRICULTURAL LAND MANAGEMENT

28 570 
FARMS IN THE PROJECT


YEARLY **80 178**
TONNES CO₂
SEQUESTERED



IN A FEW WORDS

Kenya's ecosystems, rich in biodiversity, are under threat from climate change and growing population. On top of that, large areas of forest land are cleared to make room for agricultural land. The traditional agricultural practices in Kenya are unsustainable and leave the soil depleted, forcing farmers to go deeper into the forest to find new fertile land.

The Project promotes and implements a package of sustainable agricultural land management (SALM) practices within smallholder farming systems in western Kenya. These practices are more resilient against climate change, result in a higher crop yield and more importantly, they keep the soil healthy. This protects the forest while planting more trees, and it improves the livelihoods of farmers by giving a higher and more stable income.



IN KENYA

HIGH POPULATION DENSITIES AND POOR AGRICULTURAL PRACTICES THREATEN THE KENYAN ECOSYSTEMS

■ ISSUE N°1

The Project region is characterized by high agricultural potential, that attracted large human settlements in the past. Due to continuous cropping and little investment in soil fertility replenishment, the soil has become severely depleted, resulting in very low crop yield. Climate change and unpredictable rainy seasons made the situation only worse.

■ ISSUE N°2

The food issue has become so severe that food has to be imported. The region is among the poorest in Kenya, the necessity to buy food only pushed the population deeper into poverty.

■ ISSUE N°3

High population density and only small land holdings with limited crop yields, forced farmers to clear more forest land for agriculture. This has huge negative impacts on the ecosystems in Kenya, that are biodiverse and home to endangered species such as Grévy's Zebra and the black Rhino.

KENYA

580.367 km²

6% Forest

2% Water

48% Agriculture

44% Other



The Kenya Agroforestry Project trains farmers with sustainable agriculture methods that don't deplete the soil and result in a higher crop yield. This raises the families' income and keeps them out of poverty in the long term, while protecting the Kenyan ecosystem. The Project is active in the west Kenya regions of Kisumu, Kitale, Bungoma, Siaya and Kisumu.





SUSTAINABLE AGRICULTURE

SALM (Sustainable Agriculture and Land Management) practices are explained to the local farmers. These methods of farming result in higher crop yields without depleting the soil. By improving land use, agriculture will become more efficient and deforestation can be reduced.



PROTECTING THE ECOSYSTEM

The Kenyan ecosystem is at risk. Its forests and grasslands represent huge climatic benefits and are also important for natural resources because they prevent soil erosion, ensure water regulation and of course, protect the biodiversity.



IMPROVING LIVELIHOODS

The region with its high population densities and relatively small land properties is the poorest in Kenya. The majority of farmers live in poverty and suffer from food insecurity. Sustainable agricultural practices raise crop yield, use the land better and therefore help significantly in reducing poverty.

SUSTAINABLE AGRICULTURE

USING THE FULL POTENTIAL OF THE LAND

The region in western Kenya is characterized by high agricultural potential that attracted large human settlement in the past. Today dense population is a driver of agriculture intensification that dramatically reduces the nutrient content of the soils and therefore compromises food supply. The land is left fragmented and degraded.

The Project promotes the adoption of SALM practices such as use of crop residues for mulching and composting for soil organic input, use of cover crops, water harvesting, terracing and agroforestry – aimed at increasing soil fertility and productivity, developing resilience, and sequestering carbon dioxide. Farmers experience a crop increased that is doubled or even tripled.

Traditionally farming in the area consisted mostly of monocultures due to a lack of knowledge. But focusing on one crop only has negative effects. When there is crop failure due to the unpredictable climate or because of pests, a farmer would lose his entire income. When a farm is diverse, it is more resistant to these issues, because a farmer can still rely on its other crops when one fails.

The Project promotes and provides seeds for a wide range of different agroforestry tree species to be planted within the farm land. Besides their function in CO₂ sequestration, they also help by protecting crops from wind, improve soil fertility through N-fixing, regulate water, improve biodiversity and more. The sustainable timber from the trees can also be sold as an alternative form of income for the farmer.

2 ZERO HUNGER



8 DECENT WORK AND ECONOMIC GROWTH





PROTECTING THE ECOSYSTEM

AGRICULTURE THAT SUPPORTS LOCAL FAUNA AND FLORA

Forest land in Kenya is constantly decreasing due to the growing human population. The search for new farmland forced farmers to go deeper into the forest.

The Project is designed with the objective to mitigate climate change and enhance biodiversity. This is made possible on one hand by incorporating trees on private farmland and on the other hand, by protecting existing forests and grasslands from further disappearing. The introduction of sustainable agriculture also makes sure farmers don't have to cut down more forest land in order to find agricultural land.

A healthy ecosystem provides a wealth of valuable environmental boons: water regulation, erosion prevention, carbon sequestration, nutrient cycling and the provision of food and raw materials. The forests and grasslands also play an important role in protecting the biodiversity of Kenya. It is home to endangered species such as the Grévy Zebra and the black rhino.

13 CLIMATE ACTION



15 LIFE ON LAND





IMPROVING LIVELIHOODS

FIGHTING POVERTY WITH AGRICULTURE

The majority of farmers lives in poverty and suffers from food insecurity. Because of climate change and unpredicted rainfalls, crop failure was common.

Farmers joining the Project are supported to make the transition to sustainable agriculture which is of course better for the environment but also results in higher crops yields and thus higher income for the farmer. Families now have more food security than before the Project. The Project has been so successful that famers convince neighbouring farmers to join the Project as well.

Participants are also supported by receiving access to a more sustainable cookstove. Cooking on traditional open fires is dangerous and unhealthy due to smoke. More efficient cookstoves allow families to use less firewood, which saves their budget and protects the forest.

1 NO
POVERTY



12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION





IMPACTS OF THE PROJECTS



The VSC program is the most widely used voluntary GHG program. This independent non profit organisation checks the impact of the Project in terms of CO₂ emission reduction. To do so, a lot of data is collected on the spot, such as the amount of hectares protected under this new land management, CO₂ sequestered by the saved trees, number of people positively impacted, etc. The Project meets at least the following Sustainable Development Goals: «no poverty», «zero hunger», «decent work and economic growth», «climate action» and «life on land».



1 NO POVERTY 	2 ZERO HUNGER 	3 GOOD HEALTH AND WELL-BEING 	4 QUALITY EDUCATION 	5 GENDER EQUALITY 	6 CLEAN WATER AND SANITATION
7 AFFORDABLE AND CLEAN ENERGY 	8 DECENT WORK AND ECONOMIC GROWTH 	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE 	10 REDUCED INEQUALITIES 	11 SUSTAINABLE CITIES AND COMMUNITIES 	*12 RESPONSIBLE CONSUMPTION AND PRODUCTION
13 CLIMATE ACTION 	14 LIFE BELOW WATER 	15 LIFE ON LAND 	16 PEACE, JUSTICE AND STRONG INSTITUTIONS 	17 PARTNERSHIPS FOR THE GOALS 	

*The project actively contributes to these additional SDG's but they are not specifically part of the data reported and verified by the Gold Standard certification body. They are however experienced by the local population.



CLIMATE



CO₂ sequestration



climate change resilient farming



trees sequester carbon



LIVELIHOODS



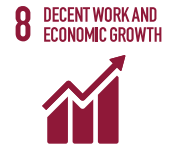
food security



enhanced cookstoves



ECONOMY



higher crop yields



stable income



less soil erosion



protecting ecosystems



enhancing biodiversity



Less deforestation



ECOSYSTEM

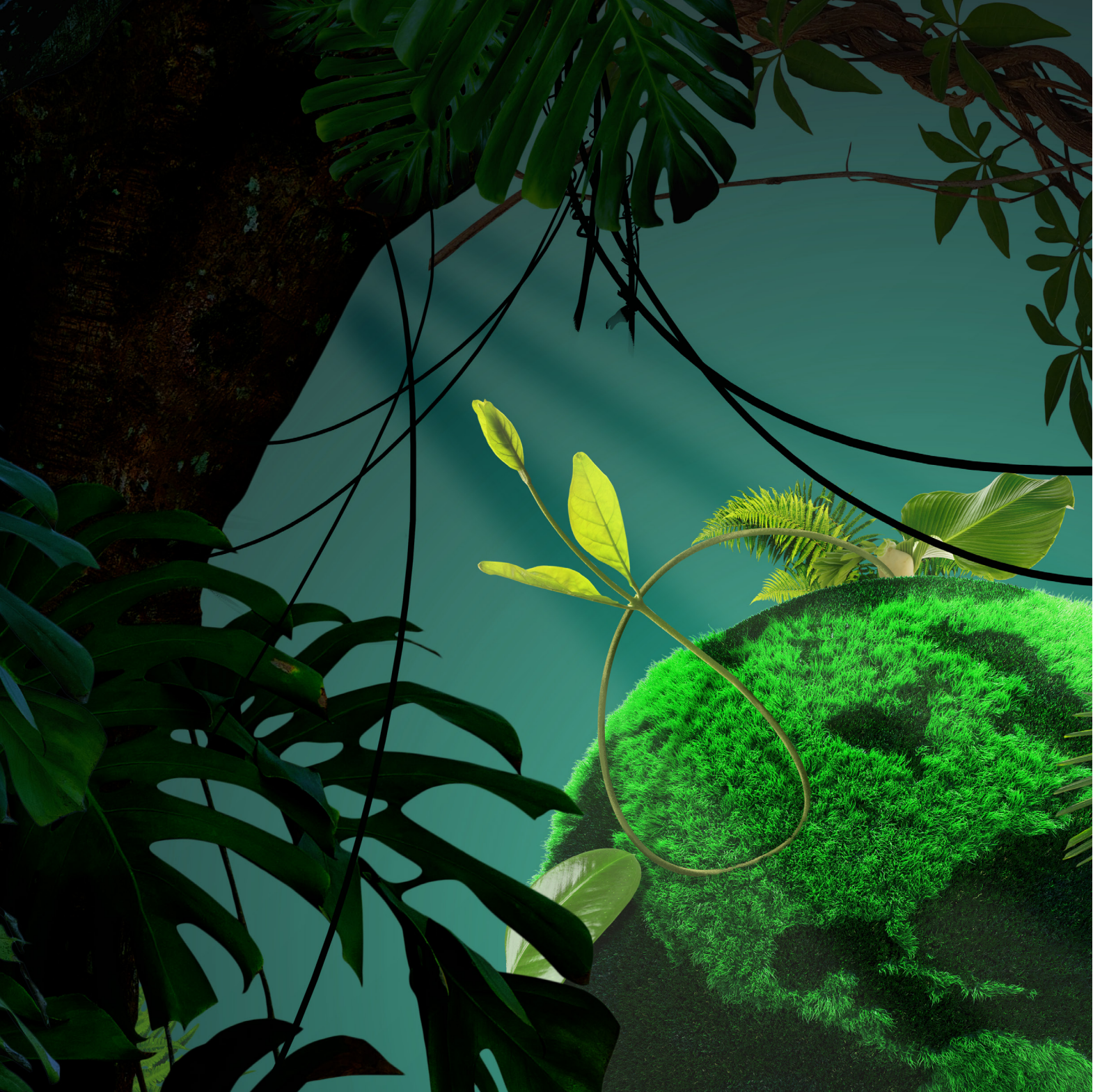


CLIMATE

ECONOMY

LIVELIHOODS

PRESERVATION



CLIMATE ACTION

“HOW CAN WE REDUCE OUR CLIMATE IMPACT AND THAT OF OTHERS?”

This is the first question the team of CO2logic asked themselves back in 2004.



There are limits to the CO₂ emissions that can be reduced, and each remaining tonnes of CO₂ has a high cost for society & the generations to come.

At CO2logic, we firmly believe that future generations are not responsible for these “climate disruption costs”. That’s why CO2logic encourages companies and organisations to reduce and offset their impact on climate & the environment: by supporting & developing climate projects that generate carbon credits. This is how we give back in order to restore the balance.

A WORD FROM ANTOINE GEERINCKX, FOUNDER OF CO2LOGIC

“There is only one atmosphere and there are no borders for CO₂ emissions. Our climate projects help in avoiding deforestation through education, collaboration, energy efficiency, fuel switch, renewable energy, reforestation, access to clean water. We act to improve the livelihood of local people while addressing the global climate breakdown. We are all interconnected.”



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