

# **Agroforestry Projects**





# AGROFORESTRY PROJECTS

Treedom directly finances smallholder farmers that will plant trees in agroforestry systems which then will result in ecological and social benefits. By granting start-up costs for sustainable agroforestry projects you empower whole communities in countries such as Kenya, Haiti, Nepal or even Italy.

Tree species planted are mainly productive trees which have beneficial use to the local communities and the environment alike. Amongst others, fruit trees can result in attaining attaining food security and in generating new income opportunities as well as in protecting local ecosystems.

### **Environmental benefits**

- > Global CO<sub>2</sub> absorption
- > Protection of biodiversity
- Contrasting soil erosion and desertification
- > Reforestation

### Social and economic benefits

- > Direct funding opportunities of start-up costs for smallholder farmers
- > Empowerement of smallholder farmers and agricultural cooperatives
- > Attaining food security for communities
- > New training and income opportunities





# **METHODOLOGY AND TRANSPARENCY**

All agroforestry projects are coordinated by NGOs or farming cooperatives (so-called project developers) and managed in accordance with the "Treedom Standard" method, which is divided into the following phases.

#### Phase 1

#### Feasibility analysis, start up and training

Project developers must apply with detailed information about the planned project. Amongst others, they need to submit a project's technical documentation illustrating goals, planned activities, duration, dimensions and characteristics of the project. A particular focus hast to be set on the tree species to be planted and indicating the motivations for the choice.

#### Phase 2 Agroforestry activities

The involved farmers proceed with the preparation of the land, the nursing of the species (if necessary) and the transplanting of the seedlings. All agroforestry activities must respect seasonal cylces and climatic conditions of the project area.

# **Phase 3** Digitalization and verification

Following the transplanting every single tree is being geolocated and photographed with a specialized device and Treedom software. The information is uploaded to Treedom's tree registry for verification, quality control of images and validation of species and planting locations.

## Phase 4 Monitoring and reporting

Active projects are being monitored by Treedom's forestry team. Random examinations shall verify the correct execution of the project's environmental, social and economic aspects as well as the propoer conduct of field operations and the maintenance of the plants.





#### "It fell on the shoulders of my volcanoes, where in his heart was born the song of love of the Little Prince for his rose."

Consuelo de Saint Exupéry – Memories of the Rose (2000)

In 1938 Antoine de Saint-Exupéry was flying to New York, when a breakdown forced him to stop in Guatemala. The testimonies of the inhabitants of the town of Antigua Guatemala, where Antoine stayed, tell of his visits to the nearby Lake Atitlan and there are many, including his wife Consuelo, who believe that the landscape that inspired that of Asteroid B-612, home of the Little Prince, was that one in Guatemala.

This would be enough to help imagine a magical and distant land. The heart of the Mayan culture of Central America, Guatemala is home to the region's highest and most active volcanoes and has a predominantly mountainous territory, with the exception of the western coast and of the flat area, rich with tropical forests, bordering Mexico.

The political and social stability that the country has been re-acquiring in recent years has led tourists to discover its natural and cultural beauties. The entire Guatemalan territory is protected or partially protected and comprises large natural parks rich in flora (including some of the rarest orchids in the world) and fauna (from the armadillo to the puma, up to the quetzal, the colorful bird symbol of the country). The area where our project is located, in the district of Petén in the north of the country, is surrounded by some of the most beautiful parks in Guatemala, such as the Parque Nacional Laguna del Tigre and the Reserve Maya Biosphere.

Next to our project area is also the archaeological site of Tikal: the largest of the ancient cities of the

Mayan civilization, where the famous temple of the Great Jaguar is located, and the most visited tourist destination of Guatemala.



Project area: District of Petén
Project partner: AMKA Non-profit organization
Trees planted to date: 5.000
Opening date: 2019

The project we will be running in collaboration with AMKA (Non-Profit Organization) consists of the planting of fruit trees, in the rural area of Petén in northern Guatemala, involving the communities of Nuevo Horizonte, Juleque, Sapote, El Barrio and Pato. Together with the community and the experts of AMKA, we have identified in the fruit species the cornerstone of our project to guarantee the best environmental and social benefits. In fact, these trees will be planted: Lime, Mandarine, Mango, Cacao, Graviola (also known as Corossole or Guanàbana), Sapote (traditional fruit tree widespread in pre-Columbian civilizations of Central America), Guava and Orange.

The trees will be planted in small-scale agroforestry systems, according to the principles of permaculture, which aims to integrate green spaces into anthropized areas. This approach imitates natural processes, creating intercropping of different species that will constitute a complex system from a physical point of view (to better occupy the arboreal, shrub, herbaceous and underground layers), chemical (to obtain a diversification of the release and acquisition of micro-elements from the soil) and biological (to guarantee maximum animal, plant and fungal biodiversity).

The intercropping between fruit and herbaceous (vegetable) tree species will lead to a series of specific benefits (in addition to the natural absorption of  $CO_2$ ):

> the fields will be covered by vegetation throughout the year, minimizing the risks of soil erosion and mineralization.

> the crops will no longer be mono-specific and monoplane. The complexity of interactions of the new agronomic system will gradually reduce the need for external inputs in terms of chemical fertilizers and pesticides.

> the diversification of production will also allow a more varied diet, with a consequent increase in the food security of the communities. The project aims to ensure a constant and diversified harvest throughout the year, so as to protect farmers from market fluctuations, from climatic difficulties and the possibility of diseases of individual species.

- Increase the cultivation of fruit plants for the communities involved
- > CO<sub>2</sub> absorption and consequent reduction of the greenhouse effect
- > Contribute to a more varied diet of the members of the communities involved
- Building agroforestry systems resilient to changes and possible ecological difficulties









"Haiti should remind us all that there is an immediate need to invest and promote long-term development projects that are sustainable and efficient".

**Bill Gates** 

"Pa gen pwoblem" is one of the most recurring phrases uttered by Haitians and its meaning is "no problem". It represents well two of the most typical features of the population of this country. One is its innate optimism, the other is the cultural mélange of a people that for the vast majority speak a language, the Haitian Creole, which mixes French and dialects of East Africa.

Being a land crossed by different histories and cultures, that live together blending with each other, is the basis not only of the Haitian language, but also of music and dance, as well as local cuisine (very famous), architecture and culture in general. The spirituality of a country in which voodoo, long misunderstood, represents a religion of great depth, developed in Africa and secretly introduced among the Catholic rituals of European missionaries, is no exception.

The territory of Haiti is largely mountainous, with peaks exceeding 2,000 meters, such as the Pic La Selle (2,680 m.), the highest in the country. Numerous tropical birds inhabit the Haitian forests. Among the most widespread local species there are woodpeckers, parakeets, parrots and the trogons of Hispaniola.



**Project area:** Municipal sections of Chantal and Torbeck and other border areas of the Macaya National Park + Grande Riviere du Nord e Bahon

Project partner: AVSI

N. of trees planted to date: over 150.000

**Opening date:** 2012



Treedom has been active in Haiti since 2012, thanks to the partnership with AVSI, with which it coordinates 10 farmer cooperatives. AVSI is a partner with a long and proven work experience in Haiti, which dates back to 1999 with numerous interventions in the field of health care, support for the food and agricultural development of local communities. In recent years, AVSI has coordinated also emergency interventions in collaboration with the United Nations.

Planting activities are mainly concentrated to the south, in the mountain areas of the Les Cayes district, and to the north, in the area of the Grand Riviere du Nord and Bahon. To date, more than 100,000 trees have been planted, directly involving more than 600 farmers, while indirect beneficiaries, especially families engaged in the project, are estimated at around 3,600 people.

The planting system adopted by AVSI, in agreement with local farmers, follows agroforestry schemes, intercropping both forest and fruit species: Orange, Avocado, Mango, Cedar, Cacao and Coffee. The aim is, on the one hand, to reduce the erosive processes due to hydrogeological instability. On the other, to stimulate the productivity of rural areas by planting fruit trees, to provide an alternative income to that deriving from the illegal cutting and sale of timber.

The benefits brought to date have also been educational, given that, in addition to farmers, the project has already involved also 30 students, selected from 5 schools in the area, to follow the operations and to learn farming management techniques.

- Reduction of soil erosion and hydro-geological instability
- Increase the cultivation of fruit plants for the communities involved
- > Income support for farmers and their families
- > CO<sub>2</sub> absorption and consequent reduction of the greenhouse effect
- > Training benefits for students in the project area







"Take Kenya, for example. Most of the people blabber, blabber and they know nothing about it. I, on the other hand, lived fourteen years in that country. They were the best of my life".

Agatha Christie's "Miss Marple: A Caribbean Mystery" (1964)

In Agatha Christie's "Miss Marple: A Caribbean Mystery", Major Palgrave, a retired military officer, talks about his journeys, and in describing Kenya he starts by dismantling the clichés that accompany the image of the African country. This premise is still valid today, since the evocative power of images and words related to Kenya have often built a fantastic fable that captures only some aspects of the country, forgetting many others.

Kenyaisagreatcountry, considered by anthropologists to be the "cradle of civilization". Today that cradle is a melting pot of people, landscapes, plant species and different animals, making variety its most distinctive feature. Everyone knows the famous Masai, mainly present in the southern areas of the country, but Kenya is inhabited by over 70 ethnic groups.

The wealth of wildlife in the country is impressive and known to anyone who has ever watched at least one animal documentary in their life; although the annual mass animal migration through Kenya is able to take the breath away even from the most consummate connoisseur of nature documentaries.

The geographical complexity of the Kenyan territory is closely linked to the variety of its flora. Kenya is in fact crossed by the Equator from east to west, and from north to south by the Rift Valley (the Great Tectonic Pit). It overlooks the Indian Ocean and its low and sandy coast is just one of the geographical features of a country that counts several plateaus, with woods and savannas, and several mountain ranges. Given the presence of the Rift Valley the territory is also characterized by numerous lakes of fresh and salt water and a widespread geothermal activity.

In such a varied context, it is not surprising to meet wildlife parks, pristine beaches, beautiful coral reefs, majestic peaks and ancient Swahili cities.



**Project Area:** Busia Province, District of Kisii, Muranga, Thika, Oloitokitok, Kilifi, Central and Southwest Kenya

**Project partners:** Sustainable Global Gardens (SGG), Wild Rescue Initiative Organization (WIRIO), Africa IPM Alliance (AIA), Health and Water Foundation

N. of trees planted to date: almost 150,000

**Opening date:** 2014



The main purpose of Treedom's activity in Kenya is to promote, together with farmer cooperatives, the development of smallscale agroforestry projects through a democratic approach. Since 2014, with the help of with numerous local organizations, Treedom has planted trees in rural areas involving local authorities and providing profitable agricultural alternatives for the population.

Respecting the rich diversity of the country, over the years the multiple Treedom projects in Kenya have involved several partners to pursue environmental and social goals. The more than 5,000 farmers involved so far have been trained, not only to carry out tree management and care, but also to develop a collaborative and community spirit (some projects, for example, involve specifically groups of women to support their emancipation and independence) and to promote awareness of environmental conservation.

The tree species that are planted in the many projects are also wide-ranging. There are many food species, such as Avocado, Mango, Guava and others, called superfoods (food with a higher nutritional content than the average food), such as Macadamia and Moringa.

Obviously all the fruits produced by the trees are owned by the farmers who

care for them. There are numerous intercroppings adopted by farmers, with the aim of protecting and increasing biodiversity and to create a habitat suitable for the growth of fruit trees. Among these are Grevillea, for example, that favors the presence of pollinating bees and is an excellent windbreaker; the Umbrella Tree that, as is clear from its name, is able to provide shade and shelter from the warm equatorial sun; or the Leucena that fixes the nitrogen in the soil, contributing to its fertility.

- Training benefits for farmers and the communities involved
- > Contribute to the protection of biodiversity
- Increase the cultivation of fruit plants for the communities involved
- > Income support for farmers and their families
- > CO<sub>2</sub> absorption and consequent reduction of the greenhouse effect



Agroforestry Projects - Madagascar





"It is in Madagascar that nature seems to have withdrawn as in a particular sanctuary, to work on models different from those used elsewhere; the most unusual and most marvelous forms you can find at every step."

Philibert Commerçon

Doctor, botanist, naturalist and explorer. Philibert Commerçon was one of those multi-talented men who, after the first phase of the great geographical discoveries that had redesigned the world's boundaries since the fifteenth century, traveled and studied to learn more about the inhabitants of that new world, whether they were human, animal or plant. It is no coincidence that his travel notes dedicated to Madagascar are crossed by an unparalleled enthusiasm.

Today we know, in fact, that Madagascar broke away from the supercontinent called Gondwana, about 140 million years ago. That supercontinent, in addition to Madagascar, consisted also of the current Africa and India. The separation of those lands has meant that Madagascar has become the habitat of a peculiar variety, better to say unique in the world, of animal and plant species. Some biogeographers call Madagascar the eighth continent.

For this reason the protected natural areas of Madagascar are of particular importance and two parks in the country have been included by UNESCO on the list of World Heritage Sites. More generally, every activity aimed at preserving the Malagasy environment is of great importance and even more so in recent years, also in light of the demographic increase of the country, which has seen its population quintuplicate in the last half century.



Project area: Vohiday Municipality
Project partner: Tsyriparma NGO
Trees planted to date: over 10.000
Opening date: 2018



The project area identified is located in the municipality of Vohiday, in a rural area adjacent to that of the homonymous forest. It is an area, like many other rural areas of Madagascar, where an itinerant agriculture has spread, practiced often by burning forest areas and old farmland. This practice is called slash-and-burn and is increasingly less sustainable.

The project that Treedom and Tsyriparma intend to realize wants above all to offer a permanent, sustainable and long-term alternative to this type of agriculture. The main project areas are located beyond the edge of the Vohiday Forest and provide for the planting of up to 45,000 trees with a variety of species including: Coffee (both Arabica and Robusta), Mango, Lychee, Papaya, Avocado, Tephra, Acacia and Rosewood.

The mix of forest and fruit species is designed to ensure the creation of an integrated agroforestry system, able to offer both a right biodiversity and the possibility, for the communities involved, to benefit from various crops during the seasons. For this to be possible, first of all, 5 nurseries will be built in which to make new trees grow. For each nursery 160 people will be assigned to the plants, each of whom will receive appropriate training for the proper care, management and maintenance of the trees. A total of 800 local farmers will also benefit from the fruit of the planted trees.

- Implementation of an alternative farming model to slash-and-burn
- Construction of 5 nurseries that will remain in the local communities
- > Training of 800 local farmers
- > Economic benefits deriving from the production of fruit trees
- > Ability to introduce beekeeping in the project areas







*"Cameroon is strong because it is a country of warriors. Cameroon players are not necessarily very technical, but when they play, they play to win."* 

Roger Milla

The variety of landscapes is what makes this country unique. Cameroon is located in the Northern part of Central Africa. Its west coasts, which overlook the Gulf of Guinea and the Atlantic Ocean, are the front of a plain that, as it accompanies us into the country, gives way to various plateaus, often characterized by equatorial rainforests.

The urban population is concentrated in the two main cities, the lively capital Yaoundè and Douala, a dynamic and modern center. The south-eastern regions are instead populated by local tribes, which still today wear typical clothes with bright colors like red, yellow and green. The same colors as those of the uniform of Roger Milla, a monument to African football. Milla, a charismatic character, gained international prominence during Italy's World Cup in 1990, during which his team showed the soul of Cameroon with their game. You will remember him with a smile while performing the fun and typical Cameroonian dance, the makossa, to celebrate every goal.

Cameroon was officially born in 1961 from the union of French and English colonies, and is a combination of traditions and lifestyles in which the customs of the indigenous peoples maintain a profound cultural relevance. Its territory has numerous climates: it is tropical, rainy, humid in the southern areas and in the coastal strip, while semi-arid in the north. The Cameroonian ecosystem enchants animal lovers because there are many species living there: large populations of birds, baboons, snakes and large animals in the savannah, both herbivorous and

#### carnivorous.

Unique and uncontaminated is the Dja Wildlife Reserve. This area of Cameroon has been protected since 1981 and has been included in the UNESCO list of World Heritage Sites since 1987. Dja is one of the largest rainforests in the country and the Baka ethnic group, formerly known as the Pygmy, lives on the edge of the reserve. A fascinating group of seminomadic hunter gatherers, who are the only ones allowed to hunt in this territory according to their traditional methods.



**Project area:** Rural areas bordering Yaoundé and the Dja Game Reserve

Project partner: IRAD, SAFE and GIC-AFRN. of trees planted to date: over 200.000Opening date: 2010



Cameroon is a particularly significant country for the history of Treedom. This is in fact where our story started. It was 2010 and since then we have planted over 150,000 trees in the country, involving almost 10,000 local farmers in the planting activities promoted together with our local partners: IRAD and SAFE and GIC-AFR. The areas where we have activated our agroforestry projects are located near the capital Yaoundé and in the lands near the borders of the Dja Game Reserve.

The planting activity is focused on Cocoa trees. We are in fact in the middle of the so-called Cocoa belt, the area between the 20th parallel south and the 20th parallel north, the one within which this plant is able to grow at optimal conditions. According to our working philosophy, however, in this country we have also carried out agroforestry projects that support the main species alongside others that favor its growth. In particular, considering the sensitivity of Cocoa to the sun and the high temperatures that can be reached in these areas, we have planted also shady trees, able to grow rapidly and develop a wide and thick foliage, suitable to offer a natural protection from the sun.

The effectiveness of this working method is well summarized by the numbers of our work in Cameroon. The large number of trees planted has allowed us to absorb significant amounts of CO2, fight desertification and soil erosion and to stabilize the hydrogeological structure. The cultivation of Cocoa in agroforestry systems is also a guarantee of the conservation of local biodiversity.

The benefits of our work are also clearly aimed at the local community, the farmers involved and their families. Cocoa cultivation represents a valid investment in terms of additional income possibilities, and the active involvement of local communities in tree management and care practices has positive repercussions in developing an environmental awareness, which is of absolute importance.

- > Training benefits for farmers and communities involved
- > Protection of local biodiversity
- Combat the desertification of soils and stabilize the hydrogeological structure
- > Absorption of CO<sub>2</sub> and consequent reduction of the greenhouse effect
- > Income support for farmers and their families





**CONTACTS** 



#### Italy Treedom Srl

Via della Piazzuola, 45 50133 Florence, Italy Tel - Fax +39 055 0503228

#### USA Treedom Inc.

3110 Main street The Annex Santa Monica, CA 90405, USA

#### Germany Treedom Deutschland GmbH

c/o Impact Hub, Gotzinger Str. 8, 81371 Munich, Germany +49- (0)89- 2351 3365

#### United Kingdom Treedom

Tel: +44 (0)7730 762798

#### Kenya Treedom limited

Williamson House 4th Ngong Avenue Nairobi, Kenya

info@treedom.net

www.treedom.net



business.treedom.net