

Eco-humanitarian Project for Protection and Restoration of African Forest



PROTECTING FORESTS AND PLANTING TREES: THE MOST EFFECTIVE STRATEGY AGAINST CLIMATE CHANGE

The year 2019 was exceptional in terms of both the number and intensity of forest fires on Earth.

Between 1 January and 30 November 2019, approximately 6,735 million tons of CO_2 were released into the atmosphere as a result of forest fires. And this sad toll does not consider the huge fires that devastated Australia, where a forest area the size of Austria disappeared in December.

These forest fires alone, which are on the rise compared to 2018, have caused more CO_2 emissions over the same period than those emitted by the USA. In fact, more than 20% of man-made CO_2 emissions come from deforestation.

It is therefore logical to consider that in order to reduce the effects of global warming we need to conduct a vast policy of forest protection and restoration on a global level.



Create a better future for all, help us save our forests.

A recent article in the scientific journal "SCIENCE" concluded that it is entirely possible to expand forests around the globe by almost a trillion acres. These additional forests could store as much as 205 gigatonnes of CO_2 . Such a plantation project is described in the article as the most effective strategy against climate change.

This article validates the approach undertaken by Graine de Vie in 2009: raise awareness of individuals and companies in our countries to compensate for their excessive ecological footprint by offering them the possibility to plant trees in under-developed countries. At the same time encouraging inhabitants of these countries to protect their own environment by helping them to fight against the destruction of their forests.



MADAGASCAR: a strategic choice

It is in Madagascar that we initiated our projects in 2009.

This choice is strategic because Madagascar is both one of the places in the world where reforestation can have a real systemic impact (5th poorest country in the world on the IMF list), but which will suffer more than others if nothing is done (3rd country most exposed to the effects of global warming on the IPCC list).

Madagascar is also one of the most deforested countries in the world (2% of the forest area destroyed each year), one of the countries with the largest area available for reforestation and one of the countries on our planet where the rate of rainfall still allows for large-scale reforestation. In addition, the trees planted there have a carbon absorption capacity ten to fifteen times greater than the trees planted in highly developed regions and at a 100 times lower cost.

In ten years, Graine de Vie became one of the leaders in forest restoration in Madagascar: 19,200,000 trees planted, 132 nurseries spread over 16 of the 22 regions of a country the size of France, 9 mangrove restoration projects, 11 projects for the protection and restoration of Malagasy national parks.

These numbers shall be increased by millions of trees that have been saved from deforestation as a result of activities of our teams related to forest protection awareness in the 111 counties where we have one or more projects in place (i.e. nearly one sixteenth of all Malagasy counties).





SOCIAL ASPECTS

In addition to the environmental aspect, our activities have a significant social aspect because:

1)- half of the trees we plant are trees that produce food resources for the daily life of inhabitants (fruit trees,...).

2)- Graine de Vie employs not only full time but also temporary day labourers providing financial means to thousands of people during different phases of plantation: from production to tree planting (nurseries, fence making, seed harvesting, terracing, potting, transplanting, transporting seedlings, digging wells, etc.).

3)- Graine de Vie raises awareness of hundreds of thousands of people about the need to protect and restore forests to ensure a better future for humanity.





Our northern representatives in front of one of the first tree planted ten years ago

NATIONAL REFORESTATION PLAN

In 2019, the Malagasy State has initiated a vast reforestation programme that includes plantation of 60,000,000 trees and creation of numerous nurseries.

Graine de Vie participated widely in this program at several levels:

- partnership with the Malagasy army for plantation of ten million trees (ten zones of one thousand hectares in ten different regions); this program will be completed in March 2020 ;

- partnership and technical support with Madagascar National Parks for the creation of vast nurseries (several million trees) throughout the country.

This program had an incredibly positive impact on the population and it further increased the enthusiasm for trees; all our teams are overwhelmed and struggling to satisfy the demand for planting. Fortunately, we strengthened our plantation capacity with addition of direct seeding technique that we developed over the past few years. This technique consists of planting seeds, pre-prepared in our nurseries, directly in the soil and it enables us to pant several hundreds of millions of trees in Madagascar alleviating the heaviness and cost of creating nurseries throughout the country.

Unfortunately, the good news about creation of this national reforestation plan must be greatly mitigated by the exceptionally high number of bush fires which the country encountered in 2019, fires that were unstoppable even with the heroic effort of local authorities. As a result, hundreds of thousands of hectares of forests, including those of national parks, were destroyed. It is imperative that our industrialized nations intervene in developing countries to help them fight forest fires effectively by providing them with enough technical and material means. It is the only way to save our planet's forests.



The functioning of Graine de Vie

contribute their time fees, taxes, costs of website.

TOGO: ONE REFORESTATION PROJECT PER COUNTY

On September 19, 2016, Togo ratified the historic COP21 Paris agreement, which reads in article 5 that the signatory states "are encouraged to take action to implement and support... policy approaches and positive incentives for activities relating to reducing emissions from deforestation and forest degradation, and the role of conservation, sustainable management of forests and enhancement of forest carbon stocks in developing countries"

Concrete reforestation actions are urgently needed today because Togo reached the red zone in terms of deforestation. Togo is one of the countries with highest deforestation rates in the world (between 15,000 and 20,000 hectares each year).

The major cause of this deforestation is expansion of agricultural land, forest fires, exotic wood trafficking as well as production of firewood and charcoal.

To slow down the phenomenon, several measures have been adopted by the Togolese government, including the establishment of a national reforestation day and encouragement to use butane gas in households instead of charcoal.

Nevertheless, if further and stronger measures are not taken quickly, Togo's forests are in danger of disappearing totally within few years thereby jeopardizing the economic survival of rural population.

The project initiated by Graine de Vie in Togo in 2019 consists of raising awareness in 116 counties of the country about the protection and restoration of their forestry resources, creating in each of them a nursery producing 10,000 fruit trees per year designated for domestic consumption and planting 5,000 additional trees using the direct seeding technique.

The final project aims at production of more than 1.7 million trees each year, which should slow down the rate of deforestation in Togo by allowing the reforestation of 40 hectares per county each year (over 4,000 hectares each year for the whole country). Half of the trees planted will be fruit and revenue generating trees which will provide new resources for the population. The other half will be forest trees providing the population with wood needed for their everyday life (construction, heating, cooking) and preventing further deforestation of national parks by Togo's own population.

In 2019 alone Graine de Vie created 20 tree nurseries in Togo.



ORGANIZATION CHART OF THE NGO

European structure



Frédéric DEBOUCHE President and Founder



Frédéric MATHOT Treasurer



Vanessa Wade Coordinator



Edouard **LAMBRECHTS** President Graine de Vie Luxemboura



Graine de Vie 10th year anniversary committee visiting our sites in Madagascar

MADAGASCAR'S ORGANISATION STRUCTURE



Gérard PONCET General Director of Operations



Voara HASINDRANTO Director of Central and South Operations



RAVONINJATOVO Onja Director of Communication



RAKOTONDRASOA Erica Tator Administration and Accounting Head Nursery Gardener



Northern Region



RAZAFITSARA Henriette ANDRIANTSOA Amédée **Regional Manager Regional Manager** Manakara



SAVA

Ndrina

Regional Manager

South Region

ANDRIANIAFISOA Santatra Regional Manager Bongolava



Donatien Regional Manager, Sofia Region

Doudou **Regional Manager** Diana Region



RABEARISOA Dera Head Nursery Gardener Central Region



Head Nursery Gardener South Region







Staff Central Region



Staff Northern Region

Structure in Togo



Gérard Doga Director of Operations in Togo



Staff in Togo

Our activities in Madagascar and in Togo are based on two axes:

- 1)- Raising awareness and sustainable development
- 2)- Carbon offsetting

1. Raising awareness and sustainable development

This entails projects which create populist interest in tree planting by providing local population with means to plant trees to provide resources for their daily life (fruit trees, revenue generating trees, coffee, cocoa, cloves, etc...).

Nurseries in key regional areas

Madagascar has 22 regions; we are active in 16 of them.

When Graine de Vie is first established in any new region, a central nursery is set up in the key area of that region. These regional nurseries produce **50,000 to 700,000 seedling trees each year** which are distributed to local associations working for the protection and restoration of the Malagasy forests. Graine de Vie assists these associations at the time of transplantation and carries out **annual check-ups** with these associations to ascertain condition of the seedling trees.

These central nurseries serve as a **training ground for local nurserymen**, gardeners and schools and as a seed granary or all projects in the region.

Nursery of Antananarivo producing 700,000 seedling trees every year on a plot of land that Father Pedro's AKAMASOA association puts at our disposal





Nurseries in Villages and Counties

The basis of Graine de Vie's philosophy is to work directly with local population within the villages. In countries like Madagascar or Togo 85% of population survives principally on natural resources. Yet it is also the same inhabitants who are destroying the forest that feeds them. They should therefore be the principal participants in reforestation.

We start by raising their awareness through talks and meetings in which we explain how massive destruction of their forests threatens their own supply of wood, water and food. In next step we invite them to reverse the trend by proposing that they replant trees themselves and free of charge. We create, at our cost, a tree nursery producing 10,000 revenue generating trees (trees producing resources for the population) each year. Further, we organize and involve the village population in plantation of 10,000 forest trees by employing direct seeding technique (seeds are prepared in advance and we plant them directly into the ground at the beginning of the rainy season).

This system is transposable to most African countries.

We have about 100 nurseries of this type in Madagascar and 20 in Togo.



Typical village nursery producing 10,000 plants each year



Pupils from a school participating in the reforestation of the village after awareness raising session at the school.

Nurseries in schools

In schools, we are developing a program to create nurseries, even in the **recreation playgrounds themselves**. Each of these nurseries produce **2,500 seedling trees** per annum. Graine de Vie trains two volunteer teachers per school, we provide materials, tools, pots, seeds, technical assistance and environmental education classes. The teachers teach the children to "bring to life" the young trees that they will see growing in the nursery throughout the school year and to plant them with their parents and teachers at the end of the year.

In addition, in 2019, we made an awareness film for Malagasy schoolchildren and hired an environmental "evangelist" who visits schools to discuss with students the importance of forests for their future.

Barracks Nurseries

We entered into partnership with the Chief of Staff of the Malagasy Army to create tree nurseries in the nation's army barracks. We now have 7 of them established throughout the country.



Militia's onboarding into the work of potting in the Manakara barracks



2. Carbon offsetting

Carbon offsetting is ensured by continuing reforestation with large-scale projects where tree nurseries and plantations are managed directly by Graine de Vie.

Extensive reforestation projects

In 2010, we started our first major reforestation project in north-eastern Madagascar, south of Antalaha. This planting project of more than **10,000 hectares** required creation of **four nurseries in three different counties**.

In 2013, the reforestation of another area of 10,000 hectares began near Vohemar. The reforestation programme initiated with the Malagasy army in 2019 provides for planting of 10 areas of 1,000 hectares each in ten different regions. It is a plantation based exclusively on the technique of direct seeding.



Reforestation of 1,000 hectares in the Bongolava Region

This programme is of crucial importance for Madagascar because it should enable us to convince the authorities that our planting method is effective and efficient. If we could combine our means with those of the Malagasy state, hundreds of millions of trees could be replanted every year.



The Malagasy army is hard at work replanting 10 million trees with our teams using the direct seeding technique developed by Graine de Vie.



Partnerships with Madagascar National Parks (MNP)

Madagascar's national parks are the last remnants of the extraordinary primary forest that covered the country less than two centuries ago. Today this forestal carpet has been reduced by more than 85 percent. It is therefore necessary at all costs to secure, protect and restore these national parks. Graine de Vie designed several projects in partnership with MNP. These projects include forest restoration inside national parks and creation of nurseries in the outlying villages in order to provide local population with means to plant revenue producing and fruit trees, such as coffee, cocoa, cloves, ravintsara, etc....

- MASAOLA NATIONAL PARK

In 2018, we established a particularly important partnership with the Masaola National Park Authority. Located in the North-East of Madagascar, the Masoala National Park, created in 1997, is the largest forest reserve in Madagascar. It spans over 240,000 hectares. It is classified as UNESCO World Heritage Site for its exceptional biodiversity (the Masoala forest alone is said to contain nearly 1% of the world's plant and animal species).



In 2019, thanks to the support of the PRINCE ALBERT II DE MONACO FOUNDATION, we extended our activities to create nurseries and reforestation programmes in all the counties and villages surrounding the park (13 operational nurseries).

- MAROLAMBO NATIONAL PARK

Project initiated in 2018 with the creation of 4 nurseries around the park.

- MAROJEJY NATIONAL PARK

This project began in 2010 and since then bushfires caused by locals inside the park were considerably reduced - twelve counties are concerned.

- AMBER MOUNTAIN NATIONAL PARK

Project initiated in 2012 in the first national park created in Madagascar - seven counties are concerned.

In 2019, we extended our activities to create nurseries and reforestation programmes in all areas surrounding the park thanks to the support of the TOTAL FOUNDATION.

- ANDOHAHELA NATIONAL PARK

Project initiated in 2014 - four counties are concerned

- ANKARANA NATIONAL PARK Project initiated in 2016 - four counties are concerned

- NOSY HARA NATIONAL MARINE PARK

Project initiated in 2015; it foresees the restoration of the park's important mangrove swamp and the hills surrounding it; already 62,000 trees were planted.





Reforestation day in the outskirts of Ankarana National Park



Restored mangrove of the Marine Park of Nosy-Hara

- NOSY HARA NATIONAL MARINE PARK

Project initiated in 2015; it foresees the restoration of the park's important mangrove swamp and the hills surrounding it; already 62,000 trees were planted.

- AMBOHITANTELY RESERVE

Project initiated in 2016. This is the last piece of forest near the capital Antananarivo on the west road.

- RANOMAFANA NATIONAL PARK

Project initiated in 2019 with the creation of 2 nurseries around the park.

- ISALO NATIONAL PARK

Project initiated in 2019 with the creation of 2 nurseries around the park.

- ANALAMERANA RESERVE

Project initiated in 2019 thanks to the support of LIEGE AIRPORT, with the objective to plant 120,000 trees annually in and around the reserve



Analamerana Reserve

Mangrove restoration

In 2019, we continued nine mangrove restoration programmes:

- the Eastern Cape mangrove (six kilometres of mangrove ravaged by fire). We replanted **125,000 seedling trees** which are already producing their own fruit (right photo). We handed over the management of this project to local authorities. Our work is now limited to replanting and supervision;

-the mangrove in front of the famous sugarloaf of Diego Suarez. We planted more than 12.000 trees in one of the most famous tourist sites of Madagascar;

- inside the new Marine Park of Nosy-Hara. We have been charged by Madagascar National Parks authorities to restore all mangrove. This is where we installed our first mangrove nurseries which are overran by the sea at each high tide and where we plant more mature and resistant trees. We already planted over 62,000 seedlings there.

- in the city of Vohemar. We are reconstructing the mangrove in the centre of the city as well as in the north area;



ISALO National Park

- near the French Mountain in Diego Suarez and in the SOFIA region. We are reconstructing the mangrove with association of village elders.



Reconstructed Cap-Mangrove

HOW CAN YOU HELP TO RESTORE THE FOREST?



> You are an individual.

OFFSET THE CARBON FOOTPRINT OF SPECIFIC ACTIVITY

You would like to compensate for a trip, sports or professional activity, family relocation, construction of your house, your car commute. etc. - nothing could be simpler.

Using the calculation engine on our website you can calculate the carbon footprint of the activity you'd like to offset:

www.grainedevie.org

PLANTING A FOREST TO COMPENSATE FOR YOUR LIFE

For a European, the average lifetime carbon footprint amounts to almost 1,000 tons of CO₂.

By planting approximately 10,000 trees you will offset the CO_2 generated by your lifetime existence. The average life cycle of a tree is 20 years and each tree planted in Madagascar captures at least 5 kilos of CO_2 annually.

The average cost of a tree planted by Graine de Vie is 25 euro cents.

Your donation of $20 \notin$ month for 125 months will provide for Graine de View to plant your own forest of 10,000 trees and you can live carbon neutral life.

More information: www.grainedevie.org

DONATE OR BEQUEST FOR THE PLANET

Throughout our lives we enjoy the many riches of our planet.

When organising your estate planning, why not give Earth back a little of what it's given you during your lifetime? Pass on a little better world to future generations.

How can you do that? Yes, you can, by donating or bequeathing part of your heritage to Graine de View and we will plant the trees you financed.

Discuss with your notary and estate planner who can provide information about the very favourable inheritance tax advantages of donation/legacy to authorised chari-ties like Graine de Vie. **For more information contact:** grainedevie@outlook.be





> You are a municipal authority

Propose to your municipal colleagues to participate in **"OUR COUNTY AS A FOREST**" project. It is a simple, ambitious and team bonding project which aims to reduce the impact of your municipal activities by planting a forest in Madagascar in the surface size of your municipality or county.

This project should not be financed by the municipal budget but it should be federated, organized and coordinated by local authorities who will carry out actions with the population, retailers, companies, scouts, schools and other municipal organisations in order to gather the necessary funds.

This kind of project, already in place in Belgium with the municipalities of Braine l'Alleud, Knokke-Heist, La Hulpe, Wavre, Ottignies-Louvain-La-Neuve and Mont-Saint-Guibert, is an excellent communication tool enabling continuous sensibilisa-tion of population to the problems of ecological footprint and global warming, while giving everyone an opportunity to take positive action for the planet.

YOU ARE AN ENTERPRISE

> YOU ARE AN ENTERPRISE

Why not join our movement and lessen the eco impact of your business by creating a **nursery and a new forest in your company's name?** It is inexpensive, tax deductible, it improves your company's image and can unify your employees around a worthy cause.

We can assist you to calculate carbon footprint of your company, which will enable you to reduce the negative impact of your activities on nature and offset the non-deductible part of this footprint. This cabinet is carbon-free

Your notary is committed to planet Earth



This law office is carbon-free

Your lawyer is committed to planet Earth

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Without our sponsors nothing would be possible

Business community

ALLIANCE CENTRE BW **ARENDT & MEDERNACH BLOOM TRADE** BUY WAY CHANON WORLWIDE

HVCR LIEGE AIRPORT NEPTUNO POP MEDIA SOYER & MAMET

T4M VERIS VIASAT WANT YOU WAKO WEPIKA YELLOW EVENT

Municipalities

BRAINE L'ALLEUD KNOKKE-HEIST LA HULPE MONT-SAINT-GUIBERT OTTIGNIES – LLN WAVRE

Charities

FONDATION TOTAL FONDATION PRINCE ALBERT II DE MONACO FONDATION TREMPLIN

16 ANNUAL REPORT 2019



Antolojanahary nursery, Father Pedro's first village, financed by the Prince Albert II of Monaco Foundation

Long-term Impact

Environment



Reforestation. **Increase in biodiversity:** maintenance of habitat for endangered species, agroforestry... Creation of carbon sinks. Decrease in tree and bush burns.

Sustainable development: production of trees for construction of houses, furniture, fences, harvesting dead wood for heating and kitchen use, planting trees at water sources for to restore the natural water cycle and prevent gullying, creation of grazing areas by planting fodder crops.

Social

Education: training of nursery gardeners, raising awareness in schools and villages about preservation of the environment, educating villagers about creation of rice terraces.

Social link: federating projects in isolated regions

Fight against exclusion: integration of women (all daily temp workers in our nurseries are women).

Fight against hunger: planting trees to provide food and water, food (avocados, mangoes, breadfruit trees, etc...).

Fight against poverty: plantation of fruit trees for the markets (cocoa, coffee, ylang-ylang, ravintsara, cinnamon, clove, citrus, etc.).

Graine de Vie in numbers

PPPP134 Number of tree species





132 Madagaskar 20 Togo Number of tree nurseries



9 mangrove restorations

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= 10 000 pers.

The average ecological footprint of a European is ten tons of CO₂ emitted each year. Our trees offset the CO₂ emitted by 10,000 people each year.



111 municipalities in 16 regions of Madagascar

20 in 3 regions of Togo



national parks protection and restoration projects

KEY ACHIEVEMENTS OF 2019

Development of our projects in Togo: already 20 nurseries

More than **10 million trees** planted in **2019** alone Partnership with the Malagasy army for planting of 10,000 hectares (1,000 hectares in ten separate regions)

Launch of partnerships with the Prince Albert II of Monaco Foundation, the TOTAL Foundation and Liege Airport

Three new programmes of protection and restauration of national parks (Ranomafana – Isalo – Analamerana)





Eco-humanitarian Project for Protection and Restoration of African Forest

Contact: grainedevie@outlook.be

www.grainedevie.org



To date, more than 19,200,000 trees have been planted in Madagascar (January 2020). We would like to say: Thank you!

Because of your contribution every year we can continue expanding projects of Graine de Vie and take concrete actions for the planet and our future generations. We provide work to hundreds of people in Africa but our teams in Europe are made up exclusively of volunteers. If you have skills and time to get involved in saving our planet contact us: grainedevie@outlook.be

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