



## THE START

In the beginning of 2016 and after having read a report about the agricultural problems and dangers in our region, (“In 25 years, if nothing is done, agriculture will not be possible anymore in our region” and since 2015 each year there has been famine in the south of Madagascar because of bad harvests) the owners of ITC Eco Lodge in Ranohira, took it upon themselves to start planting trees and created a small tree nursery for that purpose next to their Eco Lodge.



**Photo 03/05/2017 ITC Lodge, Ranohira, “natural forest” tree nursery.**

The same year, a savannah fire spread inside the national park and many trees on which lemurs species feed were damaged, leaving the lemurs with a lack of food. They therefore had to risk travelling across the open savannah during daytime and/or continue their search for food at night. Even ITC Eco Lodge, on the outskirts of Ranohira between the village and the Isalo National Park, received visiting lemurs at night, taking the fruit from the gardens to feed on. While as hotel owners

it is nice to see lemurs coming onto the hotel grounds and running around the gardens, the underlying message is quite clear; The lemurs are starving and have had to take big risks to arrive at the lodge for their survival.

If they had gone elsewhere they would possibly have been captured to be eaten or be sold as pets.

It is therefore that the owners started planting the first natural forest on a piece of land of about 20 hectares in size bordering the river "Menamaty" between Ranohira and the Isalo National Park so in case of a lack of food inside the park, lemurs would find an alternative food source closer by.

After discussing the report and the problems with passing tourists who advised to seek international sponsoring for the project, the association "Soa Zara" was created at the end of 2016.

The name of the association "**Soa Zara**" means "**well shared**" referring to coexistence and the well sharing of available land and resources between humans and animals.

## **FOUNDERS, MEMBERS AND STAFF**

Founders:

TER VEEN – MARA, Delina Soarivo

TER VEEN, Jacob Pieter Hendrik

Other members:

RAVELOSON, Claude Gode (retired regional director for the Ministry of Environment, Ecology and Forestry)

MADALY, Wardat Soazara (Student in France)

MAROLAHY, Faustin (Economic Operator)

All members work as volunteer for the association.

We currently have 12 paid staff (7 men; Nestor, Joseph, Mandimby, Jean-Frederic, Rakoto, Ralay, Alexandre & Nestor and 5 women; Fara, Soa, Faneva, Elisa & Angela) who are responsible for the maintenance of our tree nursery at our Eco Lodge, the potting and watering of the grains and small trees, the preparing of the land, digging of the holes, planting and watering of planted trees and maintenance of the plantation sites.

## **SOA ZARA'S GOALS**

The goal of Soa Zara is to protect the environment and fight erosion, dehydration and desertification of the soil by reforesting our region. As a sidestep Soa Zara is solving social problems resulting from poor environmental management by local authorities

## **THE PROBLEMS**

With charcoal being the main energy source for households in Madagascar, the commune of Ranohira (at the foot of the Isalo National Park) needs around 160.000 trees for its charcoal, fire and construction wood.

Some 50 years ago between the village of Ranohira and the Isalo National Park and all along the National Park there were many and large forests. Now all that's left is savannah with a few scattered trees.

As the people in our region are little educated, they are not conscious of the environmental and climatological impact of their tree cutting and the lack of replacing trees that have been cut. Slowly this leads to deforestation followed by erosion, dehydration and desertification of our region. Though people understand the concept of investing time and money in cultivating crops like rice, corn, peanuts and vegetables, the idea to do the same for the production of charcoal, fire and construction wood is unimaginable.



**Photo 27/11/2017, Menamaty, CdR; Erosion.**

Around 80% of Madagascar's forests have already disappeared and animals living in the forests have either had to flee their habitat, have been killed or in the case of lemurs have often been captured to be sold as pets.

With forests disappearing all over the country, it is even difficult for the government to seize the animals and to replace/reintroduce them into the wild as suitable habitats continue to disappear.

In the south, due to the deforestation, endangered animals like the lemurs often live in fairly small forests surrounded by savannah and depend on their own family members for procreation as they are not in contact with other families in other forests as travelling over the open savannah is too dangerous due to the presence of birds of prey, humans or traffic. With few forests left, only few families of different lemur species are able to survive. This puts the lemur population at risk for inbreeding and becoming vulnerable to diseases.

A disease could wipe out an entire lemur species in a small forest.

Due to the deforestation the region has become very dry as water is no longer being retained by the trees' root systems and the hills. Under the ever-burning sun the clay soil has become "brick" hard and when rain starts to fall the rain washes away the top layer instead of penetrating the soil. This erosion sediment taken away by the rivers poses further problems once they reach the sea; the coral reefs are smothered by a layer of clay.



**Photo 02/02/2017 Menamaty, CdR; Savannah**

Close to Ranohira, The river Menamaty which has it's source inside the park and runs along it, has always been a source of food for the local population (fish and shrimp). However, each year water levels have been dropping and last year the river has fallen completely dry and fish and other animals living in and around the river, such as crocodiles, have all but a few disappeared.

Other rivers in the vicinity still contain water but here too water levels are dropping. It will only take a few years before these rivers are falling dry too.

The river Menamaty is also used to wash Ranohira's laundry. Around 30 kg of washing powder is entering this river every week, which is currently (August 2019) a miserable little stream which you can easily cross or walk along the river bed without getting your feet wet, while 10 years earlier (October 2009) you were still up to your knees in water.

Further down stream this same soapy river water is used to water crops like tomatoes and is even used as drinking water. The little plastic soap bags that are left behind are washed away during the rainseason towards the sea. A real ecological disaster!



**Photo 26/05/2018 Menamaty, CdR; Laundry drying in the sun after washing in the Menamaty river.**



**Photo 26/05/2018 Menamaty, CdR; Women doing their laundry in the Menamaty river, soapy water and plastic soapbags floating away.**

Due to mismanagement by the local authorities (poor maintenance and lack of development) of the source inside the park which supplies water to Ranohira village, each year less tap water is available for the local population. At the moment only 1 out of 2 watertowers in the village is still operational. Tapwater is currently limited to 1 jerrycan of water (20 liters) per household per day. Unfortunately due to large layers of limestone in the soil many man dug wells are not very suitable for drinking, cooking or cleaning purposes.

Local Bara tribes use the savannah to feed their zebu. As the quality of grass is fairly poor they need a large area to feed their cattle. The zebu only eat the green grass shoots that are close to the ground and not the high and dry grass stems. When grazing these dry straws bother the zebu's, making it difficult for them to reach the green shoots. The dry straws poking in the zebus eyes can even make them go blind.

Therefore the Bara burn the savannah each year during the dryseason.

Grains that have fallen to the ground and are starting to grow and develop into trees are burnt and the few remaining trees are damaged by the savannah fires and have difficulty developing.



**Photo 27/11/2017 Menamaty, CdR; Zebu grazing on what is to become “the Menamaty Forest”.**



**Photo 03/07/2013 Ranohira; Savannah fire.**

## **SOLUTIONS**

**“The best moment to plant a tree is 20 years ago, the second best moment is today!”**

Association Soa Zara protects the few remaining natural forests in our region by;

1 Planting production forests next to the villages as an alternative source for charcoal and construction wood, while at the same time planting and repairing natural forests. Depending on the size of the village and its wooduse, a certain number of trees are planted per year for a period of 10 years.

After 5 or 6 years the trees will be adult and start spreading seeds. The production forest will expand the natural way. After 10 years, the trees planted the first year, can be cut. The year after, the second lot may be cut. For the production forests, mainly Acacia and Eucalyptus trees are used as they are fast growing, fire resistant and after having been cut down, grow back up. So 10 years after having been cut, the regrown trees will be available again for cutting as well as the trees that have grown from their seeds.

In between the trees crops, such as cassava, corn and peanuts, can be grown.



**Photo: 16/01/2019 Acacia tree planted in a field of casave near the village of Hazofoty, Ihorombe. The casave will shelter the small tree against the sun and protect against savannah fire. In the future the casave will be sheltered by the Acacia tree and will feed from water retained by the Acacia trees roots and the upgraded soil by falling leafs.**

2 Making the local population environmentally conscious. Apart from hiring and training local staff, Soa Zara works together with the “College Publique” in Ranohira. Students from this school visit our tree nursery each year to pot seeds.

Later they bring the potted trees to the “Children of Ranohira Forest” plantation site where they will plant and water the young trees.





Photo 15/06/2018 Schoolchildren planting on the “Children of Ranohira” plantation site.



Photo 15/06/2018 Group photo.

3 Planting and repairing natural forests with trees endemic to our region. By doing so we provide new habitats for the wildlife and especially the lemurs.

To create these natural forests, we are actively buying land from the local population and we currently own around 60 hectares in total.

The 20 ha area where we started planting in 2016 has grown to 35 ha over the years by buying the surrounding land.

In the near future, part of this area will be changed into a rehabilitation center for lemurs that were kept as pets. Once seized by the government they will find time and a place to readapt to living in the wild before they are replaced in other forests that we are creating along the park. By reintroducing new families in new territories along the park we hope to solve the problem of possible inbreed.

The rootsystems of the trees that we plant will retain the soil and rain water, the tree canopy will shelter the soil from the scorching sun, keep the soil & air humid and falling leaves will add soil and improve its quality.

Due to temperature difference between forest and savannah, the forests that we create will also attract rain and we hope to be able to bring a positive climate change and extend our rain season so more water can be retained by the soil.

As a major bonus the trees in our forests will collect CO2 from the air.



**Photo 1-11-2017, Menamaty, CdR.**

**Photo 5/06/2019, same site; 1,5 year later.**

## **Planting results and planning**

Our results so far per season;

December 2016 - March 2017

April 2017 – March 2018

April 2018 – March 2019

> 2.000 trees planted (all natural forests)

> 10.000 trees planted (all natural forest)

> 60.000 trees planted (35% natural / 65% production)



**Photo 20/05/2018 Menamaty, CdR; Growing a forest**



**Photo 06/06/2019 same site; 1 year later, a forest growing**

Even though in places the soil is very poor we have a more than 80% survival rate due to the frequent watering of the trees that have been planted during the dry season until the rain season. After the rain season the rootsystems are well enough developed to survive the next dry season.



**Photo 27/11/2017, Menamaty, CdR; Poor quality soil.**

We are currently sponsored by several travel agencies to cover the basic expenses such as the purchase of grains, biological fertiliser, watering cans, waterhoses, and the staff salaries.

With the need of 160.000 trees per year (in our commune alone) we are currently only in the damage control fase but to stop and reverse the downward spiral in our own commune we need to get to planting at least 200.000 trees per year and within a few years.

We have already increased the capacity of our tree nursery to 130.000 trees at one time (and 3 times per year) and hope to be able to increase the tree plantation to;

April 2019 – March 2020 (objective) > 120.000 trees planted (35% natural/65% production)

April 2020 – March 2021 (objective) > 200.000 trees planted (60% natural/40% production)

By 2025 we would like to be planting at least 500.000 trees per year (85% natural/15% production) and by 2030 1.000.000 trees per year.



**Photo, 27/10/2018 ITC Lodge, Ranohira, Newly expanded tree nursery. 4 parcels of 5 rows, each row holding 4.000 plants with the old tree nursery having 20 rows each holding 2500. In total space for 130.000 trees at the same time.**

To be able to achieve our planting objectives we will need financing to pay staff salaries, buy land, material, likenspades and watering cans but also a truck for the transportation of the young trees and water to the plantation sites;

In the near future, to change part of the Menamaty forest into a rehabilitation center; we will require fencing (to keep humans out) as well as guards and staff living quarters, a vet office, the construction of a visitors/exposition/education center to explain tourists about the lemur rehabilitation center and to educate the local population on environmental issues.

**Apart from planting trees Soa Zara does a lot more...**

- We are looking into the feasibility to start a community fish nursery near our Eco Lodge to supply fish to the local population and to have young fish available to reintroduce into our part of the Menamaty river, once it re-starts containing water all year around, supplied by the land and hills that we are reforesting.
- To protect the environment from the soap and plastic entering the river, Soa Zara is raising funds for the construction of a washbassin in the village. The washbassin will have its own well, solar powered waterpump, watertower, lighting, public toilets and showers and underground reservoirs (with porous rock/bacteria) for the treatment of the waste before entering the soil.
- In cooperation with the Isalo National Park Office, Soa Zara intends to repair the source and improve the way water is captured and filtered so there will be more clean water available for the local population.
- Through association "le Village" which was also created by the owners of ITC Lodge to improve hygiene & healthcare, the Ranohira hospital was constructed. For practical reasons we combined the 2 associations activities and with Soa Zara we continue to develop the hospital and improve hygiene and healthcare standards in Ranohira and surroundings. Soa Zara is currently working on a project to provide incubators and an ambulance and is at the same time looking for funding for the construction of a garage for this ambulance, a new hospital ward and the paving of the hospital grounds.
- Soa Zara is collecting plastics for re-use and recycling and hopes in the near futur to have a small industry, producing pavement stones from a mixture of recyclable plastics and sand.

In 2018, to facilitate sponsors abroad who wish to donate in Euro, we created our sister association "Tany Maintso" in France to be able to open a bank account in the Eurozone.

FOR DONATIONS IN ARIARY;

BANK : BNI ILAKAKA, MADAGASCAR  
 IBAN : MG46 00005 00045 70283950001 05  
 BIC : CLMDMGMG  
 ACCOUNT HOLDER : ASSOCIATION SOA ZARA

FOR DONATIONS IN EURO (OR OTHER CURRENCIES);

BANK : BANQUE POSTALE, FRANCE  
 IBAN : FR56 2004 1000 0169 7536 5Z02 029  
 BIC : PSSTFRPPPAR  
 ACCOUNT HOLDER : ASSOCIATION TANY MAINTSO

If you wish to sponsor a project in particular, please mention it on your bank transfer as reference.

**Association Soa Zara is registered and works in cooperation with the Ministry of Ecology, Environment and Forestry in Madagascar.**