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Project summary

● Overview

Project developer : ForestCalling Action

Elaborated by : John Galloula

Verified by : John Galloula

Location : Manjarisoa nursery

Date : September-December 2022

● Activities completed

The project started in September with a clean-up of the nursery area, since 50% of it was initially an old swamp. This was directly followed by infrastructure construction, both for storage and cultivating strips.

The second phase began in November with seed delivery and germinator set-up. Seeds were pre-treated and water evacuation canals dug. In order to anticipate future planting in the area, the reforestation plan was finalized and roads were developed accordingly.

In December, local teams started sowing and germination of seeds across the whole nursery. Irrigation channels were constructed to facilitate watering of the seedlings. Seedlings are now being incubated in the nursery and will be ready for planting season starting in April!

The Nursery

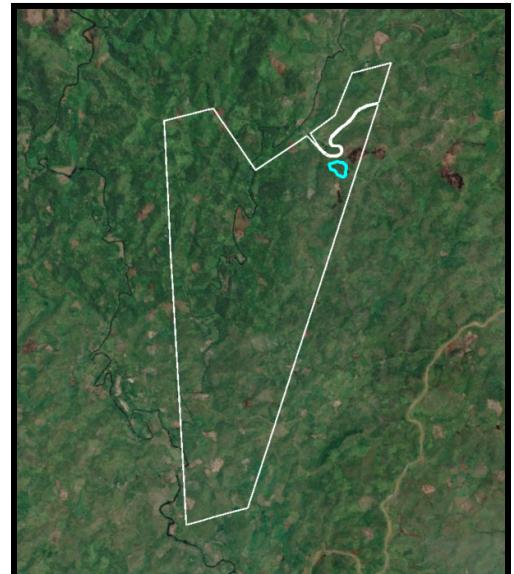
The Manjarisoa project kicked-off last September with the construction of a 1.5 hectare nursery.



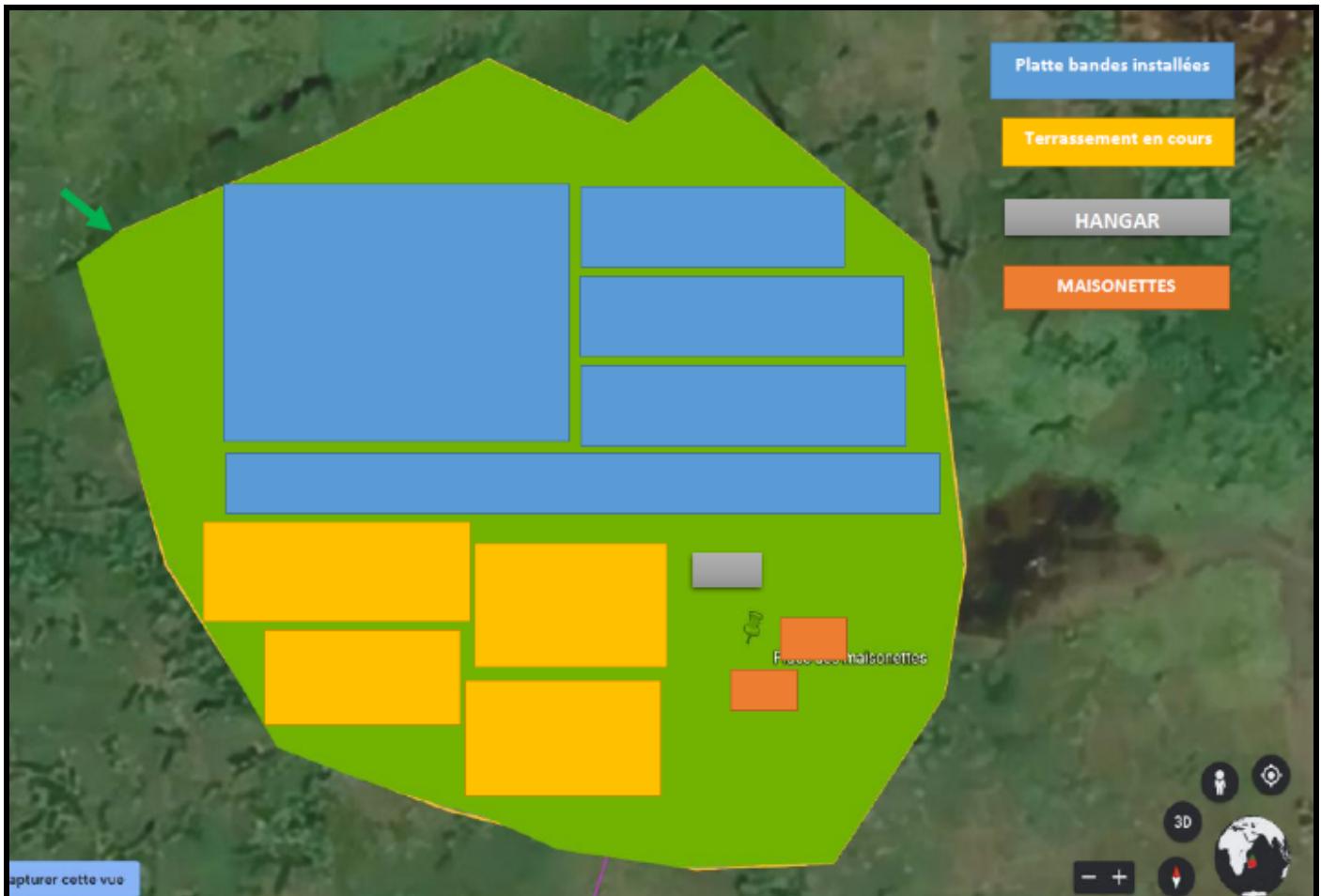
- **Nursery location**

The nursery is located north east of the Manjarisoa forest, represented by the turquoise polygon. The area was chosen strategically because of its accessibility for workers and its large water source. Indeed, the nursery was originally a swamp. It is 1.5 hectare long and has an incubation capacity of 250,000 trees.

The KML file of the nursery can be downloaded from [this link](#).



- Nursery development



Installed strip platte		Warehouse	
Earthwork in progress		Small houses	

- Selected species

ARAMY (<i>Canarium madagascariense</i>)		
Quantity: Provenance: Pre-treatment: Seedlings mode: Substrate: Seedlings density: Semi depth: Planting density:	42.000 Antalaha Soaking in cold 72h On-line sprouter Sand 1cm 2 times the seeds size 400 trees/ha	
MANTALY (<i>Terminalia mantaly</i>)		
Quantity: Provenance: Seedlings mode: Substrate: Seedlings density:	6.000 Antalaha Direct in pot Sand 400 trees/ha	
HARONGANA (<i>Harungana madagascariensis</i>)		
Quantity: Provenance: Seedlings mode: Substrate: Seedlings density: Semi depth: Planting density:	100.000 Antalaha Sprouter of float Sand 1cm 2 times the seeds size 1600 trees/ha	
TAVOLO (<i>Cryptocarya crassifolia</i>)		
Quantity: Provenance: Seedlings mode: Planting density:	17.000 Antalaha Direct in pot 500 trees/ha	

VINTANANONA (*Calophyllum chapelieri*)

Quantity:	23.000	
Provenance:	Antalaha	
Pre-treatment:	Decortication	
Seedlings mode:	On-line sprouter	
Substrate:	Sand	
Seedlings density:	1cm	
Semi depth:	2 times the seeds size	
Planting density:	400 trees/ha	

- **Progress report, month-by-month**

→ **September 2022**

- Clearing of the land
- Earthwork (50% of the surface of the nursery). This is due to the particular location of the nursery, on an old swamp.
- Construction of infrastructure for storage (warehouse)





→ October 2022

- Completion of the earthwork for 240 strips
- Delivery of the construction material

- Installation of the staking for 240 strips. This work consists in staking and stringing to determine the areas of the beds (see picture below).
- Construction of drainage canals
- Laying of boards and bamboo for 20 strips



→ November 2022

- Installation of the 30 germinators
- Preparation of the substrates for the germinators and the potting
- Delivery of the seeds
- Pre-treatment of the seeds. Indeed, some seeds cannot be sown directly and must be treated before they can be sown. Pre-treatment techniques used for each seed are detailed in the table page 5.
- Construction of the water evacuation canals
- Finalization of the reforestation plan on the 300 hectares
- Development of roads for the transport of seeds and their future planting





→ December 2022

- Installation of roofs on the germinators and the strips with sown pots
- Beginning of the sowing of seeds of VINTANANONA, HARONGANA, ARAMY, MANTALY
- Pre-treatment of the seeds of ARAMY
- Germination and growth of the seeds of MANTALY
- Sprouting of the seeds of VINTANANONA in the germinators
- Stuffing of the seeds used for direct seeding in pots
- Construction of irrigation channels



Participation of Local Communities

● The Malagasy team

The focus of this first quarter was to involve community members in the restoration of the forest. ForestCalling therefore hired a total of 40 people from the local community (29 men and 11 women) as part of the nursery works, and set up a team of 6 forest guards (5 men and one woman) to protect the forest from further encroachment.

The ForestCalling local team is therefore now composed of:

- Andriatsoharana RANAIVOSON, Director of Operations
- A team of local scientists
 - Andriambelo Radonirina RAZAFIMAHATRATRA: forest expert
 - Ravo RAHARINAIVO: protected area specialist
 - Andriambelo Radonirina RAZAFIMAHATRATRA: GIS expert
 - Tamby RANAIVOSON: biodiversity expert
- A team of nursery men, composed of Mr. Dera & Mr. Njara
- A team of forest guards, composed of Mr. Gervais, Mr Ratsimba, Mme Thérèse, Mr. Théogène, Mr. André, Mr. Rakoto and Mr. Bienvenu
- A team of temporary workers, composed of 29 men and 11 women working periodically for the construction of the nursery and the incubation of seedlings.



Project testimony

“The Manjarisoa project was initiated to protect the site from exploitation by an Asian industrial group. We positioned ourselves very quickly with the owners in order to make an offer and prevent the site from being destroyed, transformed into massive fish ponds.

From the signing of the first commitments with the owners in January 2021, a race against time but above all an extraordinary adventure began.

- We first collected part of the funds (85,000€) to finance the land from 12,000 individuals.
- After that, we established a biodiversity and ecosystem baseline of the site as well as cartographic studies to establish a restoration plan for the forest.
- Subsequently, we approached the community to understand the social constraints linked to the site and the needs of the local populations.
- We were able to start the project in September 2022 with the construction of the nursery, thanks to the support of Wildsense.

The objective of ForestCalling is to carry out programs to safeguard and regenerate tropical forests, such as Manjarisoa project, and the participation of companies and communities such as Carbonable is essential to carry out our ambitions.”



John GALLOULA

Founder & CEO of ForestCalling