# **Baobab Foundation General Narrative Report March 2023 – February 2024**

#### Mission

The promotion and support of environmental education, conservation of baobab trees and ecological research of baobab trees in Africa. Socio-economic support of communities who live in areas that have baobab trees in Southern Africa.

### **Background**

The Baobab Foundation is a non-profit organization that conducts research into the ecology of baobab trees, supports conservation projects and improves the lives of communities who live among these trees. The Foundation has three programs: 1) Baobab Conservation Program in which we work closely with landowners, traditional leaders and local people with the aim of securing a healthy and thriving baobab population; 2) Baobab Research Program which aims to broaden our understanding of baobabs, inform our conservation actions and support long-term benefits to local people and 3) The Baobab Livelihoods Program which supports pre-schools so that children can get a good start in life and learn about the importance of baobabs and our environment.

### **Program overview**

### 1. Livelihoods Program

Baobab Pre-school Programme is an initiative that identifies under-resourced pre-schools where baobab harvesters live. The foundation helps these pre-schools with infrastructure and equipment such as educational toys, books, drawing materials, swings, climbing frames, chairs, tables, blankets etc and training in Early Childhood Development. We also conduct Environmental Education at schools to teach them about baobabs.

### 2. Conservation Program

Conservation projects focus on planting baobabs for future generations and in creating a culture of caring for these magnificent trees. Currently the Baobab Foundation runs a 3 main conservation projects. The first is the Baobab Guardians project that in which we support the planting of baobabs in rural villages. The second is the Baobab Wilding project in which we are growing and planting baobab trees back into the wild and the third is a project to protect adult baobab trees from elephant damage.

### 3. Research Program

The Foundation funds research projects such as resource monitoring where annual resource and baobab fruit production surveys are recorded. And Ecological research which is focused on baobab growth rates and survival, identification of baobab diseases and pollination biology.

## 1. Livelihoods Program

## 1.1 Preschool Support project

### June 2023 - Tshikuyu Preschool

Principal Mavis Mulaudzi indicated that they were getting more requests for children to join the Tshukuyu preschool and she asked for additional furniture in the form of children chairs and tables, adult chairs, plates and spoons and toys and mats. In addition, there has been some repair work done to the buildings and touch up paint was needed. These were all delivered to the pre-school in early June 2023.



### September - December 2023 - Domboni Preschool

Domboni village does not have a preschool and the Principal Mavis Tshiwela managed save some money to build a small brick room. The room was just a shell without a roof or a floor. The Baobab Foundation supported the complete the room so that the children can use it when it was raining and that some of the school equipment can be stored in the room.

Further funds are being requested from donors to build a three room school with kitchen and toilets.





Domboni Preschool – September 2023

Domboni Preschool - November 2023

### November 2023 - January 2024

The children in Mukomawabane village have not been going to preschool for the past few years and thus the kids have losing out on the opportunity of formal early childhood education. This is because the parents in the village, many of them unemployed and without more than primary school education themselves, did not see the value for children to go to a preschool and that staying at home would be better and save money.

Frustrated by this an active member of the community, Thuso Mukoma, approached the Foundation for help. With links an excellent Ridgeway ECD center in Louis Trichardt the Foundation sponsored a week internship for the Principal, Ntombi Mutele and Thuso Mukoma. Going back to their village, brimming with new ideas and enthusiasm, the two of them met with many of the parents in the village to explain the benefits of ECD for their children and grandchildren.

In February 2024 the preschool reopened with 20 beautiful and enthusiastic children enrolled.





### February 2024

Once a year we reach out to some Preschools in areas where baobabs grow and ask them what they need. This year we supported the Mutale B Preschool with sourcing the exact colour paint required for their classroom renovations.

Baobab Foundation supported Mukovhawabale Preschool and the Mbodi tsha Fhasi Preschool with much needed cement for the building of their new classrooms.





### 1.2 Environmental Education project

### November 2023

A visit to the Primary School in Segonde village was done. Sarah gave a talk on the importance of baobab trees in the environment and gave all the Gr 7 learners baobab booklets.



## February 2024

This week Phabalelo Phori an MSc student studding baobabs at the University of Venda accompanied my annual visit Primary Schools in the Niyani area of Venda. Pabalelo gave the Grade 6 and 7 learners (aged 11 -13) a lively interactive talk on the ecology of baobabs and their commercial uses. In addition, each child was given their own book to read and to take home.

It's wonderful to see how excited the learners were with being given a book especially as it is on something so relevant to their lives. As Tshifiwa Mutele says (aged 13) "I live under a baobab and don't know much about it, but now I do"!





## 2. Conservation Program

## 2.1 Baobab Guardians

### **March 2023**

The Baobab Guardians were visited for the end of summer measurement in Dambale village where the remaining trees are. They had all grown exceptionally well.



### **November 2023**

A follow up visit to see the Baobab Guardian trees in Dambale Village. All 9 baobabs were measured.

### 2.2 Baobab and Elephants

### October 2023

Four days were spent working with the SANParks ecologist Steven Khosa and the park officials and a team from Working on Fire to mesh baobabs and other trees in Mapungubwe National Park. Different techniques were tried to prevent poachers stealing the mesh. Later in October Sarah worked with the owners of Sentinel Ranch in Zimbabwe to identify and mesh baobabs and other tree species which needed protection from elephants.

### February 2024

Working with Mapungubwe National Park another 20 baobabs were selected and meshed.





## 2.3 Baobab Wilding May 2023

### **Tswebe Wildlife Reserve**

The managers Isabel and Lloyd Gillespy of a property in the Tuli Block, Tswebe Wildlife Reserve were allocated 10 baobab trees from the Baobab Foundation nursery. The managers have planted the trees and protected then with wire mesh fences. They will give bi-annual reports on how the tree are doing.

### June 2023

## New home for nursery

The Baobab Foundation nursery trees were moved from the EcoProducts premises to Wallace Dale farm. Wallace Dale farm will look after the trees and charge the Baobab Foundation for their service.

### January 2024

92 trees that were in the community nurseries were planted into the ground in the back yards of 7 of the growers. All trees were tagged, and their planting height and basal diameter recorded to see how they would progress.

### February 2024

Another milestone was met when we planted our third batch of trees into the wild in February 2024. Nthakeni was selected to plant out 50 baobabs. The area is fenced to keep domestic animals out, but also does not have any wildlife. Thus, it was found to be an ideal area to plant trees that were under 2 meters in height without worrying about their survival. The only threat to these trees are the baboons in the area which like to pull young baobab trees out of the ground and eat their roots. To prevent this the trees were protected with stones which will hopefully stop the baboons. The trees were planted along the Drongo Trail and Baobab Trail. Each tree was photographed, measured, and marked on a GPS for future monitoring.



Annah watering her seedlings in her home garden (April 2022). (April 2022)





Evah and her new baobab plantation (Feb 2024)



Ernest his new baobab plantation (Jan 2024)





Selecting trees in Baobab Foundation Nursery (Feb 2024).





Planting and measuring wild planted baobabs at Nthakeni (Feb 2024)

## 2.4 Other Conservation Initiatives August 2023 Leydsdorp Tree

In August 2023 Sarah hired a team of tree climbers to help remove a fig tree that had started growing in the high branches of the Leydsdorp tree near Gravellot. The Leydsdorp tree is a historic tree and one that many tourists visit.





## September 2023 Baobabs to the karoo

Paul Klix who owns a farm on the Dooring River in the Karoo planted 8 baobabs about 8 years ago. The baobabs are doing well and he would like to get more baobabs to add to the farm. Sarah did an inspection of the baobabs to record their progress and to give the owner advice on how to look after them.

## October 2023 Green Defenders

The baobab foundation helped the Green Defenders, a local environmental group in Mukomawabale Village with implements such as spades and wheelbarrow so that they can do erosion control around the baobabs in the village.

## 3. Research Program

#### Students

**Pabalelo Phori,** an MSc student from the University of Venda, is being supervised by Sarah. Her project is to assess pollination of day-flying insects (4 - 6 am) of baobab flowers. Sarah and Pabalelo visited the study site in June. She will be finalizing her project in July and then her field work will begin in November during the flowering season. Pabalelo will submit her thesis at the end of 2024.

**Liam Taylor**, an MSc student from the University of the Witwatersrand, is also being supervised by Sarah. His project is to assess the importance of baobabs in Mapungubwe National Park for birds. His field work started in June with another visit in October and a final visit to the park in April 2024. After that he will write up his thesis.

### March 2023

March was a busy month for baobab research. With the visit from Fumihiko Aoyagi, a representative from Milbon company, one of the Baobab Foundation Sponsors, his visits was focused on doing baobab research field work.

- Annual fruit counts were conducted on the 40 selected baobabs, but in addition
  additional fruit counts and measurements were done on other baobabs that were
  measured over 15 years ago.
- Skelmwater baobab measurements were done, these were done a bit early as they usually get done in May. These trees have all put on some growth, but this is probably due to the late and good rainfall received.
- Musina Nature Reserve was also visited with Fhatuwani Munyai do to an intern 5
  year assessment of the baobab trees on the reserve. It was found that a number of
  the small trees have died in the last 5 years on the transects, probably due browsing
  pressure from the animals on the reserve.
- Large baobab tree and champion baobab tree assessment was done as part of a project for Milbon to assess if climate change was affecting the health of large baobabs.





## **April 2023**

Sarah went to Kenya on a field trip with Dr Dawn Cori-Tousaint and Dr Lourens Swanepoel from the University of Venda and met up with Dr Rose Kigathi from Pwani University to conduct collaborative research on bat pollination of baobab flowers in Kenya. This is part of a greater Pan-African research initiative.



### **June – July 2023**

A field trip to Ghana to collect data on baobab pollination of bats. Dr Dawn Cori-Tousaint is an expert in bats and was involved in catching bats for identification. Danie Boyens also came to help with the bat catching. We worked closely with our local collaborator Julius Awaregya from Orgiis.



### September 2023

Sarah was invited to spend time in the Genetics Lab at the University of the Witwatersrand in order to help extract DNA from baobab leaves. The DNA analysis is important for the understanding of pollination of baobabs.

### October 2023

Dr Stephan Woodborne and Sarah conducted a field trip to collect data on hollowing baobabs. Samples were collected from a number of baobab trees in Venda and the Shumuwini baobab in the Kruger National Park which had recently fallen over from elephant damage.

### **November 2023**

Two weeks was spent in the Venda area with Univen student Pabalelo Phori collecting data on bees and the possibility of pollination by these day-flying insects. We were joined for a few days by visiting scientists Prof. Laurence Harder and Prof. Steve Johnson who shared their experience with us. Mr Fumihiko Aoyagi also joined us for the full length of the field work.



### December 2023

A research trip was conducted to assess the health of large baobabs in Botswana and Namibia. The trip was to find out which baobabs had died and which were still alive and if there was any worry about the health of the surviving trees.



## January 2024

Conducted follow up visit with Pabalelo Phori on the trees that we pollinated in November 2023 and collected data on our results. Also meshed a few fruit for seed count later in the year.