**Project Update: January 2024**

Economically Beneficial Reforestation

Since September 2023, the El Niño weather phenomenon as begun in Paraguay and Itapúa department has received both extremely high rainfall and very high temperatures. This has been fantastic for both the survival and the growth rate of the saplings. At the start of November 2023, the sapling survival rate was measured across the plot.

| Plot owner | Percentage of Yerba saplings surviving | Percentage of native saplings surviving |
|---|---|---|
| Néstor Fernández | 80% | 90% |
| Cándido Cáceres | 90% | 80% |
| Wenceslao Cáceres | 90% | 80% |
| Roberto Brizuela | 90% | 80% |
| Pablo Quintana | 70% | 70% |
| Cristian Villalba | 80% | 60% |
| Antonio López | 40% | 70% |
| Rosalino Cáceres | 60% | 80% |
| César Brizuela | 80% | 60% |
| Eligio Giménez | 80% | 80% |
| Dionisio Brizuela | 80% | 80% |
| Tito Martínez | 80% | 80% |
| Alcides Aquino | 80% | 70% |
| Carlos Duarte | 70% | 80% |
| Sixto Quintana | 60% | 80% |
| Daniel Ocampo | 80% | NA |
| School | 60% | 60% |

Across the plots the average survival for yerba mate saplings is 74.71% and for the other native tree species 70.59%. As we were hoping for a survival rate of around 66%, this has been far higher than expected. The two plots that have experienced a lower survival rate suffered from an out of control fire that destroyed parts of their plots.

In terms of growth, the saplings have more than doubled in size with many of those that were planted at an average of around 10-15cm are now between 50-60cm high. The owners of some plots are hoping that if this faster than expected growth rate continues, they will be able to harvest their first yerba mate crop by November 2024 rather than 2025.

Drone photo of reforestation plots around the school.

Yerba mate sapling that has more than doubled in size in the six months since planting.

A native tree sapling (*Loro negro*) that is over 80cm tall six months after being planted (at 20cm tall).

Roberto Cáceres with his shade grown yerba mate plot.

Ecotourism Training
Three community members have now been trained to give tours of the reforestation
plots and they have designed a "tour circuit" through the community to visit various
plots and parts of the community and culture that they have decided they would

like to share with tourist. This includes visiting the school, learning about the different types of maize grown in the community, a lesson on the history of the yerba mate drink tereré and how to drink this refreshing tea socially and an opportunity to buy traditional crafts made by the women of the community.

The income increase seen by participants is still 25-50% per month, depending on the number of visitors to the reforestation plots and the addition of the traditional craft sales is increasing the income for the women of the community as well, in particular the single mothers who are taking part.



Women with traditional crafts for sale to Para La Tierra and Fauna Paraguay tourists.

Sergio teaching tourists and students about tereré culture after a tour of the reforestation plots.

Roberto leading a tour through the plots.

Martín showing his plot during a tour.

Environmental Education and Teacher Training.
As the Paraguayan school year ends in November and the holidays continue until February there is no update regarding the school visits. However, we are currently working with the directors of the Mberu Pirapo'i school to create a pilot programme

to incorporate our Voces de la Naturaleza curriculum into the daily teaching.

Plan for the final quarter of the project
During the first quarter of 2024 we will continue to camera trap in Nueva Gambach and will resume visits to schools (weather and road conditions allowing) from February when the schools return from their summer holidays. Starting in April 2024 we will use the remaining funds from The Rufford Foundation grant to purchase another 4000 tree saplings to replace any losses from the 1st year's planting. In addition, we have raised enough money through our end of year fundraiser to expand the planting by another 6 ha. As a result, by the end of the Rufford-funded period of the project we aim to have 11 ha planted and at least 24 families participating.

We will begin analysis of the camera trap data and aim to submit the results of publication in a peer-reviewed journal by the end of March 2024.