

The Invisible Forest

"Others have sowed for me, I sow for others to come"



Winter 2019

Los Silencios Reserve. Forestry project. 2019 / 2024

Friendly Nature for those yet to come

The Los Silencios Reserve covers an area of 500 hectares, a land-regeneration mission which began in 2002 to restore the "original parkland" in the hilly areas of Santiago del Estero.

The project aims to reestablish and protect all the ecosystem services in the area.

We know that native forests are disappearing as a result of the application of agricultural management practices. The few forests left have been severely degraded and need to be managed properly for their recovery to prosper. Our intention is to present a viable alternative to land use.

There are four types of natural or spontaneous forest formations in Argentina : Forest, Jungle, Shrubland and Parkland. Parkland is used to refer to a biological system composed of a forest mass of native trees covering 70-80% of the surface in diverse groups of related species, with 20-30% of the surface being clearings and/or open areas of grass pastures. This is the formation which originally spread across what is today the Los Silencios Reserve. In order to reestablish this, we are implementing what we call a "System of Forest Plots".

This "system" involves identifying healthy and suitable tree specimens (which we will call "Alpha Trees") within the vast variety of native species growing in the Reserve: Black and white Algarrobos (carob) trees, red and white Quebrachos, Mistol, Tala, Tintitaco, Chañar, Higuerón and Sombra de Toro, are just some of them. Each "Forest Plot" will aim to protect these specimens while younger trees grow up around them, including seedlings of the same species. As these plots are multiplied throughout the Reserve area, the "Native Park" as it stood originally will be reborn.



Current situation and managing a forest to be.

Cattle grazing as a productive alternative for livestock farmers ceased over a decade ago as a prior step to achieve the regeneration of the Park within the Reserve. This long period of rest allowed for a transition from an overgrazing situation to one of complex plant-shrub growth, commonly called: "fachinal", or "thorn-bush" land. Towards the end of 2018 a new phase of intervention was launched to drive the transition process so that the land would recover its Native Park status.

This second phase of intervention, which we call "management", is comprised of two priority activities.

The first involves creating "liberation and sanitation clearcutting" by demarcating the "Forest Plots" selected in order to liberate and clean up the present forest mass so it can prosper. These actions are aimed at recovering, restoring, conserving and protecting all of the existing trees on an individual basis. Afterwards new specimens will be planted to recompose the original forest formation.

The "Forest Plot System" will be carried out with low, medium and highly skilled labor, according to the stage of the process. This involves manual sanitation work in the thorn-bush area, identifying and caring for existing renewals in the plots and planting new specimens, collected either from own nurseries or from others in the area.

Each plot, which can be anything between one to three hectares in size, is delimited by "thorn-bush" fences made from the remains of the process to clean up the thorn-bush areas. These "Forest Plots" will help to prevent the advance of the thorn-bush areas and give the tree species selected room to grow.



Plot with thorn bush fence.

Secondly, as the Park is being re-established, livestock will be introduced to control the "thorn bushes" by allowing the animals to feed off the herbaceous mass.

Grazing will be planned within each plot, with a view to breaking up and incorporating any senescent plant material into the soil, thus fostering a dynamic of sustainable regeneration.

All of these must be very controlled complementary actions since, in the clearly forested plots which are irrigated and closed off using diamond netting and/or "thornbush" fences, no animals should be allowed to enter freely for a period of 4 to 5 years.

During this second stage, we will implement the methodology known as "Management of Native Forests with Integrated Livestock. This involves a planned grazing system using the "Holistic Grazing Management" method developed by the Savory Institute.

The "holistic" grazing methodology is very different from traditional systems of continuous livestock. It is based on a respect for the recovery times of plants, and using the livestock as a tool, through the mouths, hooves, urine and manure of the animals to fertilize and add organic matter to the soil, improving the ecosystem's processes.

In addition to leasing pastures to local cattle producers, we are currently developing this process by reintroducing American camelids: 50 mothers and 4 male llamas whose calving cycle has been very effective. This success proves that the reinsertion of llamas is not only possible but desirable, since it is a native animal mentioned in ancient historical chronicles, formerly domesticated by the original peoples of the area, Sanavirones and Tonocotés.



Lamas in their boma.

Water supply

It is important to note that the Reserve has sufficient water flow, thanks to a couple of wells that were successfully drilled to guarantee irrigation for the seedlings planted in the first few years, which will also provide the animals being raised in it with adequate water.

Besides the successful rain-water harvesting system developed through the damming of the seasonal spring , a new irrigation network is being built .

This new project, initiated in November 2018, will support these recovery actions as part of a Program called *Agro-Ecological Education - Irrigation System School Farming in the Monte 2019 Project*, funded by the Tuyú Foundation and managed by Fundación Naturaleza para el Futuro (FUNAFU).

The Irrigation Program is being carried out in complementary fashion to our proposal so that the offshoots identified or selected can receive all the nourishment and support they need.



July 2019, dry season.

Where are we heading.

The plot reforestation system aims to cover 20% of the surface of the reserve over the next five years, through the delimitation, sanitation and holistic management of approximately 20 to 30 "Forest Plots", at a rate of 4 to 6 new plots per year.

The plan is to cover the total area of the reserve over a period of 20 years.

The invisible forest will then become tangible .

NOTES



It is important to highlight that the Los Silencios Reserve is also active in the area of education. One of its objectives is to present the locals with these and other diverse rural productive alternatives that, if managed efficiently, will help those entrepreneurs who wish it, to stay in the place and develop, respecting their environment and its culture.



The project is being managed by Hugo Turbay, an Engineer and Forestry Agronomist with the advice of Mr. Guillermo Vila Melo, who is an American camelids specialist and an expert certified by the Savory Institute.

I can say that I am a quiet, observant person. I have much fun sharing moments with my friends. The province where I was born and which I love, Tucuman, gives me the possibility to practice the two sports that I like most, mountain biking and rugby.

At my 38 years, I still feel in great shape, with much more caution in decision-making and many projects to be done.

This sensation of leaving youth behind and entering a more adult phase has a direct influence on my professional activity, which I live very intensely and joyfully.

I think that in today's world there is an excess of options that confuse us a little.

I believe strongly in the family as the basis for a more friendly society in all aspects.

Trees are the more ancient living beings on Earth, and maybe for a mystical reason, I have chosen to devote to the care of them.

Hugo Turbay.

