

COURSE REPORT

SUSTAINABLE PRODUCTION IN AGRICULTURAL LANDSCAPES OF THE CANTAREIRA SYSTEM

**ELTI-IPÊ Focal Training Site:
Cantareira System, São Paulo & Minas Gerais, Brazil
March 20, 27 and April 03 – 2019**

A field course organized by:

The Environmental Leadership and Training Initiative (ELTI), the Faculty for Environmental Conservation and Sustainability of the Institute of Ecological Research (ESCAS-IPÊ) and the *Semeando Água* Project.



Photo: Tiago Baccarin

Participants of the “Sustainable Production in Agricultural Landscapes of the Cantareira Systems”



Background

The Cantareira system is one of the largest water supply systems on the planet. It provides water to nearly nine million people in São Paulo state, covers 230,000 hectares and captures 44,200 liters of water per second. As part of the Atlantic Forest, the Cantareira system houses several endangered species and is a biodiversity corridor and a priority area for conservation actions. Despite its important role in water production and biodiversity conservation, the land use in the region is often inadequate. Only about 43% of the region consists of native forest. The other land uses comprises 41% of non-forest (especially very degraded pasture), 13% of reforestation (especially eucalyptus) and 3% of dams and ponds. In addition, about 49% of the zones demarcated as areas of permanent protection (APP) present anthropic occupations. Undeniably, water supply, biodiversity and livelihoods are at risk around this landscape dominated by highly degraded pastures and small fragments of native forests.

To help in restoring these degradation processes, ELTI has partnered with IPÊ *Semeando Água* (“Sowing Water”) project , sponsored by “Petrobras Socioambiental” Program, to promote capacity building in eight municipalities over Cantareira Supply System. The goal is to influence rural producers to adopt sustainable land-use practices and to restore the forests that has been suppressed.



Photo: Tiago Baccarin

Hands-on activity for implementation of the agroforestry plot.



Objectives

In partnership with the *Semeando Água* project, ELTI created a field course to give farmers specialized training on sustainable production and forest restoration, focusing on the potential to increase productivity while using natural resources in a sustainable manner.

The goal was to give the participants (mostly small farmers and extensionists) the opportunity to learn about and practice some principles of ecological restoration. Participants also had the chance to construct implementable projects with the support of experts.



Photo: Tiago Baccarin

Hands-on activity for the implementation of a agroforestry plot.

Course content: The central topics were agroforestry, ecological pasture management, silvopastoral systems, Brazilian forest legislation and forest restoration.

Module 1: Agroforestry

Module 2: Pasture management

Module 3: Forest restoration and exercise

Field-course format: The course took place in Camanducaia, Itapeva and Extrema, at Minas Gerais, where experts presented sustainable production practices to farmers and extensionists and helped them to elaborate a plan to start these practices on their own properties.

Day 1 Camanducaia, Minas Gerais

The day started early in the morning with a breakfast and a brief introduction of participants and trainers facilitated by Dr. Miriam Perilli (Neotropics Training Program Brazil Coordinator) and Andrea Pupo (Semeando Água - Trainings Coordinator). Soon after, the participants went to a hands on activity of establishing an agroforestry plot with the supervision of Karin Hanzi, from *Epicentro Dalva*. Karin started explaining ecological

succession and the different strata composition in a playful way, where participants played roles as trees, fruits and vegetables. Then, participants sow the plot, that comprised several species, including native trees, banana, orange, beans, sweet-potato etc. This plot was



implemented at “Fazenda Boa Vista,” from Olinda, a very active and interested lady that owns a dairy farm.

After lunch, Miriam gave a presentation about ELTI. Following, Karin gave a lecture about syntropic farming and Dr. Alexandre Uezu (*Semeando Água* coordinator and senior IPÊ researcher) made an overview of the Cantareira System and gave a contextualization of the region history, environmental questions and challenges.

Day 2 Itapeva, Minas Gerais

The second day started with an presentation of the day's agenda. Afterwards, Dr. Fabricio Castelinni (Zootechnist, member of the *Semeando Água* project team) gave lectures on ecological management of pastures and silvipastoral systems. Then, Dr. Tiago Pavan Beltrame (Forest Engineer, IPÊ researcher) presented a case study on native forestry.

After lunch, participants went to visit a property with pasture management and had the opportunity to ask the farmers, Mr. Julio, about his impressions and results.



Participants visiting a property with pasture management.



Day 3 Extrema, Minas Gerais

The third day was held at the Project “Conservador das Águas”. This Project was conceived in 2005, through a Municipal Law, with the objective of maintaining the quality of Extrema water sources and promoting the environmental adequacy of rural properties.

The day started with an presentation of the day's agenda followed by a lecture on forest restoration by Dr. Tiago Pavan. afterwards, Dr. Maria Jose Zakia (Forest Science and Research Institute – IPEF) gave a lecture on Brazilian Forest Code.



Photo: Miriam Perilli

Dr. Tiago Pavan lecture on forest restoration.

After lunch, participants worked on their projects with the help of trainers. In this hands-on exercise, the sketches of their properties should incorporated the knowledge they received during the course.

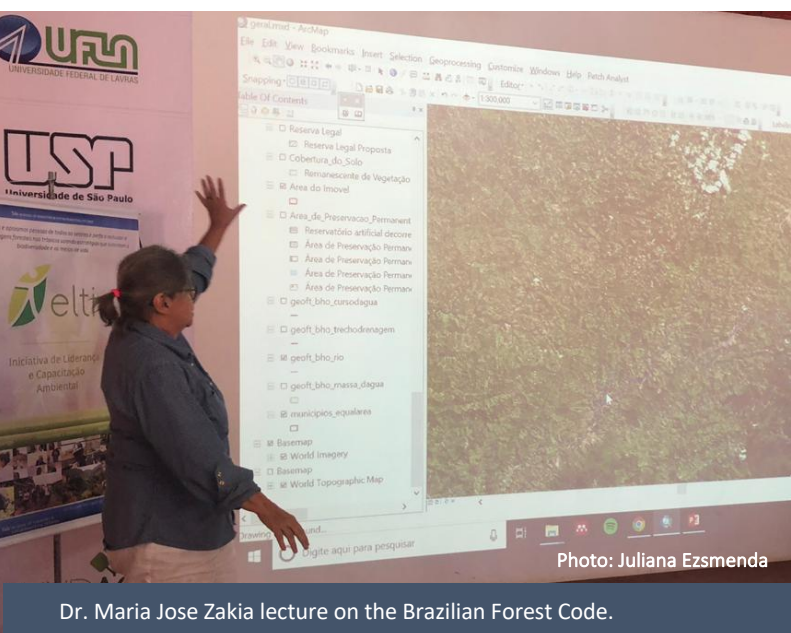


Photo: Juliana Ezmenda

Dr. Maria Jose Zakia lecture on the Brazilian Forest Code.



Photo: Miriam Perilli

Participants working in their projects with the help of the trainers.



The training then ended with a course evaluation, a talk with closing remarks by both trainers and participants and the delivery of the certificates.

Participants

This field course was announced in ELTI's website and advertised mainly in agricultural stores and social medias. Indeed, WhatsApp was our main channel of communication. We gave preference to the farmers and extensionists of the Cantareira system, especially the ones closer to the municipalities.

A total of 20 participants attended the training, mostly small farmers seeking for a diversification of their activities, improvements in their production and solutions for their water and soil issues.

Outcomes and Follow-up:

By the end of the course two participants showed interest in the Leadership Program. A WhatsApp group was established so that participants could easily continue communicating with ELTI's team and with each other.