



The Future of Coffee

How Does Climate Change Affect Coffee Cultivation?

Mexico & Central America 8.5 million livelihoods reliant on coffee

17% of Nicaragua's national exports

Since 1960s: temperature has risen 1.0°C and rainfall has declined 15%

2050: substantial losses in growing area

2012/13 Coffee Leaf Rust outbreak caused:

- Drop in production of 2.7 million bags
- Crop damage equivalent to US\$500 million
- 350,000+ jobs affected

(h) 17 🕁 🖎 (h) 62 🔗 Colombia Wetter, warmer weather is seeing coffee leaf rust climb higher in the landscape

Predicted rise of 2.5°C by 2050: 60% of agricultural land damaged

> Brazil 1960–2011, Minas Gerais: hot spells and cold snaps 2014: drought destroys ¹/₃ crop 2050: substantial losses predicted



Tanzania

2.4 million livelihoods reliant on coffee

Climate becoming warmer & wetter

Since 1960s: yields have declined by 50%

Since 2001: Coffee berry borer spread above 300m

2060s: yields reach critically low levels

Ethiopa 33% of total national exports

Temperature has risen by 1.3°C

Predicted rise of 3.1°C by 2060 and 5.0°C by 2090

Major shifts in coffee growing expected

30



⊘%₽

more extreme

Vietnam

and drier

Climate now warmer

Seasons becoming

Source: The Climate Institute

Coffee is one of the most vulnerable crops to Climate

Change



Monoculture systems that consumes natural resources

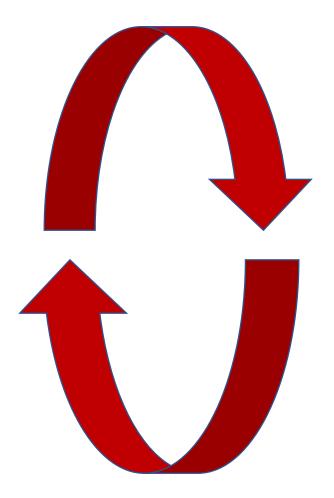


This system is **vulnerable** to climate change consequences and **contributes** to global warming



Vicious Cycle

At the same time that traditional coffee cultivation is devastated by the climate change, it intensifies this phenomenon.





The Regenerative Revolution



It's a System that Produces in Partnership with Nature



Resilience Against Climate Change Consequences and Carbon Sequestration



Fazenda Pedra Preta

Fazenda Pedra Preta

- Flora begins at Fazenda Pedra Preta;
- Our regenerative revolution started in 2019;
- Our goal is to transform Pedra Preta in a Regenerative Model Farm for coffee cultivation





Serra da Mantiqueira Minas Gerais Total Area: 271 hectares Coffee Area: 100 hectares



PEDRA PRETA 271 ha

10



Theory into Practice: 1. Landscape Recovery



Careaçu

PEDRA PRETA

MINAS GERAIS -BRAZIL

LANDSCAPE RECOVERY

Non Agricultural Areas (23,2ha)

Eco pathways (4,6ha)

Eco pathways / Riparian Forestry(17,2ha)

Native Forestry (60,2ha) 阶



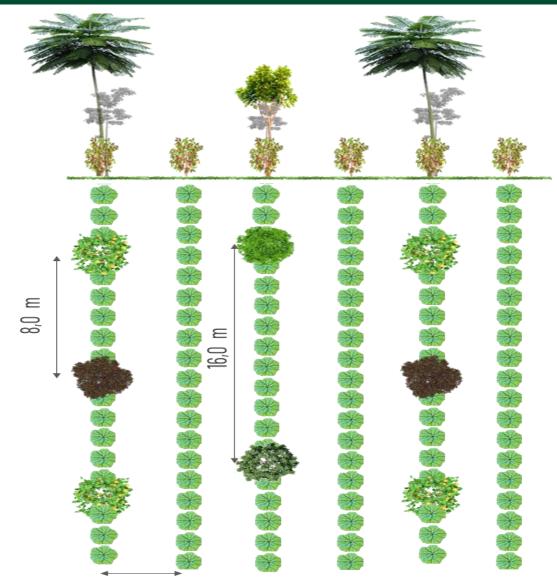




Theory into Practice: 2. Agroforestry Designs



Mantiqueira Agroforestry System





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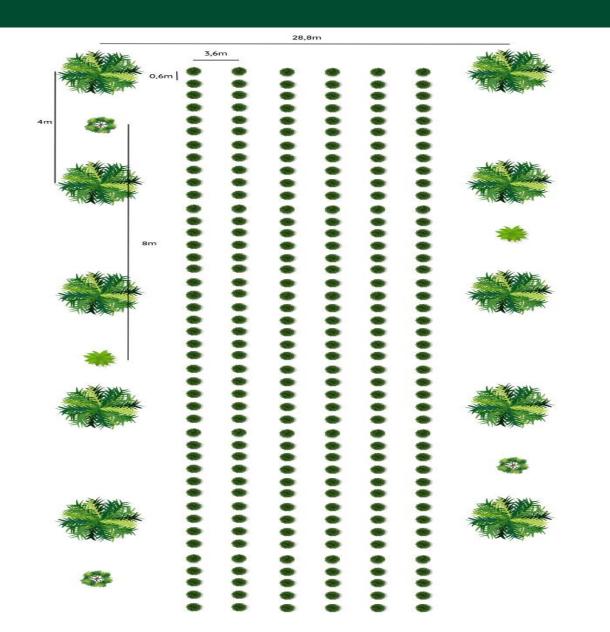
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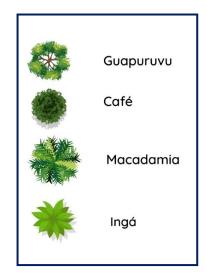
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Macadamia Agroforestry System





16

TRΥ

RES





Alley Agroforestry System





48,6 m

18

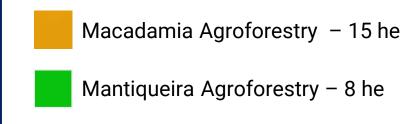
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Alley Agroforestry System





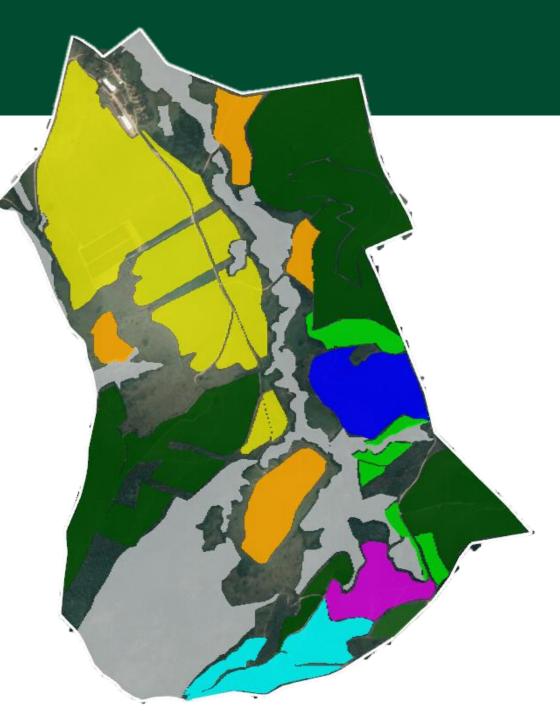
Fazenda Pedra Preta - 2023



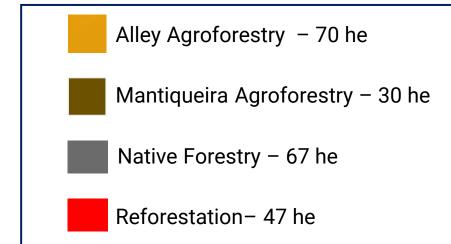
Alley Agroforestry - 10 he

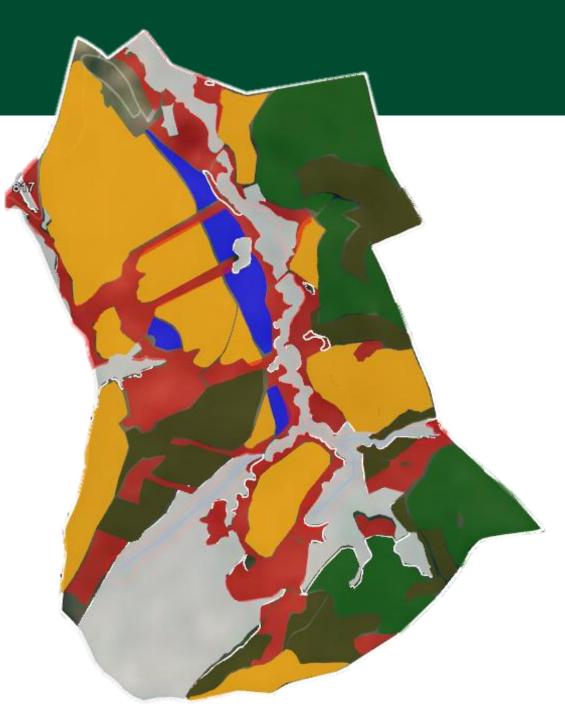
Alley Agroforestry 2024 - 11 he

Native Forestry – 67 he







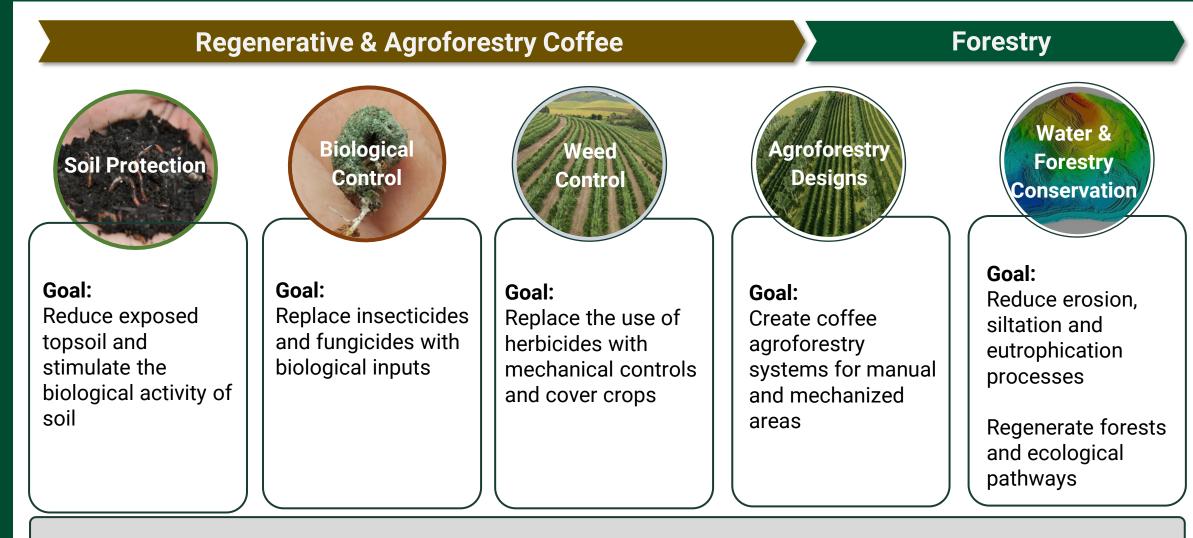




Theory into Practice: 3. Regenerative Practices



Flora Way: R&D Program



FLORA WAY











	SOIL	BIODIVERSITY	WATER	SOCIAL & INSPIRATIONAL
	Carbon Footprint	Permeability of the agricultural landscape to fauna	Retantion of water in the soil	Life & Work conditions at the Farm
KPIS	Soil Coverage	Use of ecological corridors by fauna	Infiltration in watersheds	Ability to inspire other farms and businesses
	Soil Biological Activity			

Each indicator has a scientific methodology for its measurement





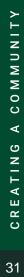
Theory into Practice: 4. Creating a Community



















1. TO FINANCE A SUSTAINABLE PROJECT AT FAZENDA PEDRA PRETA

2. TO SPONSOR THE FLORA'S ANNUAL IMPACT REPORT

FLORA MOVEMENT PARTNERS:

1. WILL HAVE FULL ACCESS OF ALL THE DATA AND SPECIAL CONTENT

2. REGULAR UPDATES OF THE SUSTAINABLE PROJECT

3. WILL DISPLAY AT THE ANNUAL IMPACT REPORT



