

COCOA FARMING IN BRAZIL: Differences, Challenges and Solutions

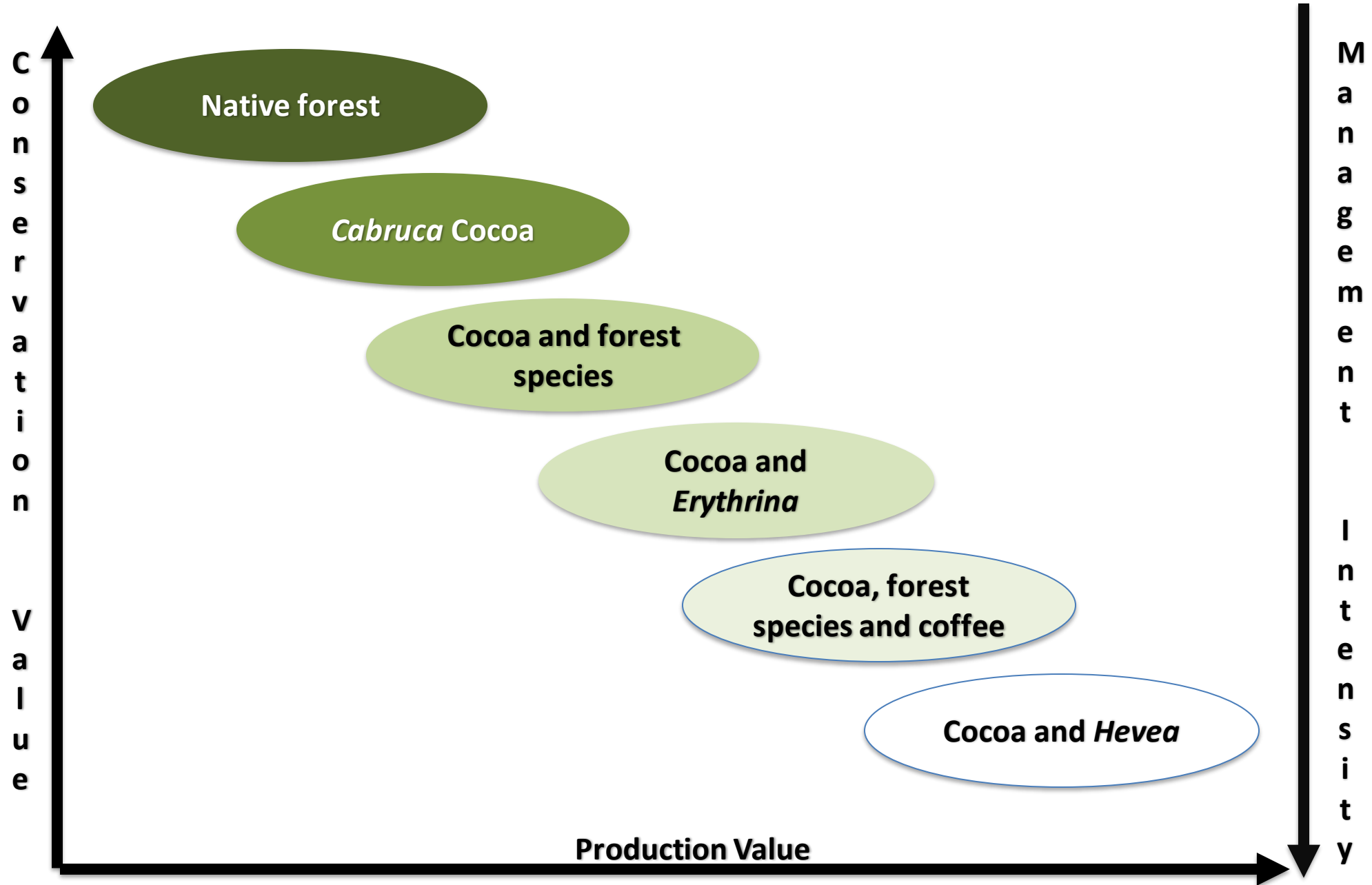
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CPLAC/SDI/MAPA



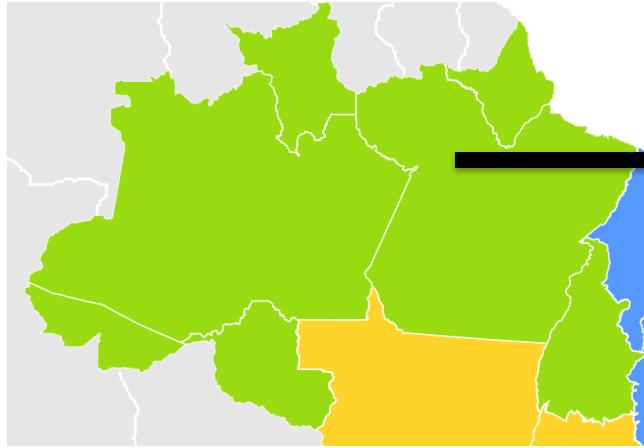
ABIDJAN
NOVEMBER 23, 2022



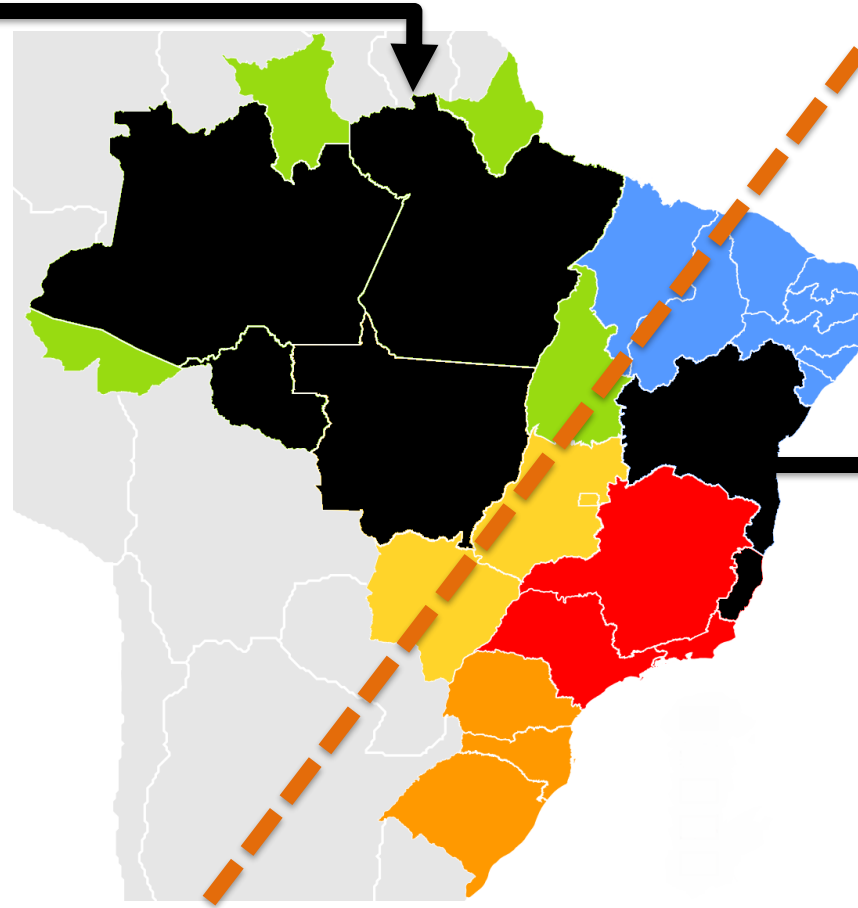
Cocoa Agroforestry Mosaic at Landscape Scale



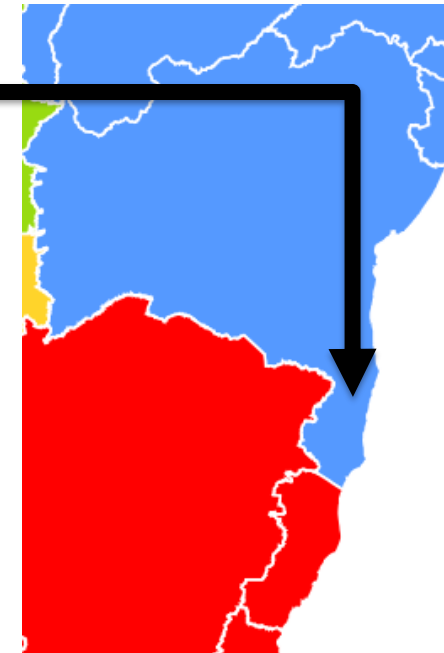
Cocoa-Producing States in Brazil



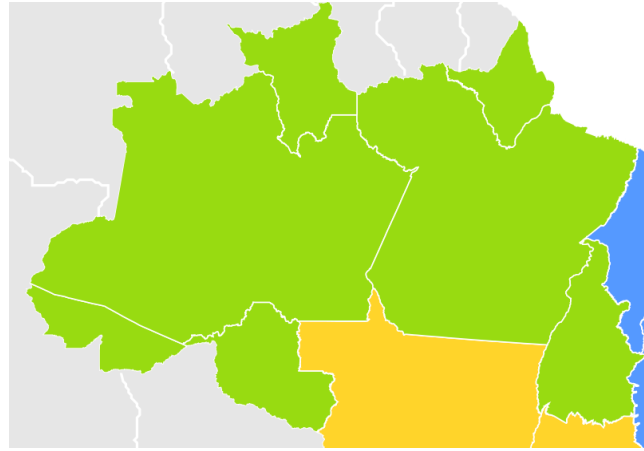
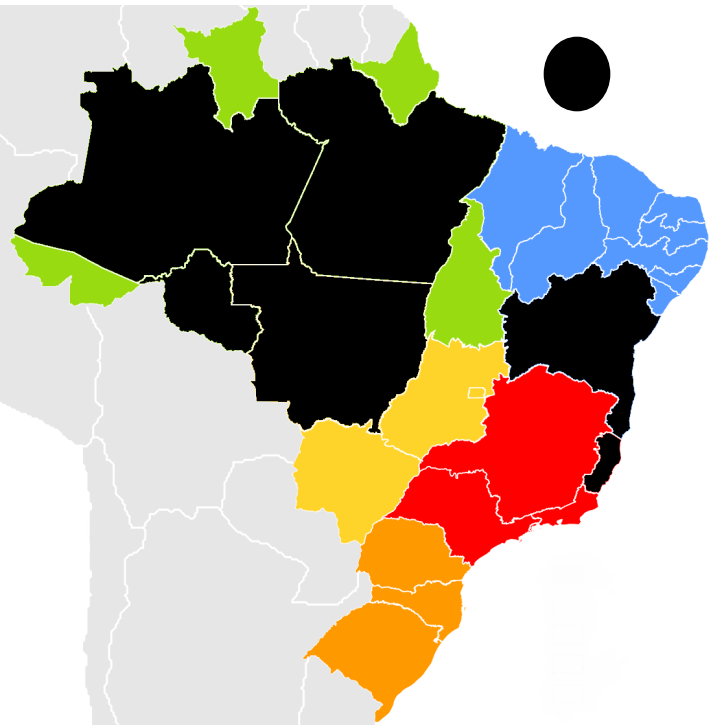
**Amazon Rainforest
Biome**



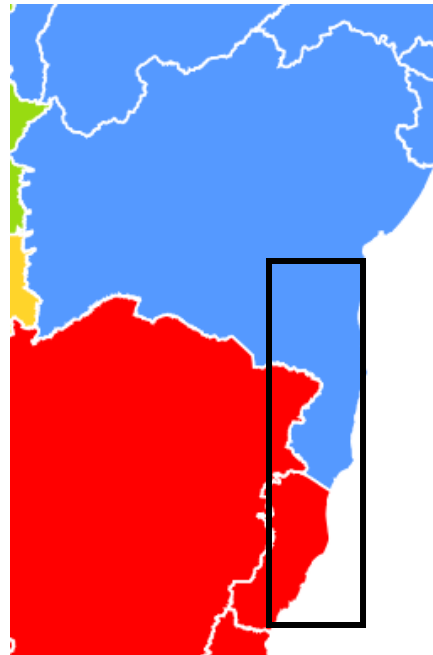
**Atlantic Forest
Biome**



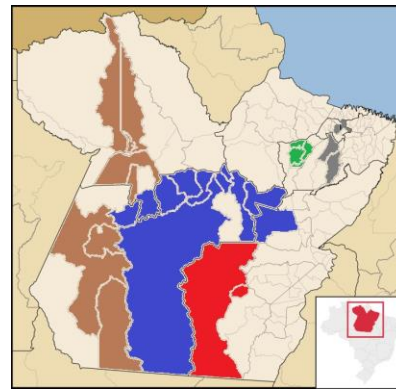
Cocoa-Producing States in Brazil by Biome



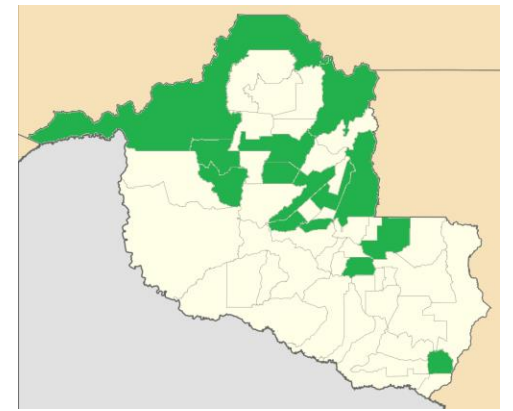
Amazon Rainforest Biome



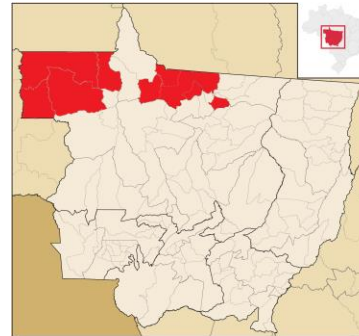
Atlantic Forest Biome



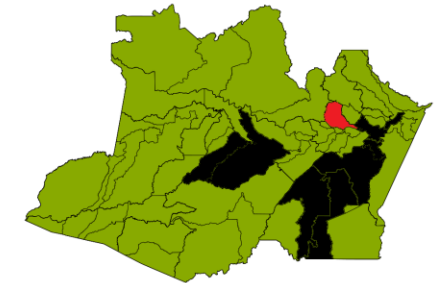
PARÁ



RONDÔNIA



MATO GROSSO



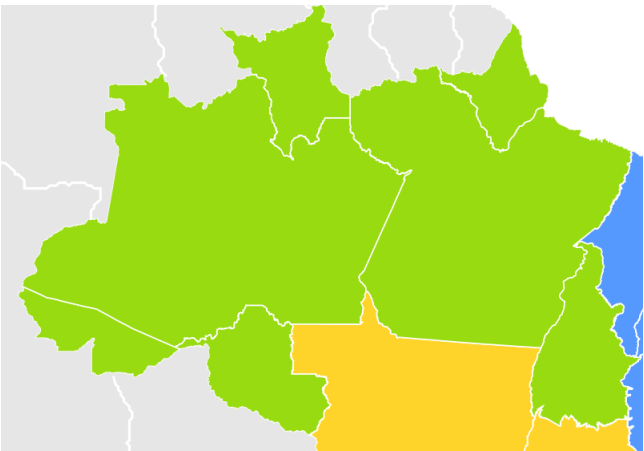
AMAZONAS



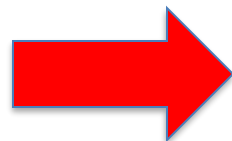
ESPÍRITO SANTO



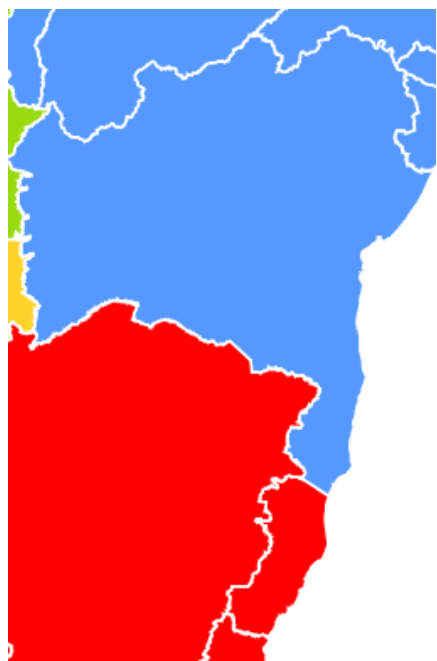
BAHIA



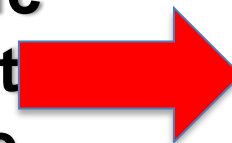
Amazon Rainforest Biome



State	Harvested area	Production	Kg/ha
Rondônia	8262	5171	626
Amazonas	1225	677	563
Pará	149912	146375	976
Mato Grosso	625	385	616
Total	160024	152608	953



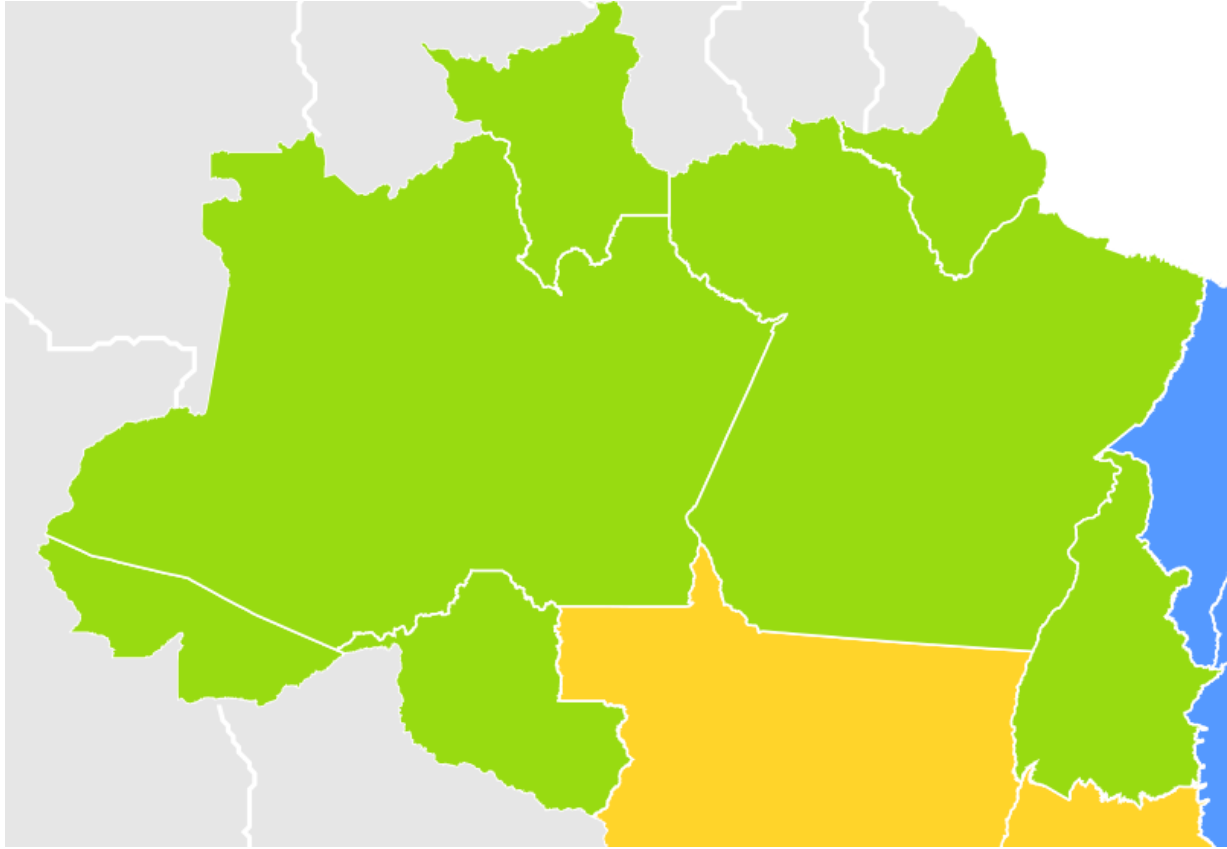
Atlantic Forest Biome



State	Harvested area	Production	Kg/ha
Bahia	423256	137622	325
Espírito Santo	17228	11544	670
Total	440484	149166	339

Brasil	600508	301774	502
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Source: IBGE - Municipal Agricultural Production, 2021



Amazon Rainforest Biome
160,000 ha



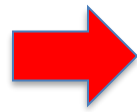
Floodplain farming system

More or less 10,000 ha



Farming system on dry land with regeneration of native forest

More or less 30,000 ha



Agroforestry system

More or less 100,000 ha





Inspired by the experience of riverside communities, who implemented multicropping of fruit and forest trees in their backyards, replicating the jungle. More than 200 agroforestry models have been tested over time: fruit trees, non-timber trees and sawn wood.

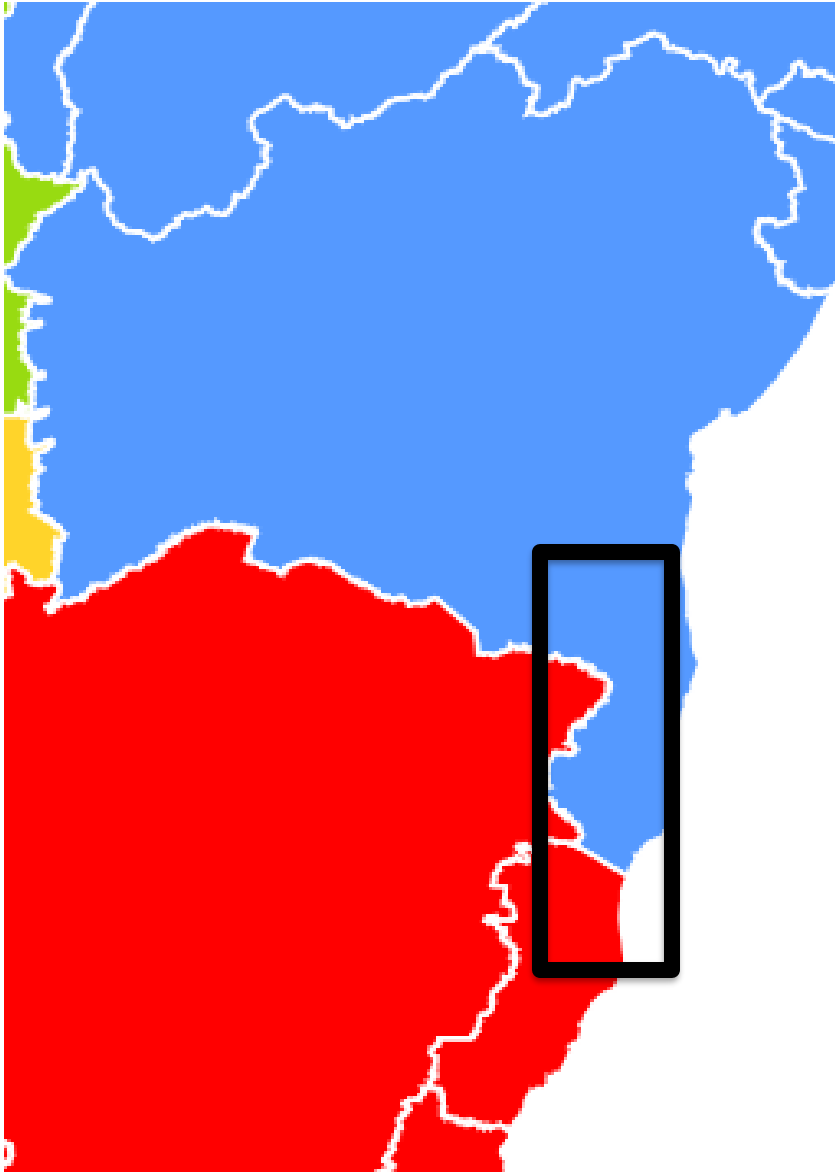
More or less 20,000 ha



An unsustainable proposal in progress **Planting clones without permanent shade**

More or less 500 ha





Atlantic Forest Biome

540,000 ha



Cabruca Farming System

**More or less
280,000 ha**



Farming System with *Erythrina*

More or less 110,000 ha

AFS Farming System – More or less 30,000 ha

(forest essences)



AFS Farming System

Rubber tree - *Hevea brasiliensis*



Pejibaye – *Bactris gasipaes*

Coconut – *Cocos nucifera*



Açaí – *Euterpe oleracea*





Cloning Farming System

More or less 120,000 ha



Sustainability challenges and solutions for the Brazilian cocoa model.

**Develop, improve and validate AFS models
with emphasis on social, economic and
environmental aspects, considering the
arrangements used by farmers.**

1. Agroforestry systems should be chosen based on how much they can financially add value to family income (study on market size for these species).



2. Models with interaction between the associated plants in the systems.



WATER & ROOTS



SHADE

3. Considering environmental benefits, public policies are established to financially compensate the efforts in environmental protection.



- **Avoided soil surface skidding.**
- **Water recovery.**
- **Fauna and flora restoration.**
- **Soil biology enrichment.**
- **Microclimate formation.**
- **Removal of greenhouse gases.**
- **Payment for environmental services.**

Year

1996

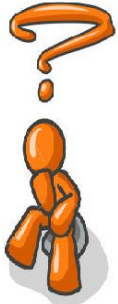
2000

2005

2010

2015

2021



5347

7288

8920

12743

20550

28700

ha

22141

41141

67925

104522

153954

205494

Co₂eq.

t

115133

209819

339626

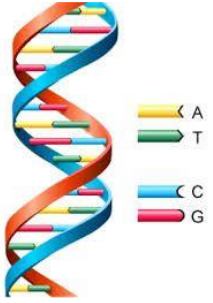
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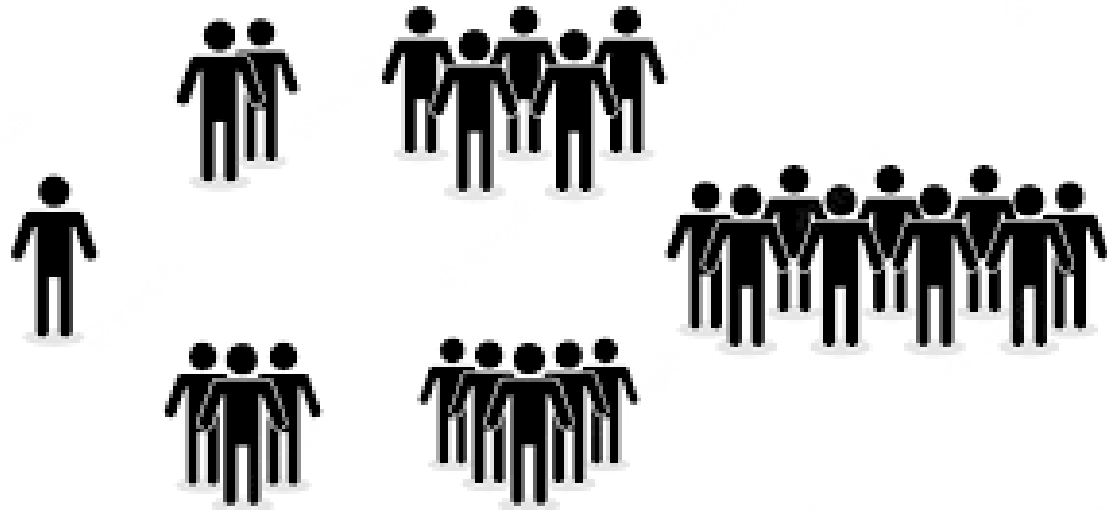
1828893

The value of cocoa farming in the state of Pará in terms of carbon

\$18.3 million



QUALITY INFORMATION ORGANIZATION



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Assistance
and Rural
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Thank you very much