

# AVIATION CO<sub>2</sub> REDUCTIONS



STOCKTAKING SEMINAR  
TECHNOLOGY · OPERATIONS · SUSTAINABLE AVIATION FUELS





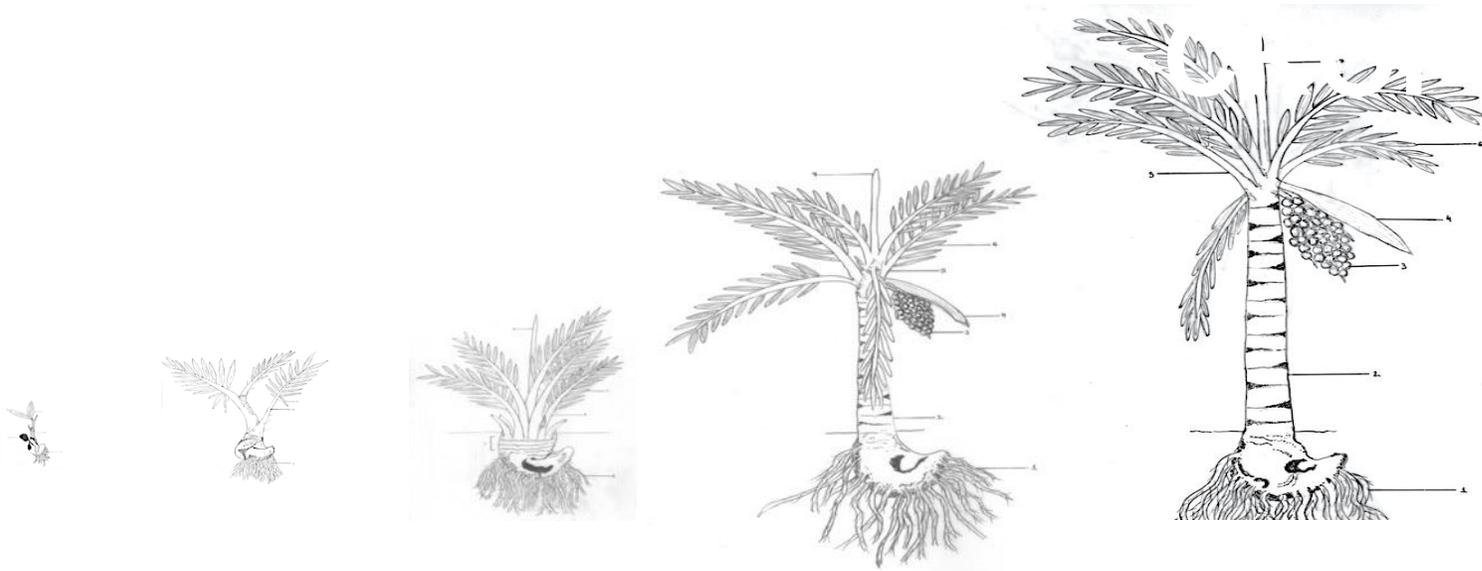
# Sustainable Aviation Fuels (SAF)

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(Macaúba Project)





# MACAÚBA: A TRUE SUSTAINABLE & VIABLE FEEDSTOCK FOR SAF



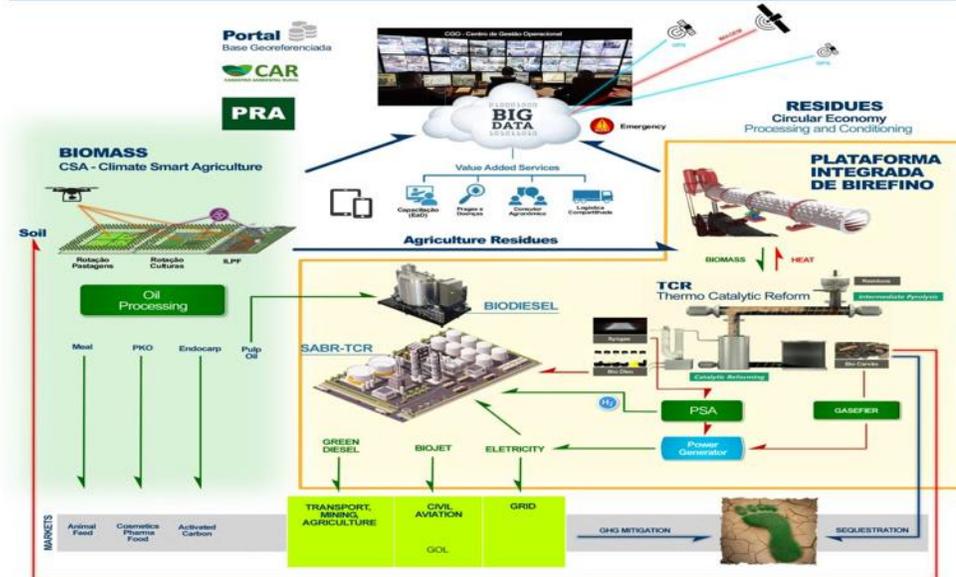
# Sustainable aviation fuel produced from Macaúba in Brazil

## Aviation Fuels

Feedstock type	Conversion process
Bio QAV	HEFFA / HPO

Vegetable Oil and Bio-Oil produced under sustainable and economically viable supply chain based on Macaúba tree,

GREEN DIESEL AND BIOJETFUEL INTEGRATED VALUE CHAIN



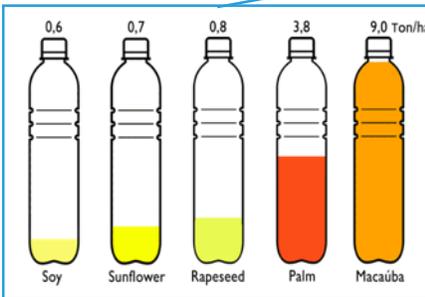
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	CO <sub>2</sub> reductions per flight	<b>TBD</b>
	Level of finance required	<b>85%</b>
	Timeframe	<b>2030</b>
	Main challenges	<b>50%</b>

# MACAÚBA (*Acrocomia aculeata*)

Sustainable feedstock OPPORTUNITY



## HIGH OIL YIELD

Up to 9 ton/ ha

- Highest oil yield among all current vegetable oils. 9x higher Soybean
- Lauric & Oleic Oils.



## TRUE SUSTAINABLE

RSB Certified

- Recuperation of degraded lands.
- Climate Smart Agriculture - Farms (Soleá) & Family Agriculture (Inocas)



## VIABLE CHAIN

Oil & Biomass Opportunities

- Feedstock for Biofuels.
- Co-products downstream segments
- Opportunity for Carbon Credits, Zero waste



## BUSINESS PLATFORMS

Private & Public Partnerships

- Minas Gerais – 1 million ha
- São Paulo – 500,000 ha.



# RECUPERATION OF FRAGILE AND DEGRADED SOILS



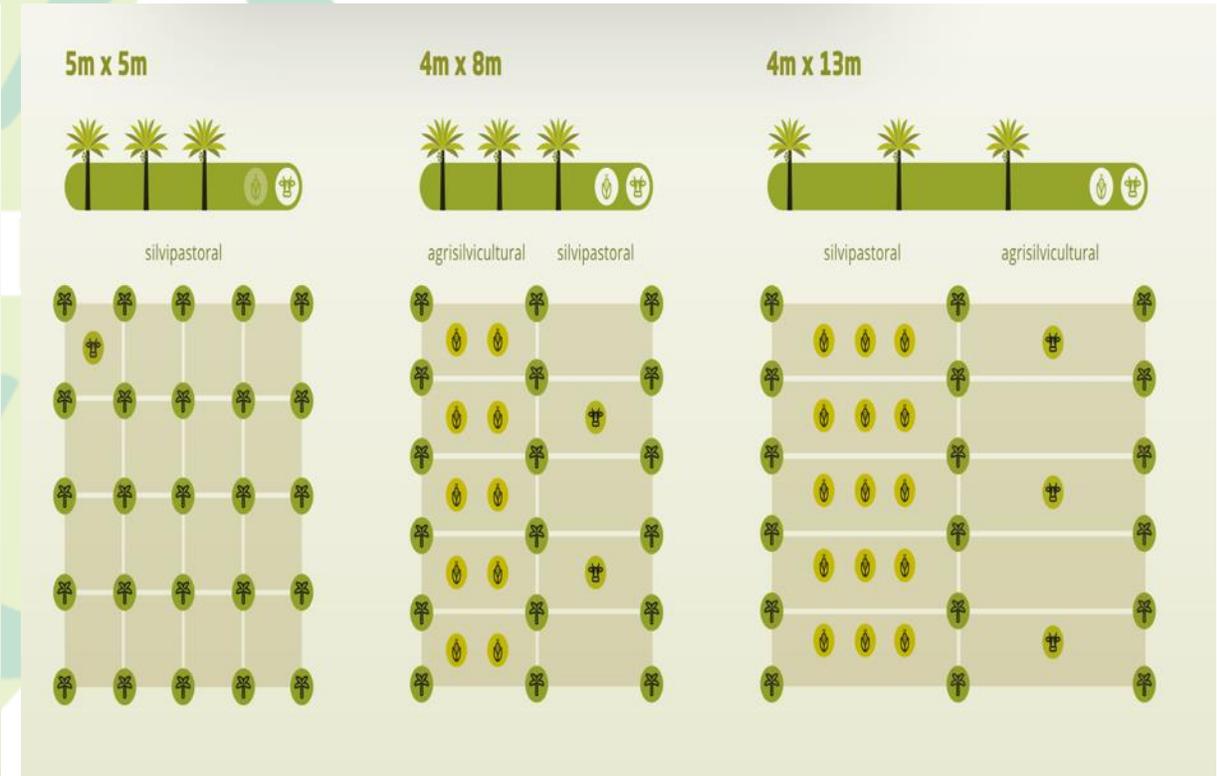
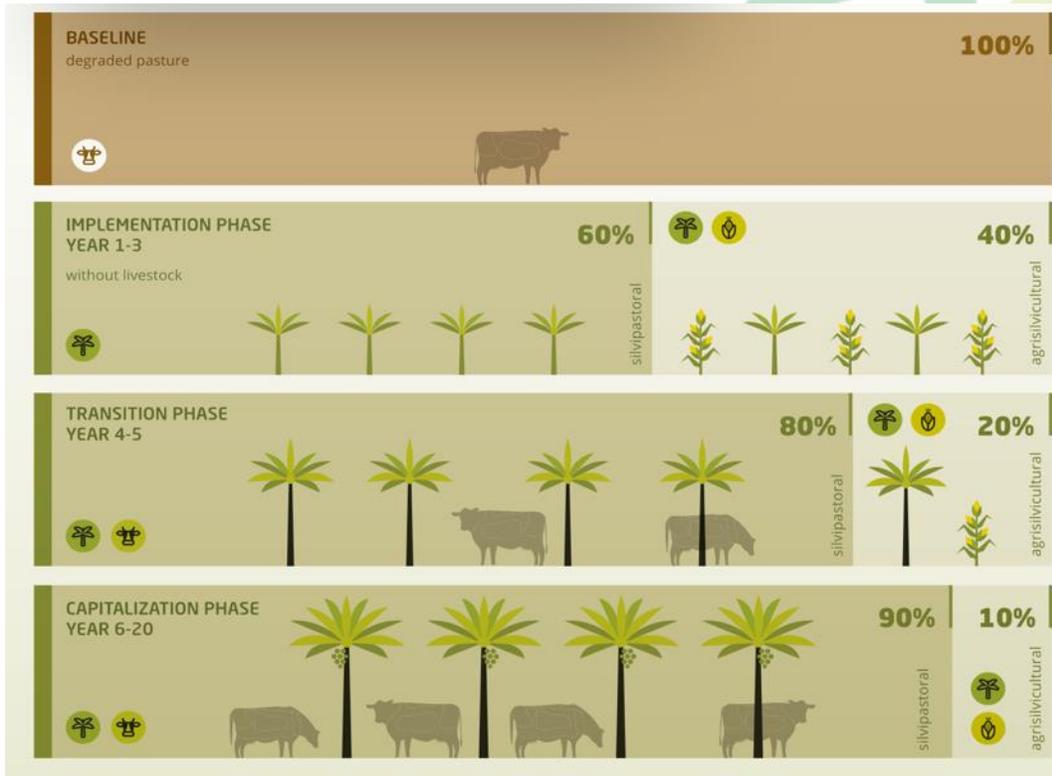
# RESTORING DIVERSITY IN REGIONAL ECOSYSTEMS



# AGROFORESTRY SYSTEM – INTERCROPPING CROPS & LIVESTOCK

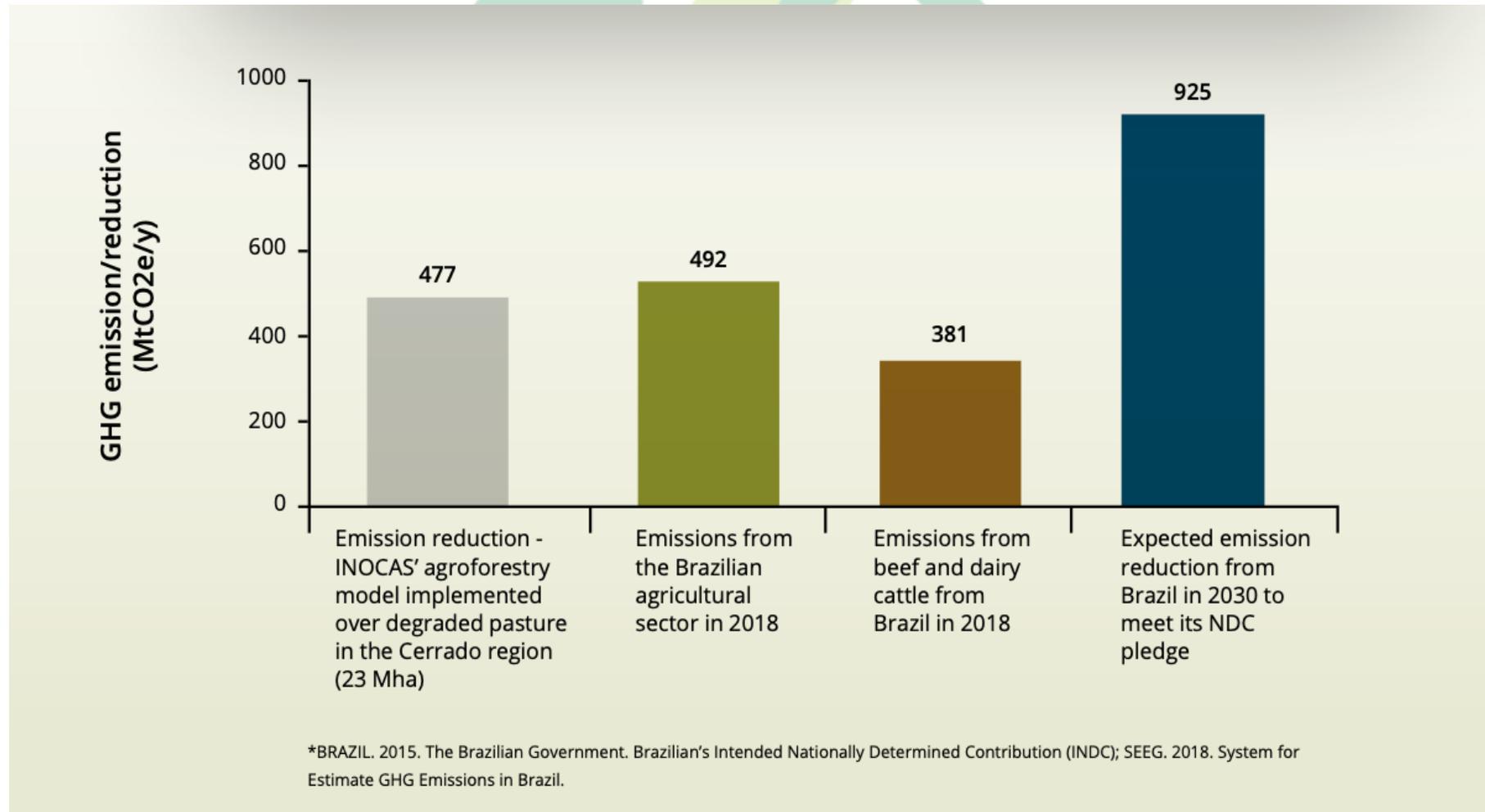


# AGROFORESTRY SYSTEM – INTERCROPPING CROPS & LIVESTOCK



# MBM CARBON FOOTPRINT OFFSET POTENTIAL

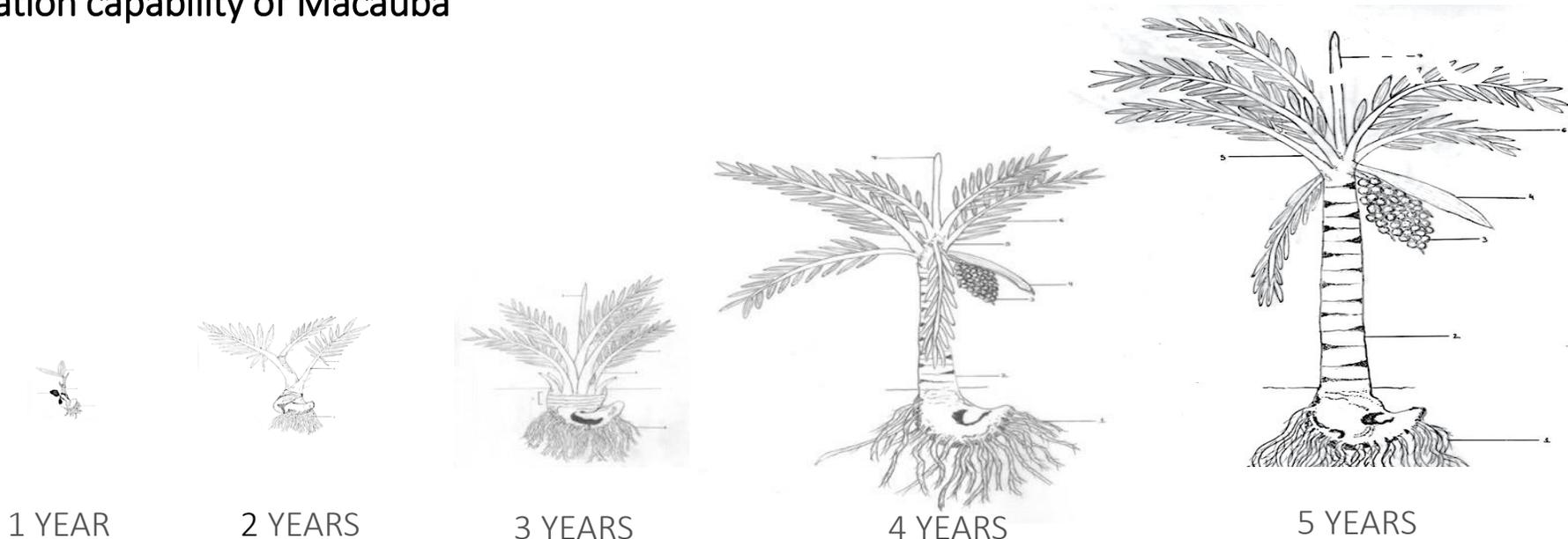
GHG potential reduction of a Macaúba AgroForestry System if implemented in the degraded Brazilian Cerrado (Savannah land).





# INITIAL OPPORTUNITY – MBM CARBON FOOTPRINT OFFSET

- Current Status:
  - Domestication has been completed (Acrotech). Demonstration 750ha – initial harvest 2021 (Soleá).
  - Family Agriculture Projects 600 ha (Inocas).
  - Government & Private Sector Alignment. Plataforma Mineira de Bioquerosene e Renováveis
  - Technology Development (BioFuels and downstream products)
  - Moment to Scale Up farming and Agroindustrial Infrastructure.
- IMMEDIATE OPPORTUNITY: Market Based Measure (MBM) for Airlines Carbon footprint offset based on the CO2 sequestration capability of Macaúba





# INOCAS

INNOVATIVE OIL AND  
CARBON SOLUTIONS



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# Thank You



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Headquarters  
Montréal

European and  
North Atlantic  
(EUR/NAT) Office  
Paris

Asia and Pacific  
(APAC) Sub-office  
Beijing

Middle East  
(MID) Office  
Cairo

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