



Brazilian Forest Context and Restoration

Garo Batmanian, *Ph.D*
Director General
Brazilian Forest Service
**Ministry of Environment and
Climate Change**

Porto Seguro , July 1, 2025

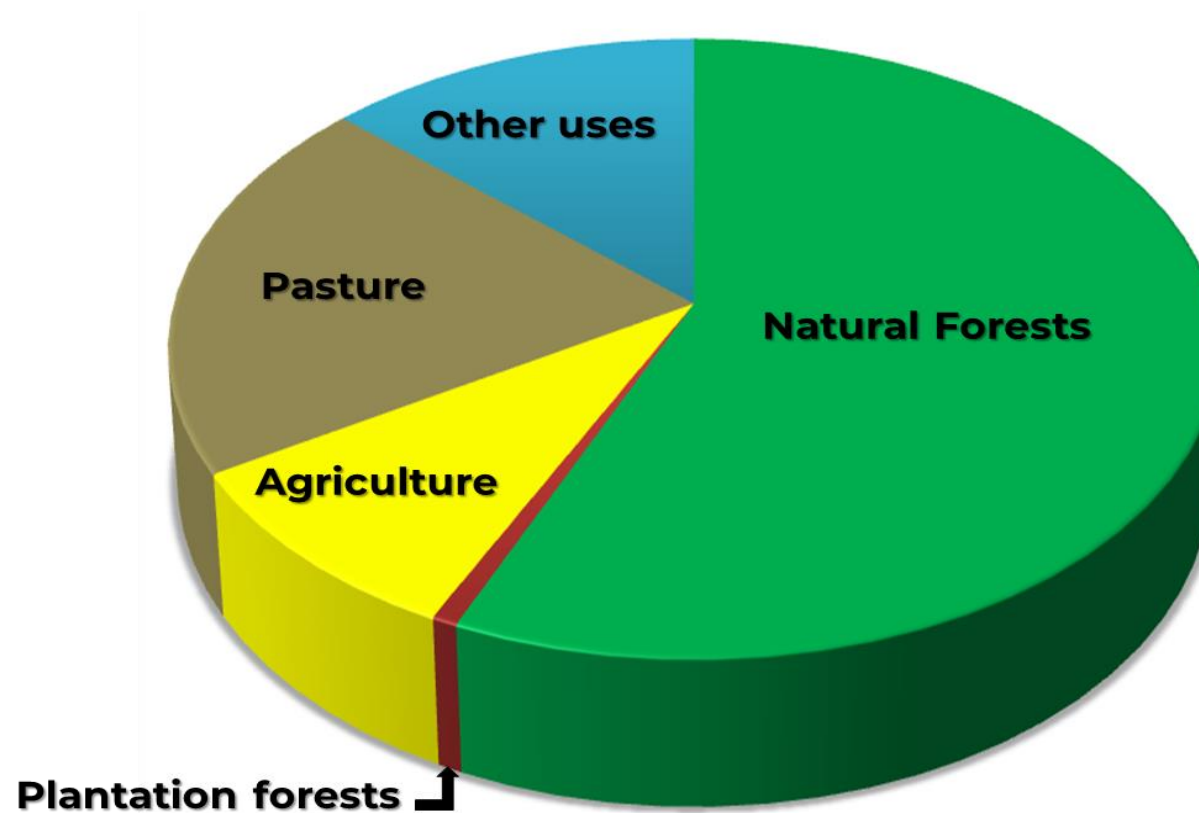


MINISTÉRIO DO
MEIO AMBIENTE E
MUDANÇA DO CLIMA



Brazilian Forests Facts

- Forests occupy $\approx 60\%$ of the total area of the country



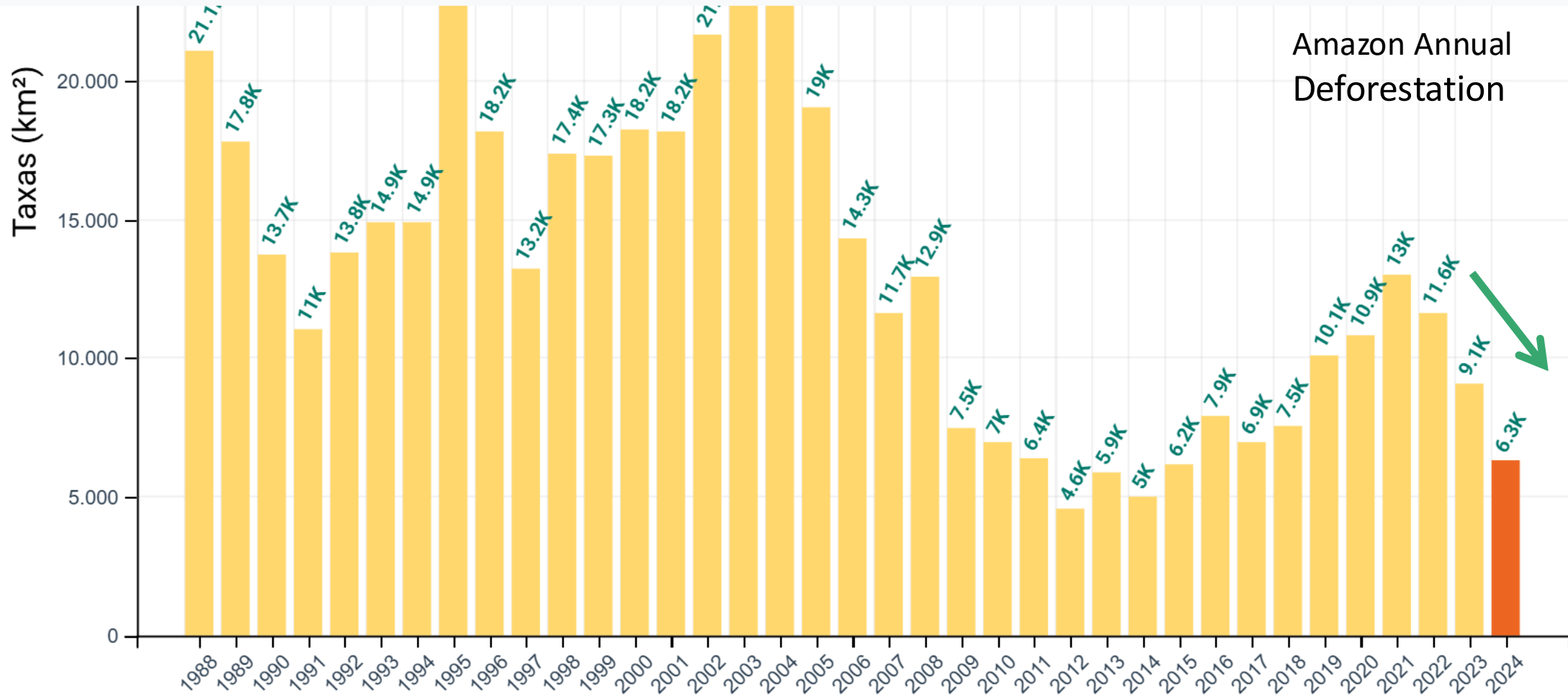
First we need to protect



MINISTÉRIO DO
MEIO AMBIENTE E
MUDANÇA DO CLIMA

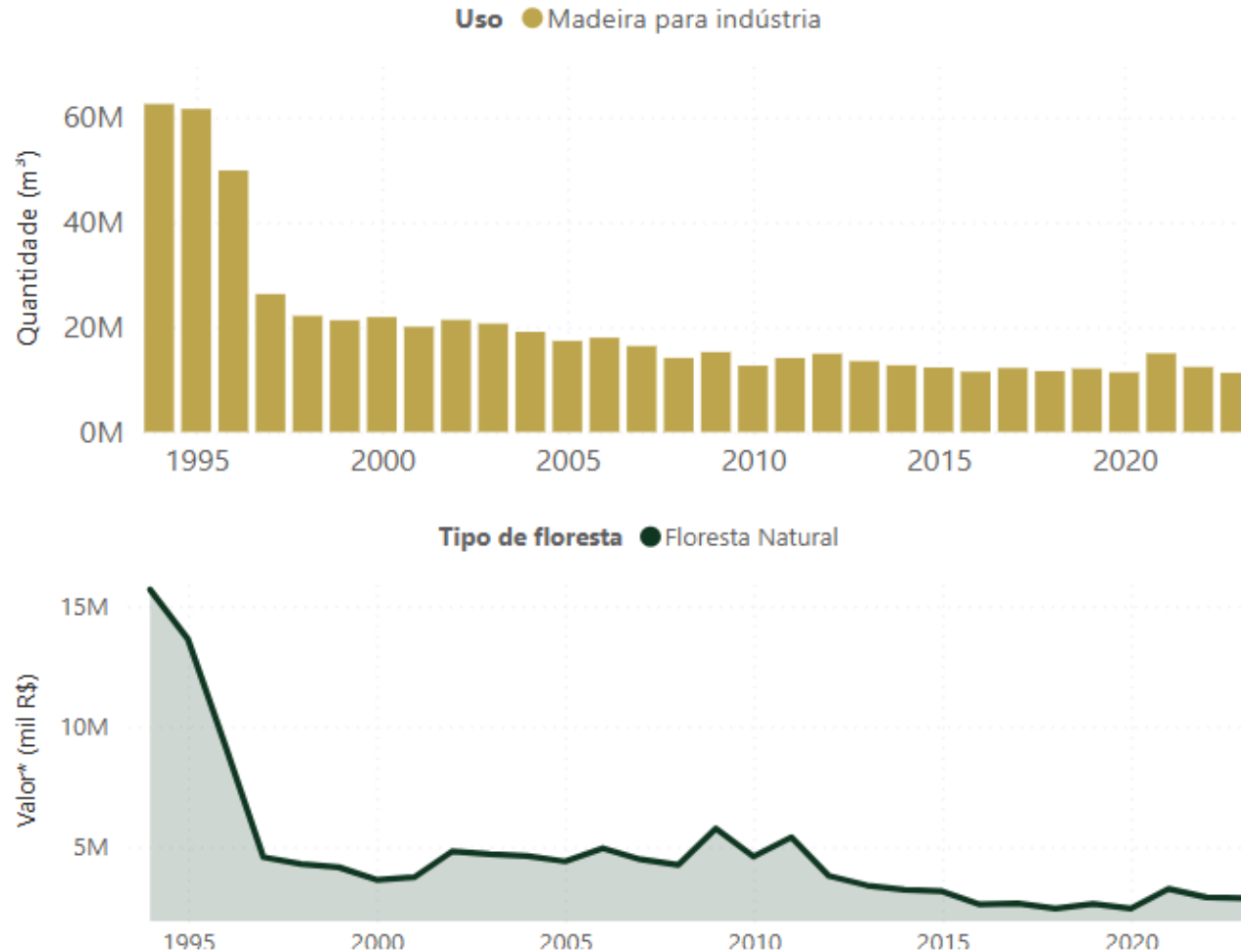


First we need to protect



Including managing the standing forest

Brazilian Timber output

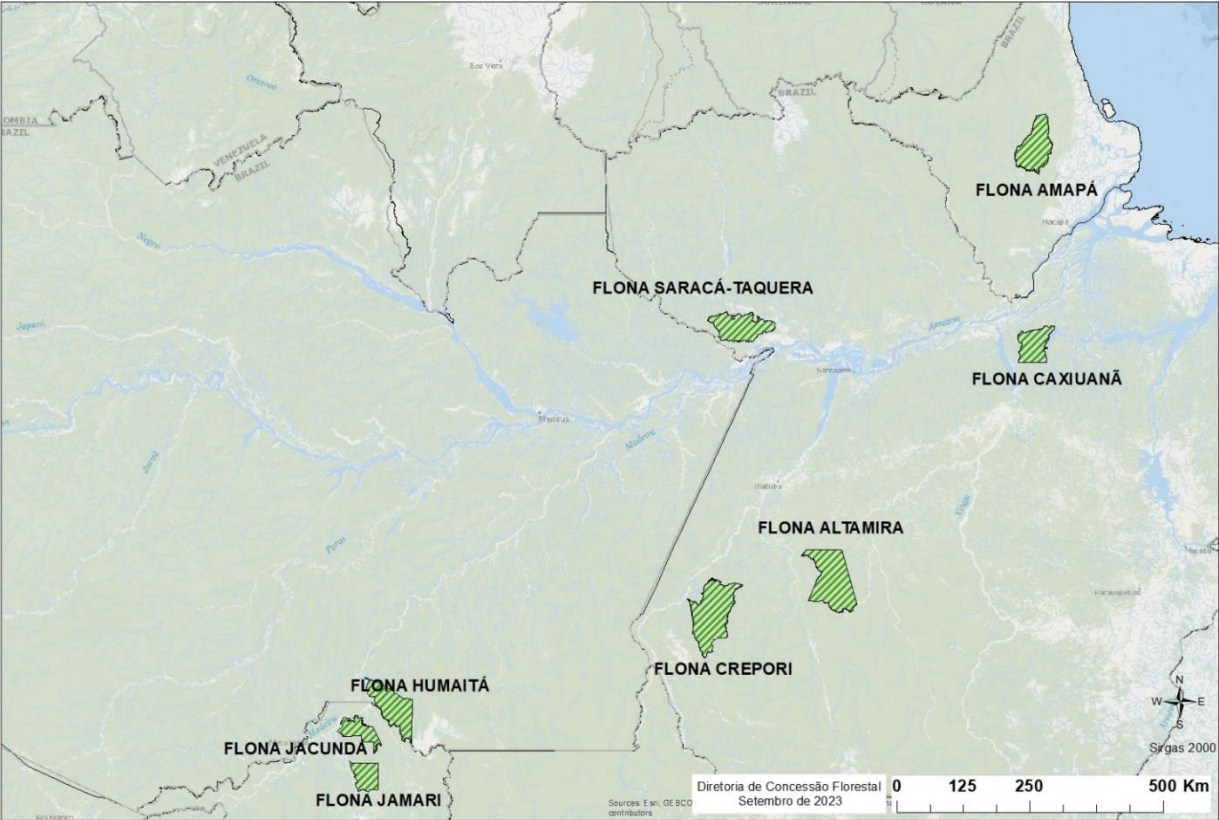


Strategic Opportunities of Forest Management Concessions

- ✓ Promote the conservation of forests and biodiversity through their sustainable use
- ✓ Generate income and formal employment in locations in regions in the interior of the country, where other economic activities would not be viable
- ✓ Contribute to the formalization of the economy and increase tax collection
- ✓ Provide legal certainty to the forestry sector to make long-term investments
- ✓ Alternative destination of public land not intended for sustainable forest production
- ✓ Partnerships with states for state forest concessions: Rondônia and Amapá.
- ✓ Partnership with Pará for joint use of Management System and SCC

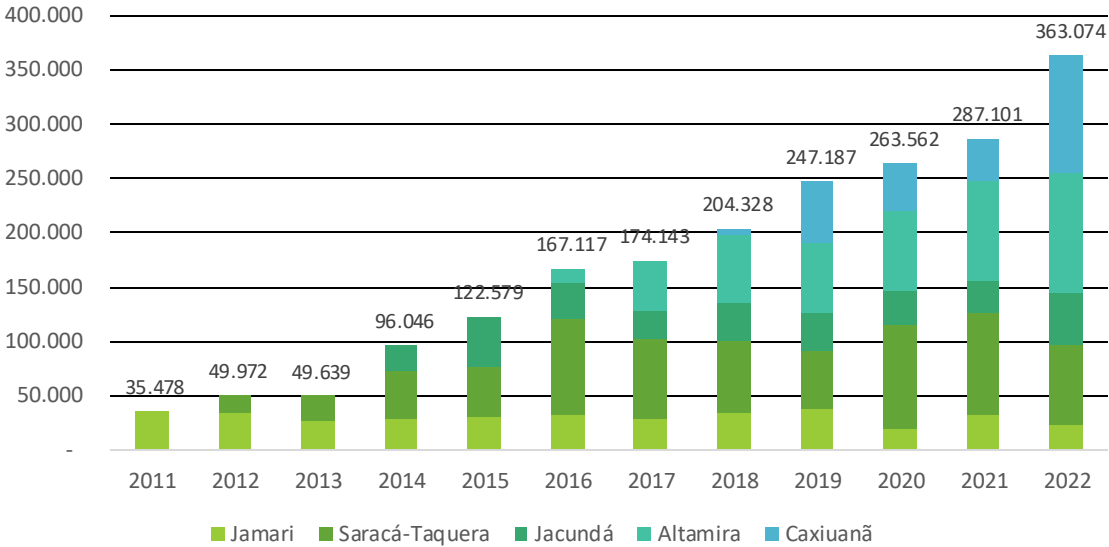


Current situation of forest concessions

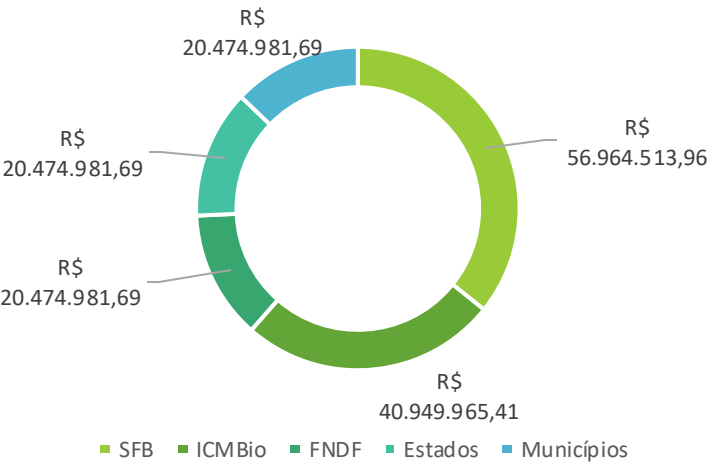


1.5 million hectares of forests are under federal forest concession

Annual Timber Production in Logs (m3)



Distribution of amounts collected (2010-2022)

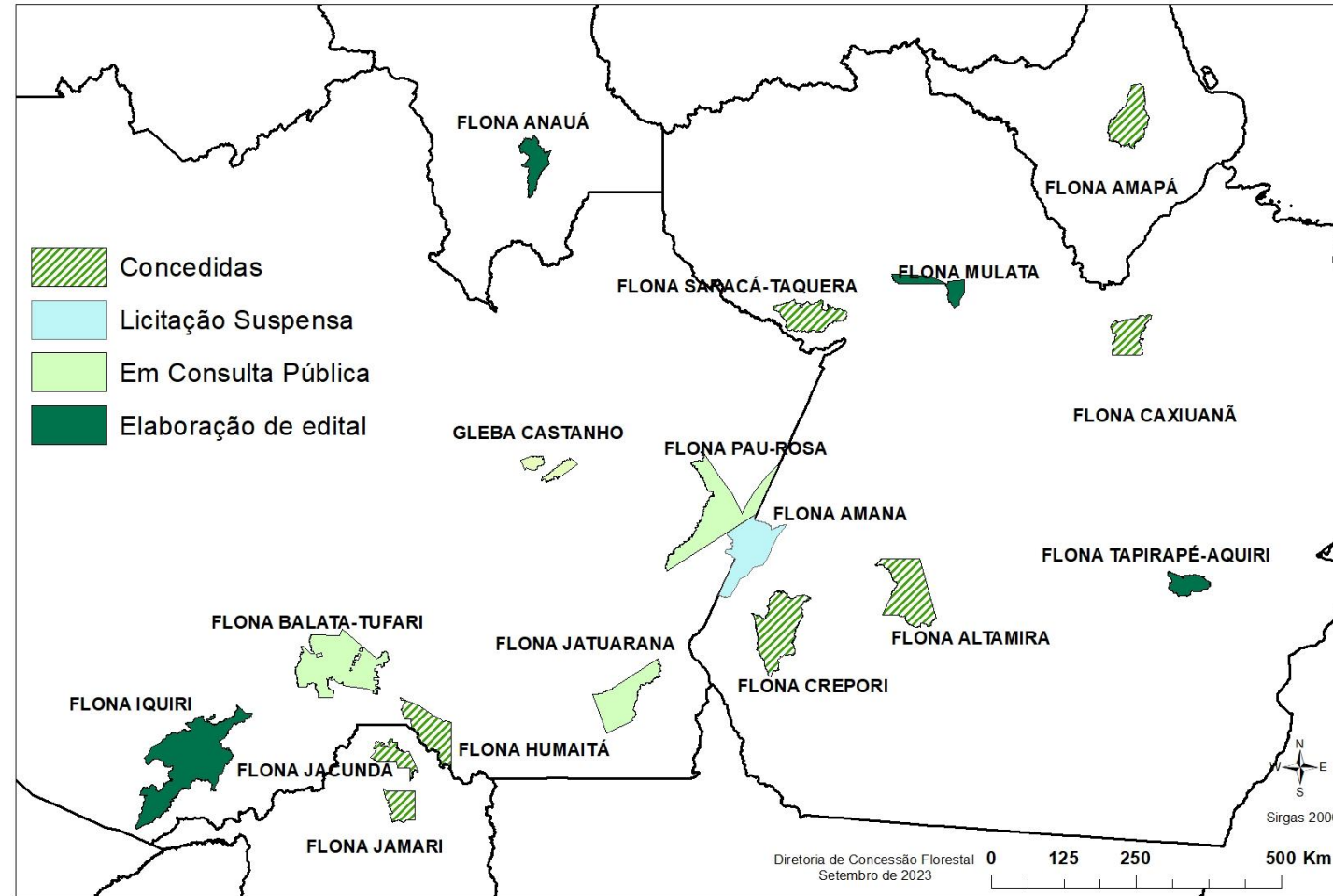


Upcoming Projects- PPI

2027 Projection*

- ✓ Additional 2.9 million ha
- ✓ Wood volume of 1,839,900 m³;
- ✓ Generation of 7,360 direct jobs and 14,360 indirect jobs
- ✓ Collection of R\$ 3,679,799 for the social indicator of contracts.
- ✓ Total Collection of R\$ 183,989,974
- ✓ Investments in MACROTHEMES R\$ 11,439,225

* Considering the area granted in the previous year



Community Forest Management

- ✓ Communities on designated public lands (RESEX, RDS, Quilombolas)
- ✓ Support resource management. Ex: acai/palm heart, brazil nut, andiroba, wood
- ✓ Supporting the effective participation of communities in production chains



Supply of tropical wood from the Brazilian Amazon Rainforest

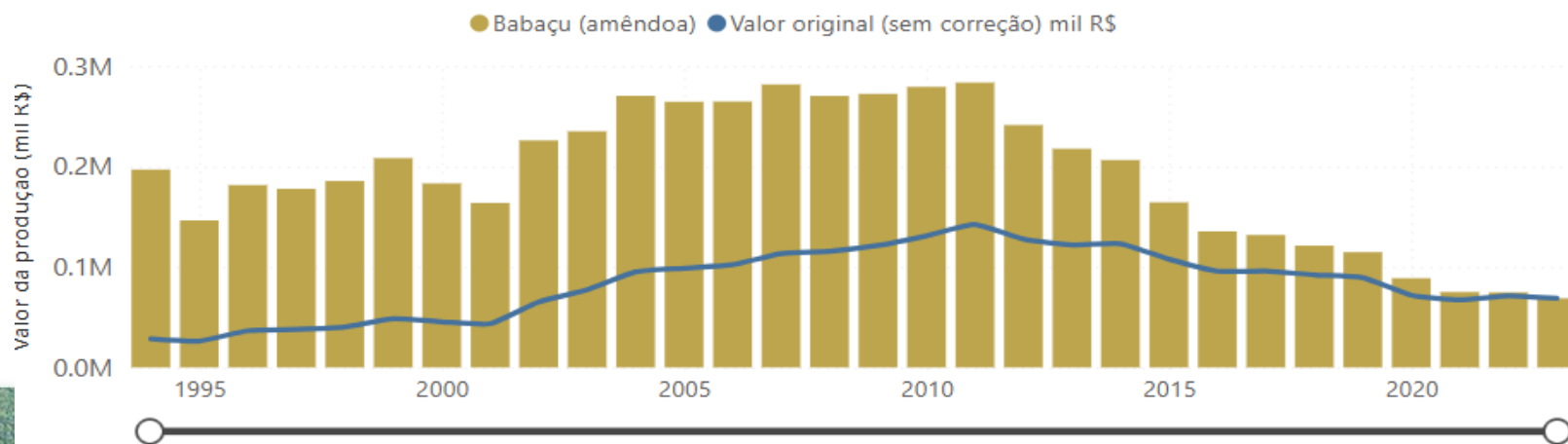
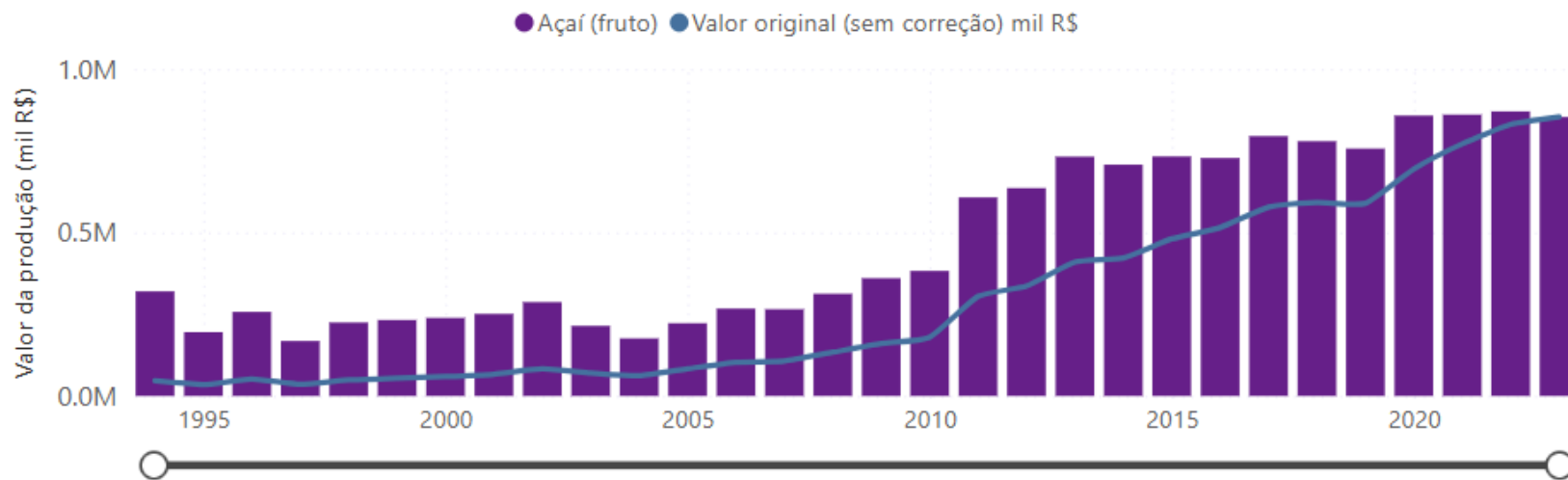
The supply of 12 million m³ of roundwood requires the allocation of 21-27 million hectares of Amazon tropical forests for SFM-RIL

Parameters	Scenario 1	Scenario 2	Scenario 3
Average supply of tropical roundwood (m ³ /year)	12,000,000	12,000,000	12,000,000
Yield (m ³ /ha)	16	18	20
Tropical forest area under SFM (ha/yr)	750,000	666,000	700,000
Total forest area designated for SFM in a 30-year cycle (ha)	27,000,000	24,000,000	21,000,000



Non-timber market : Brazil

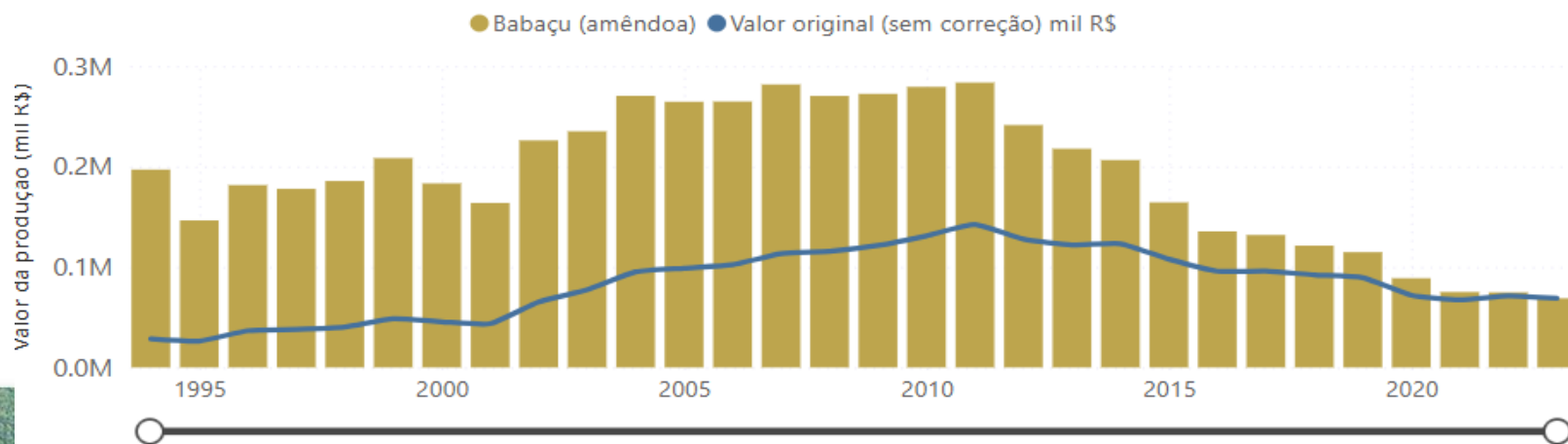
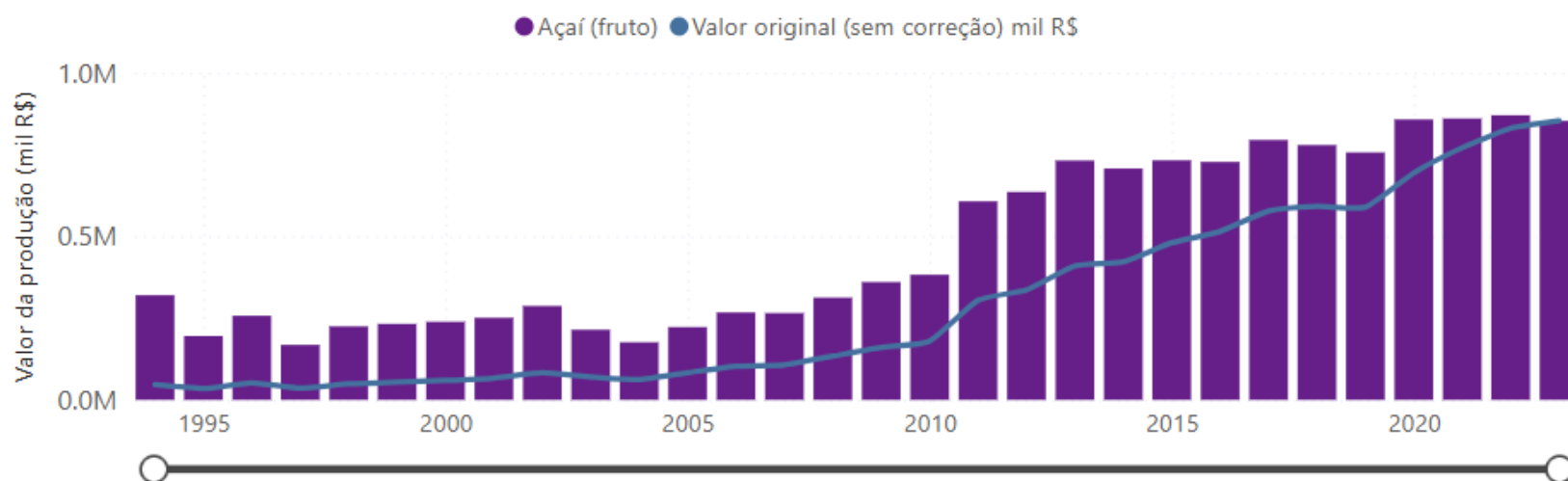
Série histórica do valor da produção/extração dos produtos florestais



According to the Federation of Industries of the State of Pará (Fiepa), between 2011 and 2020, açaí exports in Brazil increased by almost 15,000%

Mercado não madeireiro : Brasil

Série histórica do valor da produção/extração dos produtos florestais



De acordo com a Federação das Indústrias do Estado do Pará (Fiepa), entre 2011 e 2020, as exportações de açaí no Brasil aumentaram quase 15.000%

The pathway forward

- **Increasing the eligibility/availability of tropical forests areas for sustainable forest management-RIL**
 - Forestry concessions (SFM)
 - Transparency of traceability systems
 - Independent auditing
 - Transaction and compliance costs
- **Developing new mechanisms for financing forestry-related activities (including restoration), PES and industrial operations**



The pathway forward

- **Improving productivity and competitiveness of Amazon wood-based industry**
 - Increasing the number of wood species for industrial processing (*mix of species*)
 - Maximizing the use of trees (*commercial trunk 1/3 & other woody parts 2/3*)
 - Improving primary processing yields (42-52% – *small diameter logs, physical and biological damages, etc*)
 - Developing a new myriad of products (*composites, engineered wood, byproducts*)
 - Updating and modernizing industrial processes and equipments



Challenges

- Reputational risks associated with tropical wood products
- Economic incentives
- Logistics & Infrastructure
- Capacity building (*forestry and industrial operations*)
- R,D&I + Technology transfer
 - Value-added products and byproducts
 - Bioenergy efficiency
 - Emerging technologies & innovative products



Perspectives

- Improving regulatory environment;
- Increasing opportunity costs of deforestation/illegal logging due to the valuation of forest assets;
- Recovering and expanding the market share for tropical wood products (domestic and internationally);
- Strengthening forest-based bioeconomies at local and regional levels.



And then restore



MINISTÉRIO DO
MEIO AMBIENTE E
MUDANÇA DO CLIMA



12 million ha under restoration by 2030

- Establish restoration production chains hubs
- Landscape approach
- Diverse financing instruments (PES, Carbon credits, grants loans)
- PLANAVEG



Types of restoration

➤ Natural Regeneration

➤ Ecological Restoration

Income from Payments for Environmental Services , carbon credits

➤ Productive Restoration

Income from forest products

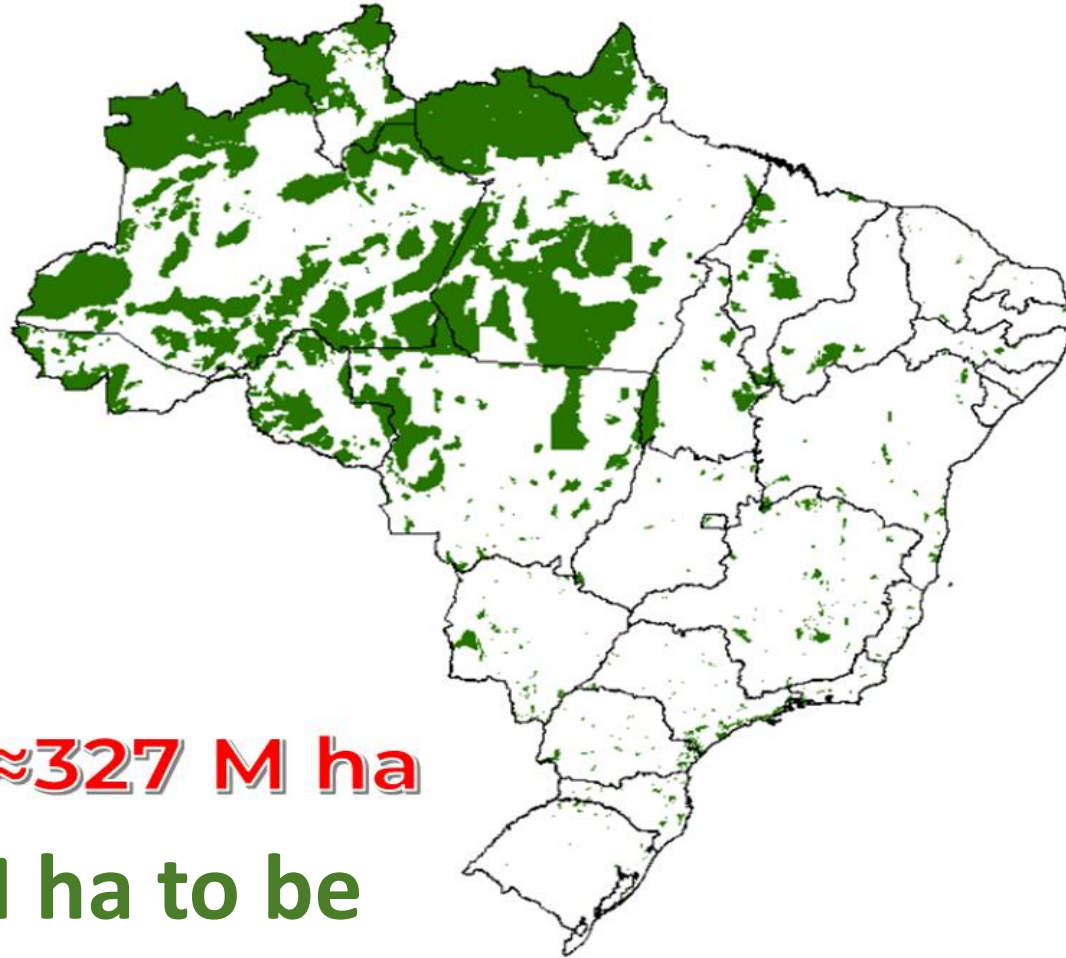
Income from Payments for Environmental Services , carbon credits

The last 2 types require:

Strong production chain: from seeds to the field

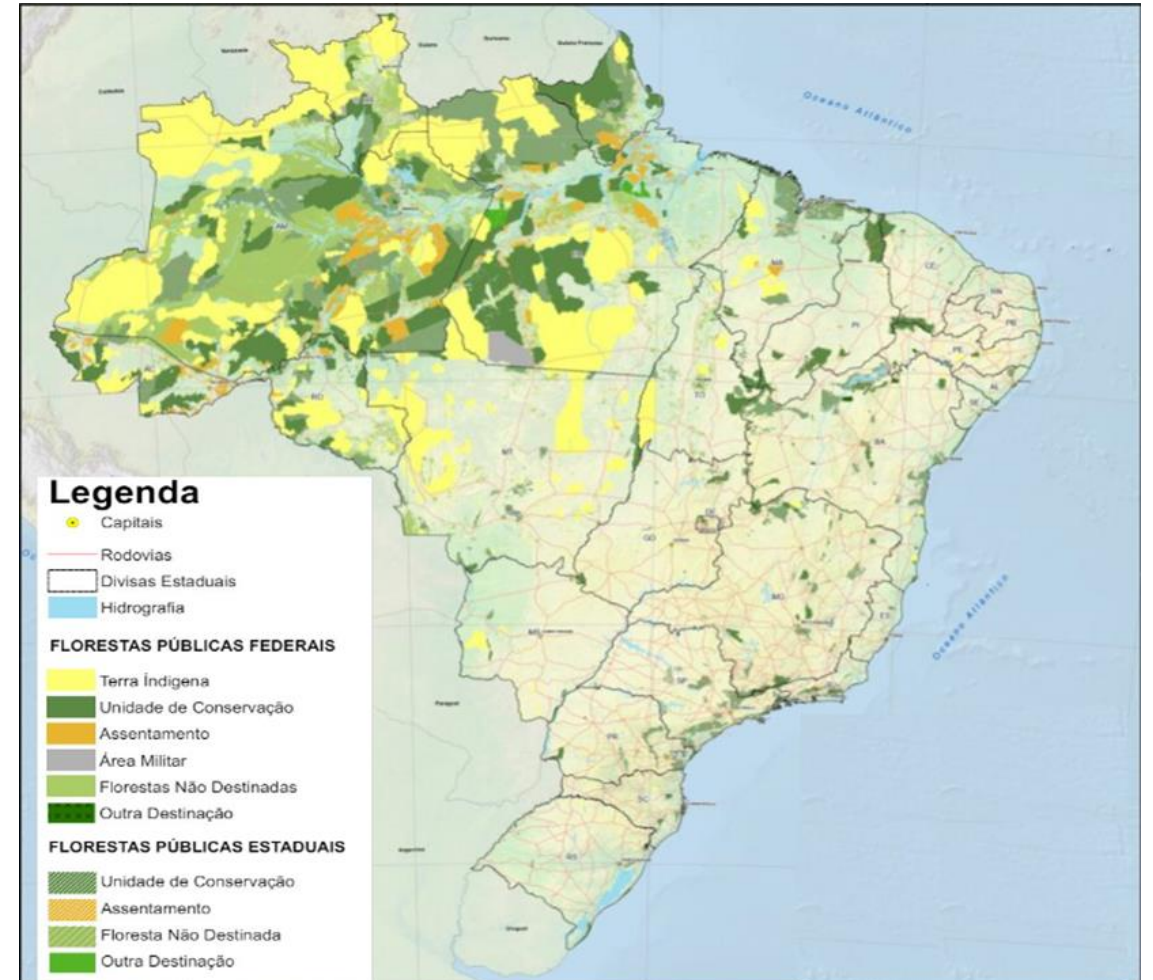


Brazilian Public Forests



≈327 M ha

3 M ha to be
restored

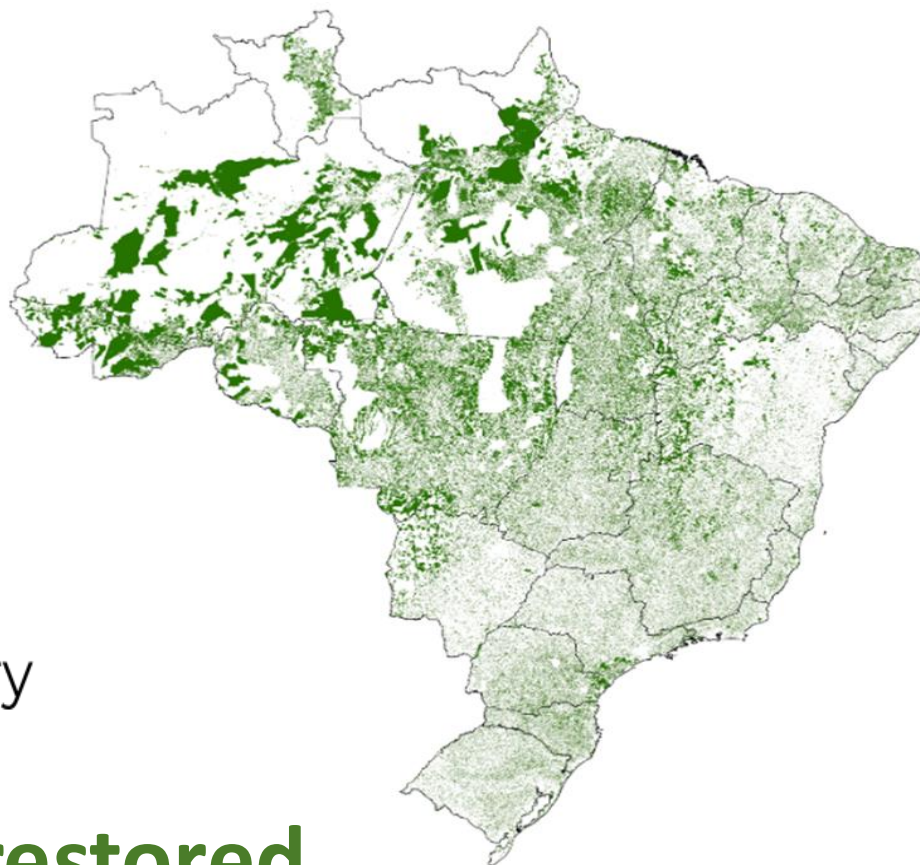


Brazilian forests in the private domain

Legal Reserve Areas (Sustainable use)

- 80% in the Amazon
- 20% rest of the country

33.28 M to be restored



Permanent Preservation Areas (Conservation)

- Along rivers;
- Around watersprings, lakes and lagoons;
- On top of hills;
- On slopes greater than 45°

10.2 M to be restored



Land distribution

Area	Ecological	Productive
PPA	Y	N
LR	Y	Y
FARMLAND	Y	Y
FULL PROTECTED AREA	Y	N
SUSTAINABLE USE PROTECTED AREA	Y	Y
INDIGENOUS LAND	Y	Y/N
MITIGATION)mines, hidrodams)	Y	N



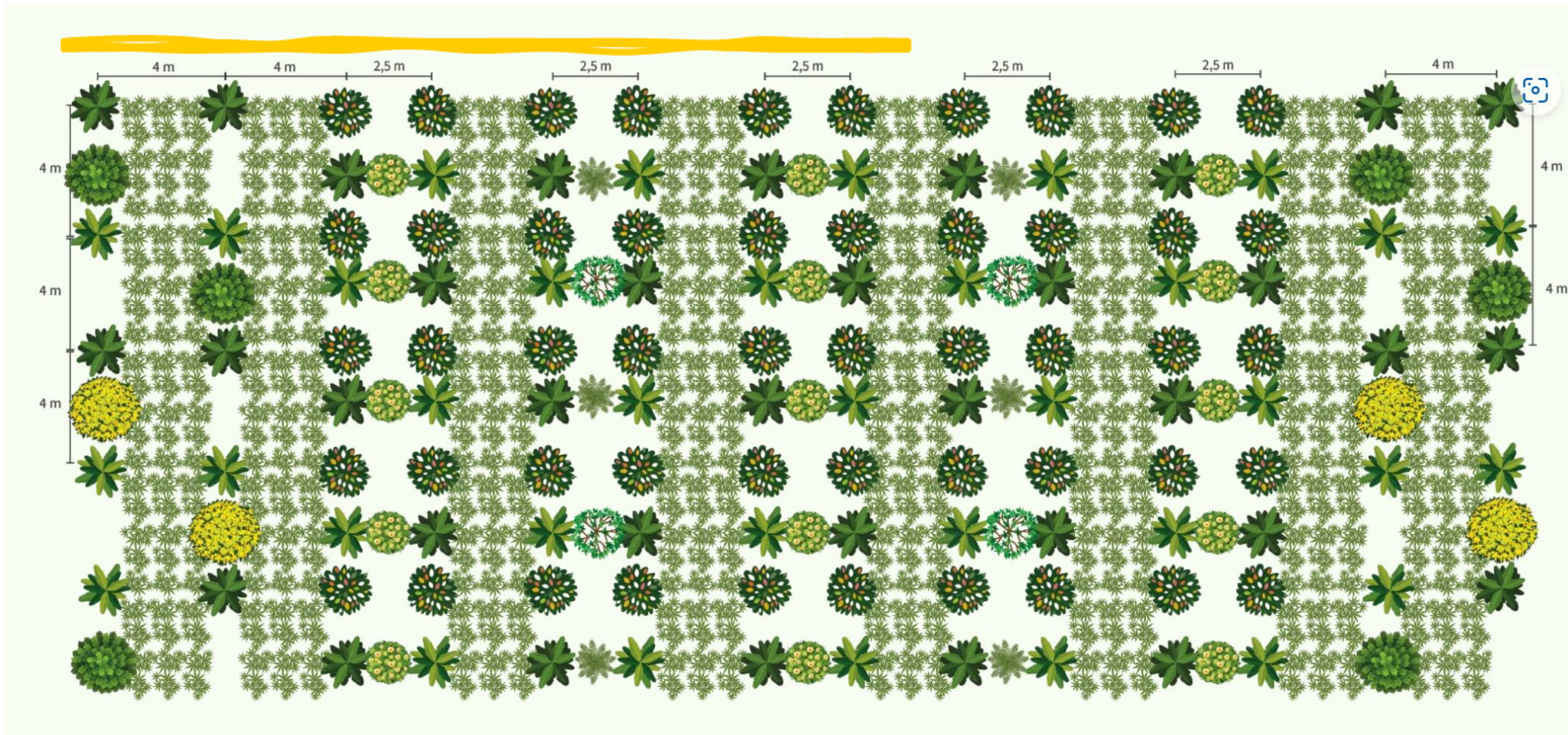
The restoration production chain

- Planning (quality of the area to be restored, objective, definition of technique)
- Seed collection
- Seedling Production
- Implementation
- Maintenance

Best option is to create a hub to support the entire landscape



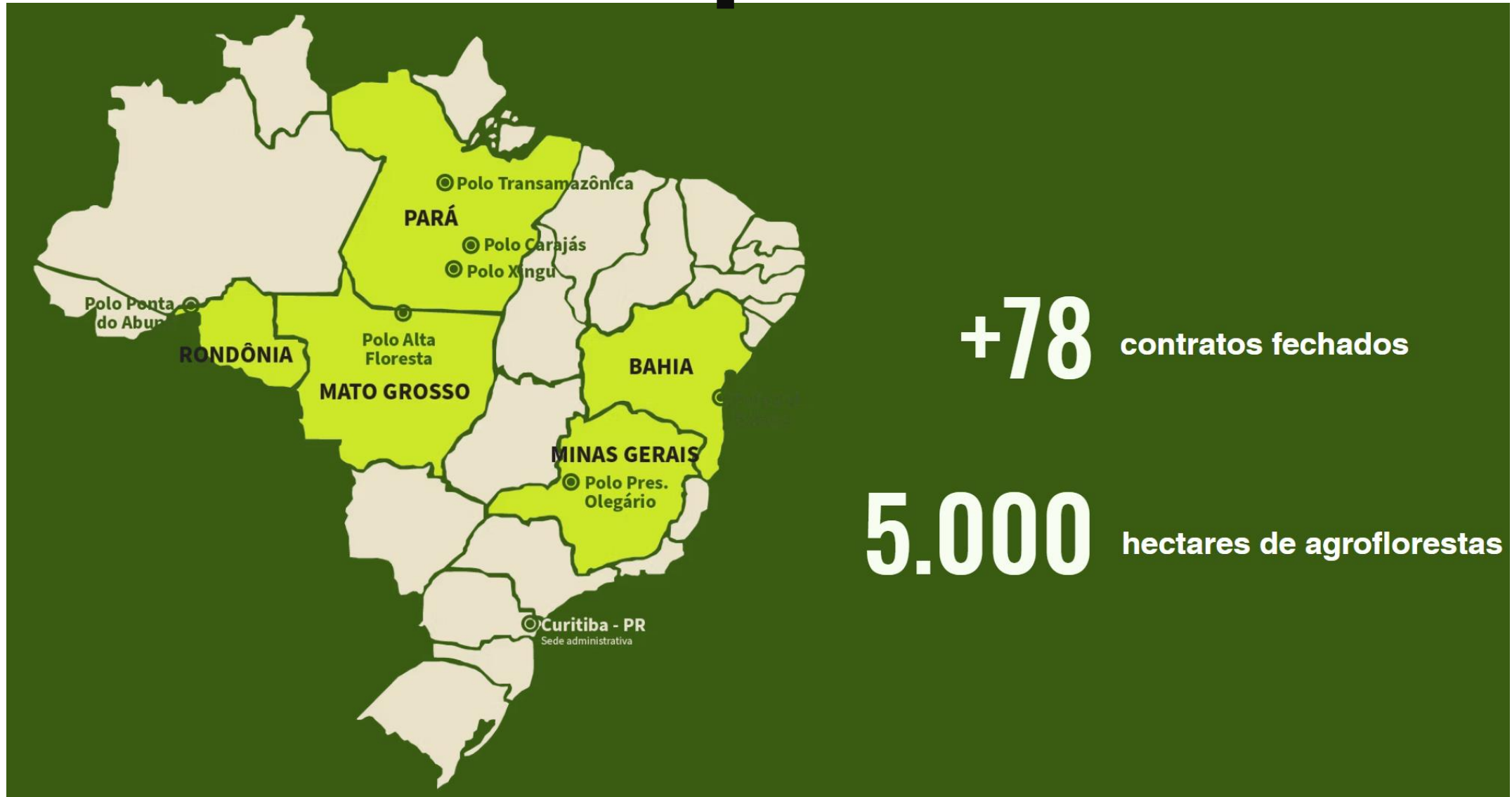
The case of Belterra: productive restoration



Combination of short- and long-cycle crops in the same space, we form a food production system that regenerates the land and pays off from the first year



The case of Belterra: productive restoration

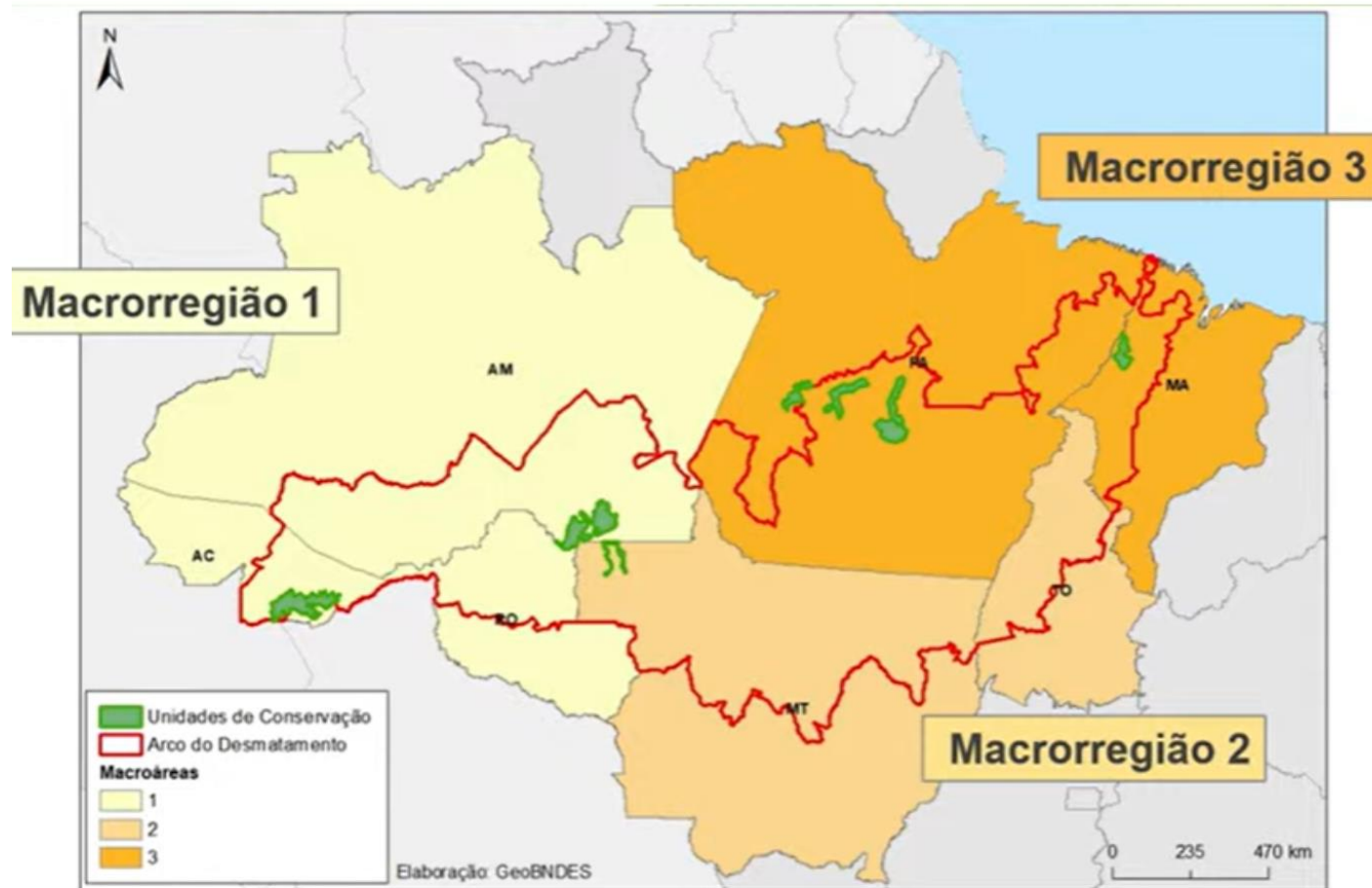


The case of Restaura Amazonia

- Amazon Fund: A REDD+ mechanism created to receive contributions aimed at preventing, monitoring, and combating deforestation, as well as promoting the conservation and sustainable use of forests.
- Restaura Amazonia: Partnership between BNDES and MMA, which aims to recover 6 million ha by 2030. R\$ 1 billion, with R\$ 450 million non-refundable from the Amazon Fund
- Supports ecological and productive restoration projects, selected from public calls conducted by management partners hired by BNDES, in the so-called Arc of Deforestation.



The case of Restaura Amazonia



As macrorregiões onde serão realizadas as atividades de restauração

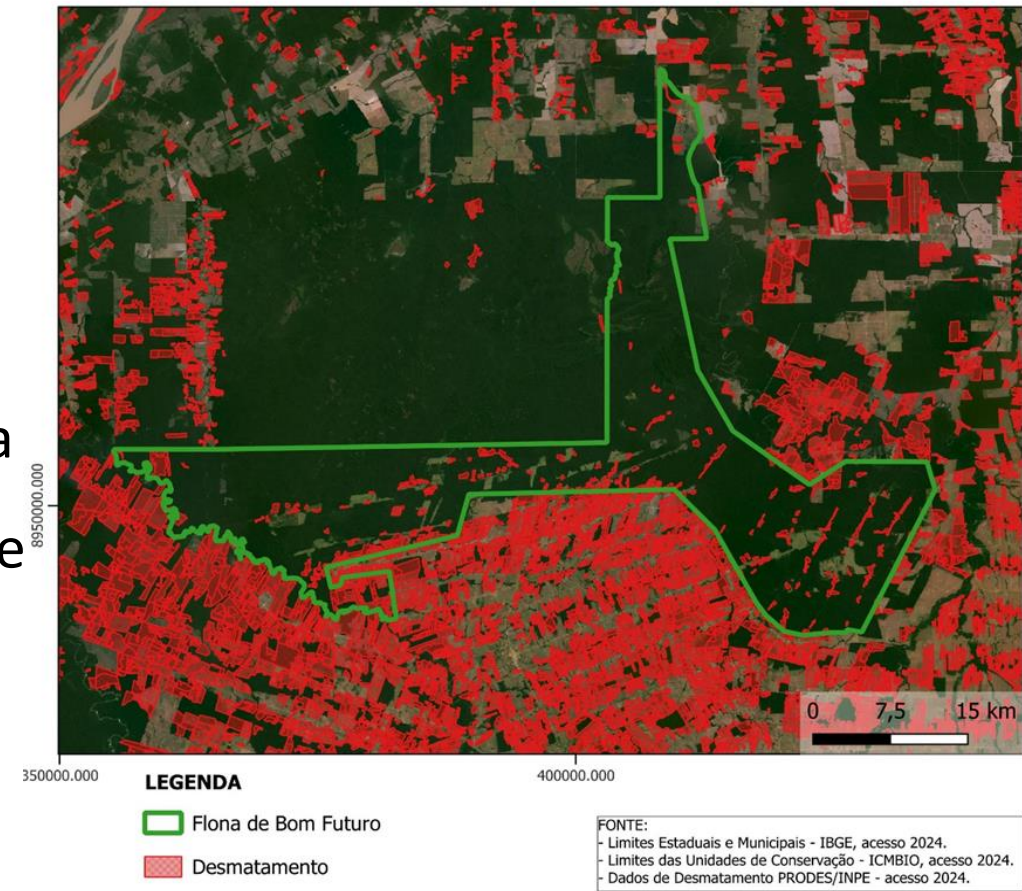


FEDERAL FOREST RESTORATION CONCESSION: BOM FUTURO

- First federal forest restoration concession.
-
- Carbon **credits** from the restored areas, and forested area
- **Partnership** with the Karitiana indigenous people for the purchase of seeds and seedlings and labor.
- Total **CAPEX** of R\$170 million.
- **Operating revenue** R\$885 million.
- Approx. **15 jobs** (direct and indirect) per hectare restored.



Floresta Nacional de Bom Futuro - Porto Velho (RO)
Evolução do desmatamento a partir dos dados do PRODES



MINISTÉRIO DO
MEIO AMBIENTE E
MUDANÇA DO CLIMA



FEDERAL FOREST RESTORATION CONCESSION: BOM FUTURO

Potential for replication: plan by 2027

A	B	C	D
Unidade de Conservação	Área para Restauração (ha)	tCO ₂ e/ha	tCO ₂ e
Flona do Bom Futuro/RO	14.278,00	542,73	7.749.098,94
Flona de Itaituba II/PA	15.330,00	558,41	8.560.425,30
Parna dos Campos Amazônicos/AM	6.948,00	463,27	3.218.799,96
Reserva Biológica Nascentes Serra do Cachimbo/PA	36.647,00	395,21	14.483.260,87
Parna da Serra do Pardo/PA	26.706,00	462,22	12.344.047,32
Flona de Jamanxim /PA	222.195,00	526,61	117.010.108,95
Parna do Jamanxim/PA	21.206,00	546,67	11.592.684,02
Total	343.310,00	3.495,12	174.958.425,36



MINISTÉRIO DO
MEIO AMBIENTE E
MUDANÇA DO CLIMA



Challenges

- incentive for developing value chains
- Credit adapted to the sector
- Research & Development
- Few species
- Replacement
- Carbon Markets



Pathway forward

- Create restoration hubs where there is a confirmed demand
- Create an environment for private sector investment and public-private partnerships





**MINISTÉRIO DO
MEIO AMBIENTE E
MUDANÇA DO CLIMA**



Obrigado!
Thank you!