

Sugar Cane Sustainability in Brazil: Government Perspective



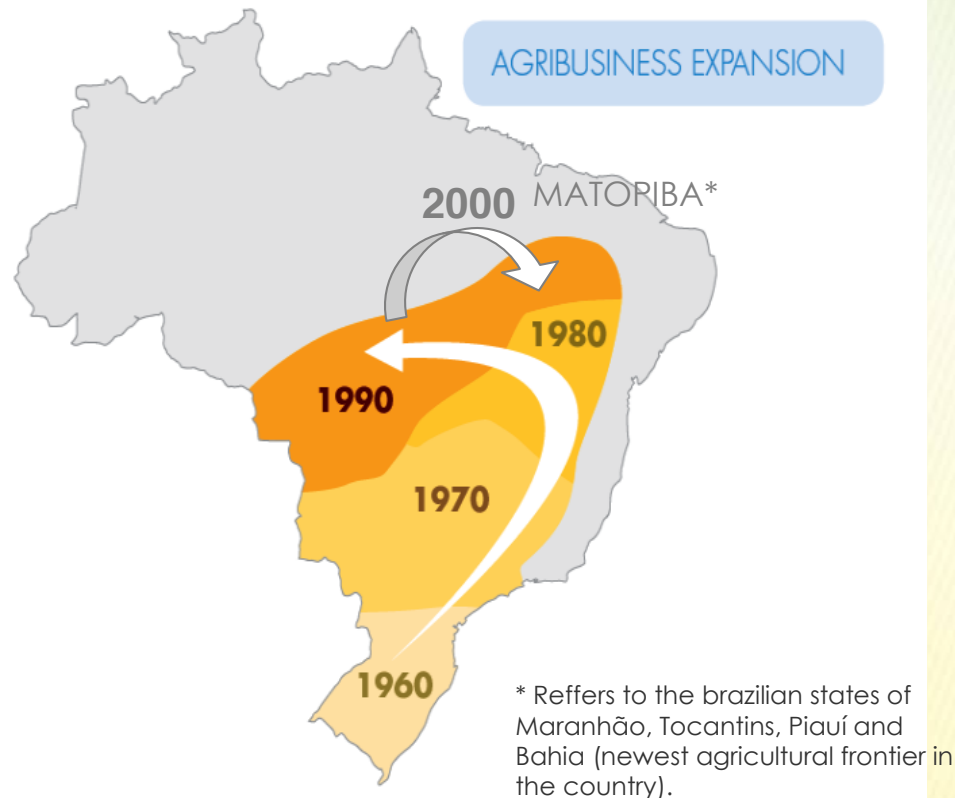
Expo Milan - 2015

Presentation outline

1. Agribusiness overview
2. Sugar Cane Agroecological Zoning (Zaecana)
3. National Commitment for Improving the Labour in the Sugar Cane Sector
4. New Forest Code
5. Concluding remarks

Agribusiness Expansion

Agricultural production started primarily in the southern region and, later on, expanded to other areas towards the middle-west of the country.



High levels of productivity as a result of investments in tropical technology allow coexistence of expansion of food and energy production, along with environmental protection.

Foreign Trade



Zoning as a planning tool

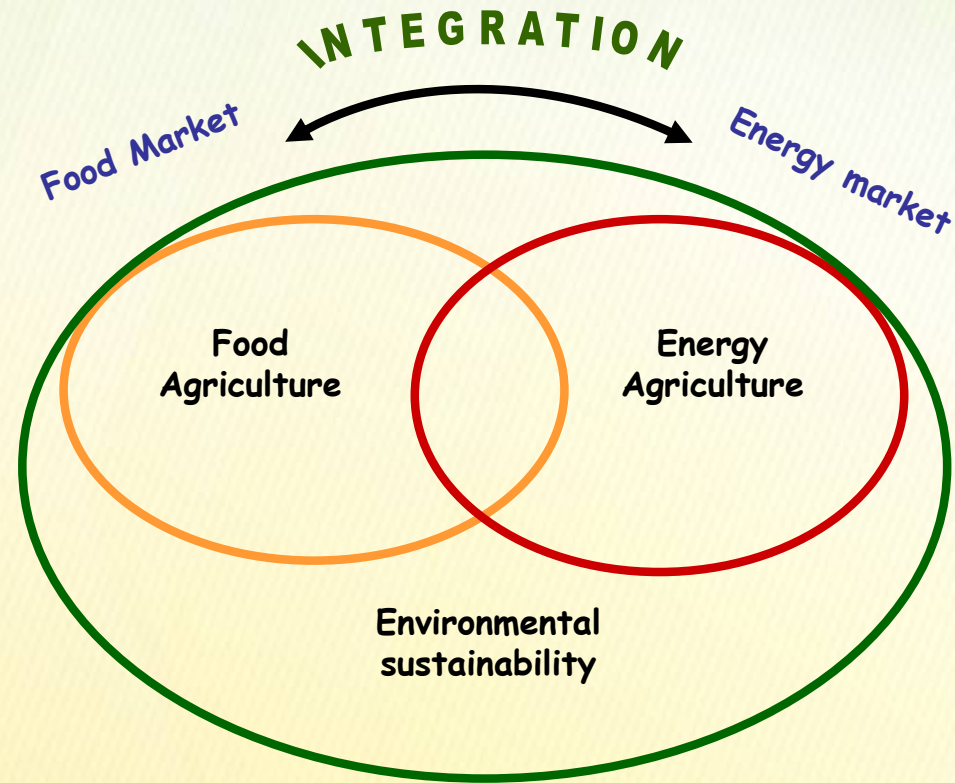
- Climatic Risk Zoning
- Economic – Ecological Zoning
- Agroecological Zoning (Sugar Cane and Palm)

What was the situation before of the Sugar Cane Agroecological Zoning?

1. A growing world debate (Biofuels x Food);

2. International criticism;

3. Possible non-tariff barriers;



What is the Sugar Cane Agroecological Zoning?

1. Pioneering zoning coordinated in national level (MAPA, Embrapa, MMA);
2. Preventive action for a strategic sector;
3. It gives the government (Federal, State and Municipal) technical subsidies for drawing public policies for the sustainable and balanced expansion of this sector.

Goals of the Agroecological Zoning for Sugar Cane :

- 1. Identify areas without environmental restrictions and with potential for sugar cane production;**
- 2. Identify areas with climate and soil potential for sugar cane production with mechanical harvesting (<12% slope);**
- 3. Identify areas with potential for sugar cane production previously used for livestock production;**

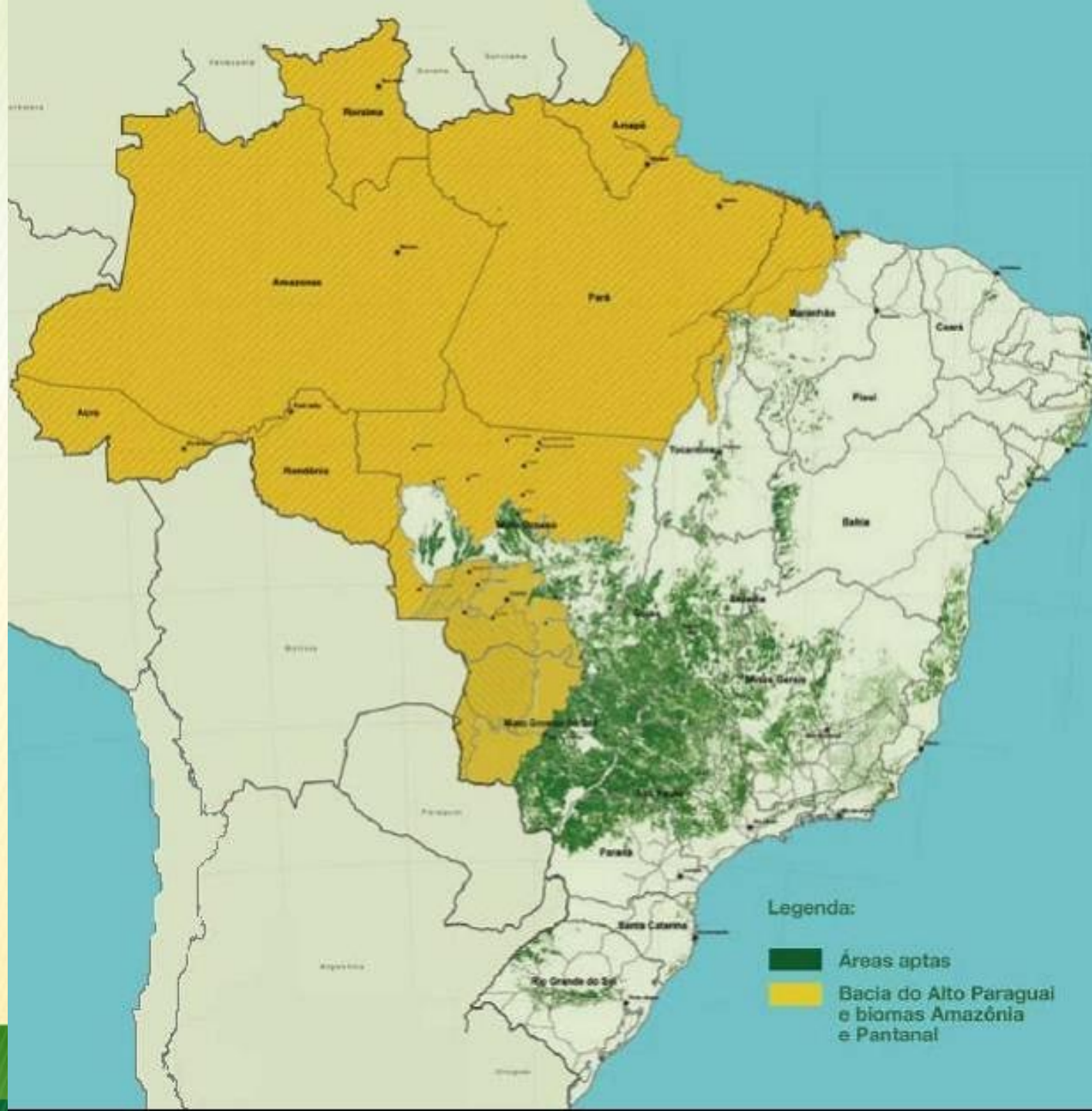
Zaecana – main environmental restrictions:

- 1. Exclusion of the Amazon and the Pantanal and Upper Paraguay River Basin;**
- 2. Exclusion of the national parks, indigenous areas and other protected areas;**
- 3. Prohibition of deforestation for planting sugar cane;**
- 4. Ending the use of fires by 2017 (only areas suitable for mechanical harvesting).**

Policies derived from Zaecana to guide Sugar Cane sector expansion:

- 1.Guidance of public and private funding;**
- 2.Guidance for installation of new ethanol plants
(not applicable for installed plants);**
- 3.Guidance for environmental license procedures;**
- 4.Guidance for Federation States` policies.**

**92,5% of
Brazilian
territory was
excluded as
potential
areas for
sugar cane
production
after Zaecana
was
concluded!**



Sugar Cane Zoning results

Potential areas in Brazil by level of aptitude and land use (ha)

| Potential | Potential by land use (ha) | | | Total |
|------------|----------------------------|-----------|------------|------------|
| | Ap | Ag | Ac | |
| High (H) | 10.251.027 | 585.989 | 7.191.388 | 18.028.403 |
| Medium (M) | 22.818.770 | 2.015.247 | 16.340.890 | 41.174.906 |
| Low (L) | 3.062.029 | 490.027 | 733.152 | 4.285.208 |
| H+M | 33.069.796 | 2.601.235 | 23.532.277 | 59.203.309 |
| Total | 36.131.825 | 3.091.263 | 24.265.429 | 63.488.517 |

Ap = areas with pastures; Ag = areas with agriculture; Ac = areas with agriculture and livestock.

Only 7.5% of Brazil were identified as areas suitable for expansion of sugar cane and only 10% of this potential area is expected to be occupied in the next 10 years.

National Commitment

- Cooperation between private and public sectors to put into place actions to improve working conditions of sugar cane production; strengthening and disseminating best practices;
- Commitment developed jointly with active participation of millers, agricultural producers union's and government bodies.



National Commitment

- The Commitment encourages practices that are even more restrictive than the regulatory demands;
- It is a voluntary extra effort to improve working conditions in the sugar cane sector;
- Commission created to follow up and evaluate Commitment implementation (Government; Industry and Workers);
- Verification of the Commitment fulfillment by independent auditing firms;

New Forest Code

- Law that regulates the preservation and sustainable use of native vegetation, biodiversity, soil, water and climate;
- Previous law was from 1965; many amendments over the years generated judicial uncertainty;
- New law brings economic incentives for the preservation and sustainable use of natural resources.

New Forest Code

The law reinforces two main instruments for preservation of natural resources:

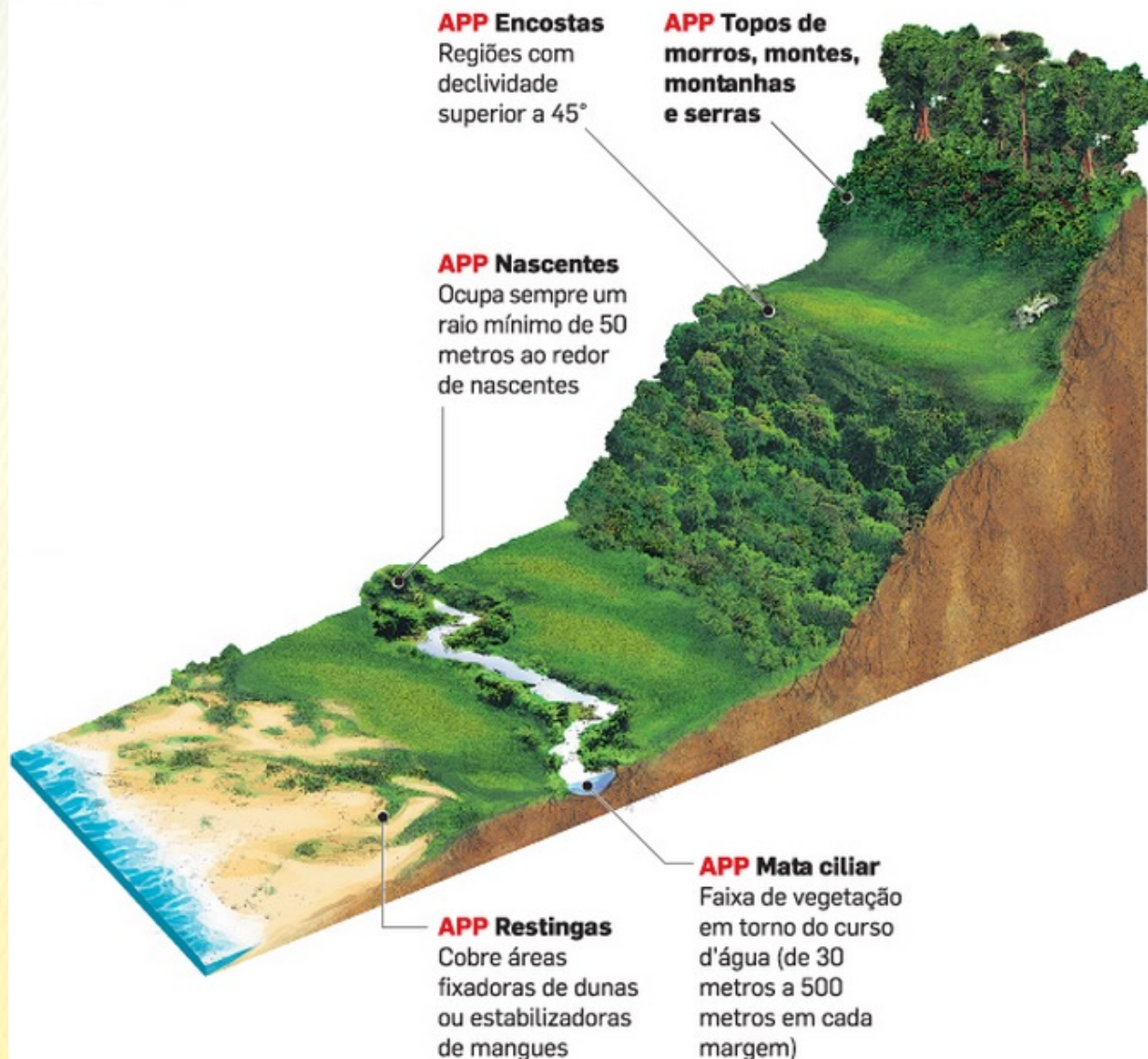
- Permanent Protection Areas
- Legal Reserves

New Forest Code

Permanent Protection Areas:

- areas that are covered or not by native vegetation;
- land situated in fragile areas;
- Function of preservation of water resources, landscape, geological stability, biodiversity and soil protection;

Permanent Protection Areas:



Permanent Protection Areas:

Preservation of water resources



New Forest Code

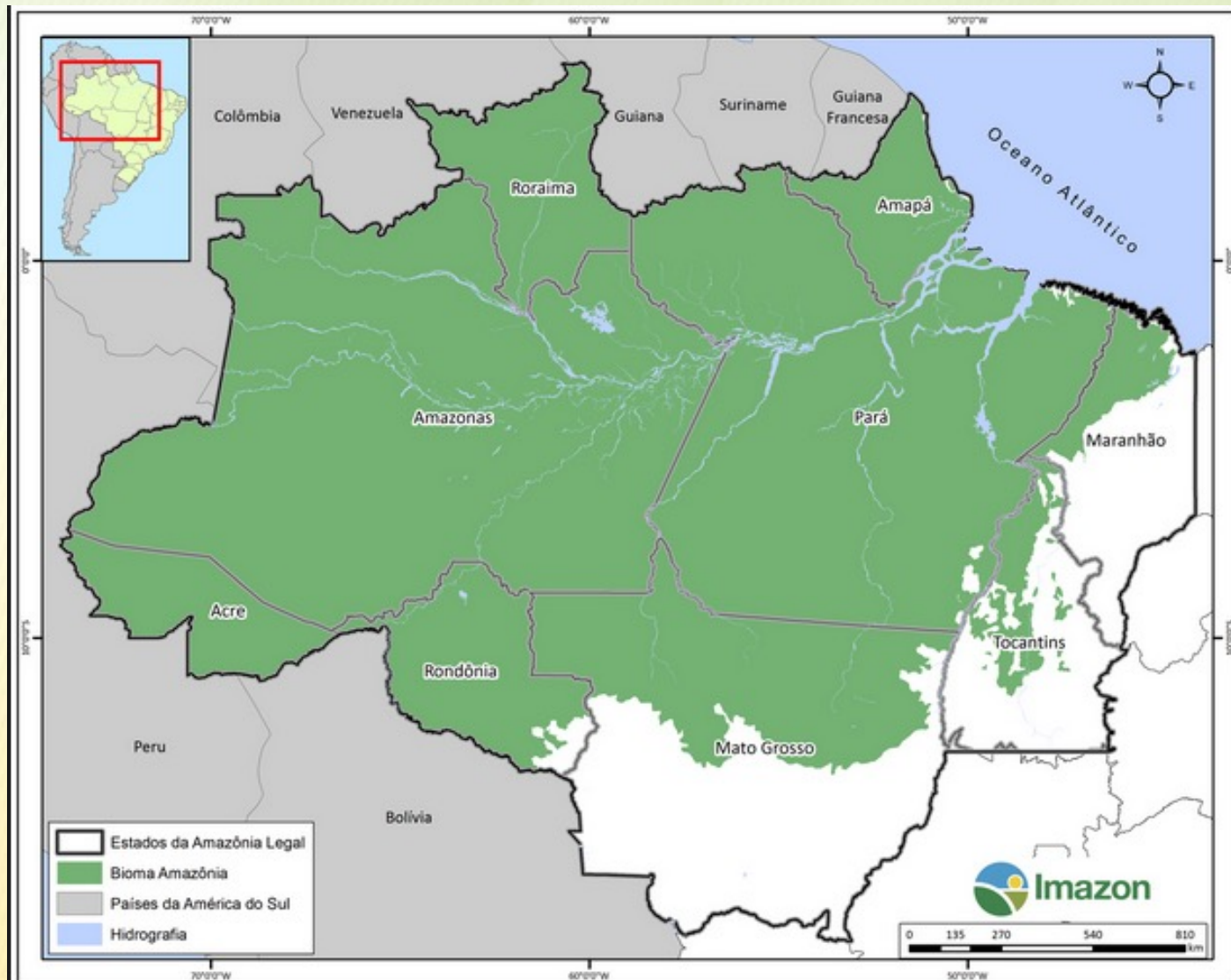
Legal Reserves :

- Amount of land within a property that must keep the original vegetation to ensure the biodiversity of the area; no deforestation allowed
- Can be used economically, following sustainable criteria;
- Legal reserve size differs according to where the property is located;

New Forest Code

Legal
Reserves in
the Legal
Amazon are
as follows:

- 80% of properties when in Forest areas
- 35% of properties when in savannah areas
- 20% of properties in other areas



New Forest Code

Legal
Reserves in
areas
outside the
Legal
Amazon:
20%



Concluding remarks

- **Brazil encourages sustainable development;**
- **Zonings are essential to guarantee harmonized, sustainable agricultural production and optimization of land use;**
- **National Commitment: important extra effort to encourage the adoption of best practices;**
- **New Forest Code: stability; clear regulations; incentives for sustainable practices;**

Thank you!

Luis Carlos Job
luis.job@agricultura.gov.br