Sustainable Tropical Agriculture: Success Basis



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Summary

DVERVIEW

LEARNING FROM HISTORY

WHAT CHANGED?

SUCCESS BASIS

CHALLENGES



Overview - agriculture

To grow at faster pace than the economy:

- Produce with quality and sustainability.
- ✓ Investment from other sectors of the economy and international capital.

Agriculture and Livestock Production Industrial

Processes

Renewable production factors Non Renewable production factors Consumer

Logistics

Iuminosity, water, biodiversity, technology and innovation

The development of agricultural science in Brazil:



Sustainability of Tropical Agriculture - ABC and ABC+ Program



Pasture x Agricultural x Forest Integration

Learning from history Agricultural Productivity

What Changed? 1956 - 2024



Learning from history:



TSP

World in 1939



Learning from history:



TSP

World in 2024



CROPS



PLANTED FOREST



CROPS



PLANTED FOREST



PASTURE - 1985

PASTURE AREAS

PASTURE - 1992





CROPS

PLANTED FOREST



CROPS

PLANTED FOREST





Agricultural Production

Where we produce? How we produce?

PASTURE - 2002 PASTURE QUALITY PASTURE AREAS Increase pasture Colombia production ∞) म ि म] × 6 1:22,477,813 1:22,652,670 500 km 1000 km 500 km 1000 km

PASTURE - 2012

PASTURE AREAS

PASTURE QUALITY



PASTURE - 2022

PASTURE AREAS

PASTURE QUALITY



INFRASTRUCTURE

ROAD NETWORK (Brazilian National Department of Infrastructure and Transport (DNIT)



Grain areas: two crops in the same area



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Agricultural Policy Evolution - Brazil



World Agriculture Areas

Share of cultivated areas in total areas in the 10 largest countries by territorial extension





Source: NASA; USGS



Provide food security, biofuels and fibers for **Brazil and the** world with sustainability

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diversity.

- public policies producers – ii. Responsibility environmental
- Environmental regularization;
- natural areas; ii.Determination of limits for opening areas; iii. Preservation of freshwater reserves; iv. Legal authorization to punish. **Difficulties:** i. Land regularization; sanctions ii. Country of continental dimensions; iii. Sociocultural diversity.

. Benefits:

i. Preservation of



system. **Benefits:** i.Georeferencing ii.Productivity: nformation productivity with solid foundations of methodology and procedure; iii. Identification of technological packages with precision; **Difficulties:** i. Continental Country; ii. Investments in technologies and training.

Success bases:



PRODUCTIVITY EVOLUTION

- Productivities were transformed into an index with the first observation equal to 1.
- The meat productivity series starts in the year 2000.
- The sugarcane productivity series starts in 2005.



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Livestock Production





Source: FAOStat

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Soybean – World Agricultural Spending



Soybean – World Agricultural Income



CORN – World Agricultural Spending



CORN – World agricultural income



Challenges





74



GLOBALIZATION

PRODUCTION AND PRODUCT TRANSIT ARE PRACTICALLY FREE; TRANSFER COSTS REDUCED;

CONSUMERS INCREASINGLY HAVE ACCESS TO THE PRODUCTS THEY PREFER; INVERSE PRODUCTION CYCLES;

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Thank You

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