



Brazil's Soy Frontier at Middle Age

DTN Ag Summit 2015

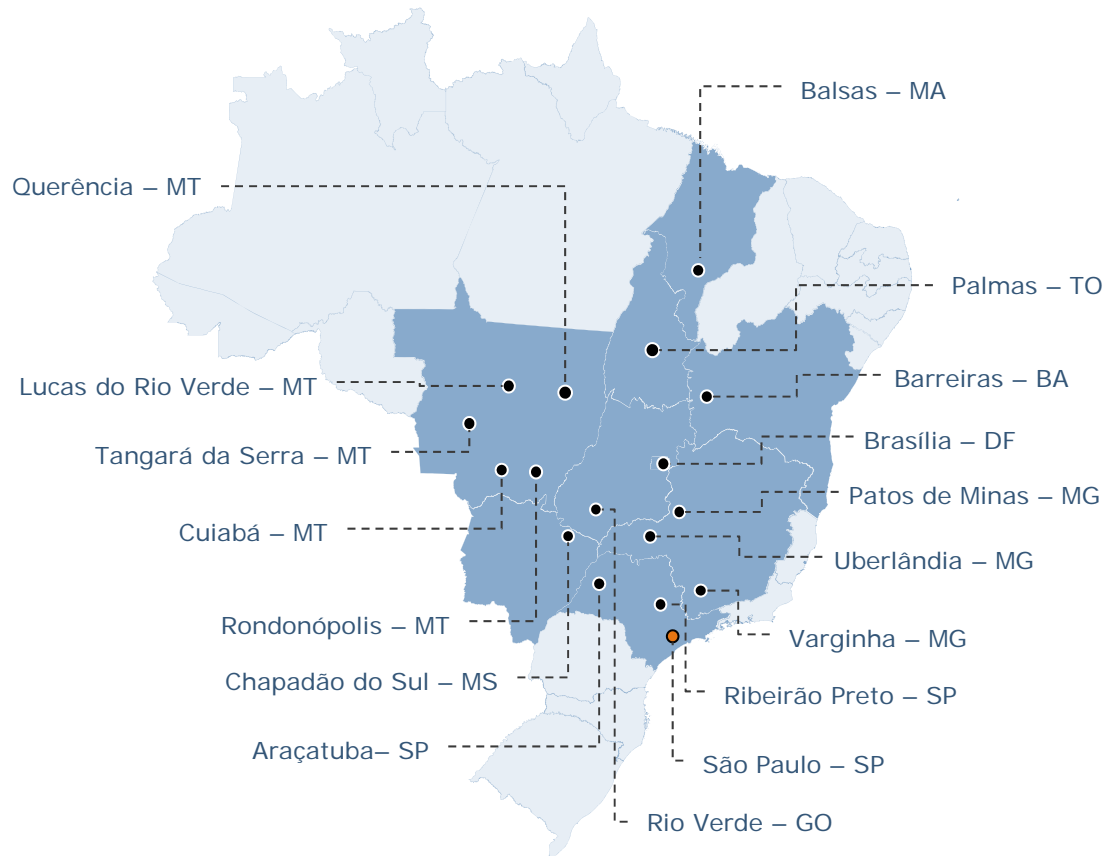
Renato Rasmussen

December, 2015



Rabobank

Rabobank Brazil



Animal Protein



Beverages



Clean Tech



Dairy



Farm Inputs



Food



Fruit, Veg & Flowers



Grains & Oilseeds



Non-food



Sugar, Cotton, Coffee & Cocoa

Rising.....

More food will be needed in the first half of this century, than it was consumed in the last 7,000 !!!

Per capita income

Urbanization

Population

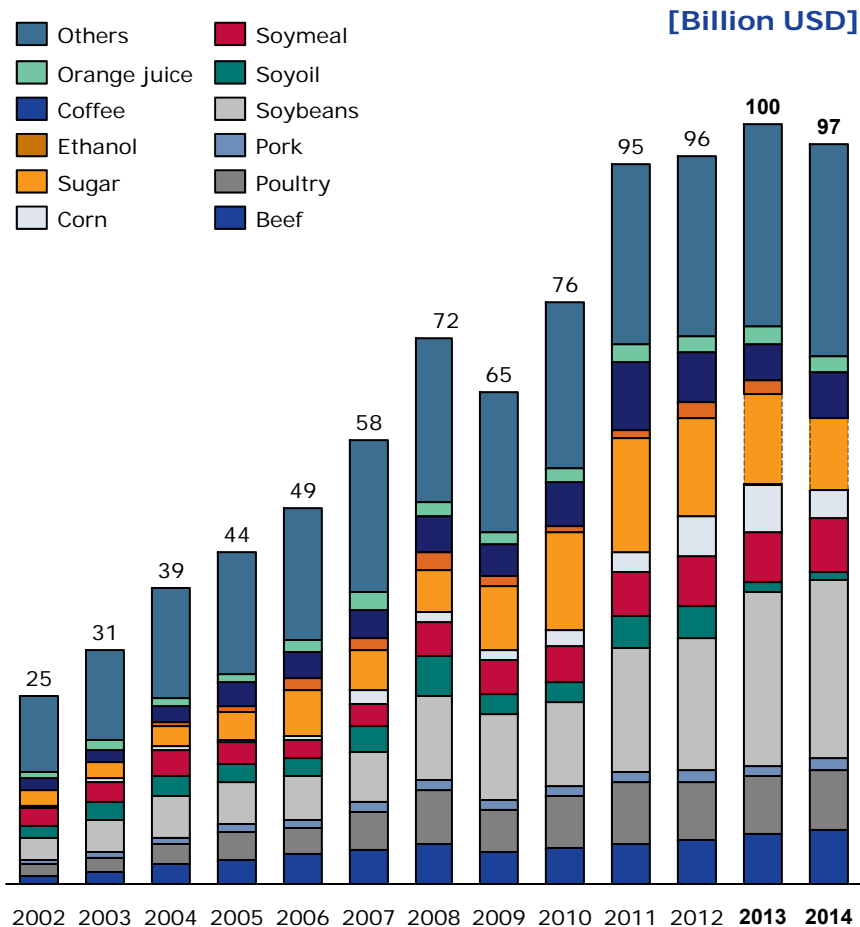


Brazil is doing its part...



	World ranking, production	World ranking, exports	Exp. Value (USD bln 2014)
Sugar	1 st	1 st	9,4
Coffee	1 st	1 st	6,1
FCOJ	1 st	1 st	2,0
Ethanol	2 nd	2 nd	0,9
Beef	2 nd	1 st	7,1
Soybeans	2 nd	1 st	7,0
Poultry	3 rd	1 st	7,9
Soy Oil	4 th	2 nd	1,1

Brazil: agriculture export

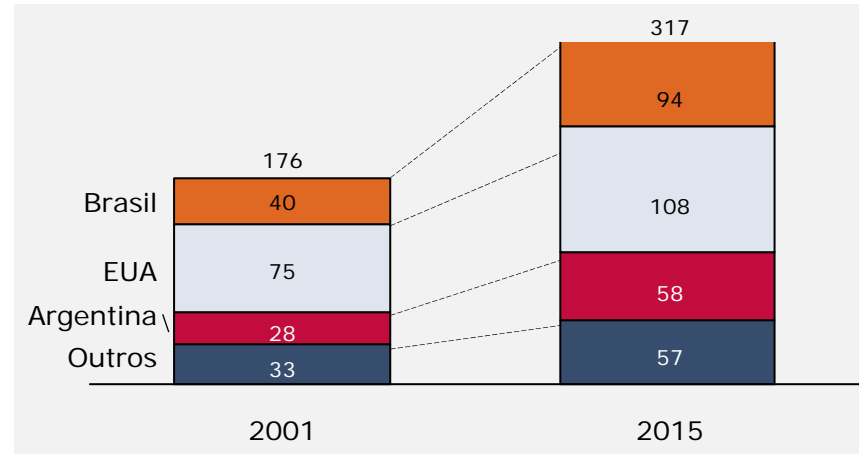


Source: MAPA, USDA, 2015.

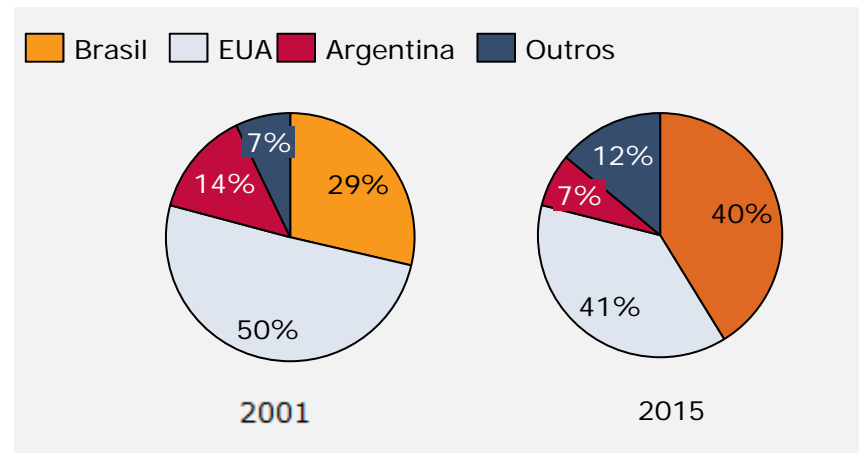
Over the past 15 years, soy prod. & exports more than doubled



Total soybean production (million metric tons)



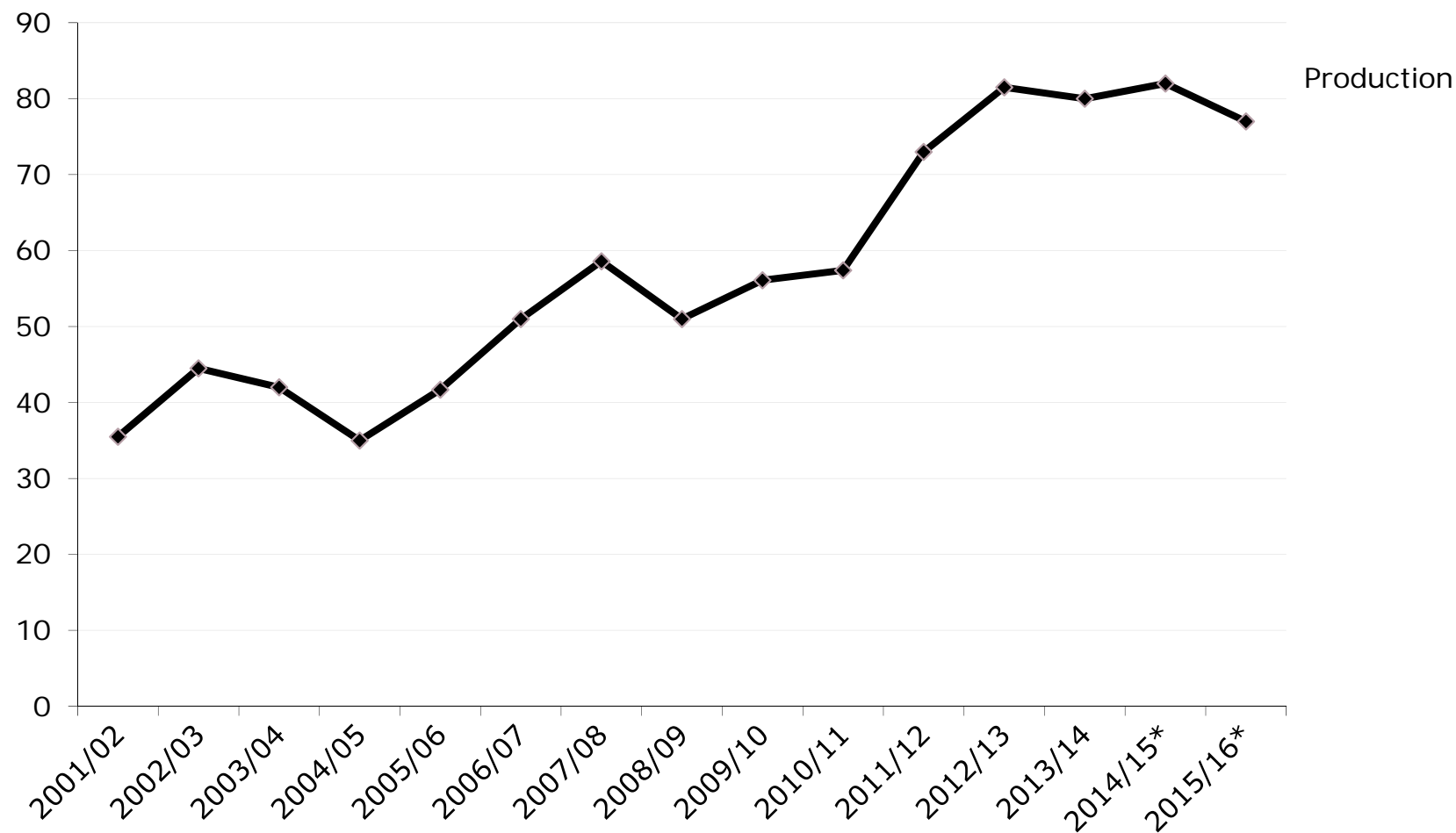
Share in soybean exports (%)



Source: USDA, 2015.

as did the Corn production

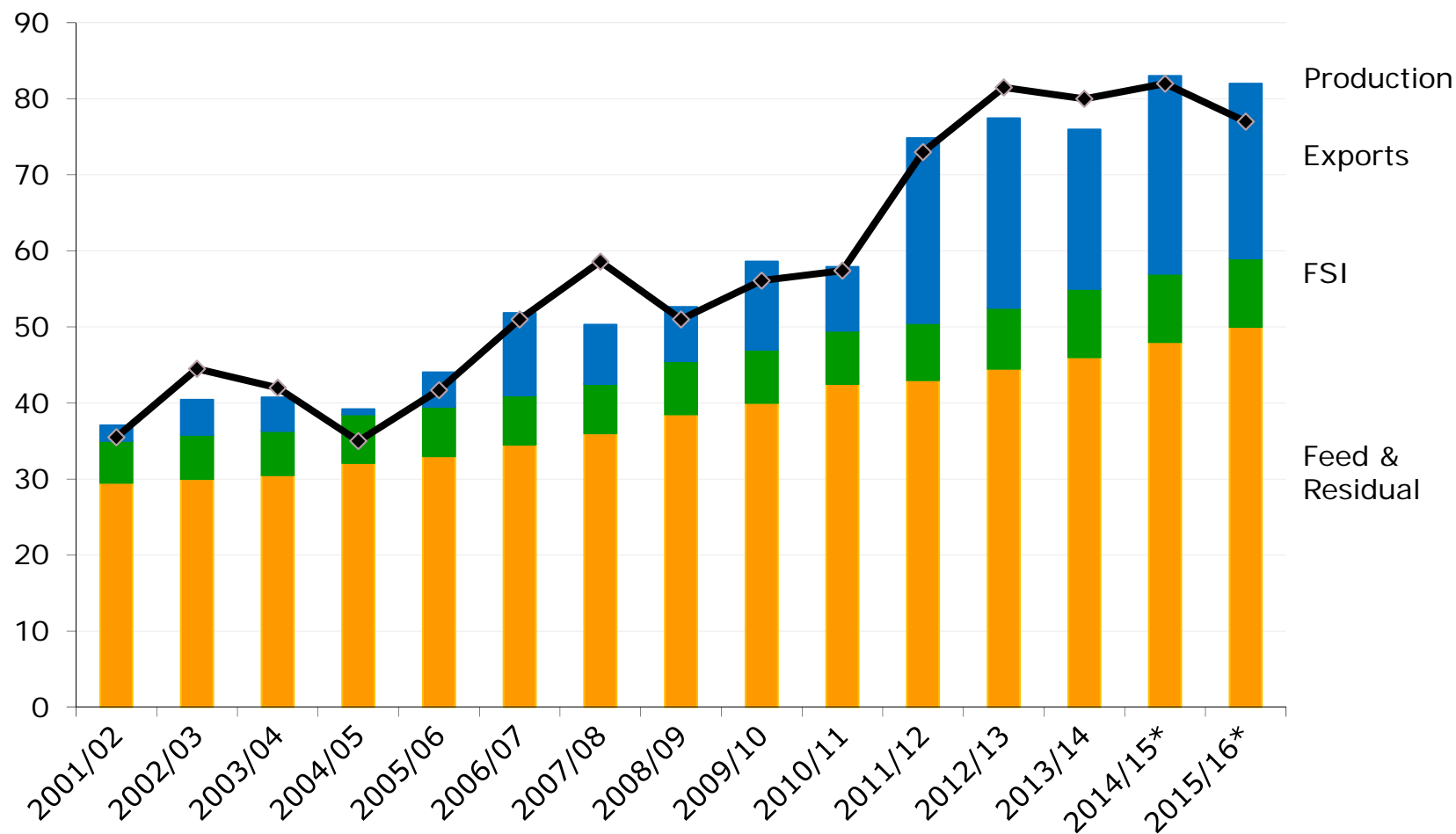
[Million tons]



Source: Brazilian Ministry of Development, Industry and Foreign Trade (MDIC), 2014; Rabobank, 2014; United States Department of Agriculture (USDA), 2014; ABIMILHO, 2014.

as did the Corn production & exports

[Million tons]

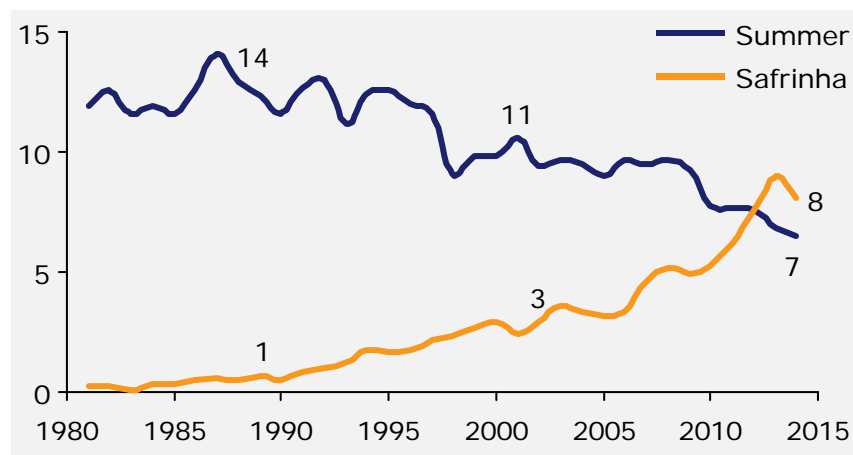


Source: Brazilian Ministry of Development, Industry and Foreign Trade (MDIC), 2014; Rabobank, 2014; United States Department of Agriculture (USDA), 2014; ABIMILHO, 2014.

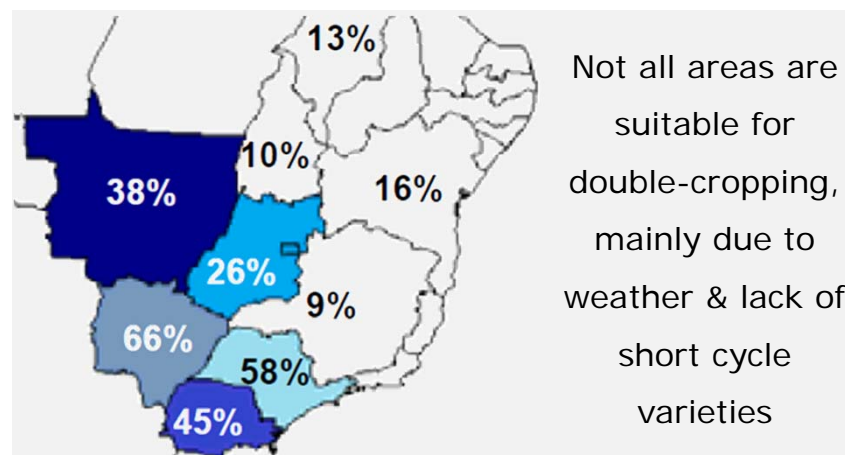
...given the strong synergies between the two crops...



Corn area (million hectares)



Safrinha area as a % of the soybean area



Not all areas are suitable for double-cropping, mainly due to weather & lack of short cycle varieties

...given the strong synergies between the two crops...



Source: Press, 2014.

thanks to Brazil's outstanding agricultural conditions

Soils

- Low natural fertility, but good structure
- Research to optimize fertility has created potential for high yields

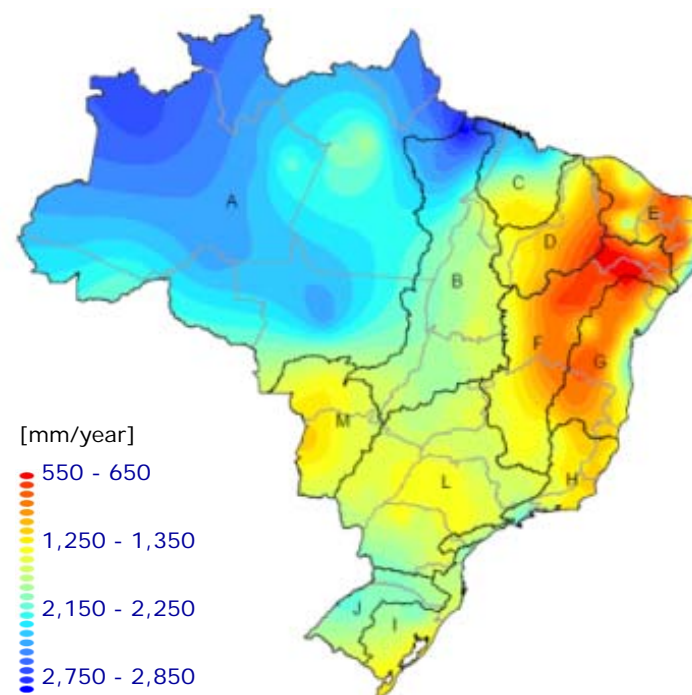
Climate & rainfall

- Most agricultural production regions have rainfall between 1,200 and 2,200 mm/year
- Mild winters allow year-round production, with double-cropping possible in many regions

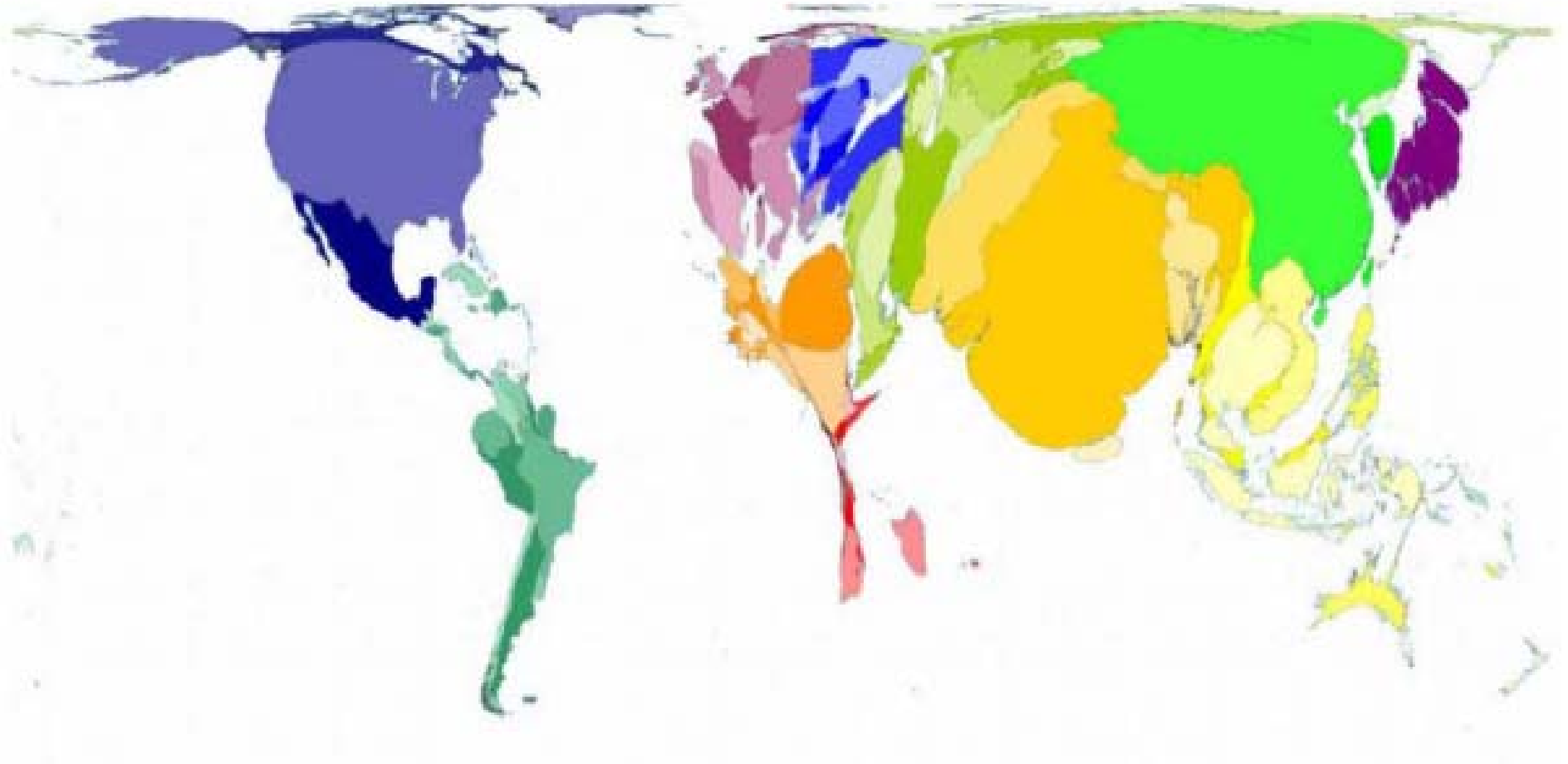
Topography

- Landscape is flat and favorable for mechanization in key agricultural regions

Rainfall distribution

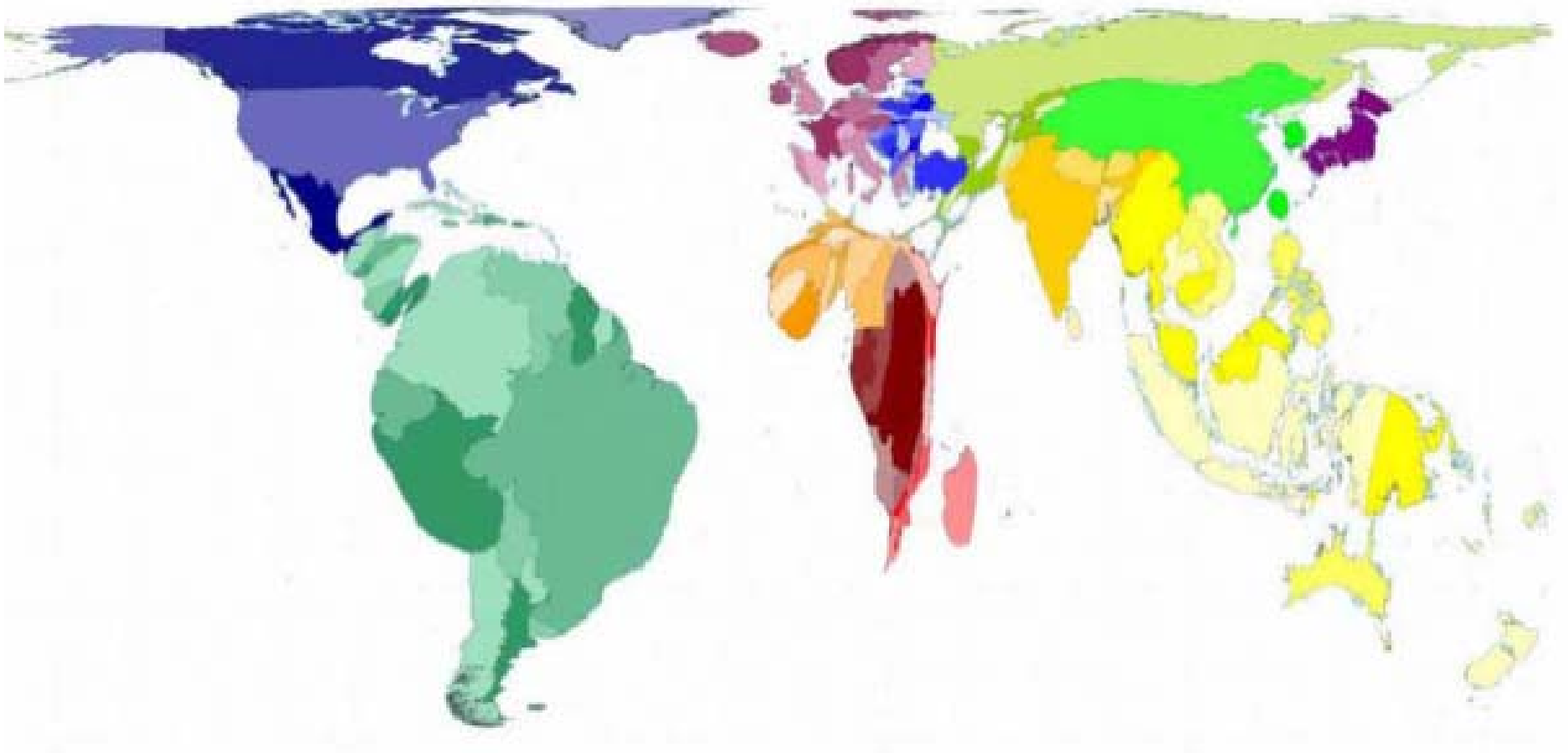


Water utilization



Source: Harvard Business School

Water availability

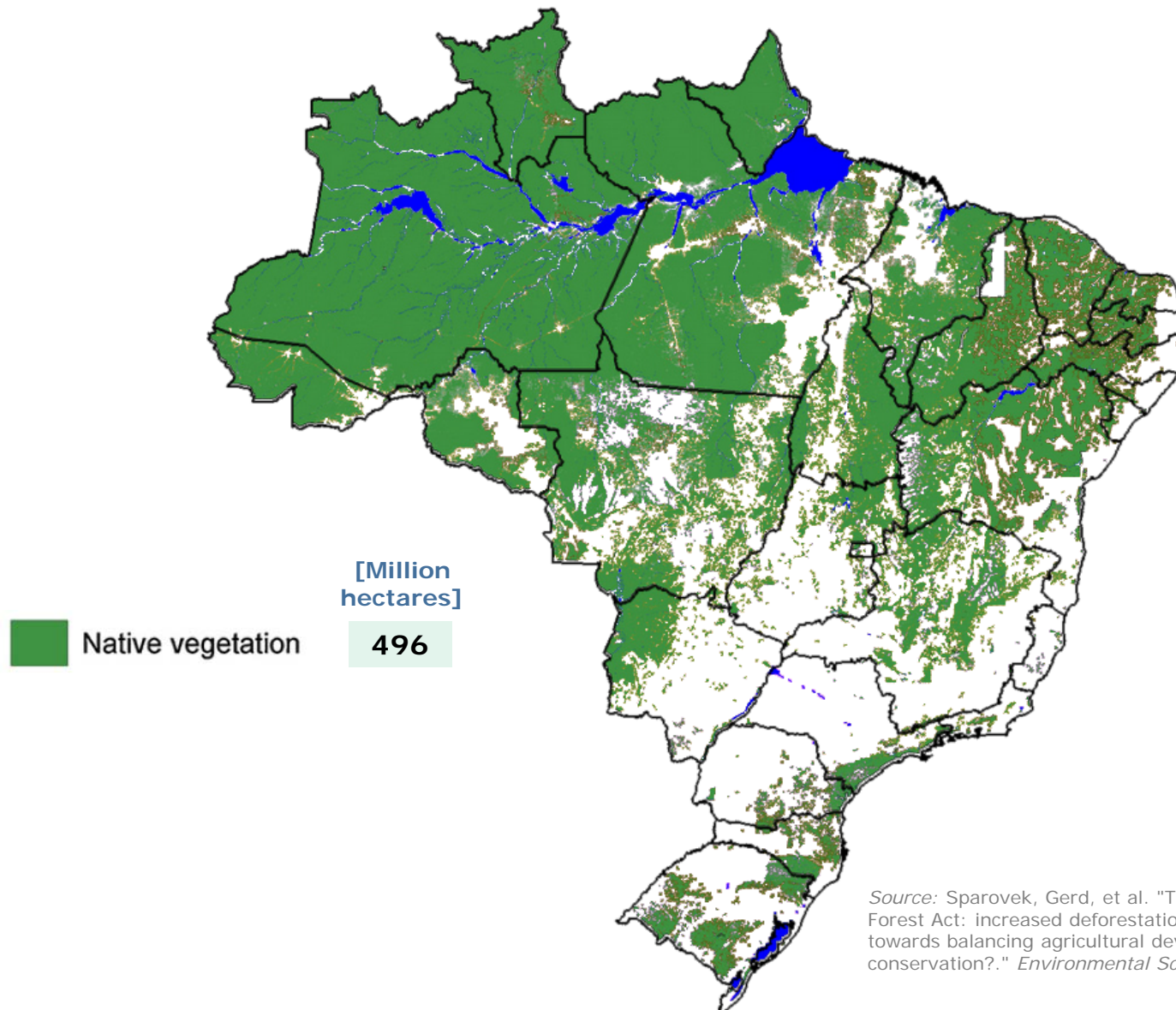


And the future is promising!



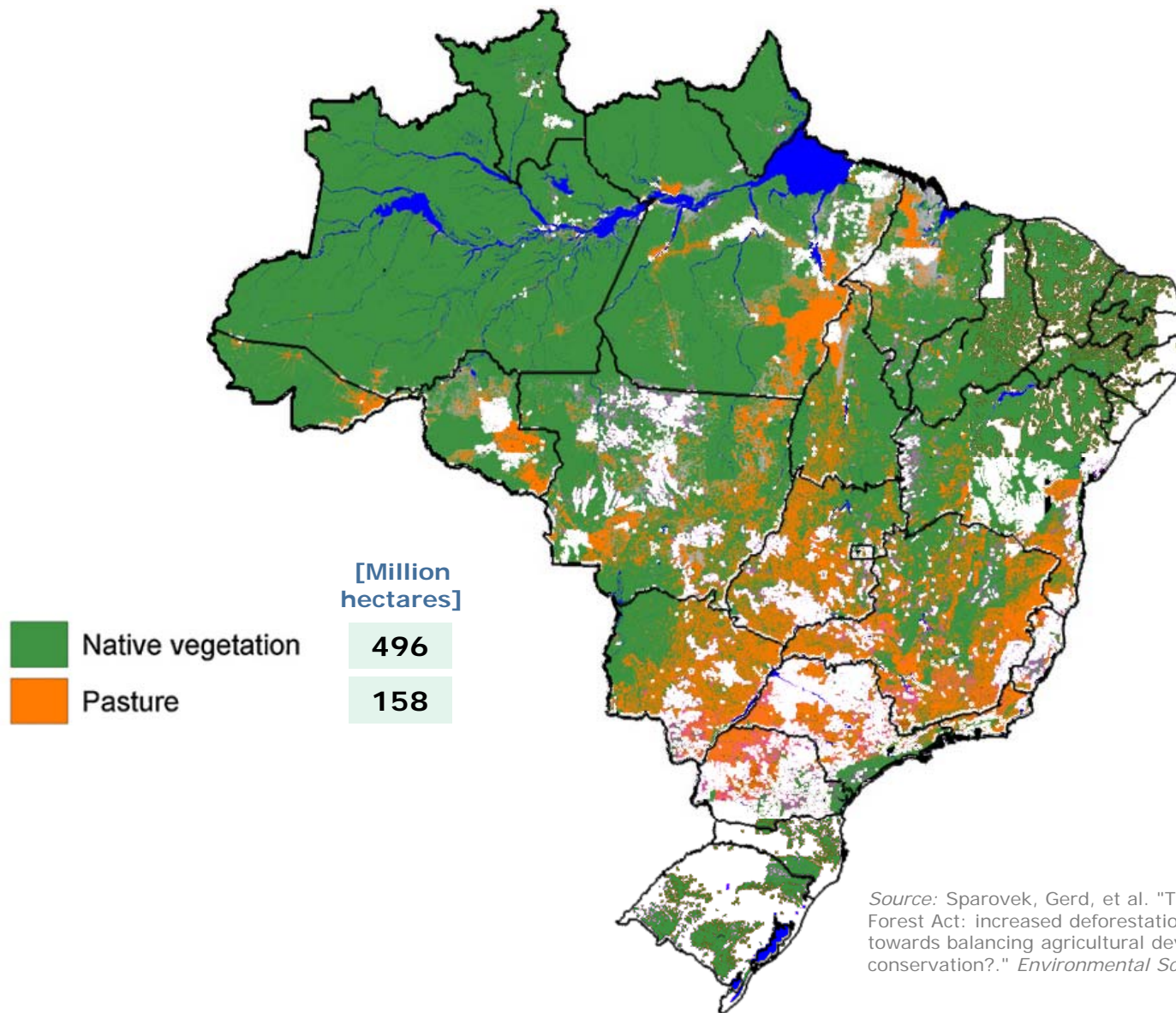
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Brazil still has considerable scope to expand agriculture



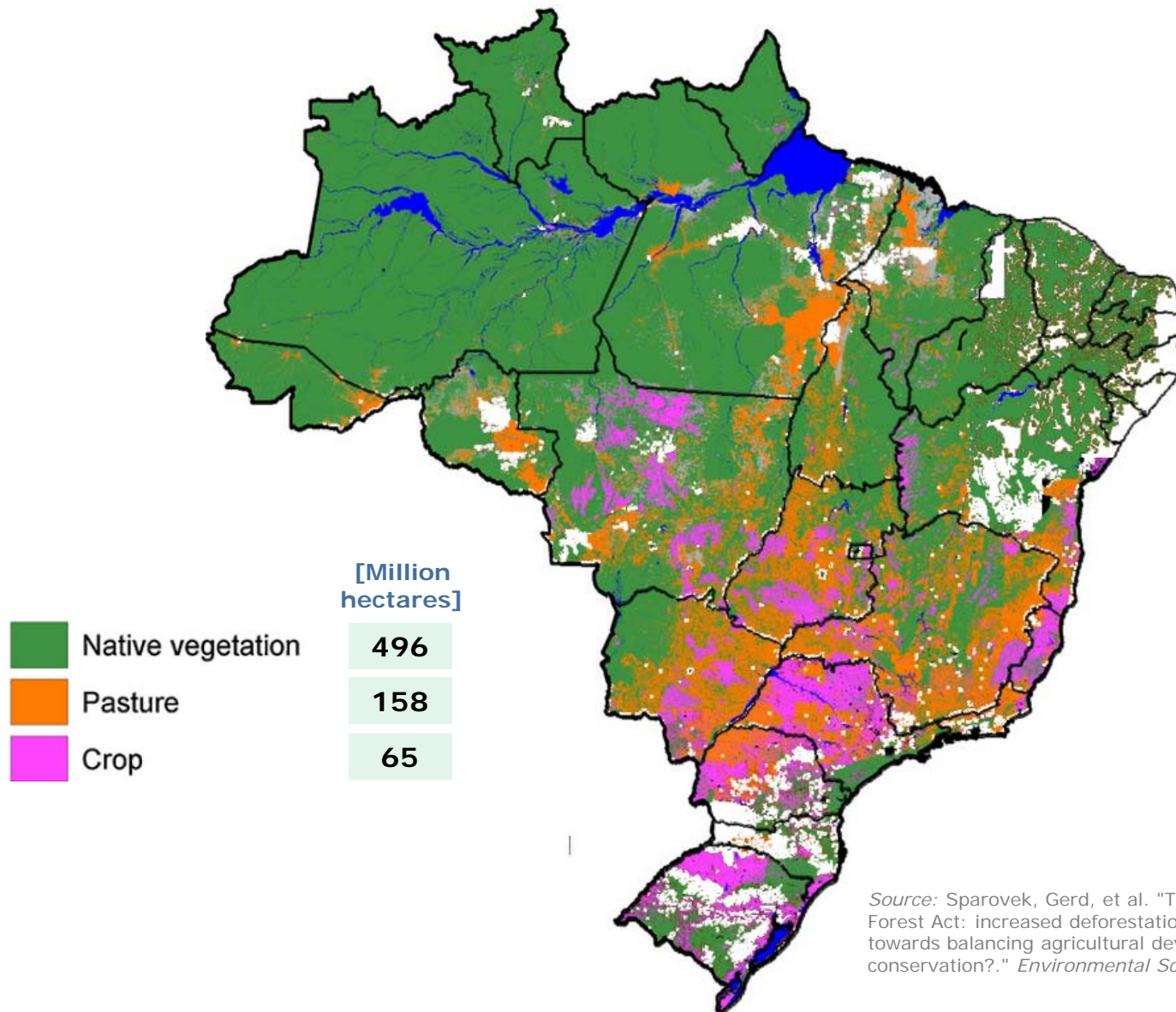
Source: Sparovek, Gerd, et al. "The revision of the Brazilian Forest Act: increased deforestation or a historic step towards balancing agricultural development and nature conservation?." *Environmental Science & Policy* 16 (2012).

Brazil still has considerable scope to expand agriculture



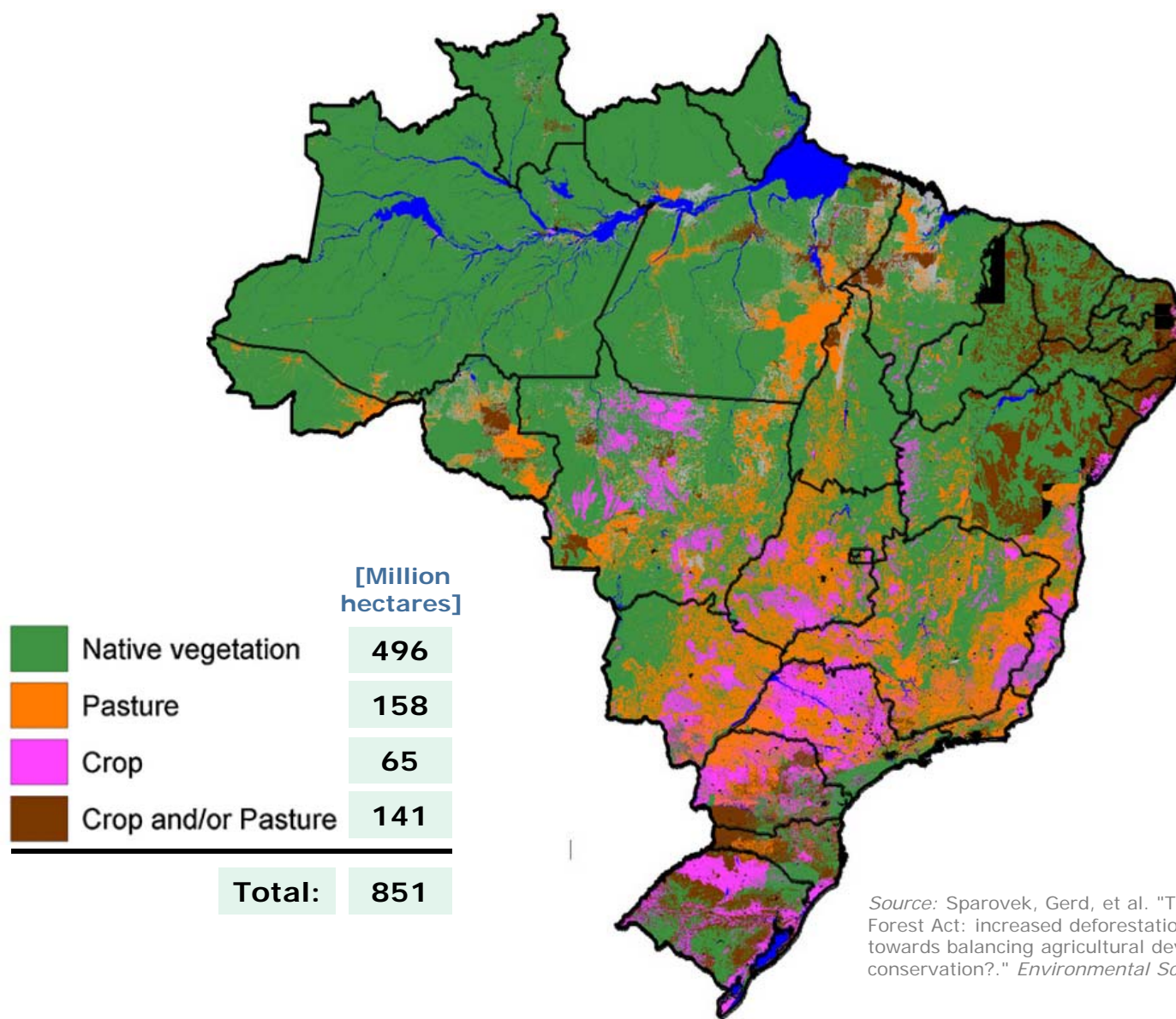
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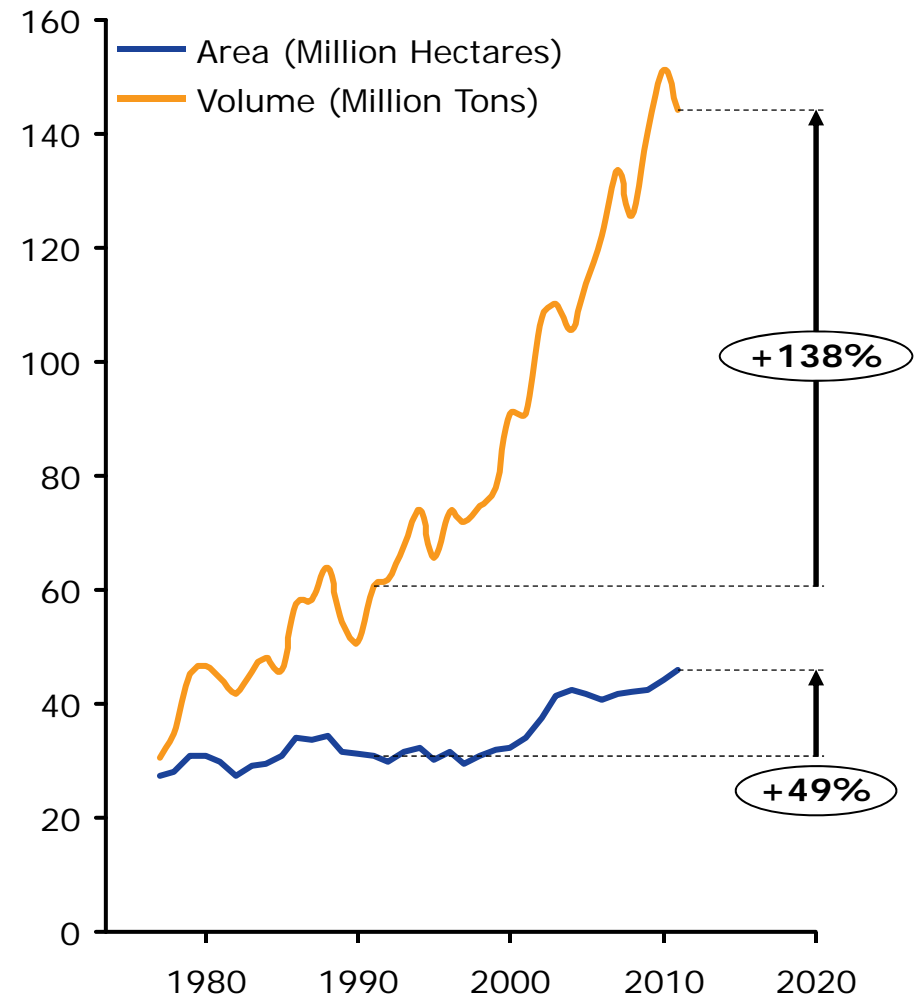
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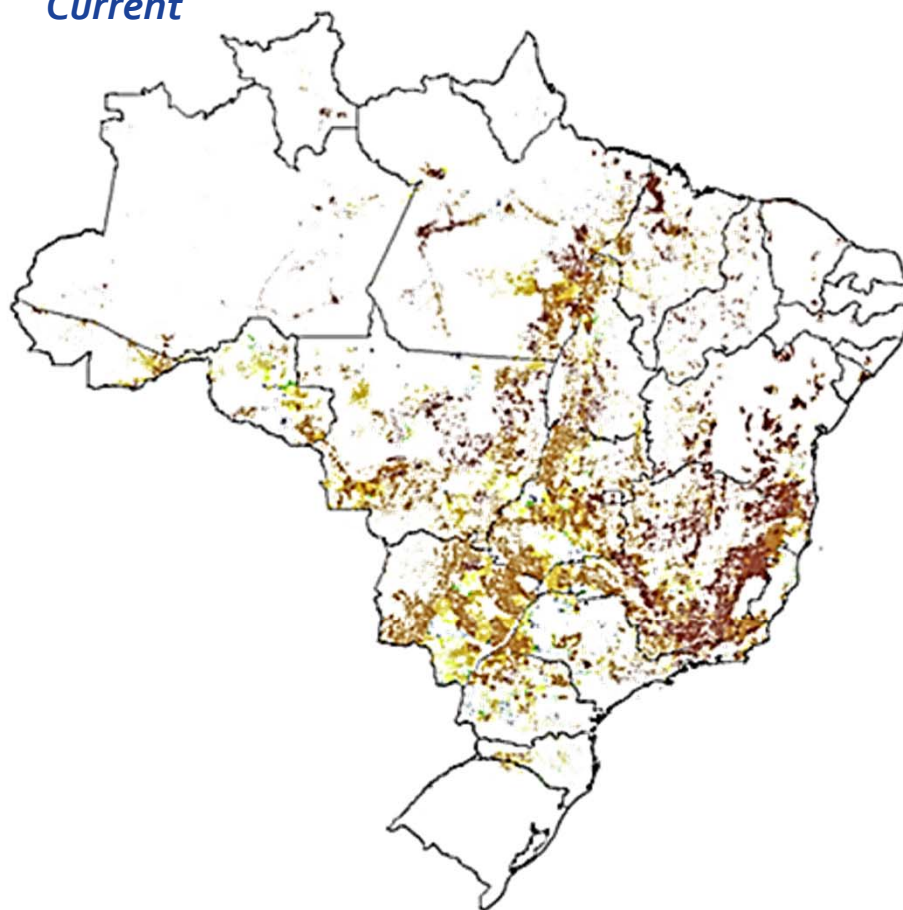
Specially over underused pasturelands



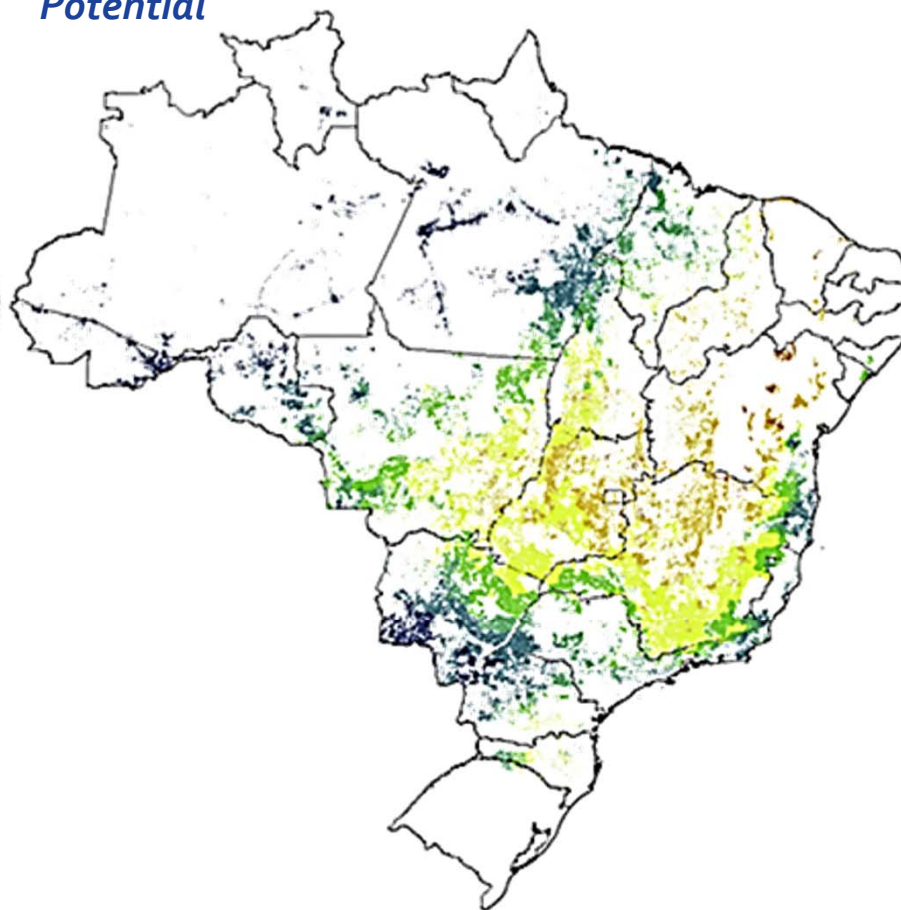
Brazil: Stocking Rates for Cattle Production



Current



Potential



Increased land turnover: attainable with innovative models

i.e.: Integrated Livestock/cropping/forestry model



Source: Embrapa, 2015.

However, we still have many challenges ahead...



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the fast growth highlighted the weaknesses in infrastructure...



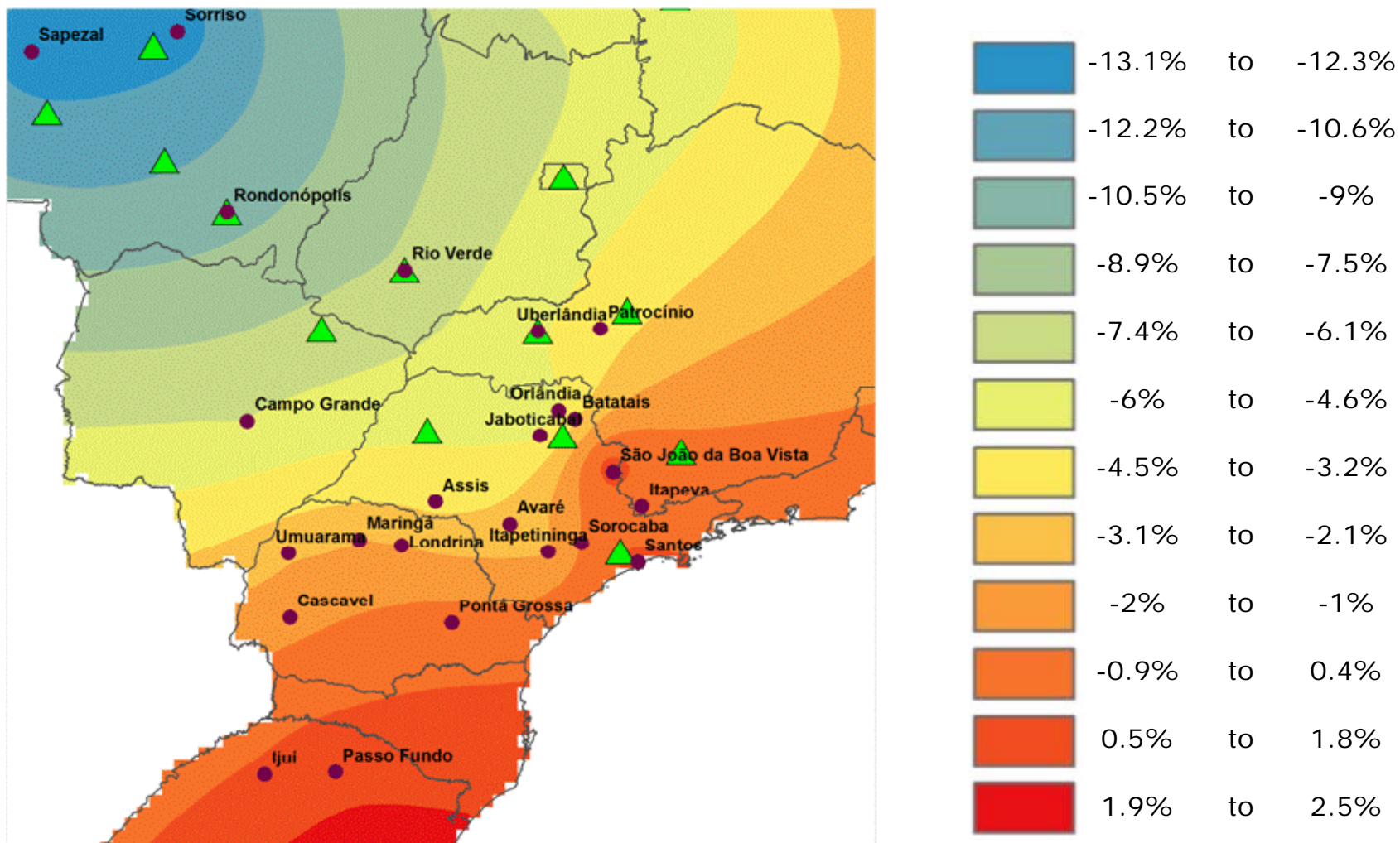
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Source: Press, 2013.

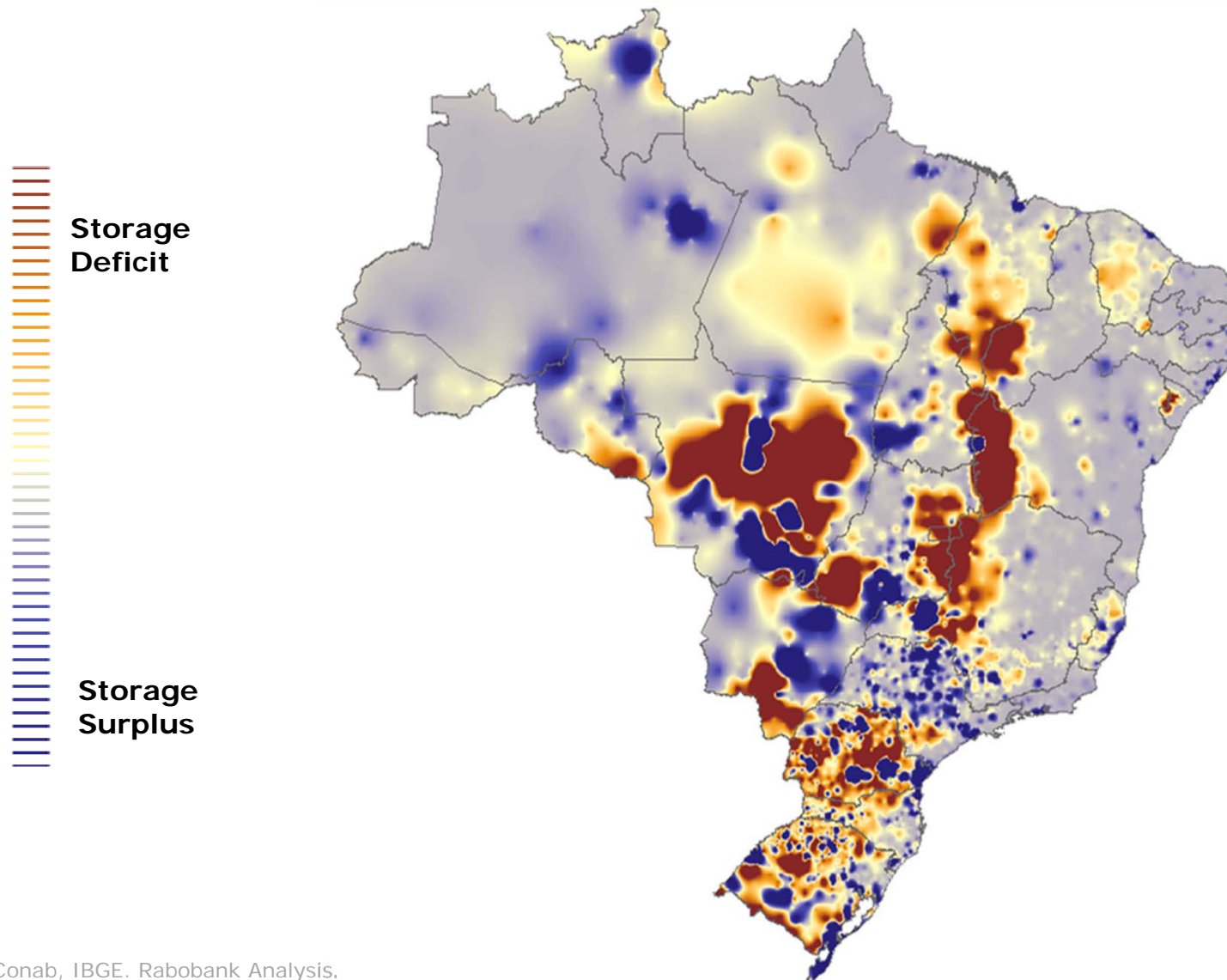
Logistics has a direct impact on soybean price formation in Brazil

Soybean Basis as % impact on spot prices - Annual average (2009-2013)



Source: Conab, IBGE. Rabobank Analysis.

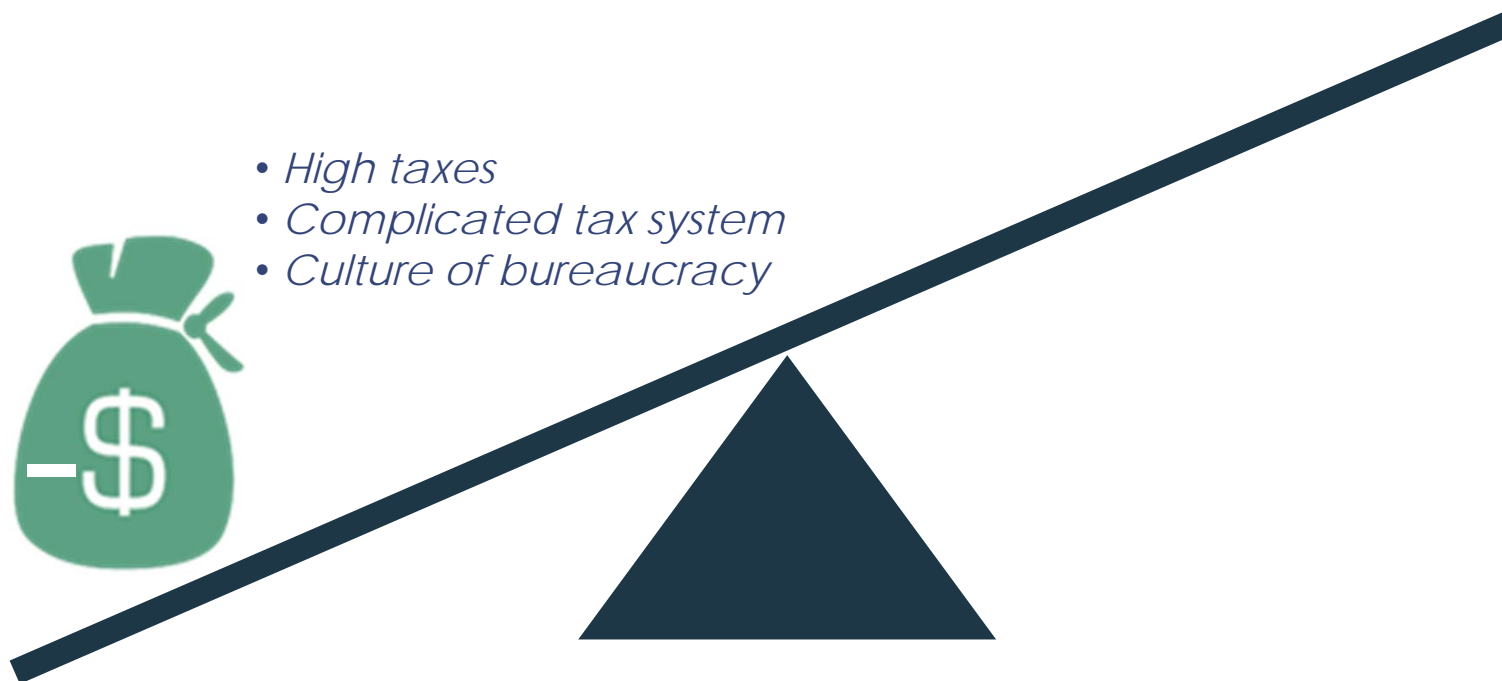
...and lacking storage capacity aggravates the problem



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The “Brazilian Cost”



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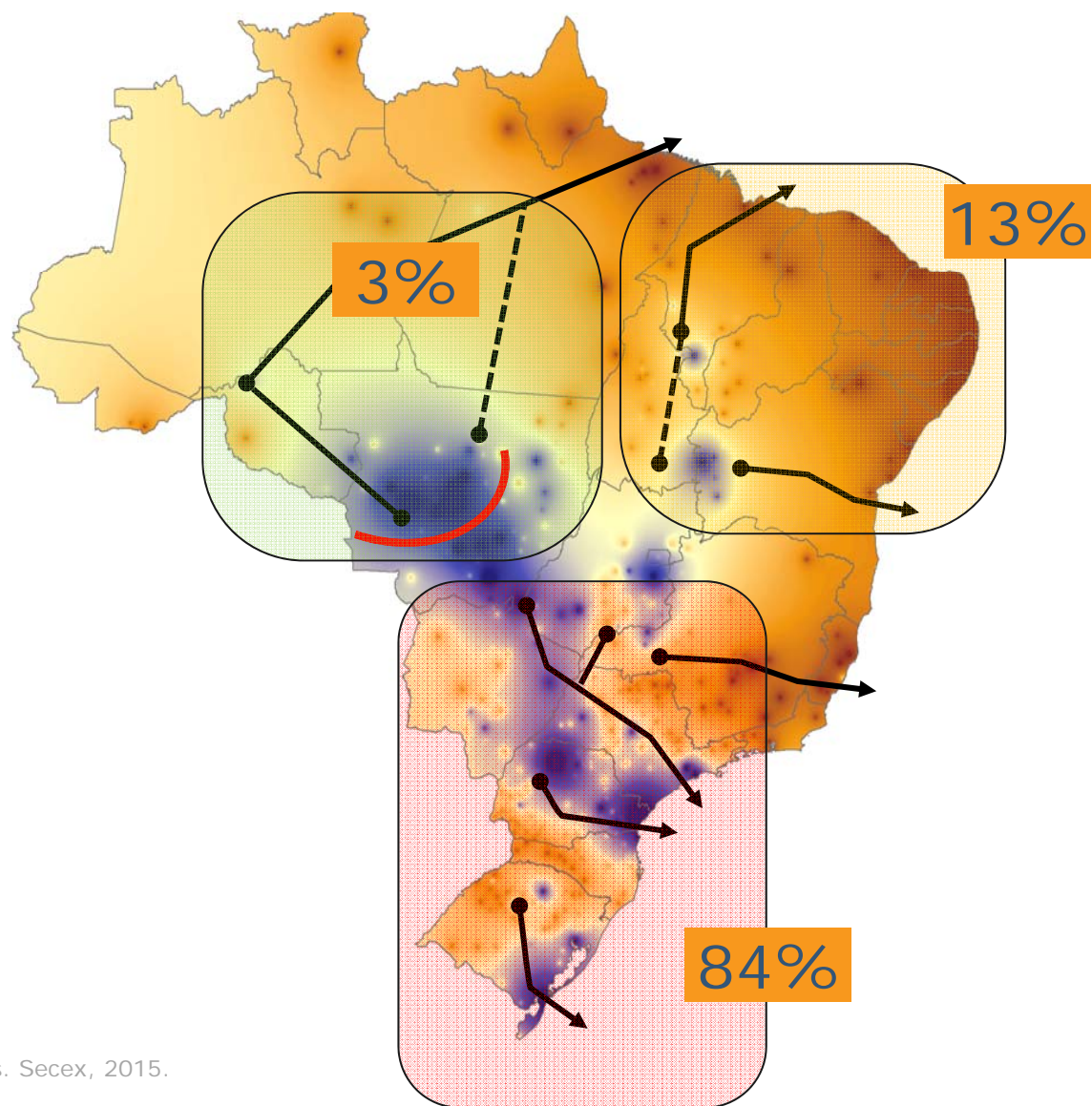


- *High taxes*
- *Complicated tax system*
- *Culture of bureaucracy*

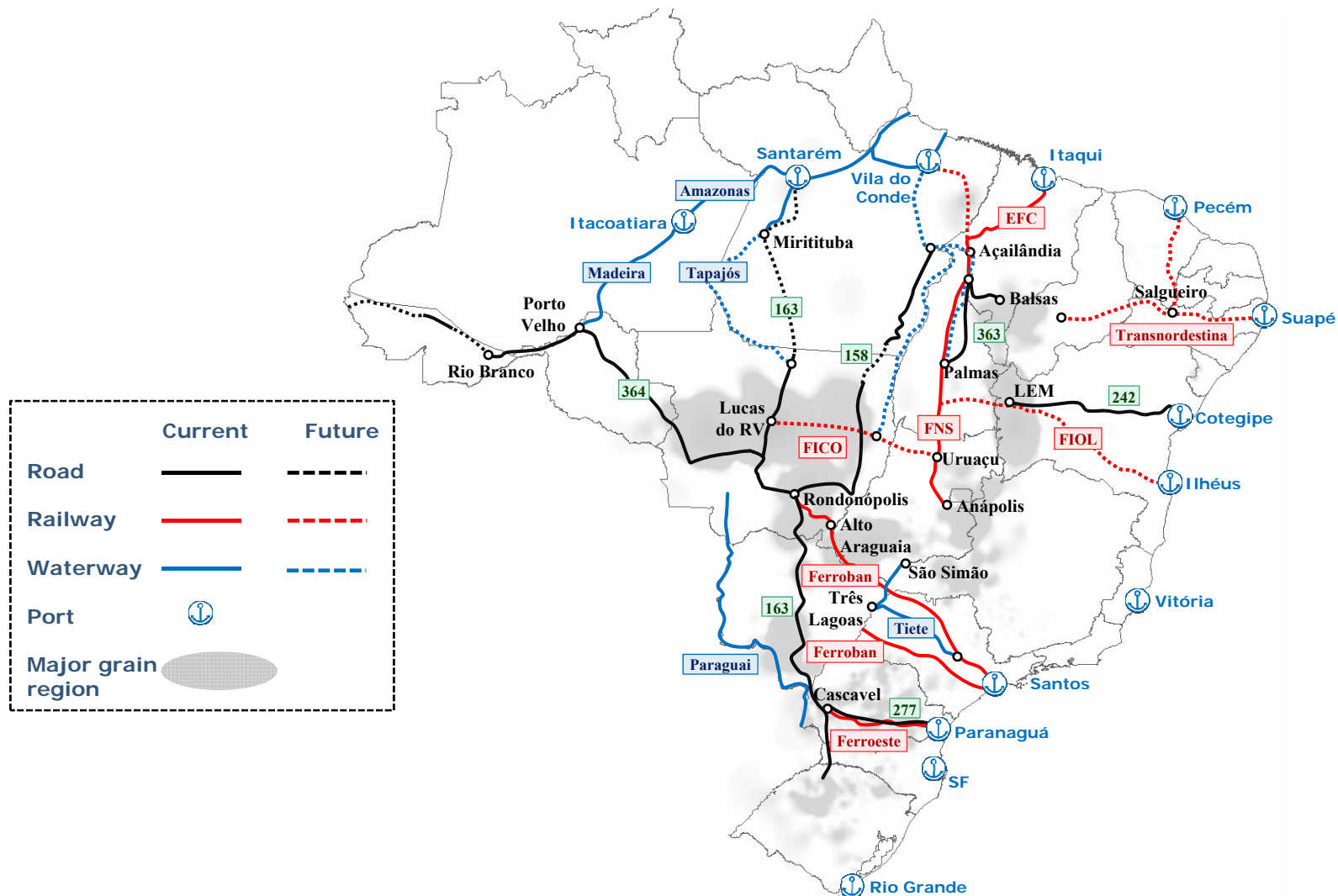
- *Research*
- *Credit availability*
- *Access to markets*



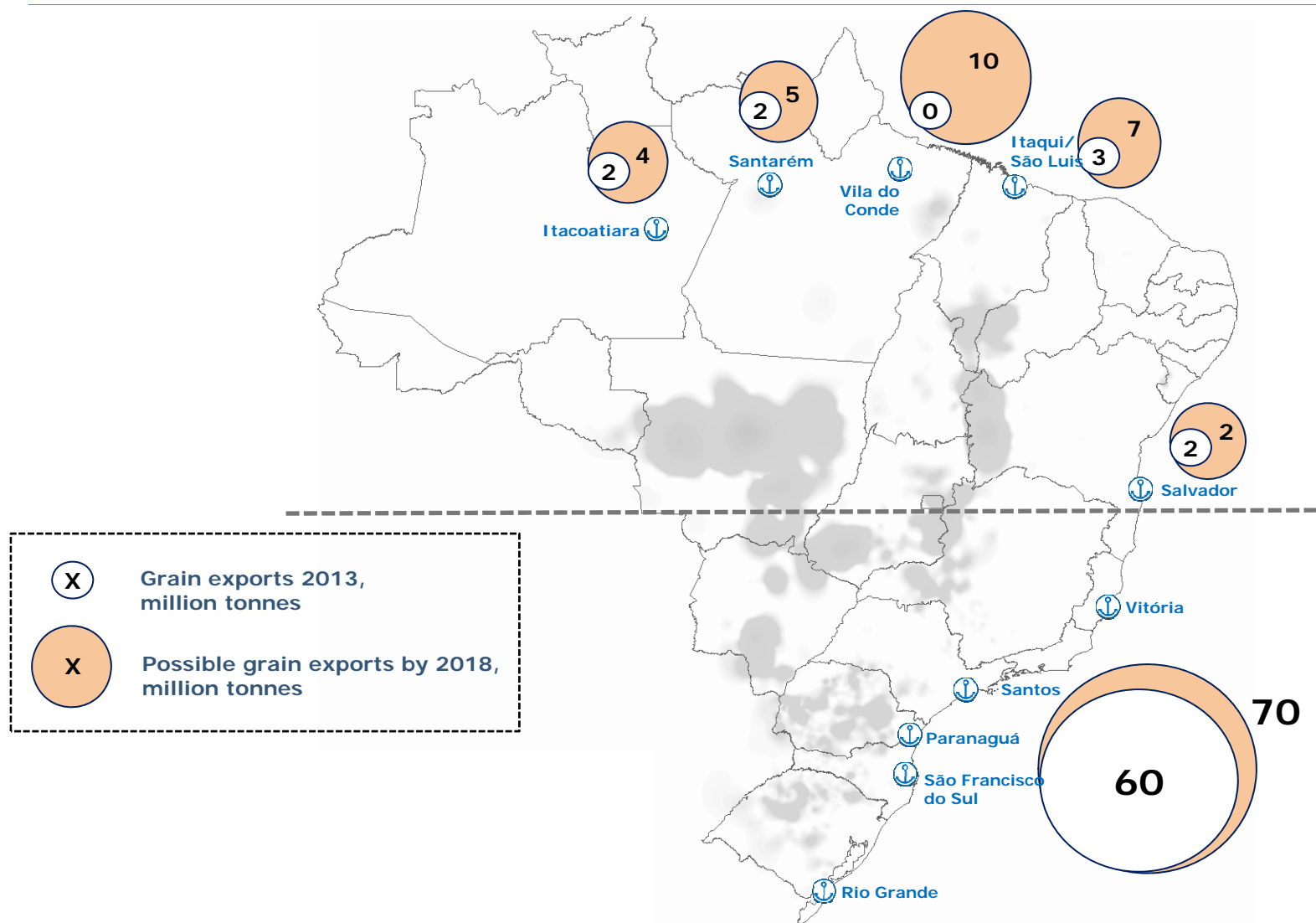
Investments in infrastructure and logistics are essential..



Where are changes taking place?



2018 outlook - grain export by port



Source: Rabobank Analysis.

However....

1978....

....2015

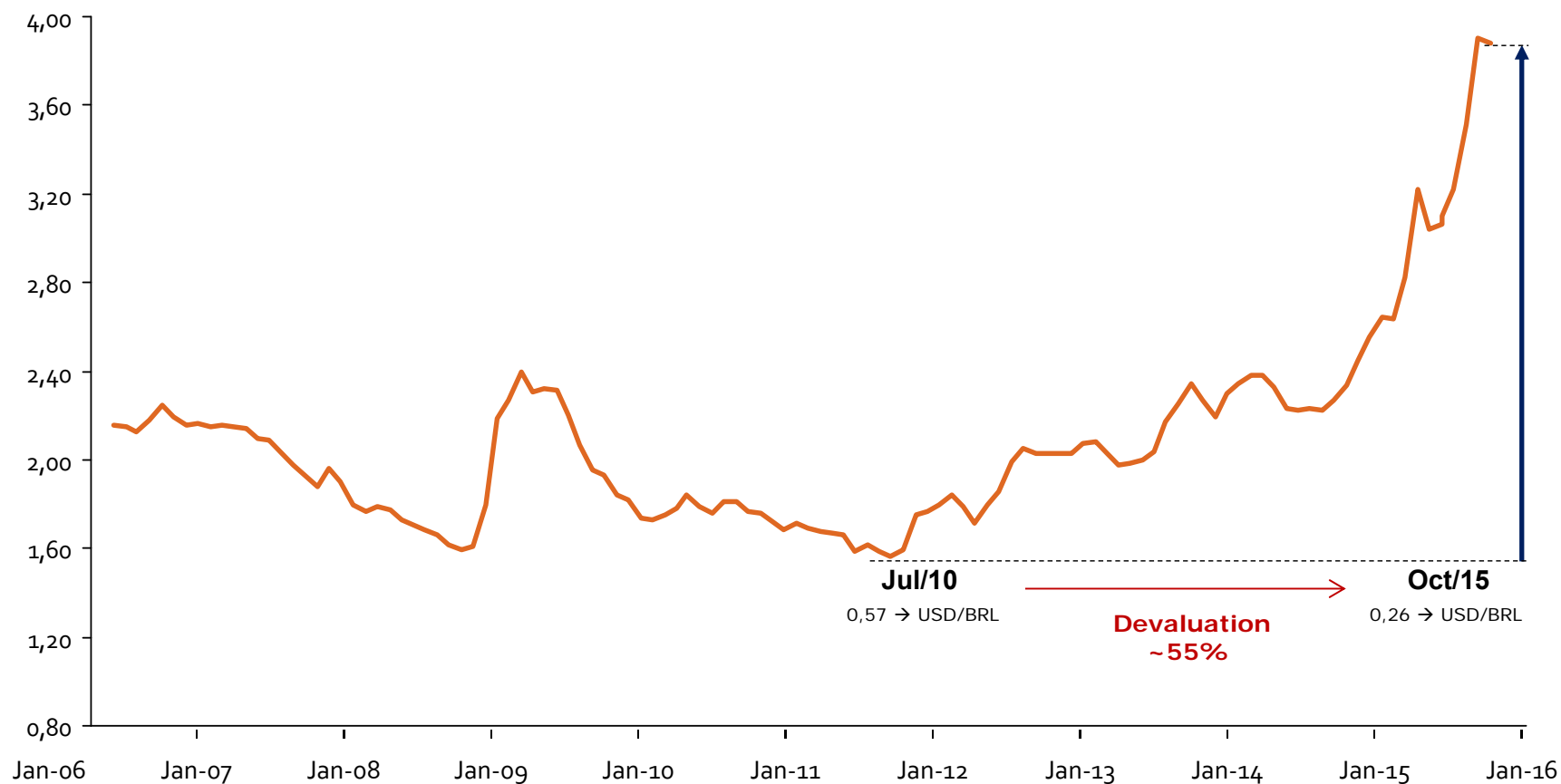


In the short term...



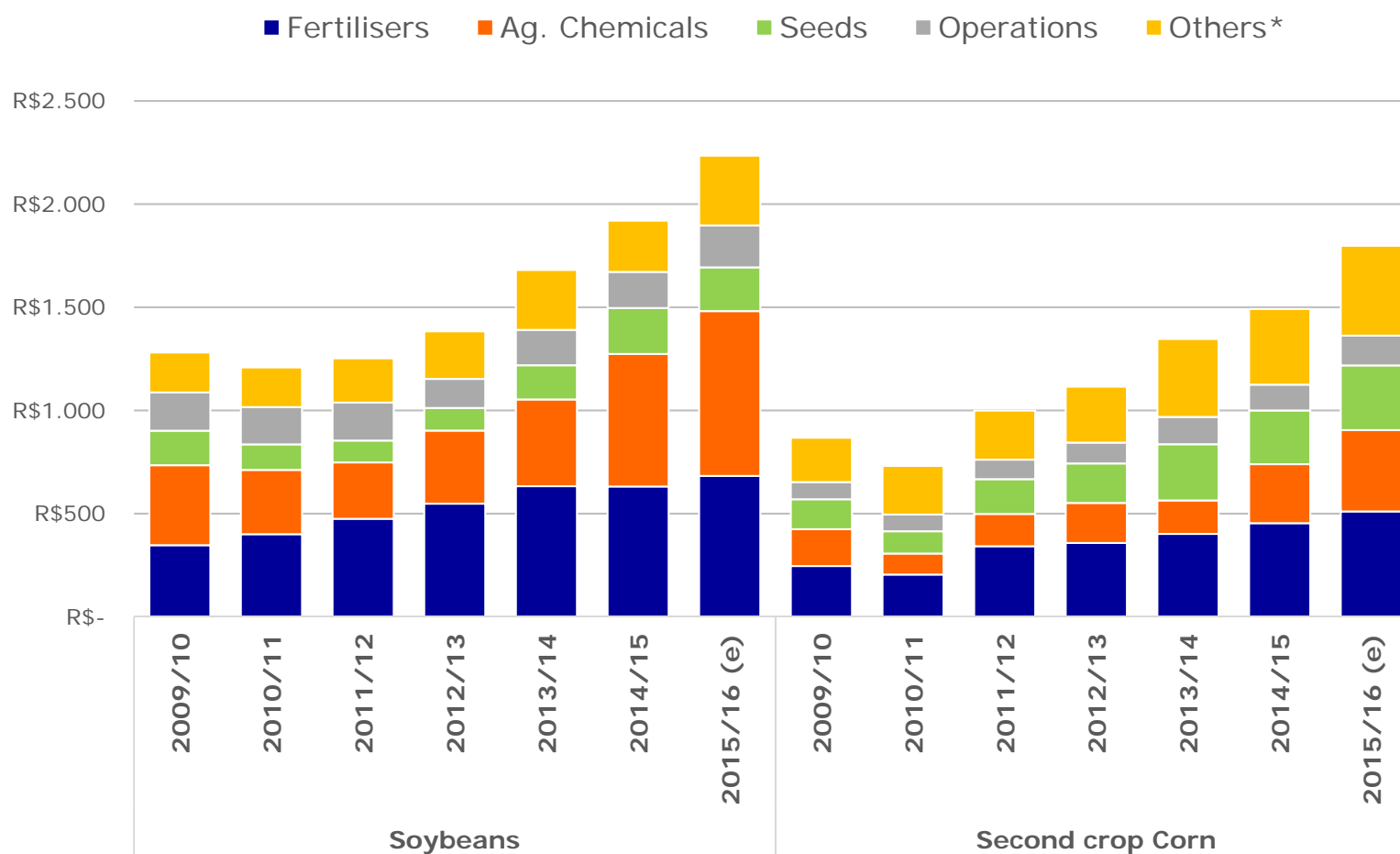
Exchange rate in Brazil

[BRL/USD]



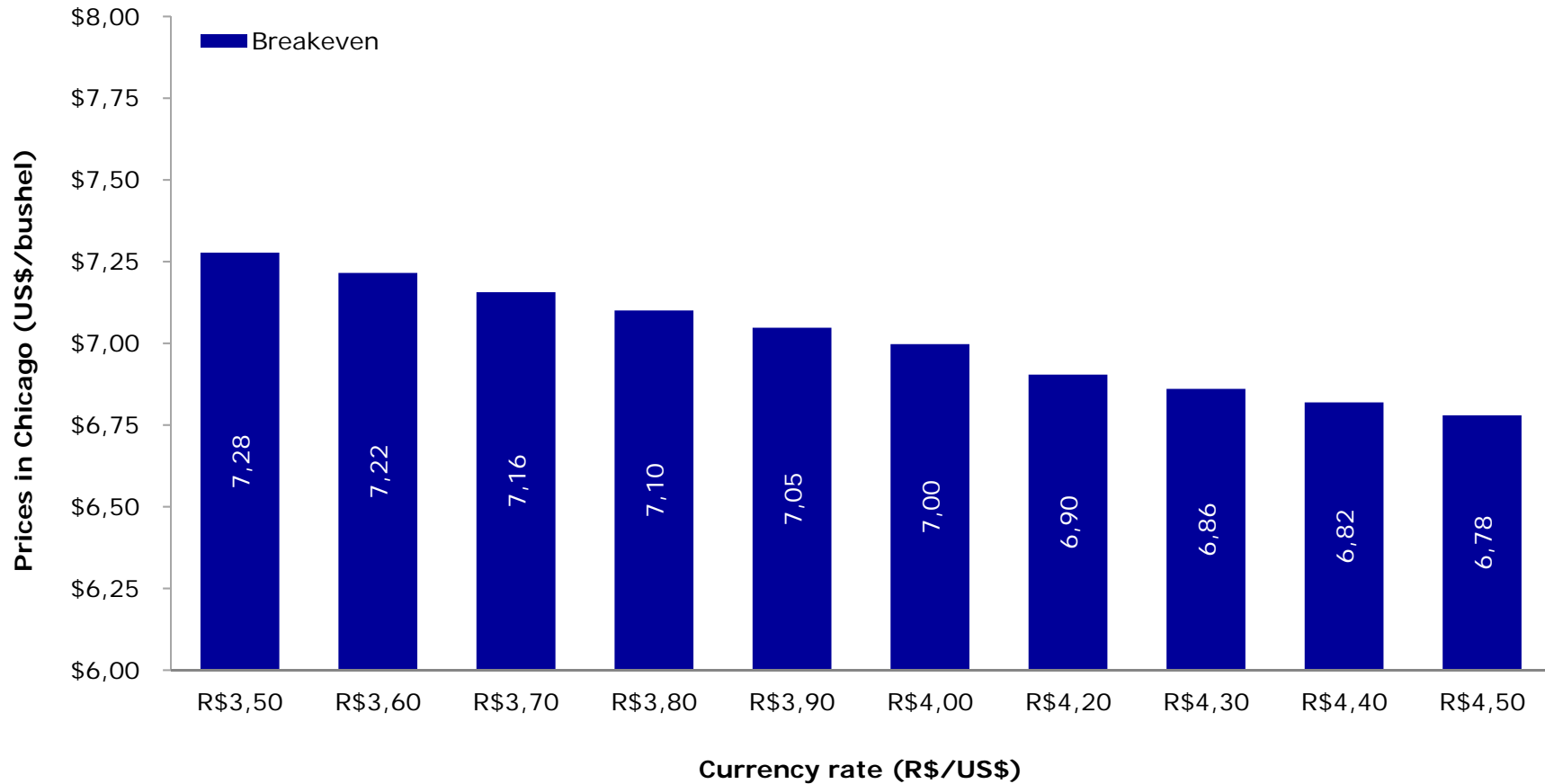
Source: Bloomberg, 2015

Farm inputs prices should increase in BRL as a result...



Source: Imea (2015). *Others: Technical assistance, transport, storage, processing, administrative expenses, insurance, and maintenance.

However, the higher the exchange rate, the lower the breakeven price



Source: Imea (2015); Rabobank (2015).

Drivers of future growth

1

Expansion of planted area in “frontier” regions, such as MATOPI

2

Conversion of underused pasture land to arable land

3

Improved yields as a result of technological innovation (better seeds & better crop management)

4

Increased production of poultry and pigs in major grain-producing regions

5

Greater use of feedlots for cattle production

6

Greater use of integrated agricultural systems for crops and pasture/livestock for cattle production

5



6





Thank you!

FAR - Food & Agribusiness Research and Advisory

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