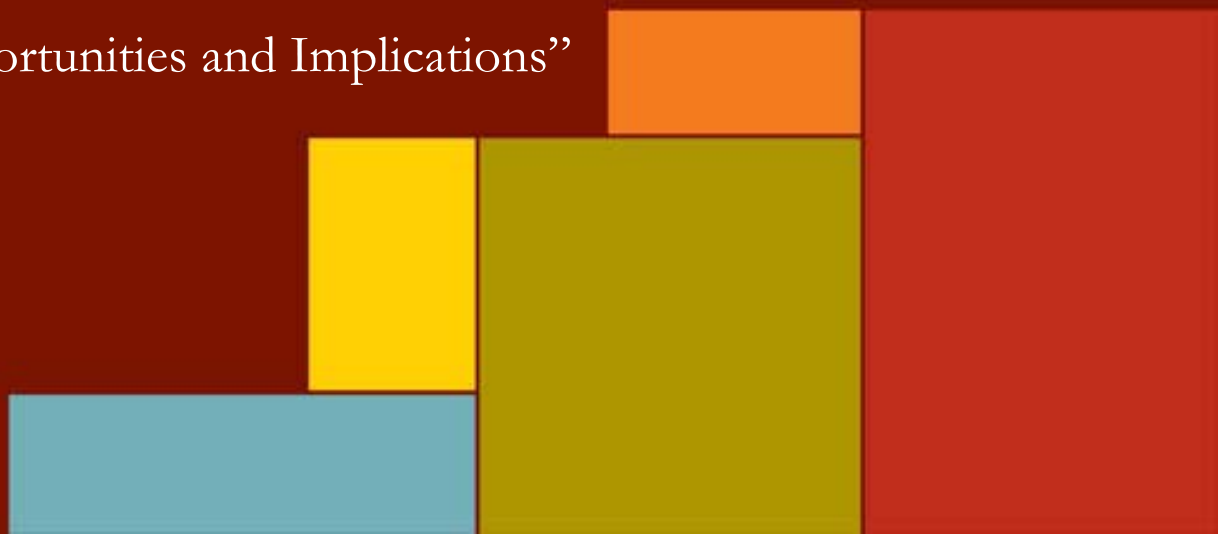


Sugarcane Ethanol Production in Brazil

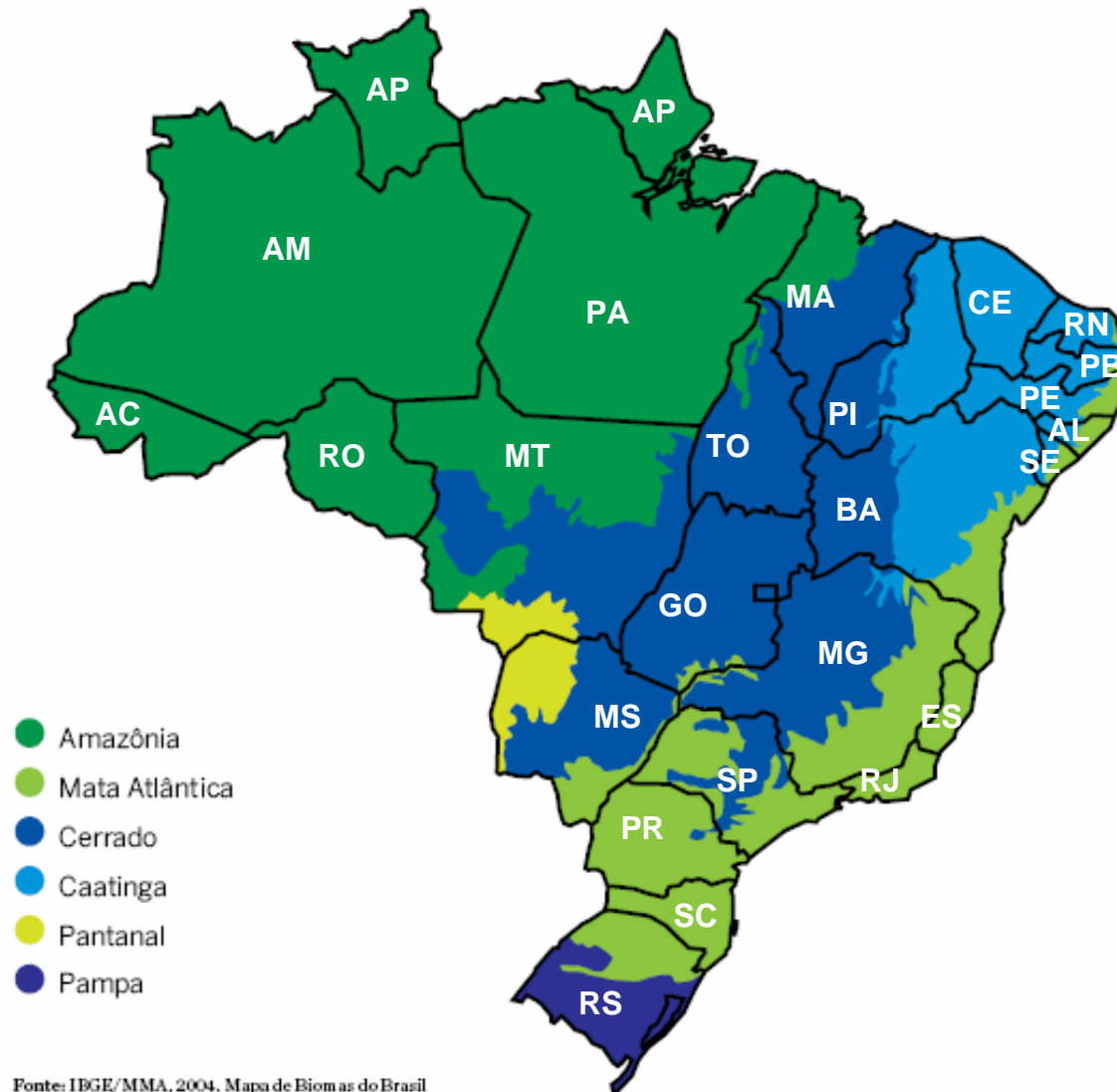
Paulo Sotero, Director
Brazil Institute

Presentation 05/15/2008

“Betting on Biofuels: Opportunities and Implications”

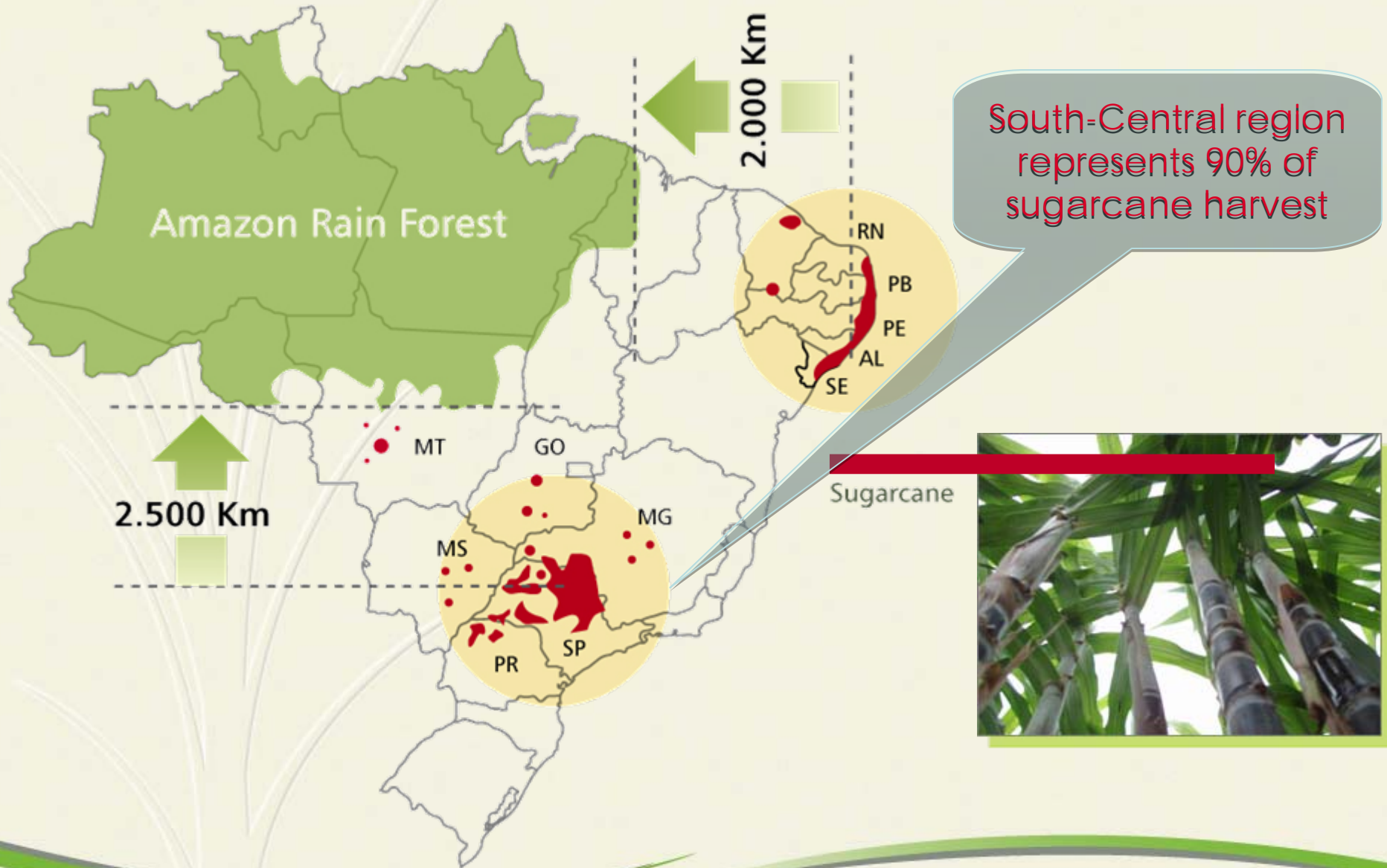


Brazilian Biomes and States

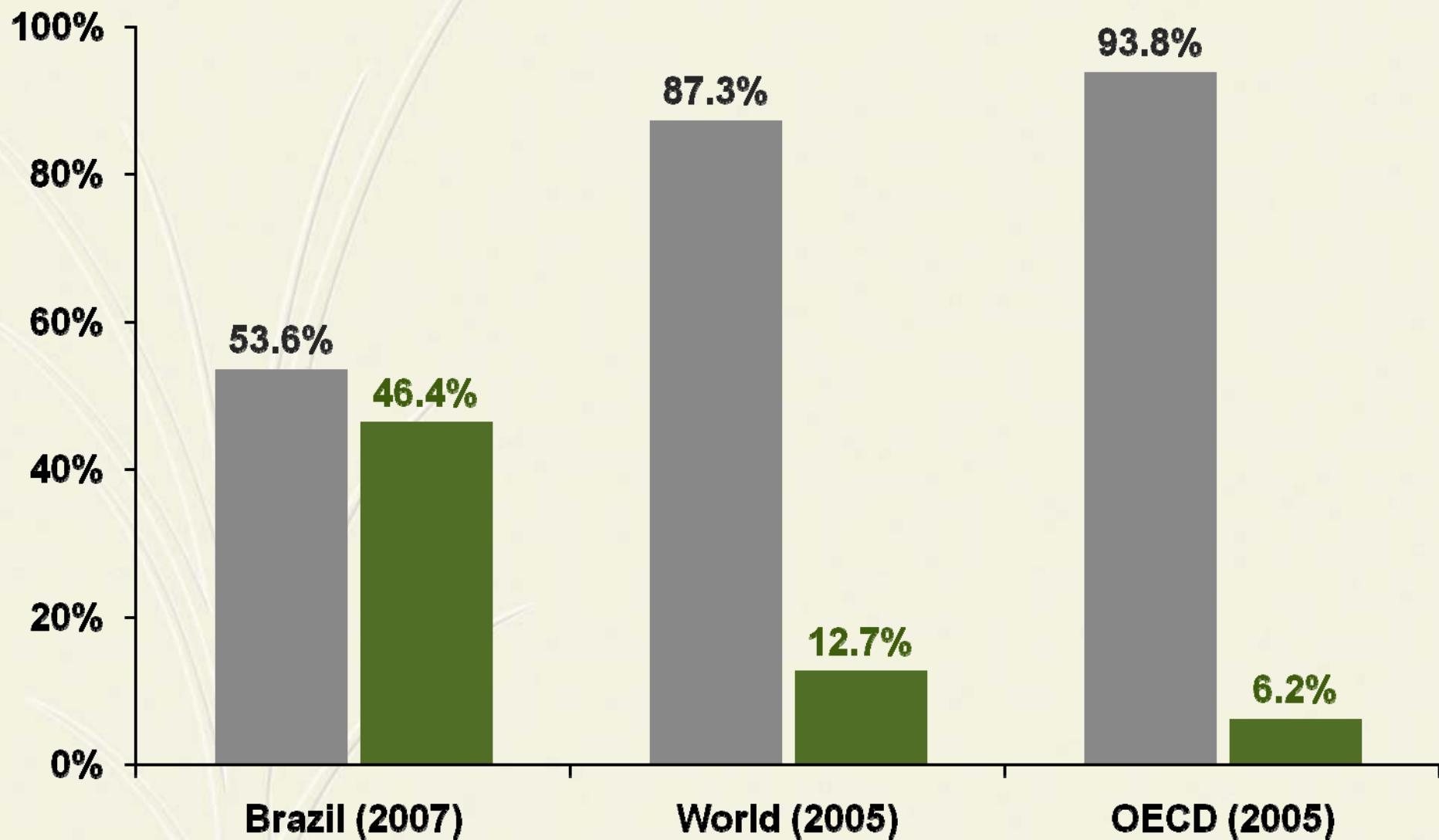


Fonte: IBGE/MMA, 2004. Mapa de Biomas do Brasil

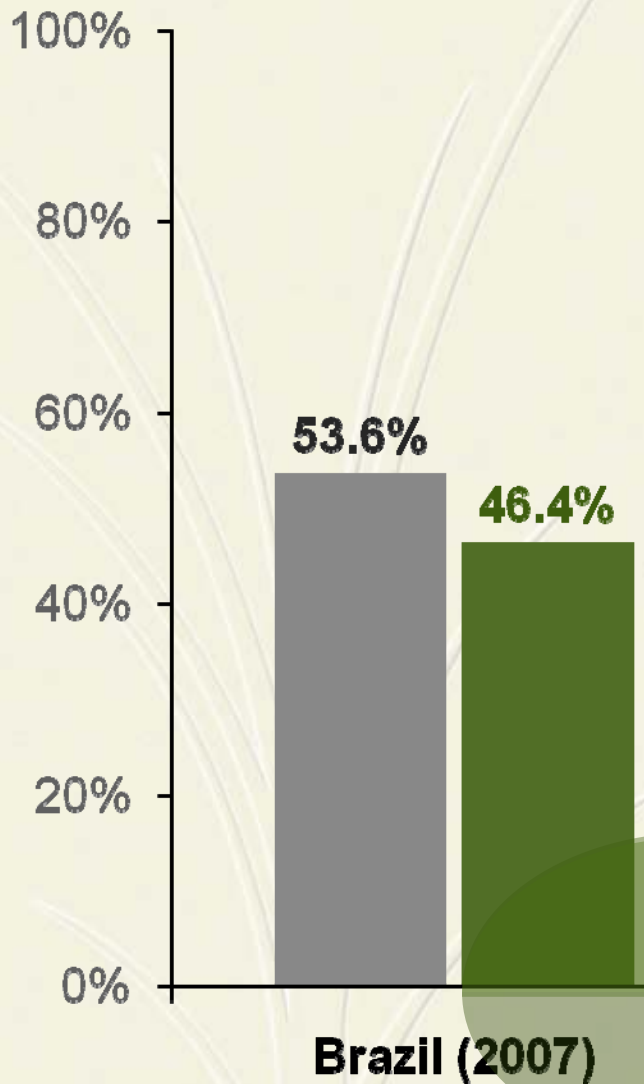
WHERE SUGARCANE IS GROWN



COMPARISON OF SHARE OF RENEWABLE ENERGY

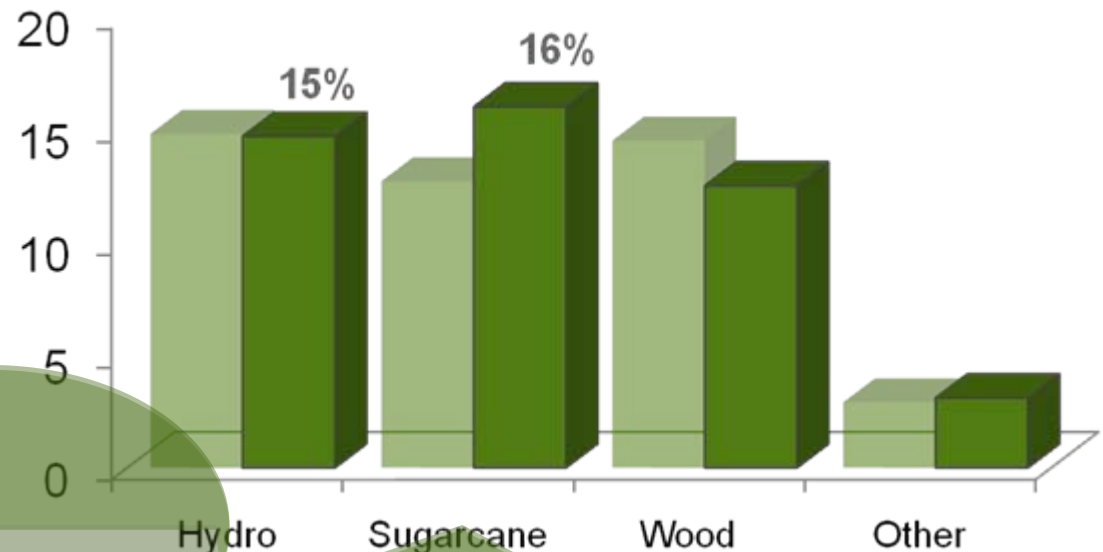


SOURCES OF BRAZIL'S RENEWABLE ENERGY

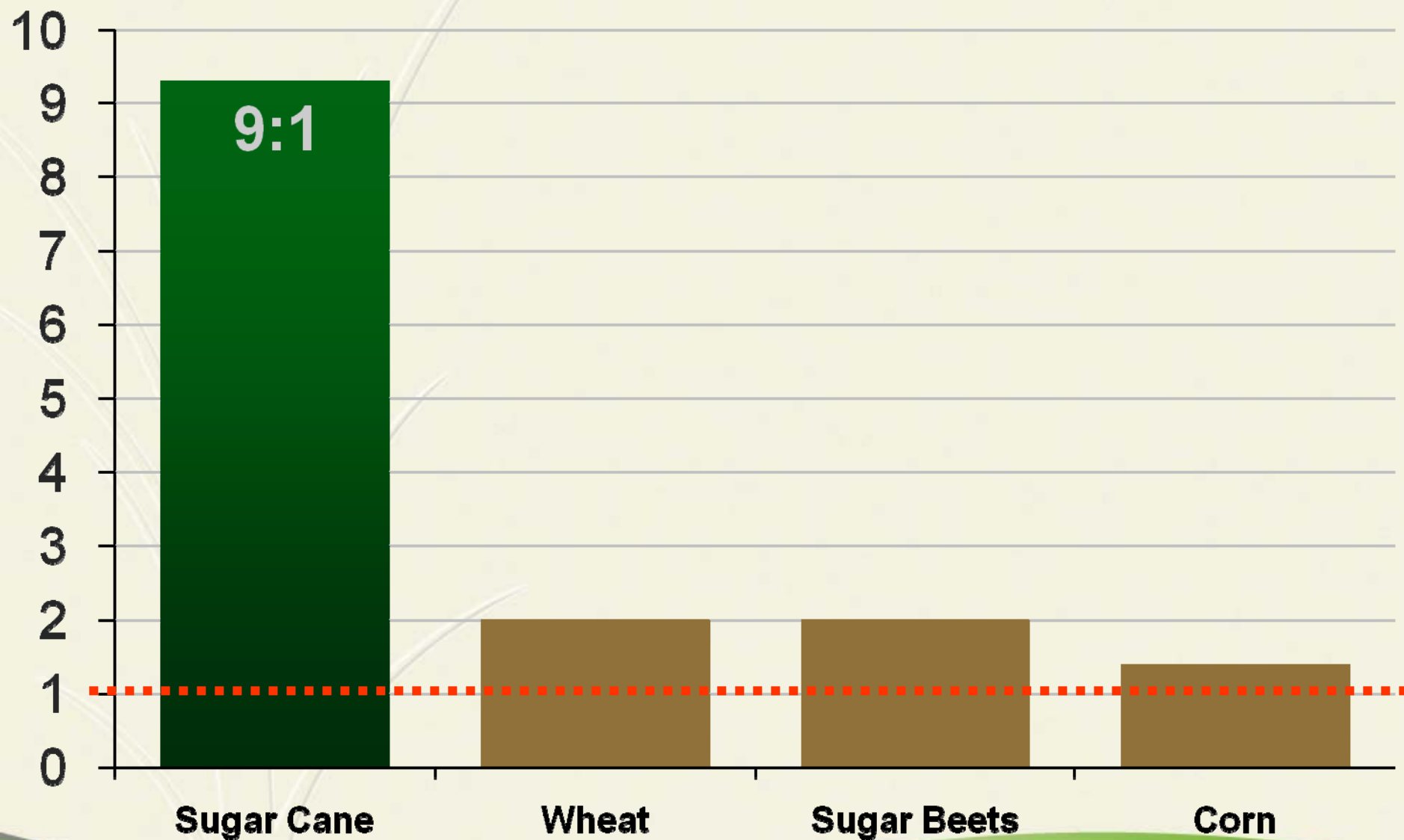


Sugarcane is #1 source of renewable energy with 16% of total energy consumed though Brazil has 80% of its electricity from hydros

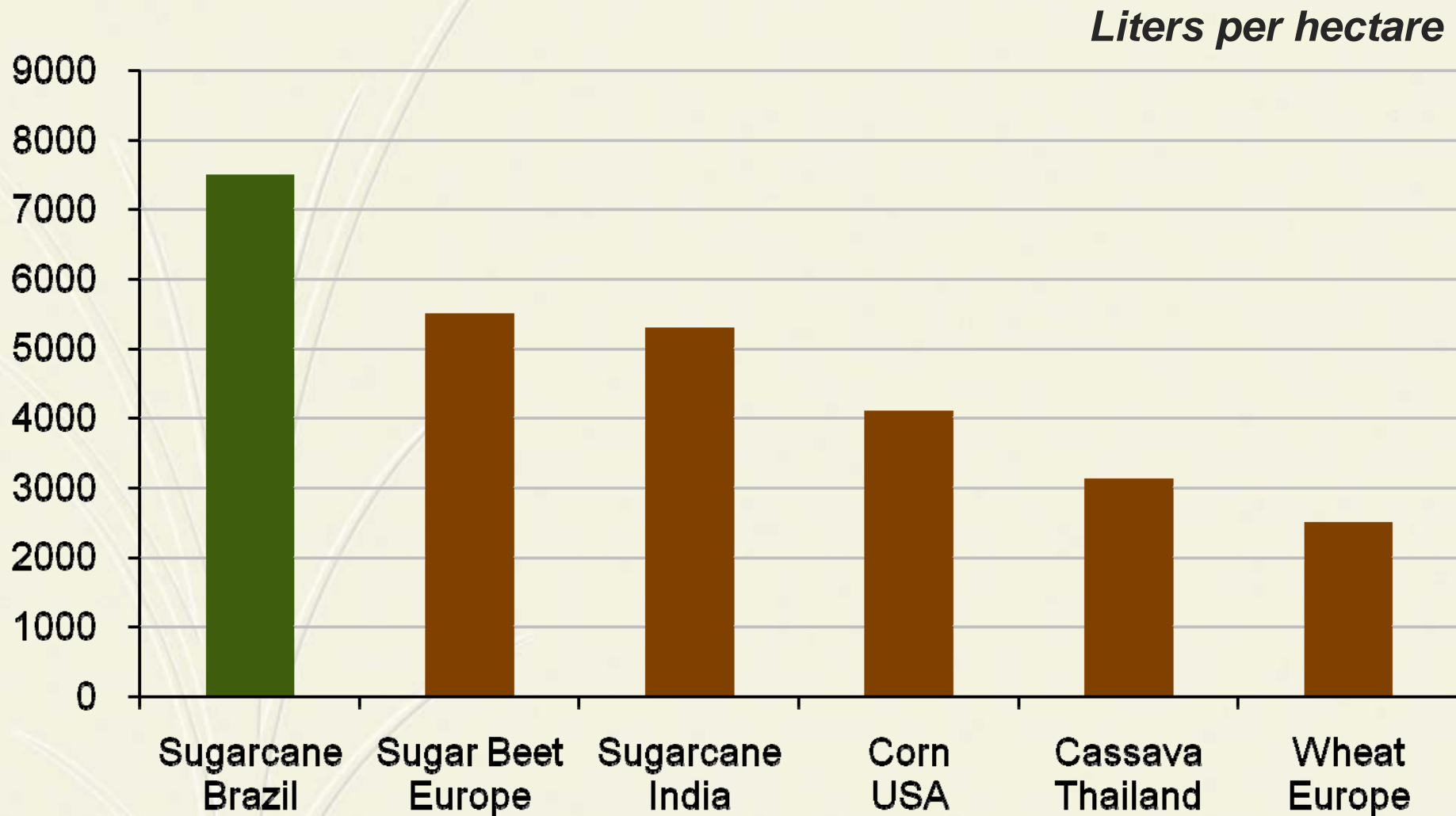
2006 vs. 2007 Comparison



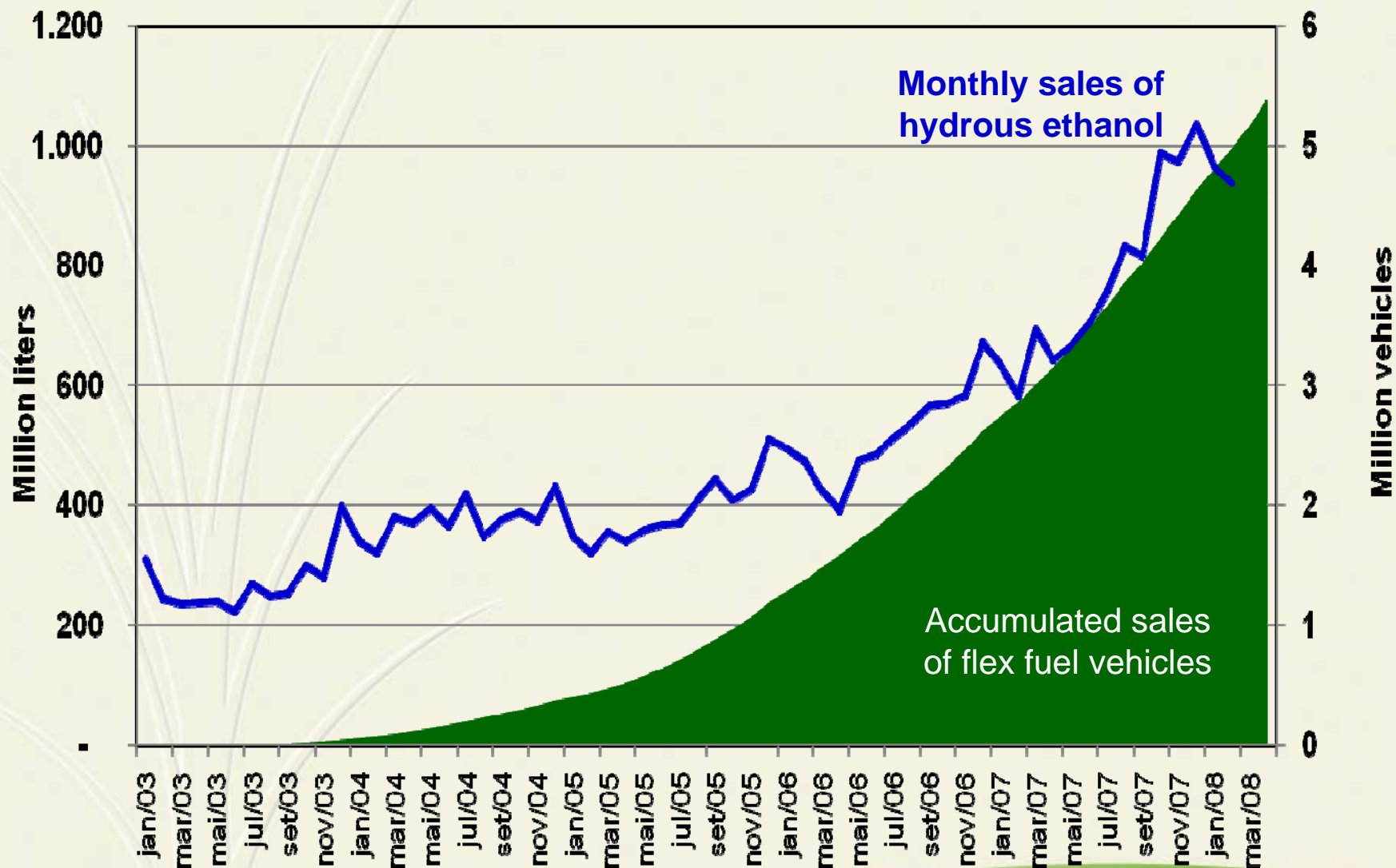
ENERGY BALANCE



AVERAGE PRODUCTION YIELDS

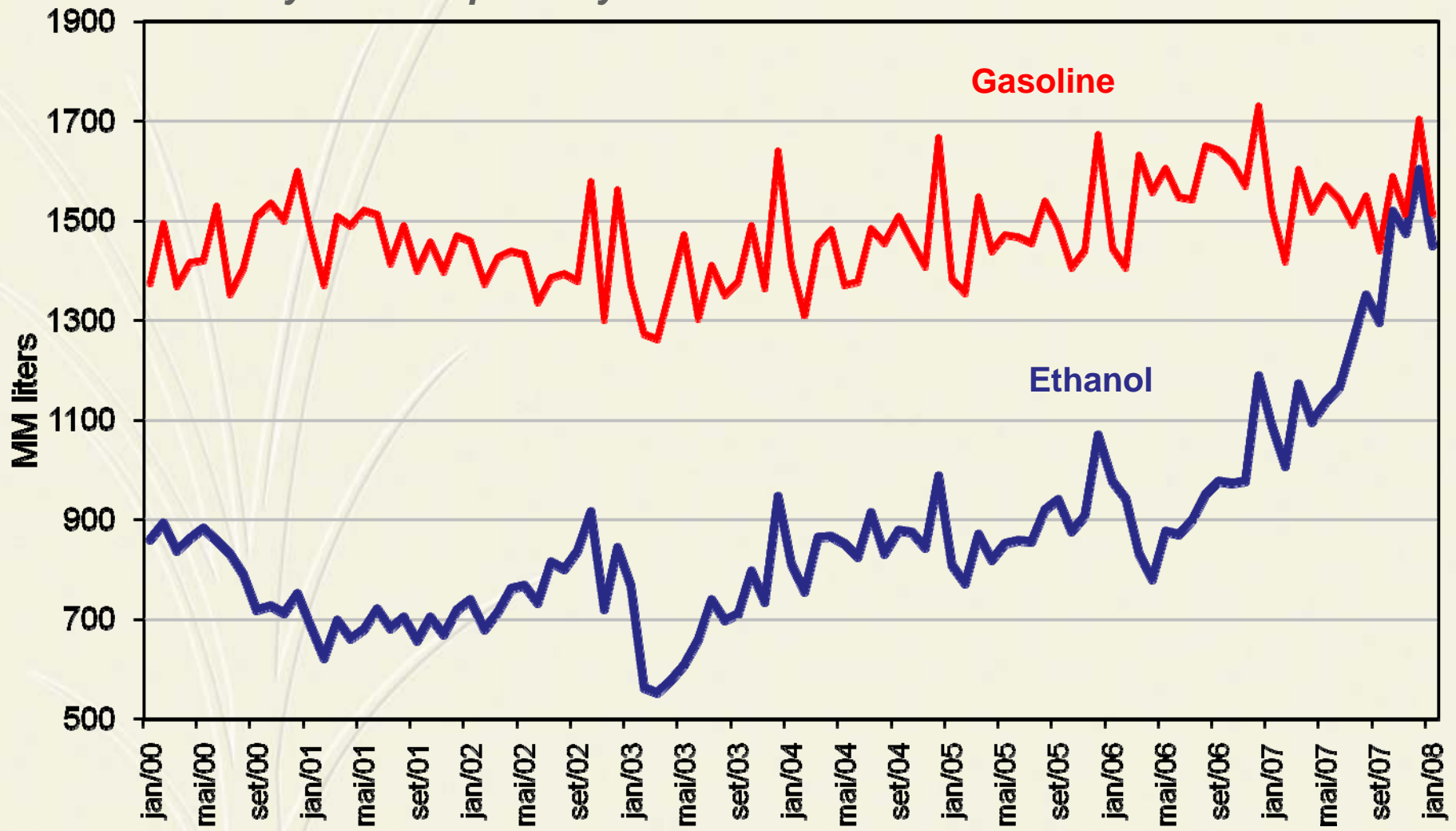


ETHANOL DEMAND UP WITH FLEX FUEL VEHICLES

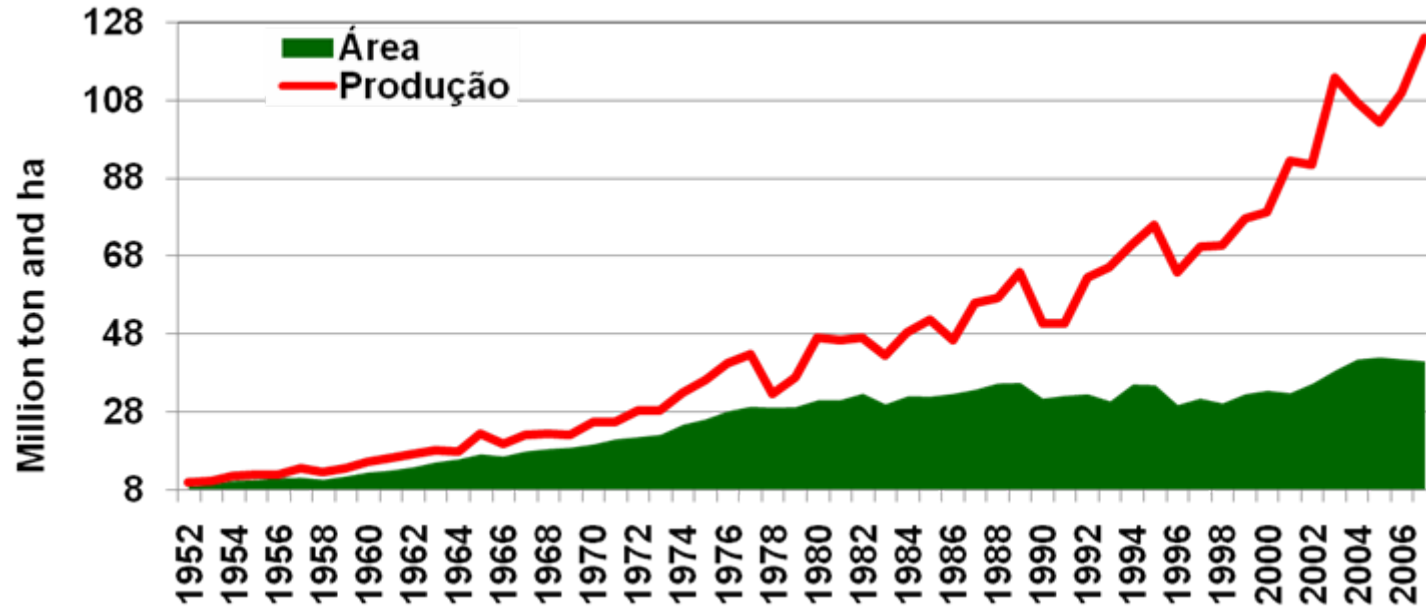


ETHANOL IS TAKING OVER GASOLINE

Monthly Consumption by Volume



Brazil Grains and Oilseeds: production and area

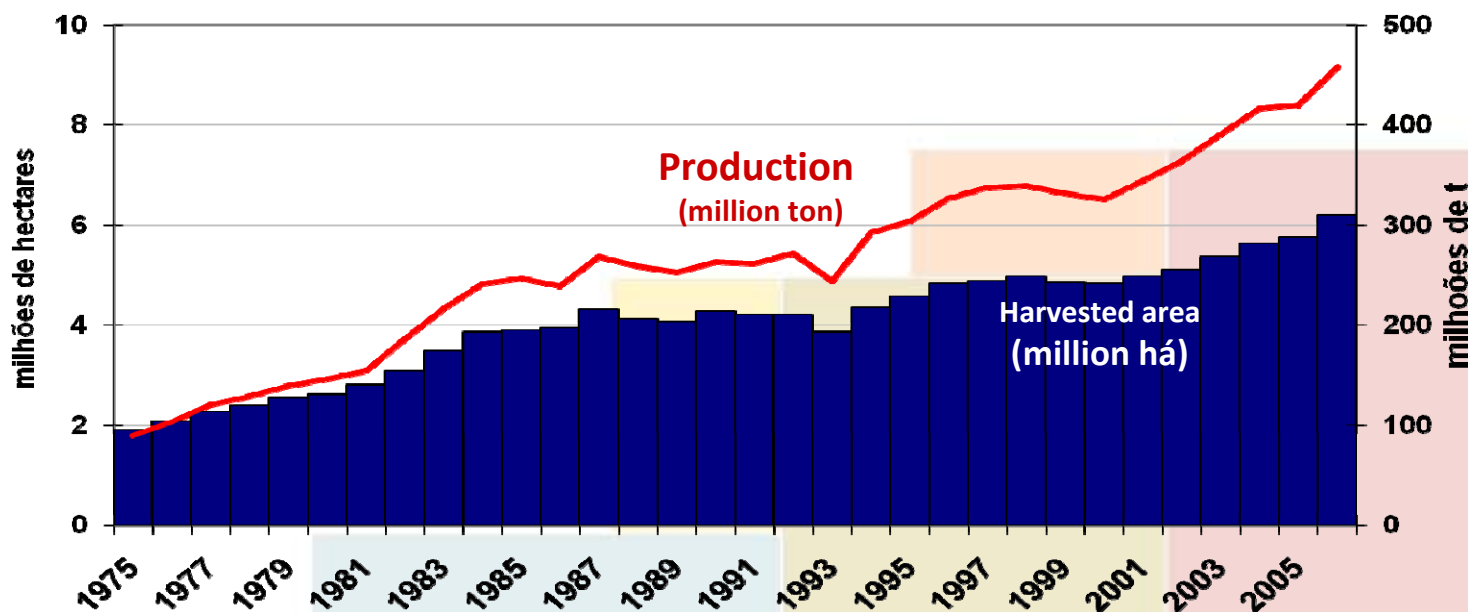


Source: IBGE (2007)

*2007: preliminar results

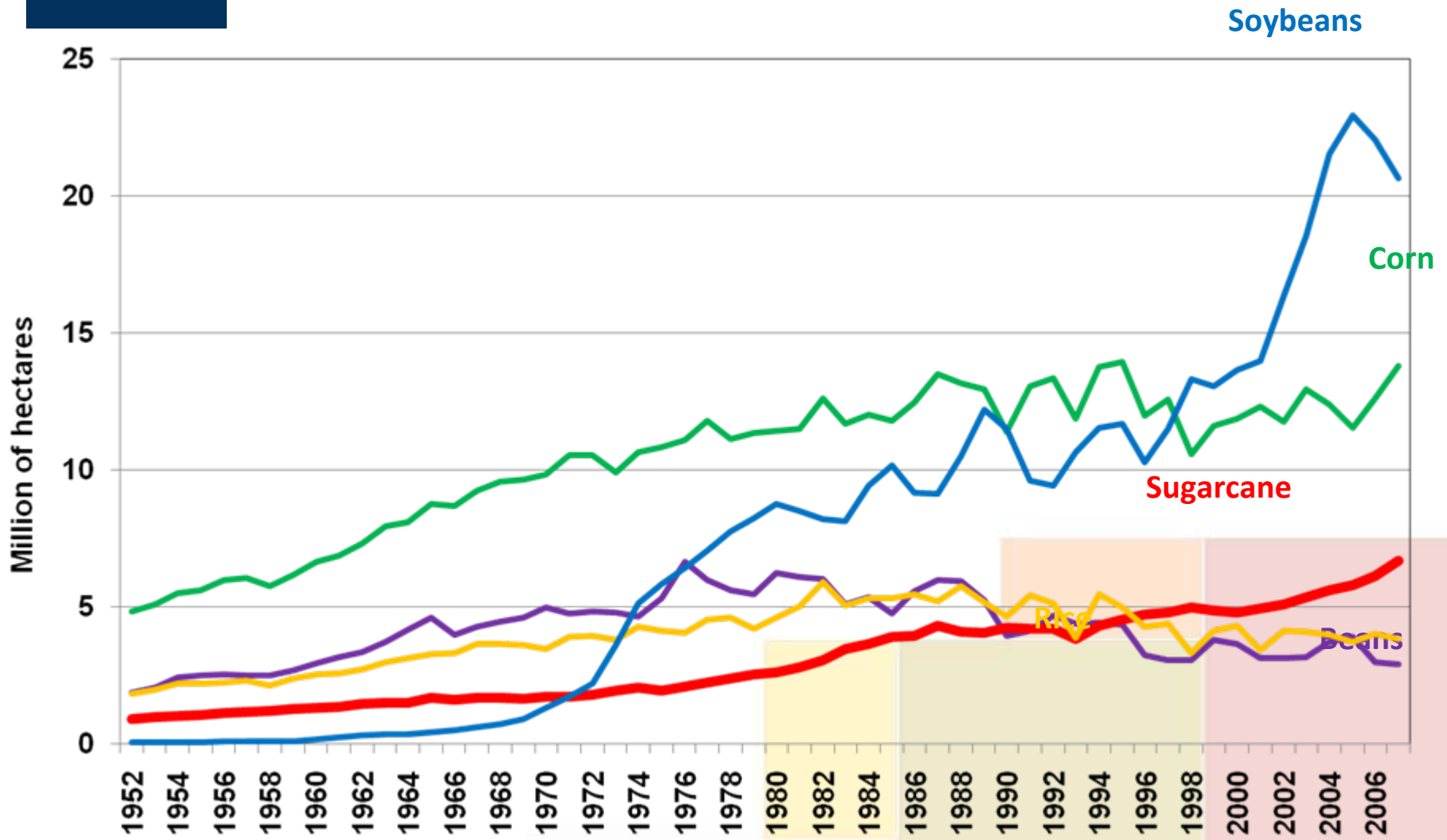
Crops: rice, soybean, corn and beans

Brazil Sugarcane: production and area



Source: Ministry of Agriculture, 2007.

BRAZIL: HARVESTED AREA FOR MAJOR CROPS



Source: IBGE (2007)
* 2007: Preliminar results

Land Availability in Selected Regions of Brazil: Preliminary Results (1,000 hectares, 2006)

	Planted Area			Pasture Area	Total Land Used for Agriculture	Agricultural Land Available(e)	Potential Land(p)	Legal Reserv e
	Sugarcane	Grains	Total Crops					
Sao Paulo	3,285	1,522	6,611	8,780	15,391	15,391	negligible	20%
Parana	433	5,515	9,247	5,560	14,807	14,807	negligible	20%
Minas Gerais (Cerrado)	431	2,446	4,725	10,161	14,886	22,455	7,570	20%
Goias	238	3,151	4,077	19,050	23,127	24,684	1,557	20%
Mato Grosso do Sul (Cerrado)	153	2,084	3,010	11,713	14,723	16,424	1,701	20%
Mato Grosso (Cerrado)	202	6,647	6,884	6,442	13,327	20,727	7,401	35%
Tocantins (Cerrado)	4	528	604	11,390	11,994	14,033	2,040	35%
Piaui (Cerrado)	10	688	1,169	negligible	1,169	6,079	4,910	20%
Maranhao (Cerrado)	39	1,264	1,645	1,049	2,694	7,264	4,570	35%
Bahia	106	1,931	3,398	909	4,307	10,538	6,232	20%
Total	4,901	25,776	41,371	75,053	116,424	152,404	35,980	n.a.
Brazil Total	6,179	36,032	62,353	172,333	217,456	n.a.	n.a.	n.a.

Source: IBGE; MMA; CONAB; EMBRAPA. Elaboration: ICONE.

Notes:

1. Conservation parks, indigenous reserves and legal reserve provisions have been excluded from the agricultural land available.
2. N.a. (not applicable). (e) estimation.

IDEALLY SUITED FOR DEVELOPING COUNTRIES



100 countries could supply biofuels to 200 nations vs. 20 oil producers

Description	Area (million hectares)
Suitable area for crop cultivation	351.9
- protected areas and forest areas	153.7
Current used area	20.4
Available area	177.8

CONCLUSIONS

1. Sugarcane production in the Center-South region will increase with a bias toward ethanol
2. Domestic demand for ethanol should continue to increase due to increase of flex-fuel cars
3. Half of gasoline consumption is being replaced by ethanol is produced on 1.5 % of the Brazilian arable land
4. Biofuels represent an opportunity for developing, tropical countries but require reduction in tariff and non-tariff barriers
5. There's no competition between biofuels and food in Brazil though oil prices have a disproportionate impact on food prices

Obrigado!

Contact

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