Sugar Cane Industry Outlook

Alfred Szwarc
Senior Adviser

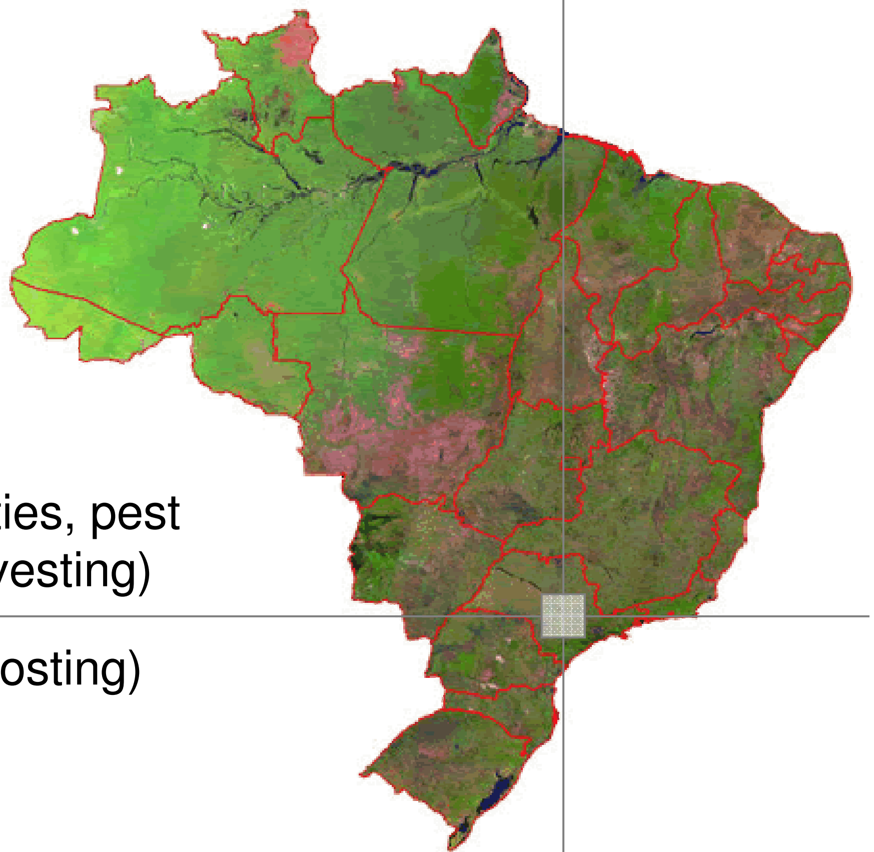
XII Meeting of the Brazil - Japan Economic Cooperation Committee

São Paulo - 06/03/2007

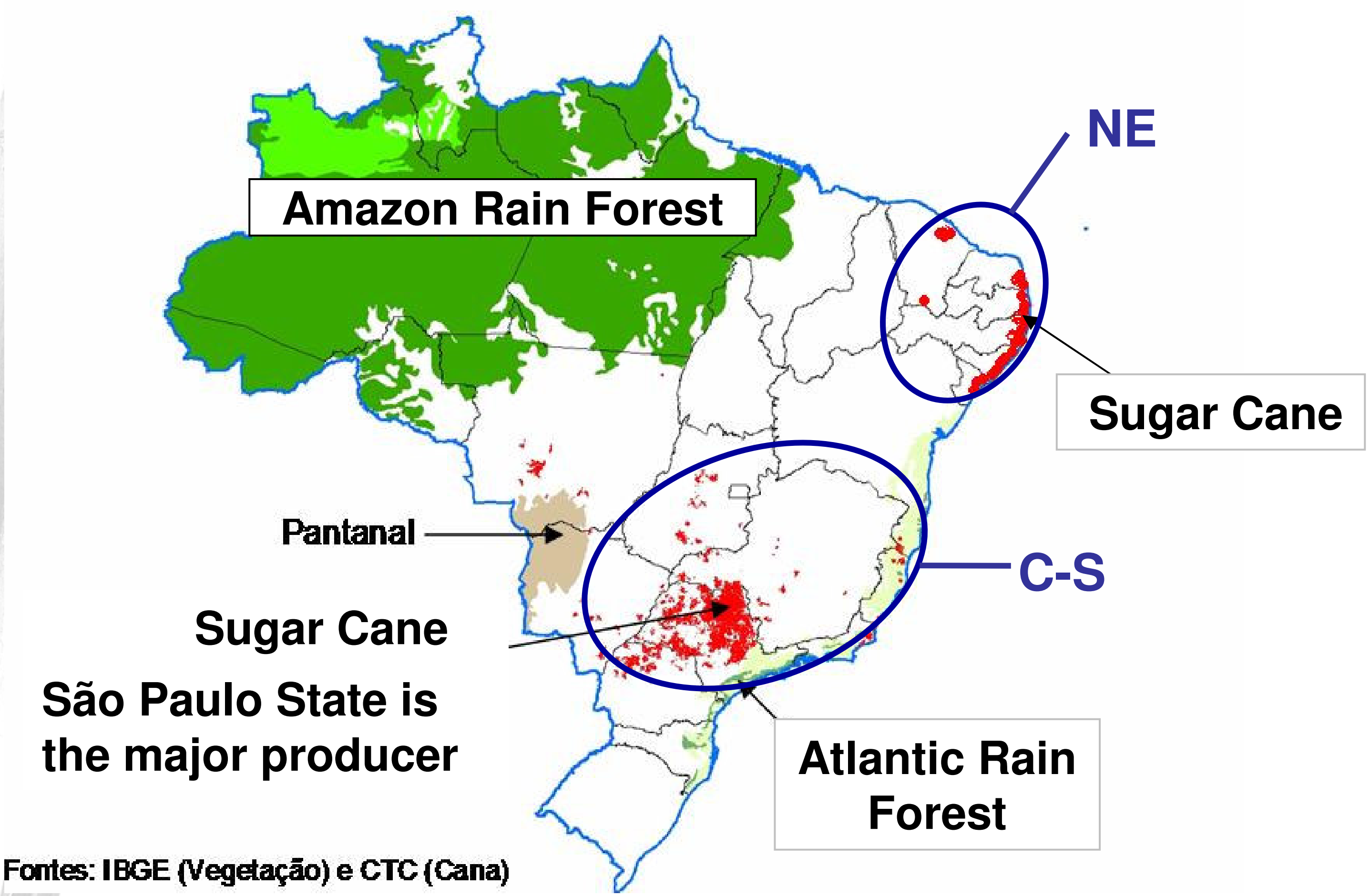
Ethanol in Brazil

Sugar Cane in Brazil

- Land availability
- Climate is favorable, particularly in C-S
  - ✓ C-S: hot moist summers & cool dry winters
  - ✓ C-S: in general no need for irrigation
- Long harvest season (~ 8 months)
- Well developed agricultural technology (varieties, pest and disease control, planting, cultivation, harvesting)
- Efficient waste recycling (ferti-irrigation, composting)
- Large plantations: economy of scale



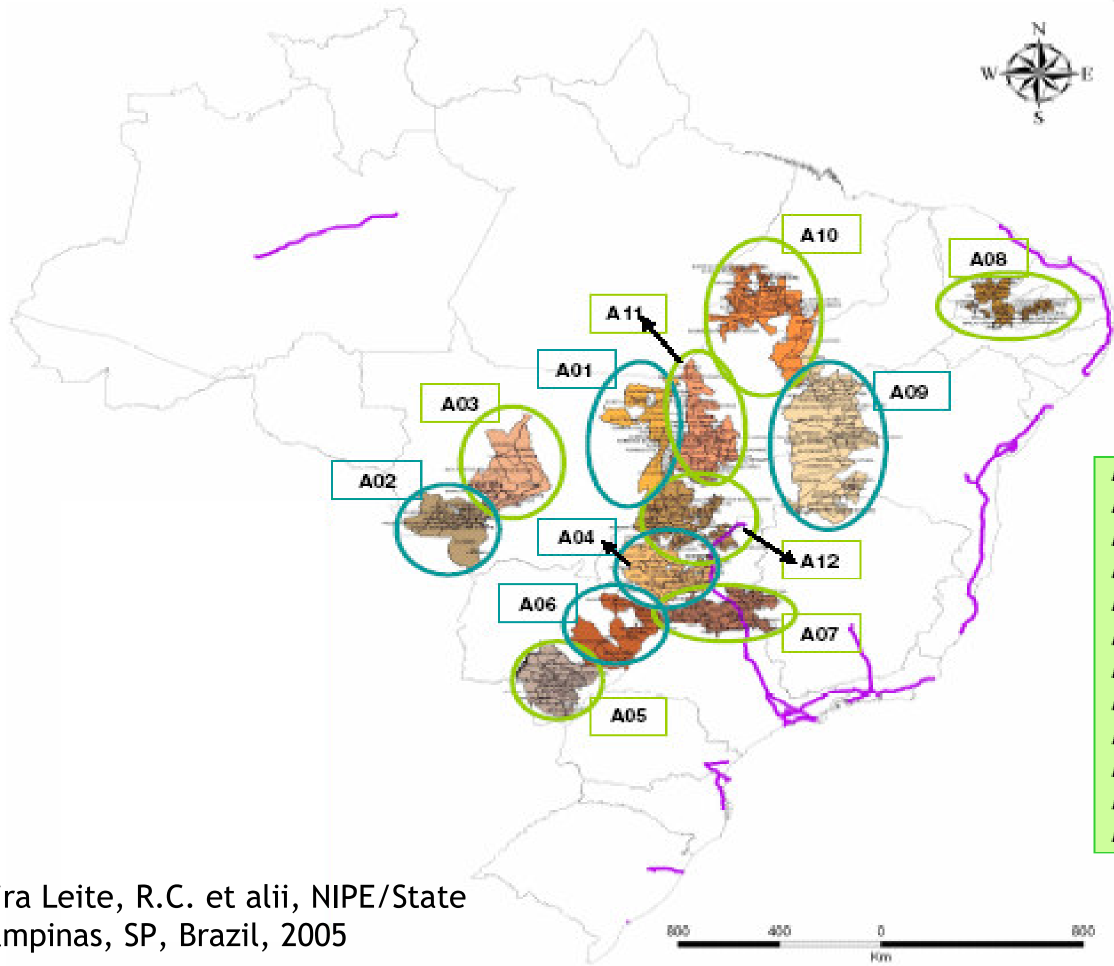
Brazil: Main Sugar Cane Regions



Brazil's Potential to Increase Production

	Million Hectares
Brazil	**850.0**
Total arable land	**320.0**
Cultivated land:	
• All crops	**60.40**
• **Sugar cane**	**6. 4**
• **Sugar cane for ethanol**	**2.9**
Available land with potential for agriculture expansion	**90.0**
6 million kl of ethanol require approximately:	**0.85**

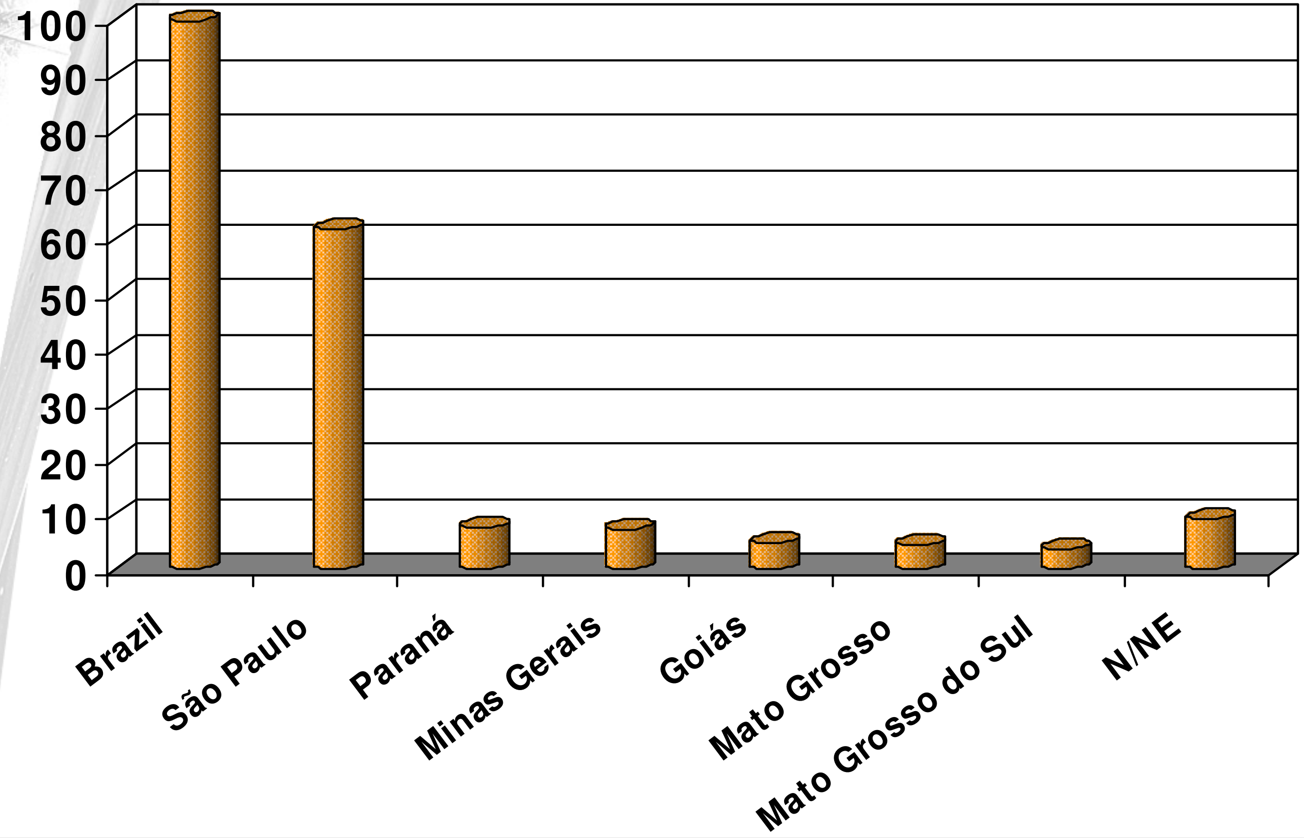
Areas for Sugar Cane Development



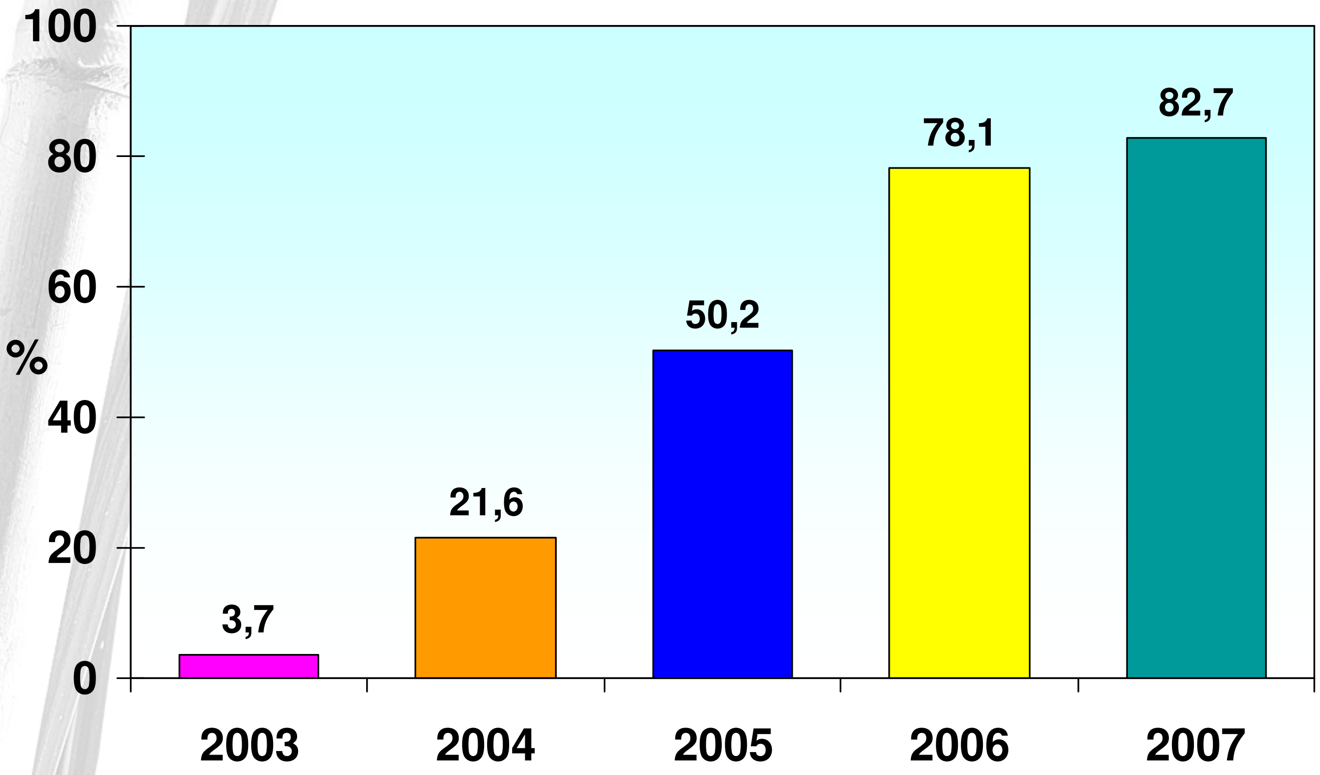
- A01: MT
- A02: MT
- A03: MT
- A04: GO(S)
- A05: MS(S)
- A06: MS(C)
- A07: MG
- A08: CE;PB;RN
- A09: BA;PI;MG
- A10: TO;MA
- A11: TO;GO
- A12: GO(C)

Source: Cerqueira Leite, R.C. et alii, NIPE/State University of Campinas, SP, Brazil, 2005

Relative Participation of Major Producers of Ethanol - Crop 2006/2007



Flex Fuel Vehicle Market Share is Increasing



Note: 2007 data refers to January 2007

Source: ANFAVEA

Supply Growth

Investments for the next six years

- New Plants	US$ 12,2 billion
- Existing plants*	US$ 2,4 billion
TOTAL	**US$ 14,6 billion**

(*) upgrade & expansion

Supply Growth

Center-South Mills

	Crop 06/07	Crop 12/13	▲
São Paulo	147	182	35
Minas Gerais	25	43	18
Goiás	15	25	10
Paraná	27	31	4
MS	9	18	9
MT	10	10	0
RJ	8	9	1
E.S	6	6	0
R.S	1	1	0
Total	248	325	77

Supply Scenario - Crop 2006/2007

	Region		Brazil
	CS	N-NE	
Mills in operation	247	88	335
Cultivated area (1,000 ha)	5,329	1,094	6,423
Harvest area (1,000 ha)	4,530	930	5,460
Sugarcane production (M t)	370.6	55	425,6
Sugarcane productivity (t/ha)	81.8	59.1	77.9
Average crushing capacity (tcane/crop)	1,500	625	1,270.4
Sugar Production (M t)	26.2	4.4	30.6
Sugar Export (M t)	17	2.5	19.5 (74.4%)
Etanol Production – (million kl)	15.8	1.6	17.4
Ethanol Export (million kl)	2.7	0.4	3.1 (17.8%)
ATR/t cane	147.5	134	145.7
% Production Mix – Sugar	50.26	62.44	51.71
% Production Mix - Ethanol	49.74	37.56	48.29

Supply Growth Scenario - Crop 2012/2013

	Region		Brazil
	CS	N-NE	
Mills in operation	321	88	409
Cultivated area (1,000 ha)	8,702	1,094	9,796
Harvest area (1,000 ha)	7,397	930	8,327
Sugarcane production (M t)	628.7	56	684.7
Sugarcane productivity (t/ha)	85	60.2	82.2
Average crushing capacity (tcane/crop)	1958.6	636.4	1674.1
Sugar Production (M t)	34	4.6	38.6
Sugar Export (M t)	24	2.8	26.8 (69.4%)
Etanol Production – (million kl)	34	1.7	35.7
Ethanol Export (million kl)	6.4	0.6	7 (19.6%)
ATR/t cane	148.7	137.8	147.8
% Production Mix – Sugar	38.17	62.55	40.03
% Production Mix - Ethanol	61.83	37.45	59.97

Supply Growth

Sugarcane Products

Crop 2006/2007

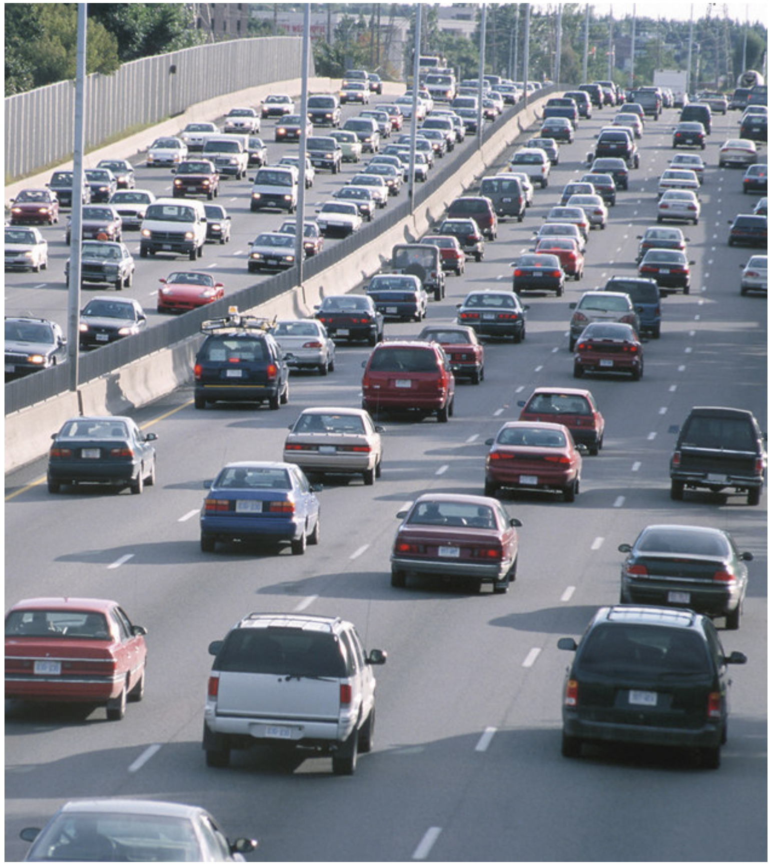
Crop 2012/2013

Supply Growth of Ethanol

Domestic Market in 2012/2013

Fuel	27.7 million kl
Anhydrous	5.4 million kl (19.5%)
Hydrous	22.3 million kl (80.5%)
Other uses	1 million kl
Anhydrous	0.2 million kl
Hydrous	0.8 million kl

Note: projection does not include use in the alcochemical & biodiesel industry



Export Growth of Ethanol – 2012/2013

3.5 million kl in 2006/2007

7.0 million kl in 2012/13

Sugar and Ethanol Prospects

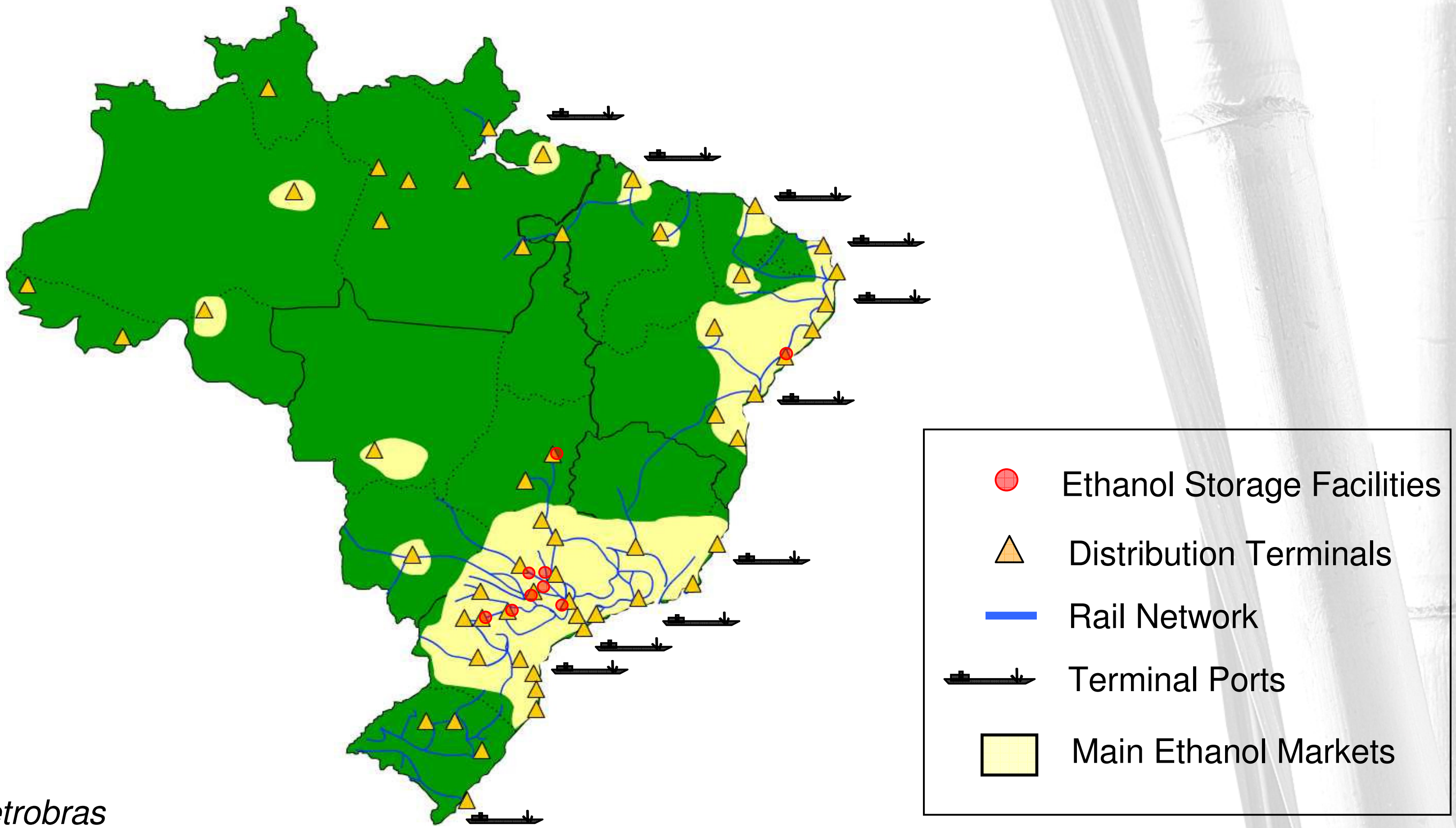
Sugar

- ***Increase in demand***
  - *- Domestic Market (1.8-2% p.y.)*
- ***Export market***
  - *- WTO Panel (approx. 5 Mtonnes)*
- ***Increase in world demand***
  (3 Mtonnes) approx. 3% p. y.
- *36% decrease in E.U. domestic prices within 3 years – only a few countries can stand this new situation and meet the demand for exports.*

Ethanol

- ***Domestic demand for ethanol***
  - *- Flex-Fuel Vehicles (FFV):*
  - *- 2 million Ethanol cars*
  - *- Ethanol-gasoline blends*
  - *- Niche market (aviation etc)*
- ***Chemical industry***
  - *- Petrochemical X Alcochemical*
- ***Increase of ethanol exports***
  - *- Oil (supply & prices)*
  - *- Kyoto Protocol*
  - *- Air pollution*
  - *- Sustainable energy source*

Main Ethanol Markets & Logistics



Source: Petrobras

Worldwide Gasohol Use is Expanding

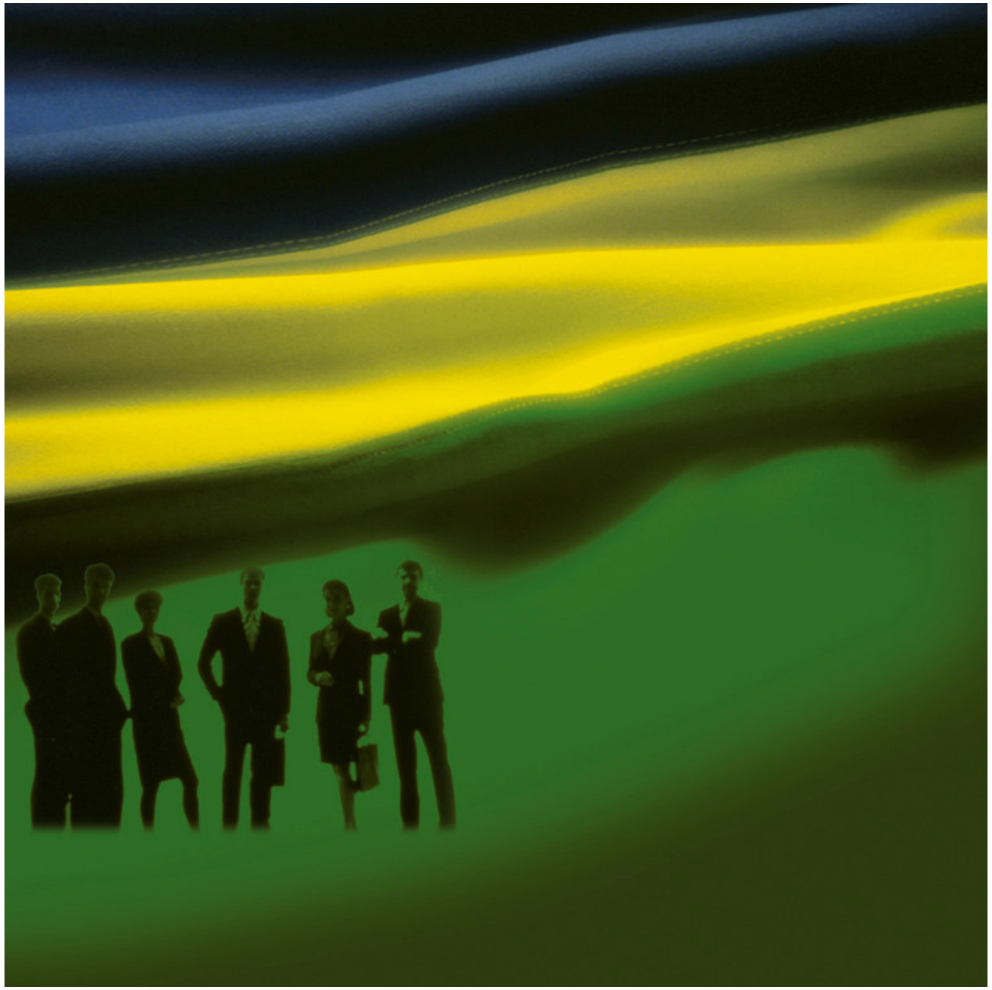
Up to 5% Ethanol	Up to 10% Ethanol	More than 10%
European Union (moving to 10%)	USA, Canada,	Brazil
India	China, Thailand,	Paraguay
Philippines	Australia, Colombia,	Malawi
Ecuador	Peru, Venezuela,	USA**
Bolivia	Jamaica,	Canada**
Japan (E3 and/or ETBE7 ?)	Dominican Republic,	Sweden**
	South Africa, Ethiopia	UK**
	Nigeria, South Korea (?)	

* Programs at diferent stages of development

** Flex-fuel vehicles

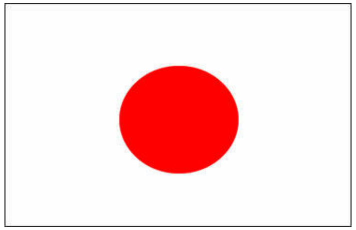
Source: UNICA

PARTNERSHIP AND ACTION FOR THE NEW ENERGY ERA !



Brazil – Japan Ethanol Partnership Goals:

- Preferential access of Brazilian Ethanol to Japanese market
- Long term contracts
- Elimination of import tariff
- Shared technological efforts for new advanced processes in agriculture, industry, logistics and use
- Joint investments



Thank You

SUGAR CANE INDUSTRY UNION

ETHANOL • SUGAR • ENERGY   SÃO PAULO • BRAZIL

www.unica.com.br