



The Fertilizer Institute

2008 – Fertilizer Outlook and Technology Conference

“The Fertilizer Situation and Outlook in South America”

Tampa – November 6th, 2007



Agenda

- South America – ABC
- Brazil
 - Recent years
 - Year 2007
 - Challenges and Opportunities
 - Energy Impact
- Perspectives



The Fertilizer Market in S.A y 2006

Argentina	10 %
Brazil	65 %
Colombia	5 %
Chile	3,5%
Venezuela	3,5%
Rest of S.A	<u>13 %</u>
	100 %

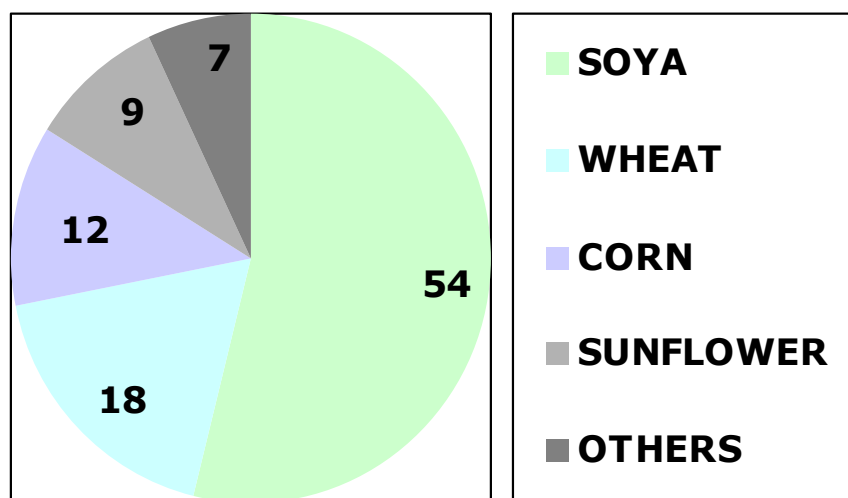




The Fertilizer Market in S.A y 2006

Argentina – 2006

1,374 million tonnes nutrients

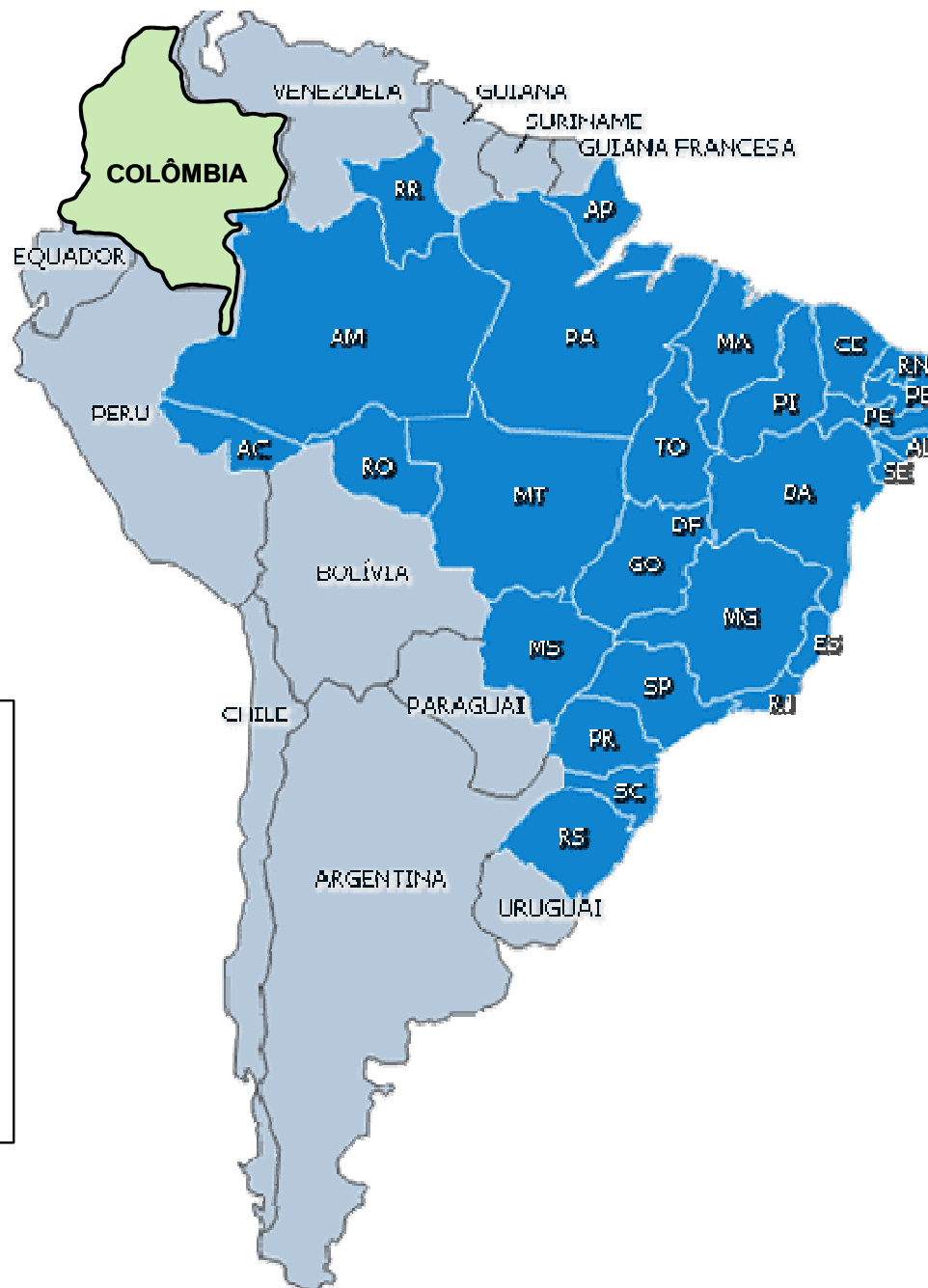
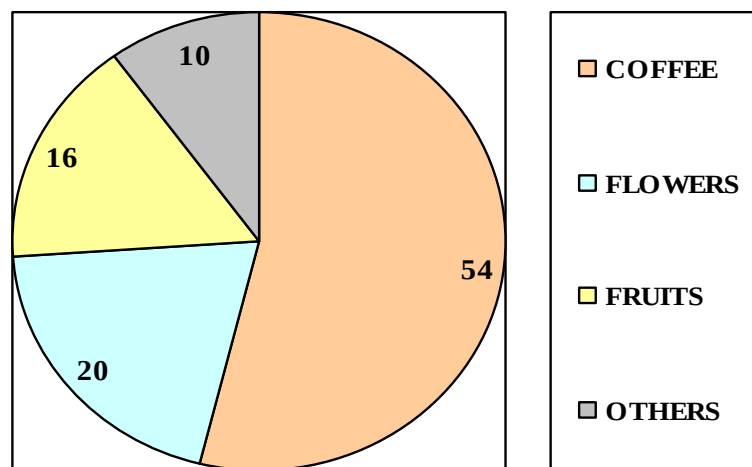




The Fertilizer Market in S.A y 2006

Colombia – 2006

461 thousand tonnes nutrients



Cultivo de coca cresce na Bolívia e no Peru, diz ONU

Produção de cocaína também subiu nos dois países; na Colômbia, cultivo diminuiu

Chapare, berço político do presidente Evo Morales, teve "crescimento drástico" no cultivo; governo boliviano anunciou redução para 2007

DA REDAÇÃO

O cultivo da planta de coca, base para a produção de cocaína, subiu 8% na Bolívia e 7% no Peru em 2006, tendo diminuído 9% na Colômbia no mesmo ano, concluiu o relatório anual do Escritório das Nações Unidas contra Drogas e Crime (UNODC).

O crescimento do cultivo na Bolívia tem especial motivo para preocupar o governo brasileiro já que, segundo a embaixada americana e a polícia boliviana, de 85% a 90% de toda a cocaína produzida pela Bolívia vai parar no Brasil.

Segundo o relatório, a produção de cocaína na Bolívia cresceu de 80 toneladas em 2005 para 94 em 2006. O cultivo da folha de coca no país ocupou 27,5 mil hectares, contra 25,4 mil registrados em 2005. O total estimado inclui os 12 mil hectares permitidos pela lei boliviana para uso tradicional. No início do ano, o presidente Evo Morales, que também é líder cocaleiro, expressou a intenção de modificar a lei para expandir a área de cultivo de coca legal para 20 mil hectares.

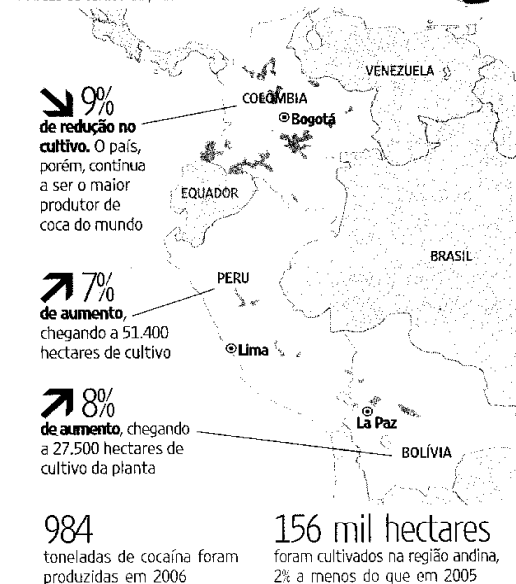
Os EUA criticam a expansão, afirmando que, atualmente, 5.000 hectares suprem o mercado legal da coca na Bolívia.

Segundo o texto, o cultivo teve um "crescimento drástico na região tropical do Chapare"

A COCA NA REGIÃO ANDINA

Relatório aponta incremento do cultivo no Peru e Bolívia e diminuição na Colômbia

As áreas de cultivo da planta



(19%), berço político de Morales. "O governo precisa garantir ao mundo que seu apoio aos cocaleiros não levará a um incremento da produção de coca", disse o diretor-executivo do UNODC, Antônio Maria Costa.

Em resposta ao relatório do UNODC, o vice-ministro de Coca e Industrialização, Gerô-

nimo Meneses, afirmou ontem que os produtores de coca eliminarão neste ano 5.000 hectares de cultivo excedente. Segundo Meneses, a redução das plantações será feita de forma voluntária nas regiões de Chapare e Yungas —as principais áreas produtoras da planta— baseada em um acordo que será

assinado no dia 29 de junho.

Colômbia e Peru

Apesar da queda do cultivo da planta na Colômbia, o país continua a ser o maior cultivador de coca e produtor global de cocaína, respondendo por 62% da droga encontrada no mundo. Segundo o relatório, a queda do cultivo da folha de coca se deve, principalmente, à fumigação dos cultivos ilegais —que subiu 24%— e à erradicação manual da coca.

A superfície cultivada é a mais baixa em 10 anos. A erradicação da coca na Colômbia é altamente financiada pelos EUA, que pelo Plano Colômbia destinam ao país US\$ 700 milhões anuais, a maior parte em ajuda militar para combater a guerrilha e o narcotráfico.

"A situação geral é estável, porém frágil", disse Costa. "Recentes indícios sugerem que o cultivo de coca nos Andes pode ser, e está sendo, contido."

O Peru, segundo maior produtor mundial de cocaína, respondendo a 28% da produção da droga, cultivou 54 mil hectares de folha de coca em 2006.

Segundo o relatório, a demanda global de cocaína se mantém estável, com um decréscimo nos EUA e um aumento na Europa.

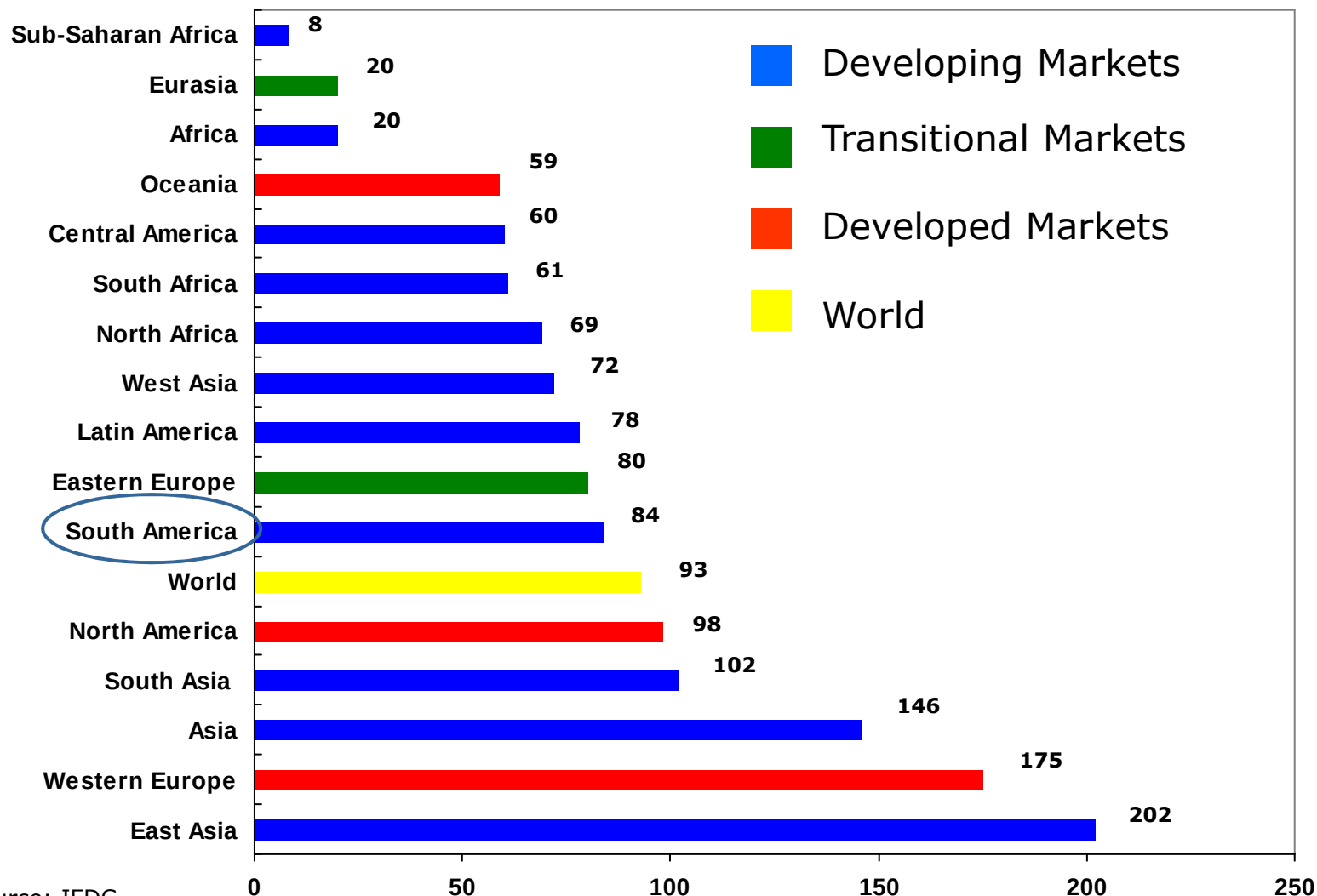
A África Ocidental é cada vez mais usada como região de trânsito para a cocaína. "É uma novidade alarmante que pode minar a estabilidade de países africanos inteiros. Não podemos permitir que novos narcos-Estados surjam", disse Costa.

Com agências internacionais



Per Hectare Fertilizer Use by Markets, 2002/03

(kg/ha)



Source: IFDC



Brazil

When you think of Brazil...



carnival



soccer



amazon



We are also...



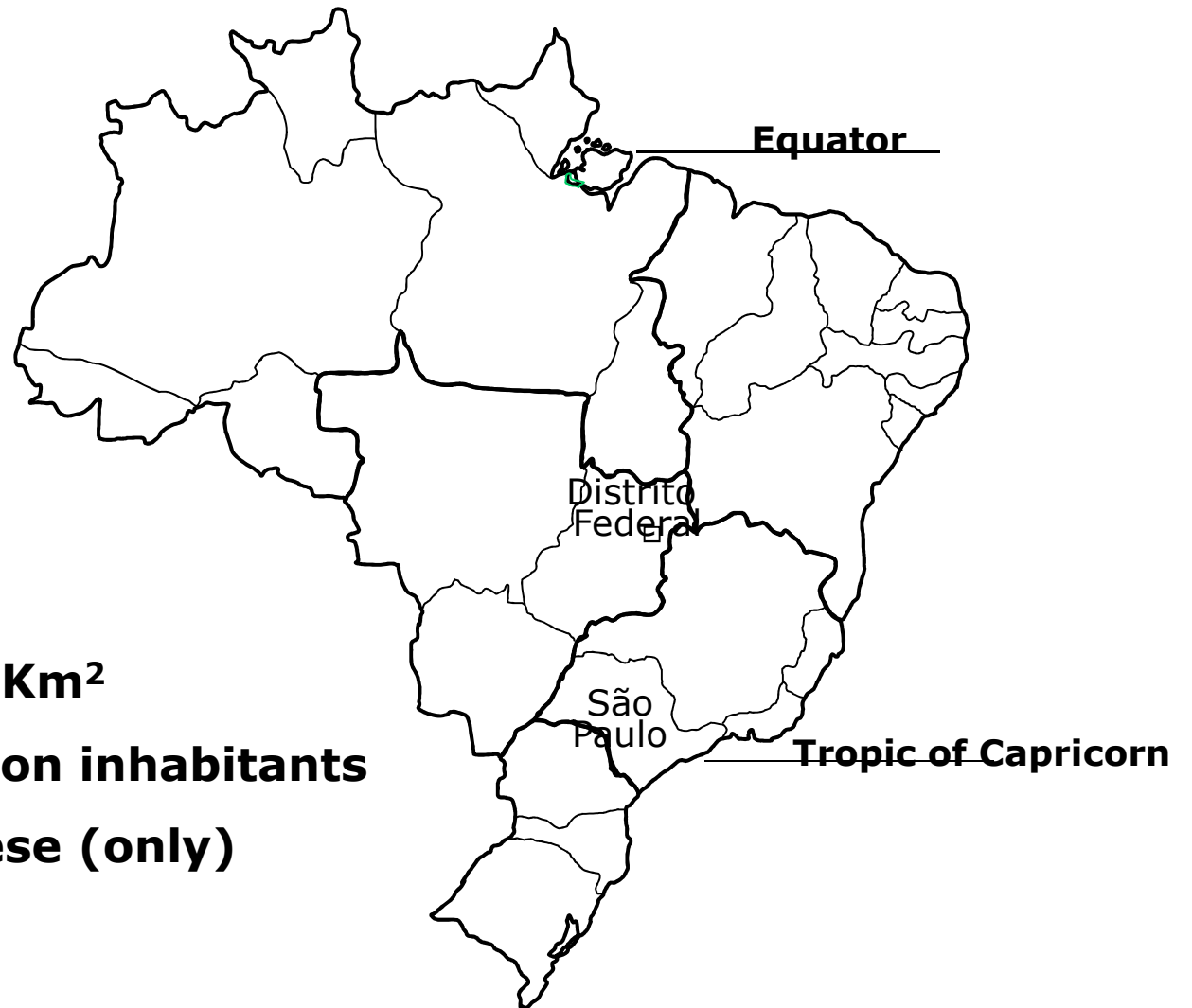
food



feed



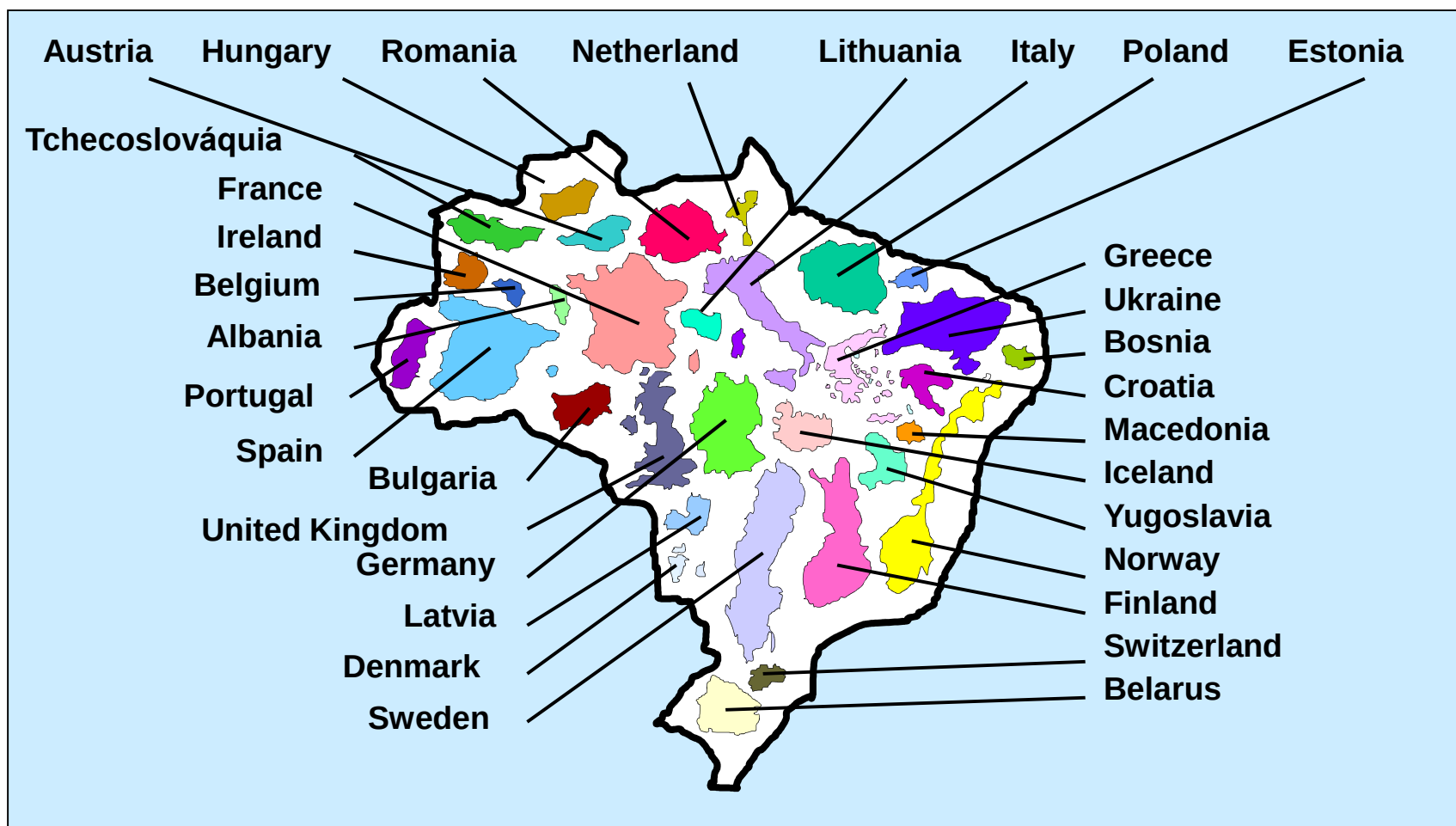
fuel



- **Area: 8.514.204,86 Km²**
- **Population 194 million inhabitants**
- **Language: Portuguese (only)**
- **Tropical Country**

Brazil: Potential Soil for Agriuse

(367 million hectares)



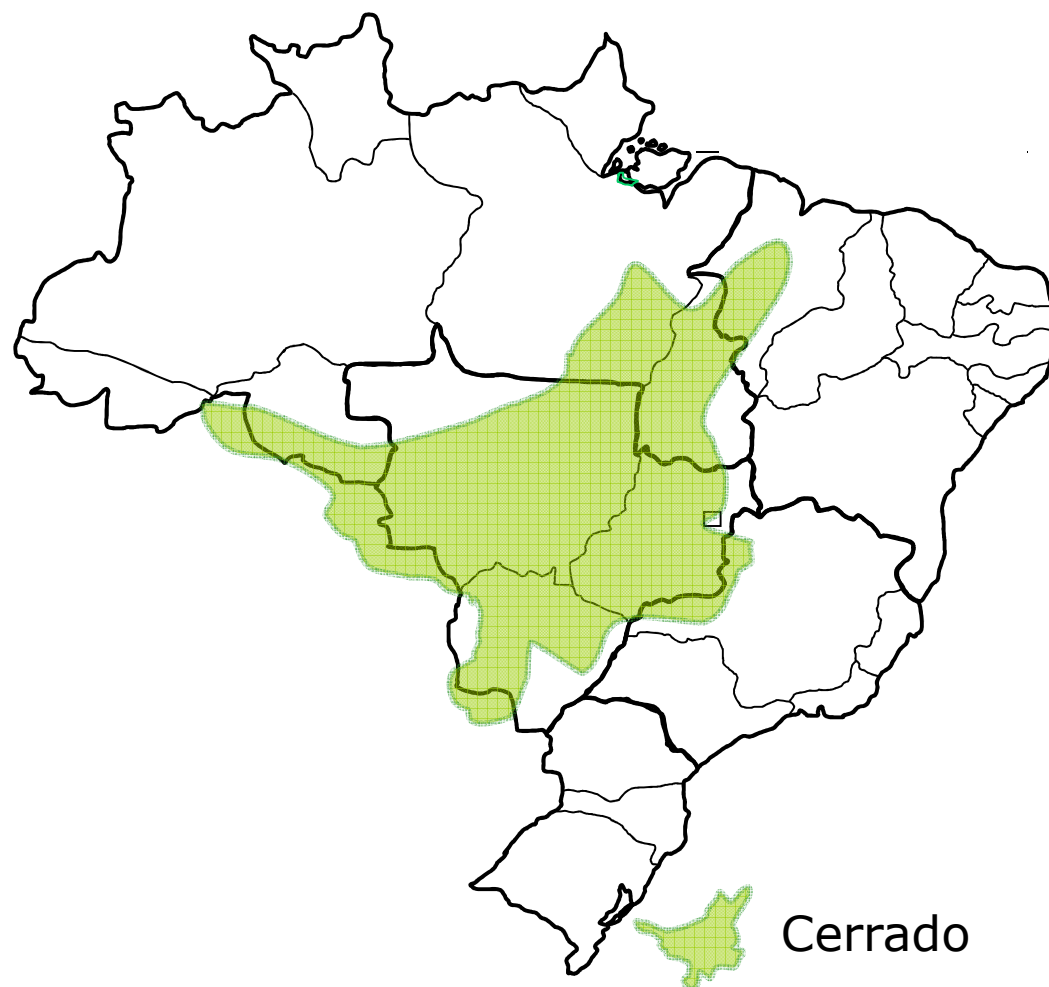
Source: J.L.Coelho, John Deere, 2001



Estimated Area

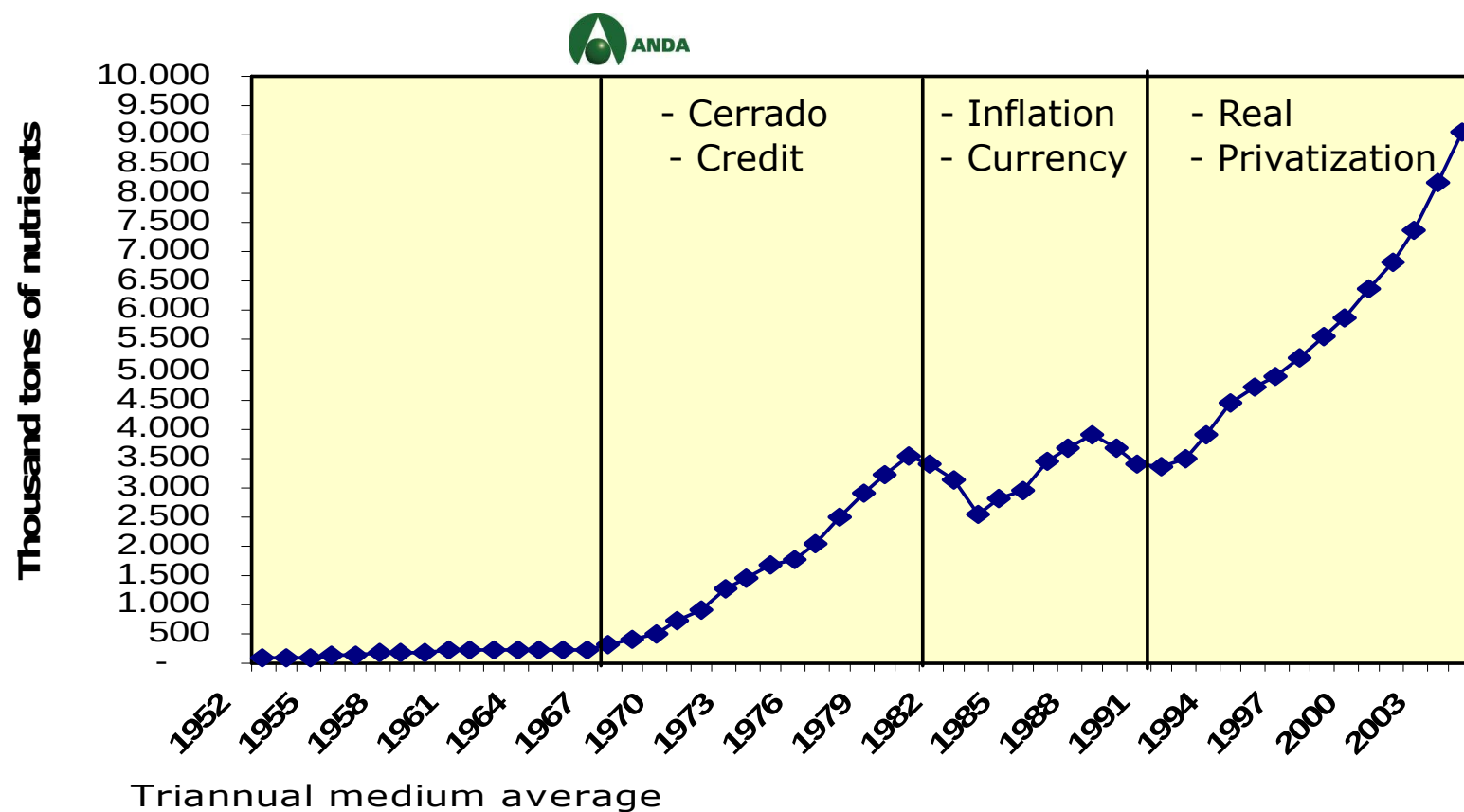
(millions of ha)

Amazon Florest	350
Legal Reserves	55
Citys, Lakes, River and Swamp	20
Other uses	54
Reforestation	5
Sub-total	484
Pasture	215
Annual Crops	47
Permanent Crops	15
Available Agribusiness Area	90
Sub-total	367
Total	851



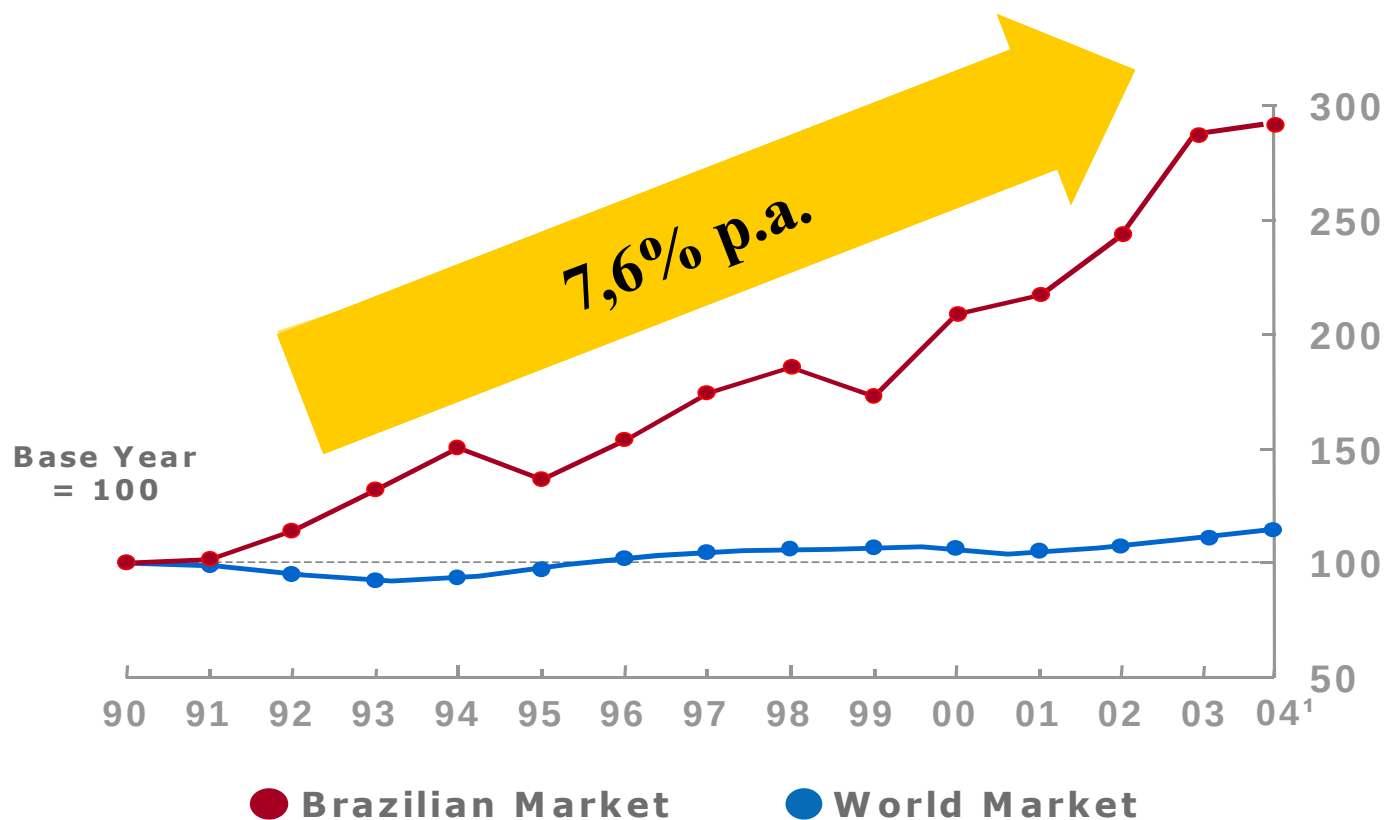
20% of the world's water

Brazil: Fertilizer History





Fertilizer in Brazil - Fast growing business



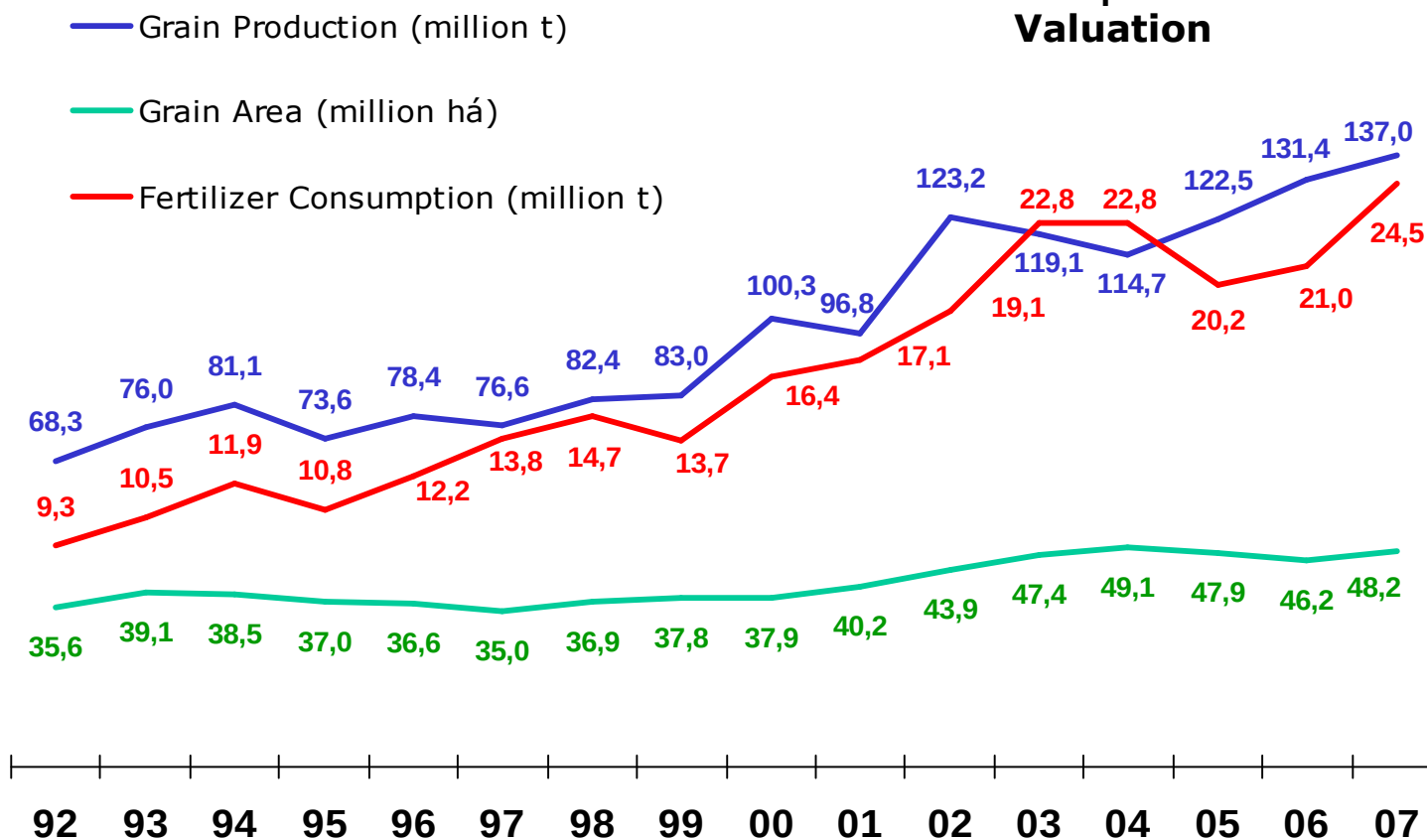
Source: IFA and ANDA

¹ 2004 - ANDA



Area, Grain and Fertilizer

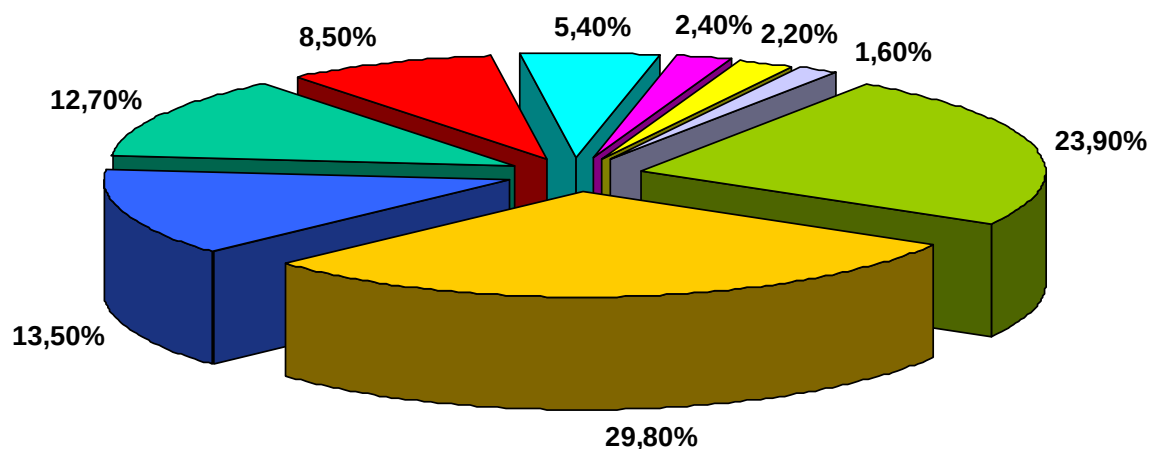
↓
Clima
+
Rust
+
Valuation



Source: ANDA /CONAB



World Fertilizer Consumption - 2006



CHINA ÍNDIA USA EU (1) BRAZIL PAQUISTAN INDONÉSIA VIET NAM OTHERS

Total Consumption: 163,9 million tonnes NPK

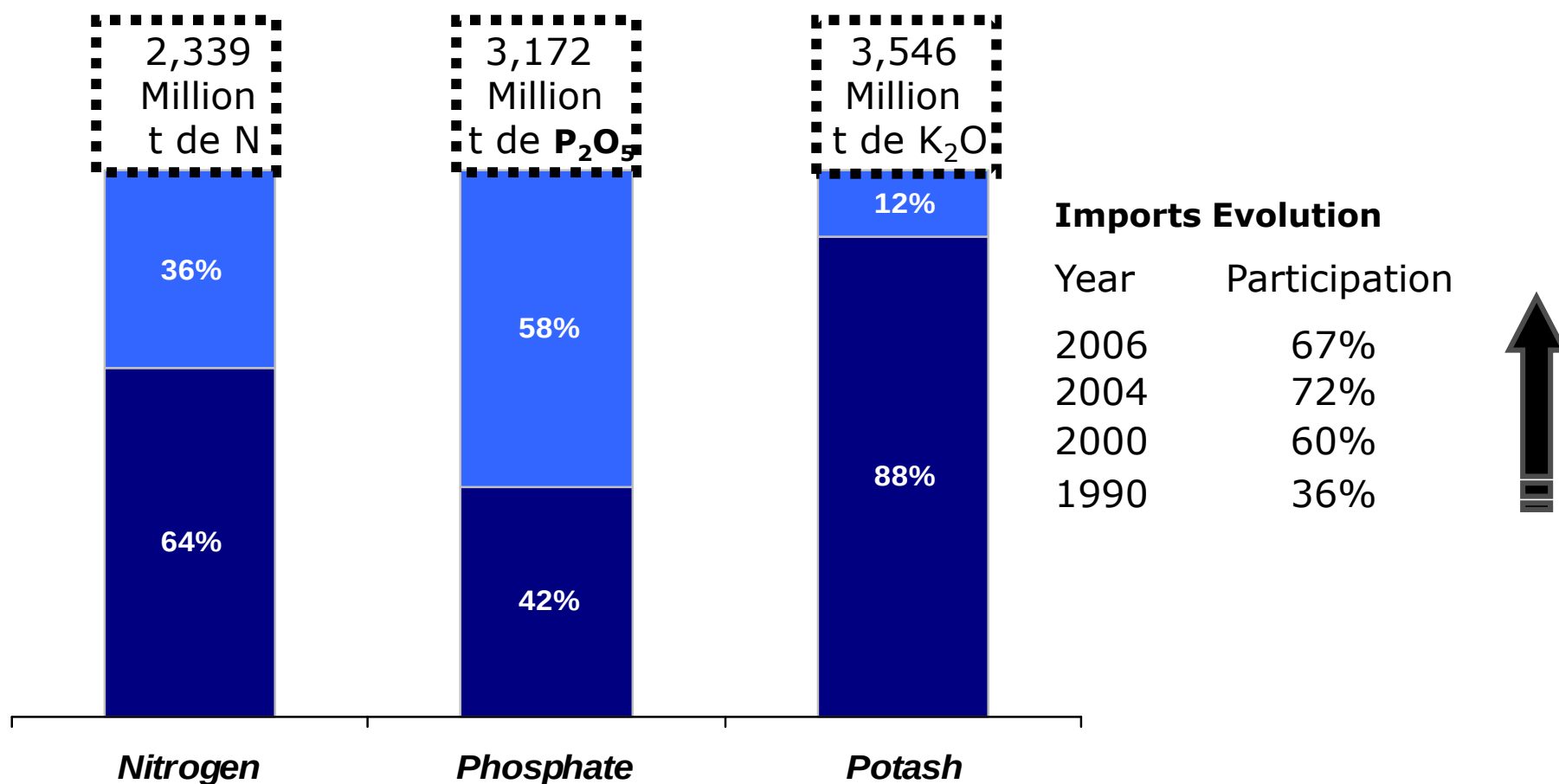
4° World's market

3° Import's market

Source: IFA; (1) 15 countries



Brazilian Fertilizer Production + Imports - 2006

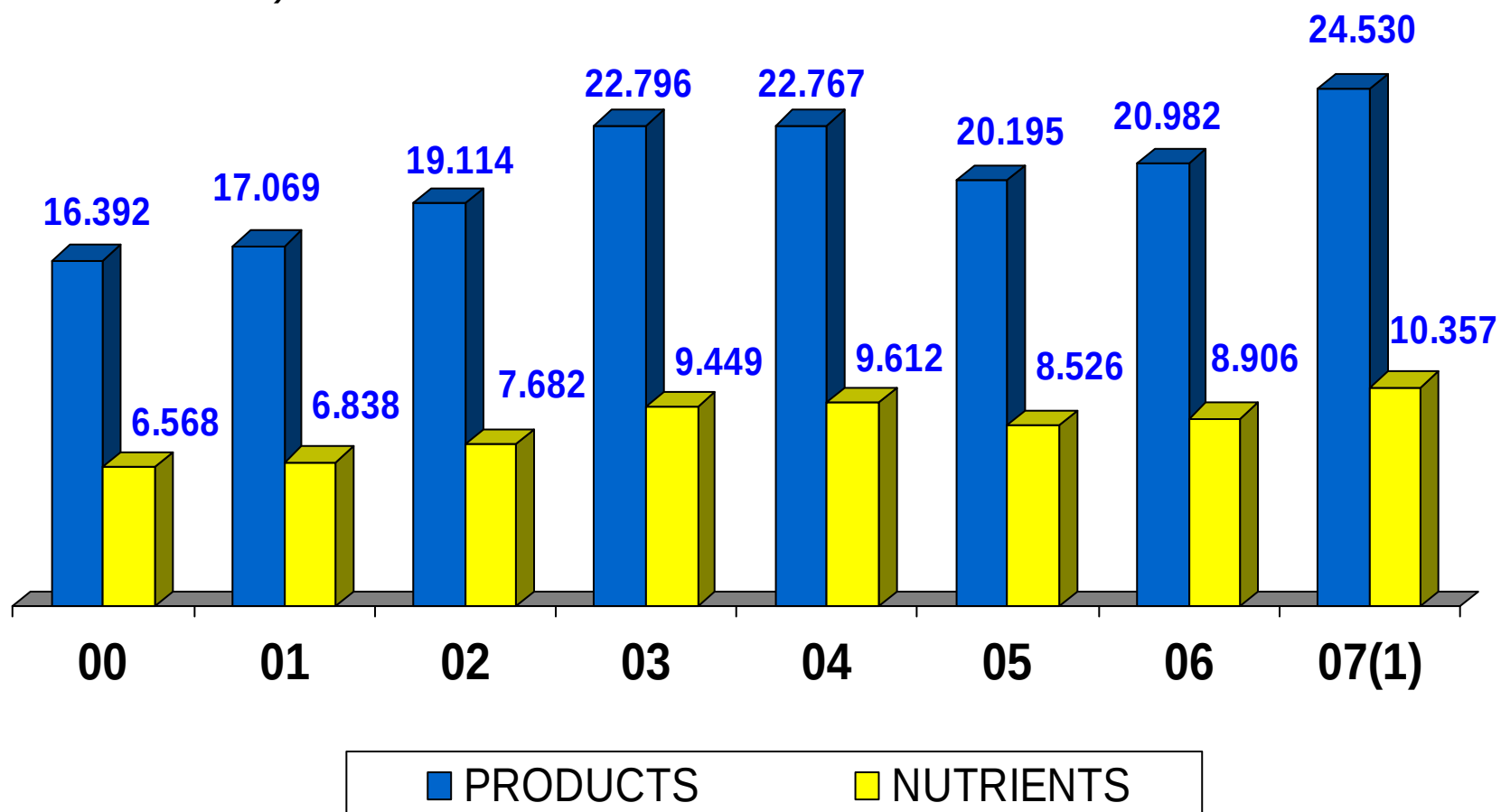


Source: ANDA



Deliveries of Fertilizers to the Market

(thousand tonnes)

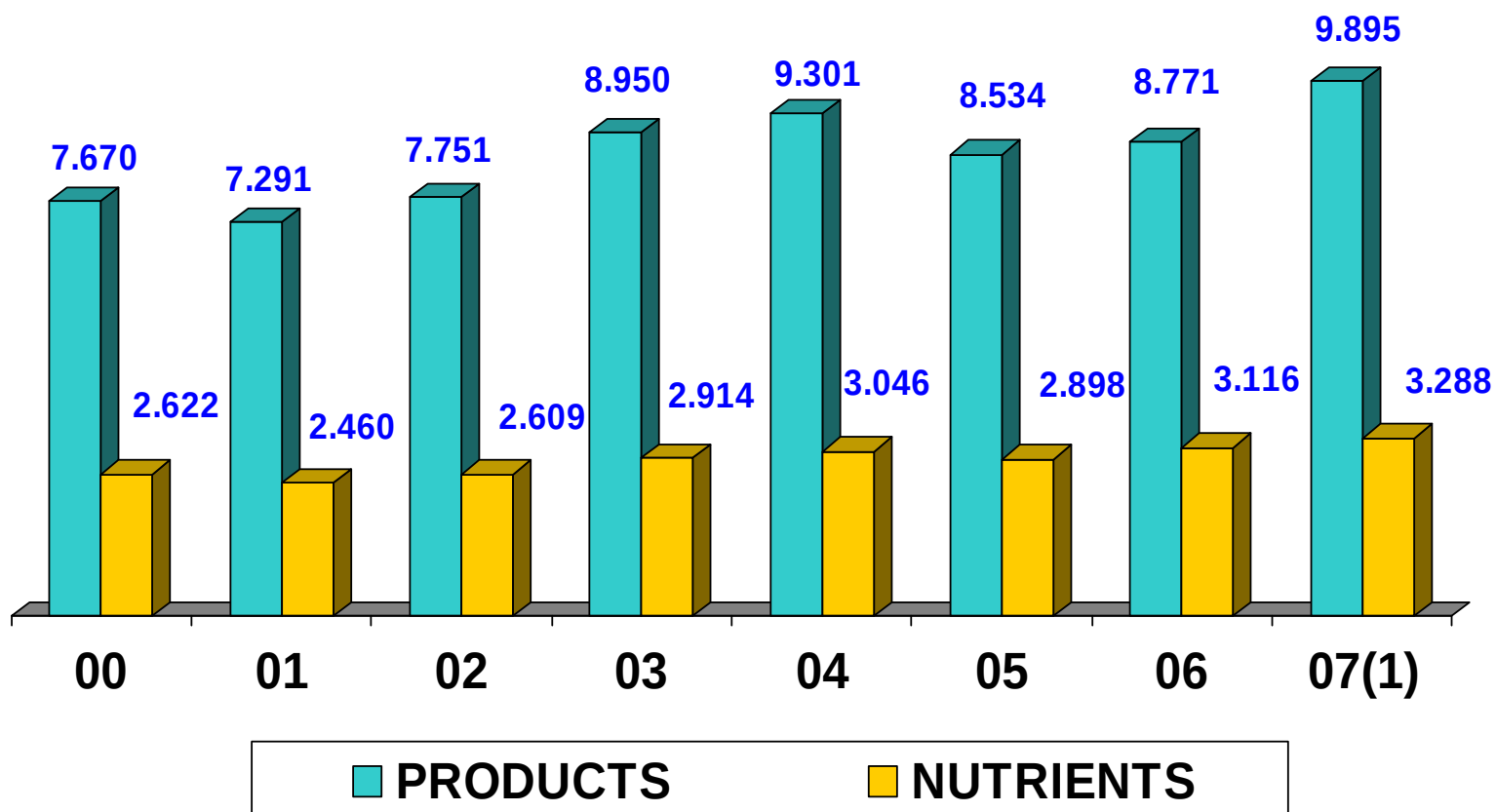


Source: ANDA – (1) Jan – Sep: actual; 4° Q - estimate



National Production of Intermediate Fertilizers

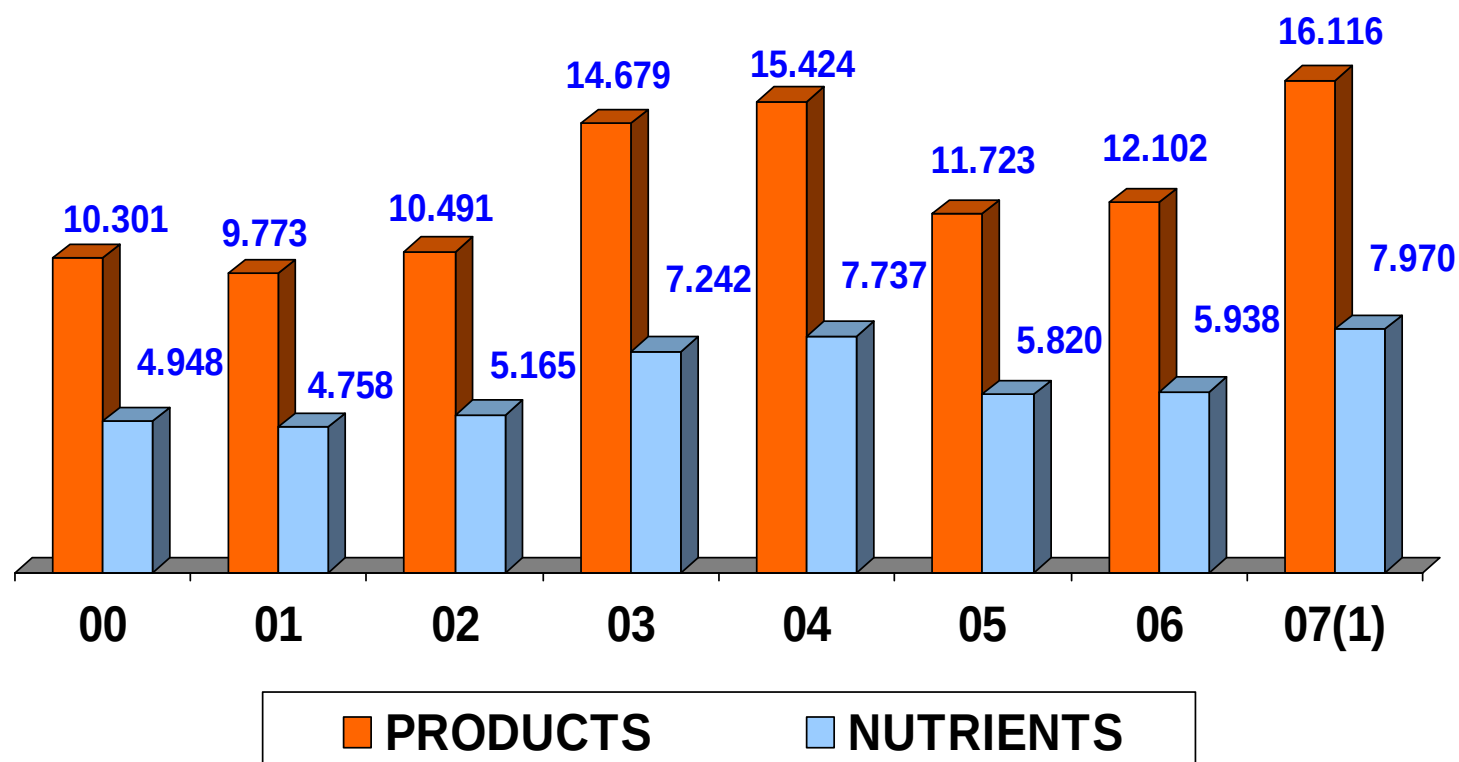
(thousand tonnes)



Source: ANDA – (1) Jan – Sep: actual; 4° Q - estimate



Imports of Intermediate Fertilizers (thousand tonnes)



Source: ANDA – (1) Jan – Sep: actual; 4° Q - estimate

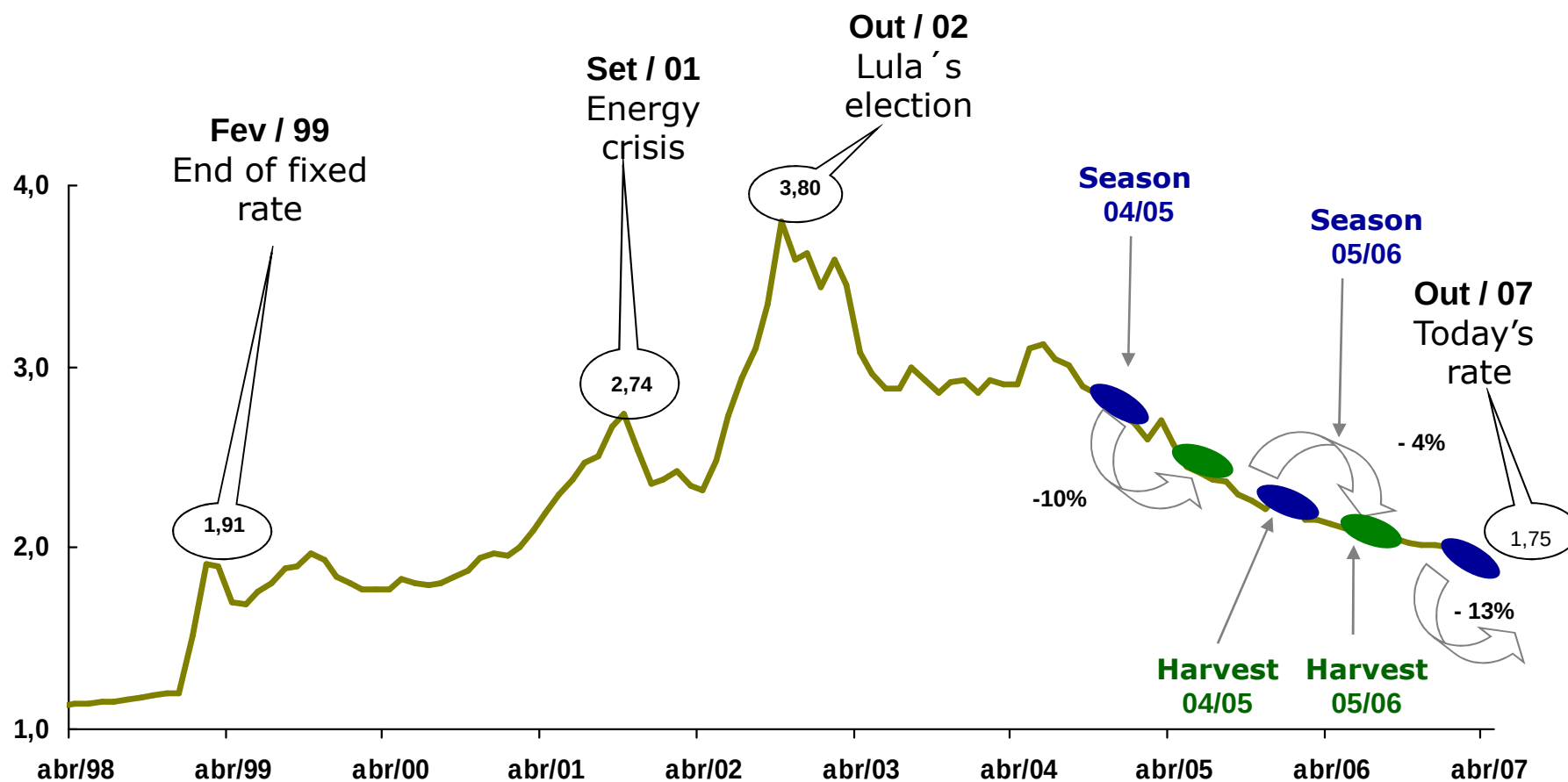


Challenges

✓ Negative Issues

- World's highest interest rate (11,25% p.a.)
- Exchange rate valuation
 - . Oct/04 – Oct/05 **↑** 21% Oct/07 **↑** 13%
 - . 1 USD = R\$ 1,75 1USD = 3,14 pesos argentinos
- Increase of arrears and rural revolving credit
- International subsidies and barriers
- Logistical and infrastructure deficits
- Unbalance NPK consumption
- Inconsistent lime consumption

Challenges - Exchange Rate Evolution

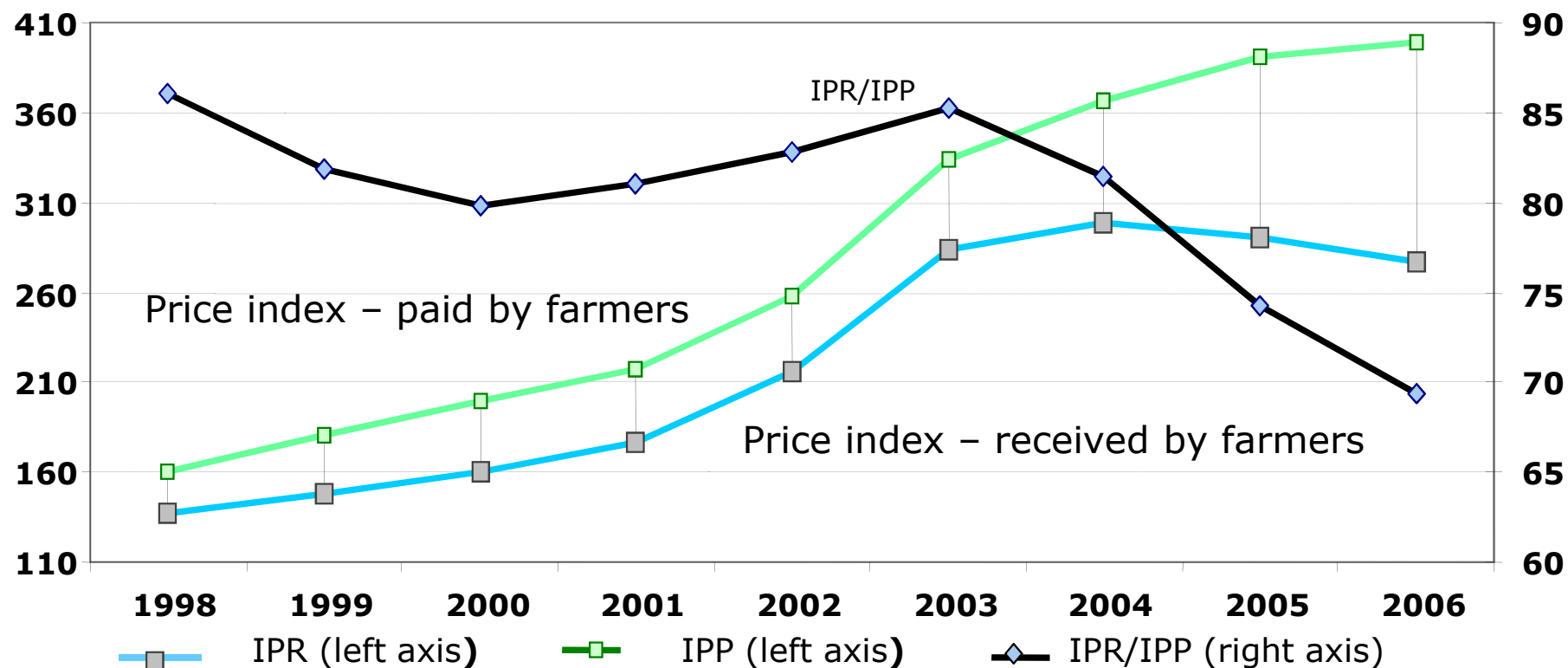




Challenges - Agribusiness Debts

- R\$ 131 billion (US 73 billion) revolving rural credit debts coming from: banking + traders + suppliers
- No rural/weather insurance, neither short term credit limits

Challenges – Lower Agribusiness Margins



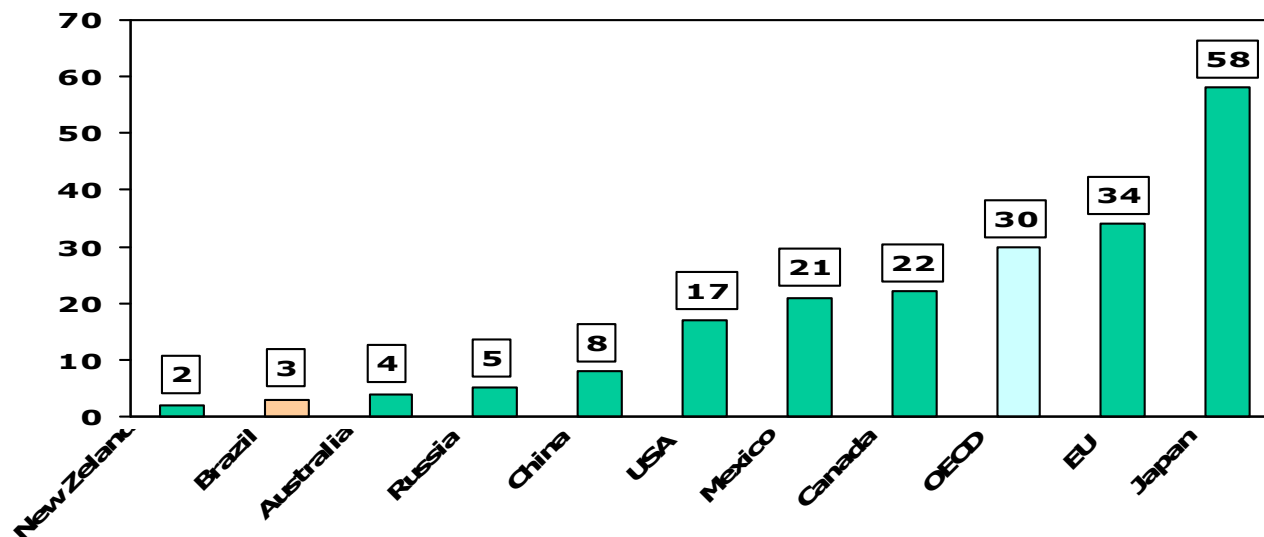
	IPR	IPP	IPR/IPP
2006/1998	101%	150%	-19%



Challenges – International Subsidies and Barriers

- Tax Barriers
(ex.: ethanol and orange juice by the USA)
- Non Tax Barriers
(ex.: livestock “in natura” by Japan and Ireland)

High subsidies by developed countries
(2002/04) average - Producer support – as per cent of gross farm receipts)



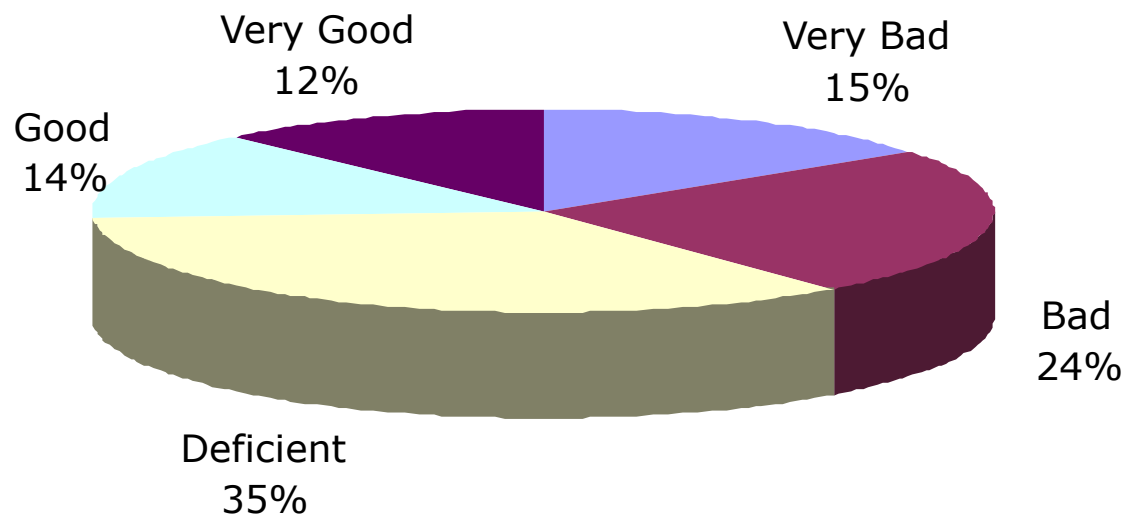
Source: OECD



Challenger – Logistics + Transportation

Share of Transportation	
Road	60,5%
Railroad	20,7%
Barges	13,6%
Air cargo	0,4%

Road Conditions

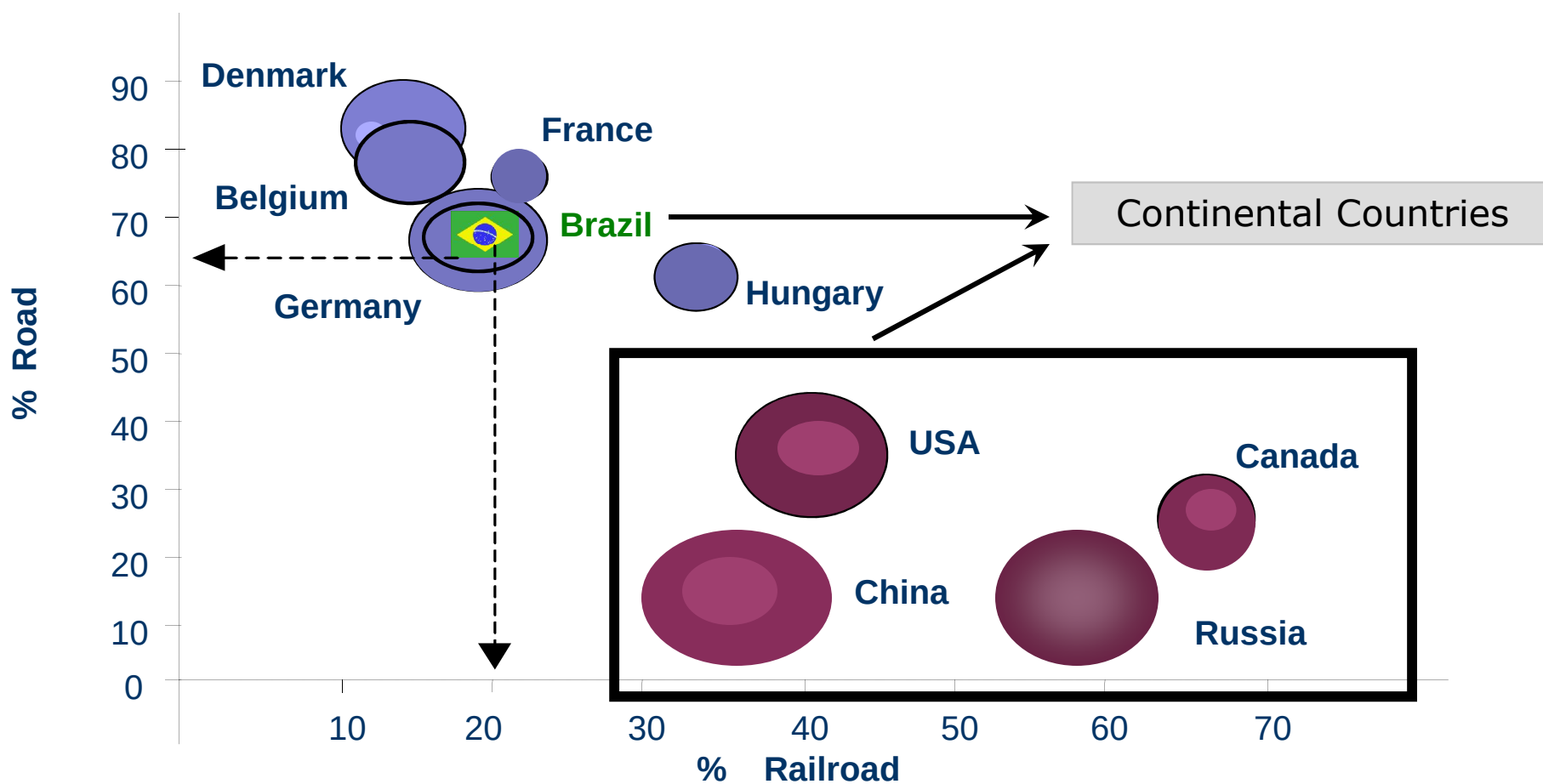


Affects producers far away from the markets or port facilities



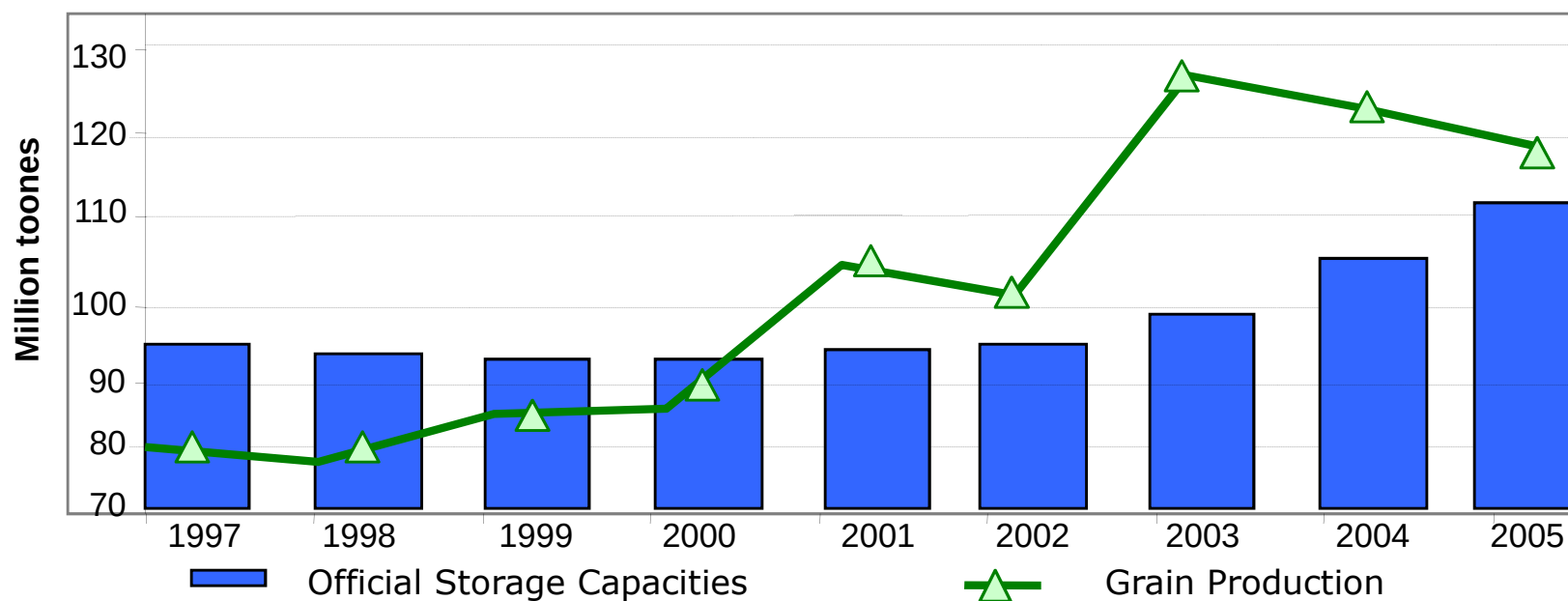
Challenges – Grains flowing off

World's Transportation Shares



The circular area represents barge's use

Challenges - Storage Capacity



	1997/2005
Official Storage Capacities	18,8%
Grain Production	46,2%

Negative effects in yield commercialization



Inside Farm

Fazenda Filadélfia - MT





Outside Farm

Campo Novo do Parecis to Sapezal - MT





Outside Farm

Access to Port of Santos



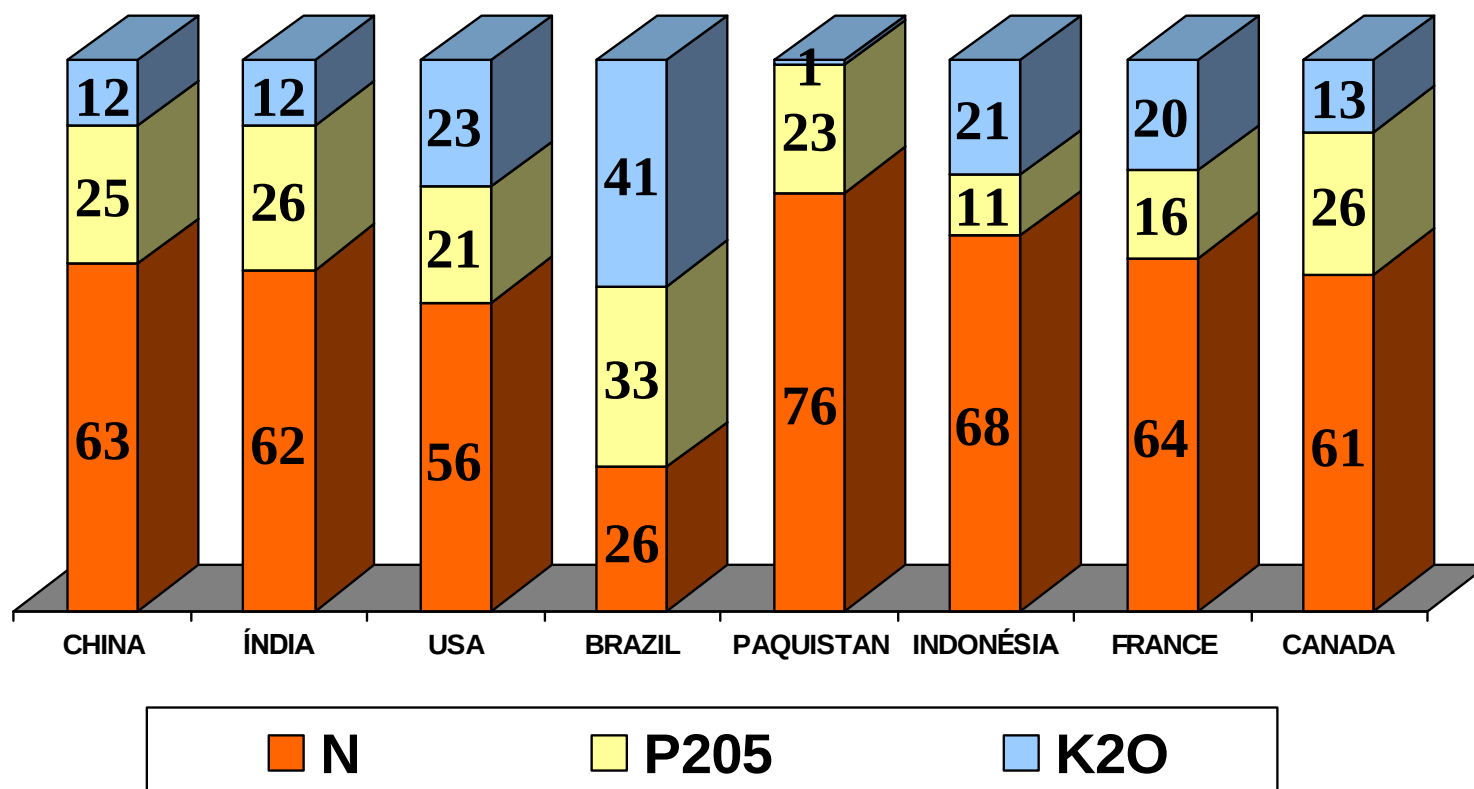


Outside Farm

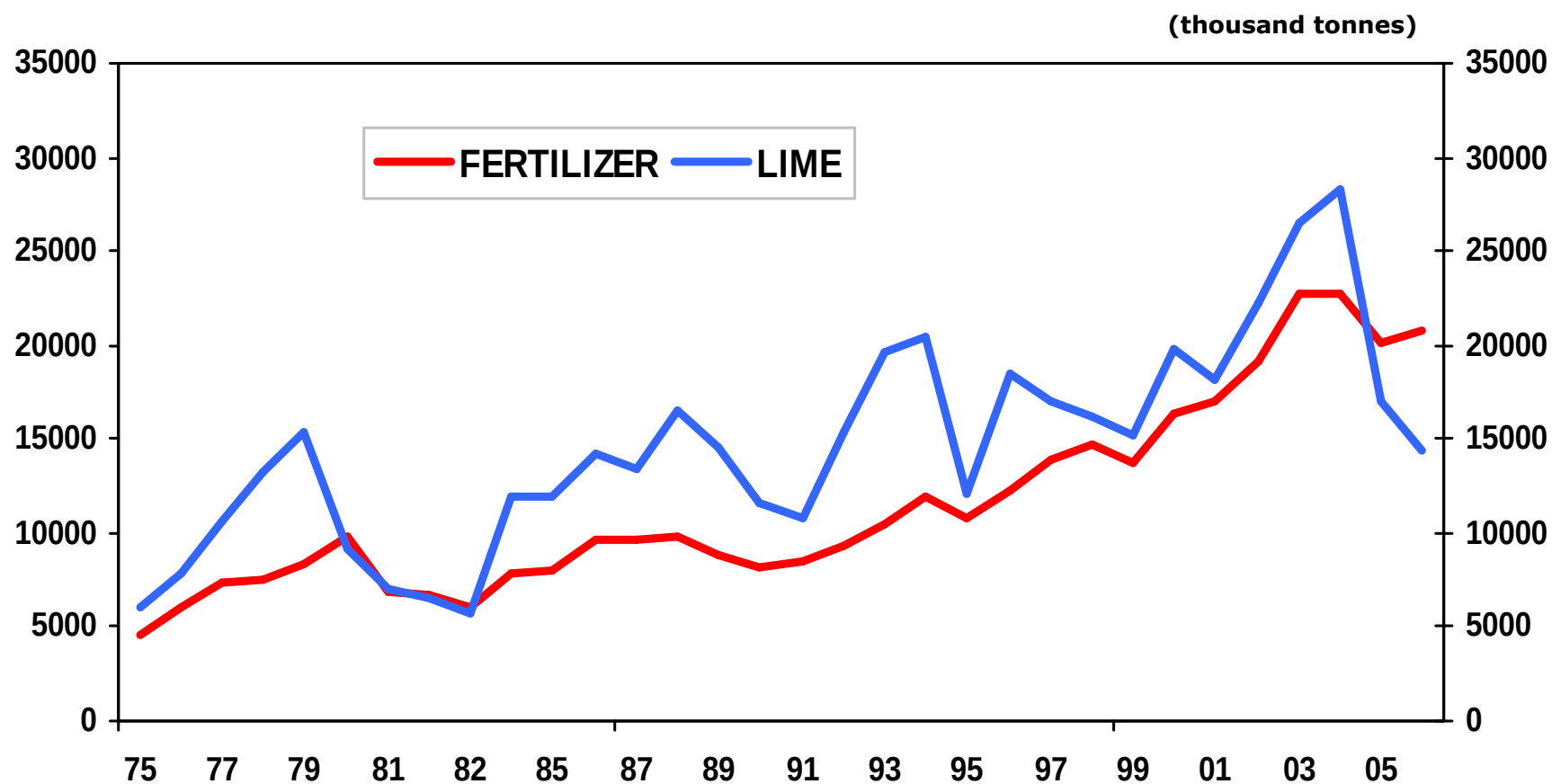
Port of Paranaguá



Challenges – Unbalance NPK consumption (% - 2007)



Challenges – Inconsistent lime consumption





Opportunities

✓ Positive Issues

- Political + Economic Stability
 - . Inflation, Trade Balance and International Debt
- Agri Techonology
 - . No till, crop/livestock integration
- Demand and Prices 4 "Cs" + Commodities
 - . Coffee, cane, citrus, cellulose + corn, soya, cotton
- Agroenergy know how
 - . Alcohol/ethanol experience (70's)

Opportunities - Brazil's Products Diversity

Ranking of the main products

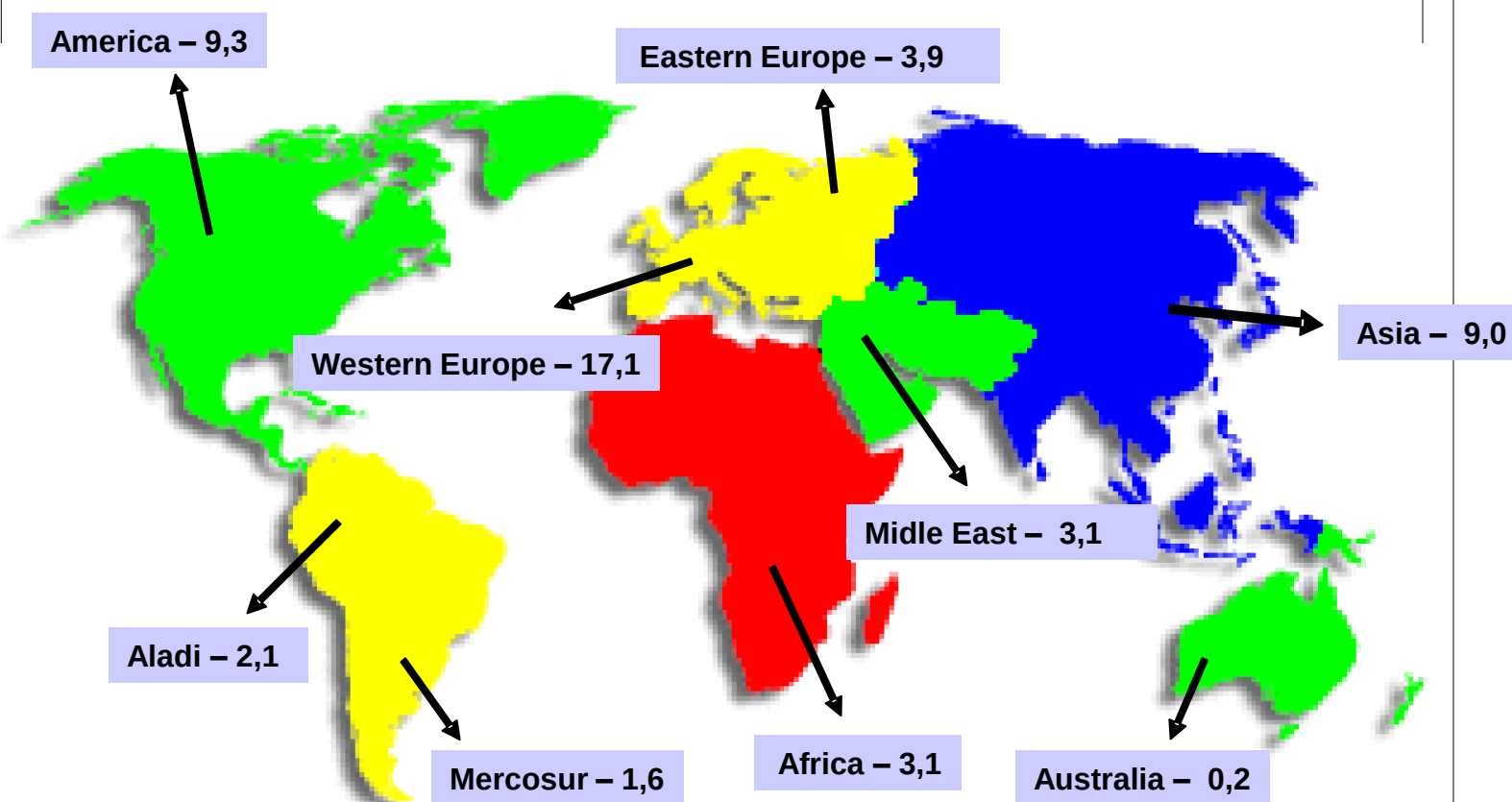


Product	Producer	Exporter
Coffee	1º	1º
Sugar (Cane + Beet)	1º	1º
Orange juice	1º	1º
Meat	1º	1º
Soya complex	2º	1º
Poultry	2º	1º
Cotton	6º	3º



Opportunities - Brazil's Markets Diversity

Agribusiness Exports – 2006: US 49,4 billion – 165 countries





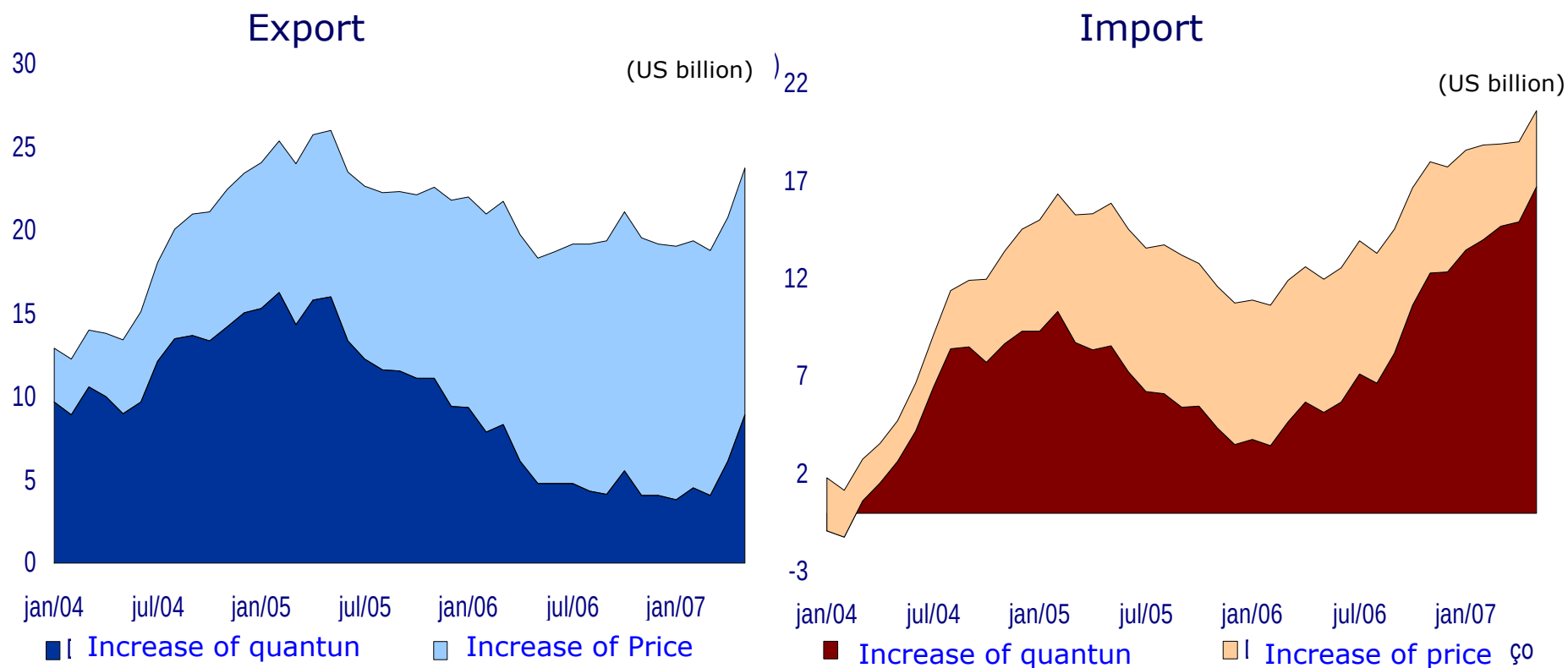
Opportunities – Brazilian Trade Balance

(US billion)

Year	EXPORTS		IMPORTS		BALANCE	
	TOTAL	AGRIBUSINESS	TOTAL	AGRIBUSINESS	TOTAL	AGRIBUSINESS
1.998	51,1	21,6	57,8	8,1	-6,7	13,5
1.999	48,0	20,5	49,3	5,7	-1,3	14,8
2.000	55,0	20,6	55,8	5,8	-0,7	14,8
2.001	58,2	23,9	47,2	4,5	2,6	19,4
2.002	60,4	24,8	47,2	4,5	13,1	20,3
2.003	73,0	30,6	48,2	4,8	24,8	25,8
2.004	96,5	39,0	62,8	4,9	33,7	34,1
2.005	118,3	43,6	73,6	5,2	44,7	38,4
2.006	137,5	49,4	91,4	6,8	46,1	42,6
2.007(1)	153,0	45,9	108,0	5,4	45,0	40,5

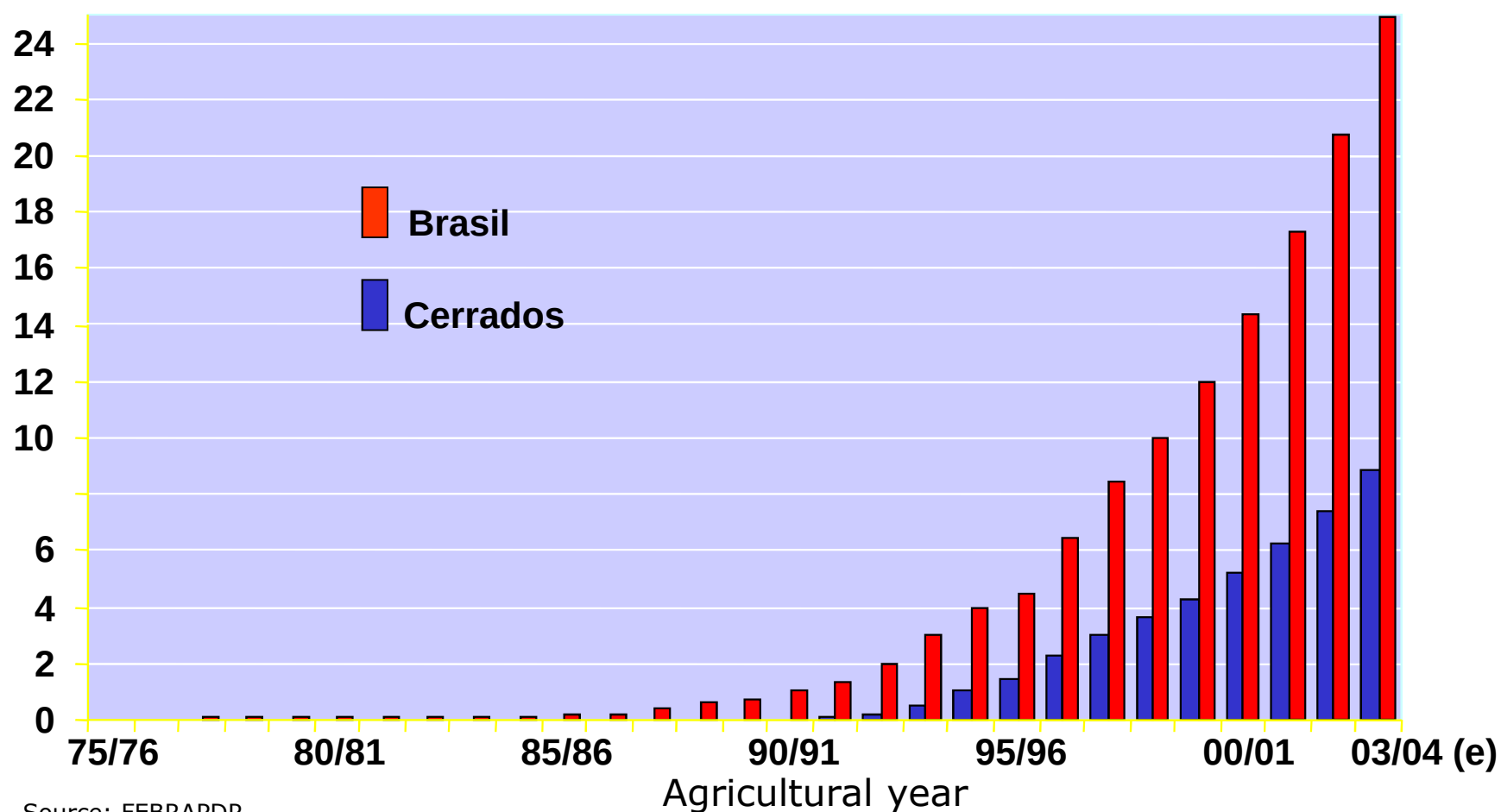
Source: SECEX-MDIC/MAPA

Opportunities – Brazilian Trade Balance



Opportunities - Evolution in no-till Crop Production (1975/76 to 2003/04)

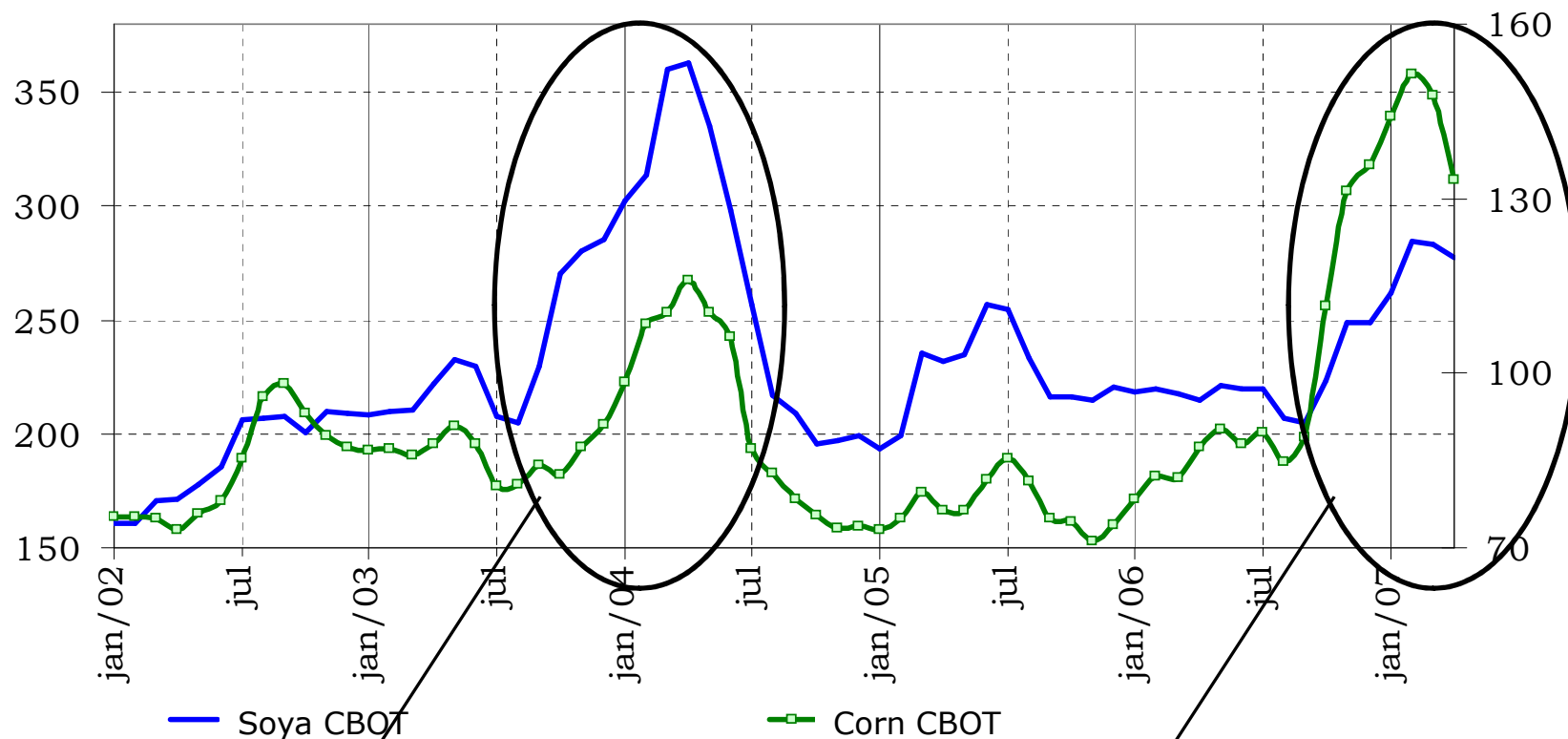
Million ha







Opportunities - Corn and Soyabean prices (CBOT)



Supply impact
Problems with soya
season in Brazil + USA

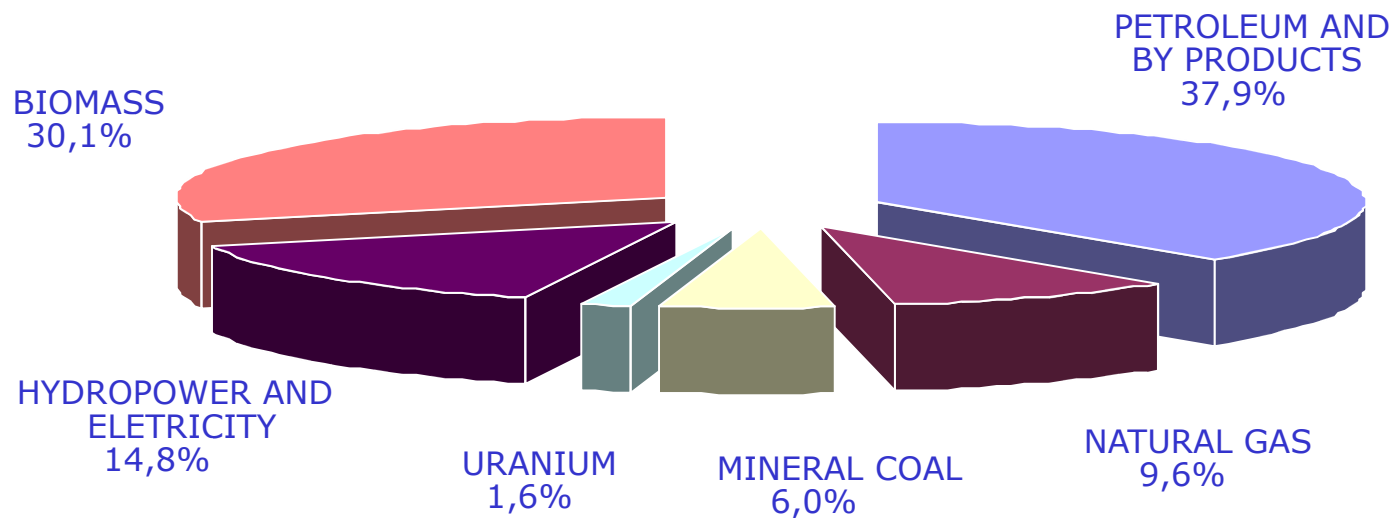
Demand impact
Positive perspective for
Corn/agroenergy demand in USA



Opportunities - Bioenergy

- Ethanol
- Biodiesel
- Biogas
- Energetic Florests
- Co-generation of eletricity

Brazilian Internal Energy - 2006





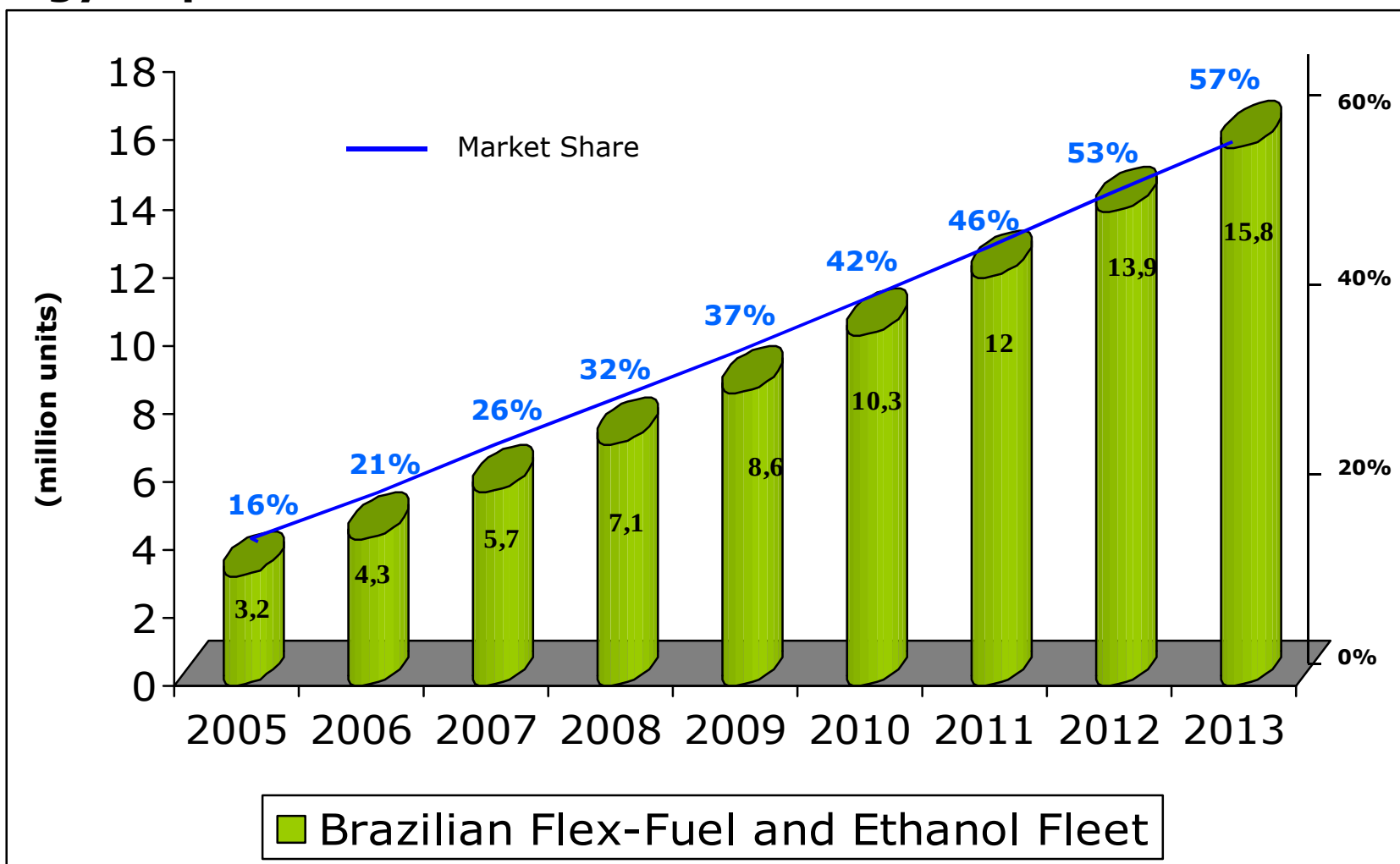
Energy Impact on Agriculture

- High Oil Prices
- Renewable Sources
- Energy Alternative
- Global Warming
- Environmental Issues

Biofuel
Development

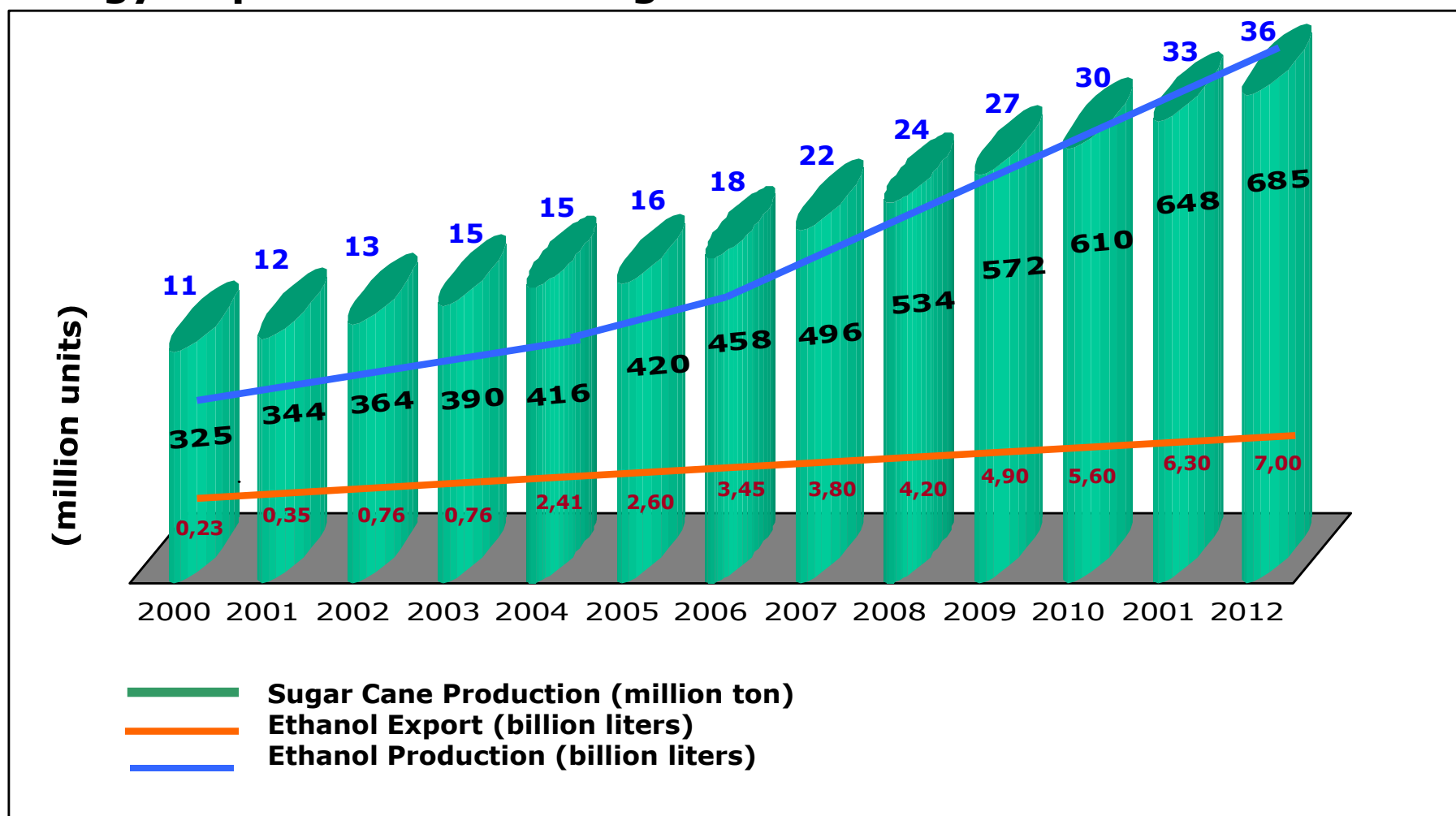
Ethanol
+
Biodiesel

Energy Impact - Brazilian Flex-Fuel and Ethanol Fleet



Source: UNICA

Energy Impact - Brazilian Sugar Cane Forecast

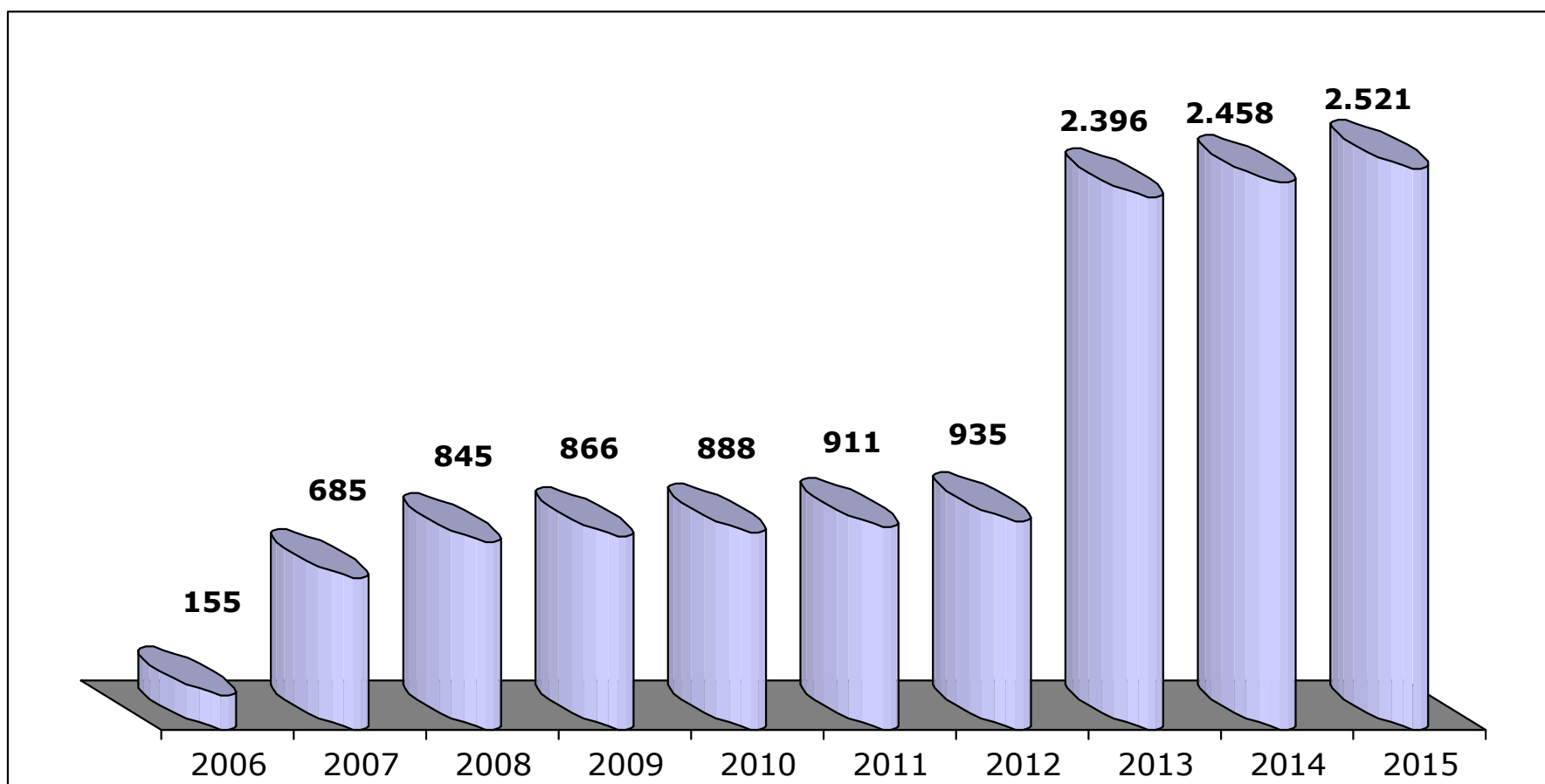


Source: ÚNICA and IBGE



Energy Impact - Brazilian Biodiesel Demand Forecast

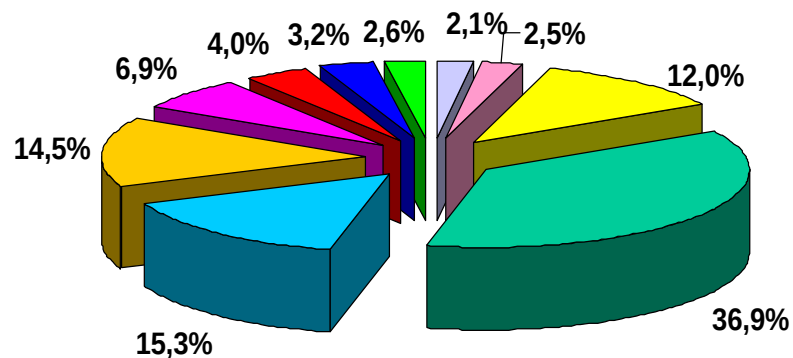
(million liters)



Source: ABIOVE



Perspectives - Fertilizer Deliveries by Crop

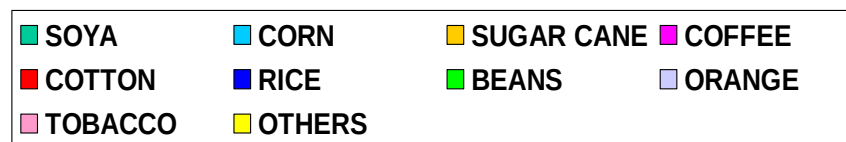
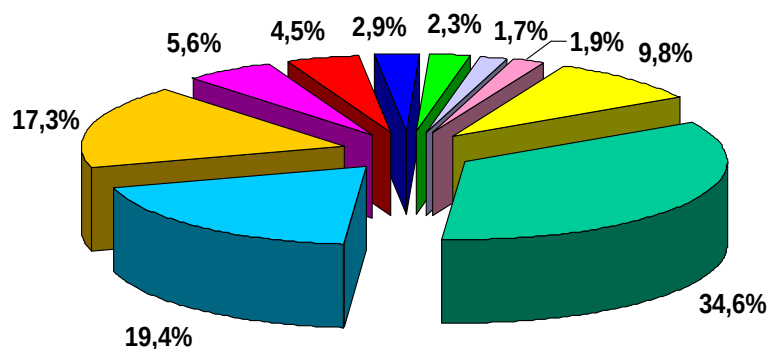
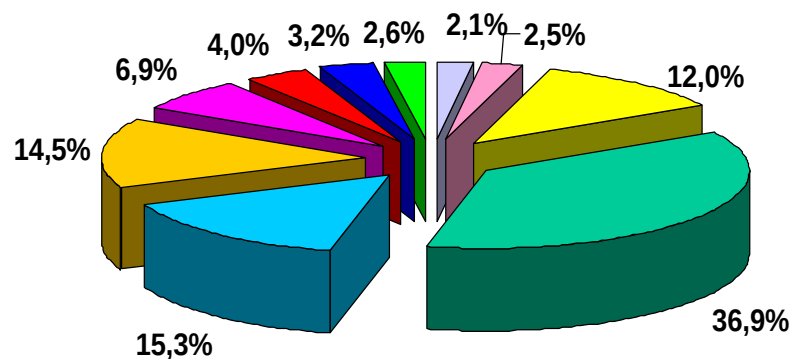


SOYA	CORN	SUGAR CANE	COFFEE
COTTON	RICE	BEANS	ORANGE
TOBACCO	OTHERS		

2005 : 20.195 thousand tonnes



Perspectives - Fertilizer Deliveries by Crop



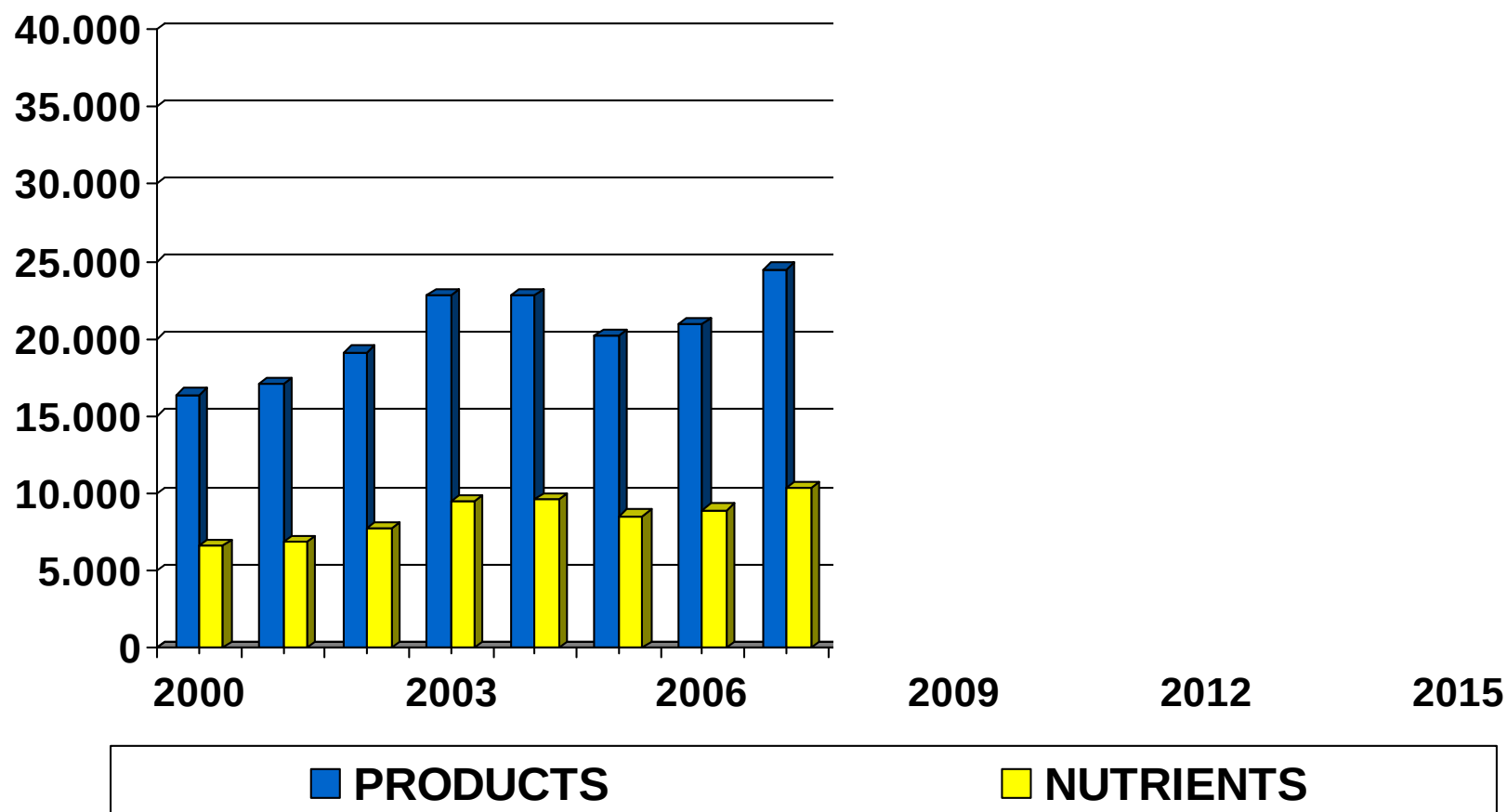
2005 : 20.195 thousand tonnes

2015 : 34.100 thousand tonnes



Perspectives - Fertilizer Deliveries - Brazil

(1000 TONNES)

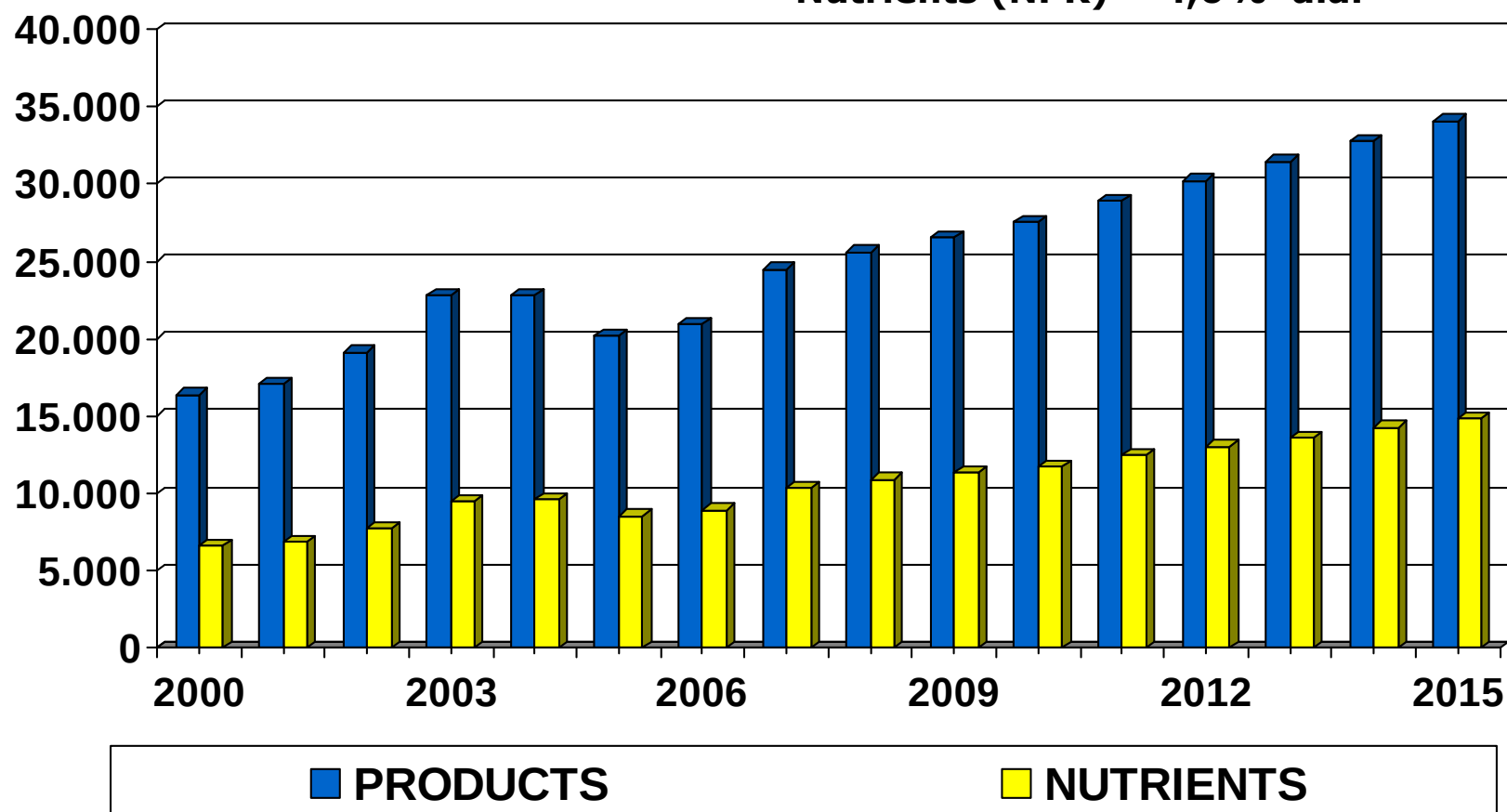




Perspectives - Fertilizer Deliveries - Brazil

(1000 TONNES)

Products: 2007/2015 = 4,2% a.a.
Nutrients (NPK) = 4,6% a.a.



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