



SUSTAINABILITY:
WHAT'S NEXT?



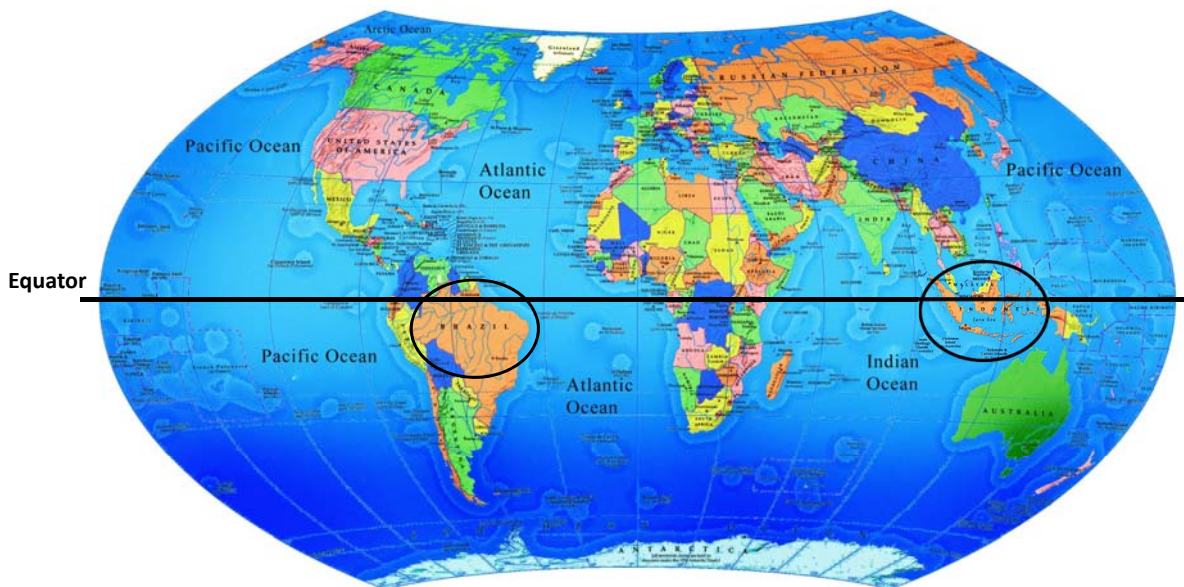
THE 12TH ANNUAL ROUNDTABLE MEETING ON SUSTAINABLE PALM OIL

11TH ANNUAL GENERAL ASSEMBLY
17-20 NOVEMBER 2014 ■ SHANGRI-LA HOTEL KUALA LUMPUR

PREP CLUSTER: NEW FRONTIERS Implementing Sustainable Palm Oil Development in Brazil

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Where we are.

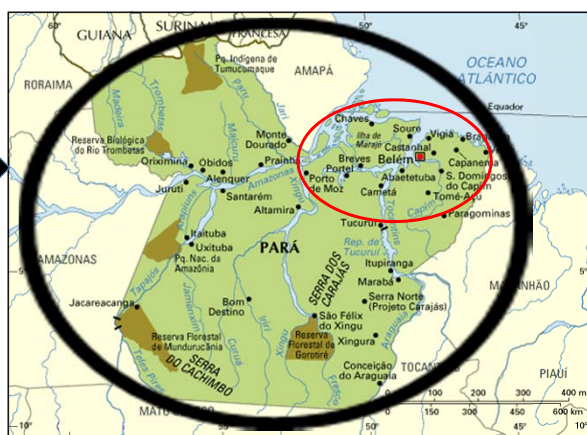


Brazilian Agribusiness: “The food production country”

	Orange Juice	Sugar	Coffee	Beef	Soy Complex	Poultry	Maze	Pork Meet
Export	1st	1st	1st	1st	1st	1st	2nd	4th
	80%	46%	27%	20%	40%	34%	18%	9%
World Production	1st	1st	1st	2nd	2nd	3rd	3rd	4th
	57%	22%	35%	16%	31%	15%	7%	3%

Source: USDA (Mar/14). Nota: safra 2013/14 e 2013 para as carnes. Elaboração: GV Agro

Oil Palms: Where in Brazil

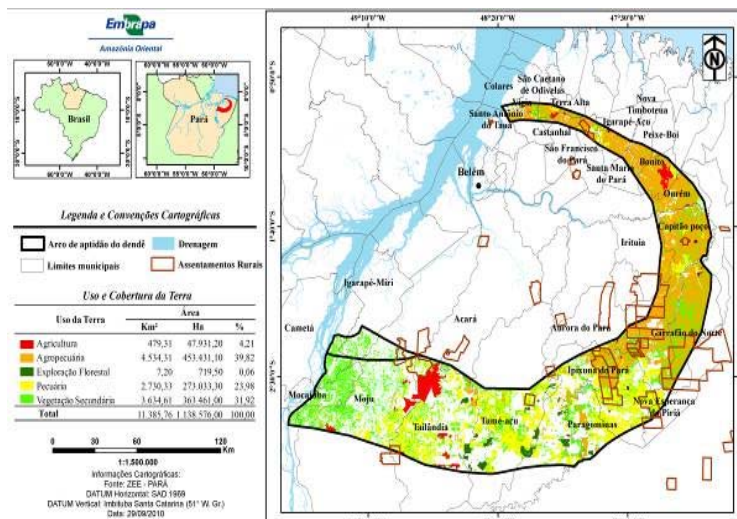


State of Para Ecological, Economical Oil Palm Zoning

Total area: = 2,325,000 ha

Highly suitable area: 1,138,000 ha

Total suitable area in Brazil: 31,000,000 ha



Source: www.planalto.gov.br/ccivil_03/_Ato2007-2010/2010/Decreto/D7172.htm

Oil Palm/Palm Oil current status in Brazil

Total area*	161,782 ha
Smallholders	27,562 ha
number of families	1,070
Direct Jobs**	20,607
CPO production forecast 2014	416.323 MT
Palm products importation forecast 2014	600,000 MT

168% growth in the past 10 years

36% growth in the past 5 years

Average growth of 9% per year

Source: ABRAPALMA. (* and **) members of ABRAPALMA, USDA, Alice Web/MINDIC

Why such a huge area and little investments?

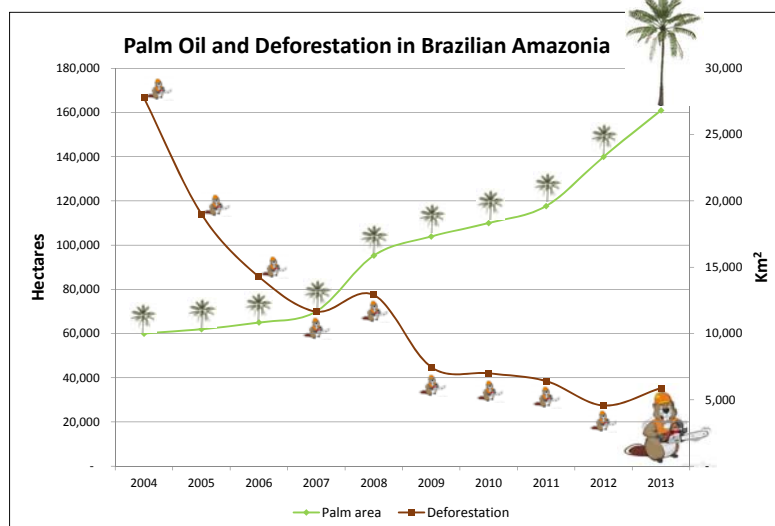
- Constraints:
 - Rigid environmental laws requiring statutory forest reserve of 50% out of the total area, or more.
 - Need for maintenance of riparian forests in all watercourses, ranging from 30 to 100 meters each side depending on the watercourse width.
 - Difficulties in land records and registration within the local authorities and agencies.
 - Prohibition on land purchase by foreigners since August 2009.
 - Rigid and expensive labor laws that make Brazil the highest labor cost place among the 44 countries growers of oil palm, reaching US\$ 14,000 per harvester per year.

...and how to be profitable?

- Investments in training and social benefits for the works. Self productivity must be as high as possible.
- Mechanization.
- Market protection: 10 % import tax for CPO coming from any country outside the MERCOSUR.
- Heavy investments in sustainability that translates in higher selling price (premium)

Some producers have managed to increase labor productivity from 8 to 11.7 hectares per worker, a gain of 46.3% in the past 10 years. The goal is 1 per 15 ha in 2024 (28% growth) due to mechanization.

How to match Economy and Sustainability? Palm oil plantations and deforestation evolution in Brazil



Sources: INPE (2014), for deforestation. Built with data from Embrapa, Oil World, IBGE and Abrapalma, for planted area.

How to match Economy and Sustainability? A case study of AGROPALMA in Brazil

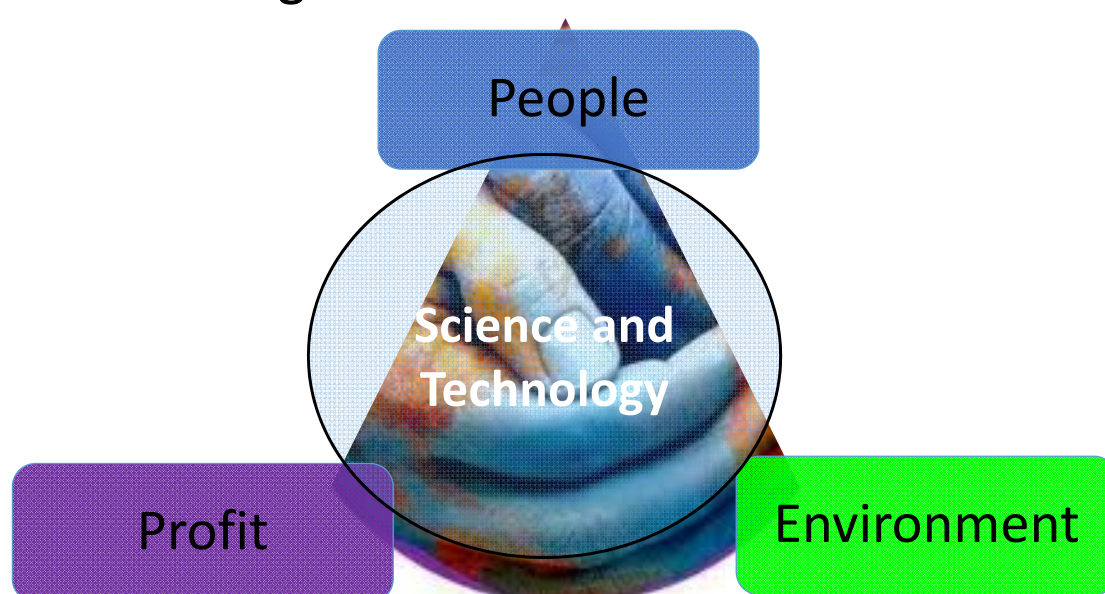
- The program started in 1998 and these are the main topics covered since then:
 - Technical certification to bring/spread knowledge and trust along the entire process such as ISO 9.001, ISO 14.001, ISO 22.000, FSSC-22.000-1 and OHSAS 18.001.
 - Zero Deforestation public commitment set in 2001.
 - Biodiversity identification and monitoring program started in 2004, in partnership with several NGOs and Universities.
 - End of the use of contractors in 2007. Only direct workers are used.
 - Strong social activities internally and within the surrounding communities.
 - Training, productivity, mechanization and automation.

AGROPALMA S.A.

Overall information:

- 32 years investing in the Brazilian palm oil business.
- 40,000 ha of own oil palm plantations.
- 10,000 ha of oil palms in partnership with smallholders.
- 6 extraction mills (1 exclusively dedicated for organic palm oil).
- 2 refineries (one fully operating and another one under construction) including CPO and PKO fractionation, shortenings, margarines, intersterefication, sterification and hydrogenation.
- 100% RSPO certified.
- Brazilian, privately owned.

3 Pillars Program



People: Food, Transportation, Health care, housing, education, etc.



People + Economic: Smallholders / outgrowers, training courses, Women's Union, technical assistance, health care



Profit: Clones, seeds, mechanical fertilization, mechanical agrochemicals spraying



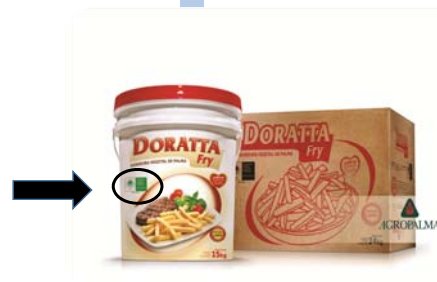
Profit: Harvesting and transportation to mills



Savings/year after mechanization

- Road maintenance: US\$ 107,623
- Mineral fertilization: US\$ 235,875
- Weed management: US\$ 380,000
- Mechanical slashing/Pruning: US\$ 270,000
- FFB collection: US\$ 1.5 million
- Organic fertilization: US\$ 753,363
- 10% less workers: US\$ 4.4 million
- **Total: US\$ 7.7 million/year = US\$ 46.70/ton CPO. This will more than double when the investment is finished**

Profit: Logistics, integration, quality and innovation



Savings/year in logistic

- Replacing trucks by barges in the transport of CPO and PKO helped us to eliminate 6,250 trucks/tankers trips per year (2.9 million kilometers avoided), reducing costs and emissions.
- **The total cost reduction in freights accounts for US\$ 2.35 million/year or US\$ 13.4/ton of CPO**

Environment:

1.6 ha of forests for 1 ha of oil palm

IPM

Fauna monitoring

Protection of riparian forests

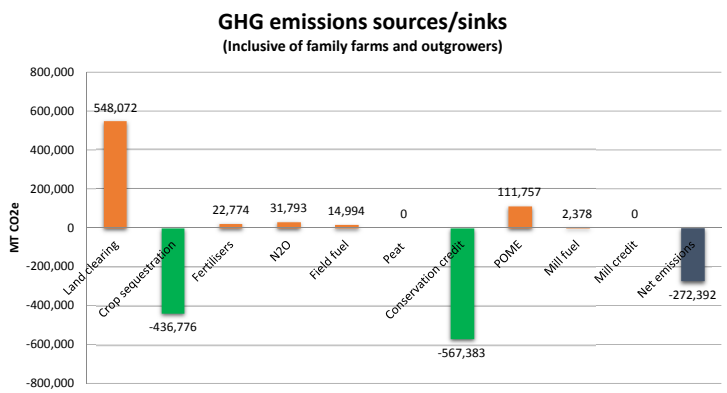
Flora monitoring

Water management

Underplanting

Footprint

Results: Forests reserves + Zero deforestation + certifications



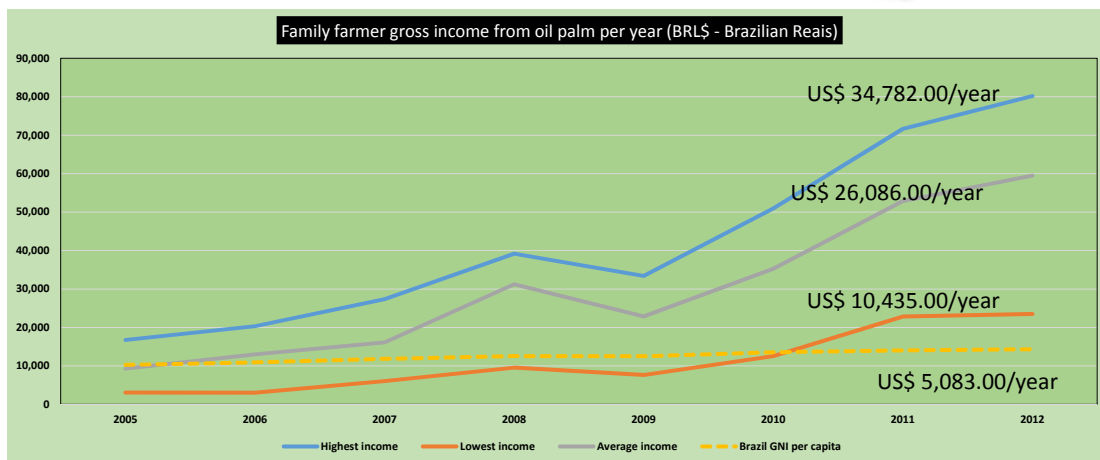
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	Carbon footprint excl conservation area*	Carbon footprint incl conservation area
CPO	1.62	-1.50
PK	1.62	-1.50
PKO	1.62	-1.50
PKE	1.62	-1.50

Sustainability premium forecast for 2014 =US\$ 4 million

Due to the high proportion of forests with high level of sequestration, Agropalma is carbon negative, **sequestering 272,392 tons of carbon annually**, translating to a **carbon negative footprint of -1.50 MT CO2 eq/MT CPO**, without a methane capture system, that is not done yet.

Smallholders - Partners



Conclusions

- Brazil today is in-farm more costly when compared to SEA countries, but it has other advantages to be watched..
- how prepared are SEA to face increasing cost in the next 15/20 years? Will the cost structure be the same as today? What about labor?
- Agropalma proves that working with the right people, technology and sustainability is possible to be profitable in a high production cost environment.
- **REFLECTION**: Is the absence of labor in Malaysia and in some parts of Indonesia really a lack of man power, or a lack of good working, social benefits and payment conditions?
- The market is there, open and hungry for people, companies and products that breaks paradigms. Tomorrow will be different from today.

YOU ARE ALL WELCOME IN BRAZIL!!

Thank you.

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