



Expert Roundtable

ON THE RIGHT PATH TO PARIS?

**CAN GREEN GROWTH BE A NEW NARRATIVE TO UNBLOCK
A CLIMATE DEAL?**

GREEN GROWTH IN ACTION - OVERVIEW OF INNOVATIVE COUNTRY STRATEGIES

Case study from Brazil: Plano ABC
The Low Carbon Agriculture Plan

Aron Belinky

London, October 28th, 2014



Centro de Estudos em
Sustentabilidade da EAESP

Agenda

- About GVces
- About Brazil: some key facts and figures
- The Low Carbon Agriculture Plan (“Plano ABC”)
- Final remarks



GVces

Founded in 2003, GVces offers an open arena for study, learning, insights, innovation, and knowledge production. We base our activities on the development of public and private management strategies, policies and tools to promote sustainability for local, national and international scenarios.

Our programs are driven by four major pillars:

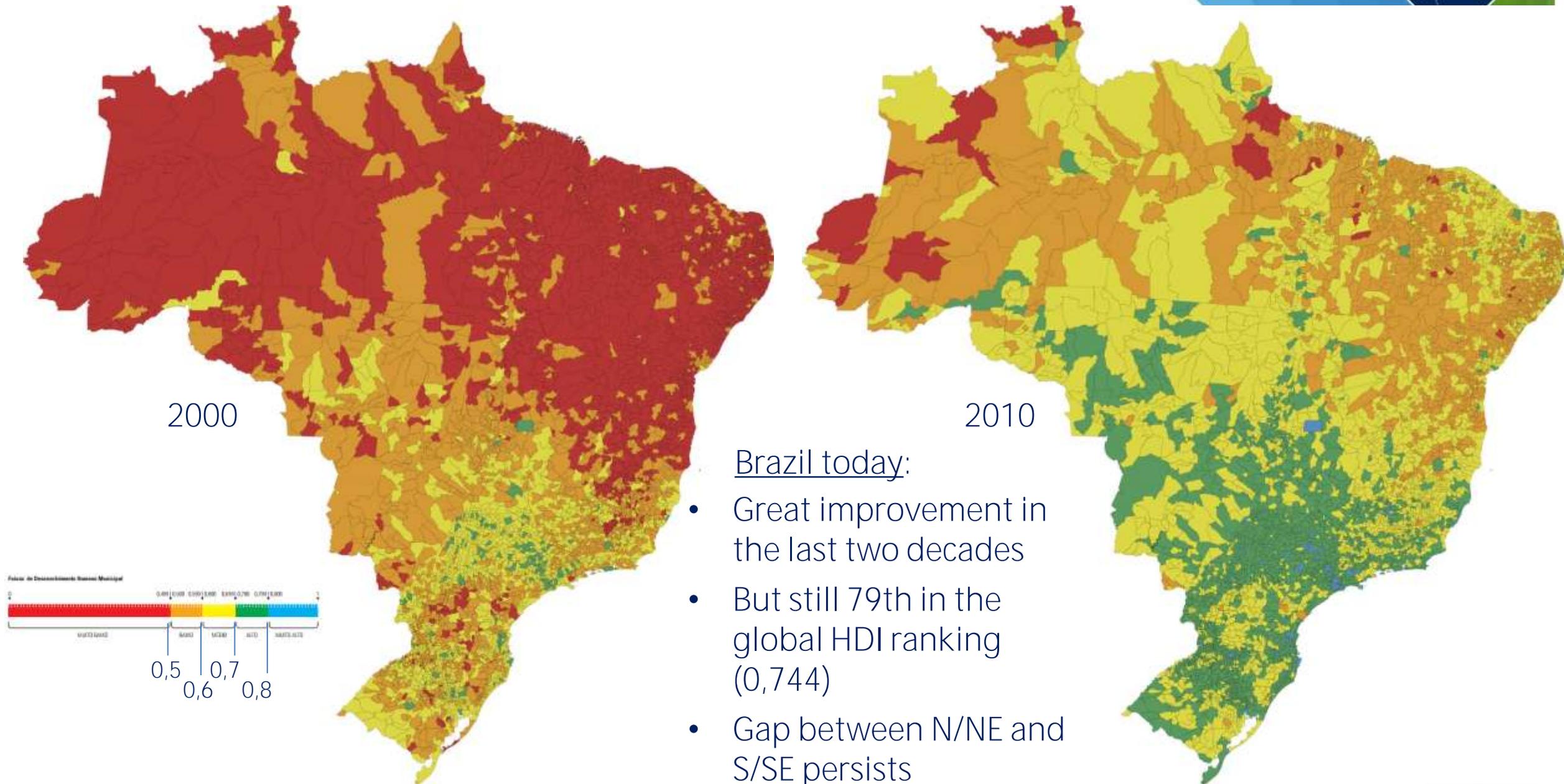
EDUCATION

**RESEARCH AND
PUBLISHING**

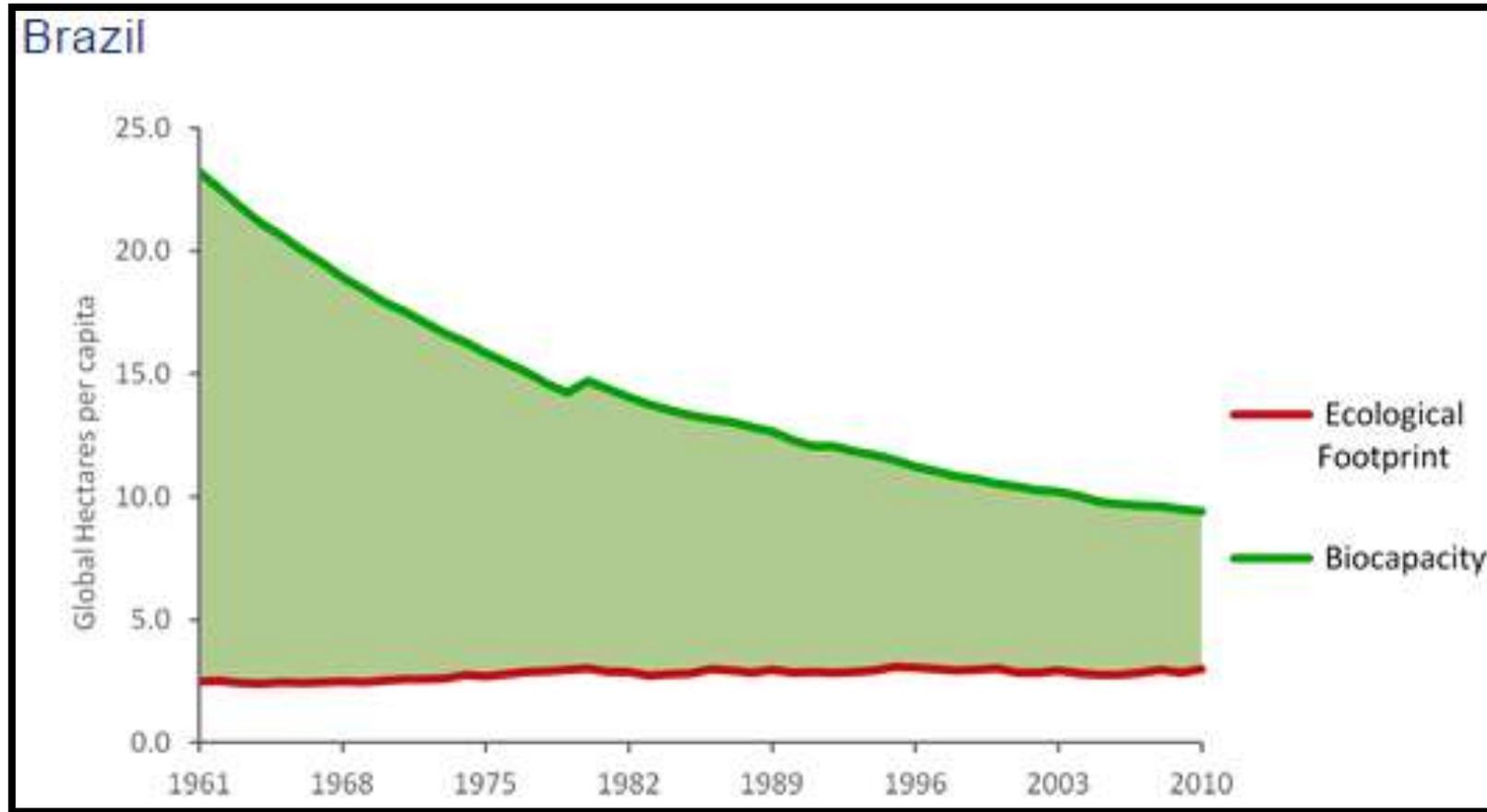
**ARTICULATION
AND
PARTNERSHIPS**

**COMMUNICATION
AND
MOBILIZATION**

HDI-M: evolution and remaining gaps



Brazil: ecological footprint and biocapacity



Population:

- 1960: 72 millions
- 1970: 96 millions
- 1980: 122 millions
- 1990: 150 millions
- 2000: 174 millions
- 2010: 195 millions

- Reduction in biocapacity *per capita* due mainly to population growth
- 2007 per capita ecological footprint: 3,46 GHa (World: 2,70 GHa, High Income Countries: 5,75)



Ecological footprint by land use type

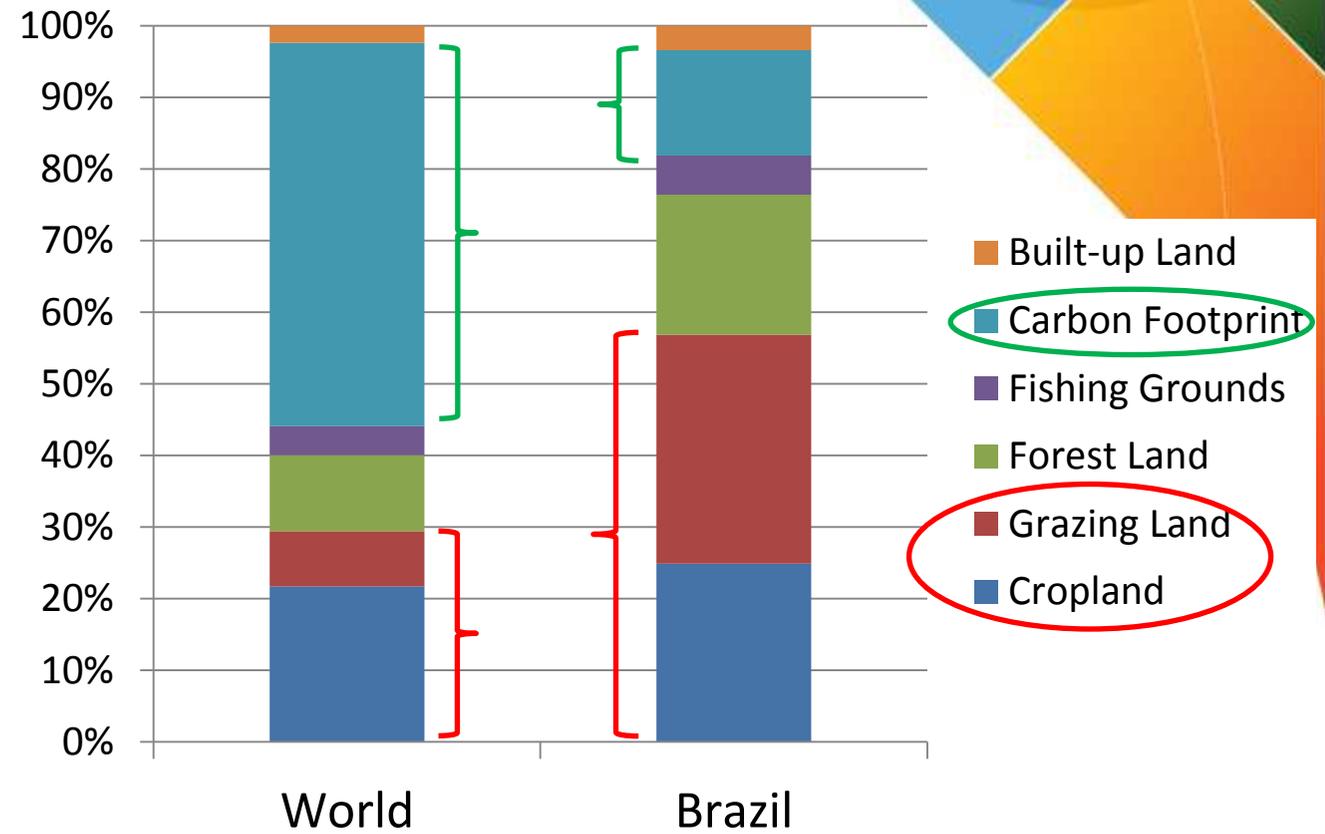
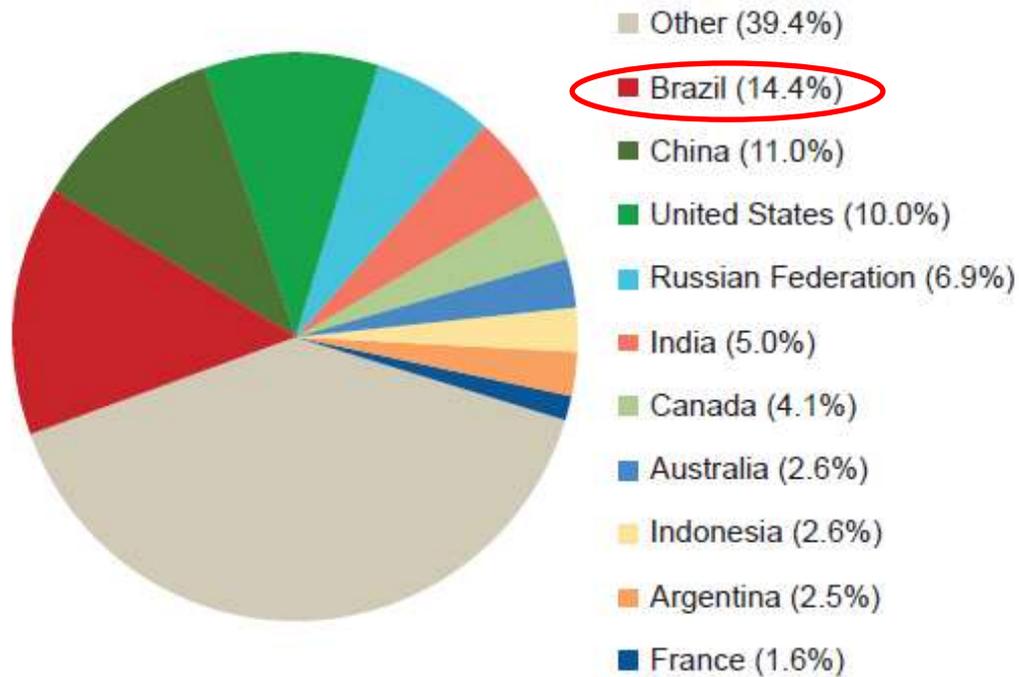


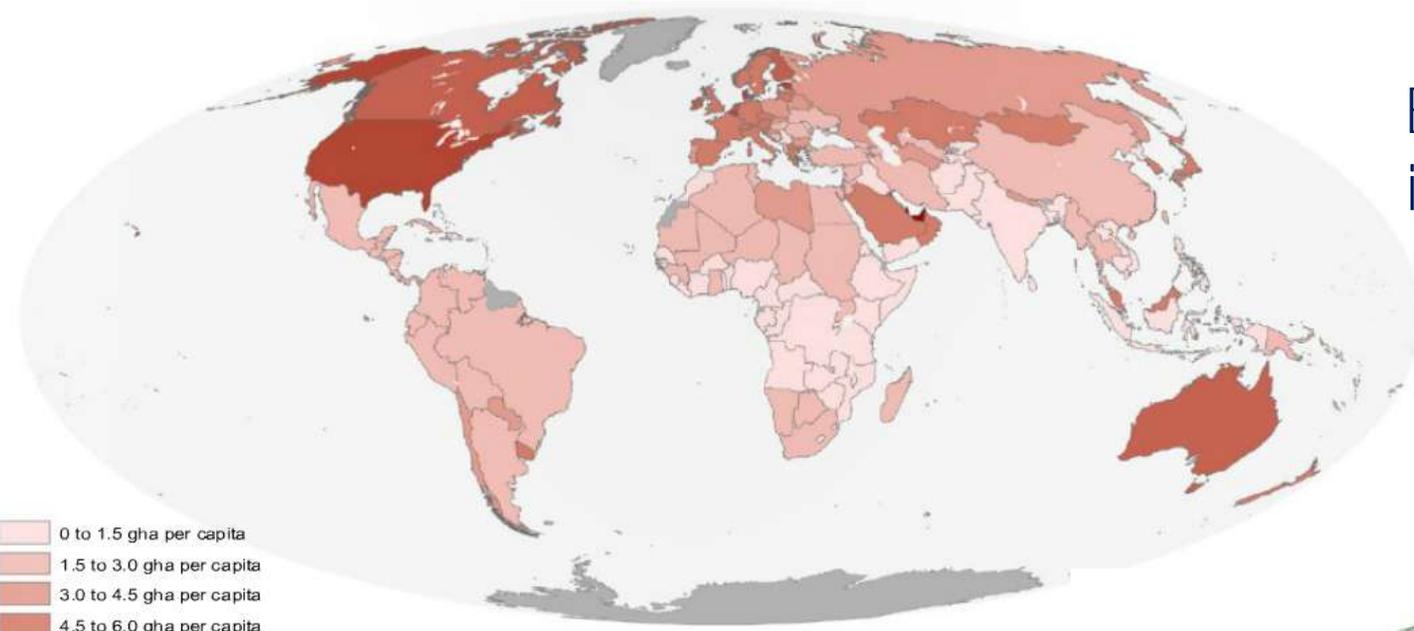
Figure 6: Total Biocapacity of Top 10 Countries, 2007

- Brazil has the most biocapacity of any individual country

- Compared to the World, Brazil cuts a distinctive profile in its ecological footprint:
- Much lower for Carbon
- Much higher for Grazing Land+Cropland

Source: Ecological Footprint Atlas, 2010 (2007 data) by Global Footprint Network

A comparative advantage to be realized

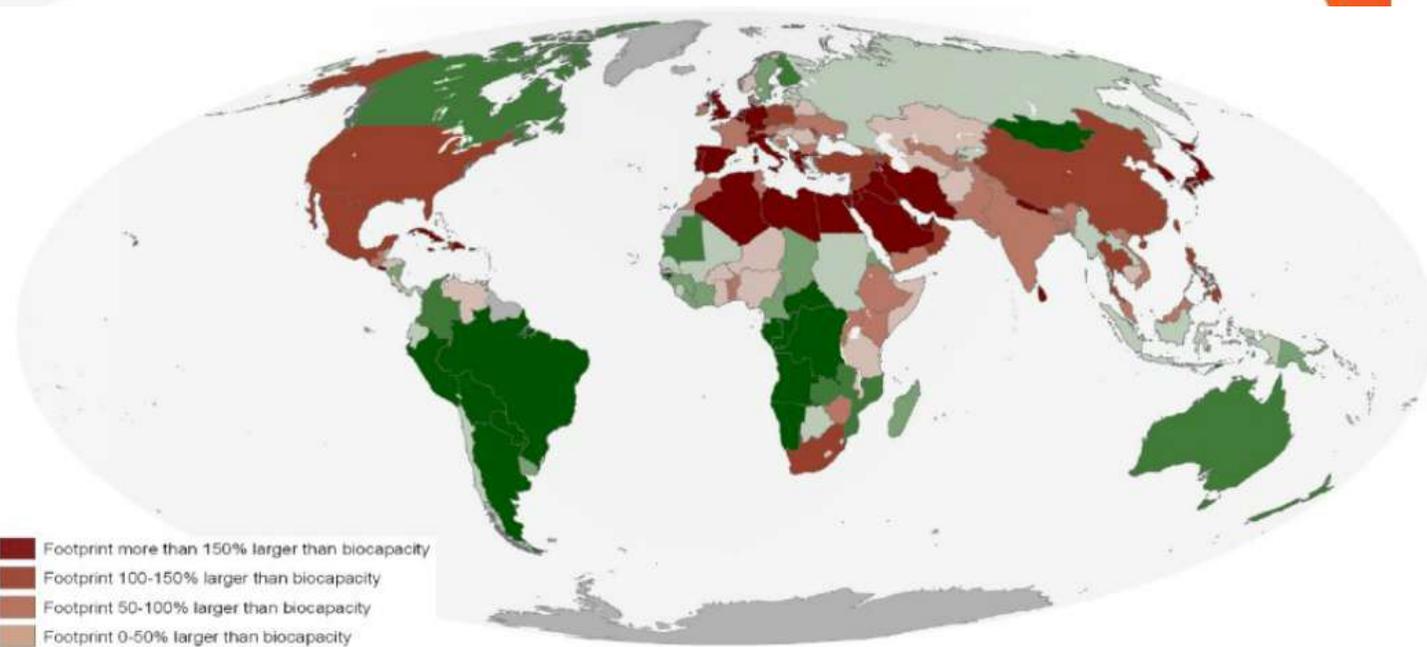


Ecological footprint in 2007



Ecological creditor and debtor countries - 2007

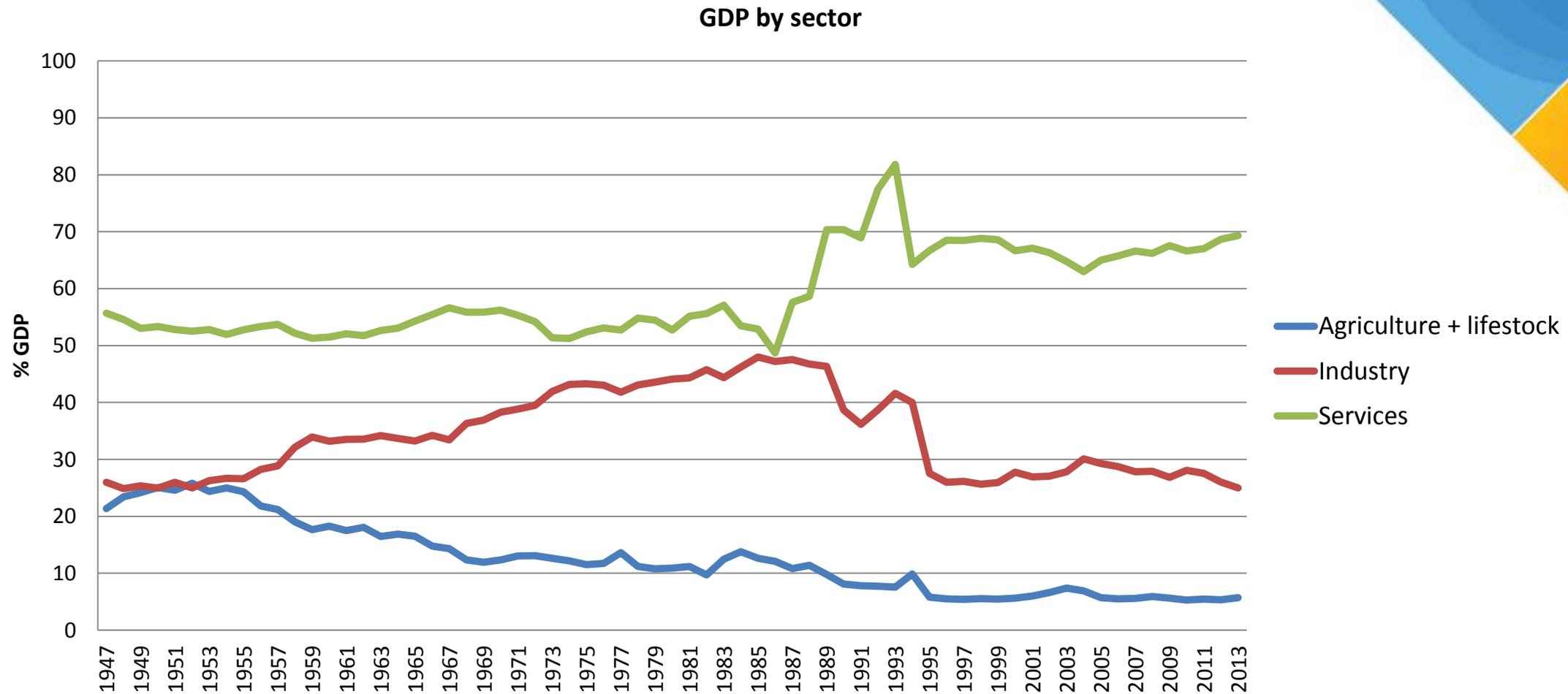
- 0 to 1.5 gha per capita
- 1.5 to 3.0 gha per capita
- 3.0 to 4.5 gha per capita
- 4.5 to 6.0 gha per capita
- 6.0 to 7.5 gha per capita
- 7.5 to 9.0 gha per capita
- 9.0 to 10.5 gha per capita
- More than 10.5 gha per capita
- Insufficient data



- Footprint more than 150% larger than biocapacity
- Footprint 100-150% larger than biocapacity
- Footprint 50-100% larger than biocapacity
- Footprint 0-50% larger than biocapacity
- Biocapacity 0-50% larger than Footprint
- Biocapacity 50-100% larger than Footprint
- Biocapacity 100-150% larger than Footprint
- Biocapacity more than 150% larger than Footprint
- Insufficient data

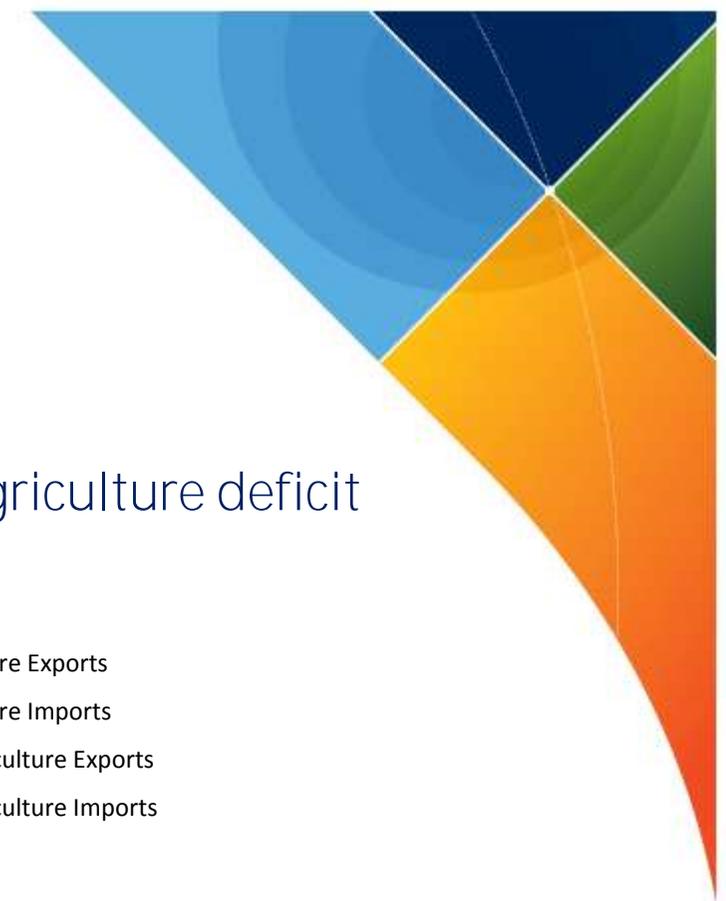
Source: Ecological Footprint Atlas, 2010 (2007 data) by Global Footprint Network

Agriculture participation in Brazil's GDP

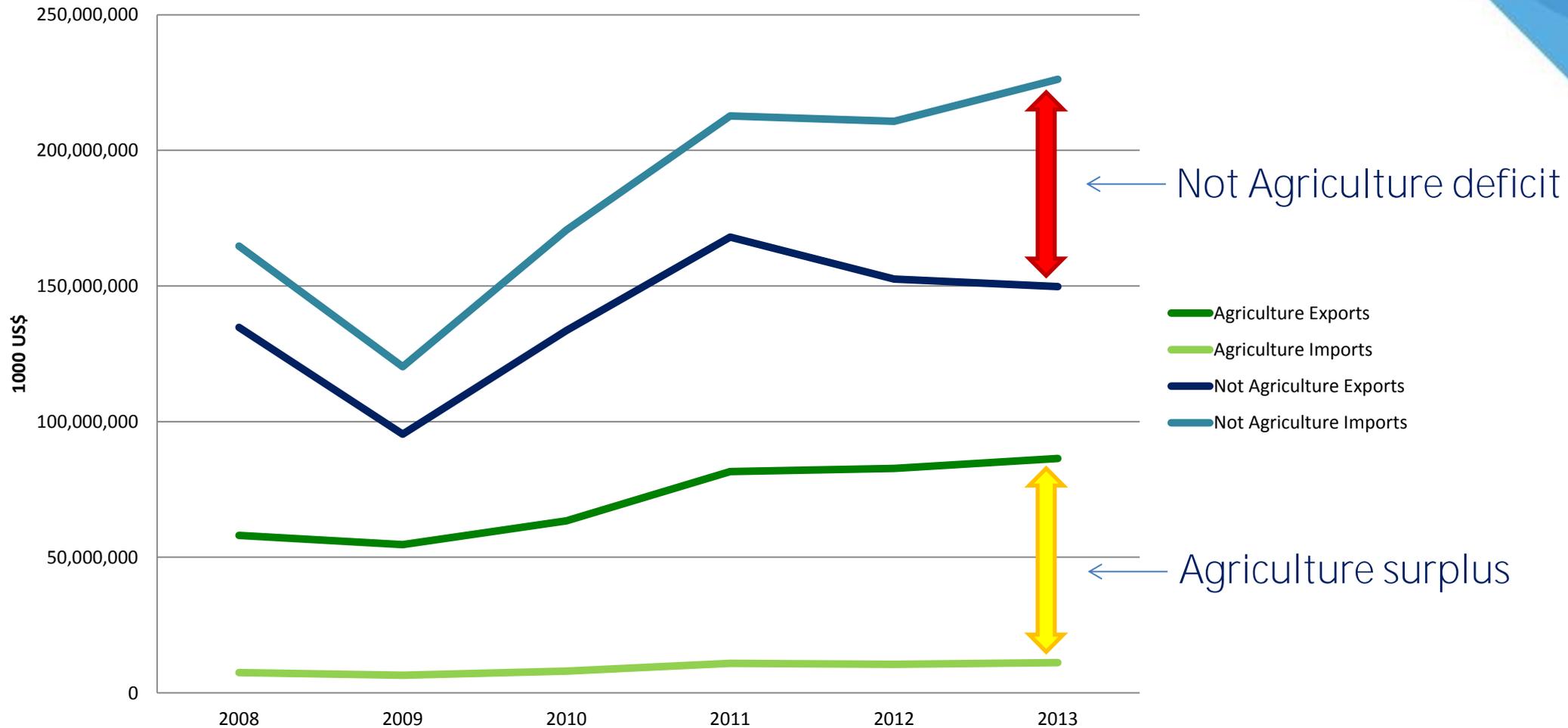


- Since the mid 20th century, Brazil became an increasingly urbanized country
- Services is the predominant economic sector in terms of contribution to GDP
- **Compared to Industry, Agriculture became more important since the 1990's**

Agriculture in **Brazil's international** trade



Agriculture sector in international transactions

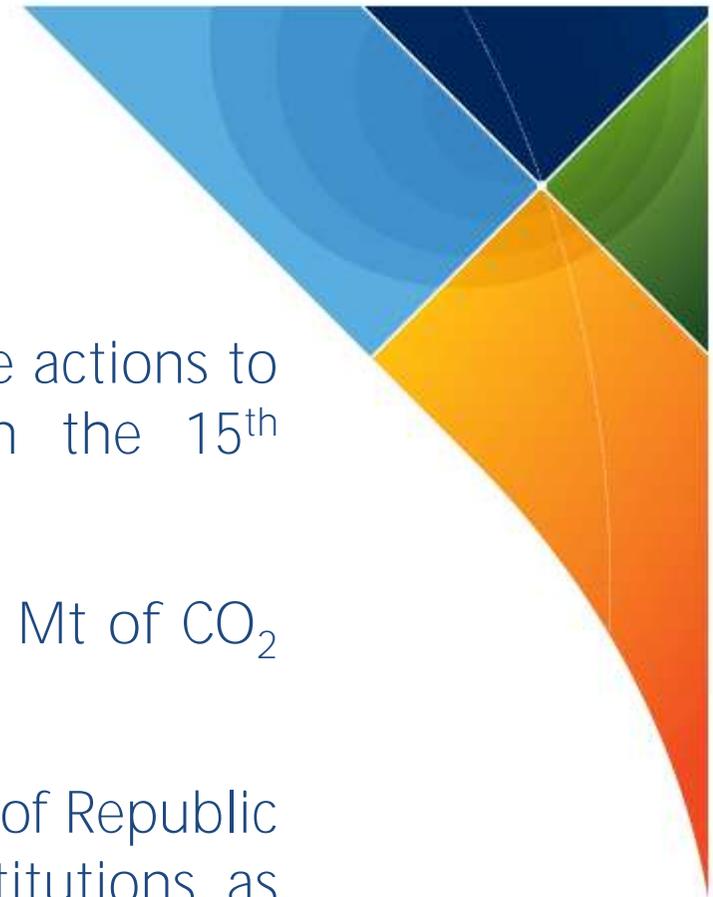


- **Agriculture represents Brazil's 36,6%** of exports and 4,7% of imports
- ~ 80 U\$ Billion surplus (2013) → compensate deficit in other sectors

Low Carbon Agriculture Plan (*Plano ABC*)

Background

- The ABC Plan was prepared during 2010 and 2011 to design the actions to achieve part of the Brazilian government commitments in the 15th Conference of the Parties (COP-15) to reduce greenhouse gases.
- It is a sectorial plan to reduce emissions up to 163 million of Mt of CO₂ equivalent in the agricultural sector by 2020.
- It was elaborated by a work group coordinated by the President of Republic Cabinet, with the participation of several public and private institutions, as the Ministries of Agriculture, Agrarian Development, Economy, Science and Technology, Environment, the National Confederation of Agriculture, the Brazilian Organization of Cooperatives, Conservation International and WWF, among others.



Low Carbon Agriculture Plan (*Plano ABC*)

Focus

To achieve the goal of reducing emissions in the Brazilian agricultural sector, the ABC Plan is structured in seven programs:

1. recovery of degraded pasture land;
2. crop-livestock-forestry integration system;
3. no-tillage systems;
4. biological nitrogen fixation;
5. planted forests;
6. animal waste treatment; and,
7. adaptation to climate change.

Each program encompass several actions related to economic incentives and funding, training and preparation of financial agents and technical professionals, technology transfer strategies, dialogues, seminars, marketing campaigning, among others.

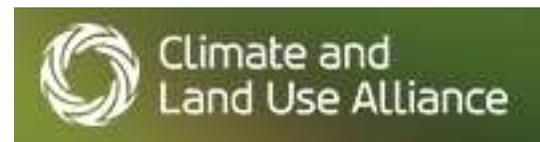
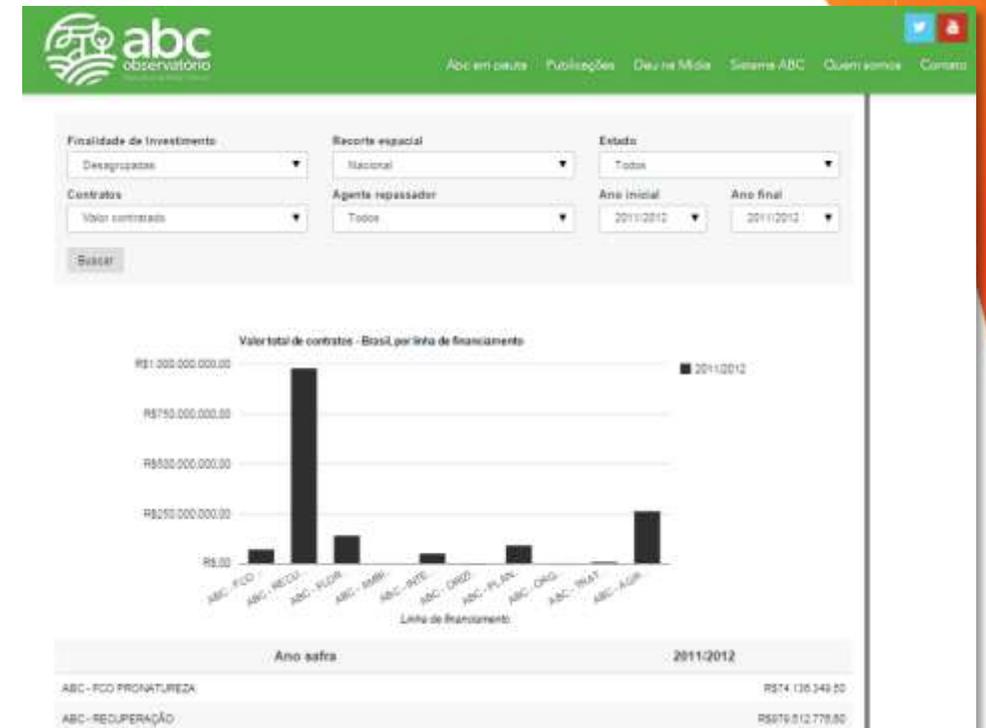


Plano ABC Observatory

- A multistakeholder initiative for transparency, monitoring and improvement
- Focus the development and accomplishment of technical studies to evaluate the implementation of the plan, as well as the design and promotion of a series of actions and events to contribute to the refinement of its implementation
- An online platform disseminates its activities and investment data



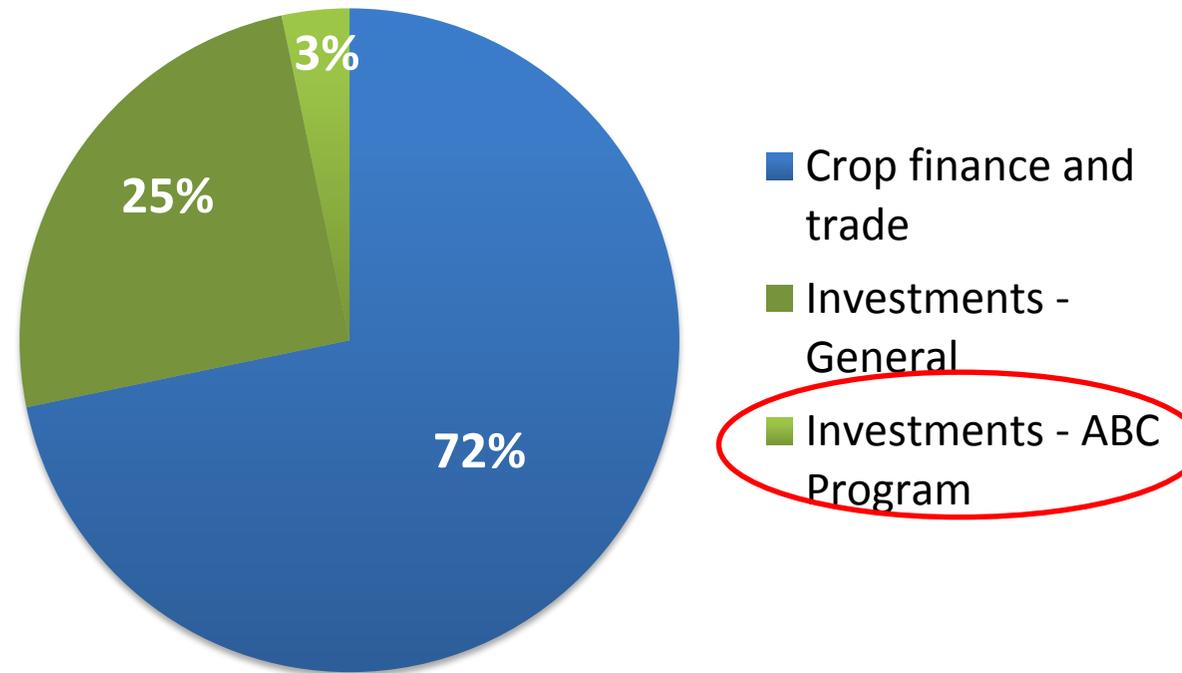
www.observatorioabc.com.br



Plano ABC program's share in agricultural credit

- Despite its strategic importance, Plano ABC still a small part of Brazil's investment in the agricultural sector
- The agriculture and livestock plan for 2013/14 allocated R\$136 billion for agricultural credit.
- Of the R\$38.4 billion reserved for investments, only R\$4.5 billion is specifically earmarked for Low Carbon Agriculture through the ABC Program.

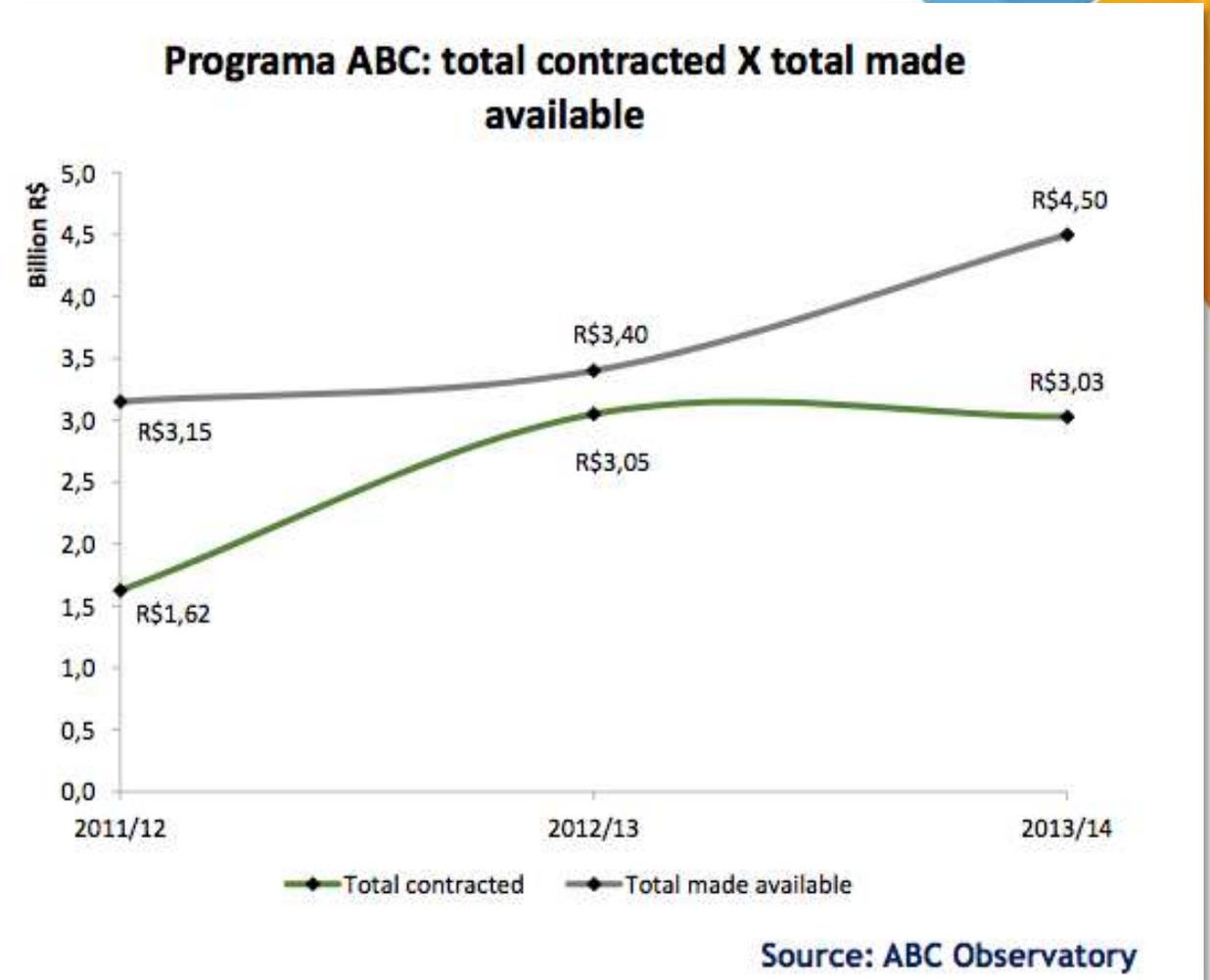
Distribution of agricultural credit according to activity in 2013/14 (%).



Source: PAP2013/14

Low Carbon Agriculture Plan (*Plano ABC*) Investment

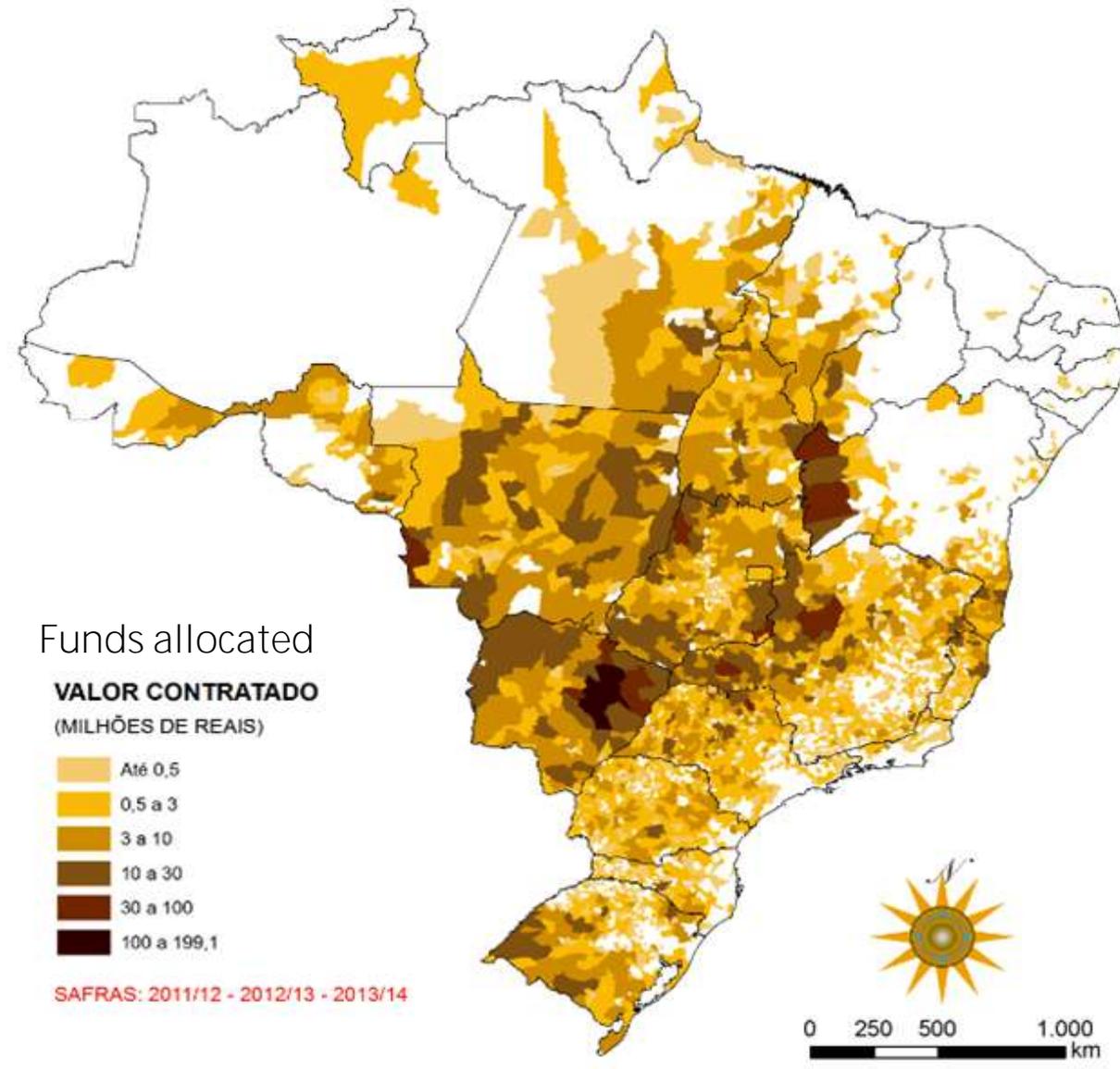
- Plano ABC made available financial resources (mainly loans with low interest rate) to promote the adoption and implementation of low carbon practices and technologies by farmers.
- Resources for implementation estimated in R\$ 197 Billion (~U\$ 90 Billion) in 10 years (2010-2020)
- For 2010/11 to 2013/14 seasons, R\$ 13.05 billion where made available
- Ergo, less than 7% of total estimated resources in first 4 out of 10 seasons
- Despite the modest volume of resources made available, only 62% where actually contracted: accumulated loans value is R\$ 8.2 billion.



Plano ABC allocation of funds and Agricultural Technical Assistance



- ABC funds are concentrated in the regions with better technical assistance
- Amazon and Northeast accessed less resources, although having important potential for low carbon agriculture



Source: Observatorio Plano ABC

Technical Assistance Network



Source: IBGE

Plano ABC financing challenges

Paradigm shift in agricultural finance

Rural credit is traditionally directed to specific and concrete items such as agricultural machinery, seeds, fertilizers etc. However, the ABC Program finances installation processes of technologies and practices that assist in GHG mitigation in agriculture.

Little competition in ABC market with low private banks participation due to:

High transaction costs for private bank with **BNDES (Brazil's Official Development Bank)**

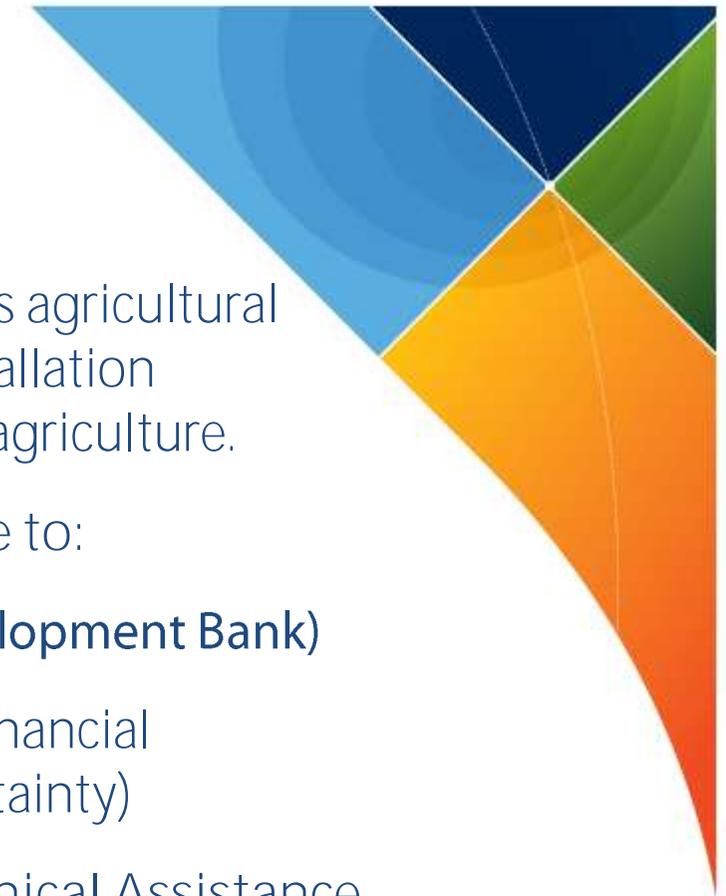
Little clarity about the due diligence of the system agents, both from a financial perspective as the social and environmental responsibilities (legal uncertainty)

Midwest and Southeast regions lead the resources hiring because of Technical Assistance presence and capillarity in these regions

Little progress in technical assistance and information dissemination

Poor monitoring of the actual use of funds for intended purposes (ABC practices)

Measurement of effective carbon reduction by ABC practices still in academic stage → on site verification still missing



Concluding remarks

- Agriculture is a strategic sector for **Brazil's** economy, and its most relevant source of impact for climate change → focus of attention
- **Brazil's** early commitment to voluntary goals for reduction of GHG emissions triggered national measures, such as Plano ABC
- **Society's** independent initiative to follow up on Plano ABC is key to its implementation and effectiveness → without the tension created by the Observatory, shortages and challenges **won't** be exposed
- The experience so far shows that availability of financing matters, but **doesn't** assure implementation → many other factors influence techno-production shift, and measures are needed in specific areas
- Brazil has a headstart in implementation, but to exercise green growth and seize benefits from a possible global climate regime, better MRV measures still needed.

Thank you!

Aron Belinky

aron.belinky@fgv.br



Centro de Estudos em
Sustentabilidade da EAESP