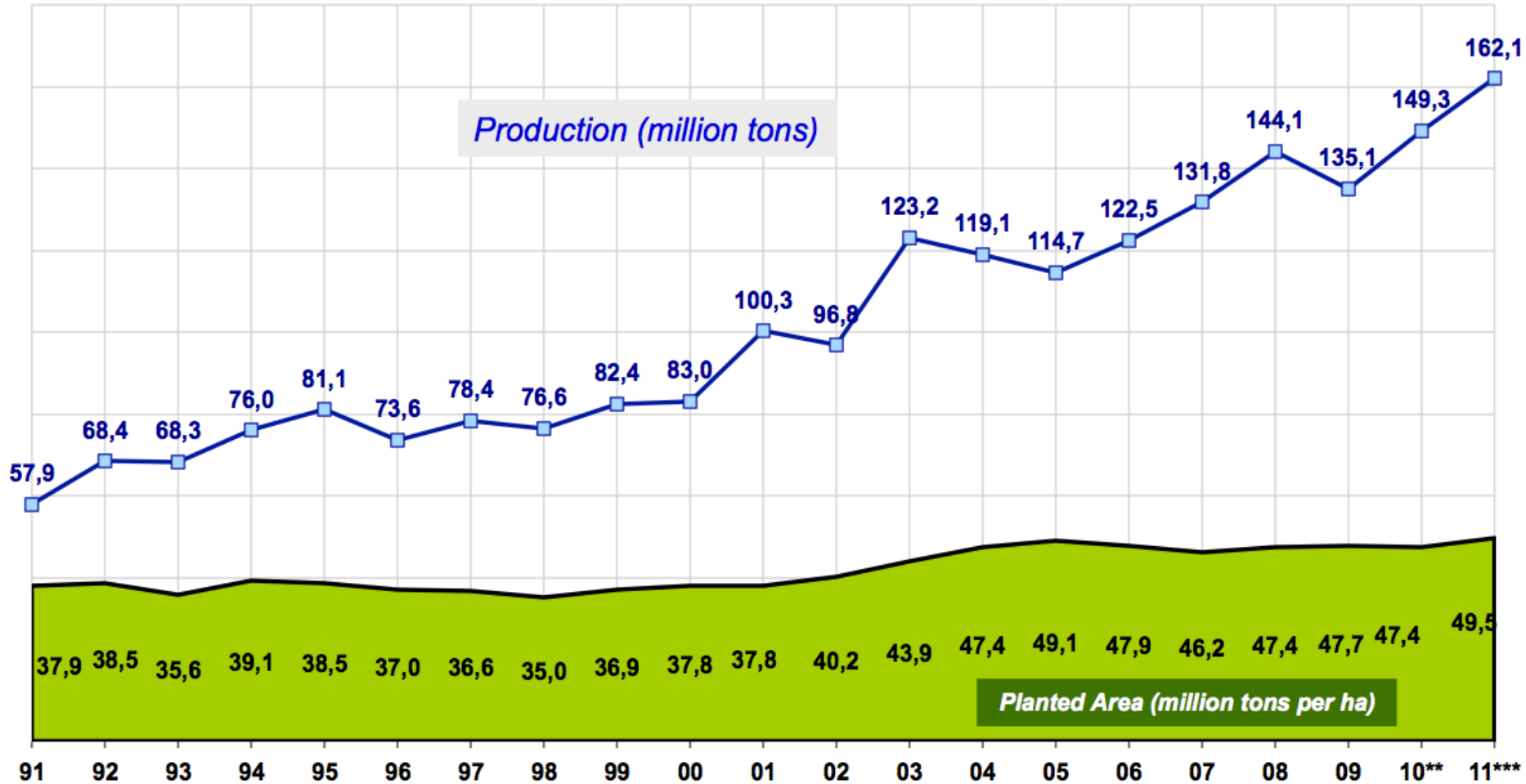




# Low Carbon Agriculture Plan

## *ABC Plan*

# Grain Production



Source: CONAB and IBGE (estimates julho-2011)

Grains: Cotton, peanuts, rice, oat, barley, beans, sunflower, castor beans, corn, soybeans and sorghum

# Grains

## Productions

Brazil maintains the same technology of 1960, would have be used more than **145 million hectares of land**

**+774%**  
Production



1960 | 2010

## Habitants

(million)

70



190,7

## Grain Production

(million ton)

17,2



149,3

## Area

(million hectares)

22



47,4

## Productivity

(kilogram per hectare)

783



3.173



1 = 10 million habitant



1 = 10 million ton



1 = 300 Kilogram per hectare



# Livestock

Cattle



**+251%**

Production

**+39%**

Area

Se o Brasil mantivesse a mesma tecnologia de 1960, Would have to allocate **260 million** more hectares of land for grazing.

million head of cattle

1960 | 2010

**Cattle**

(million head of cattle)

**58**



**204**

**Pasture area**

(million de hectares)

**122,3**



**170**

**productivity**

(head per hectare)

**0,47**



**1,2**



1 = 10 million habitant

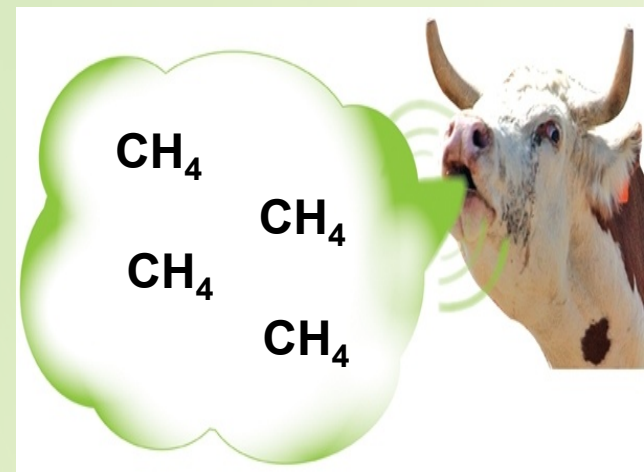
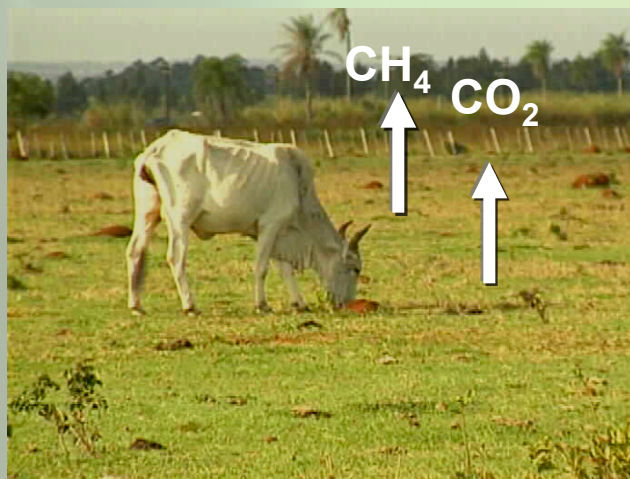
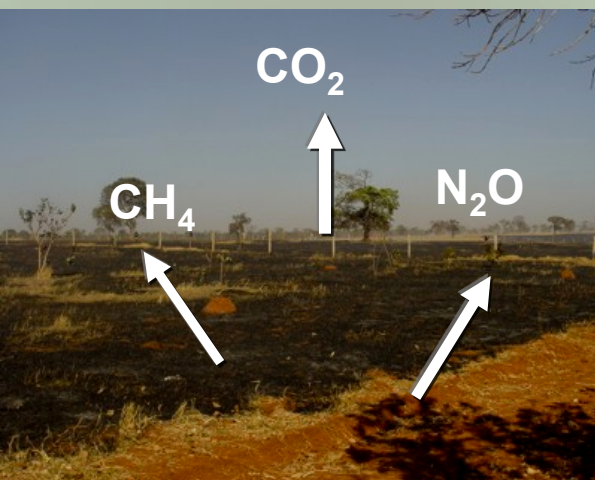
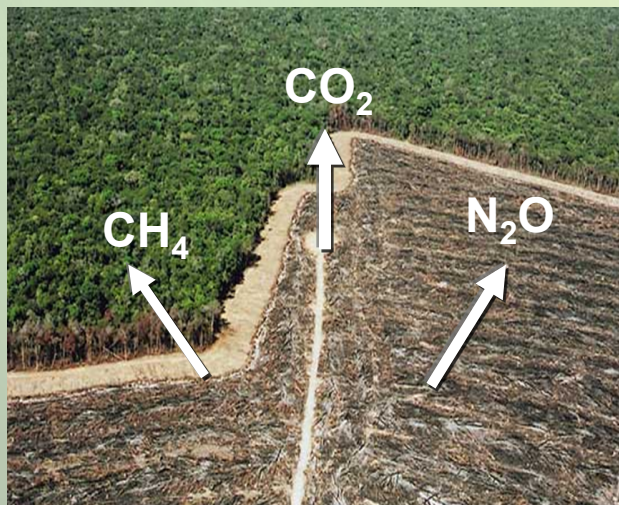
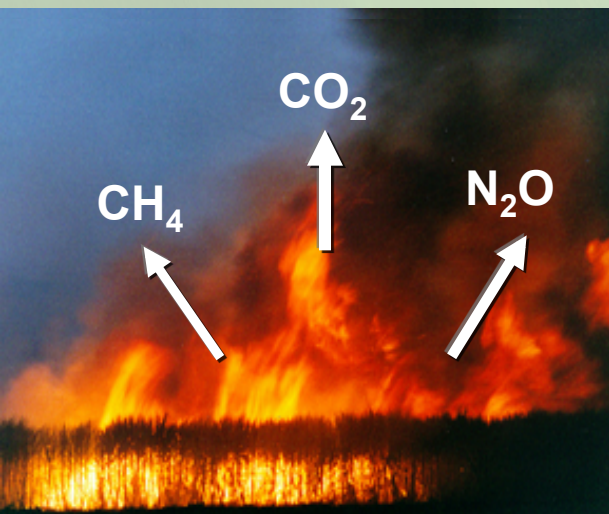


1 = 10 million ton



1 = 300 Kilogram per hectare

# Greenhouse Gases Emissions from Agriculture



# Brazilian double challenge: produce more food or reduce GHG emissions???

## Three brazilian scenarios:

- Agricultural superpower
- Environment superpower
- Agricultural superpower and of climate change mitigation

Possibility: to stimulate the adoption of Sustainable Production Systems

## What the Brazilian government is doing?

# The Brazilian government volunteer commitments

- Reduce deforestation by 80% in the Amazon region and 40% in the Cerrado (Brazilian Savannah).
- To disseminate sustainable practices in agriculture.
- To increase energy efficiency in all possible domains of economic activities.

# National Climate Change Policy

**Law number 12.187, Dec 29<sup>th</sup> 2009.**

The Federal Government will prepare different sectoral plans of mitigation and adaptation to climate change in order to develop a low-carbon economy.

This law estipulates several tax measures, from differentiated rates to tax-free programs, also including mechanisms of compensation and various incentives, in addition to new rural credit schemes (a total of BRL 3 billion in 2011).

Forms of Measurement, Reporting and Verification (MRV), are also proposed in the law.

Adaptation.

# National Climate Change Policy

## Decree 7.390/2010:

- Actions to be implemented
- Actions will be implemented in a coordinated and cooperative by government bodies
- Revisions should be expected
- Follow-up actions: FBMC (multi-stakeholder group)
- Annual estimates of GHG emissions will be published annually from 2012

# Low Carbon Agriculture Plan

## General Objective:

- to reduce greenhouse gas emissions (by 133 to 166 million ton CO<sub>2</sub>eq)

## Specific Objectives:

- To contribute to the achievement of GEE reduction as internationally compromised;
- To guarantee the continuous and steady improvement of good agricultural practices that reduce GEE emissions and additionally increase carbon storage in vegetation and soil;
- To incentivize adoption strategies for plants, productive systems and rural communities, in particularly vulnerable ones, to global warming scenarios; in agriculture;
- To engage efforts to reduce deforestation led by livestock and agriculture production in Amazon and Cerrado Biomes.

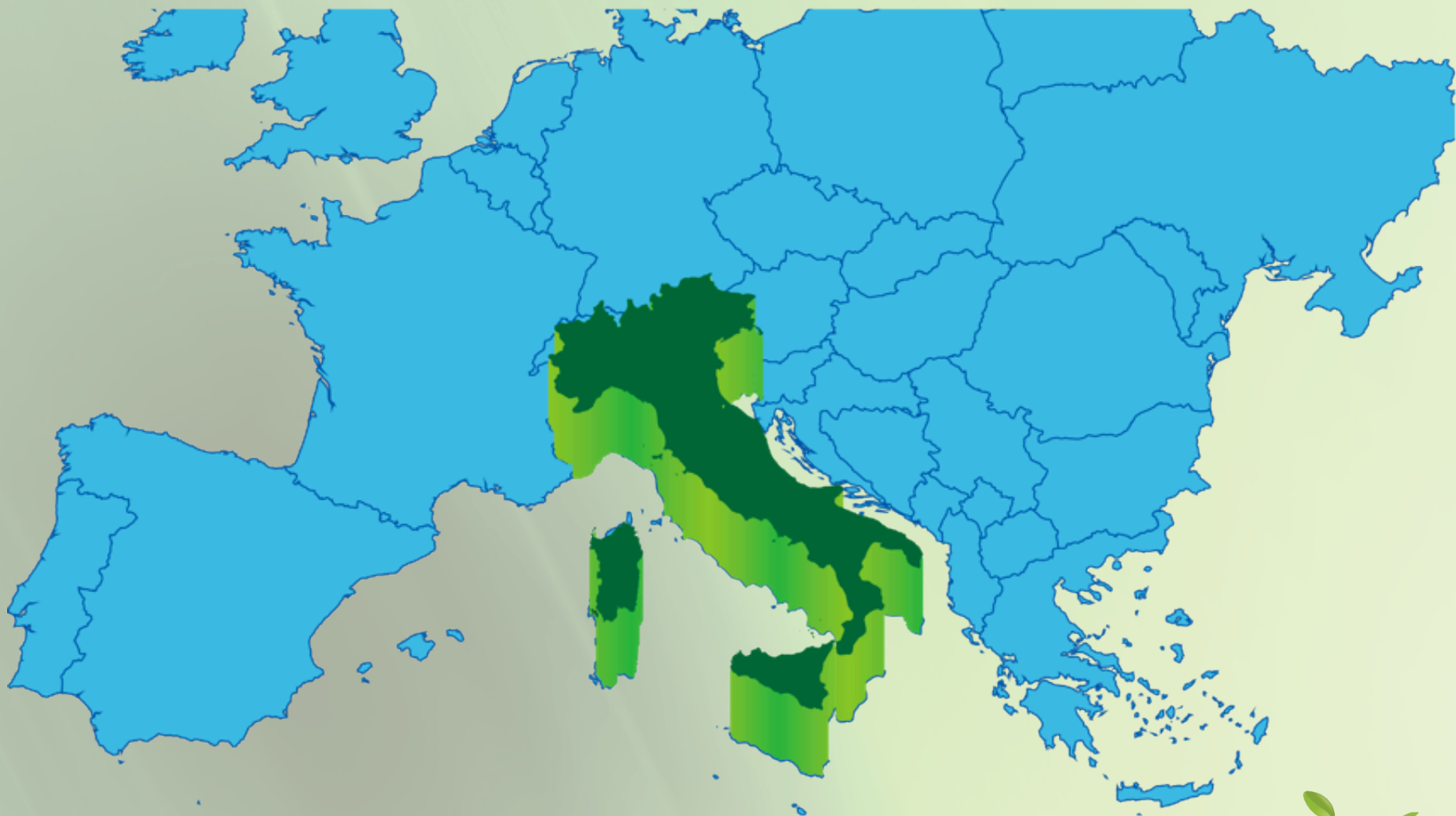
# ABC Plan Targets

(area in million hectares, volume in million m<sup>3</sup>, GHG reduction in million ton CO<sub>2</sub> eq.)

Sub-Programmes	Targets 2011/2015	Targets 2016/2020	Estimated GHG reduction (by 2020)
Degraded pastures renovation ( area )	6.0	9.0	83-104
Integrated crop-livestock-forestry systems ( area )	1.5	2.5	18-22
No-tillage systems (area)	2.8	5.2	16-20
Biological nitrogen fixation (area)	1.0	4.5	10
Planted forests (area)	1.0	2.0	8-10
Animal waste treatment (volume)	-	4.4	6.9

Fonte: Brazil, 2011d.

# Plan ABC area = Italy area



# ABC Actions: Mitigation, Monitoring and Adaptation

- Disclosure
- Capacity building
- Research, Development and Innovation
- Technology transfer
- Technical assistance and extension
- Rural credit
- Inputs supply
- Land and environment regularization
- MRV - Monitoring, Report and Verification
- Adaptation, reduce of vulnerably and increase of resilience

# Budget 2011 - 2020

- Budget: BRL 197 billion
- Rural credit: BRL 157 billion
- Federal government
- Private sector
- Another sources

## ADVANTAGES

- Land and water availability
- Entrepreneurship
- Competitiveness
- Research on tropical agriculture
- Public policies
- Bio-energy production

## CHALLENGES

- Production models innovative
- Attractive to producers
- Farmers high debt
- Technical assistance and extension
- Monitoring and evaluating
- Limited public resources
- New financial instrument



# Thanks!

☎ 55 61 3218-2969

✉ [denise.deckers@agricultura.gov.br](mailto:denise.deckers@agricultura.gov.br)

[www.agricultura.gov.br](http://www.agricultura.gov.br)