



# Forest in the context of climate change: soluction and victim the case of Brazil

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#### **Deforestation of the forests**



Part of the Problem...

#### **BRAZIL**

2,5% of Global Emissions

◆ 55% is from deforestation



## Impacts:

- →Loss of rain in agriculture land
- → Decrease of quality and quantity of water
- > Loss of biodiversity potential
- → Collapse of water based logistic

#### But also victim...

Precipitation Reduction



Savannization of Forest

**Up to 60%** 

of the forest may become savannahs



## The protection and sustainable forest management is imperative to maintain the essential forest services for our society

#### but...

If emissions in the world continuous and the predicted scenarios happen, we may loose the forest any way.

So, the challenge for Brazil is to promote the conservation and SFM and guarantee that this effort is truly additional and not a simple offset of some else emissions.



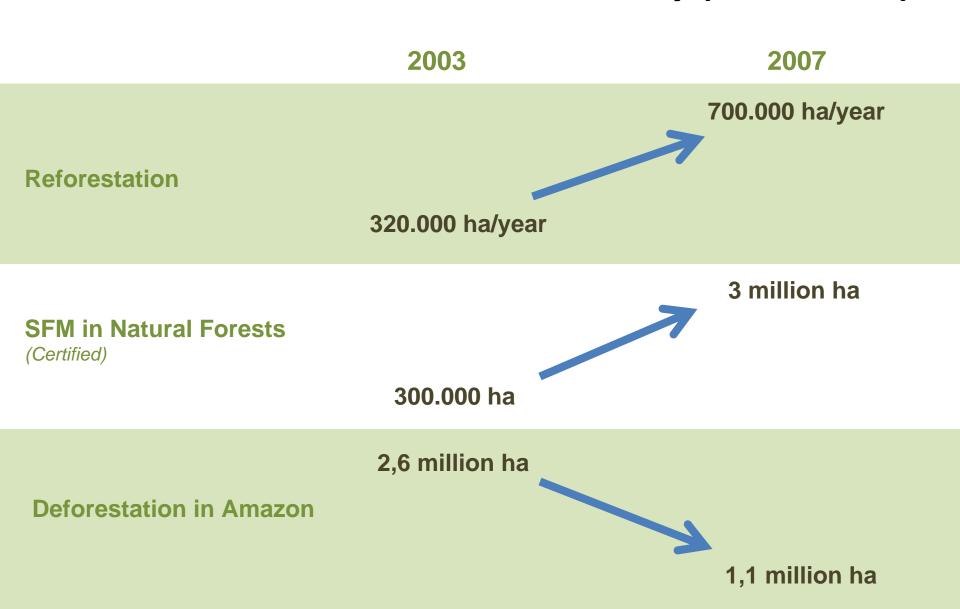
Reflecting the commitment of Brazil with SFM a series of goals were defined for the period 2004-2011.

## Main Goals related to Forest Policy (2004-2011)

- Decrease continuously and consistently the deforestation
- Increase the annual area of reforestation from 320.000 to 1 million hectares per year
- Increase the area of Sustainably Managed Natural Forest from 300.000 to 15 million hectares.



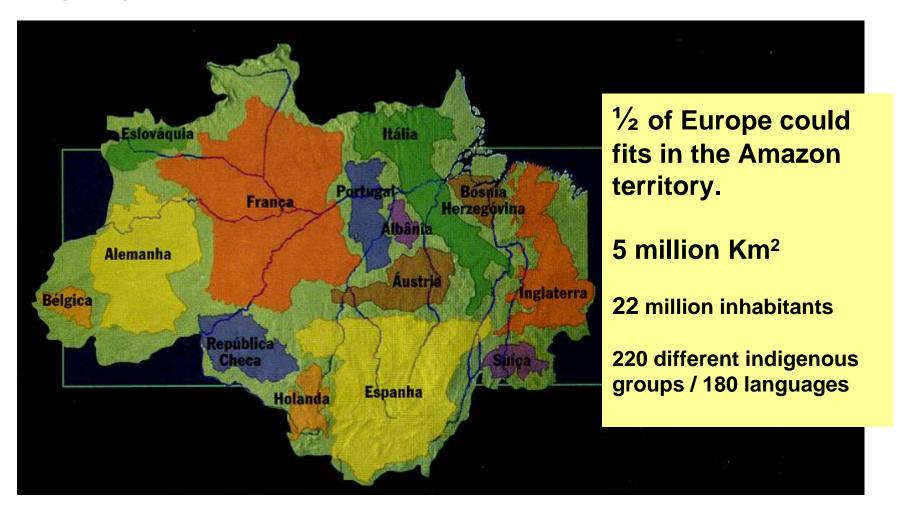
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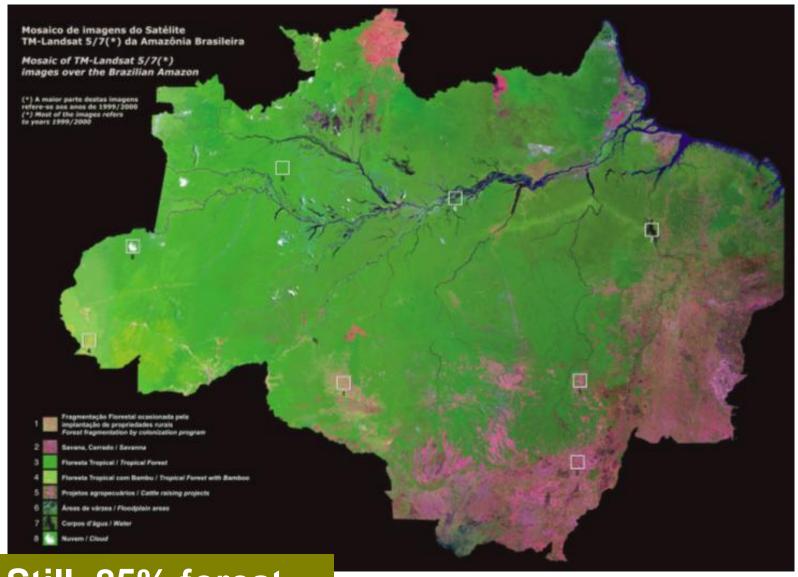


## RED in the Amazon is the biggest challenge

Majority of the emission from deforestation are from the Amazon

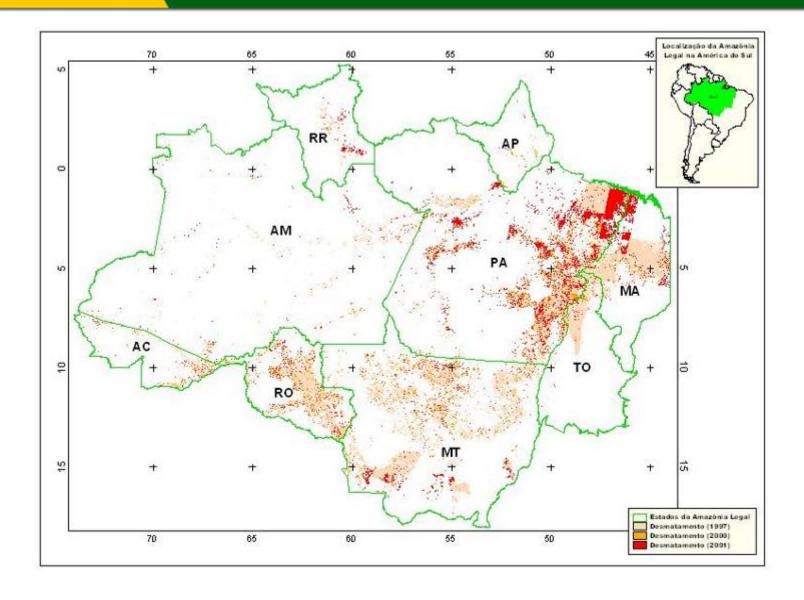






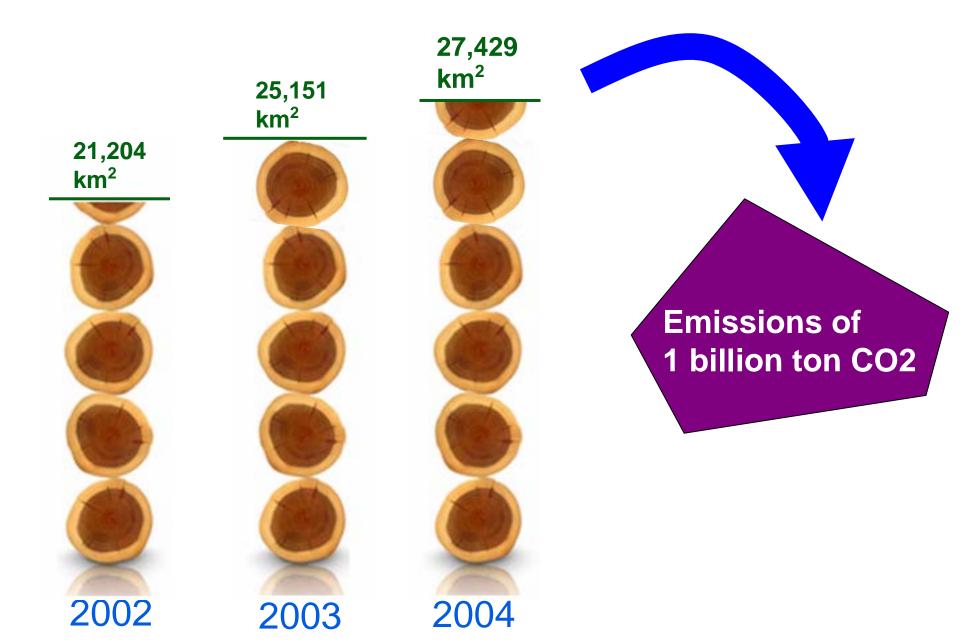
Still, 85% forest...





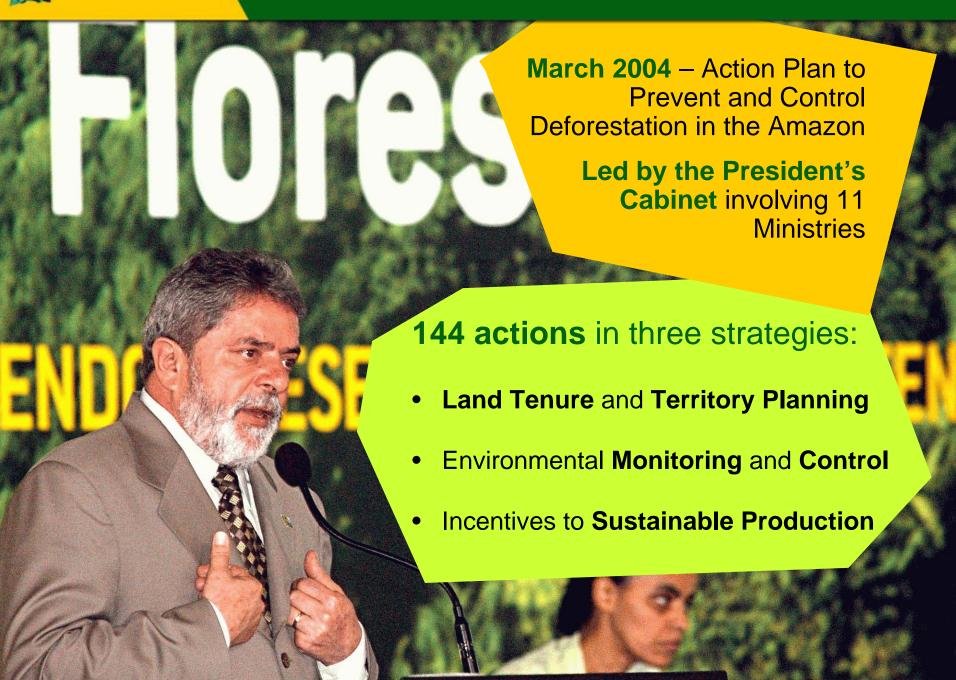
## ... but we've lost 15% in 30 years







**Action Plan for Deforestation Prevention and Control in the Amazon** 





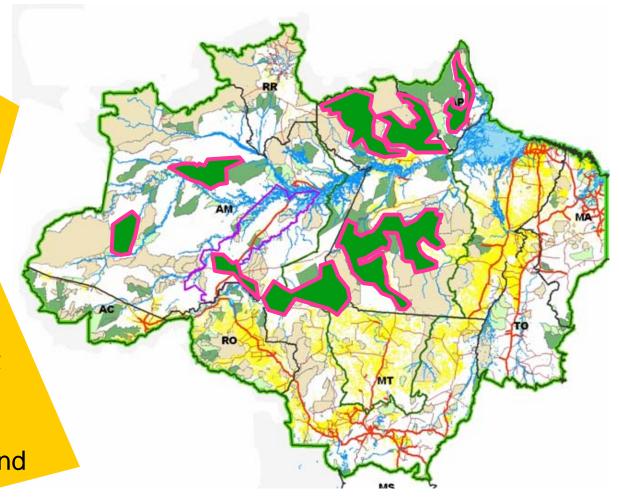
## OUTPUTS → Land Tenure and Territory Planning

10 million ha of Indigenous Territories created

**20 million** ha of Protected Areas

**3,9 million** ha of Sustainable Settlement Projects

66 thousand ileggal land titles canceled





## **OUTPUTS** $\rightarrow$ Environmental Monitoring and Control

1 million m<sup>3</sup> of illegal logs apprehended

Over 500 people in prison including over 110 corrupt public servants

Real time remote survery system to monitor deforestation and logging



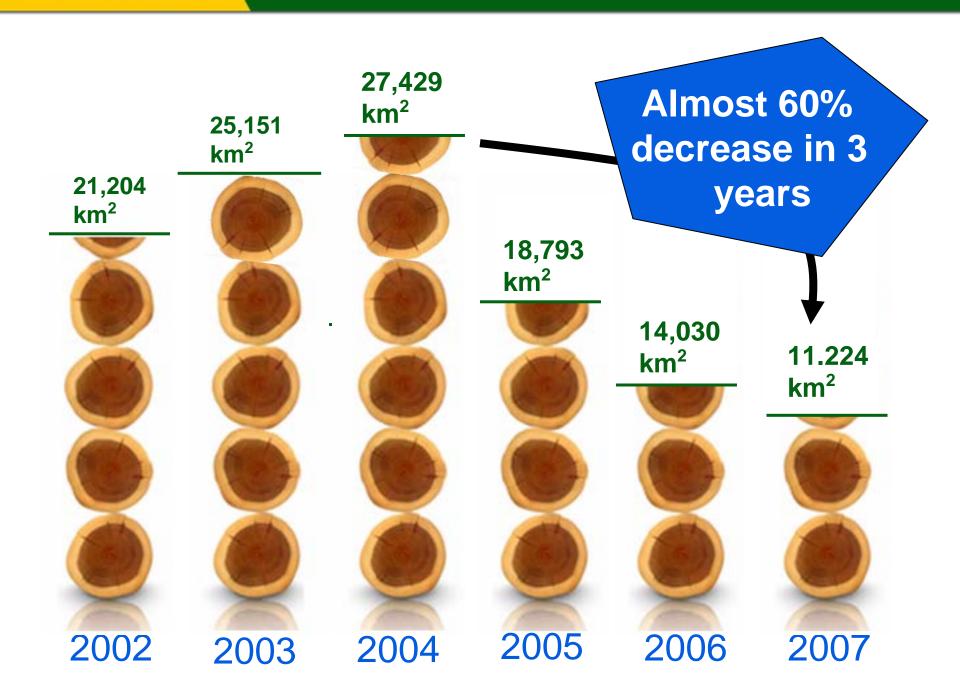


#### **OUTPUTS** > Incentives to Sustainable Production

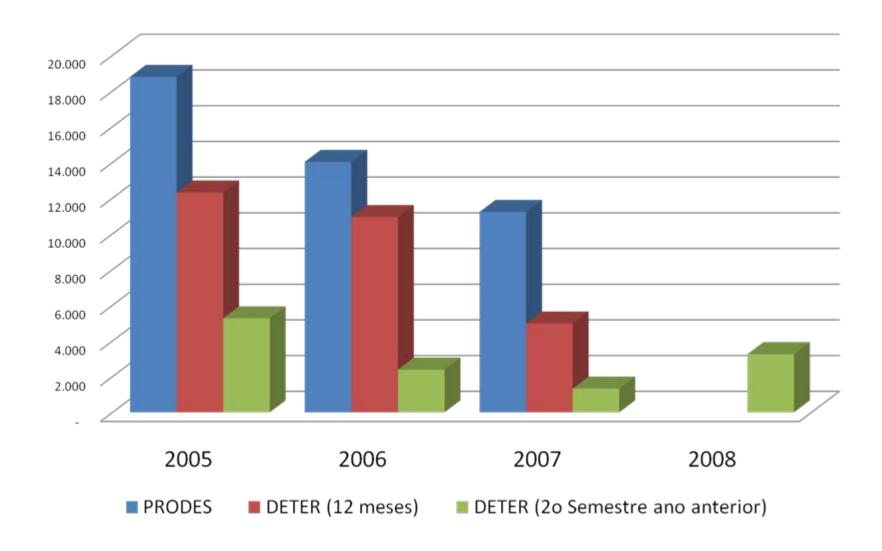
- **New legislation** and regulation for management of **Public Forests**
- 19 million hectares of Sustainable Forest Districts
- 193 million hectares in the Public Forest Nacional Registery
  - **4 million hectares** of extrativist reserves
  - Increase on FSC certified forests from 300,000 to 3 million hectares







## Potencial reverse on trend



<sup>\*</sup> Em 2005 e 2006 inclui até jan e até abril respectivamente

## Goals of New Actions











Cut investments and credits for activities related to deforetation and forest degradation











Invest on activities that promote forest concservation and and more eficient use of already deforested area.



## The economic challenge

- 75% of the Amazon is public forests
  - Community Forest
  - Protected Areas (parks etc...)
  - SFM concessions
  - In private land 80% must be maintained as permanent forest.



## The economic challenge

• In most cases, in a short/medium term the forest activities cannot compete with other uses of land such as agriculture and cattle breeding.

 The Brazilian society - through the government – ends up with the responsibility to pay the bill but the resources are not sufficient.

#### **Main Challenge:**

Make forest more valuable than the alternative use of land





Brazilian Government is committed to invest US\$ 500 million until 2011 in the Combat of Deforestation

The incentives for RED can be a excellent opportunity mobilize resources to face this challenge



#### **AMAZON FUND**

**Fund for Protection and Conservation of Brazilian Amazon** 

Invest in actions from government and non-government organizations to control and combat deforestation and to promote the conservation and sustainable use of forests including:

- Protected Areas and Public Forests
- Environmental monitoring and control
- Combat of Illegal logging
- Sustainable Forest Management
- Biodiversity Conservation
- Reforestation and Restoration of Forest Ecosystem
- Payment for Environmental Services

Invest on the transfer of technology and experiences to other tropical forestry countries (up to 20% of the funds)



#### Governance

Fund hosted and managed by BNDES (Brazilian Development Bank)

## **Steering Committee defines the use of funds**

- Federal and State Governmets
- NGOs and Social Movements
- Business Sector
- Scientists

Cientific Committee to attest RED

Annual independent audit of the application of the funds



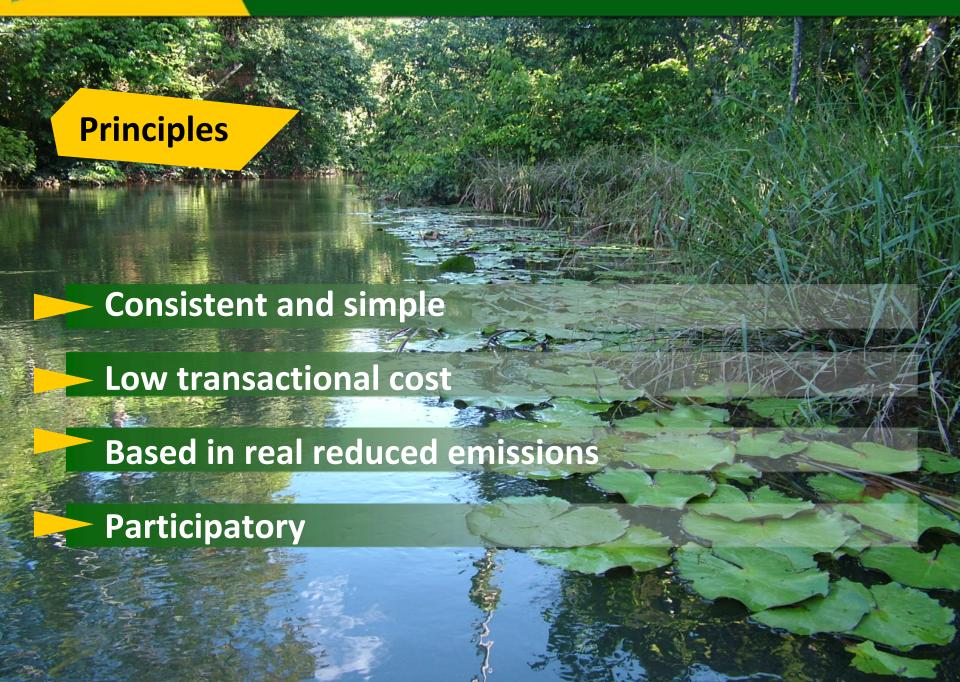
## **Fundraising**

Based on reduced emission from deforestation in the Amazon





#### **Fund for Protection and Conservation of Brazilian Amazon**









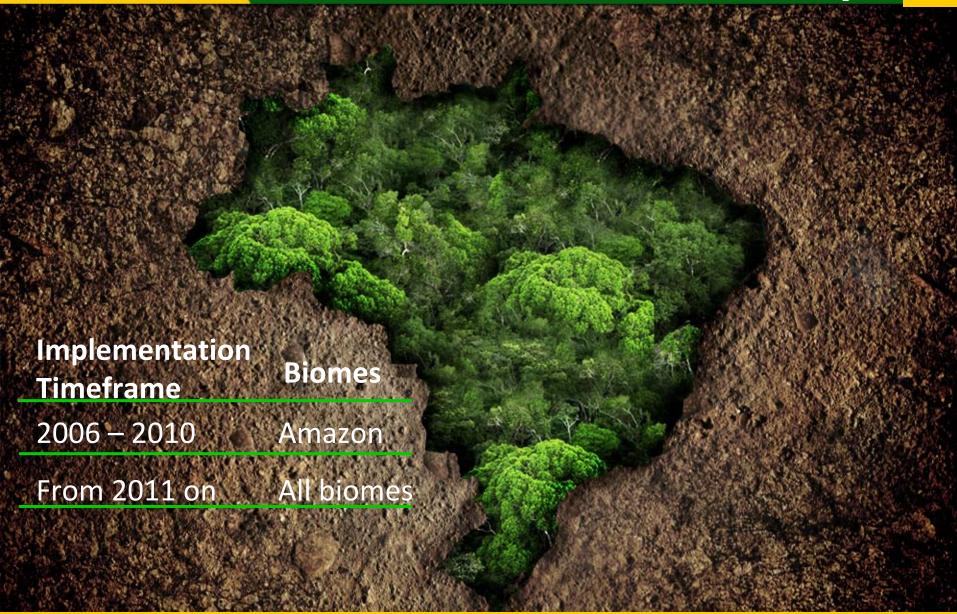


Scope → all Brazilian Amazon



## Scope

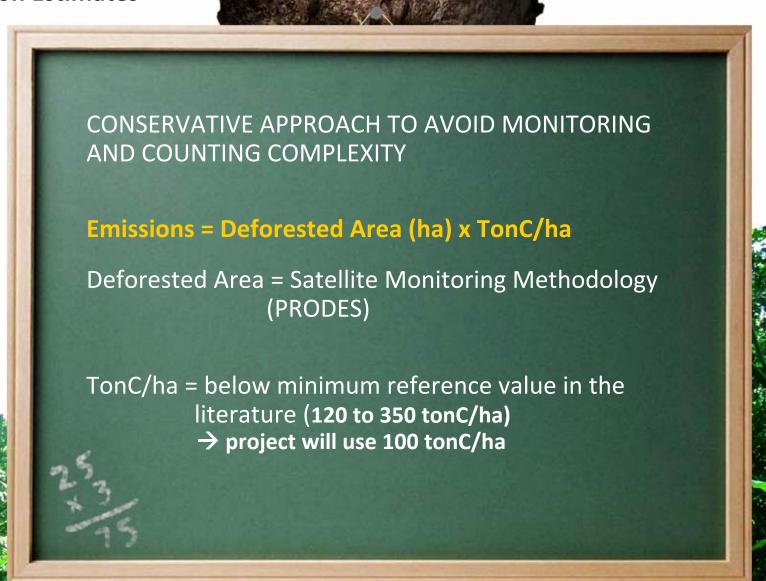






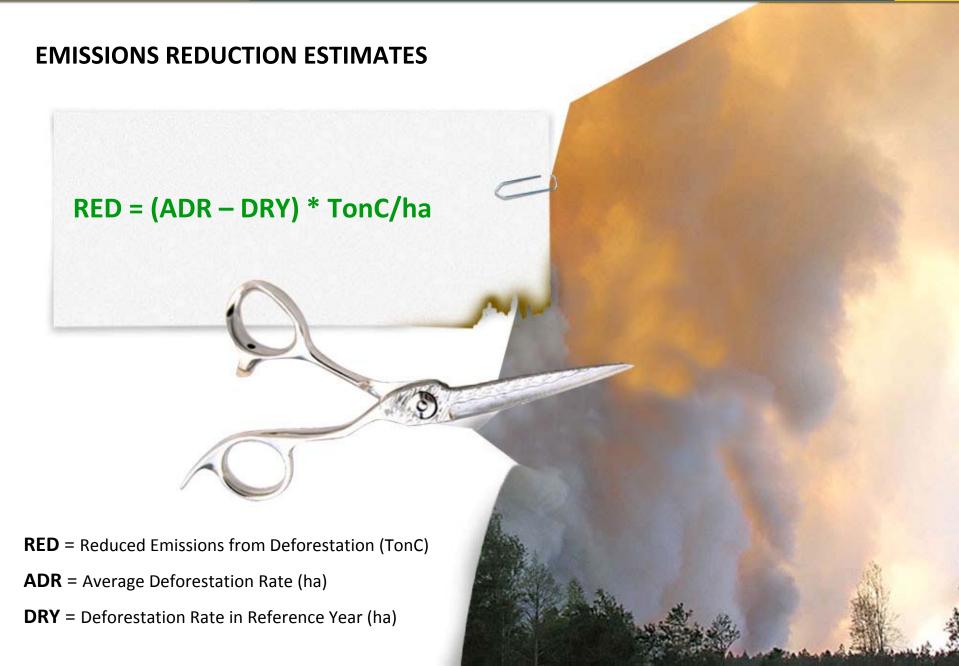


#### **Emission Estimates**







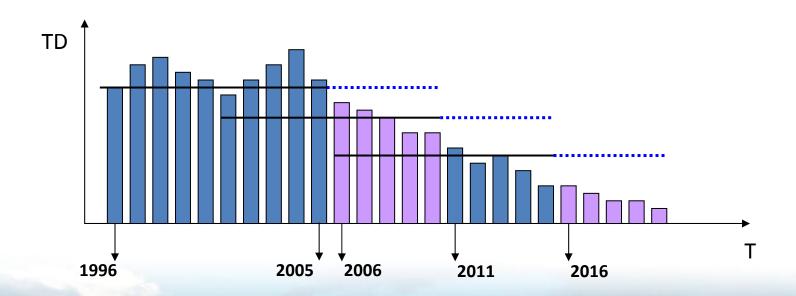






#### **AVERAGE DEFORESTATION RATE**

- Using 10 years average
- ADR revised every 5 years



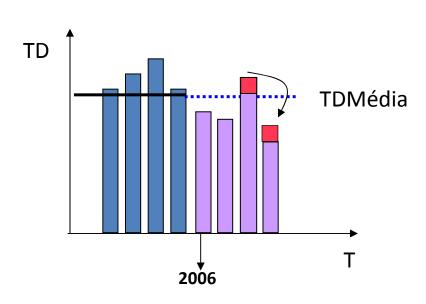
Year of Reference	Period for ADF calculation	ADF
2006 to 2010	1996 to 2005	1,95 million ha





## DEFORESTATION ABOVE THE AVERAGE RATE

If deforestation rate in the reference year is higher than the average rate, the Government:



- Will not be able raise funds in that year
- Will have to discount the reduction in the following year









#### REDUCED EMISSIONS ESTIMATE

**Example for year 2006** 

**ADR (1996-2005)** – 1,95 million hectares **DRY (2006)** – 1,40 million hectares

RED = (1.95 - 1.40 mi ha) \* 100 TonC/ha

**RED = 55 million TonC** 

200 million Ton of CO2



## **Raising Funds**



#### **CONTRIBUTORS**

GOVERNMENTS, COMPANIES AND NON GOVERNAMENTAL ORGANIZATIONS

All contributors will receive from the Brazilian Government a DIPLOMA recognizing the contribution to the reduction of emission of X tons of CO2 from Deforestation in the Amazon.

- Not transferable
- Not tradable







## Preparations under way to turn the initiative operational by june of 2008





## **Implementation**

#### In summary...

- → The protection and conservation of forests is crucial for the well being of Brazilian society and international community.
- → With a firm commitment it's possible to decrease deforestation and promote SFM but it has a significant opportunity cost.
- → Incentives to REDD can play a significant role to help to balance economy of the conservation and SFM.

