

Sustainable Forestry Management

The SFM logo is a circular emblem with a teal center containing the letters 'SFM' in white. The outer ring of the circle is a lighter shade of teal and features a stylized, winding path or river design.

SFM

**Tropical Deforestation and the
Biodiversity Crisis:
Closing the Gap through
the Market Approach**

Gonzalo Castro

Presentation Outline

The SFM logo is a circular emblem with a teal center containing the letters 'SFM' in white. The center is surrounded by a ring of smaller teal circles, all set against a background of a dense tropical forest.

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1. Tropical Deforestation and the Biodiversity Crisis
2. Protected Areas: the Ongoing Funding Gap
3. The Prospects for Additional Funding
4. The Carbon Market as a Solution
5. Examples and Future Opportunities

The SFM logo is a circular emblem with a teal center containing the letters 'SFM' in white. The outer ring of the emblem is a lighter shade of teal and features a stylized, swirling pattern. The background of the slide is a photograph of a dense tropical forest with various palm trees and lush greenery.

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Biodiversity Crisis is Widely Accepted as Real

BBC NEWS

Front Page Tuesday, 21 May, 2002, 13:48 GMT 14:48 UK
World **Quarter of mammals 'face extinction'**
UK
UK Politics
Business
Sci/Tech
Health
Education
Entertainment
Talking Point
In Depth
AudioVideo

WORLD CUP Siberian tigers may vanish within three decades
BBC SPORT
BBC Weather

SERVICES
Daily E-mail
News Ticker

By Corinne Podger
BBC science correspondent

Almost a quarter of the world's mammals face extinction within 30 years, according to a United Nations report on the state of the global environment.



CNN.com / SCI-TECH

THE GREEN CENTURY TIME

The Summit Solutions Heroes Photos

Scientists agree world faces mass extinction

August 23, 2002 Posted: 11:43 AM EDT (1543 GMT)

By Gary Strieker
CNN

(CNN) – The complex web of life on Earth, what scientists call "biodiversity," is in serious trouble.



Organ Pipe Cactus National

CNN.com / SCIENCE & SPACE

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AIRS: Saturdays 3 p.m. ET / Sundays 5 p.m. ET

Study: Only 10 percent of big ocean fish remain

By Marsha Walton
CNN

Wednesday, May 14, 2003 Posted: 10:29 PM EDT (0229 GMT)

(CNN) – A new global study concludes that 90 percent of all large fishes have disappeared from the world's oceans in the past half century, the



BBC NEWS UK EDITION

Low Graphics version | Change edition

Categories TV RADIO COMMUNICATE WHERE I LIVE

Last Updated: Thursday, 18 September, 2003, 12:04 GMT 13:04 UK
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Lions 'close to extinction'

Lion populations have fallen by almost 90% in the past 20 years, leaving the animal close to extinction in Africa, a wildlife expert has warned.

There are now only 23,000 left, compared to an estimated 200,000 two decades ago,

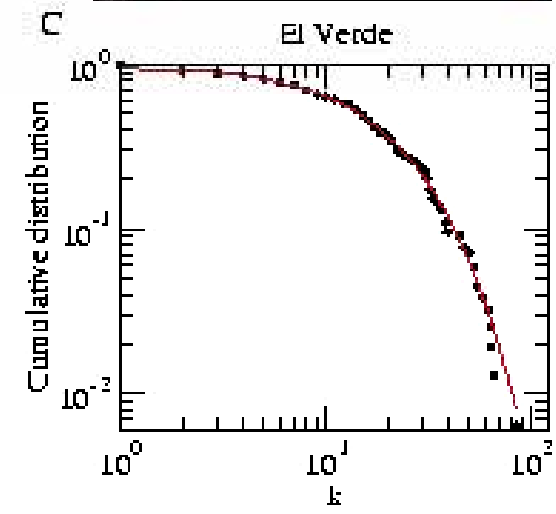
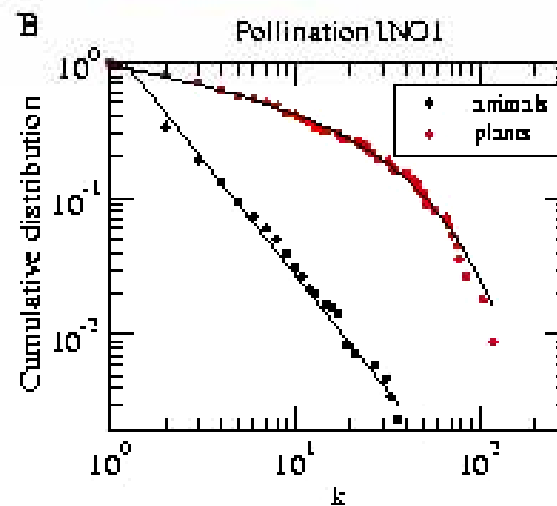
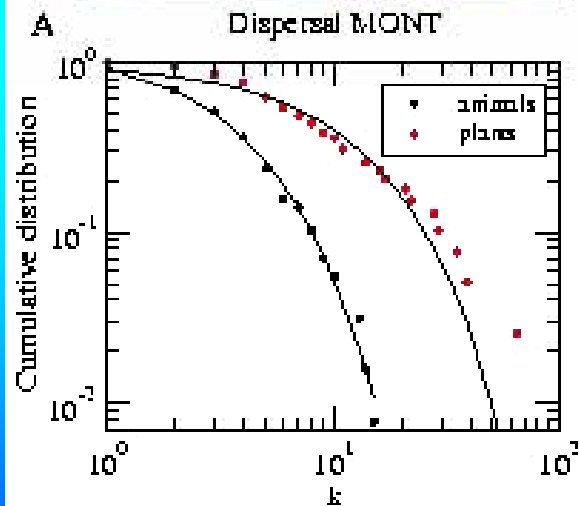


Live with them or lose them

SEE ALSO:
Wildlife watchers stay away from Kenya
22 Sep 03 | Africa
Kenyan lions killed in revenge attacks
23 Jun 03 | Africa
Malawi's killer lion shot dead
24 Feb 03 | Africa

RELATED INTERNET LINKS:

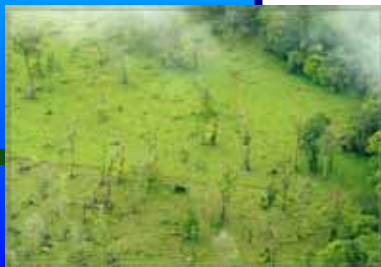
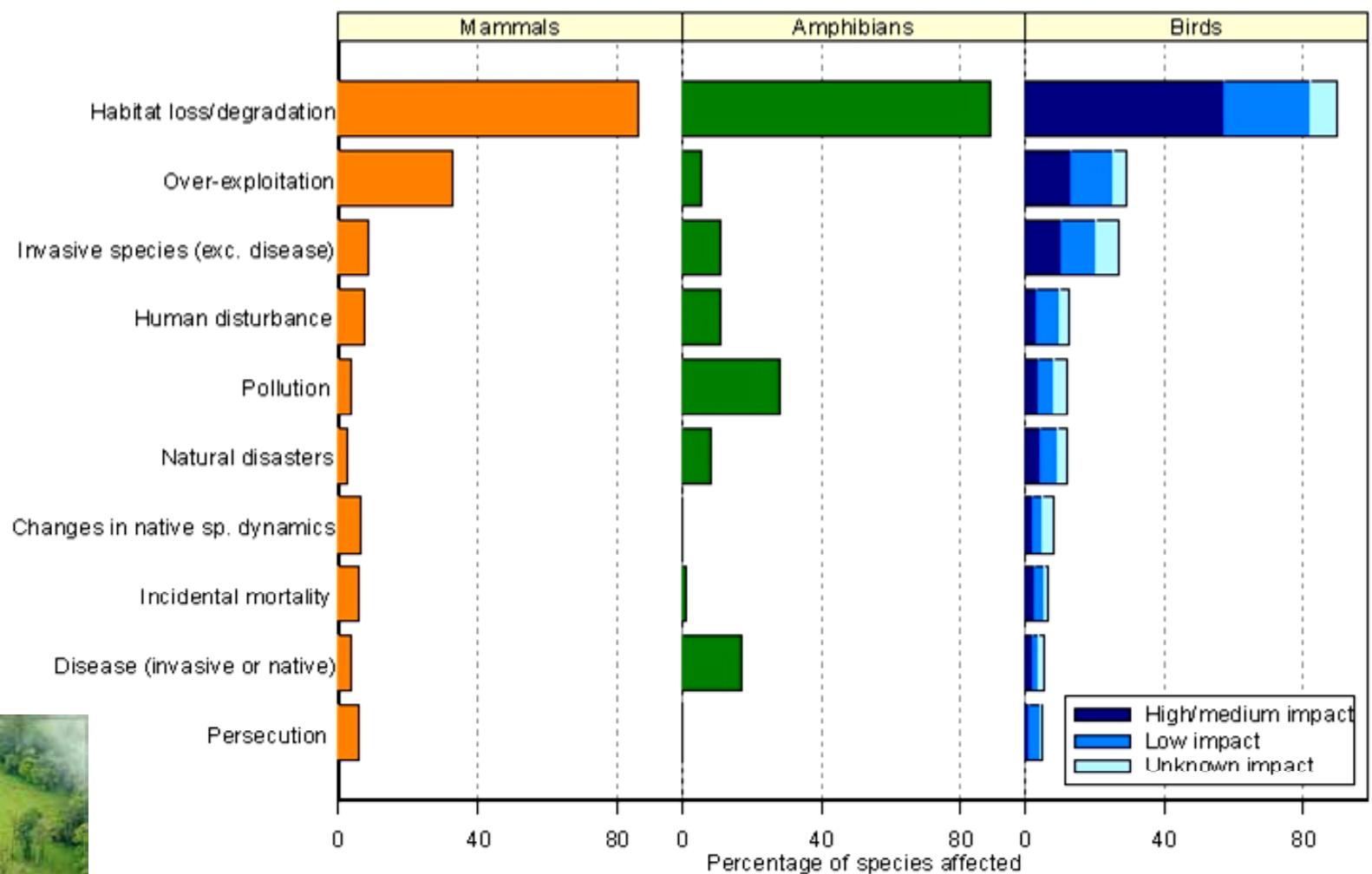
Biodiversity Declines are Widespread



Montoya 2007



Principal Cause is Habitat Loss



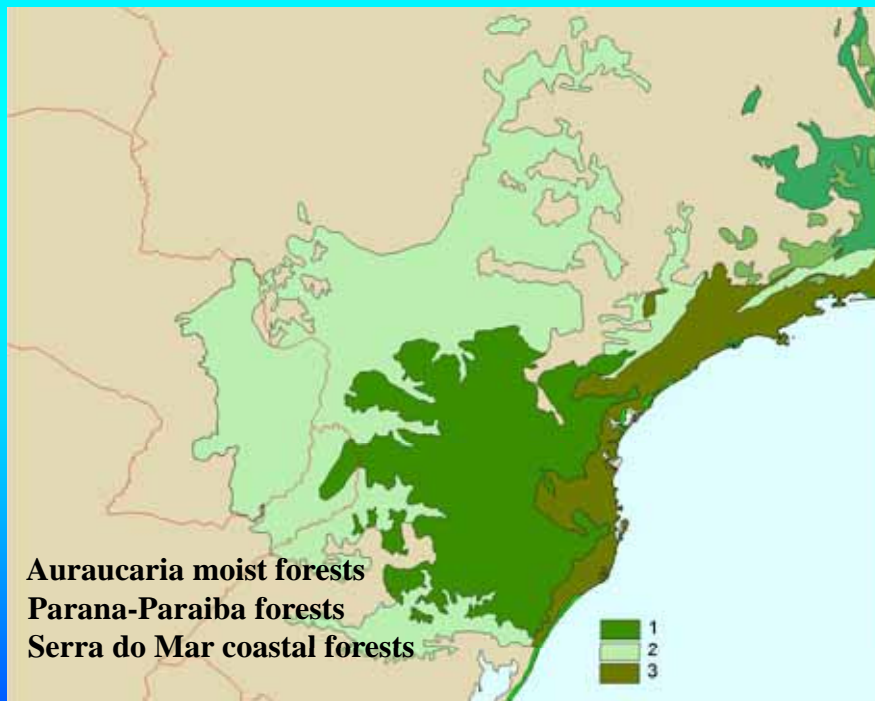
Habitat Loss and Fragmentation



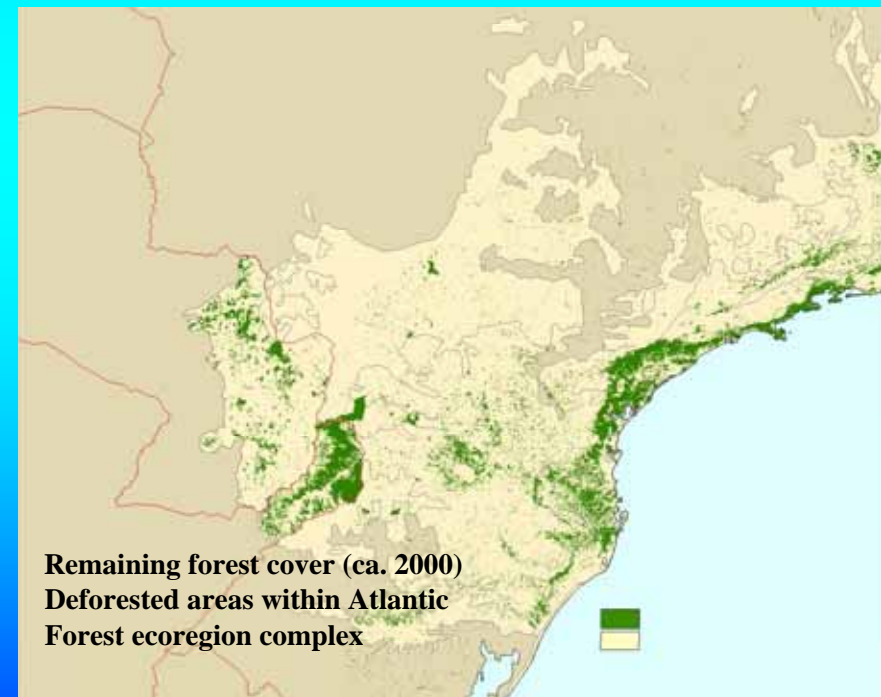
Habitat Loss and Fragmentation



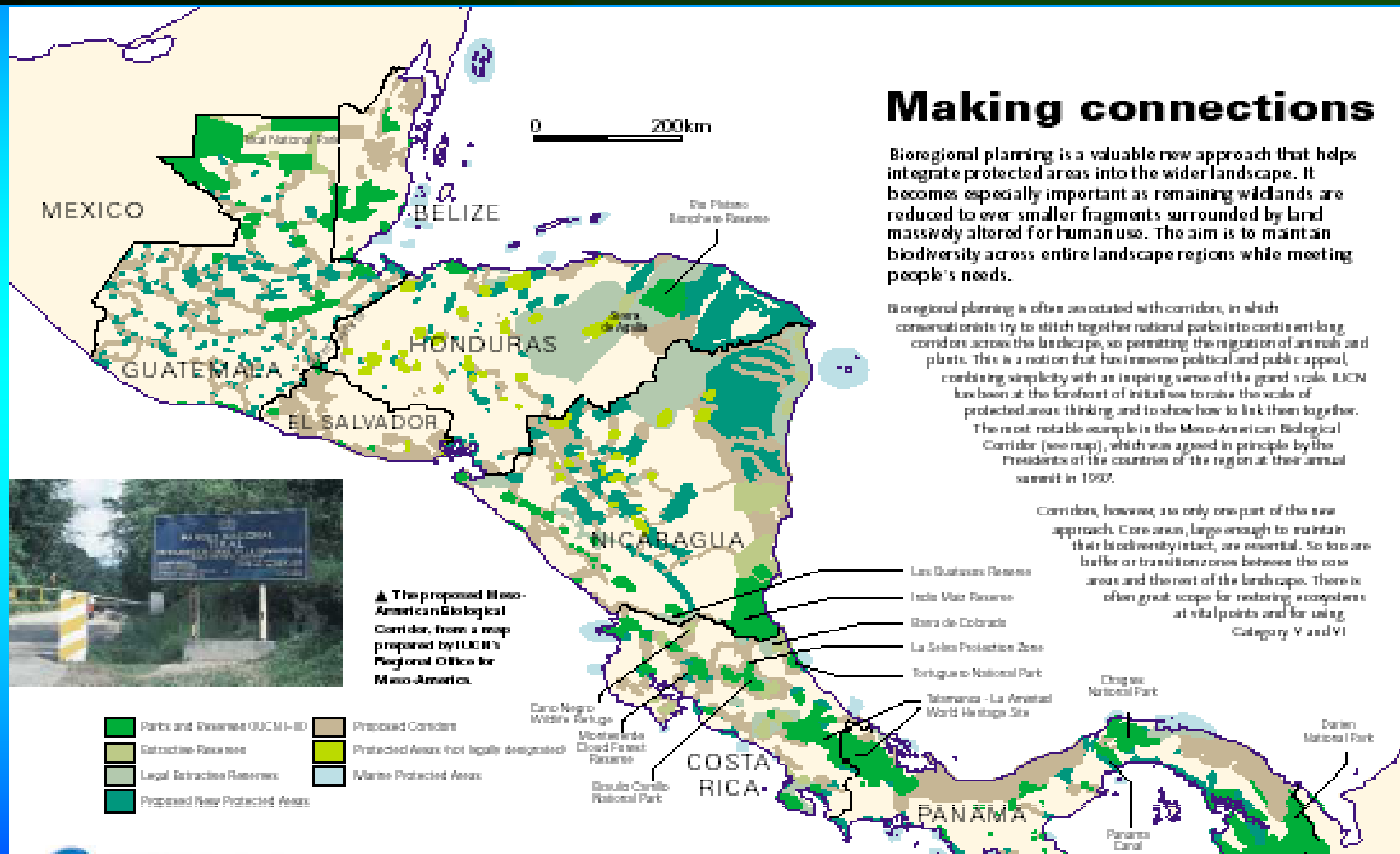
Atlantic Forest: Original Vegetation



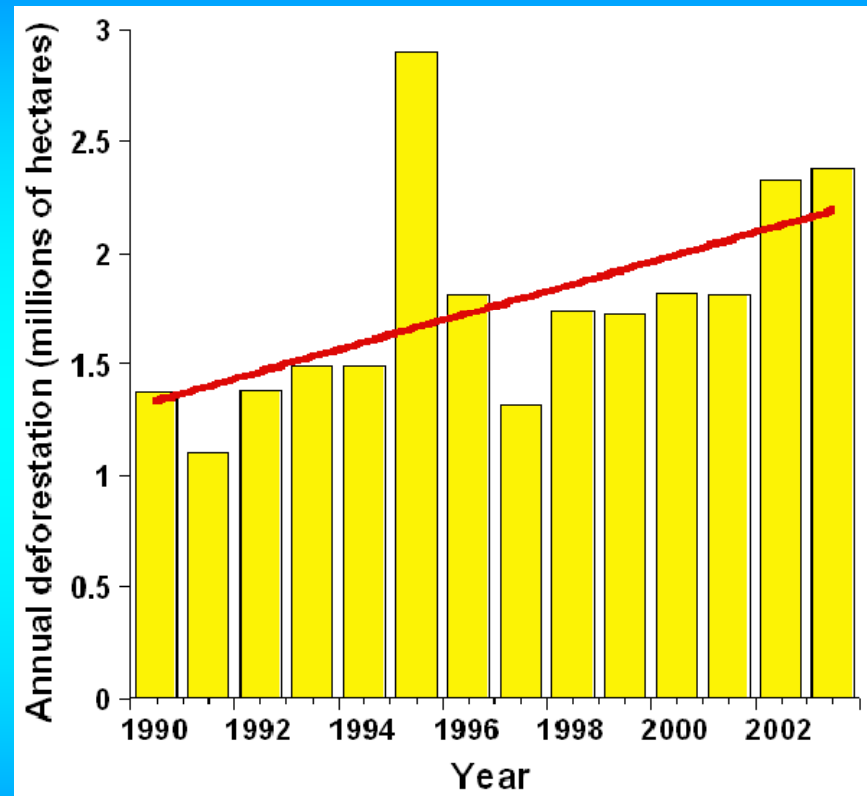
Atlantic Forest: Current Vegetation



Loss of Ecosystem Function at Large Scales



Accelerating Deforestation



Land use and Projected Deforestation (FAO)



Year 1,980

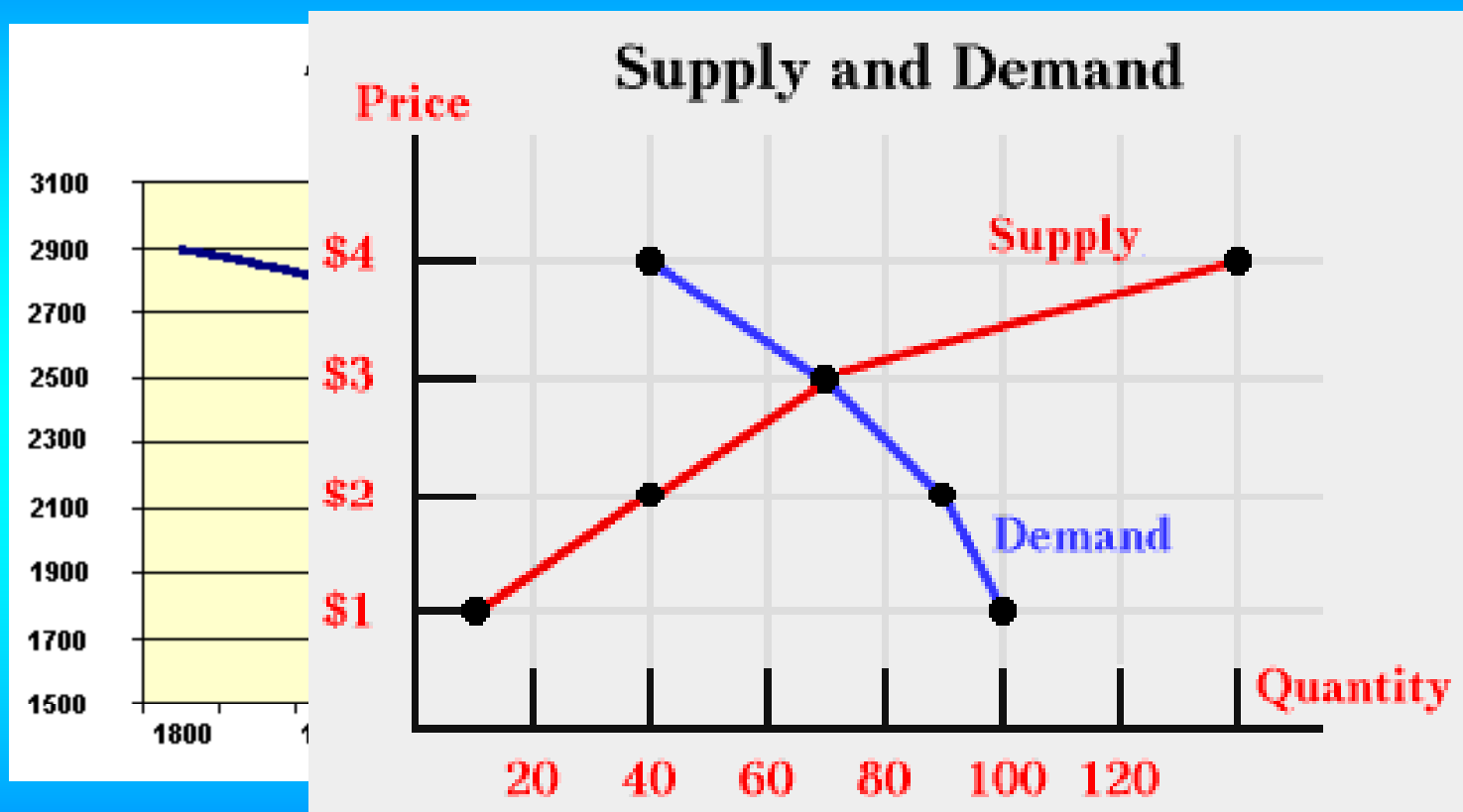


Year 2,015 Projection





Deforestation Stops When it is Cheaper not to Cut ...

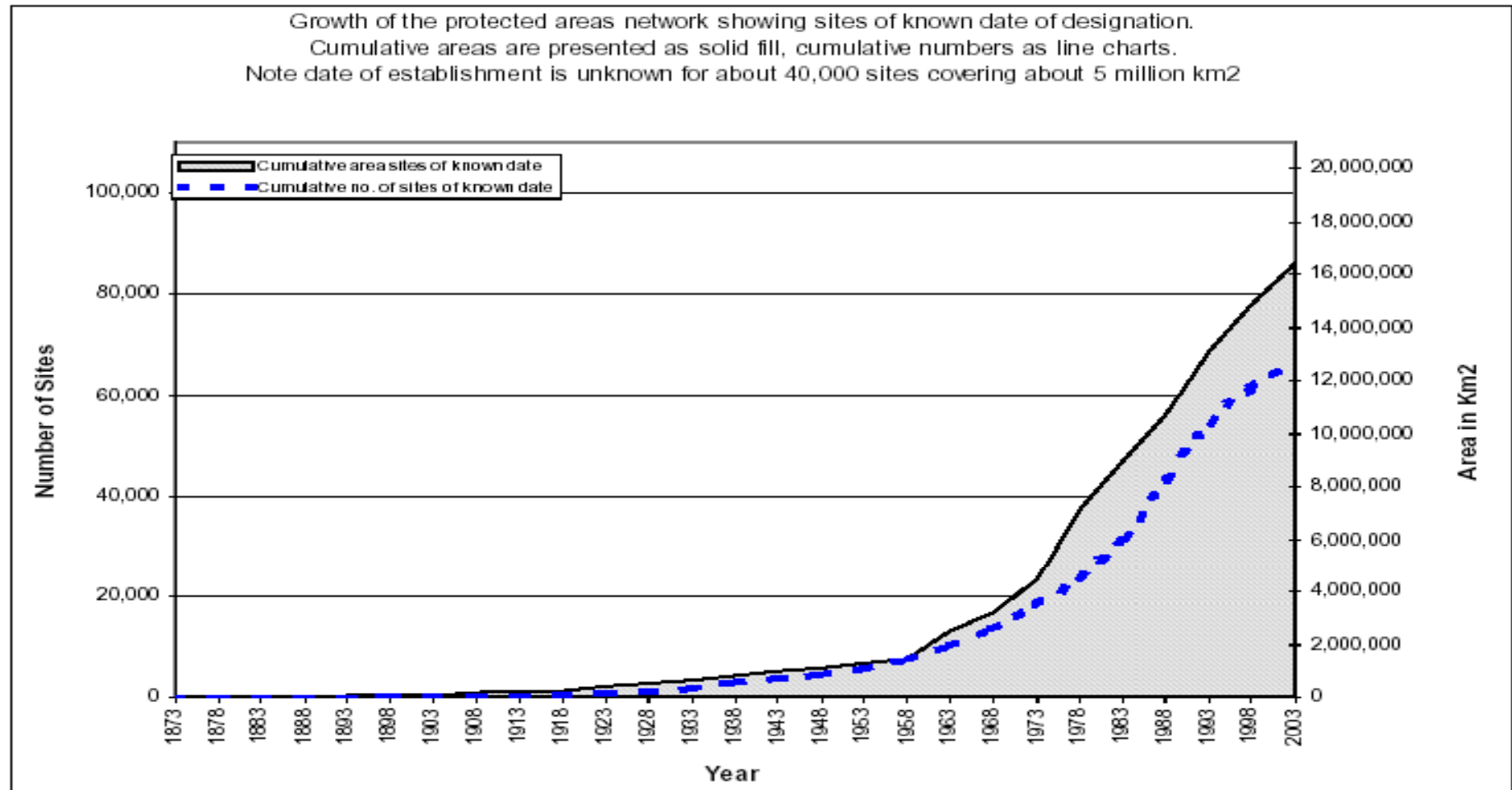


The SFM logo is a circular emblem with a teal center containing the letters 'SFM' in white. A thin, light-colored ring surrounds the teal center. The background of the slide is a photograph of a dense tropical forest with various green plants and trees.

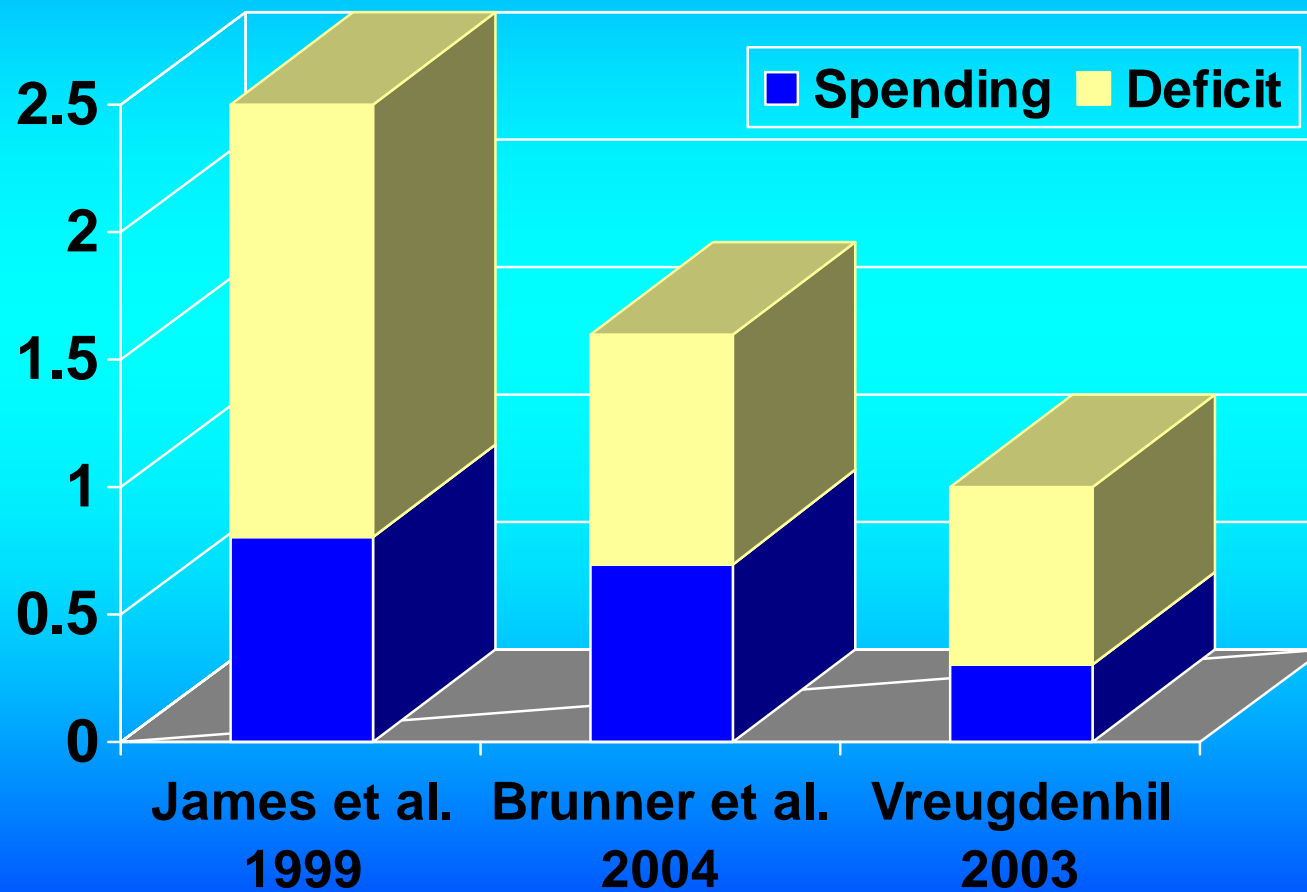
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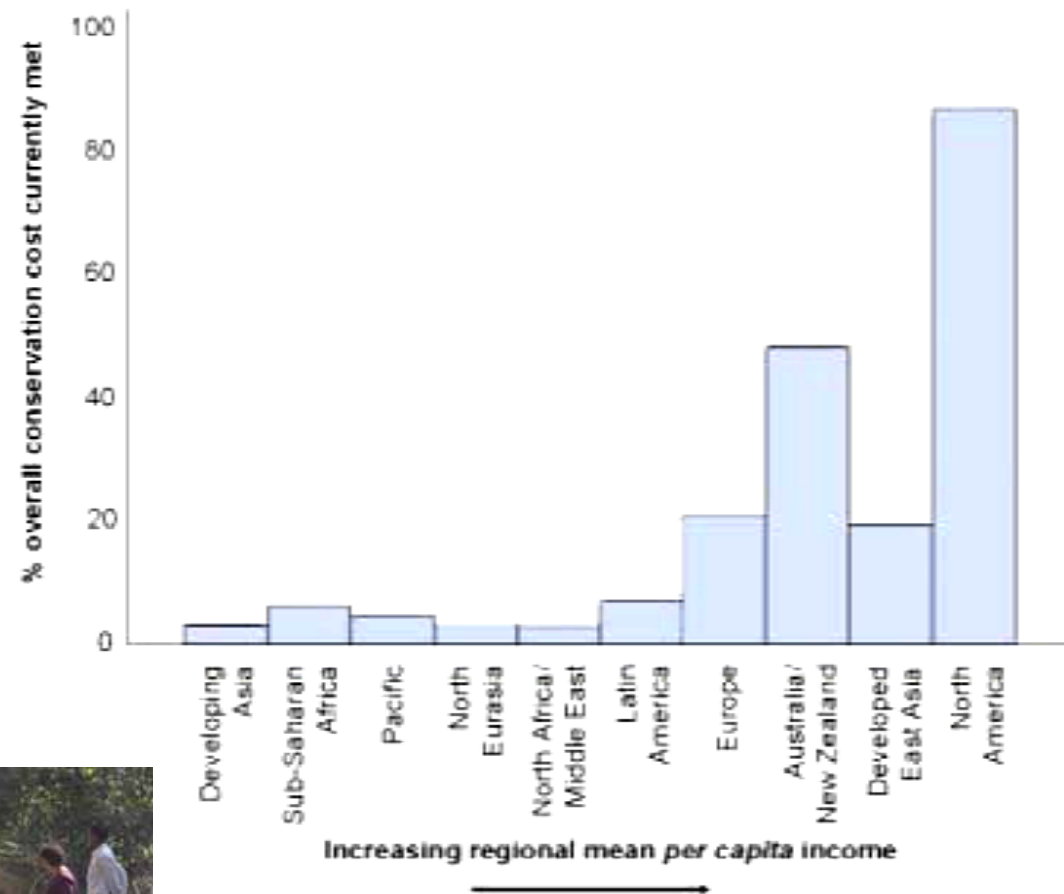
Protected Areas: Steady Growth



Protected Areas Managing Costs and Deficits in Developing Countries (US\$ Billion per Year)

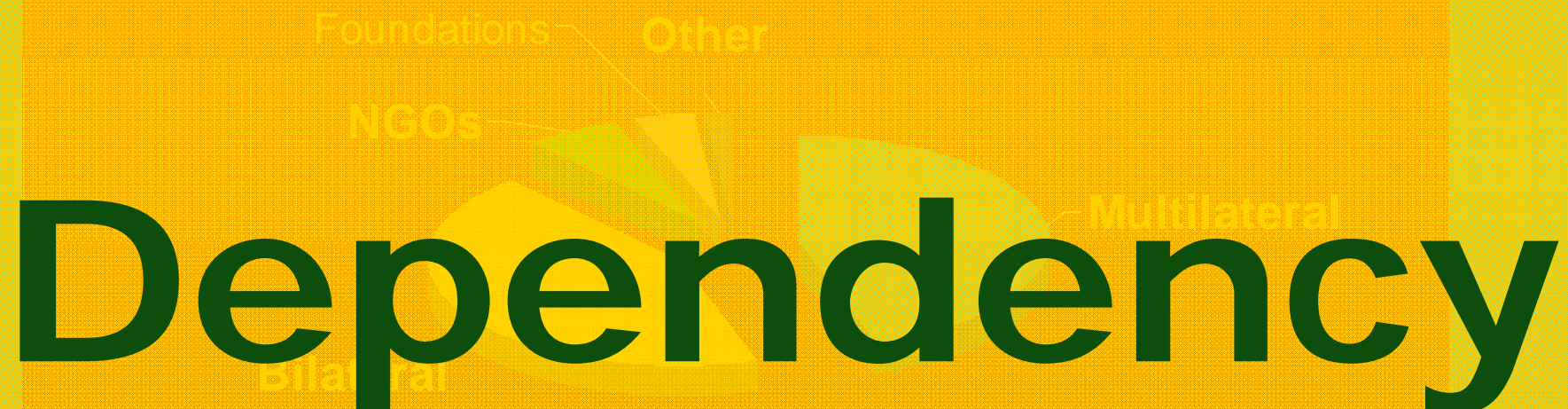


Most Parks in Developing Countries are Paper Parks



Balmford 2003

Who Pays?
Financing by Type of Donor (1990s)
Latin America Total = US\$3,128 Million



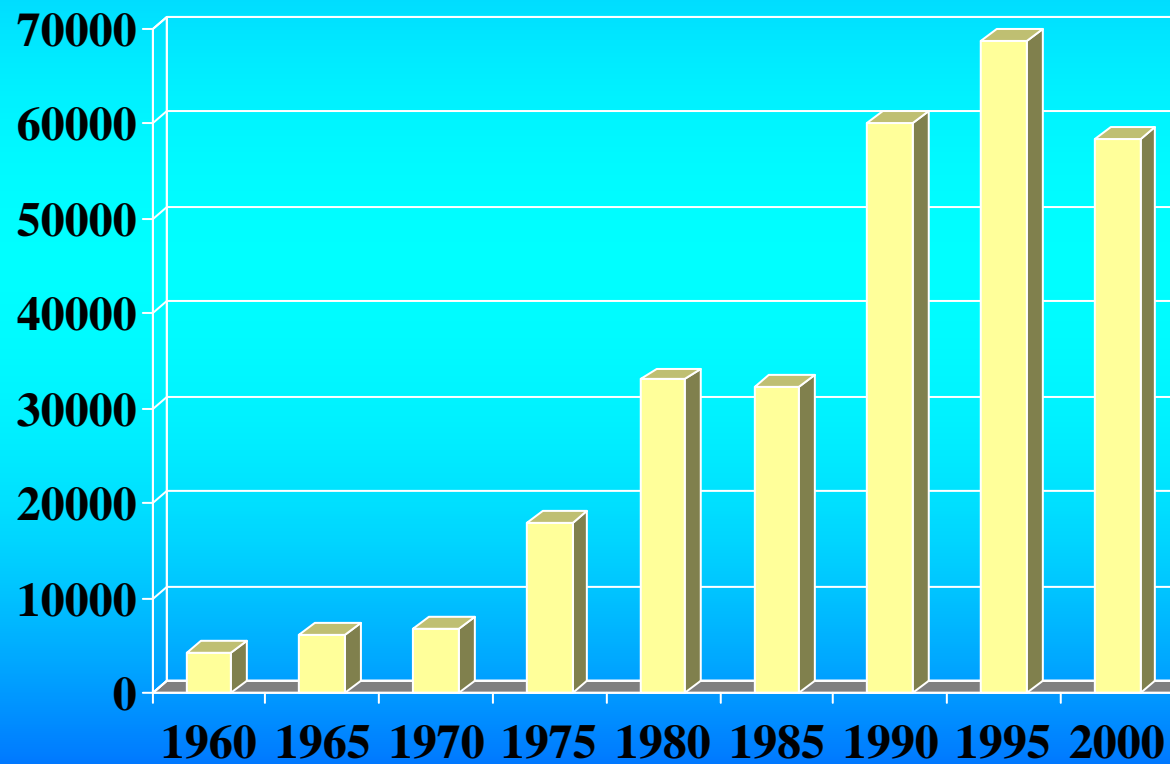
Castro et al. 2001

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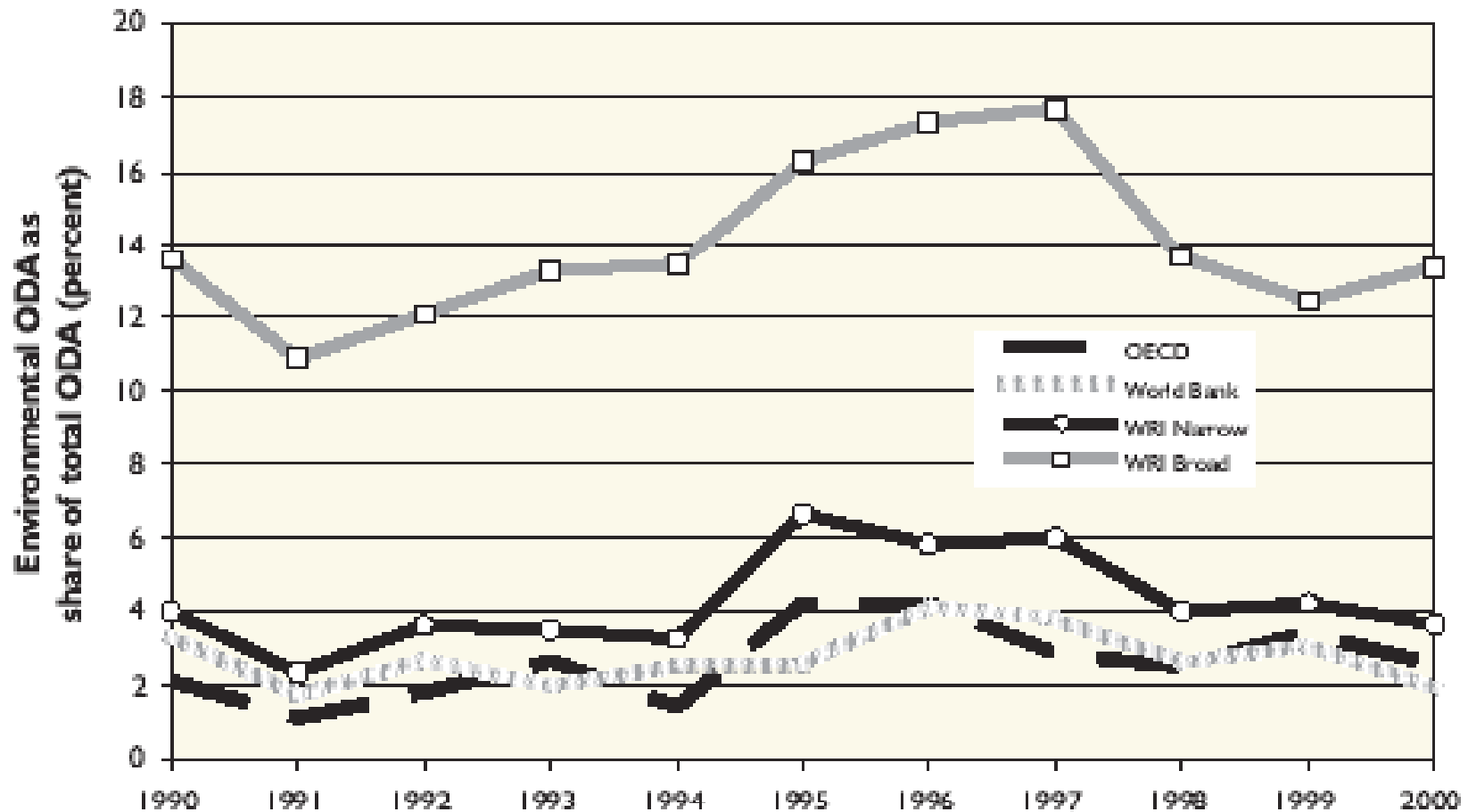
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Trends in ODA US\$ Million Constant

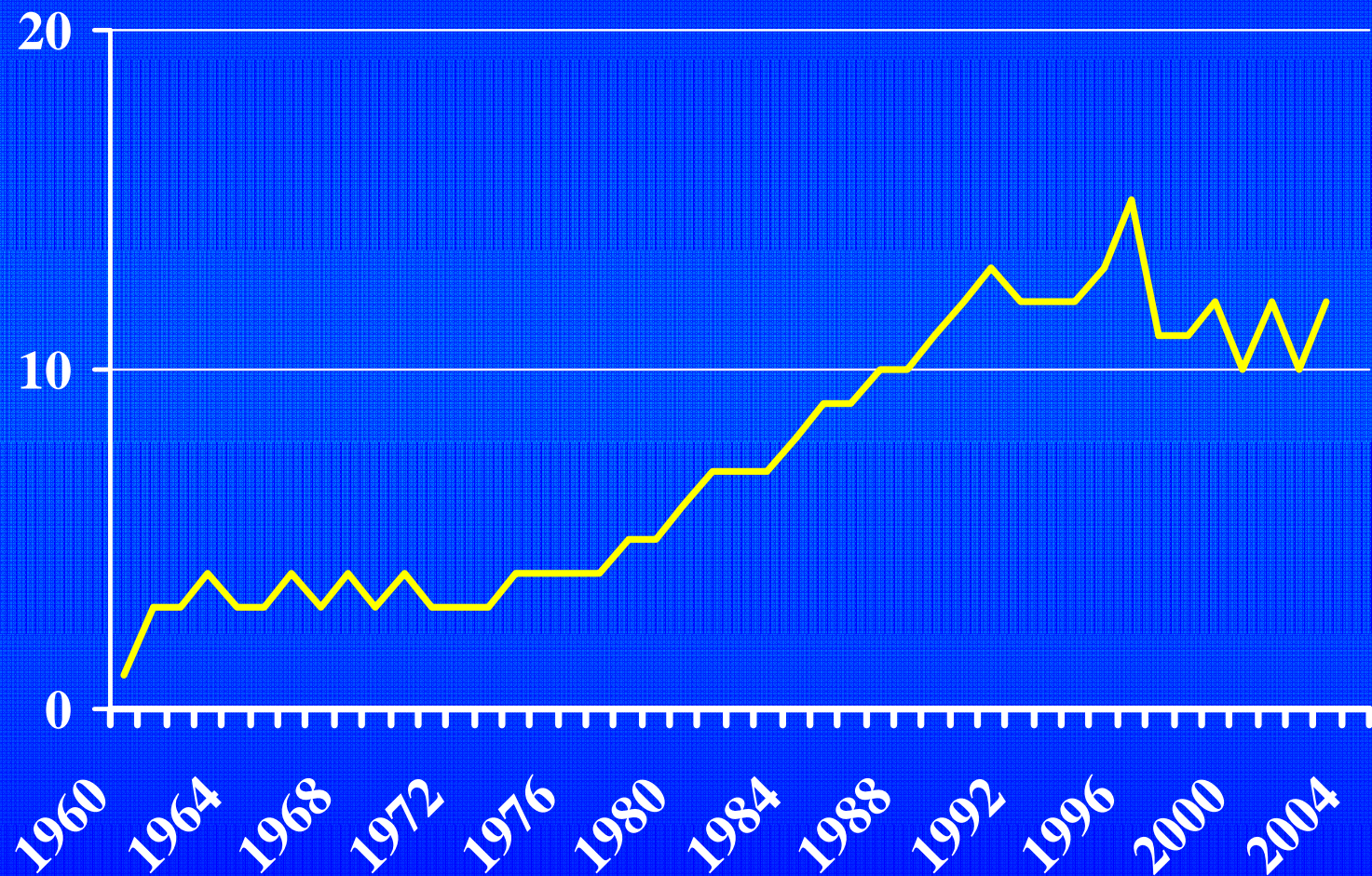


Estimates of Environmental ODA as a Percentage of Overall ODA



Note: ODA, official development assistance; OECD, Organisation for Economic Co-operation and Development; WRI, World Resources Institute.

Latin America and the Caribbean Aid per Capita (US\$)



Source: World Bank Database 2006
Constant Year 2,000 US\$

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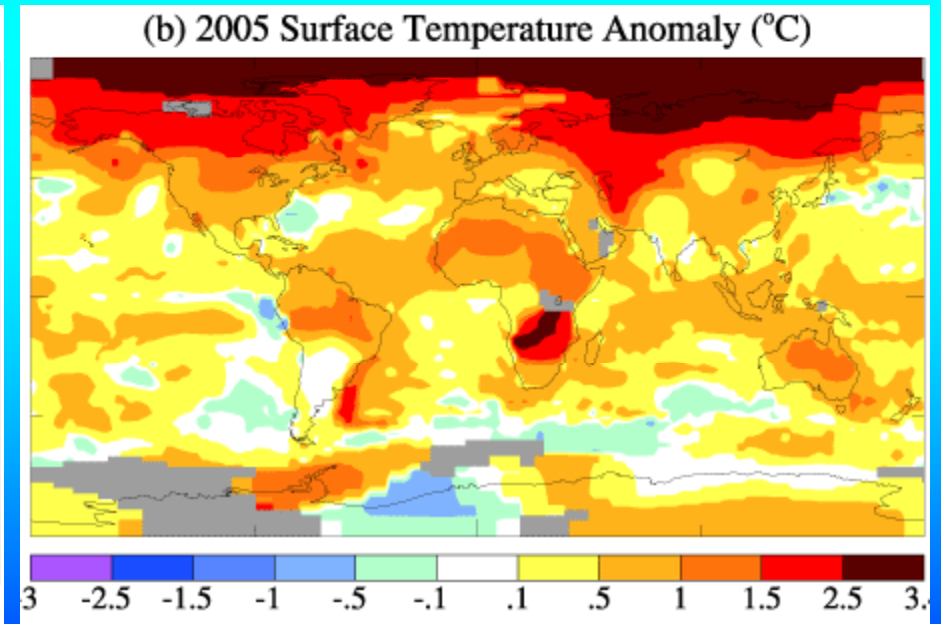
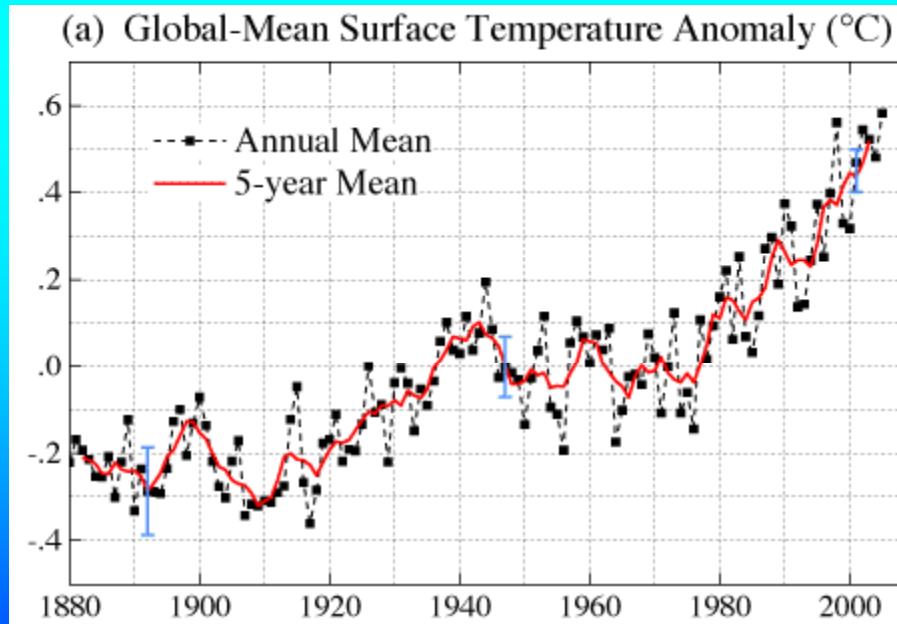
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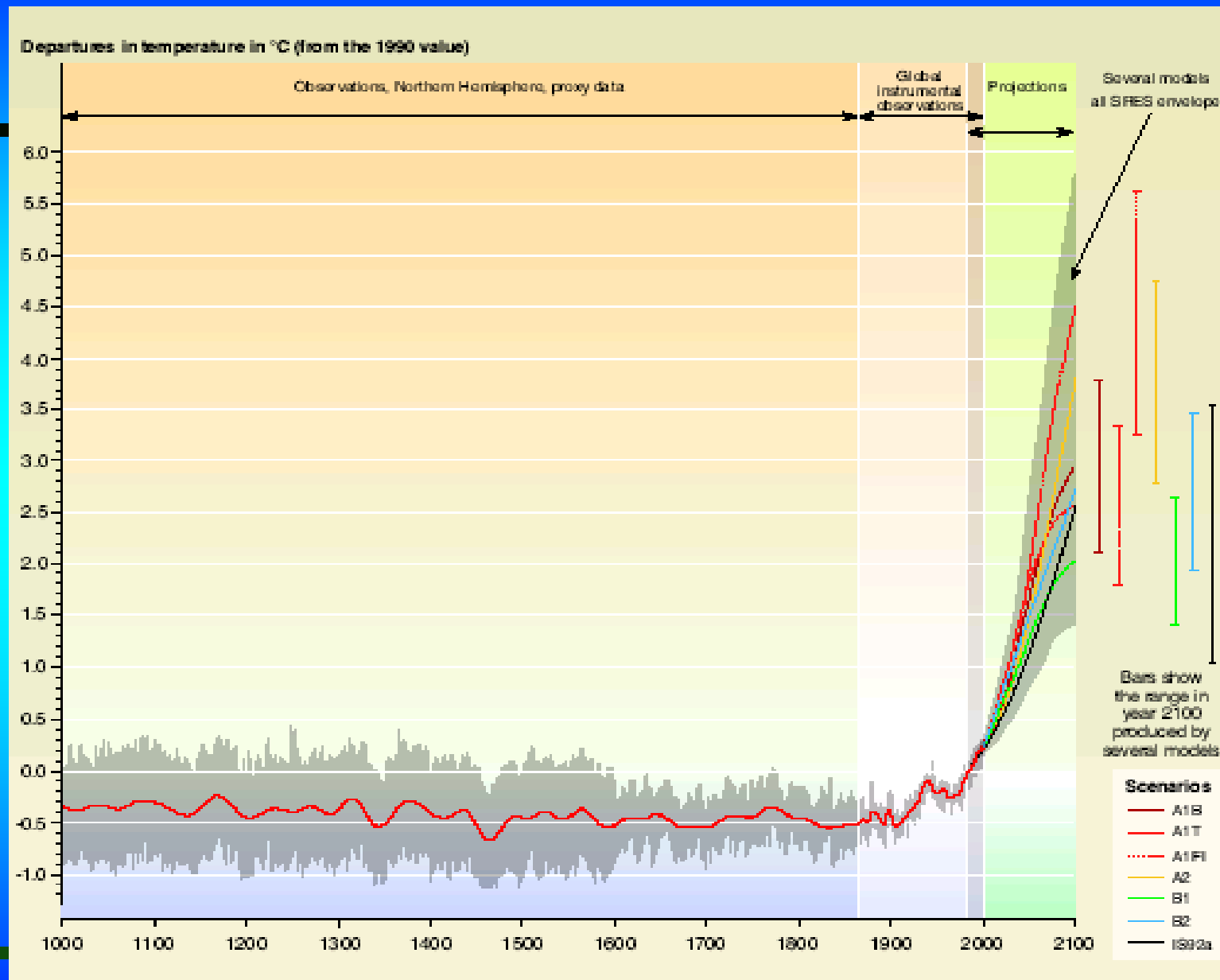


Temperature Records

(Deviation from 1951- 1980 mean)

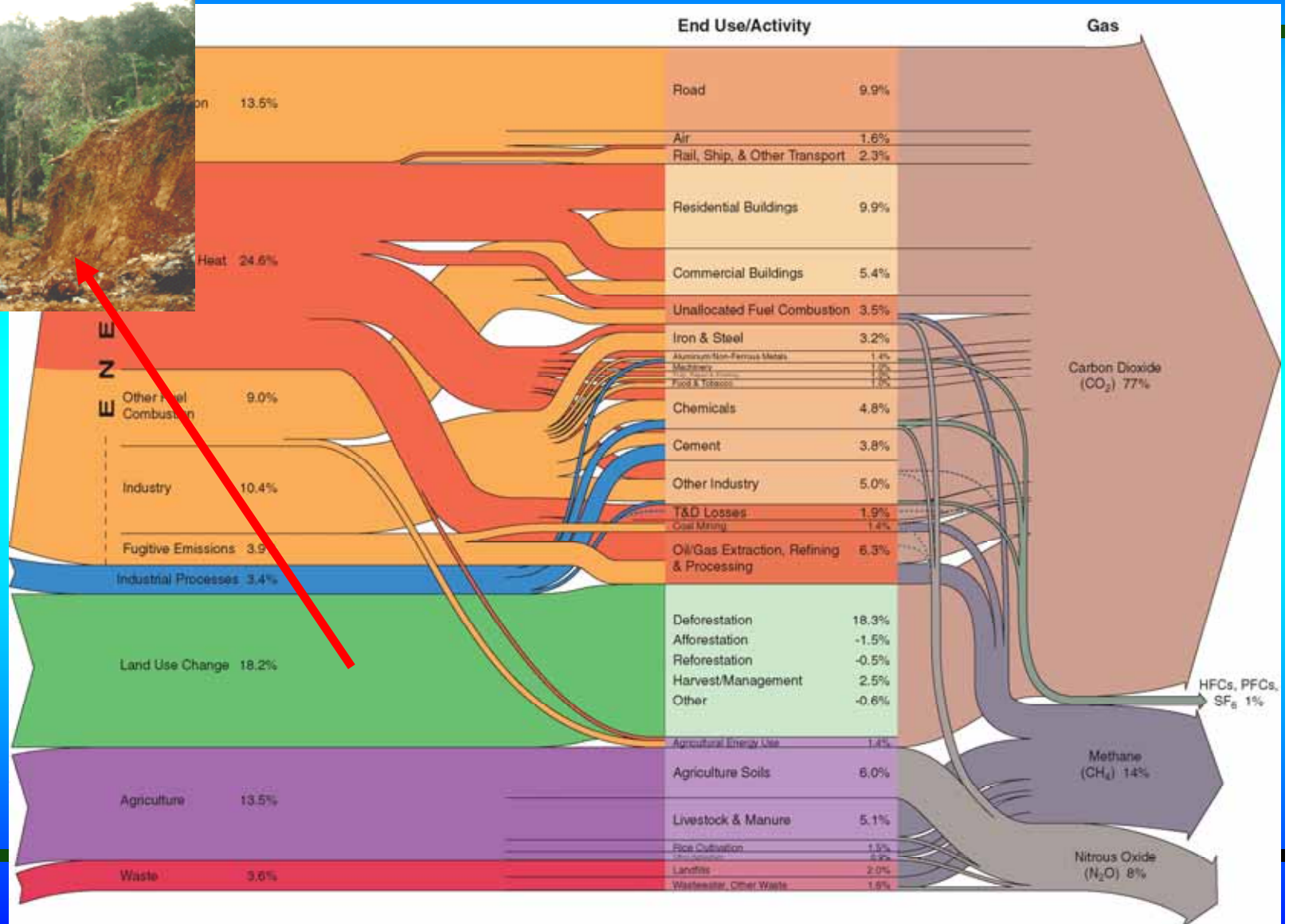


Source: NASA Goddard Institute for Space Studies Surface Temperature Analysis
at data.giss.nasa.gov/gistemp/



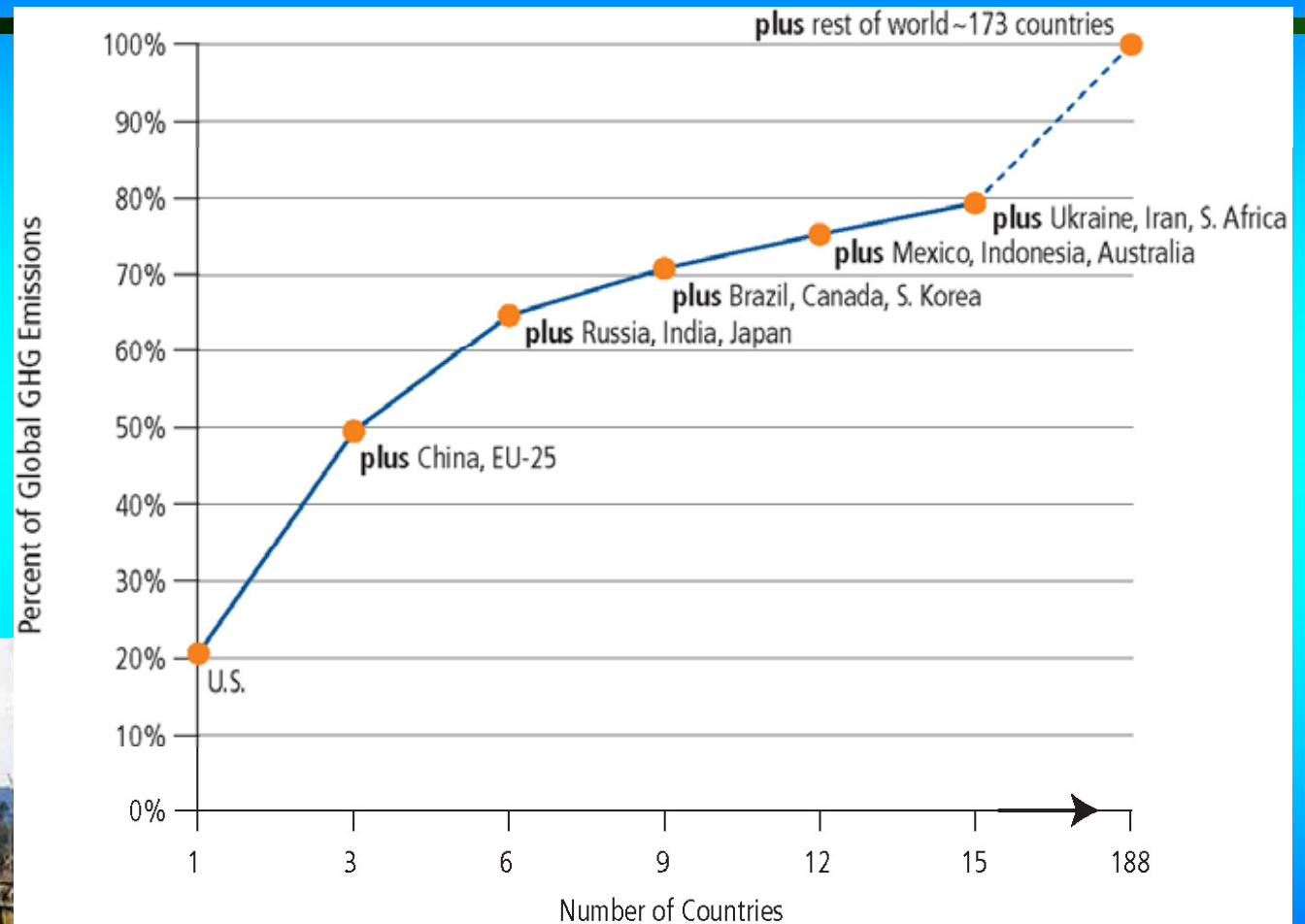
Source: IPCC, Climate Change, 2001

GHG Flow Diagram Global Emissions

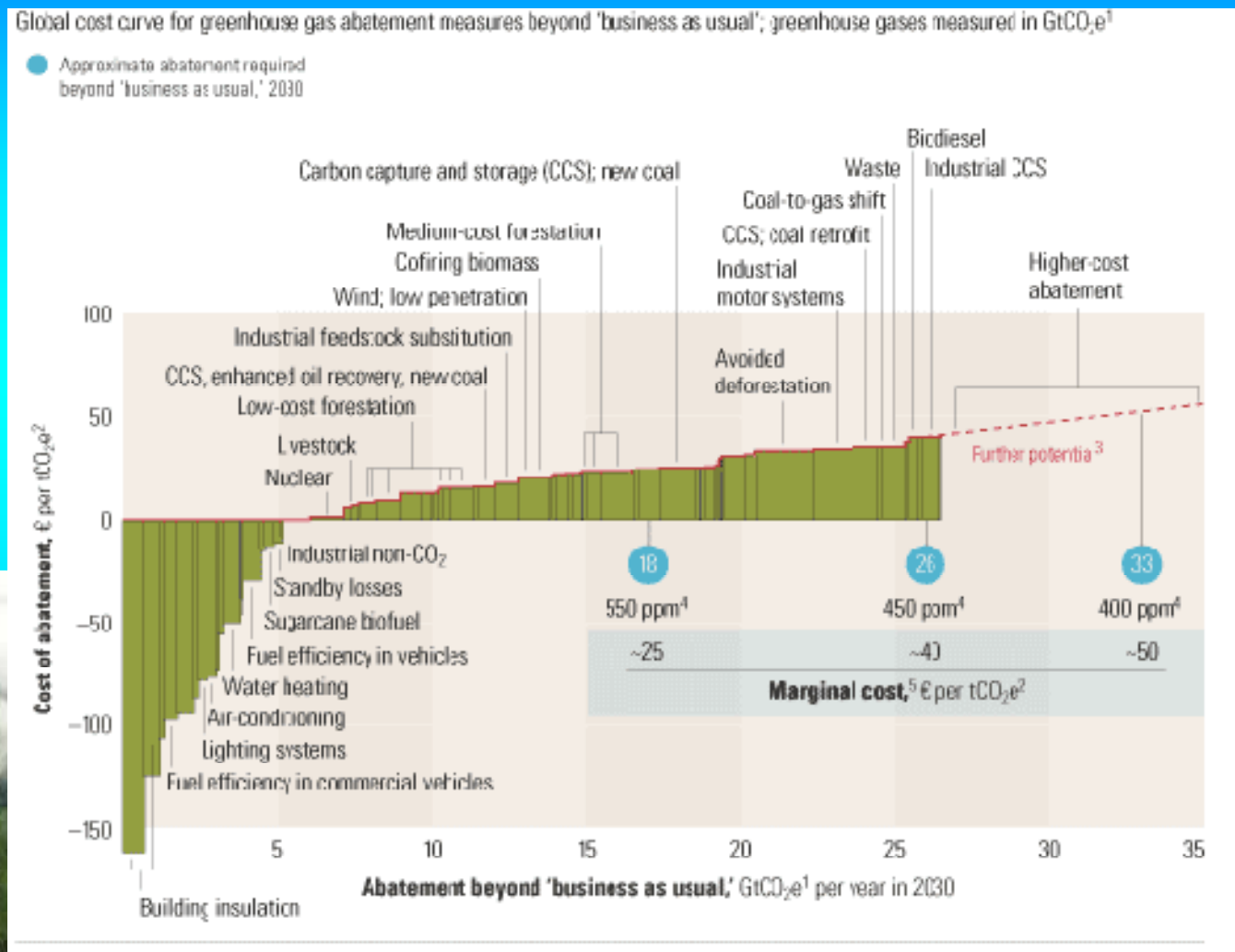


Largest Emitters

Developed & Developing



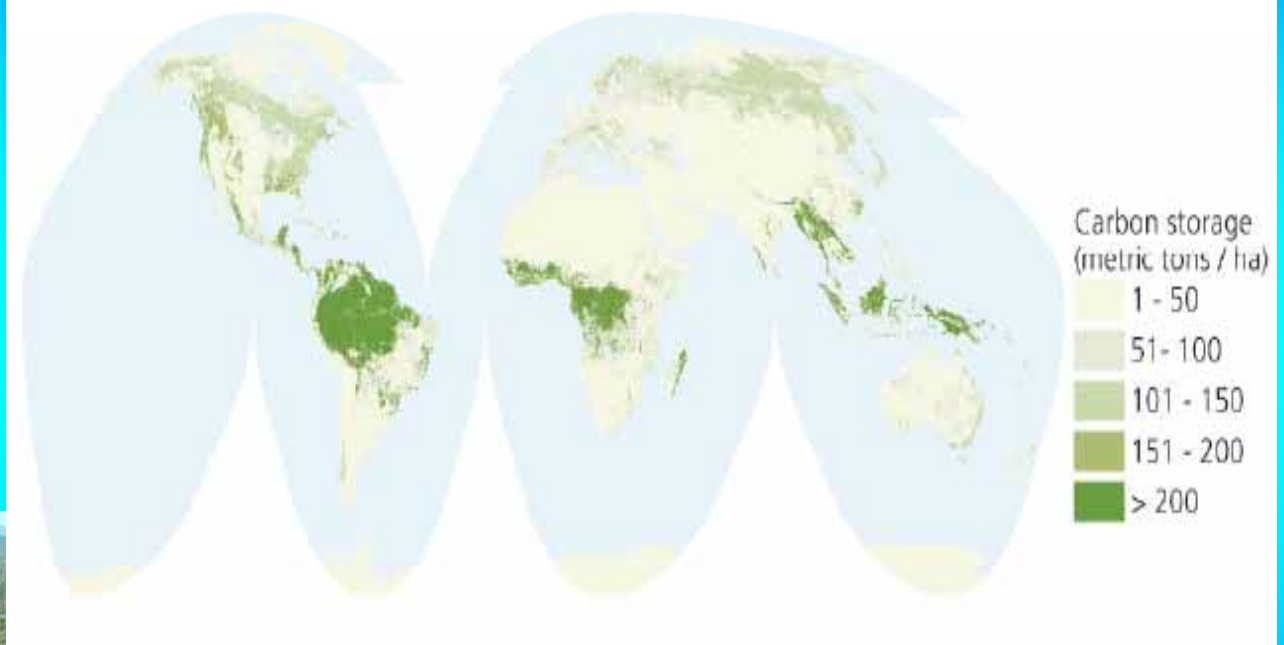
Forests Conservation and Forestry is Critical to Solve the Problem



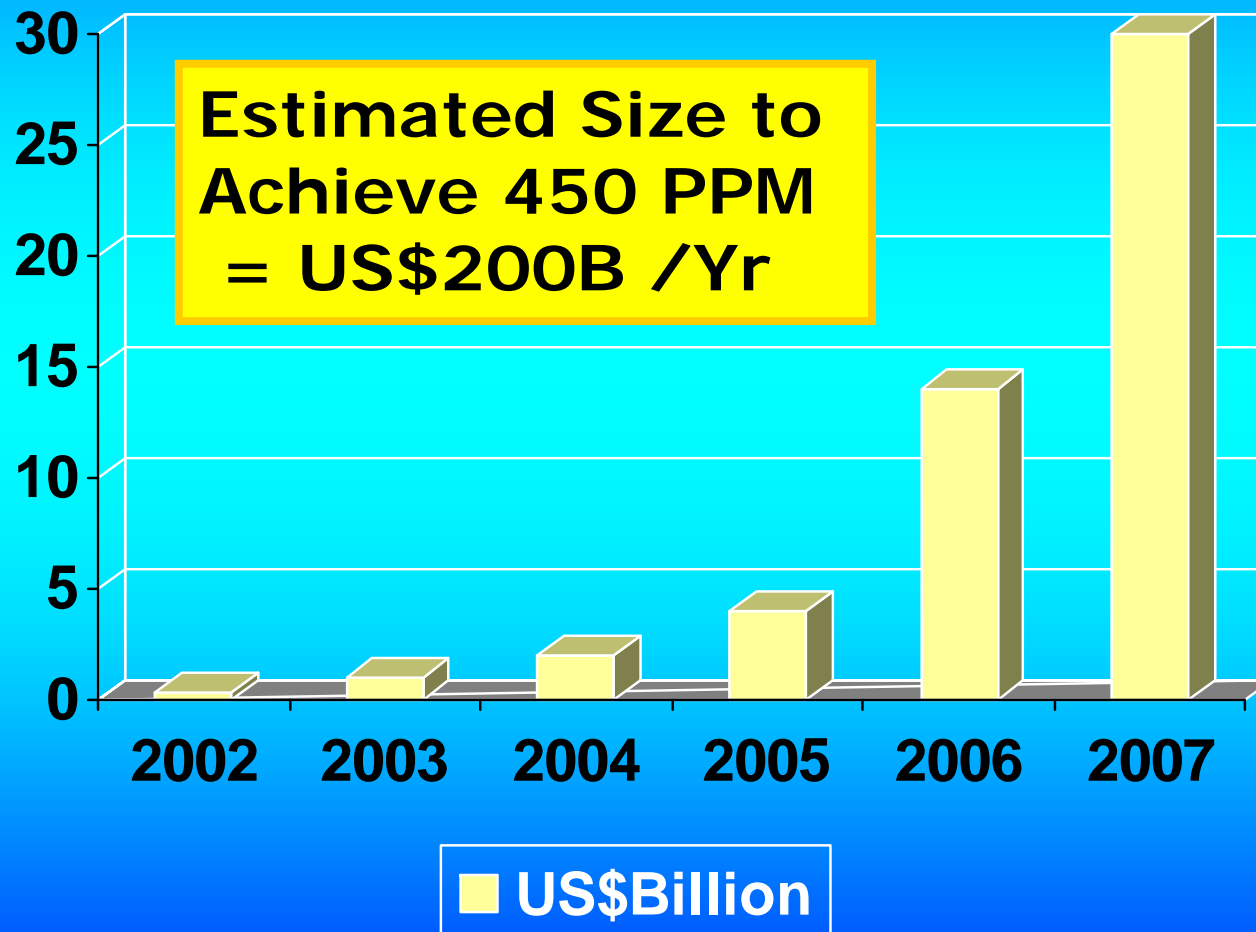
Carbon Storage = Emission Potential



Global Carbon Storage in Above- and Below-Ground Live Vegetation



The Global Carbon Markets (All Sources)

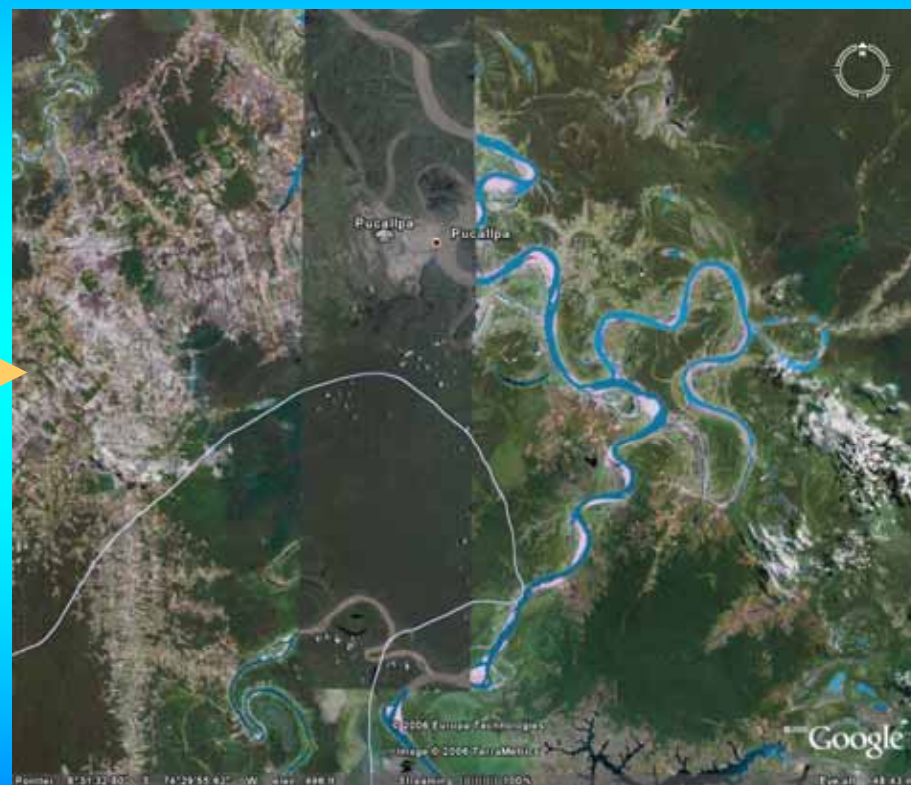


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Model 1: Reforestation (Timber and Carbon) Peru Bosques Amazonicos (SFM-BAM)

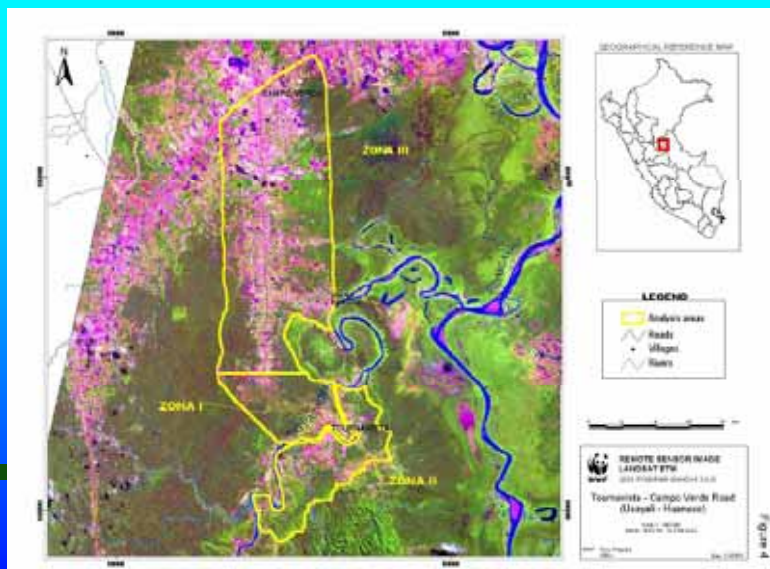
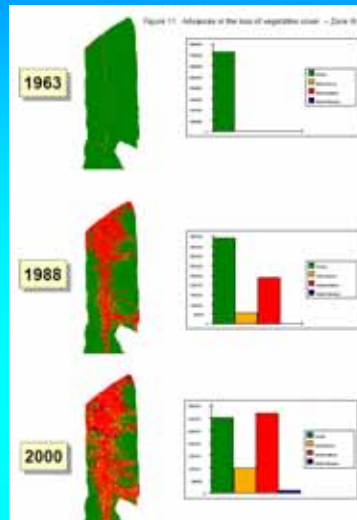
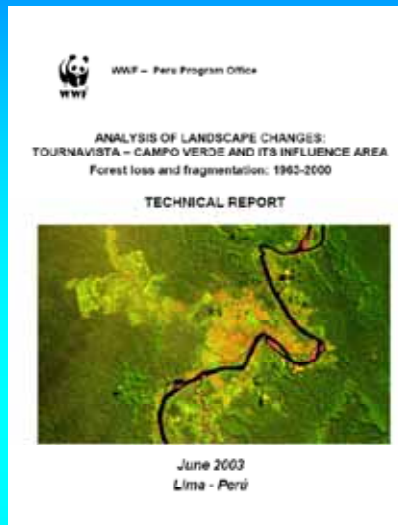


SFM - BAM



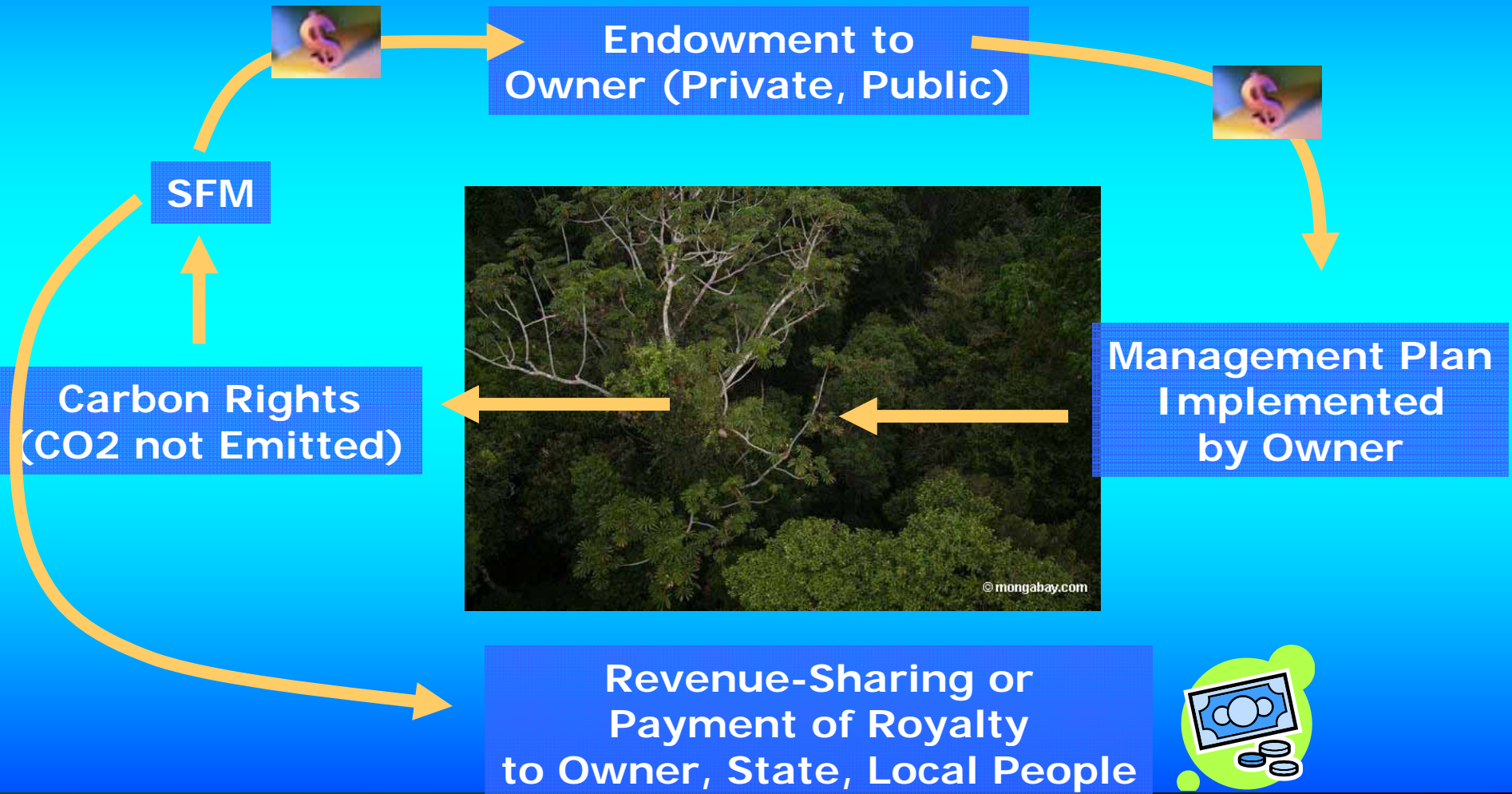
SFM – BAM EXPANSION

BAM Replication Around Pucallpa



250,000 to 400,000 Ha Deforested

Model 2: Avoided Deforestation (Carbon)



Impact of Avoided Deforestation

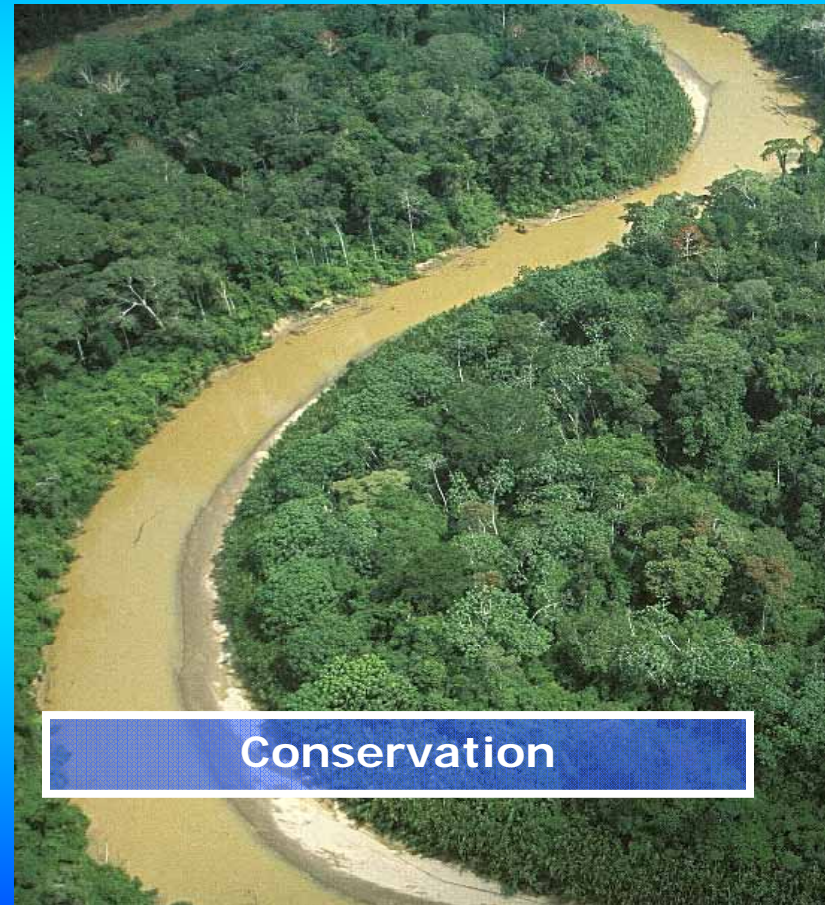


Before



Illegal logging
Invasion
Degradation
Deforestation

After



Conservation

Conclusions



- 
- The background of the slide is a photograph of a dense tropical forest with palm trees. In the upper left corner of this background, there is a semi-transparent SFM logo, which is a blue circle with a white ring and the letters 'SFM' in white.
- Carbon Markets present extraordinary opportunities for conservation
 - We must remove barriers preventing immediate implementation
 - Allowing avoided deforestation (reduced emissions from deforestation) is our best ever chance to stabilize climate and conserve biodiversity