Rural migration in Southern Bahia in the 1990s: Social and Environmental Consequences

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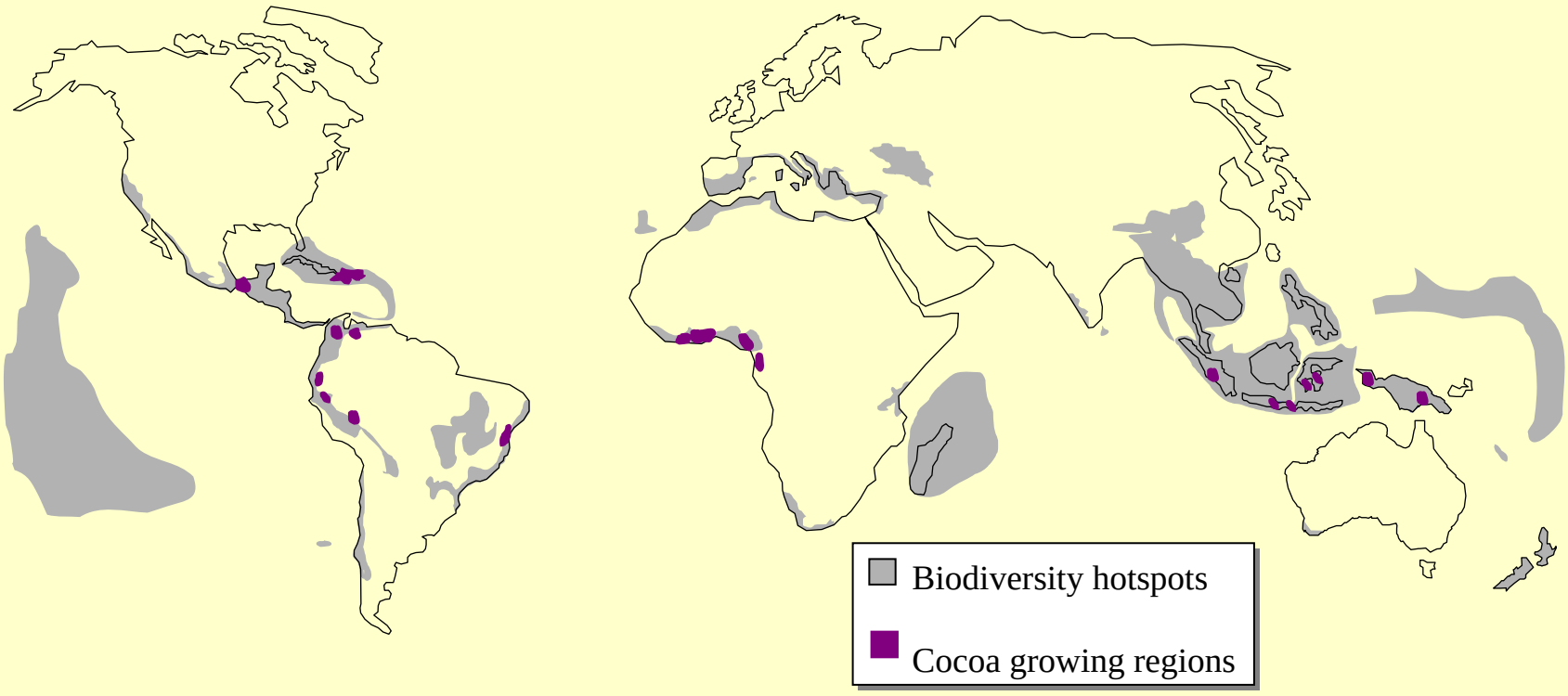
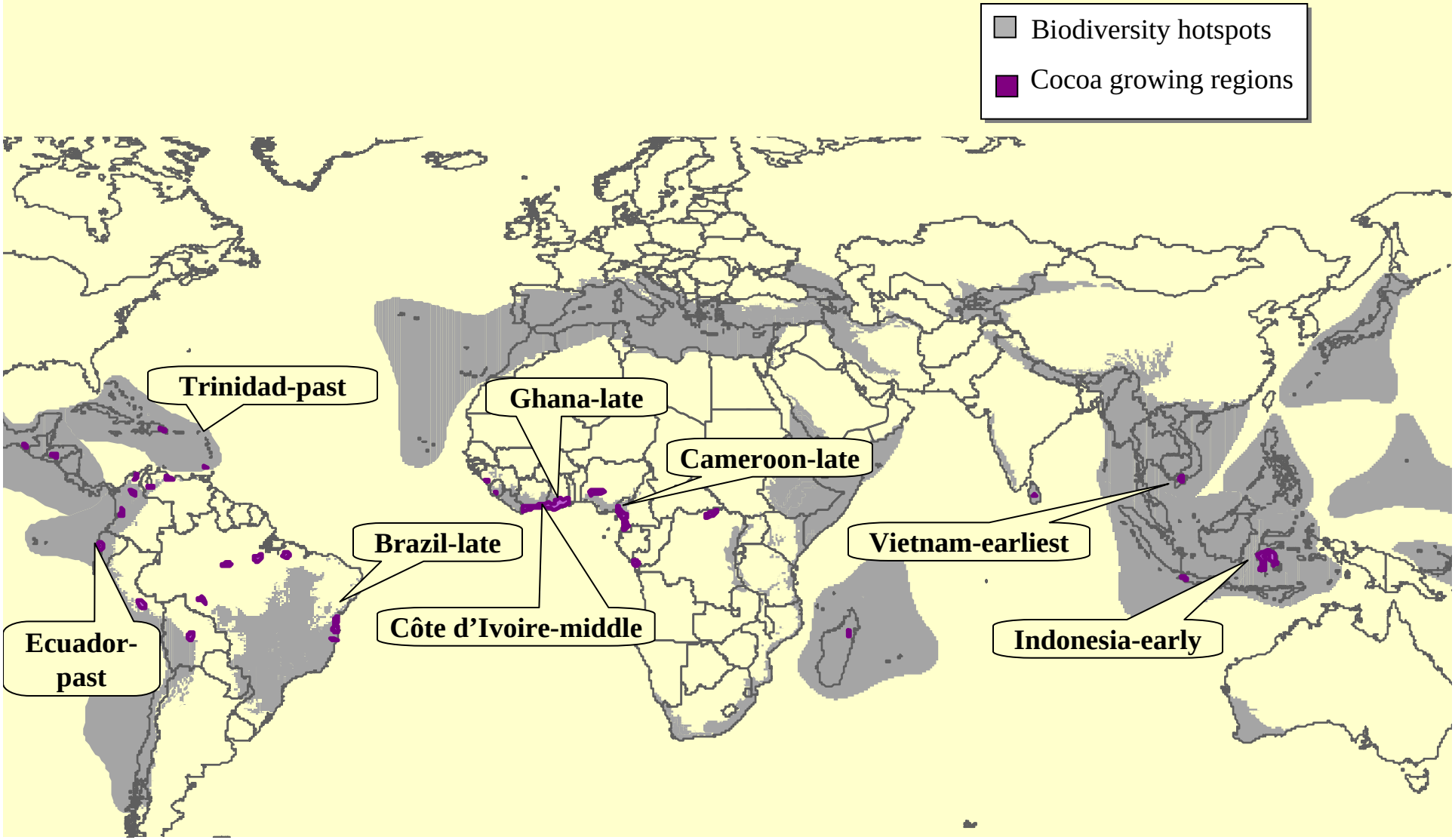
Conservation International

People on the Move: Reducing the Impact of Human Migration on Biodiversity

Cocoa Growing Regions and Biodiversity Hotspots

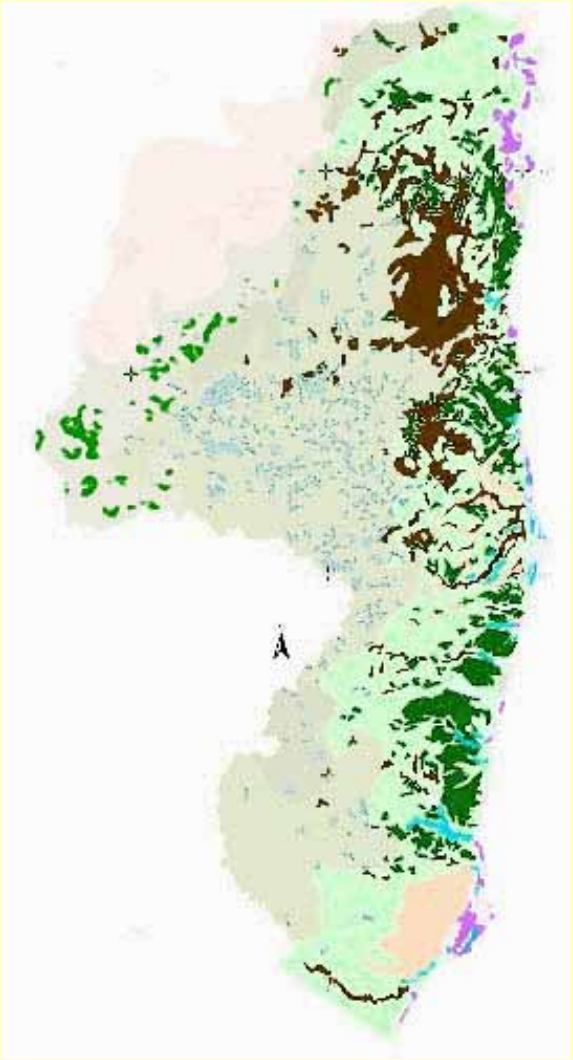


Stage of Exporter in Cacao Cycle

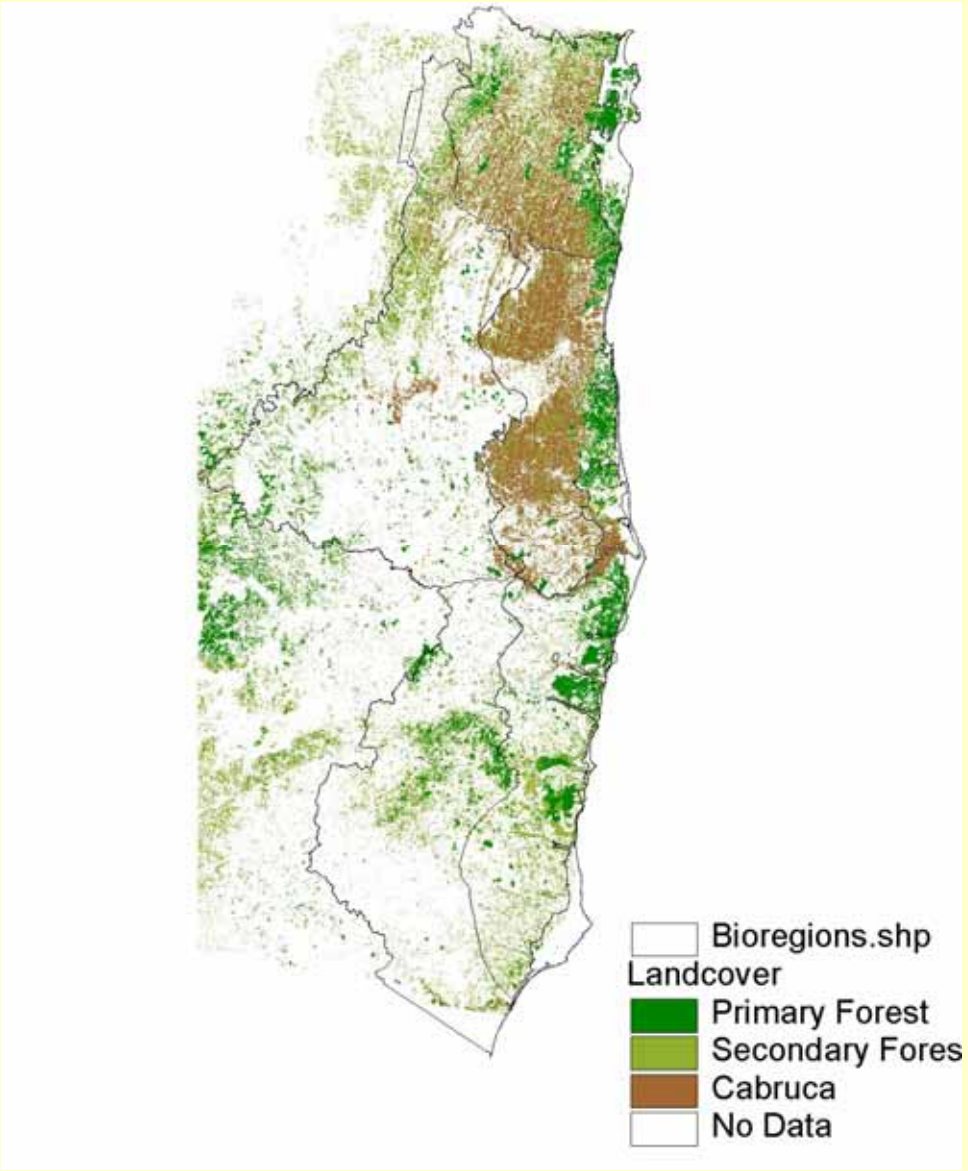


Cacau Expansion in Bahia

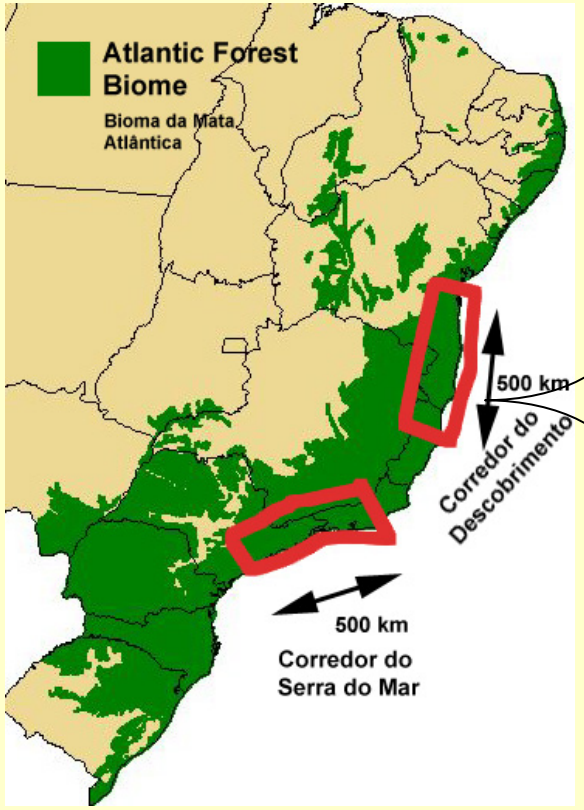
Southern Bahia 1975



Southern Bahia 1996

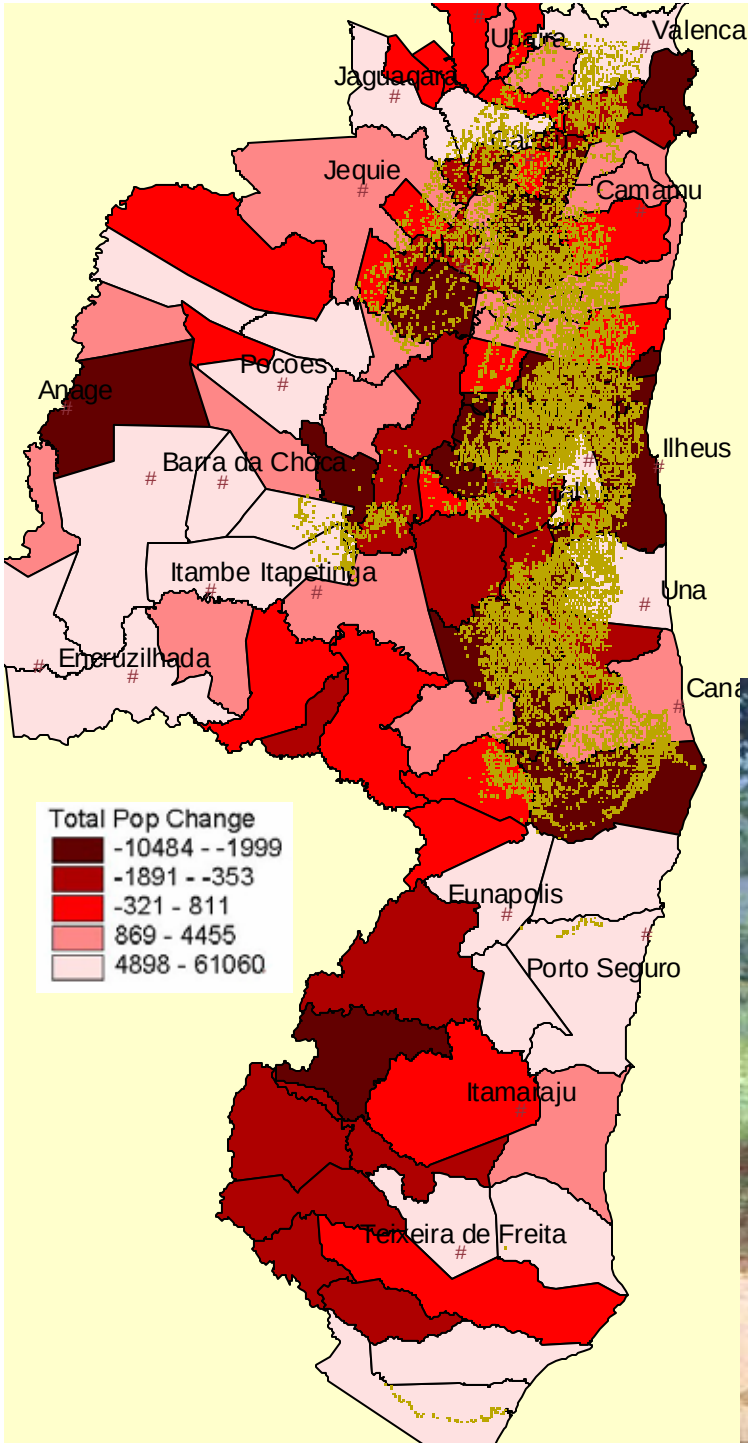


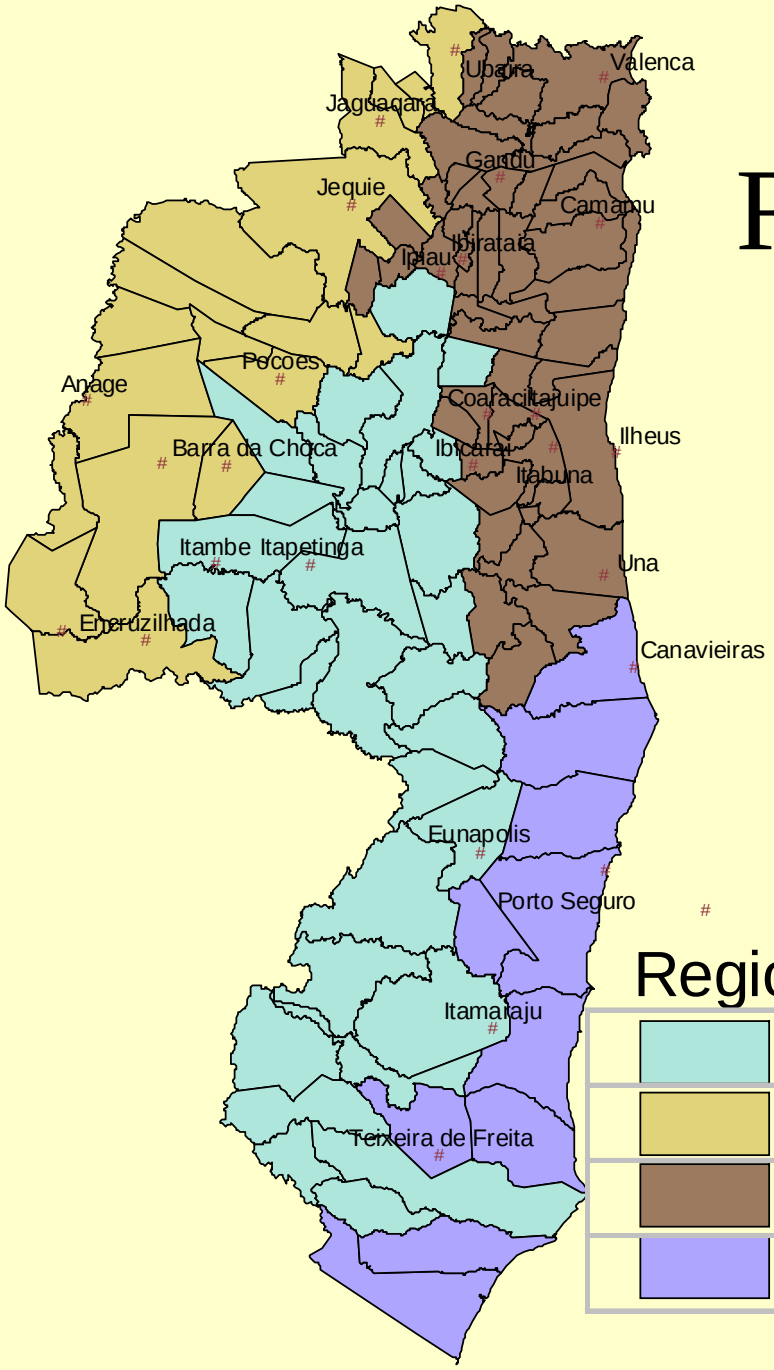
A large number of threatened species unique to this region survive in dwindling forest remnants



IUCN Red List Species Only Found here

Changing Population with Cocoa economic decline 1990-2000



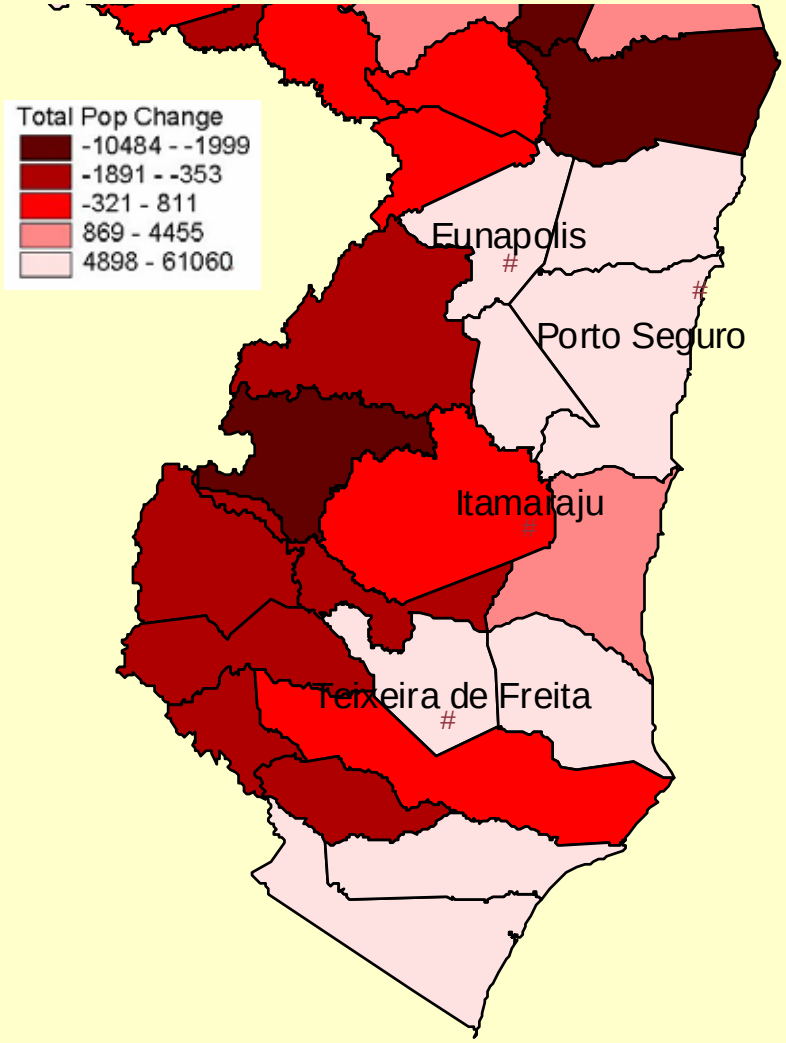


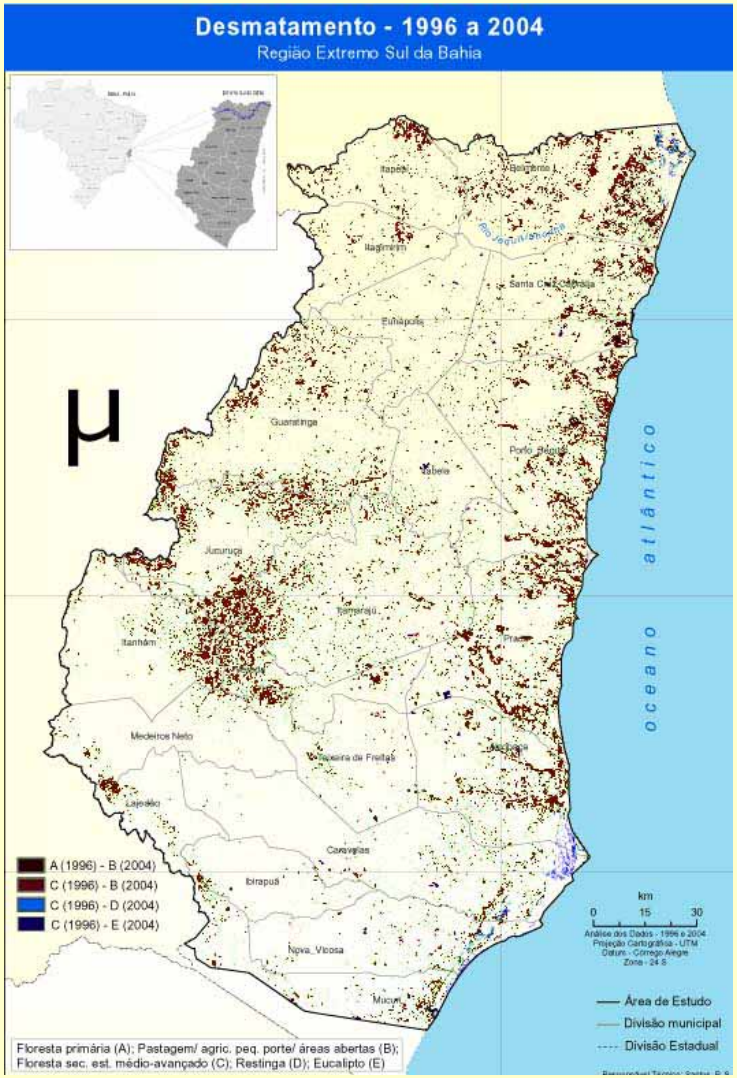
Rural Exodus from Cacao growing region in 1990s

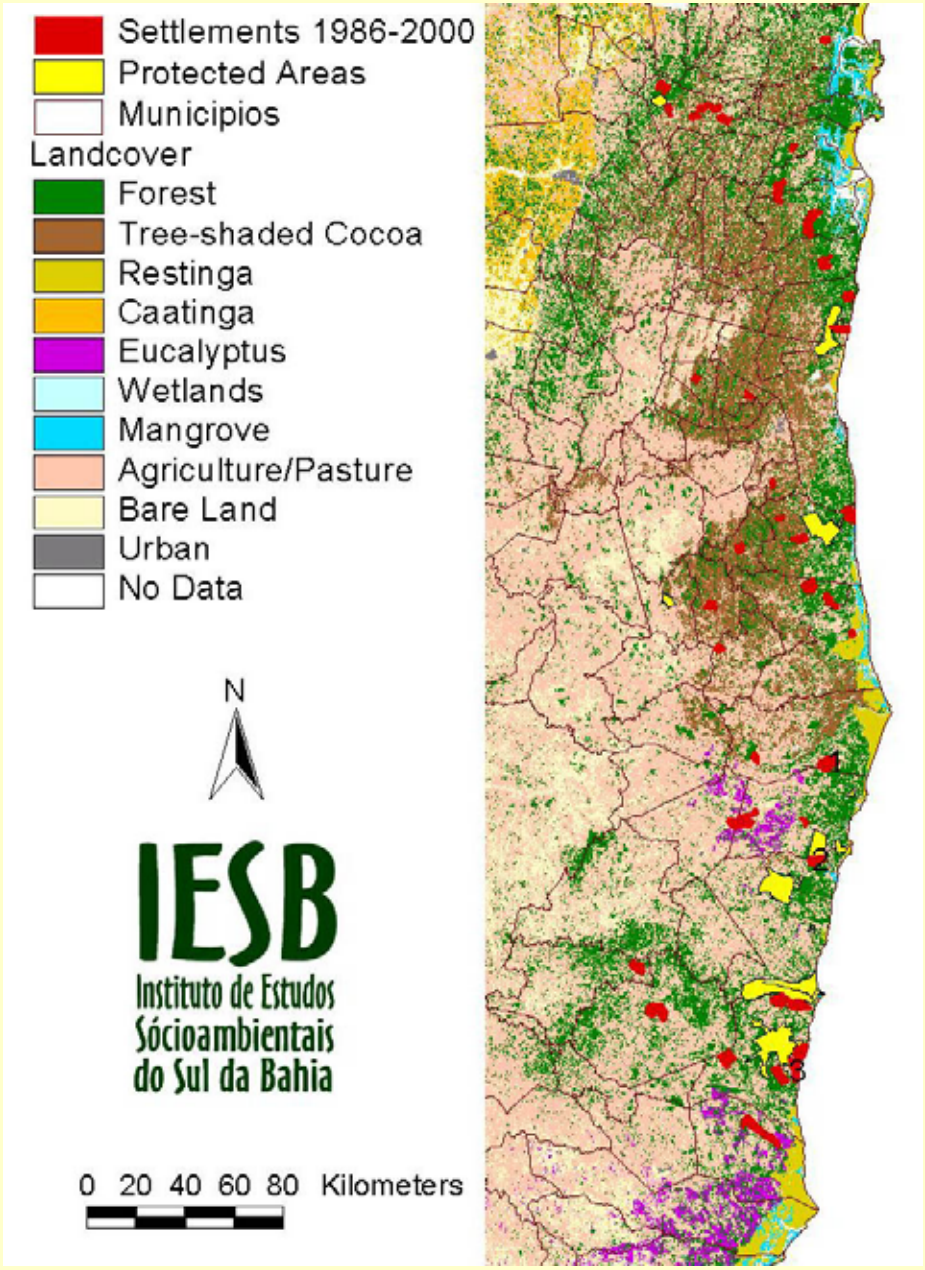
Rural Population 1990-2000

Regions	
Pasture	-45,385
Pasture & Forest	4,264
Cacao & Forest	-156,548
Pasture & Eucalyptus	-6,020

Population Change and Deforestation 1996-2004 in Far South Region



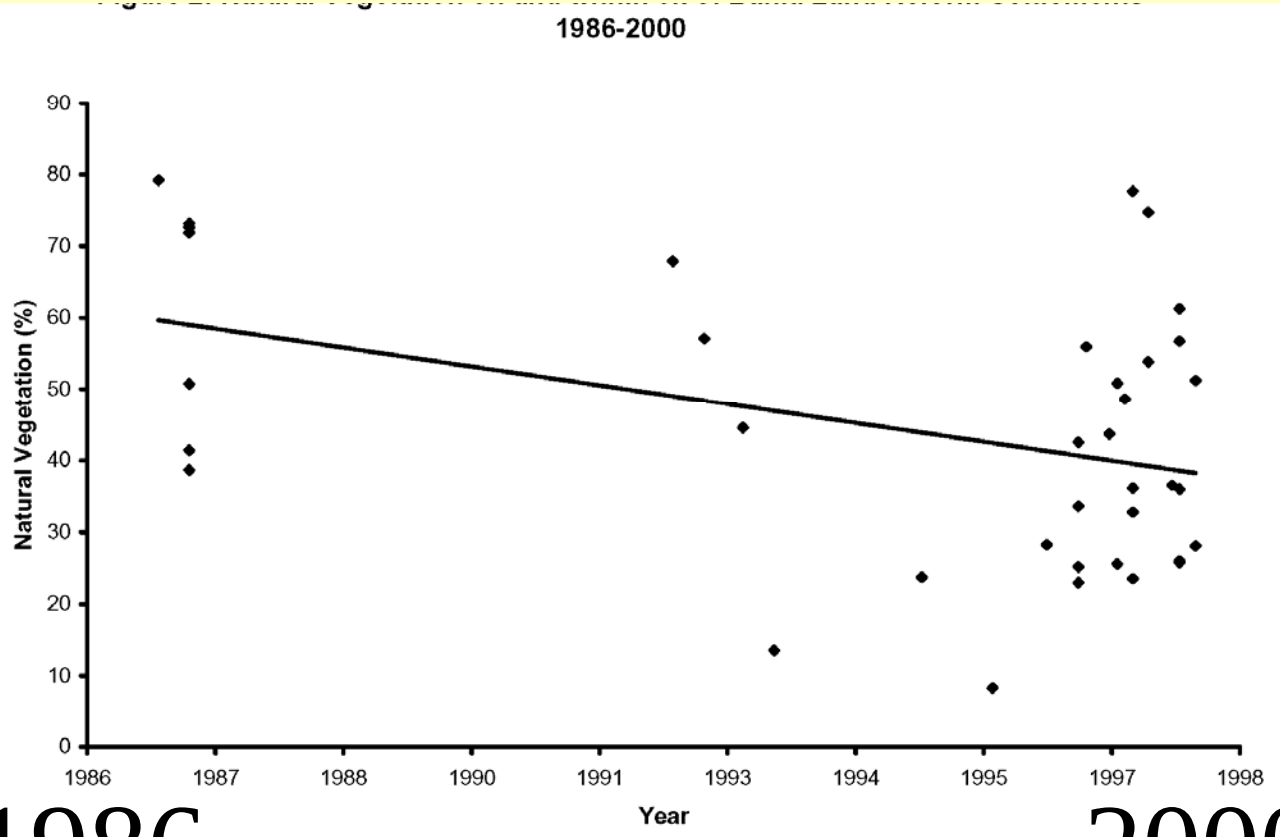




Land Reform Settlements, 1986-2000

Land Reform Activists Over Time Decrease Occupation of Forested, Poor Soil Lands, in favor of Cacao Plantation Lands

% Forest on Occupied Lands



1986 ---------- 2000

Cullen L., Alger K., and D.M. Rambaldi, 2005 "Land Reform and Biodiversity Conservation in Brazil in the 1990s: Conflict and the Articulation of Mutual Interests," in Brazilian Conservation: Challenges and Opportunities, ***Conservation Biology(****19)3:747-755.*

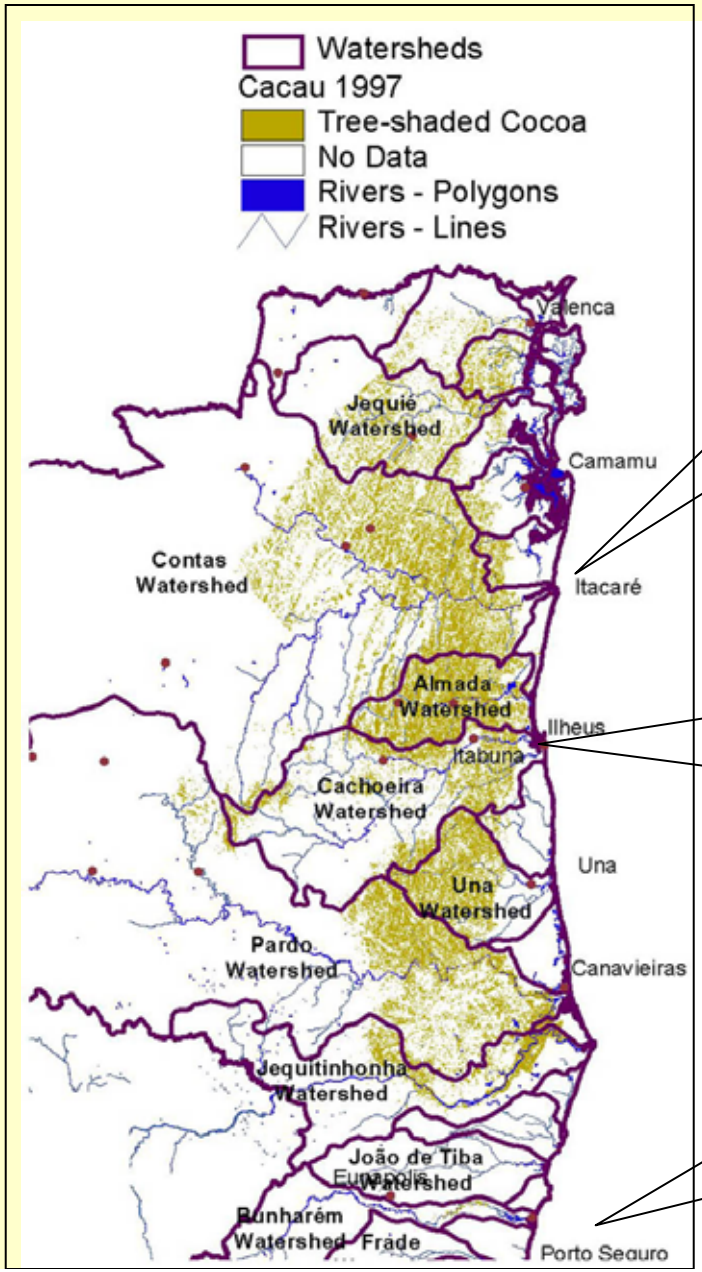
Short term gain, often for poorest, but long term unsustainability

Loss of Watershed Services

Costly Impacts from Watershed degradation:

-Flooding and siltation of reservoirs

-Water supply contamination with residues from copper fungicides in soils where cacao was cultivated.



Population Center and Pole for Tourism

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Population Center and Pole for Tourism

After a decade of denial, voluntary, as well as involuntary land tenure change is occurring.

At the end of 2003, Michelin handed over responsibility for around 300 hectares to twelve of its local managers who committed to diversify their crop by planting cacao between the rows of rubber trees. This will bring in more revenue. The project as a whole should create 330 new jobs over 12 years. Michelin also created a new 300 ha. private protected area, beyond the minimal environmental standards.

Partnership among NGOs, private sector, and Brazilian local and federal government offers solutions

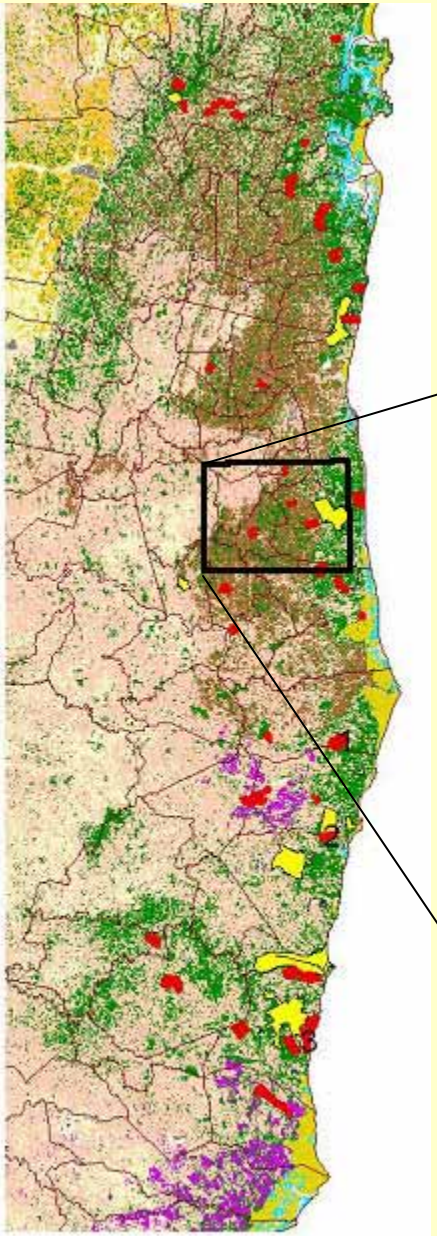
- Example: Seed Capital Fund (Micro-credit)
- Example: Mars collaboration with improved plant materials and biocontrols working with CEPLAC and NGOs
- Potential: On-farm private reserve financing through ecosystem service fund, modeled on Brazilian state of Paraná and Costa Rica.

Grafting disease resistant clones to cacao plant

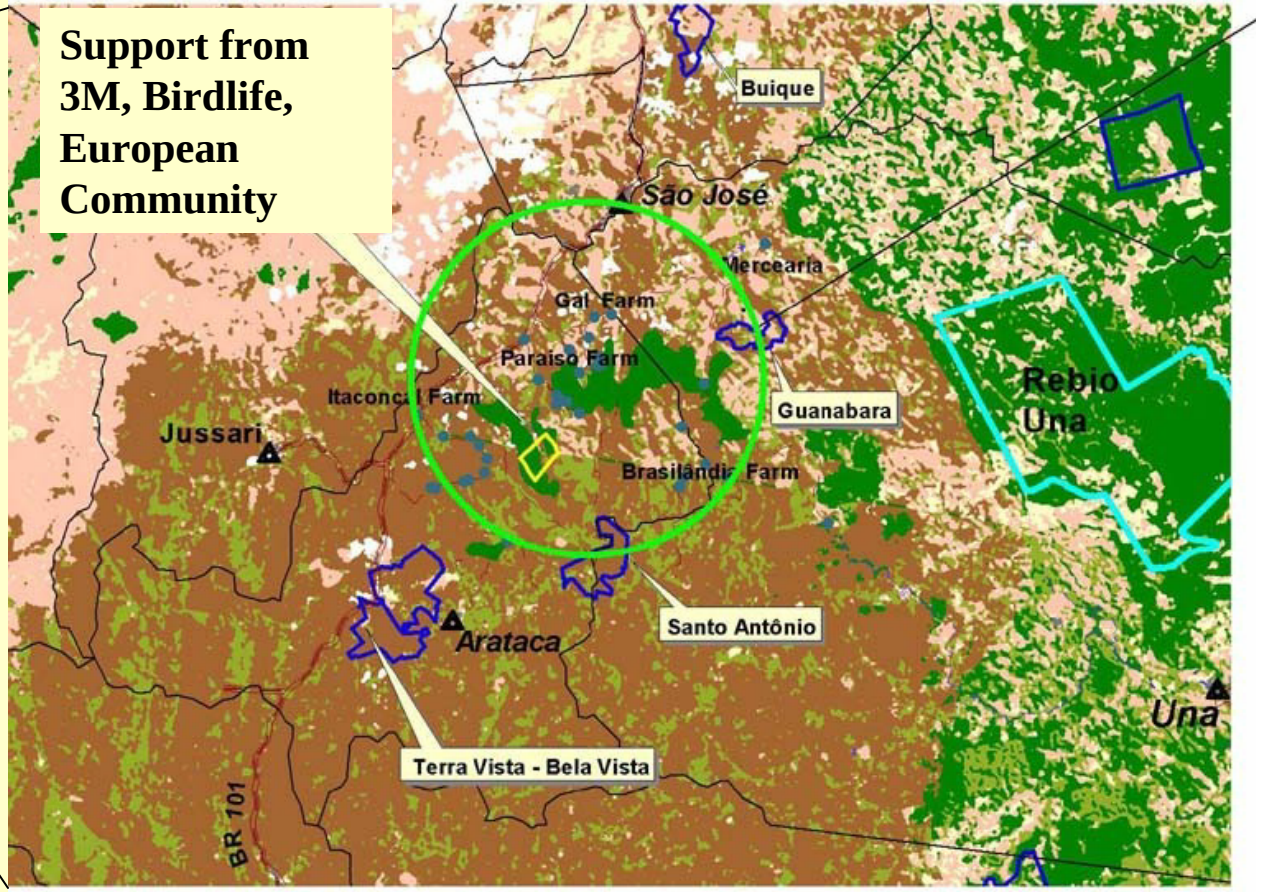
An NGO seed capital fund, supported by private sector partners, allowed 11 farmers in two years to recover degraded areas. Banana, cupuaçu (Theobroma grandiflora) and pupunha (Bactris gasipaes) are grown together with native forest species with economic value (cajá, copaíba, pau brasil).

Local marketing institutions are already learning that with on-farm conservation they can sell ecosytem services as well as farm products.

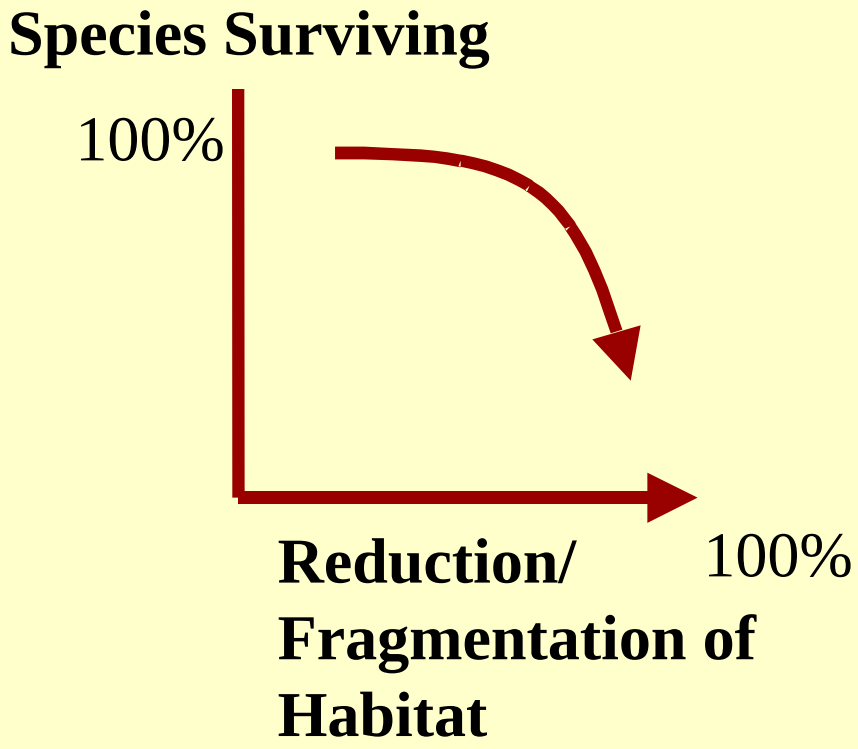
Private Protected Areas “Embraced” by Cacao



Support from 3M, Birdlife, European Community



Conclusion: Conservationists know that though more protected areas are needed, this will not suffice for wild nature to survive.



They also know that agriculturalists will need sustainable livelihoods to become stewards of the land.