



## Payments for Environmental Services

# Financing Community Development and Conservation

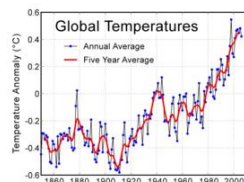
**Jose Roberto (Beto) Borges**  
[bborges@forest-trends.org](mailto:bborges@forest-trends.org)  
**Communities and Markets Program**  
**FOREST TRENDS**  
[www.forest-trends.org](http://www.forest-trends.org)

Climate Change & Mitigation in Agriculture  
in Latin America & the Caribbean: Investments & Actions  
19-20 April 2010, FAO, Rome



# Forest Trends Programs

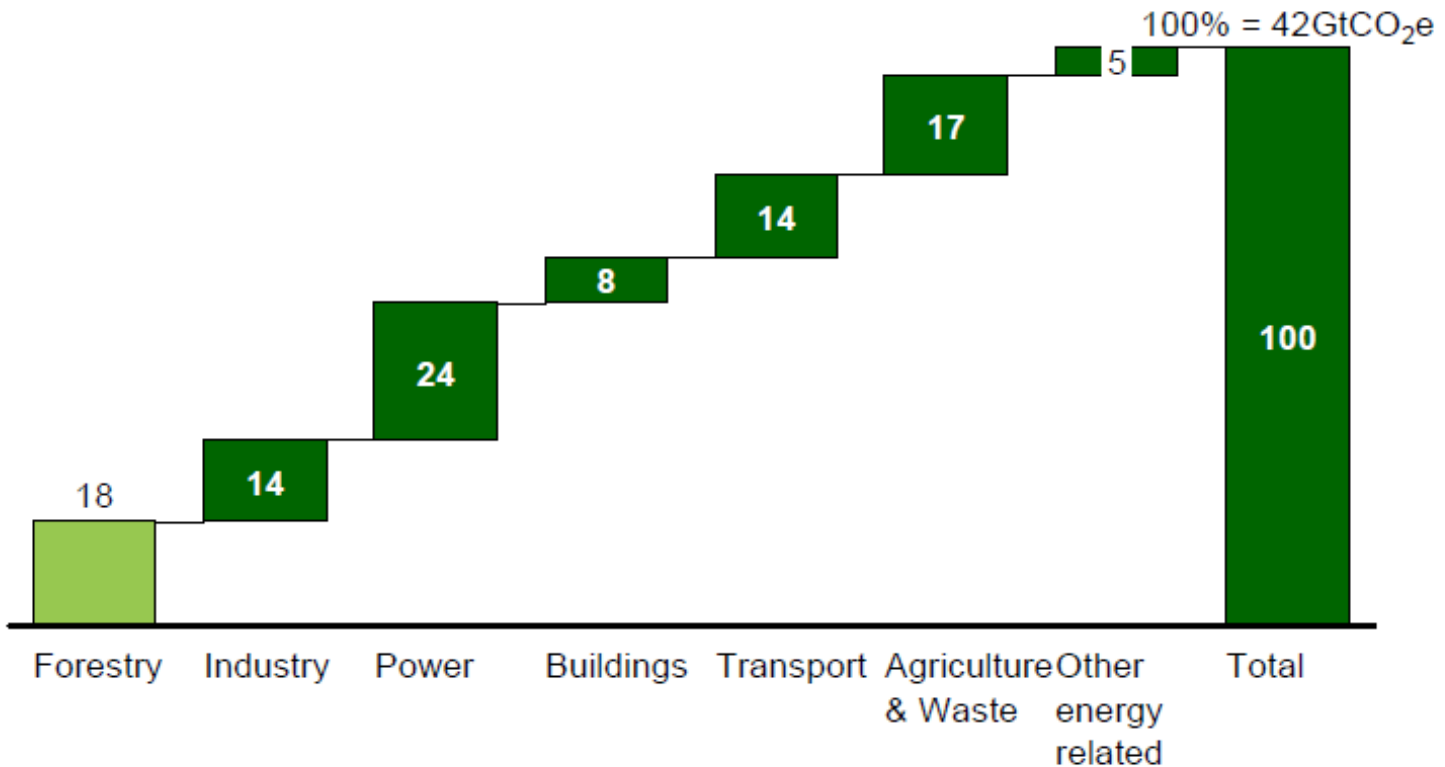
- **Communities and Markets** seeks to reduce poverty, improve livelihoods and conserve natural resources by promoting community participation in market-based conservation mechanisms. The program links communities to environmental markets by promoting the awareness and capacity for communities to participate in and benefit from payments and compensation schemes that value their stewardship role of ecosystem services.
- **Ecosystem Marketplace** is a leading source of news, data, and analytics on markets and payments for ecosystem services (such as water quality, carbon sequestration, and biodiversity). It is the place where providers and beneficiaries of ecosystem services get together to capture the value associated with ecosystem services, improving the quality and value of ecosystem transactions by providing up-to-date information.
- **Business and Biodiversity Offset Project** (BBOP) is an international partnership of some 40 leading conservation organizations, companies, governments, and financial institutions developing, testing and implementing best practice on biodiversity offsets. Forest Trends launched BBOP in November 2004, and serves as its Secretariat with the Wildlife Conservation Society.
- **The Katoomba Group** is an international network of individuals working to promote, and improve capacity related to, markets and payments for ecosystem services (PES). The Group serves as a forum for the exchange of ideas and strategic information about ecosystem service transactions and markets, as well as site for collaboration between practitioners on PES projects and programs.
- **Ecosystem Services Incubator** is a powerful model for linking global expertise with local capacity and needs to develop solid community PES projects. By investing in the capacity building, project design, and technical assessment, the Incubator creates the enabling conditions and platform for other finance to follow, and positions local stakeholders for equitable participation in benefits.



# Deforestation contributes 20 % of the GHGs entering the atmosphere

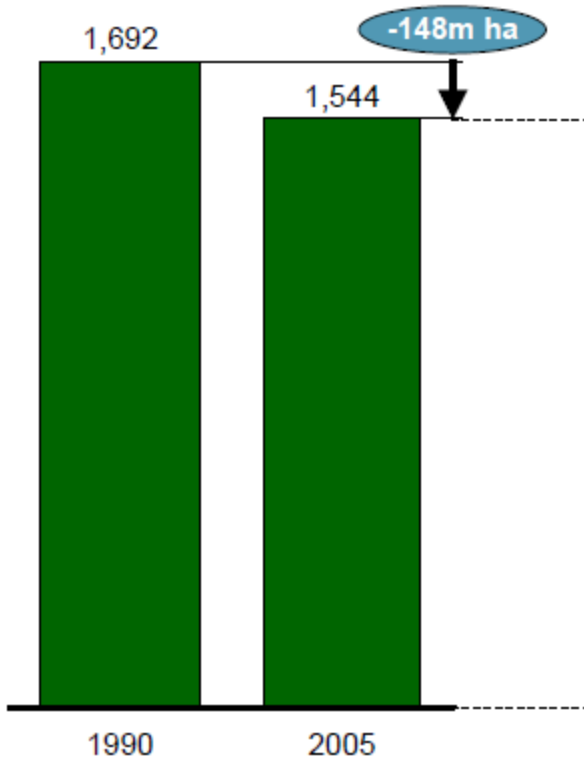
- United Nation's Intergovernmental Panel on Climate Change

Global emissions by source, 2000  
Percent of total

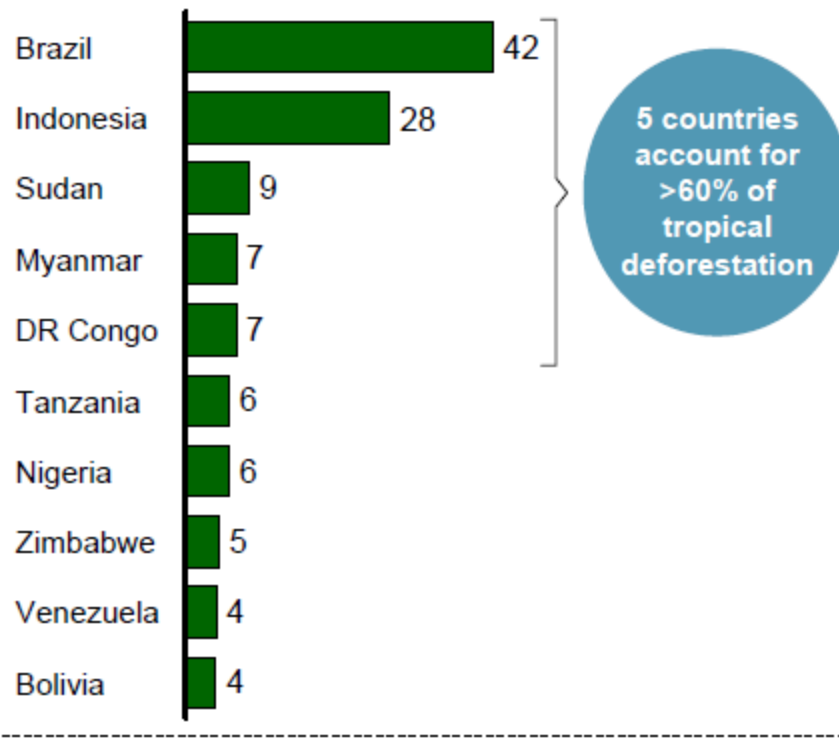


Source: McKinsey 2008, WRI 2005

**Forest area in tropical countries**  
Has, millions

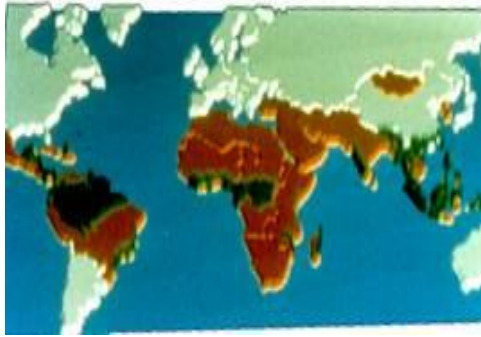


**Tropical countries with greatest loss of forest cover**  
Has deforested between 1990-2005, millions



Source: FAO FRA 2005, team analysis

# Rural Communities and Earth's Biomes



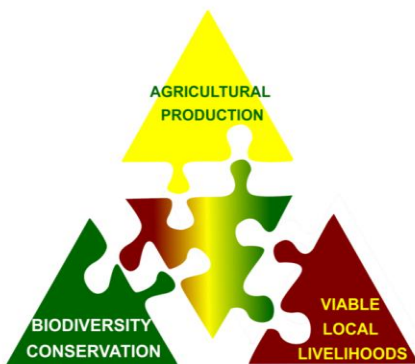
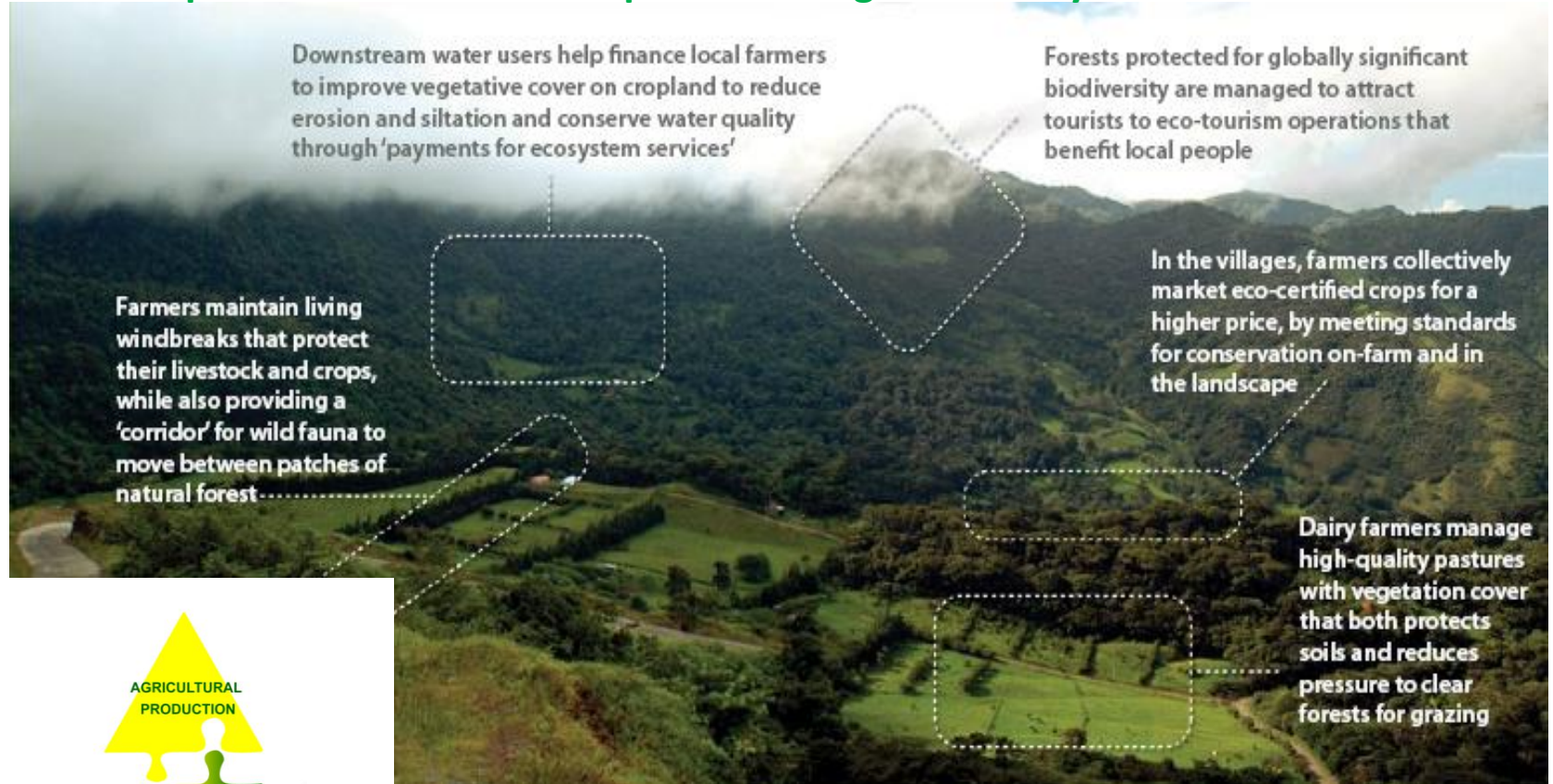
- ❖ Over 90 percent of the world's poorest people depend on forests for livelihoods;
- ❖ More than a billion people living within the 19 forest biodiversity “hotspots”;
- ❖ 25% of all developing country forests owned by communities;
- ❖ Community tenure will double again by 2020 to more than 700 million hectares.

*Sources: Rights & Resources Initiative, Ford Foundation, and Forest Trends*

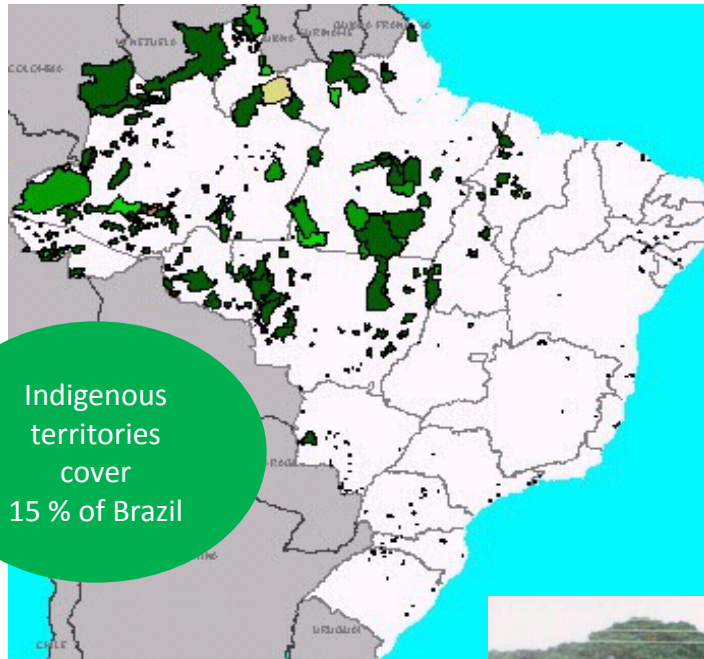


# The Practice of Ecoagriculture

- ❖ Enhance rural livelihoods;
- ❖ Conserve or enhance biodiversity and ecosystem services; and
- ❖ Develop more sustainable and productive agricultural systems.

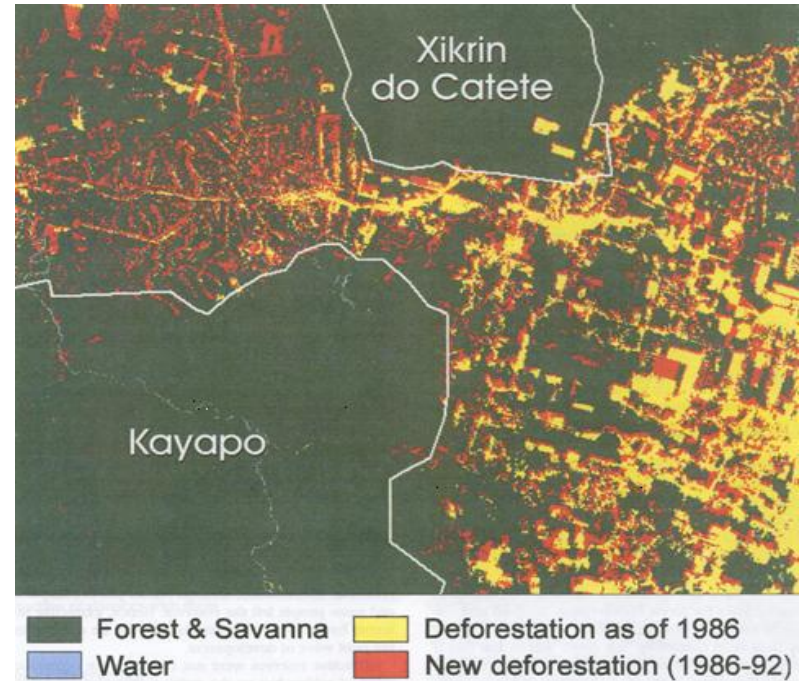


# Indigenous peoples' stewardship of ecosystem services

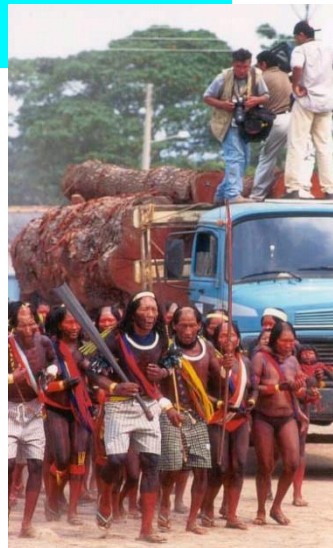


Indigenous territories cover 15 % of Brazil

Source: Instituto Socioambiental

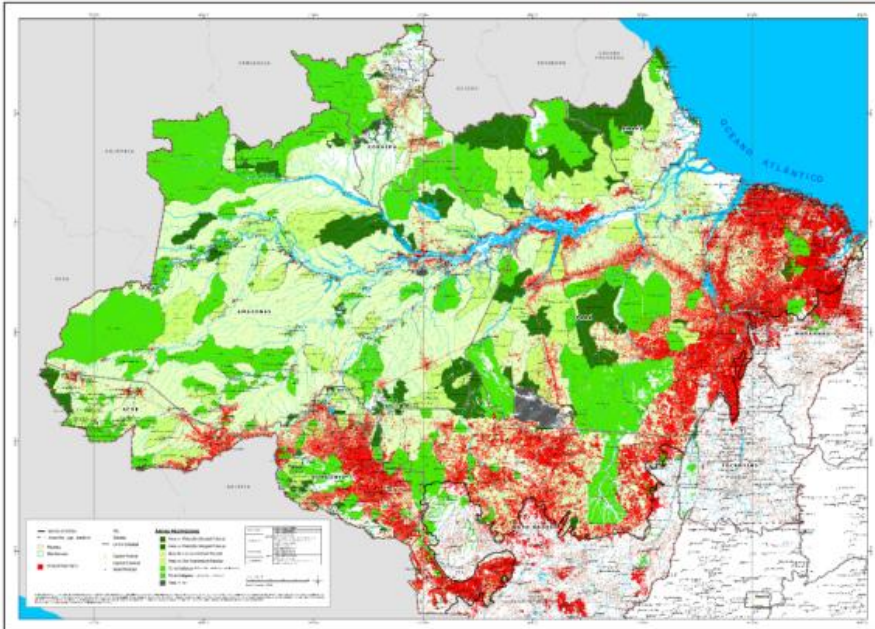


Source: Environmental Defense

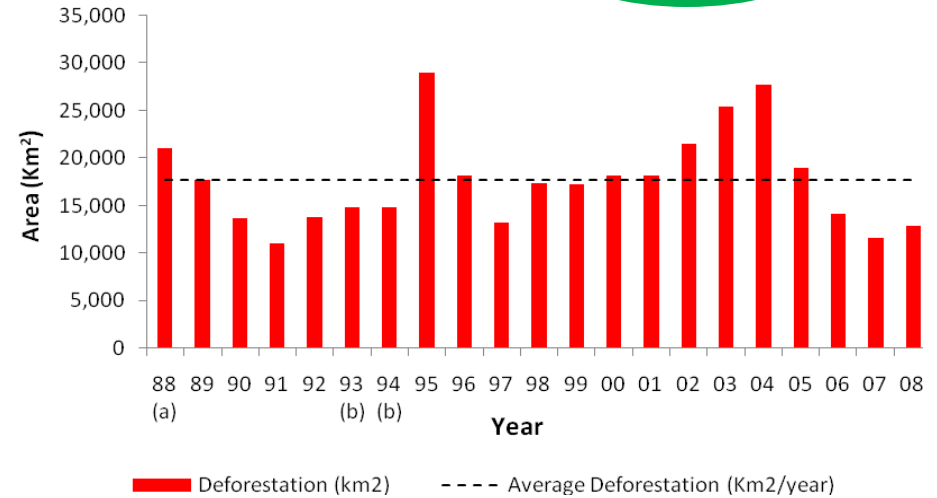


# Deforestation in the Brazilian Amazon 1988 to 2008

0.7 to 1.4  
GtCO<sub>2</sub>e  
per year to the  
atmosphere



Source: Greenpeace



a) Average between 1977 and 1988 & b) Average between 1994 and 1995

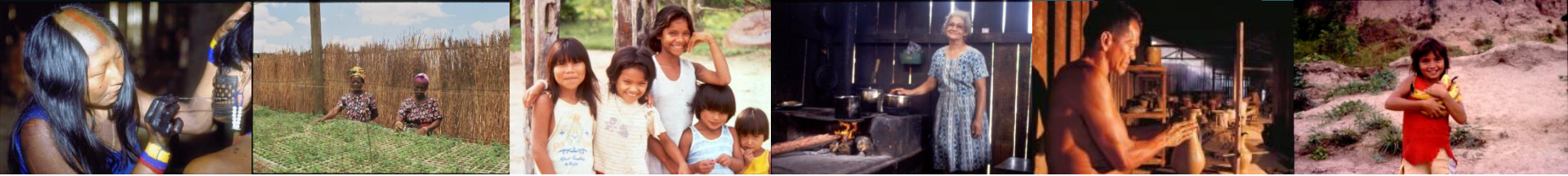
Source: Inpe-Prodes, 2009

- ❖ The Arc of Deforestation in the Brazilian Amazon: deforestation (in red), protected areas (light and dark green) and indigenous territories (medium green)
- ❖ Indigenous communities own and manage 21.7% of the Brazilian Amazon's forests
- ❖ Roughly 27 % of the Brazilian Amazon's forest carbon stocks are found on indigenous lands, approximately 13 billion tons of carbon (Source: IPAM).





# Local Communities are Part of the Solution



The dependency of local communities to secure livelihoods and cultural traditions from their environment is closely linked to the successful establishment of PES schemes, such as REDD+, which must contribute to strengthening tenure rights and improve local socio-economic well-being.

Global mitigation efforts and finance will need to have significant engagement of communities and smallholders, as agents of deforestation or as stewards of forests, if this abatement potential is to be realized.

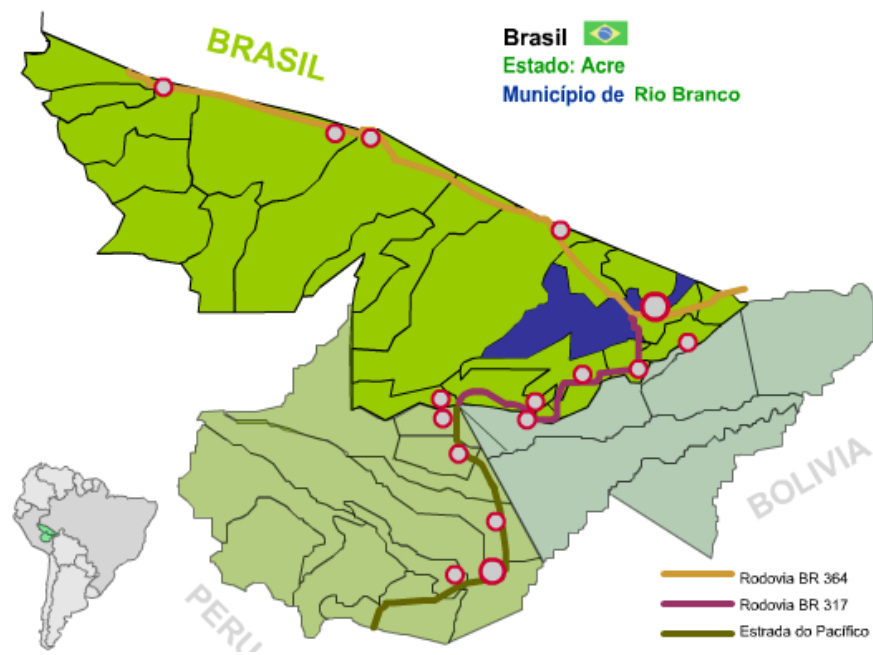
Solutions must simultaneously address global needs to combat the risks of climate change and respond to priorities in the developing world of sustainable livelihoods and economic development.

# Key Barriers

- ❖ **Critical deficit of capacity by local communities and smallholders**
- ❖ **High Transaction costs for development of community PES/REDD+**
- ❖ **Shortage of working projects demonstrating results on the ground**
- ❖ **Lack of policy and legal frameworks to recognize and stimulate forestry opportunities**
- ❖ **Paucity of business models that facilitate market access for communities and smallholders**

# Capacity Building Workshops

## Linking Local Communities to Environmental Markets



## OBJECTIVES

- 1) Inform and better equip community-based organizations to respond to REDD and other PES related opportunities, as well as formulate and implement their own strategies;
- 2) Train community-based organizations on the basic steps to develop credible baselines and deliver Project Design Documents (PDD) for REDD and carbon sequestration projects;
- 3) Enhance the ability of community-based organizations to influence REDD and other PES policies affecting their interests, particularly safeguarding and strengthening their land tenure rights;
- 4) Encourage a shift towards a sustainable economy in the MAP region by increasing the interest and participation of local communities in PES schemes.



*The region spanning Madre de Dios, Peru, the state of Acre in Brazil and Pando, Bolivia, known as the MAP region, is a pristine global biodiversity hot spot of about 20 million hectares, home for thousands of indigenous and other traditional forest communities*

# News, Data, and Analyses On Markets and Payments for Ecosystem Services



[www.forest-trends.org](http://www.forest-trends.org)



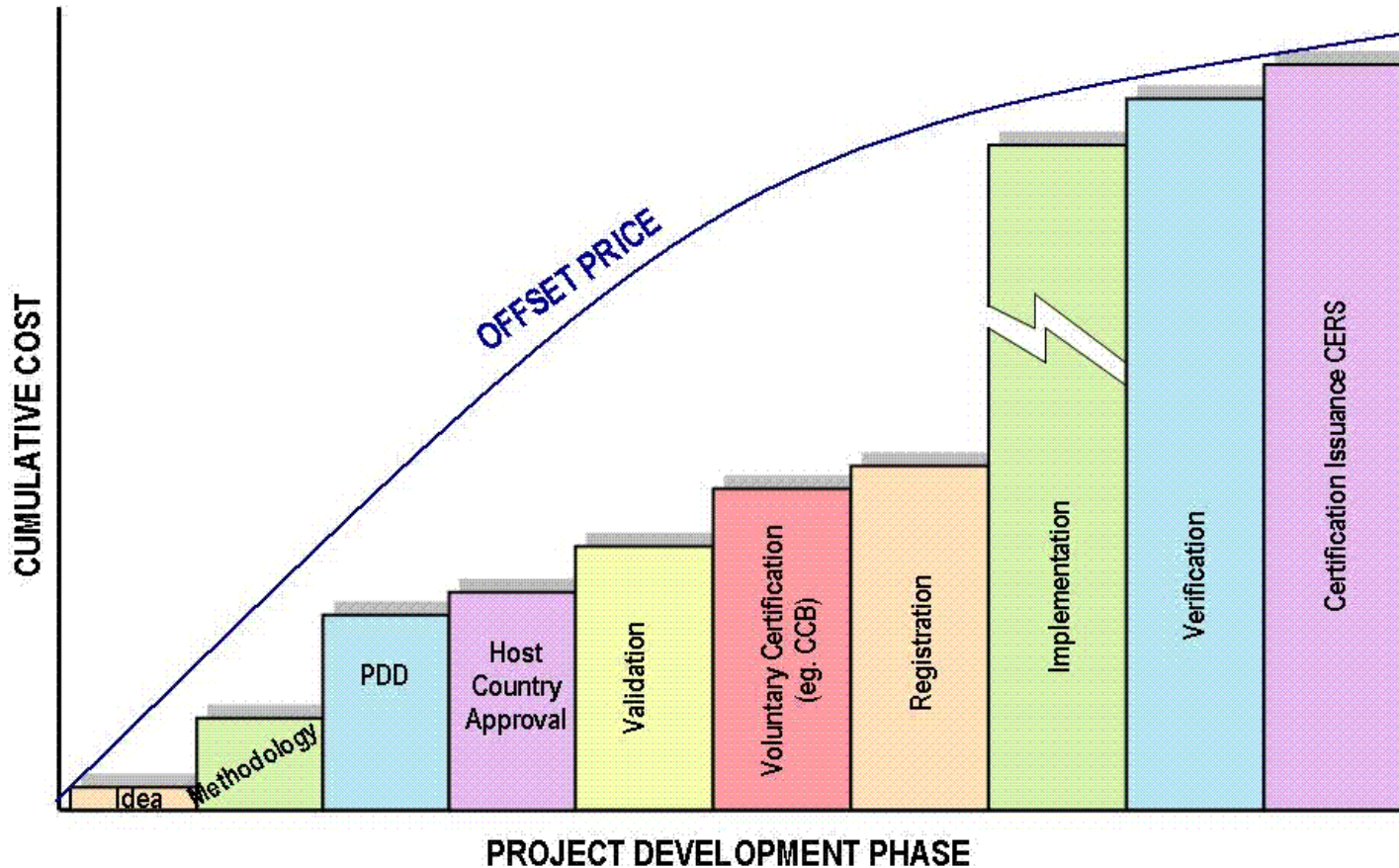
[www.ecosystemmarketplace.com](http://www.ecosystemmarketplace.com)



[www.katoombagroup.org](http://www.katoombagroup.org)



## Moving up the development curve & moving up the value chain



Based on T. Black, CAEMA, 2005

# Sierra Gorda Biosphere Reserve, Mexico

## Carbon finance for community reforestation



Located in the northeast of the state of Querétaro, the Sierra Gorda Biosphere Reserve of Querétaro (SGBR) is the most ecosystem-diverse natural protected area in Mexico with 15 different types and subtypes of vegetation in its 383,567 hectares. In terms of species biodiversity, it ranks second in the country among federally protected areas.

For nearly 20 years the Grupo Ecológico Sierra Gorda has been working with thousands of rural families in the Sierra Gorda Biosphere Reserve, developing an innovative model of community development along with key local partner organizations.



[www.sierragorda.net](http://www.sierragorda.net)



Since 1990 Sierra Gorda and its sister organization, Bosque Sustentable, have been supporting extremely poor upland communities of the reserve in reforesting and restoring over 400 hectares with native trees.

Landowners are compensated for planting and caring for trees, and managing their reforestations for optimum growth and carbon sequestration.

Local forestry experts accompany the landowners every step of the way, providing technical training and expertise, and ensuring successful reforestations that meet carbon sequestration requirements.

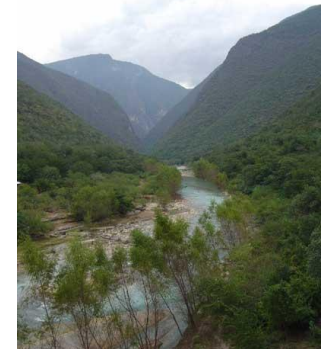
In 2006 and 2007, Sierra Gorda successfully completed the sale of carbon offsets from these projects to buyers in the voluntary market, and seeks to expand carbon finance for existing and new plantations (World Land Trust UK y ceroCO2.org).

Forest Trends' Incubator is providing support to enable these new plantations to complete design documents, verify carbon project stocks and projections and secure CCB certification.



The Sierra Gorda Alliance for Conservation (GESG) has also helped local land owners access programs of payments for environmental services of the National Forestry Commission (CONAFOR) for services of biodiversity and hydrologic protection.

CONAFOR pays \$30 to \$40 per hectare to landowners who protect watersheds by keeping cattle out and not cutting trees in the Sierra Gorda Biosphere Reserve.







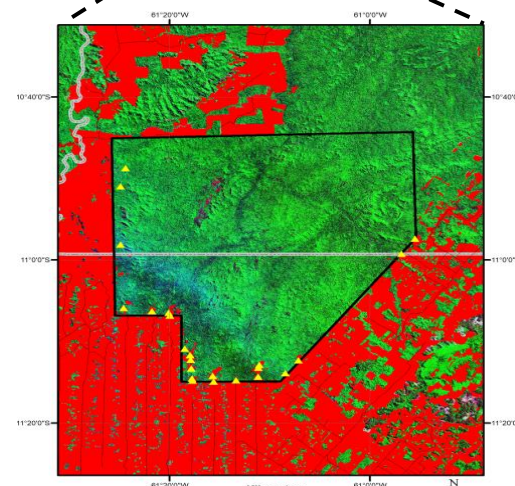
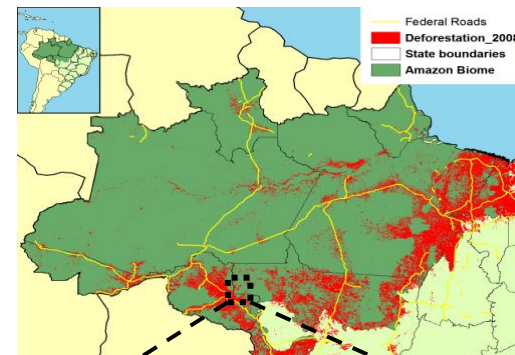
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# Overall, GESG has 20,000 local people involved in several conservation and income generation projects!



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- ❖ First contact in 1969 followed by rapid devastation of their population and homeland;
- ❖ Constitutional Revision of 1988, indigenous rights chapter (Art. 231) guarantees traditional rights;
- ❖ In 2010: 1,300 people in 247,870 hectares, holding the line against deforestation pressures;
- ❖ Visionary leadership looking for alternatives through REDD to maintain their culture and their forests;
- ❖ Global recognition for their efforts.

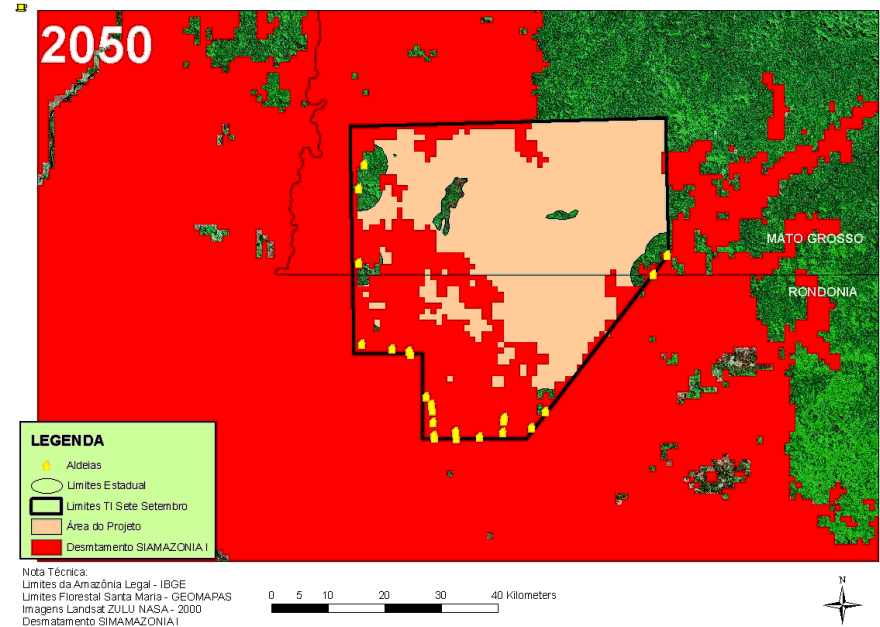


**Suruí Indigenous Territory**

Illegal logging drives forest degradation



Deforestation due to encroachment of cattle ranching as regional land use and changes in Surui culture reach a tipping point



Simamazonia I business-as-usual scenario of simulated deforestation for the Suruí Territory from 2010 to 2050



# Suruí REDD Project

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## The Surui REDD Project seeks to demonstrate the feasibility of reducing deforestation by strengthening indigenous rights and local capacities

**Technical assessment** in line with emerging methodologies, standards and guidance, to evaluate the potential volume of emissions reductions and the types of project activities that would be required to achieve them.:

**CO<sub>2</sub> (Est) >1 Mt CO<sub>2</sub> 2010-2015 (16.4 Mt to 2050) - Project Design Document is scheduled for July 2010.**

**Participatory design of project strategies.** Assessment of deforestation drivers and the Surui vision for territorial stewardship shape the main project activities that need to take place to reduce deforestation threats. Key issues include governance, benefit-sharing, financial management and risk mitigation.

**Market engagement strategies.** Ongoing discussions with potential investors/buyers for future phases of project development aim to ensure that the project can move to implementation. Perhaps more importantly, these dialogues will help clarify and illustrate the possible terms and shape of successful, equitable business engagement on indigenous REDD projects.

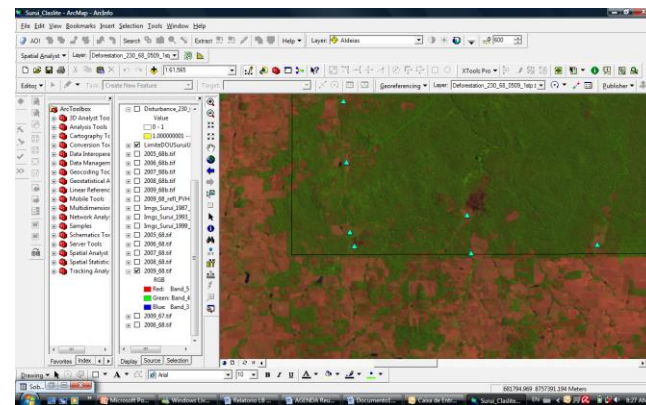




## Project Status to Date

### Completed

- ✓ Initial quantification of emissions reductions potential (baseline model and carbon stocks)
- ✓ Legal analysis of tenure and carbon rights (Landmark opinion by Baker & McKenzie)
- ✓ Long-term development plan
- ✓ Stakeholder consultation and free prior informed consent



### In progress

- Project-specific modeling and forest inventory
- Constitution of endowment fund working with FUNBIO
- Short-term action plans and long-term conservation plans
- Social and biodiversity assessments
- Agreements with state and federal government (FUNAI, etc)



# Suruí REDD Project

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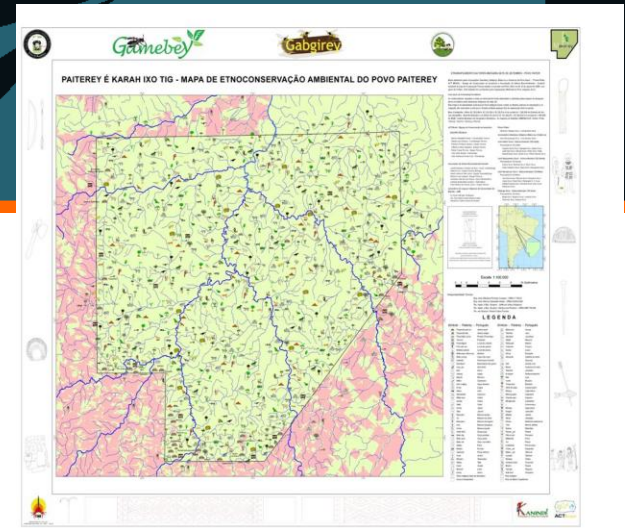
✓ Stakeholder consultation and prior informed consent

The signing of the cooperation agreement between the 4 clans was a milestone in an extensive and carefully constructed, highly participative consultation process, that embodied the principle of free prior informed consent, an important standard for respecting indigenous rights established in the United Nations' Declaration on the Rights of Indigenous Peoples, acknowledged in the ILO 169 Convention, as well as a recommended best practice by the international indigenous rights' community.

Community consensus is currently holding back illegal logging with expectation that REDD may provide an alternative, but pressures are mounting.

Investments to contain deforestation are guided by Surui long-term and autonomous 50 Year Development Plan.

Near Term activities including improved forest protection (Surui rangers) and investments in community livelihood projects are under development.





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# Reforestation Campaign for 31,000 trees in 2010





PARCEL	TREE SPECIES DISTRIBUTION PER EACH DEMONSTRATION UNIT			TOTAL
	BABAÇU	CASTANHEIRA	COPAÍBA	
1	147	58	12	217
2	140	68	14	222
3	98	50	18	202
4	182	82	26	290
5	120	72	21	213
6	86	60	8	196
7	196	66	10	304
8	156	55	11	256
9	121	58	20	233
10	150	42	9	201
11	109	69	17	195
12	114	71	13	218
<b>TOTAL</b>	<b>1.619</b>	<b>741</b>	<b>179</b>	<b>2.539</b>





# Lessons from Indigenous Peoples to Small Agricultural Community Farmers

- ✓ *Social organization is key to improve participation of rural communities in value adding chains focusing on NTFPs.*
- ✓ *Collective tenure and resource use rights from indigenous peoples can model the design of cooperatives of small agricultural community farmers to aggregate production and increase scale.*
- ✓ *Adoption of multi-use production systems, as in agroforestry, may increase food security and income.*



# Investment priorities for facing agricultural climate change mitigation in LAC

- ✓ *Stabilize the agricultural frontier, intensifying production on existing agricultural & grazing lands, and enhancing carbon benefits of ag/grazing systems.*
- ✓ *Strengthen land tenure and cadastres (registries).*
- ✓ *Strengthen zoning (e.g. Brazil's legal reserve system) to slow expansion of agricultural frontier.*
- ✓ *Create incentive mechanisms through large-scale programs to transition to climate friendly agriculture and help farmers move into compliance with regulatory requirements, with government or quasi govt agencies as aggregators for delivery of emissions reductions units.*
- ✓ *Public investments in research and data for landscape or national level soil carbon monitoring and calculation, lowering transaction costs and simplifying procedures.*
- ✓ *Incentive mechanisms, finance and technical support – coupled with regulatory constraints on ag frontier – for increasing productivity of deforested lands.*

# Recommendations !

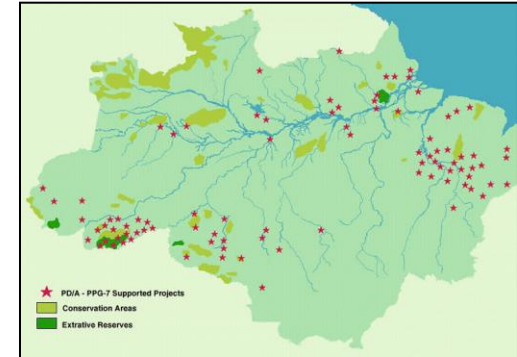
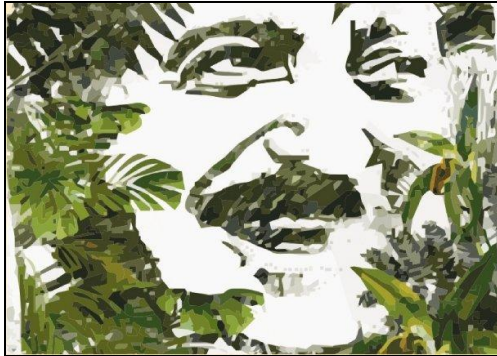
- ✓ *Recognize indigenous peoples and community resource rights.*
- ✓ *Improve capacity of local communities through information and training.*
- ✓ *Develop solid community based projects as models for territorial governance and inform policy*
- ✓ *Adopt socio-environmental standards for REDD+ free prior informed consent...*
- ✓ *Develop and enforce benefit sharing mechanisms.*



# Recommendations !

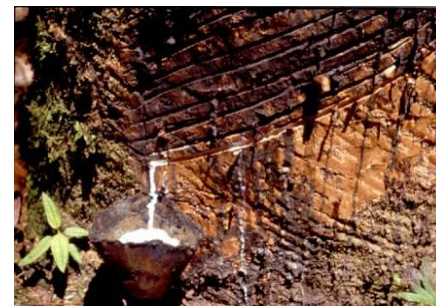
- ✓ ***Include the full range of terrestrial emission reduction, storage, and sequestration options in climate policy and investment.***
- ✓ ***Incorporate farming and land use investments in cap-and-trade systems.***
- ✓ ***Link terrestrial climate mitigation with adaptation, rural development, and conservation strategies.***
- ✓ ***Encourage large, area-based programs.***
- ✓ ***Encourage voluntary markets for greenhouse gas emission offsets from agriculture and land use.***
- ✓ ***Mobilize a worldwide, networked movement for climate-friendly food, forest, and other land-based production.***

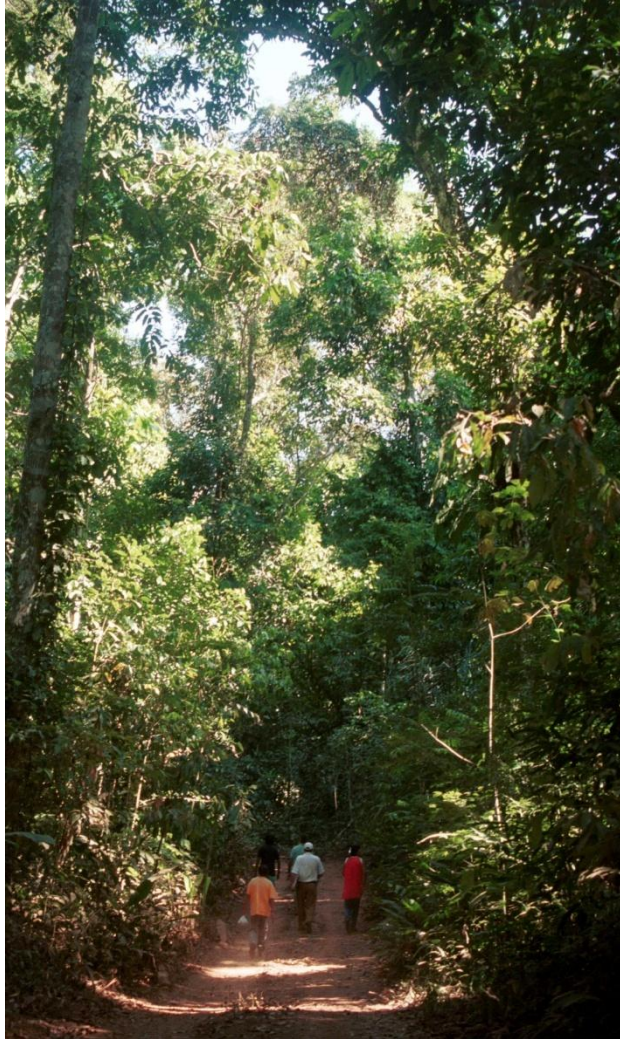
# Local Communities are Part of the Solution!



“At first I thought I was fighting to save rubber trees, then I thought I was fighting to save the Amazon rainforest. Now I realize I am fighting for humanity.”

- Chico Mendes 1944<sup>★</sup> 1988†





**Beto Borges**

**[bborges@forest-trends.org](mailto:bborges@forest-trends.org)**

**Forest Trends**

**[www.forest-trends.org](http://www.forest-trends.org)**

**Community Portal**

**<http://community.ecosystemmarketplace.com/>**

**Community Forum Newsletter**

**Katoomba Group**

**[www.katoombagroup.org](http://www.katoombagroup.org)**