REDD+ implementation pathways

How to address the drivers of deforestation and forest degradation?

Timm Tennigkeit, 5. November, 2012.
Göttingen University, Seminar on „The Role of Forests in Climate Change Research and Policy"

UNIQUE forestry and land use.

Outline

- UNIQUE at a glance
- Policy context on the discussion of REDD+ driver
- Driver of deforestation and forest degradation
- Adressing the driver of deforestation and forest degradation
  - Sustainable agricultural intensification
  - Sustainable Forest Management in Paraguay
  - REDD+ pilot projects in Tanzania
- Conclusions

UNIQUE forestry and land use

- **Sectoral consulting**
  - Focus on:
    a) forest and timber sector
    b) climate change response measures
    in land use systems
  - Balanced portfolio between domestic & international projects & private and public clients

- **35 permanent employees**
  - 33 forestry and land use experts,
    2 administrative staff
  - 29 employees in Germany,
    3 in Kampala (Uganda) with UNIQUE East Africa Ltd and
    3 in Asunción with UNIQUE Wood Paraguay S.A.
  - We aim at a balanced age and gender structure

UNIQUE - Divisions and Team

Management and administration

Forestry Consulting

Forest enterprise analysis, Benchmarking & Controlling, Management planning, Certification preparation, IT-advisory services, Forest conservation

Timber Economics

Branch and sector analysis, Logistics, Feedstock supply chain management, Marketing and sales studies

Climate

Climate response measures, Climate Finance, Project planning, Feasibility studies, Climate audits, Marketing of carbon credits

International Cooperation

Technical advice and expert reports, Project progress reviews, Capacity Building, Project implementation

Forest Investments

Feasibility studies, Due diligence, Forest valuation, Project development and implementation

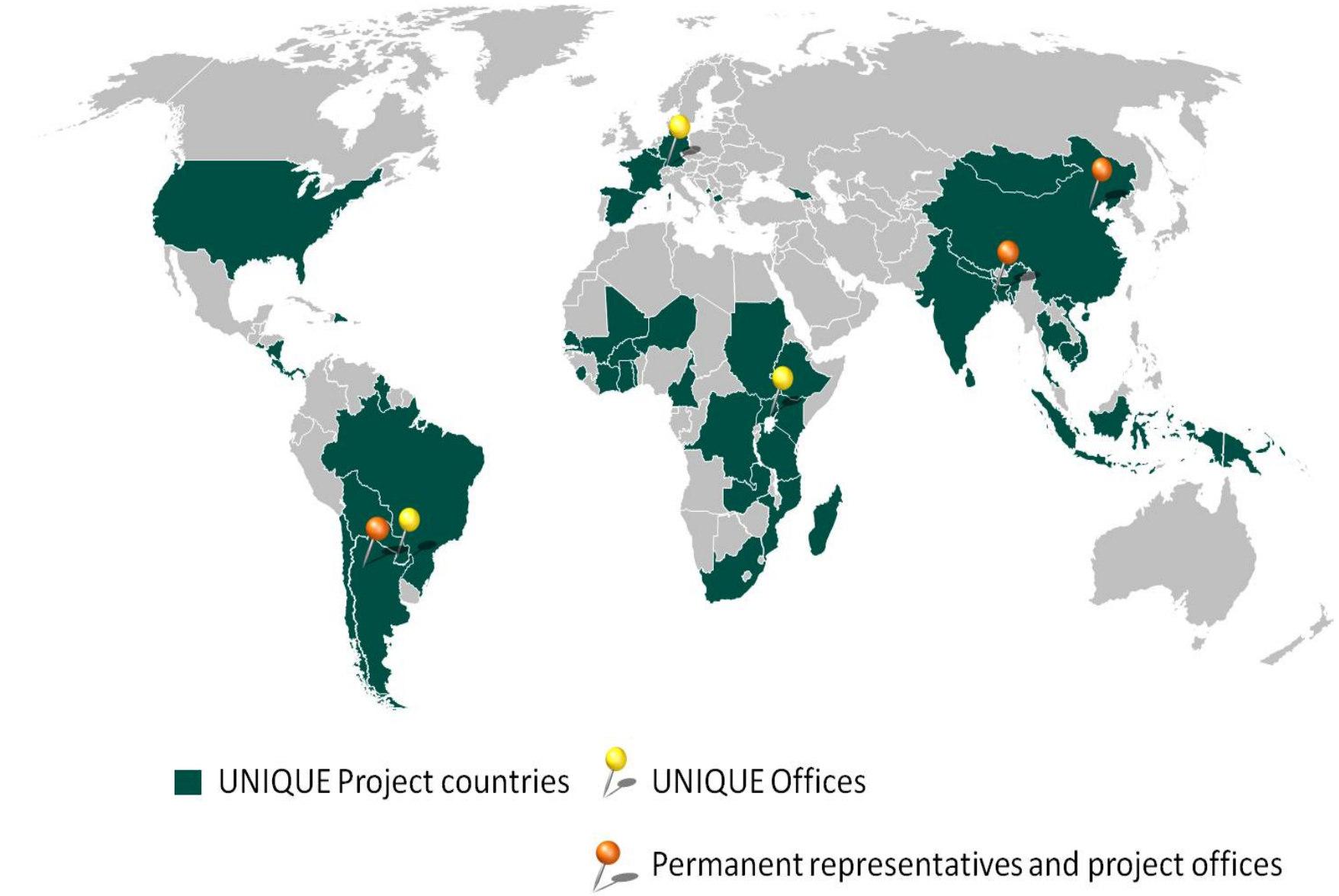
Regional office Uganda

(mainly UNIQUE Climate)

Regional office Paraguay

(mainly UNIQUE Forest Investments)

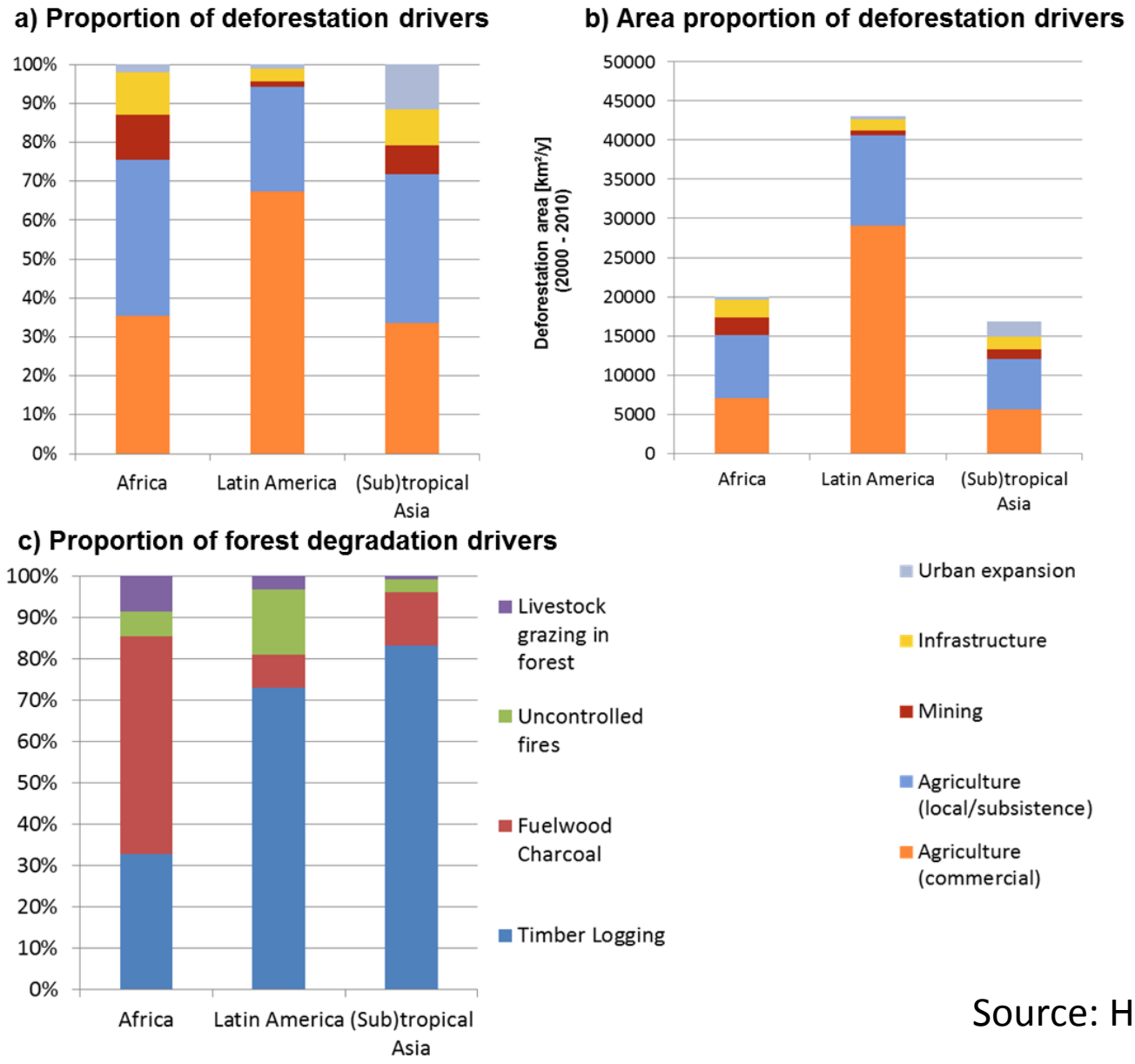
Where we work



Decisions on REDD+ driver

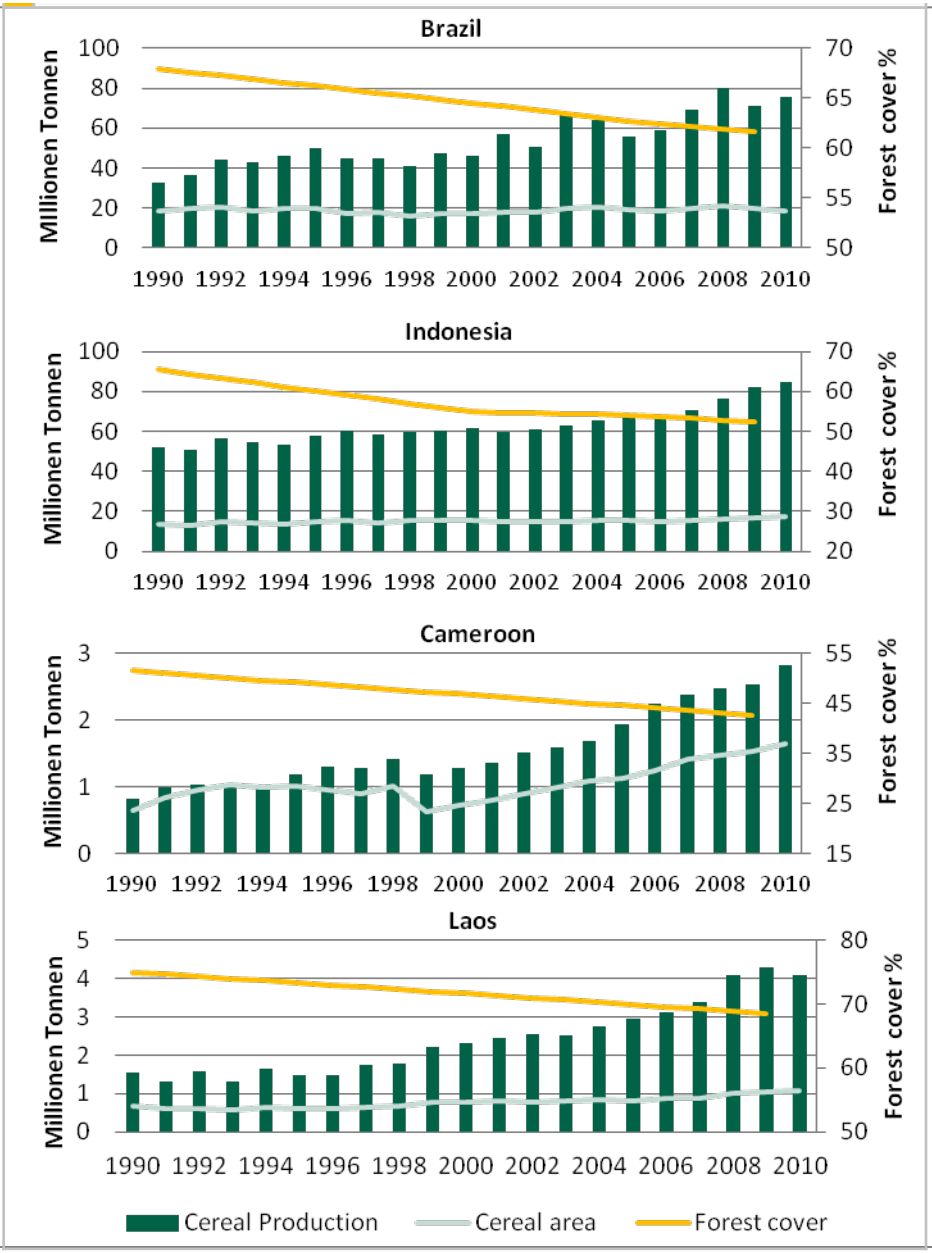
- Cancun Agreements (decision 1/CP.16): Actions to address drivers of deforestation (paragraph 68)
- SBSTA in Bonn in May 2012 considering issues related to drivers of deforestation and forest degradation

Regional driver of deforestation and degradation



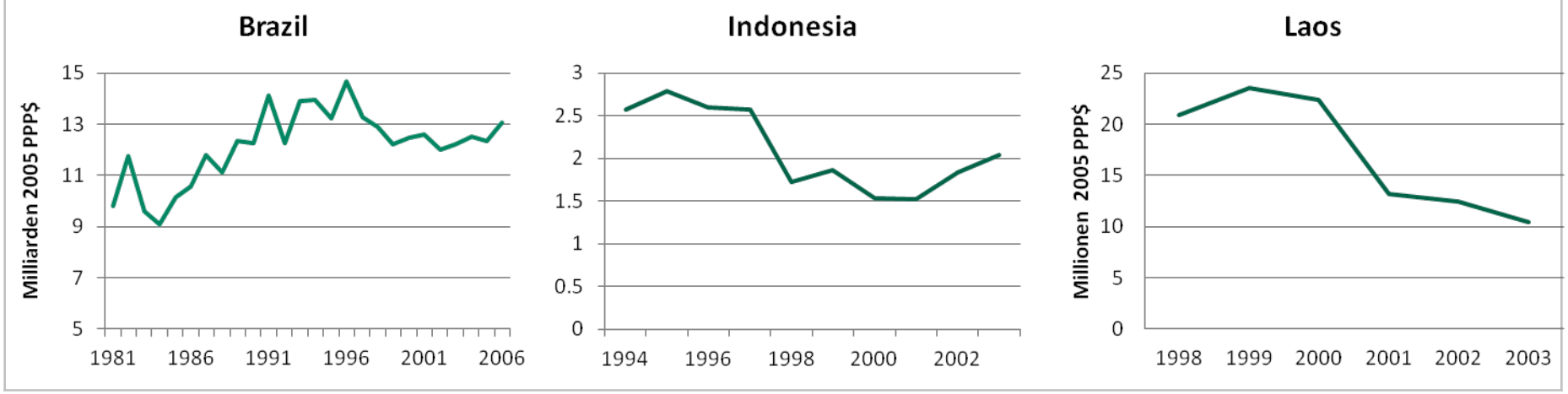
Source: Hosonuma et al. 2012

Save the forest or feed the World?



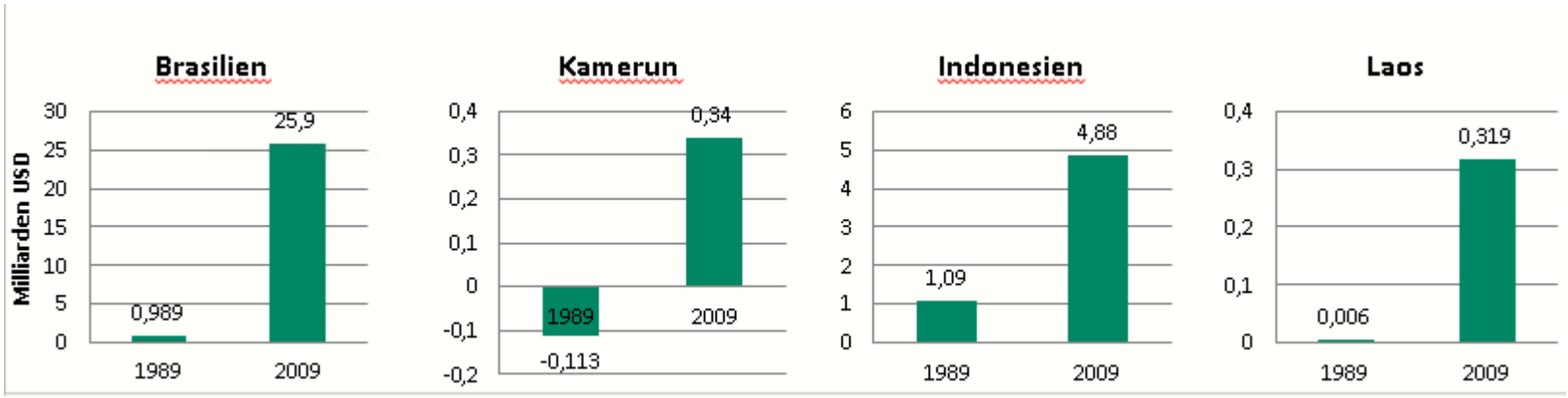
- Relative deforestation rates are declining, but absolute deforestation still high
- Food, feed and fuel production increasing in all selected countries
- Diet shifting towards more meet and vegetable oil consumption
- The good news: Food production and deforestation can be de-linked

Public investment in agricultural research



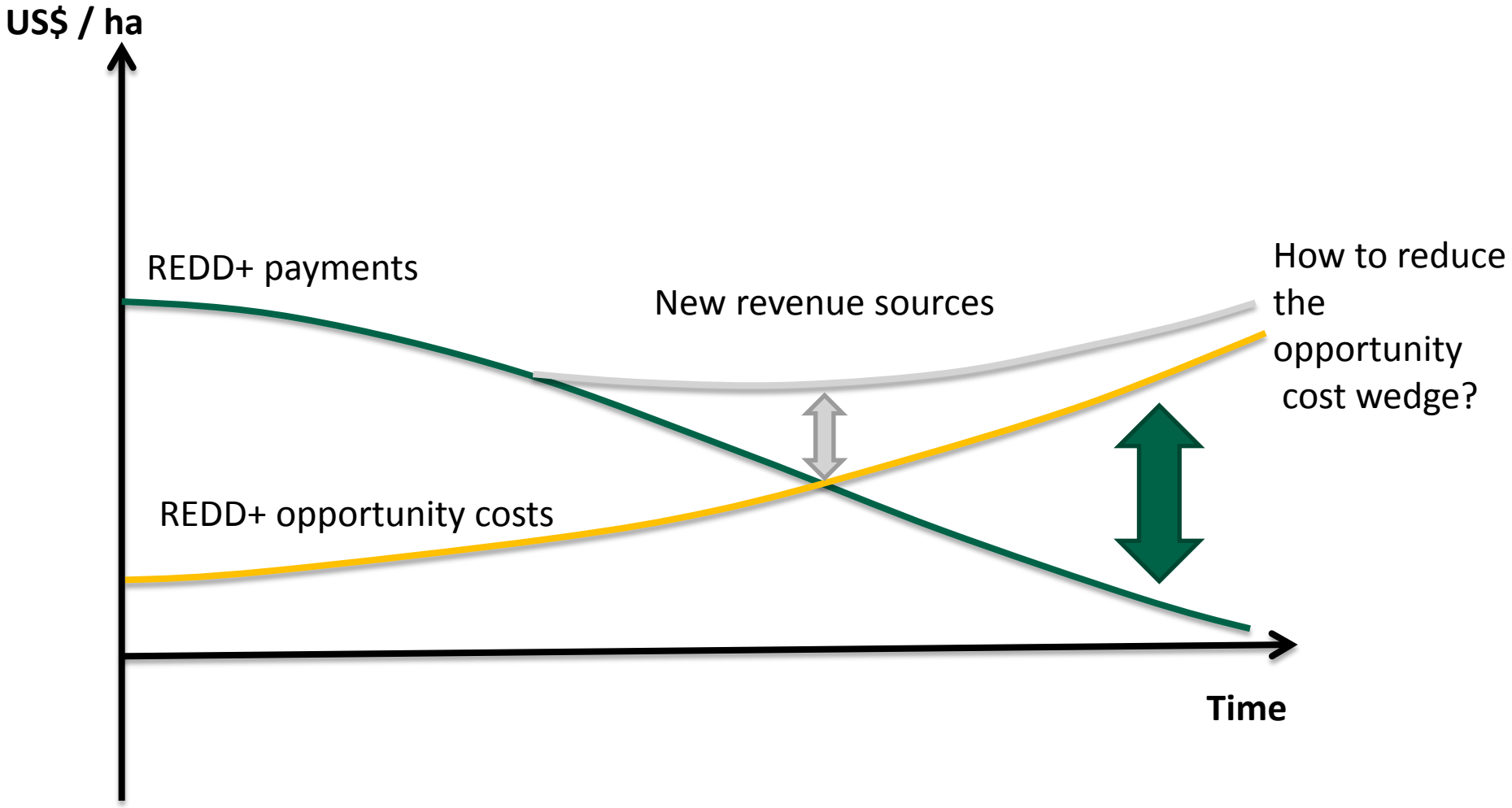
- Investment in agricultural research and extension is stagnating or even declining
- Capacity for sustainable landscape management lacking
- Enforcement of land use planning often weak
- Good examples e.g. in Brazil

Agricultural foreign direct investments in 1989 and 2009



- Private investment in agriculture increasing worldwide
- Governance-structures in many develping countries often very weak to deal with large investments (foreign and domestic)

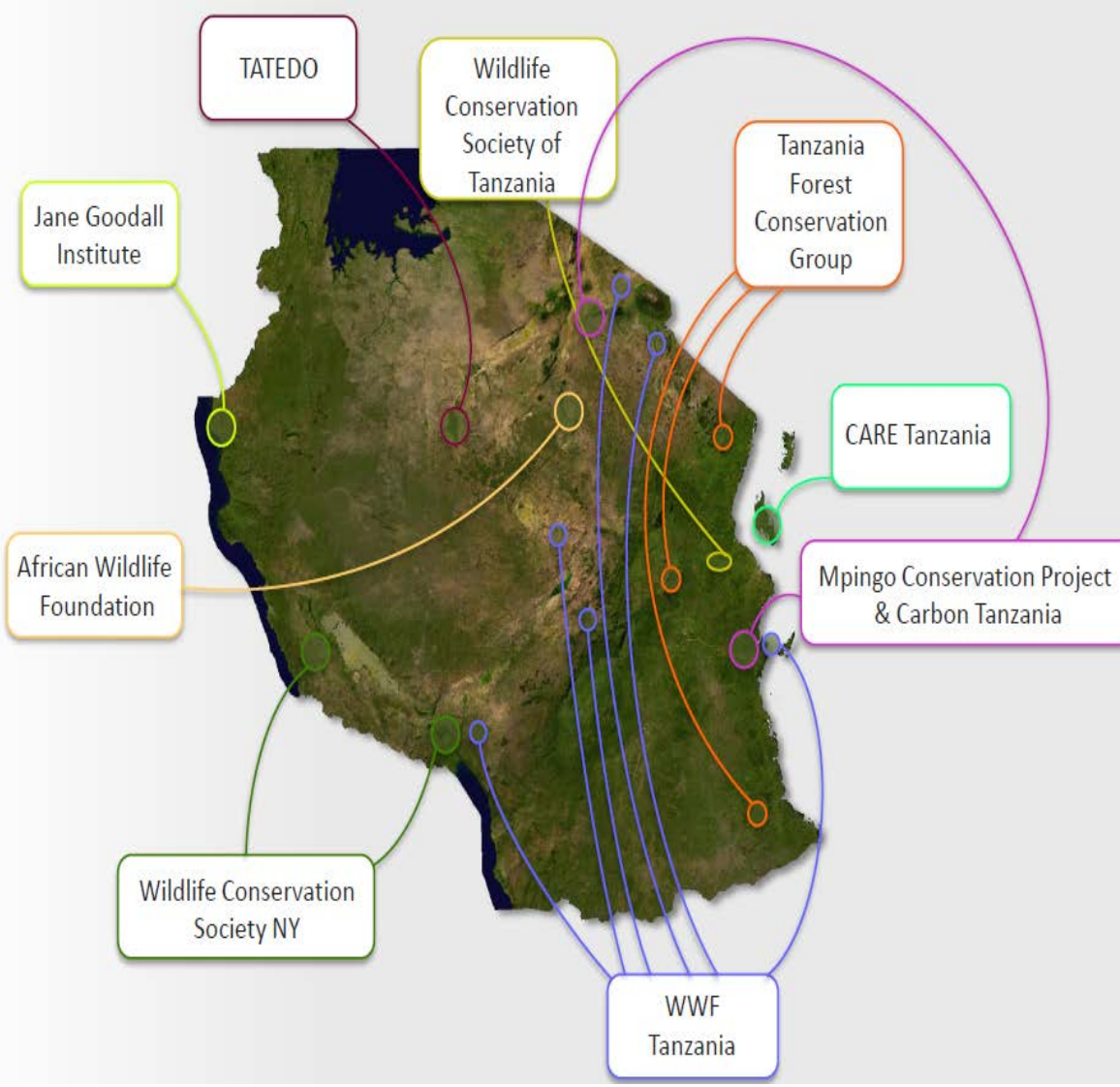
REDD+ can finance the transition to sustainable land use



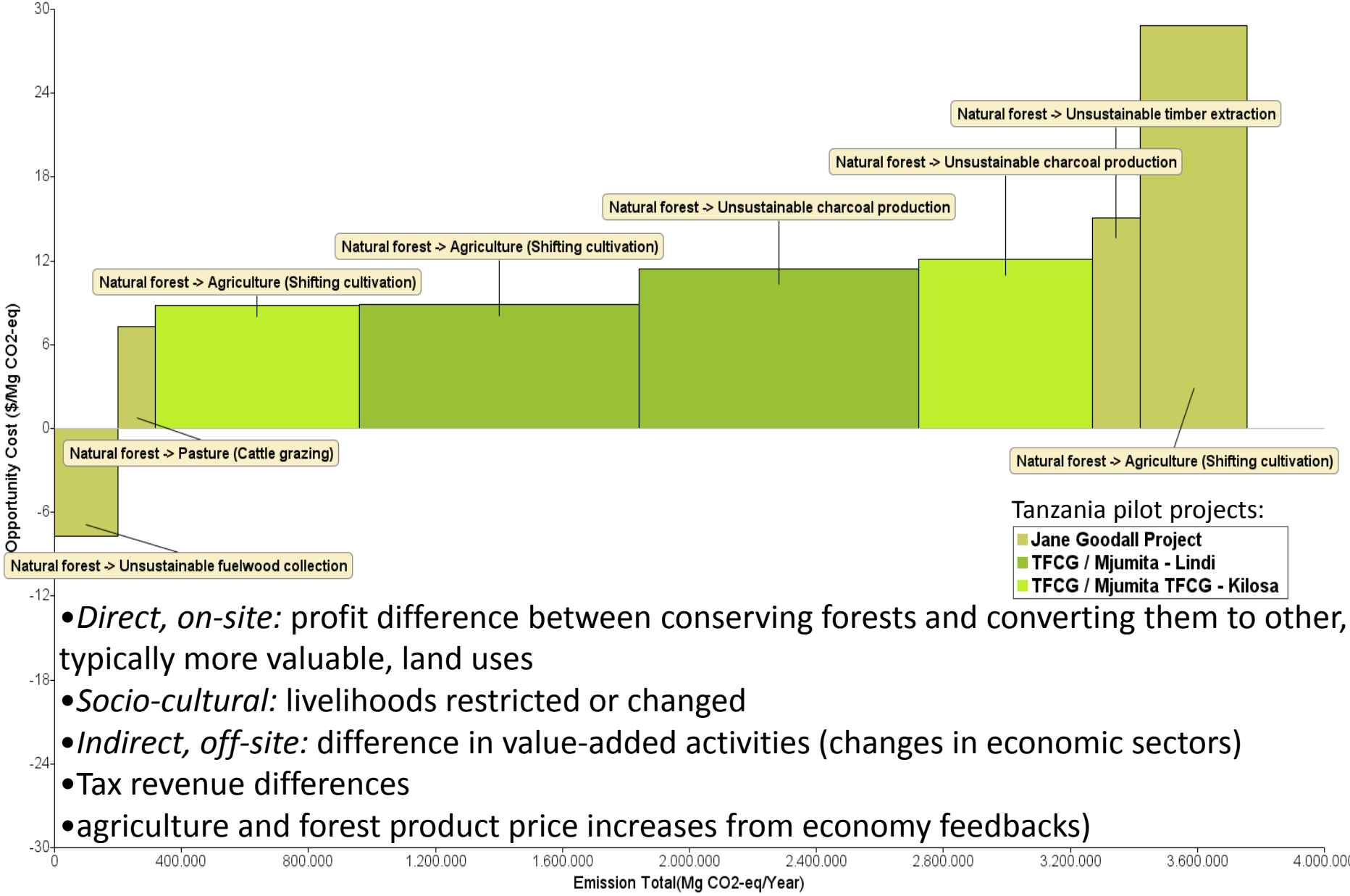
REDD+ in Tanzania: Context and pilots

Key issues:

- 5th highest extent of forest loss (~ 0.4m ha/yr)
- LUCF contributes 56% of national emissions
- ~ 89% of population uses wood-based fuel (often unsustainable)
- ~45% (16 million ha) of forests under some form of protection or formal management
- ~11.7% (4.1 million ha) under PFM – performing as well as or better than state forest protection
- <30% of potential forest revenues are collected
- Most attractive destination for plantation forestry investments in Africa (IWC, 2012)
- REDD strategy advanced, drivers not adequately addressed



REDD+ opportunity cost curves for various driver



- *Direct, on-site:* profit difference between conserving forests and converting them to other, typically more valuable, land uses
- *Socio-cultural:* livelihoods restricted or changed
- *Indirect, off-site:* difference in value-added activities (changes in economic sectors)
- Tax revenue differences
- agriculture and forest product price increases from economy feedbacks)

Source: Merger et al 2012

Maintaining forests in the middle of the soya belt

Forestería Certificada en Paraguay (FORCERPA):

Basic concept

- FSC certified natural forest management on 5.650 ha (4.000 ha production, 1.650 ha protection)
- Integrated timber processing
- Joint Venture between local Agribusiness and forest management company

Impact

- Protection of Atlantic Forest (biodiversity hotspot)
- Result of regular audits: Tree species diversity in managed forest as high as in untouched forests
- Generation of 50 qualified jobs
- Partnership with adjacent indigenous community

Financials

- Annual turnover USD 1,000,000
- Revenues after tax: USD 70/ha (eye level with ranching)

Scaling potential

- High but high commercial risks due to capacity gaps and frontloaded project development costs

Sustainable biomass for agribusiness

Biomass plantations on degraded land

Basic concept

- 6000 ha of improved Eucalyptus management, distributed in different sites each about 400 ha
- 5-years rotation, expected MAI 30m³/ha/yr
- Joint Venture between local Agribusiness and forest management company

Impact

- Increasing productivity from ~10 to 30m³/ha/yr
- Reducing forest degradation
- Generation of 300 qualified jobs in rural areas
- Strengthen woodlot owners and local economy Partnership with adjacent indigenous community

Financials

- IRR 11% after tax

Scaling potential

- High, wood biomass demand is increasing worldwide due to increasing population and food demand

Conclusions

- Agriculture is the main driver of deforestation, hence REDD+ implementation has to happen outside the forest (landscape approach)
- An enabling environment to de-link additional food production and deforestation is rarely in place (participatory land use planning, good governence and investments)
- Sustainable forest management including secondary and natural forests – is back on the international agenda –
- REDD+ implementation strategies related to traditional and commercial woody biomas production and use
- Integrated REDD+ and FLEGT strategies are leveling the playing field between informal and unsustainable forest use and sustainable forest management (FSC conform)
- REDD+ strategies are advancing and frameworks are under develoment (safeguards, MRV) . Hopefully Germany‘s committment to invest 500m EUR per year in tropical forstry and biodiversity protection will be targeted to advance and leverage domestic resources for REDD+ implementation

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Annex: Wood biomass demand and supply in Germany

Angebot „Holz-Biomasse“ gesamt künftig	Nachfrage „Holz-Biomasse“
▪ 80 Mio. m³ Holzeinschlag „optimist.“ ▪ 40 Mio. m³ Holz kleiner 7 cm ▪ 27 Mio. Feldgehölze, Holz auf Acker = 147 Mio. m³ Potenzial	▪ 130 Mio. m³ für 2012 (Mantau, Uni Hamburg, 2009) ▪ 180 Mio. m³ für 2020 (DBFZ, 2011)
▪ **Ca. 100 Mio. m³ korrigiertes Potenzial** (Restriktionen techn. Nutzung und §, Grenz-Kosten-Ökonomie)	▪ **Ca. 150 Mio. m³** (stofflich und energetisch)

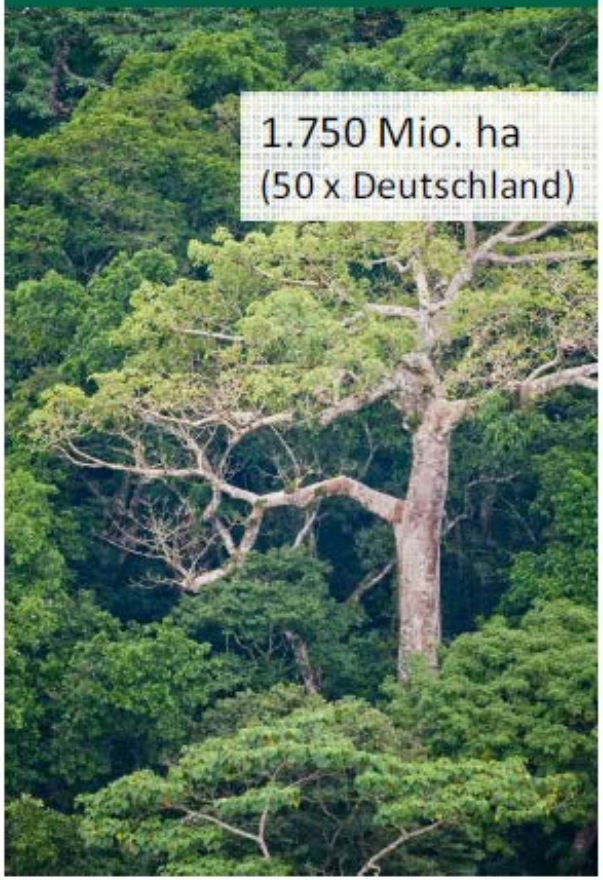
- **Differenz 2020 Angebot – Nachfrage ca. 50 Mio. m³ / Jahr**
- **mögliche Produktionssteigerung „Wald“: 10 – 15 Mio. m³**

Quellen: DBFZ 2011: Identifizierung strategischer Hemmnisse; Mantau 2009 in vTI-Sonderheft; eigene Biomasse-Versorgungsstudien

Forest ressources in the tropics

Aktuell → **Künftig** (Schätzungen)

Tropical forest land



Agricultural land
400 - 500 Mio. ha

Degraded and secondary forests; semi-natural production forests
1.000 Mio. ha

Plantations
100 – 150 Mio. ha

National parks
150 - 200 Mio. ha