Cattle Ranching in the Rainforest The Brazilian Amazon Case Study

Amaury Bendahan Burlamaqui, Embrapa

René Poccard-Chapuis, Cirad/Embrapa

Isabel Garcia Drigo, USP & JF.Tourrand, Cirad

2005 1 18

Case overview

- Started with the colonization of the Amazon in the 60s
- Cattle ranching = a main driver of the colonization
  - Slash & Burn + one annual crop + pasture
  - Landownership strategy: pasture is a tool for land appropriation
  - $\Rightarrow$ 75% of deforested area = pasture (1mio km²)
  - $\Rightarrow$ Cattle ranching based on deforestation
- Great interest for pioneers for cattle ranching
  - "Cattle ranching is money" / Providence state of the pioneers
  - Low income but secure income, savings,
  - Flexibility of the management
- Livestock network is the base of local development
  - Low demographic density (4-5 bovines/habitant)
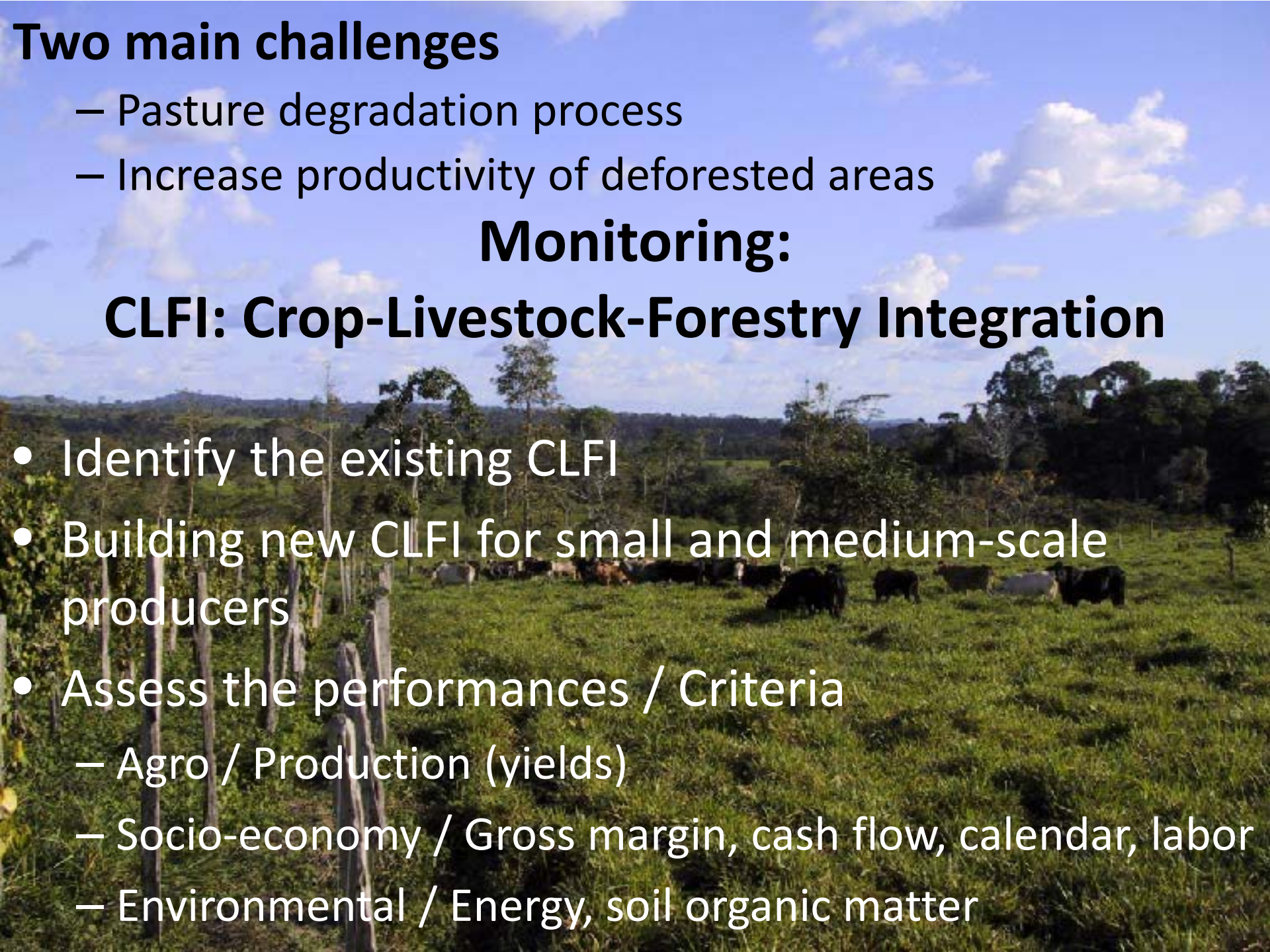 - Traders, Slaughterhouse, dairy factories, leather industries, …

Cattle ranching expansion based on slash & burn

Two main challenges
  – Pasture degradation process
  – Increase productivity of deforested areas

Monitoring:

CLFI: Crop-Livestock-Forestry Integration

- Identify the existing CLFI

- Building new CLFI for small and medium-scale producers

- Assess the performances / Criteria
  – Agro / Production (yields)
  – Socio-economy / Gross margin, cash flow, calendar, labor
  – Environmental / Energy, soil organic matter

Seeding and annual crop

Seeding forage or 2nd crop

Plantation of trees

Evaluation

- Agronomic
  - Better yields and gross margin (+)
  - Inputs (-)
  - Animal well-being (+)
- Environment:
  - Reducing deforestation (+++)
  - Carbone sequestration (++)
- Economy
  - Depend on the initial situation
  - Diversification (+)
  - Flexibility (-)
- Social
  - Easier to work (+)
  - Less accidents, especially during slash (+)
  - Self-esteem at individual and community scale (+)
  - Knowledge, work organization, farm management
- National policies (+)

Lessons

- Complexity in terms of:
  - Planning of the activities
  - Work management
  - Knowledge
  - Cash flow management along the year
- Collective initiative
  - Reduce the risk, ex: fire regulation
  - Market access for inputs and productions
  - Qualified labor/workers ⇔ capacity building
- Pasture management more complicated
- According to the scale of the farm
- Local stakeholders don't want add value to pasture

Thank you / Obrigado