The Eighth Trondheim Conference on Biodiversity

Panel 7: Practical Examples of Building Interlinkages Between Biodiversity and Agriculture

Examples from Tropical Agriculture

Trondheim, June 3 2016
I. Brazil’s Policy to Developed a Low Carbon Emission Agriculture (ABC Plan)

1. Renovation of Degraded Pastures
2. Crop-Livestock-Forest Integration
3. No-till System
4. Biological Nitrogen Fixation
5. Planted Forest
6. Treatment of Swine Residues

II. Brazilian Forest Code

Driving Forces
RURAL ENVIRONMENTAL REGISTER

Data until March 31, 2015

53,56% Total Area Registered

397 Millions hectares Total Area To Be Registered

212,92 Millions hectares Already Registered

75,32% Area Registered
94,88 Millions ha To Be Registered
71,46 Millions ha Already Registered

51,66% Area Registered
129,88 Millions ha To Be Registered
67,1 Millions ha Already Registered

17,54% Area Registered
41,78 Millions ha To Be Registered
7,32 Millions ha Already Registered

19,82% Area Registered
76,07 Millions ha To Be Registered
15,07 Millions ha Already Registered

35,22% Area Registered
54,93 Millions ha To Be Registered
19,34 Millions ha Already Registered

Source: Embrapa
Sustainability of crop production in Brazil

How to increase production without increasing acreage?

1. Degraded pastures give way to cropland
2. Acid soils are limed and fertilized.
3. After a few crops, the land can be converted into pastures again
4. More optimised farming reduces the pressure for further conversion of forests into agriculture

There are approx. 40 million hectares of low-productivity pastures that can be replaced by agriculture

INTEGRATED CROP-LIVESTOCK-FOREST SYSTEM

Crops Acreage
- Corn
- Cotton
- Sugarcane

Livestock
- Pasture Acreage

More optimised farming reduces the pressure for further conversion of forests into agriculture

More optimised farming reduces the pressure for further conversion of forests into agriculture
Types of Integrated Systems

1. CROP-LIVESTOCK
2. LIVESTOCK-FOREST
3. CROP-FOREST
4. CROP-LIVESTOCK-FOREST

CLFi potential area in Brazil: 50 million ha
200 Evaluations Sites on the five biomes
Crop-Livestock-Forest Integration - CLFi

Agricultural intensification and expansion with mitigation of environmental impact and promoting Biodiversity
Canaã do Norte – State MT

Year 1: Rice + Tree
Year 2: Rice + Tree
Year 3: Soybean + Tree
Year 4: Forage + Tree

Source: Embrapa
SSP de Teca (*Tectona grandis* L.F.)

SSP de freijó (*Cordia alliodora* (Ruiz & Pavon) Oken)

SSP de paricá (*Schizolobium amazonicum* Huber ex Ducké)

SSP de samaúma (*Ceiba pentandra* Gaerth)

*Source: Embrapa*
Thank you!

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