


World Congress of Agroforestry 2009
Nairobi Kenya 23-28 August

Agroforestry

The Future of Global Land Use

Outcomes of 2nd World Congress of Agroforestry

Nairobi, 24-28 August 2009

Dennis Garrity

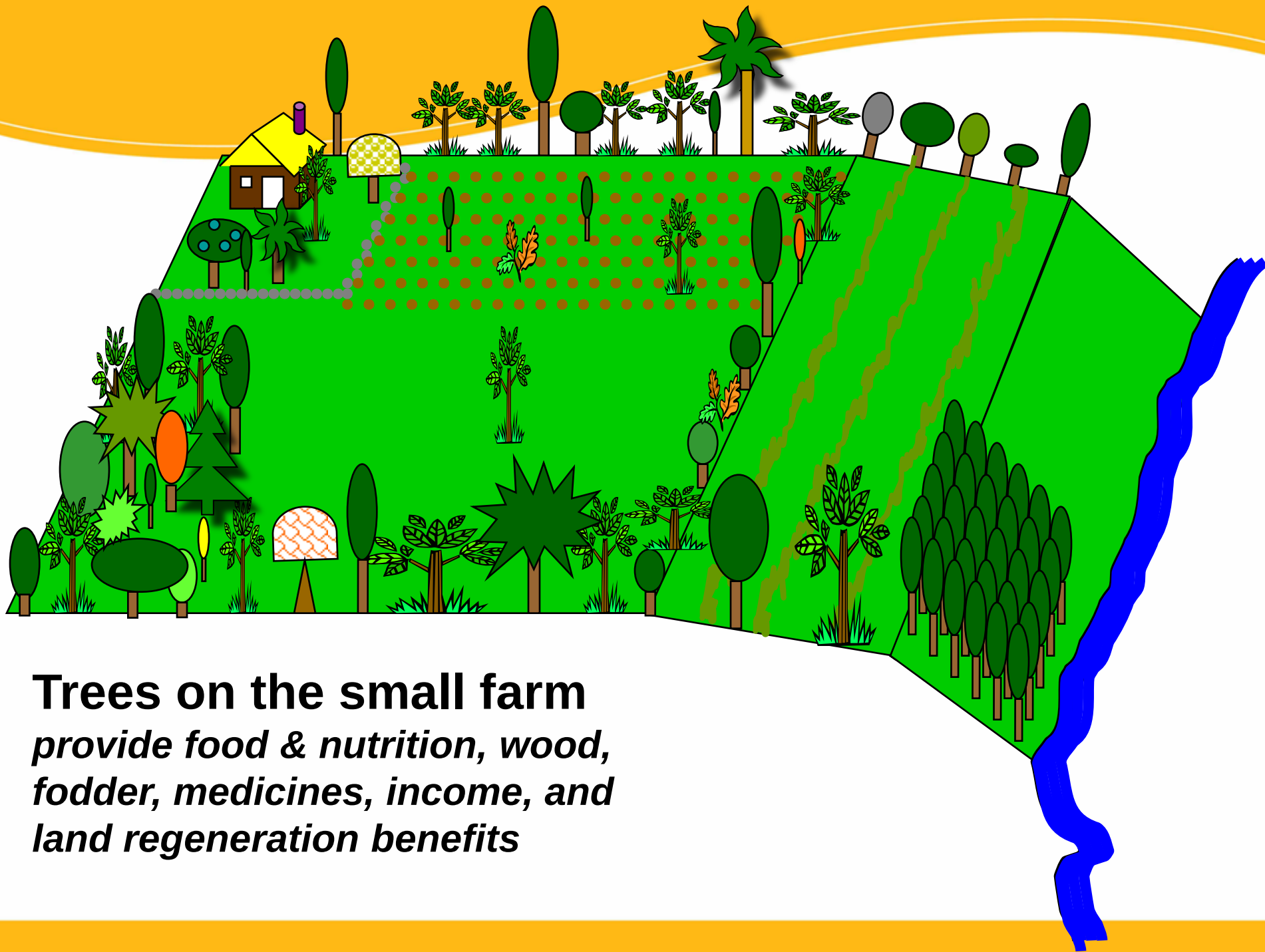
Agroforestry Symposium
United Nations University
16 December 2009

World Agroforestry Centre
TRANSFORMING LIVES AND LANDSCAPES

What is Agroforestry?

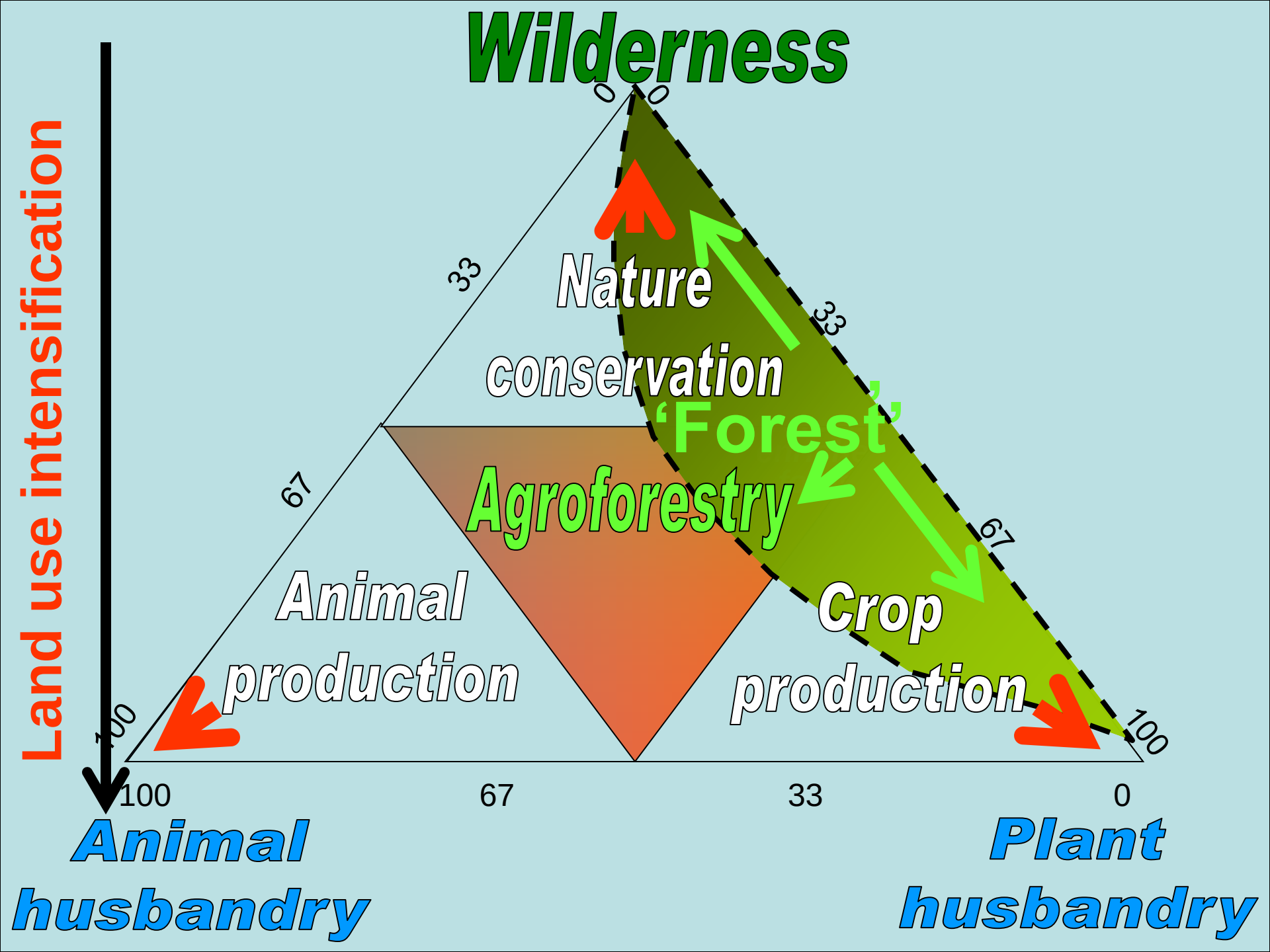
Agroforestry is a dynamic, ecologically-based, natural resource management system.

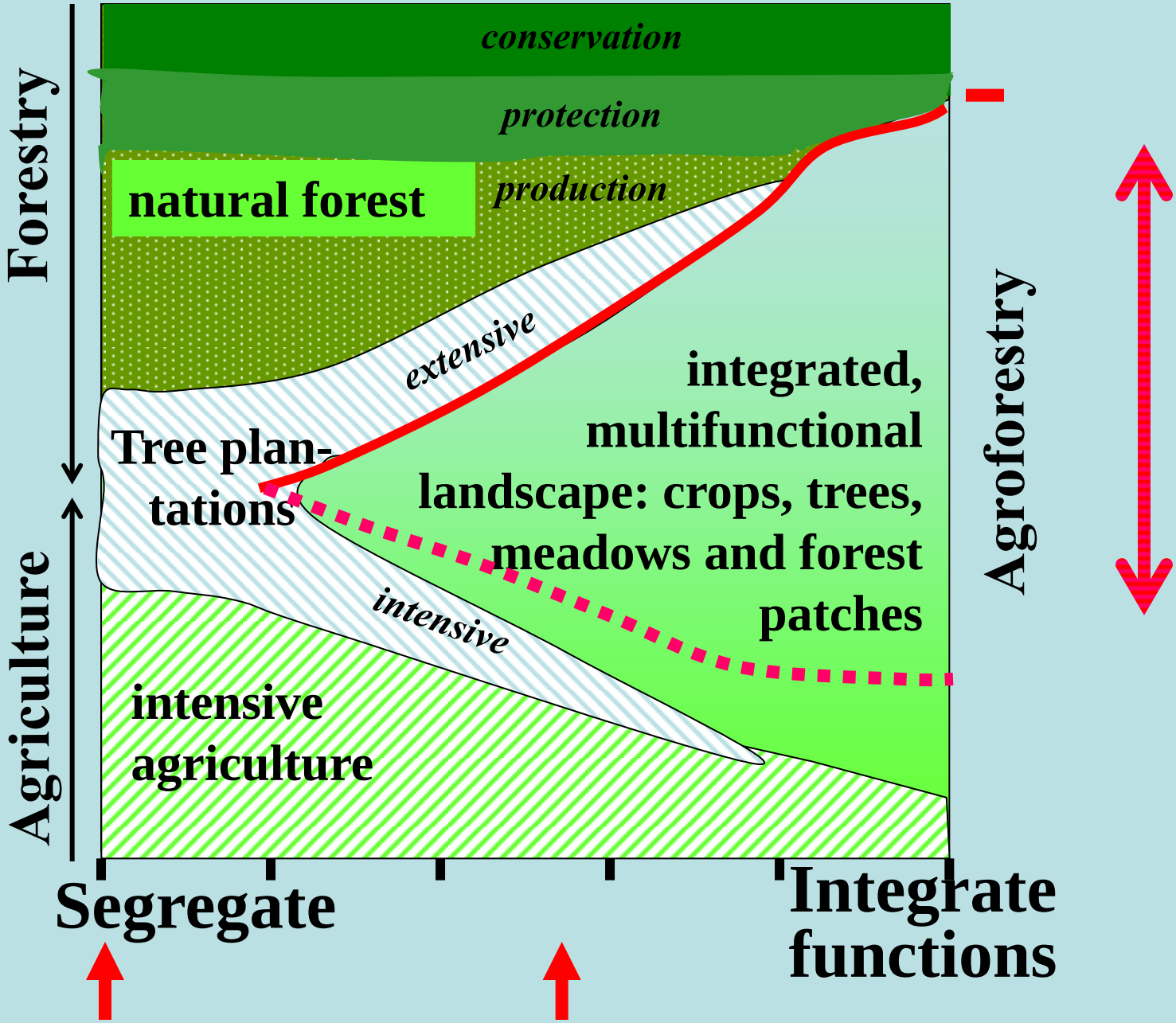
By integrating trees on farms and in the agricultural landscape, it helps diversify and sustain production for increased economic, environmental and social benefits.



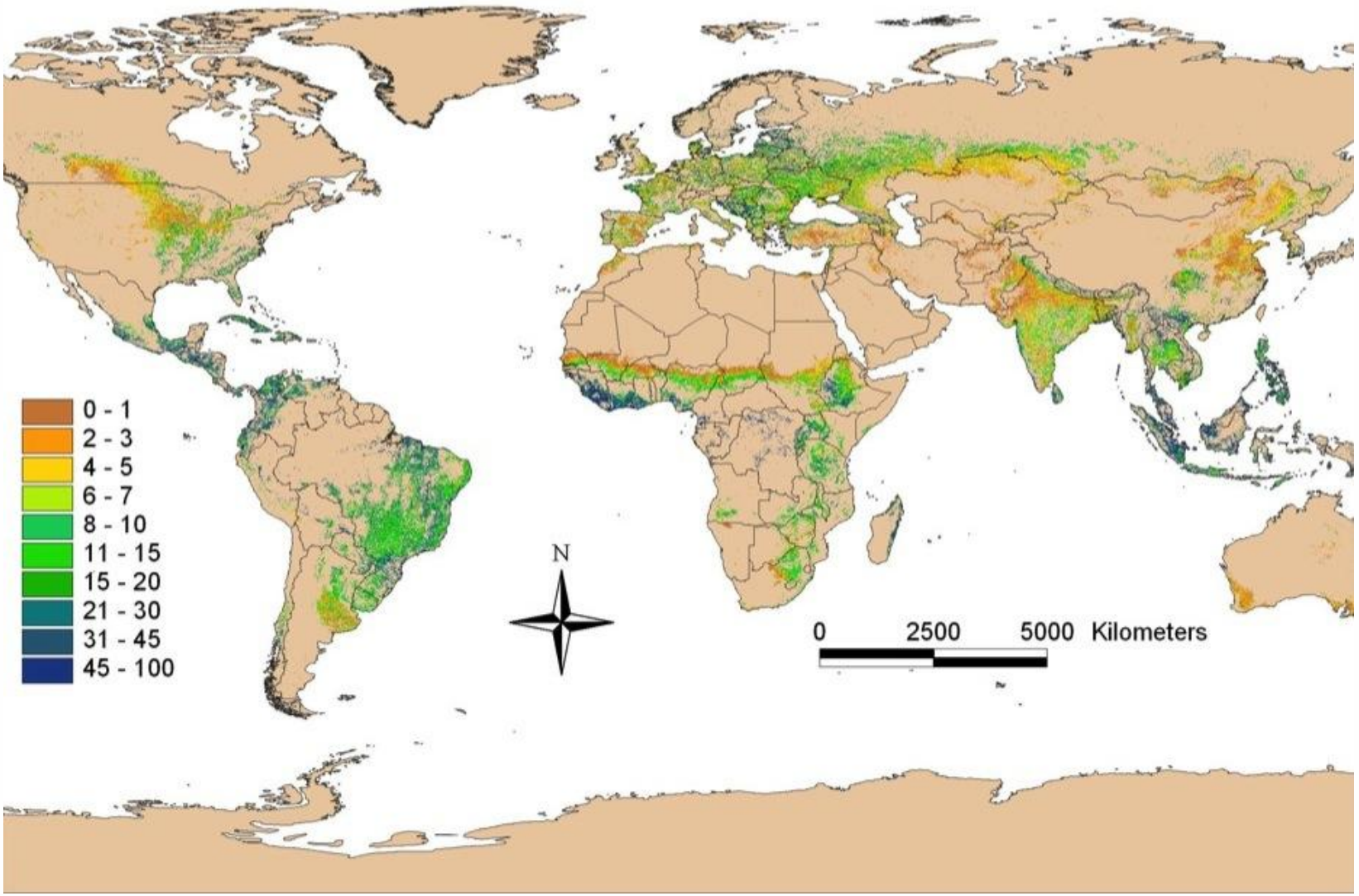
Trees on the small farm

provide food & nutrition, wood, fodder, medicines, income, and land regeneration benefits


Wilderness
Land use intensification
Nature
conservation
'Forest'
Agroforestry
Animal
production
Crop
production
0
0
33
33
67
67
100
100
100
67
33
0
Animal
husbandry
Plant
husbandry


conservation
protection
production
natural forest
extensive
Tree plan-
tations
integrated,
multifunctional
landscape: crops, trees,
meadows and forest
patches
intensive
intensive
agriculture
Forestry
Agriculture
Agroforestry
Segregate
Integrate
functions

Tree Cover on Agricultural Land - Global



'The proportion of trees on farms and in forests varies considerably among countries, but ***two trends*** *seem almost universal in the tropics:*

-- the number of trees in forests is declining, and

-- the number on farms is increasing'

FAO. 2005. State of the World's Forests

Congress Subthemes

1. Agroforestry for Food Security
2. Conservation and Rehabilitation of Natural Resources
3. Agroforestry Policy Challenges

1. Agroforestry and Food Security

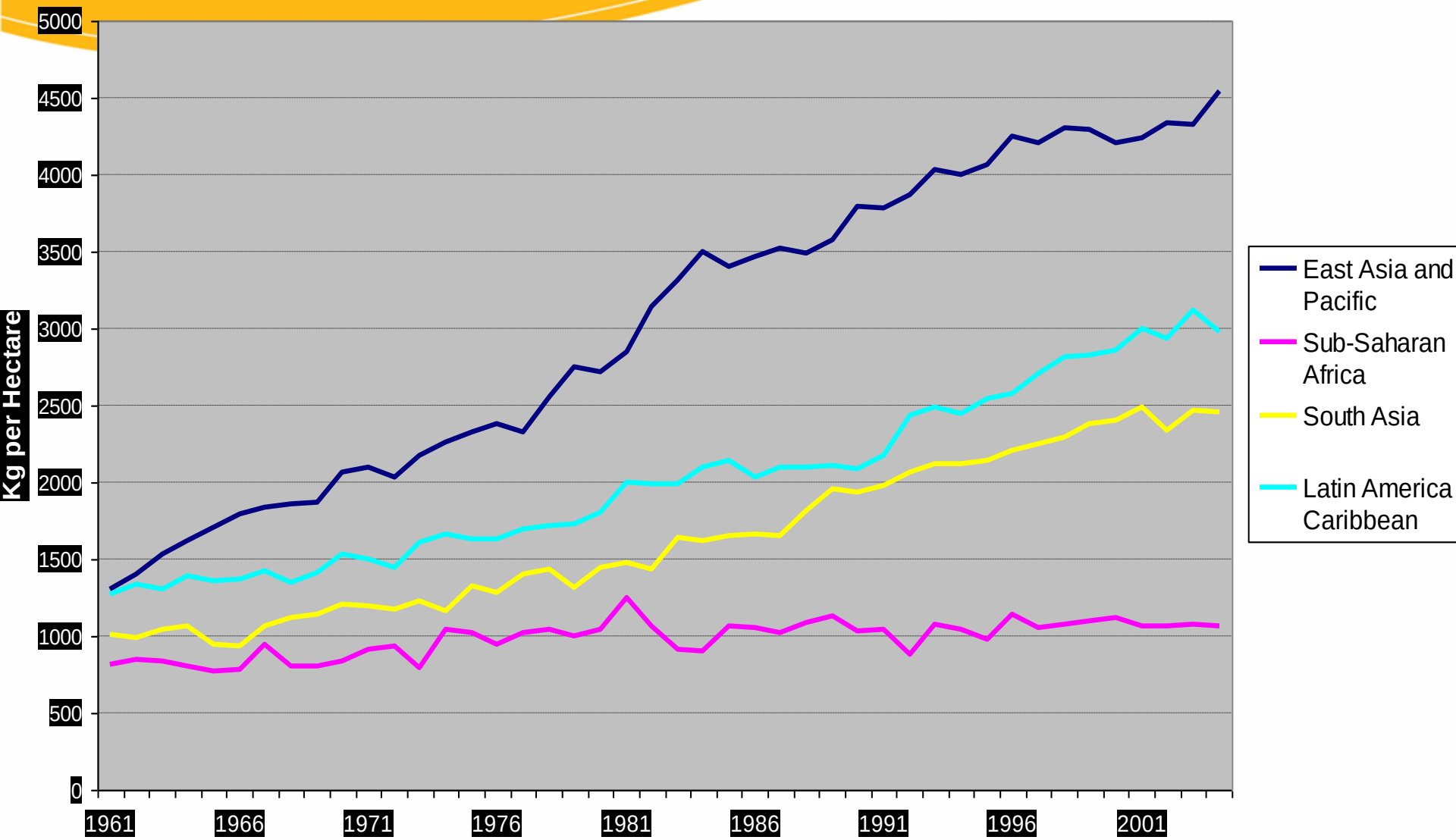
Evergreen Agriculture

Food crop farming *using agroecological principles*

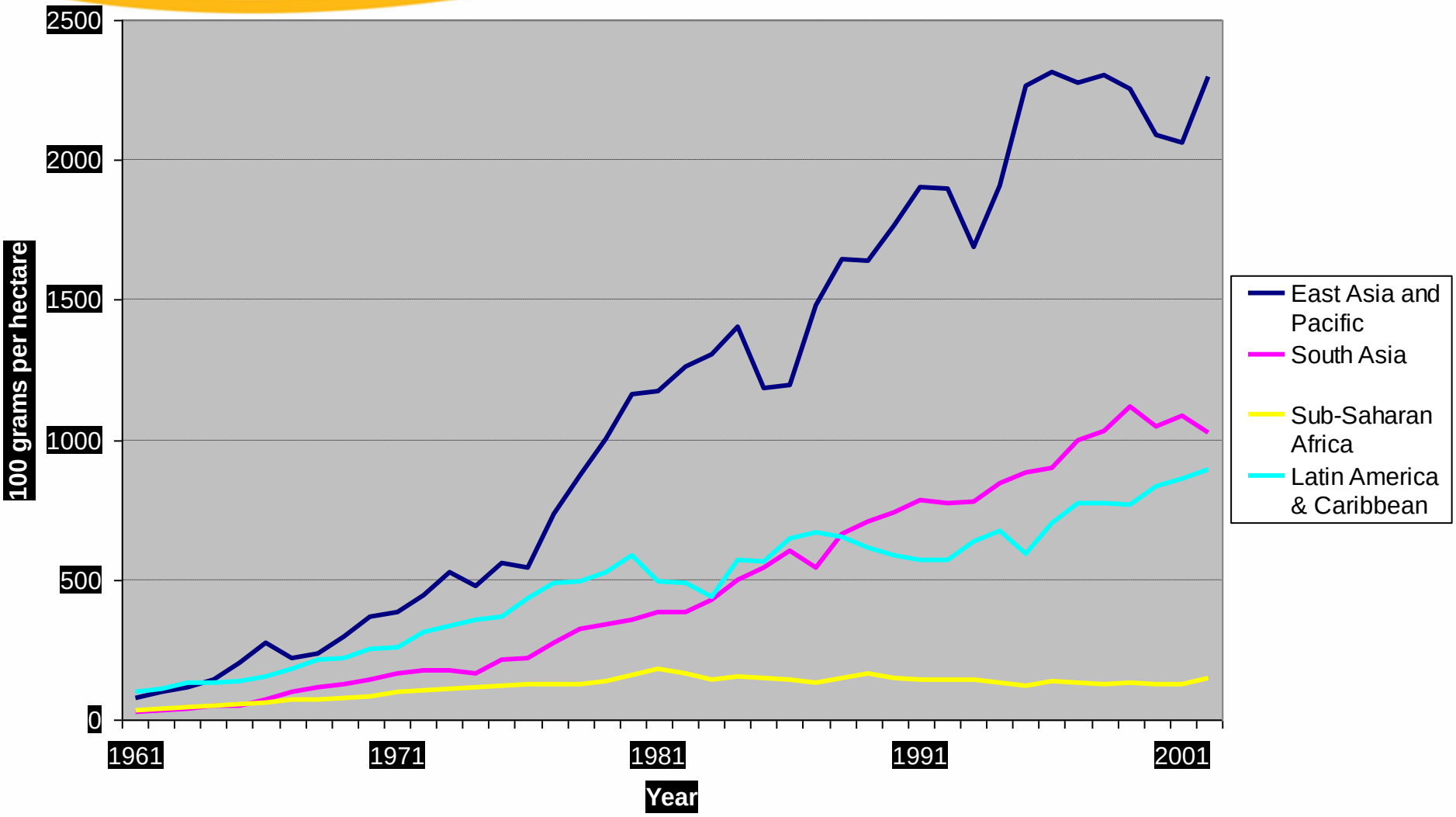
Tree crop farming *with species diversity for higher and more stable incomes*

Achieving food security and climate change adaptation *through agroforestry-based conservation agriculture*

Cereal Yields

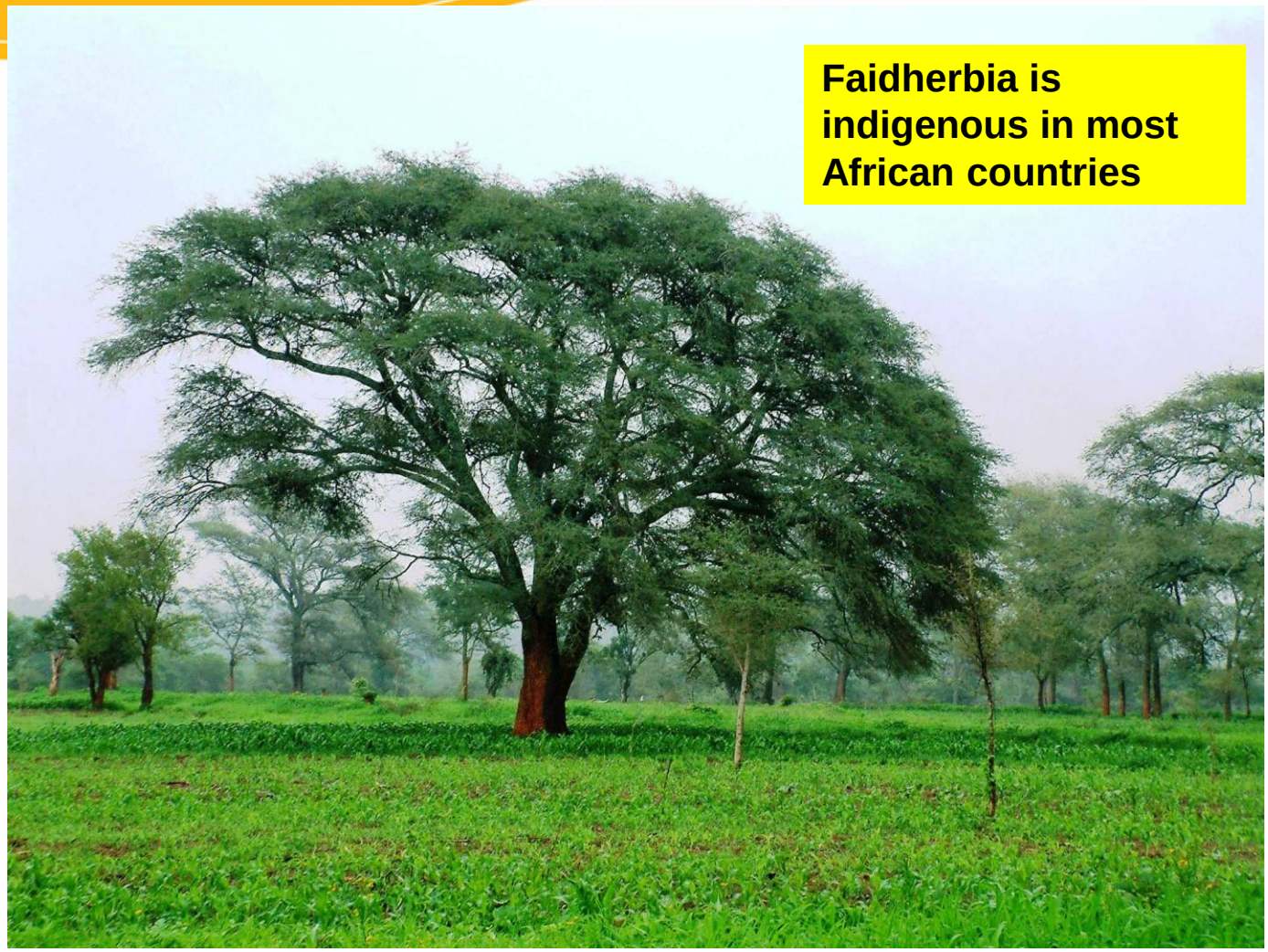


Fertilizer



World Bank World Development Indicators

Conservation Agriculture *with Faidherbia albida*



60 years of research shows on each hectare, mature trees supply the equivalent of 300kg of complete fertiliser and 250kg of lime. This can sustain a maize yield of 4 tons/ha.

Maize farming in an agroforest of *Faidherbia albida*, Tanzania

***Faidherbia* trees are intercropped with maize on ½ million farms in Malawi**

2. Conservation and Rehabilitation of Natural Resources

- Agroforestry for climate change adaptation and mitigation
- Water and watershed services
- Biodiversity conservation

Agroforestry for a Multi Functional Agriculture

The Future Potential of Agroforestry

Dennis Garrity
Director General
World Agroforestry Centre

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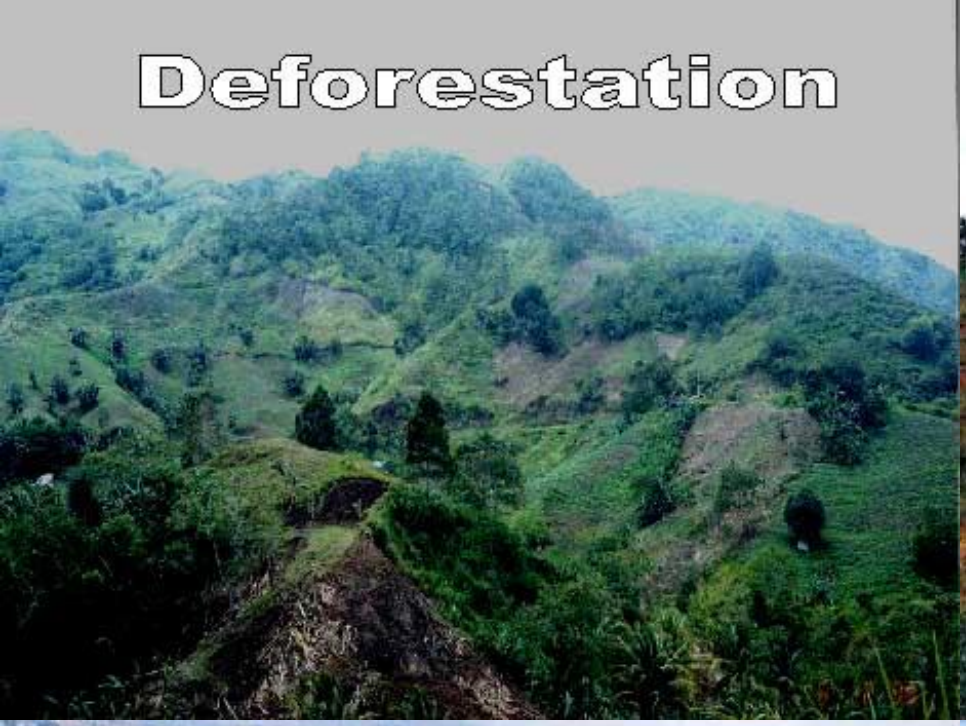
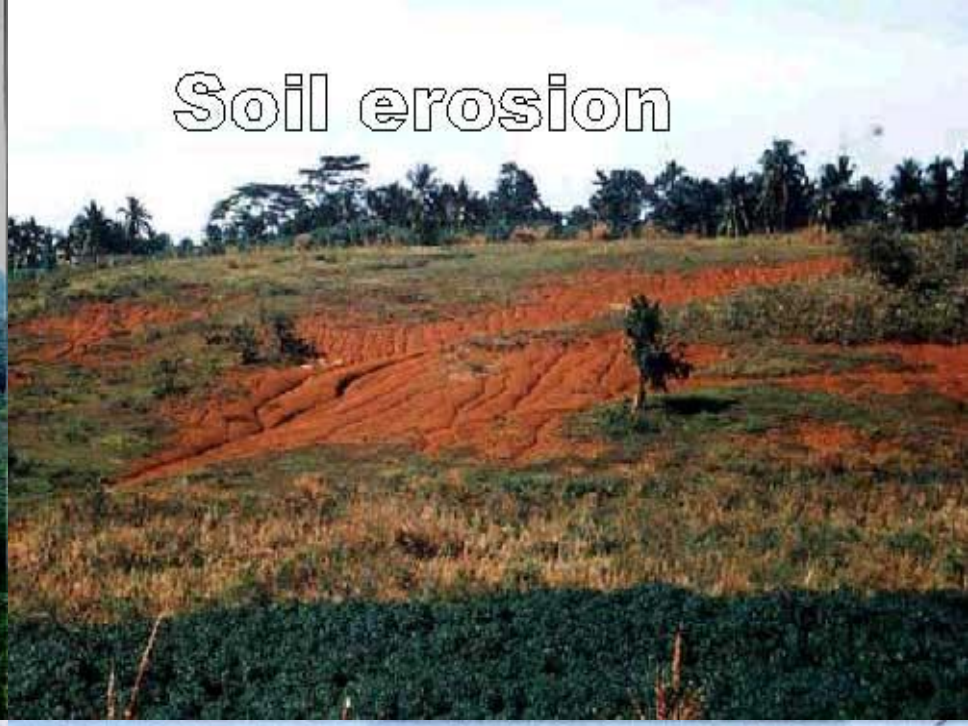
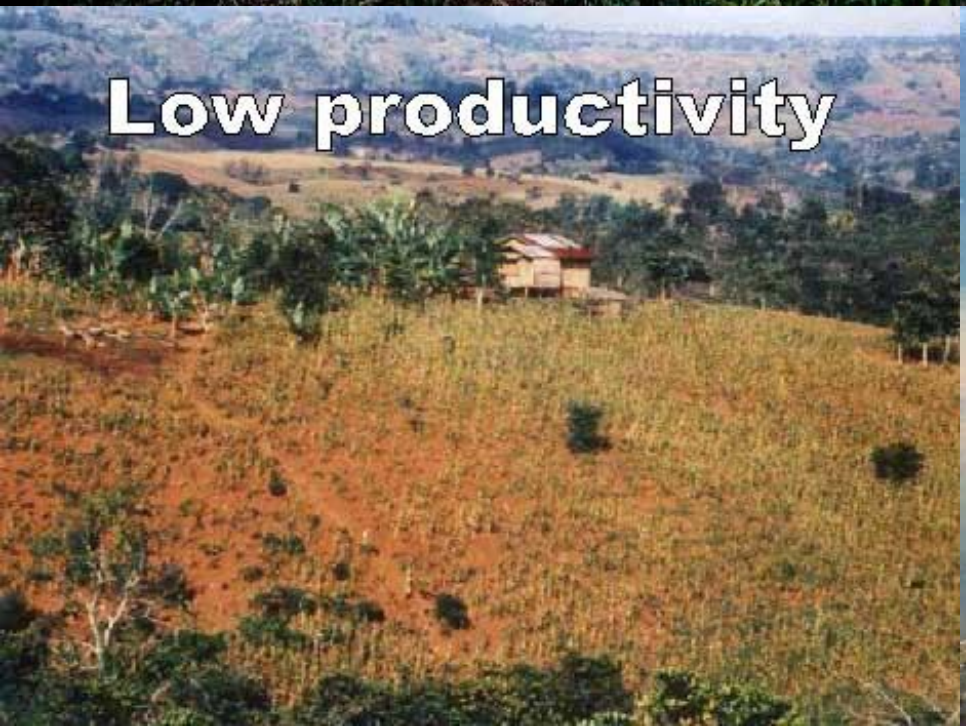
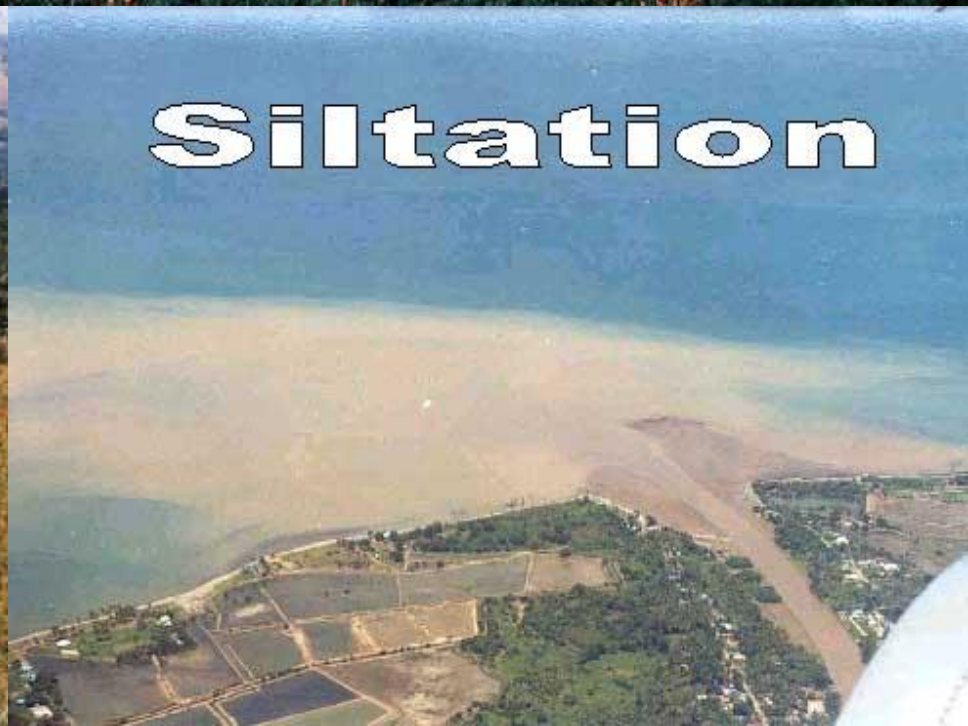

Deforestation


Soil erosion


Low productivity


Siltation

Agroforestry Policy Challenges

The Global Agroforestry Policy Initiative

Interlinked Objectives

(1) Food security through increased productivity (focus on smallholder systems)

(2) Agriculture adaptation framework (adaptation to climate change)

(3) Soil and above ground carbon (bio-carbon) for climate mitigation / land care

Reducing Emissions from All Land Uses

Current focus (2005 – present)
Reducing Emissions from Deforestation and Forest Degradation (REDD)

The Future
Reducing Emissions from All Land Uses -- Agriculture, Forestry and Land Use (AFoLU)

Agroforestry now seen as at the 'heart' of the three environmental conventions

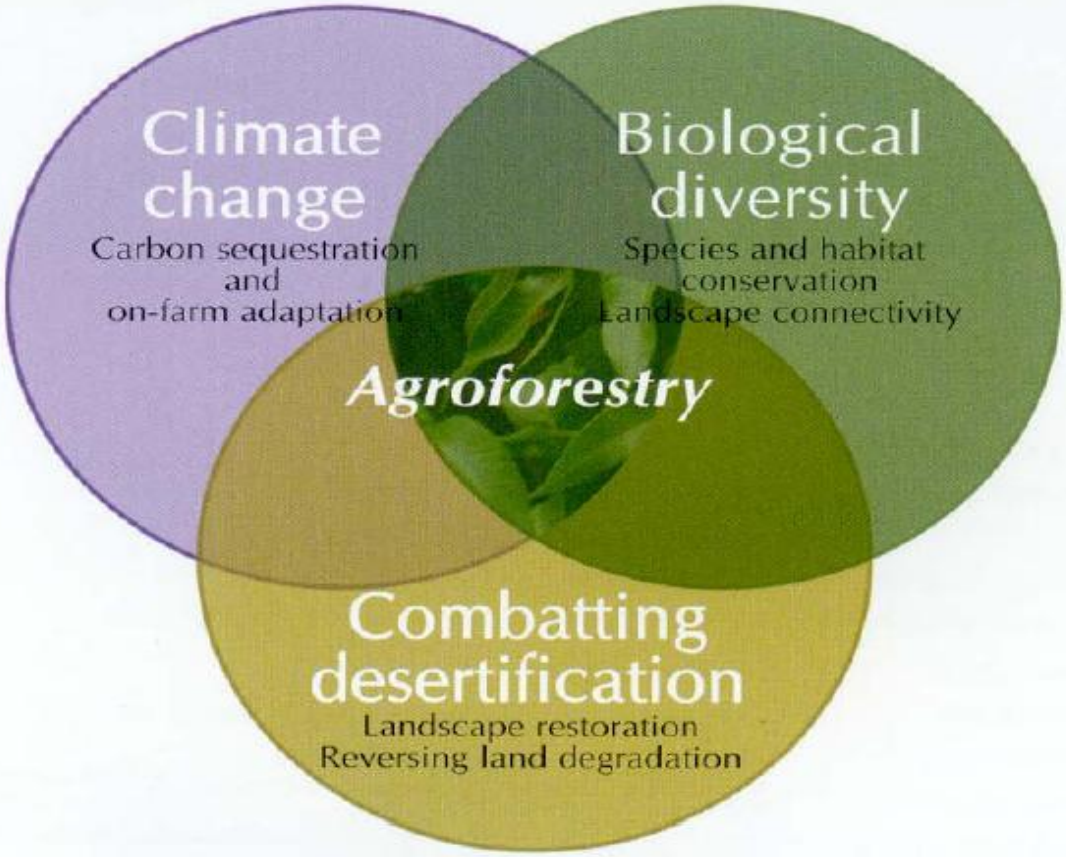


Figure 9: Agroforestry at the 'heart' of the three environmental conventions