



Flood-Based Livelihoods
Network Foundation

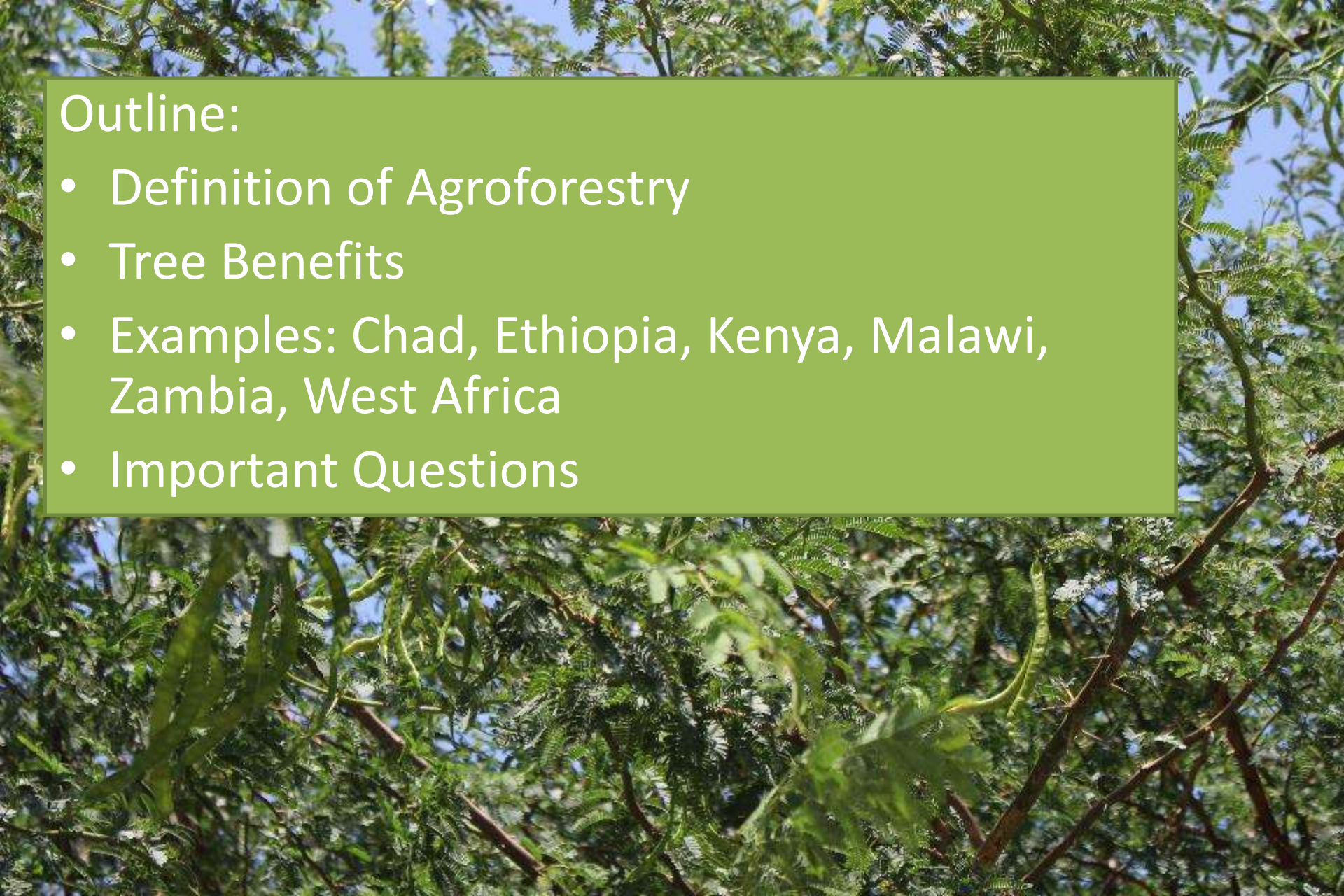
Exploring Agroforestry Interventions in Flood Based Livelihoods Systems.



Fostering Leadership in Climate-Smart FBLS for Sustainable Investments in Africa and Asia
15-24 May 2017
Maimbo M. Malesu and Alex Oduor

Outline:

- Definition of Agroforestry
- Tree Benefits
- Examples: Chad, Ethiopia, Kenya, Malawi, Zambia, West Africa
- Important Questions





THIS IS THE FUTURE

Maize farming in a *Faidherbia* agroforest in Mbarali District, Southern Highlands, Tanzania. 2008

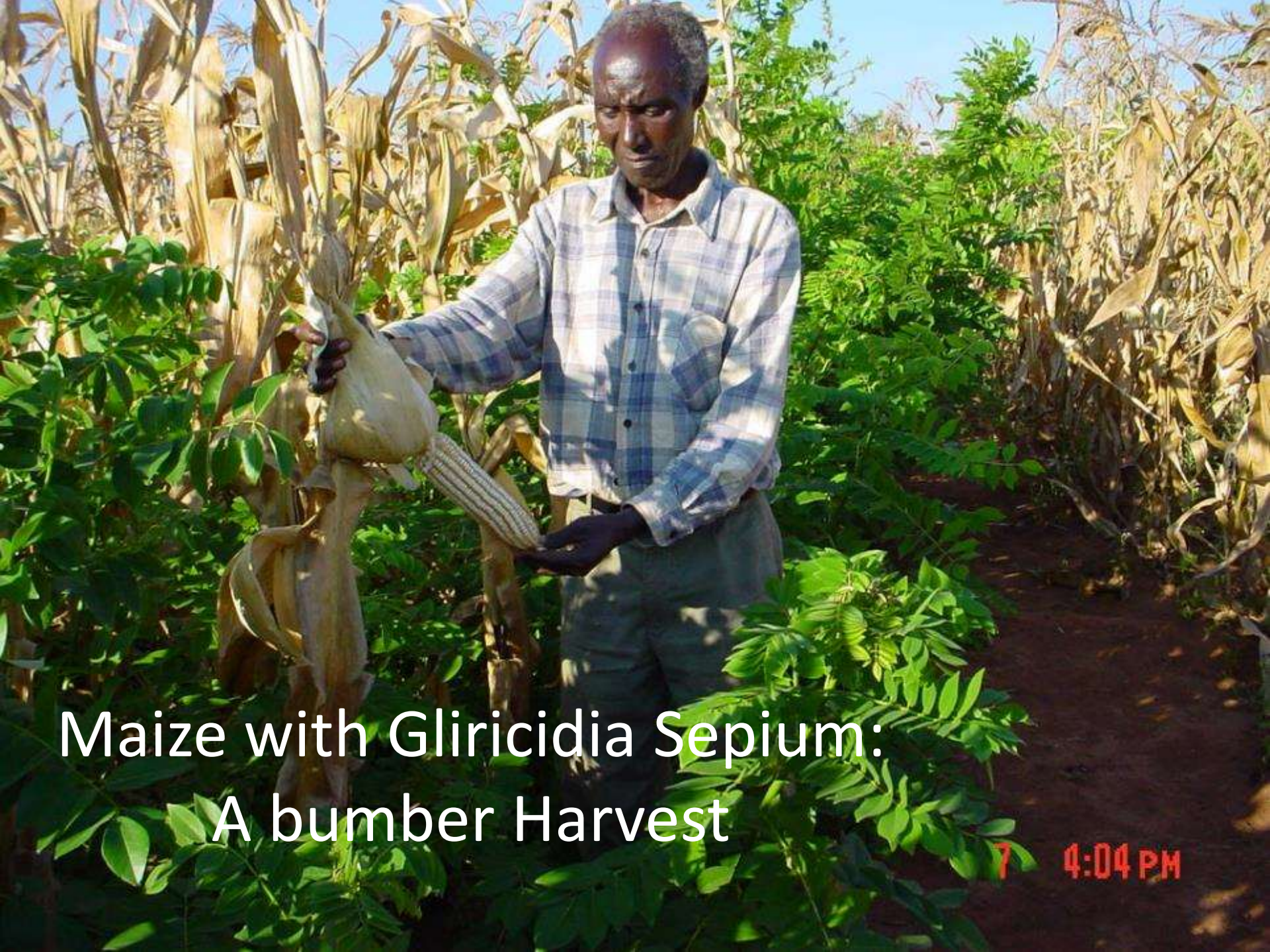
Photo: Saldi Mkomwa

Definitions

- Basic Definition - *Agroforestry is agriculture with trees*
- Comprehensive Definition - *Agroforestry is the practice and science of the interface and interactions between agriculture and forestry, involving farmers, livestock, trees and forests at multiple scales*
(ICRAF Strategy 2017-2026).

Tree Benefits

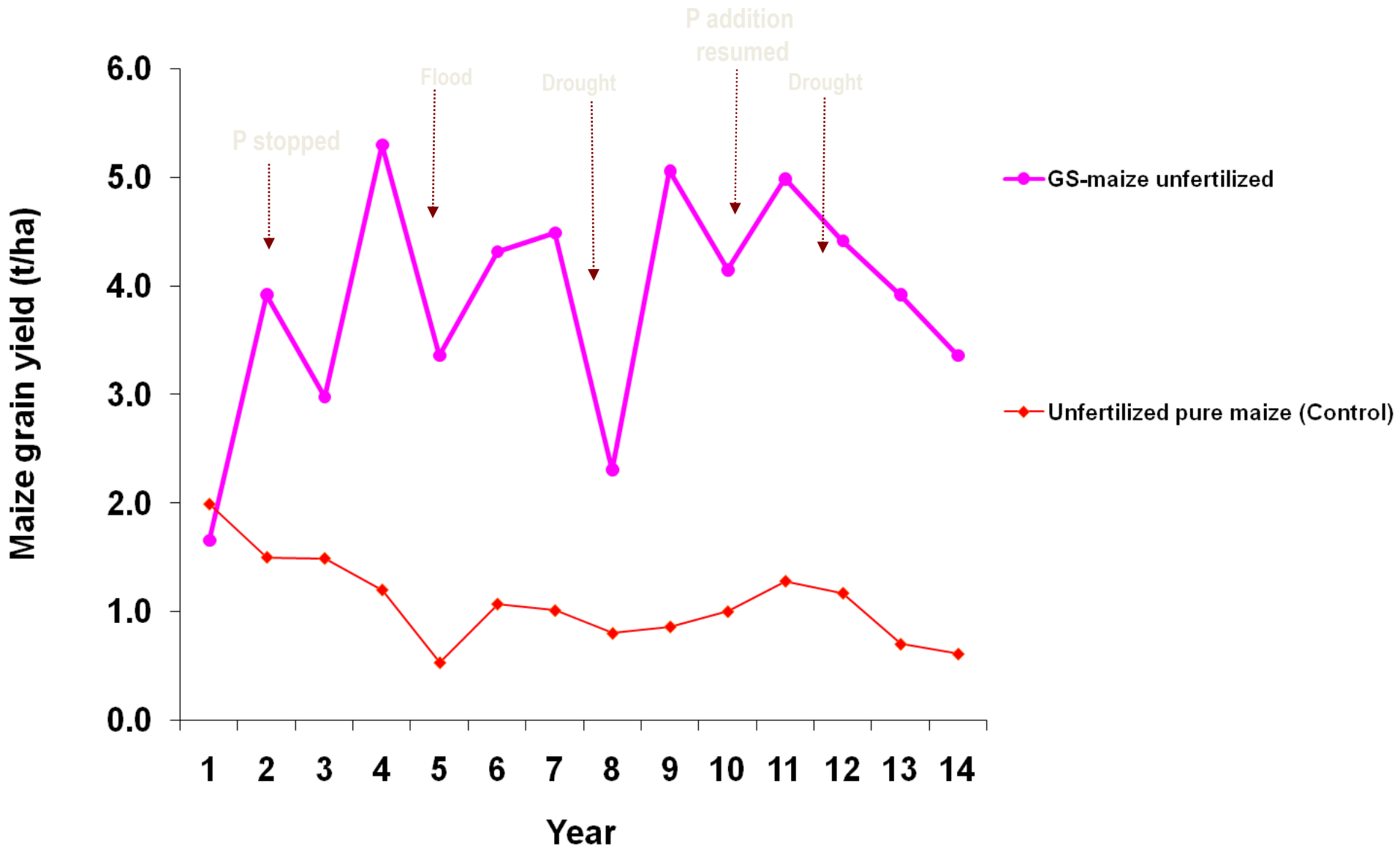
- a) Sequestering carbon from the atmosphere**
- b) Bringing up water and nutrients from depth**
- c) Providing a framework for above and below-ground biodiversity to flourish**
- d) Improving microclimate**
- e) Building up soil organic matter and thus soil carbon**
- f) Offering new farm diversification enterprises**
- g) Making agricultural landscapes more resilient**
- h) Recording climate history**



Maize with Gliricidia Sepium:
A bumper Harvest

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Long-term maize yield without fertilizer in a *Gliricidia* system





Faidherbia Trial Results in Zambia

Maize yield - zero fertiliser

	2008	2009	2010
	----- Tons/ha -----		
<i>With Faidherbia</i>	4.1	5.1	5.6
<i>Without Faidherbia</i>	1.3	2.6	2.6
Number of trials	15	40	40

**10mx10m
spacing**



Malawi National Agroforestry Food Security Programme



Impact of fertilizer trees on maize yield under farmer management

Plot management	Yield (t/ha)
Maize only	1.30
Maize + fertilizer trees	3.05

**2011 Survey of farms in six districts (Mzimba, Lilongwe, Mulanje,
Salima, Thyolo and Machinga)**

Kenyan Farmlands: Bold policy to achieve >10% tree cover on farms through a National Evergreen Agriculture Programme





Kenya - Kajiado



Invasive species



Lamu County Kenya



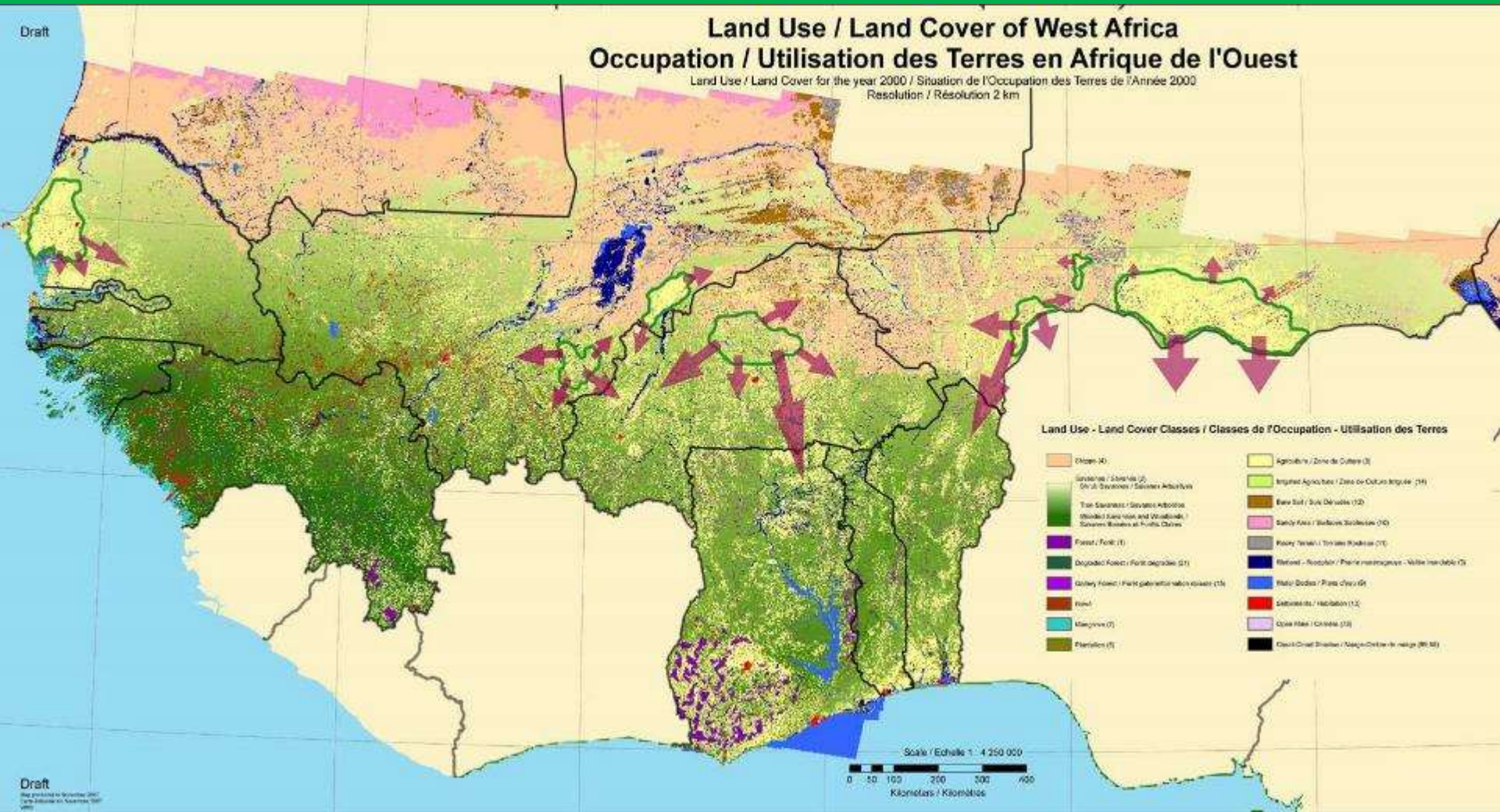


December 2011: Ethiopian Prime Minister announces national programme to establish 100 million *Faidherbia* trees in farmers' fields

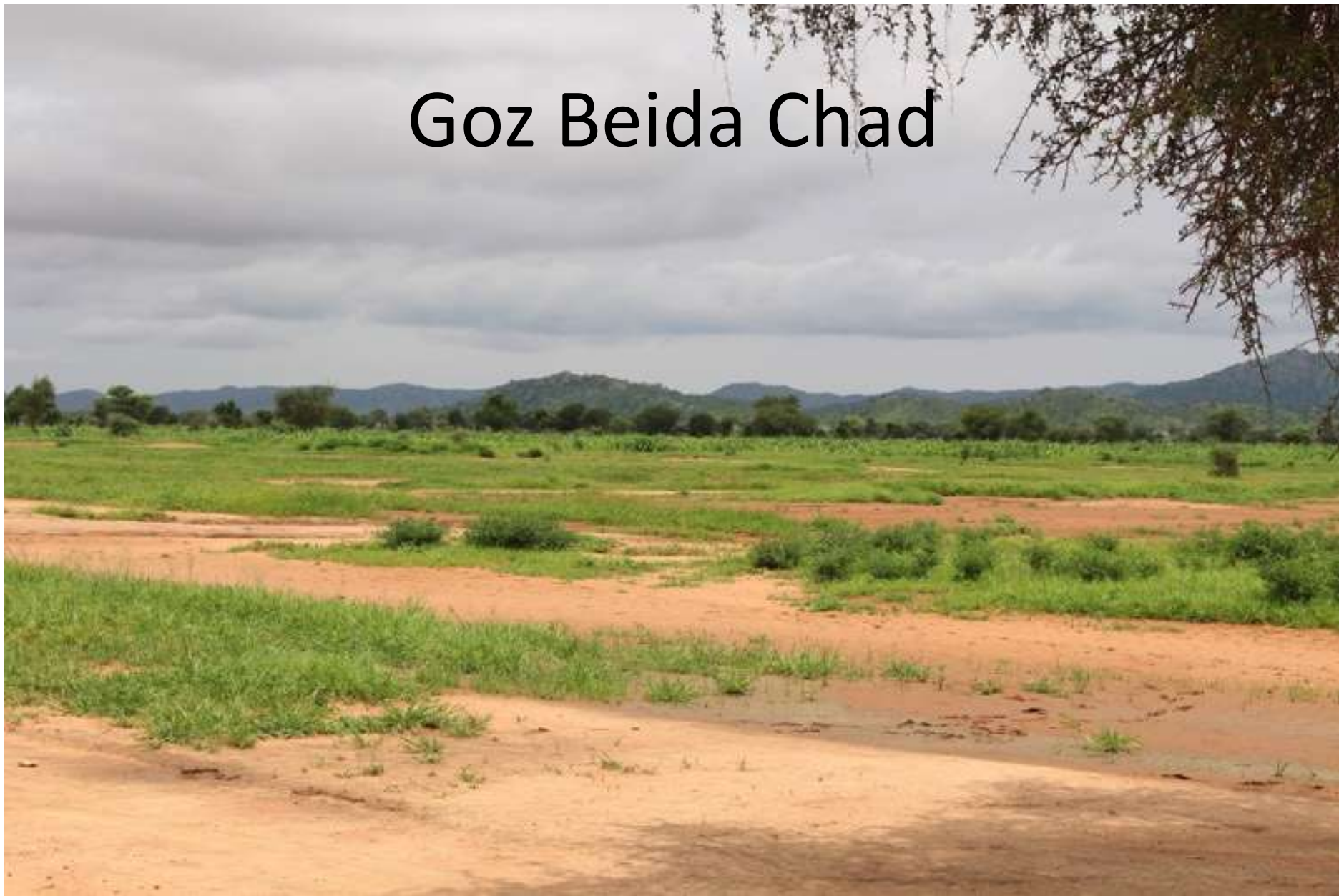
Ethiopia - Tigray



Major Agroforestry Regions in West Africa and Directions of Expansion



Goz Beida Chad



Goz Beida Chad



Important Questions

- **Where do people living in Flood farming areas source of tree products? e.g.** fruit, nuts, oils, beverages, gums, resins, latex, flavours, leaves for food and nutrition, fodder for livestock, timber, fuel wood and biomass for energy production, and medicines that treat disease).
- **What needs to be done to strengthen AF in flood farming systems?**



THANK YOU

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