



Setting the Stage

Breaking Developments in Forest & Landscape Restoration in Africa

Dennis Garrity

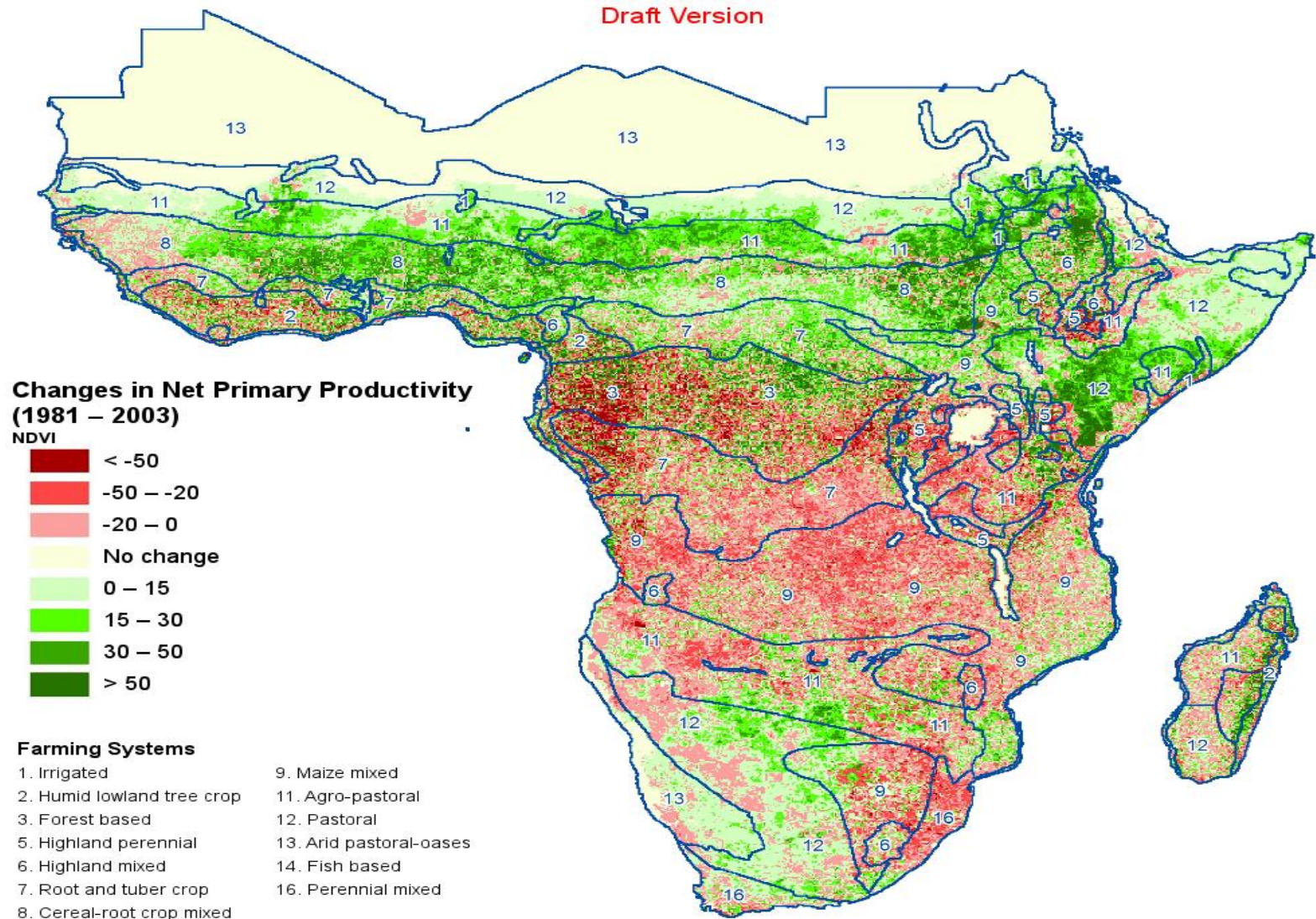
Drylands Ambassador, UN Convention
to Combat Desertification

The Challenge in Perspective

- **Hunger and poverty is overwhelmingly rural, so the real challenge is to assist Africa's 100 million smallholders to produce more food and income, and**
- **To restore, regenerate and sustain the natural resource base for future food production.**

Alarming Land Degradation in Africa

Trend in biomass productivity by farming system

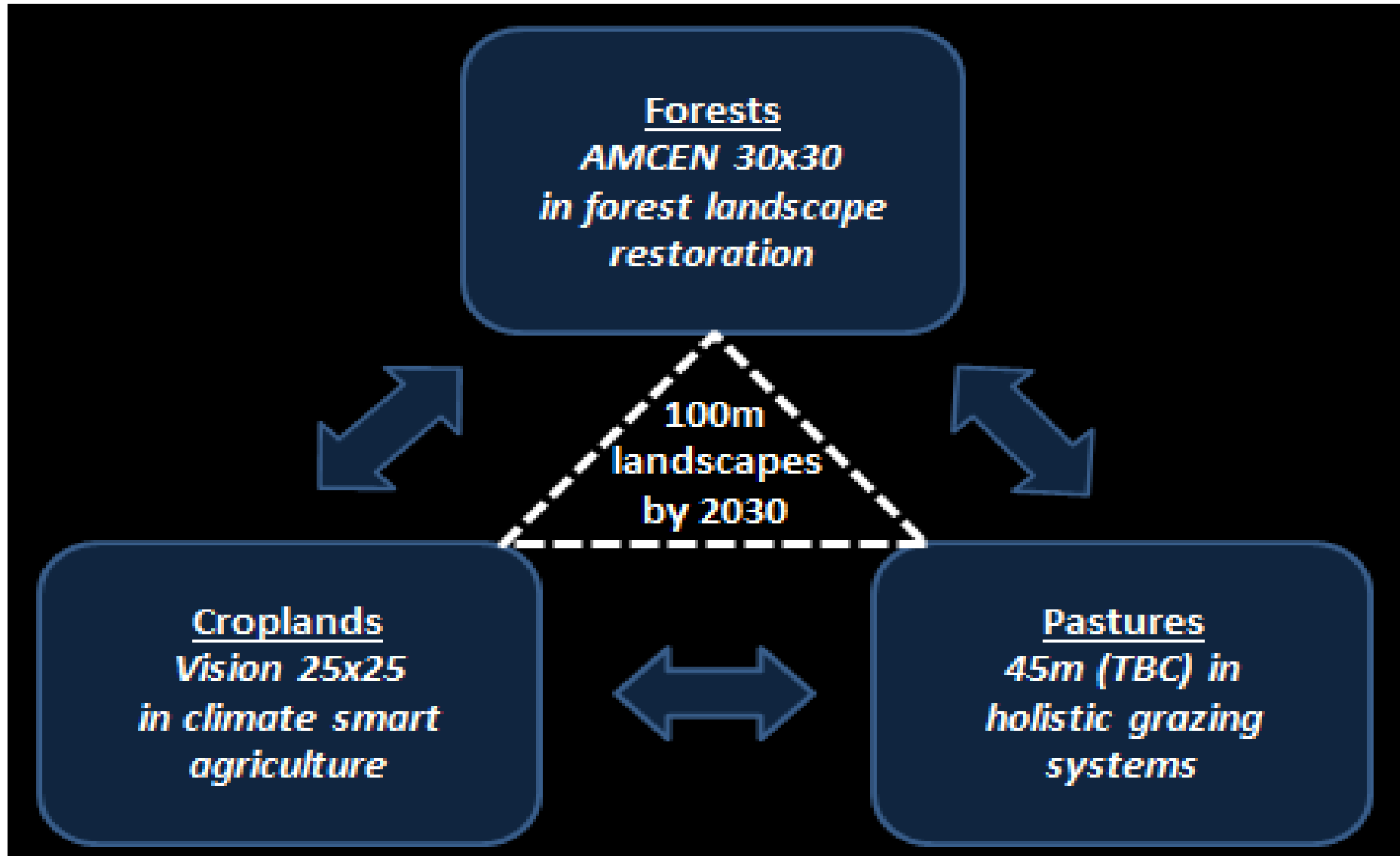


The background image shows two women standing on a grassy hillside, looking out over a lush green valley. The woman on the left is wearing a dark purple jacket, a tan skirt, and a colorful patterned headscarf. The woman on the right is wearing a white shawl over a dark blue skirt. They are standing in front of dense green foliage. In the background, a river winds through a valley between green hills under a cloudy sky.

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**AFRICA
RESTORATION
INITIATIVE**

Opportunities to realize the synergies within African landscapes



Political commitment to scale up restoration successes is growing!

22 countries have made commitments including:

Niger	1 million hectares
Ghana	2 million hectares
Ethiopia	15 million hectares
Kenya	5 million hectares
Uganda	2.5 million hectares
Rwanda	2 million hectares

Total commitments are now over **59 m hectares** by countries in West, Central, East and Southern Africa.

The Parkland Renaissance on Niger Farmlands



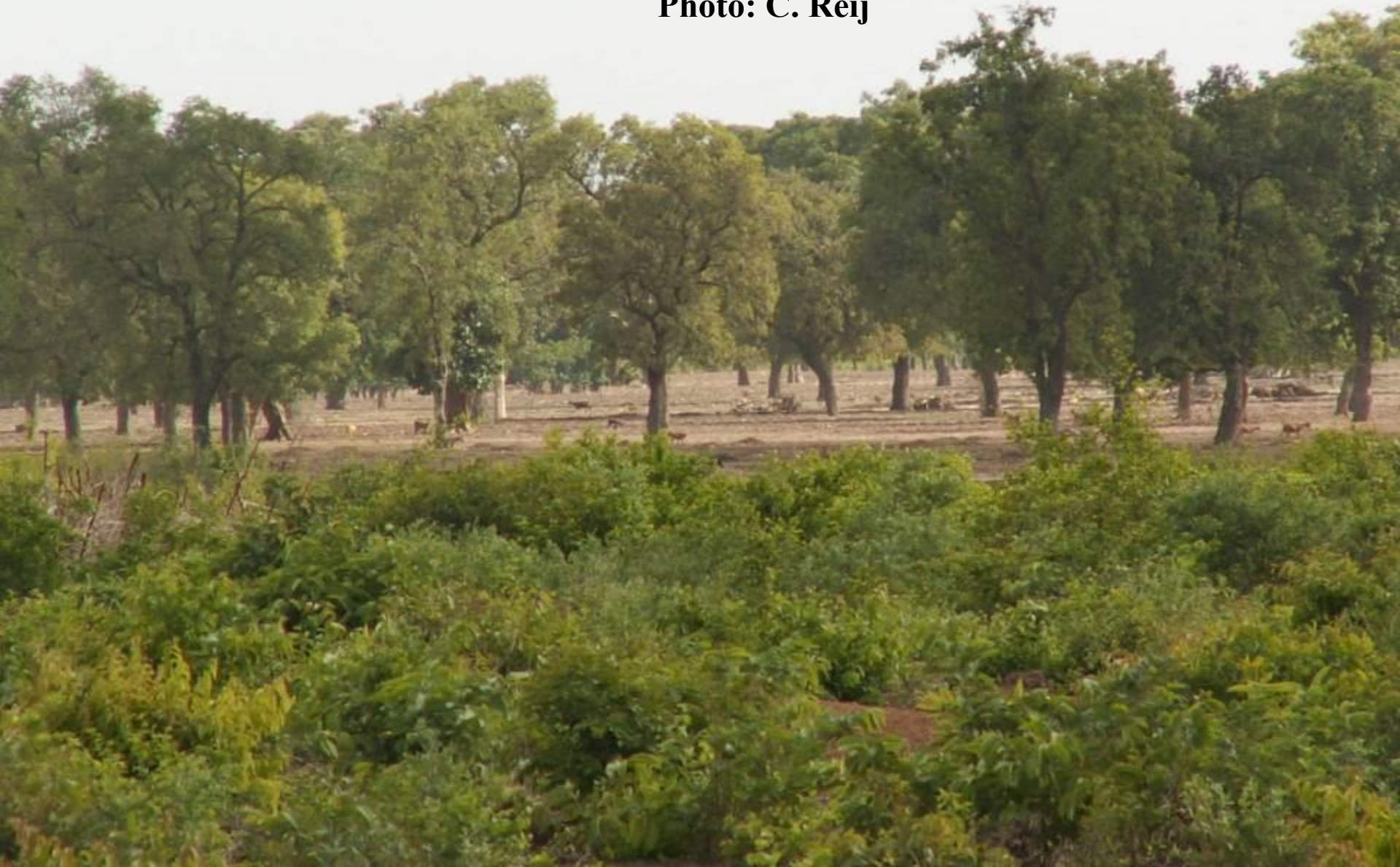


Farmer-Managed Regeneration of trees has been massively upscaled on the croplands in Niger

Southern Mali

6 million hectares of agroforestry parklands

Photo: C. Reij



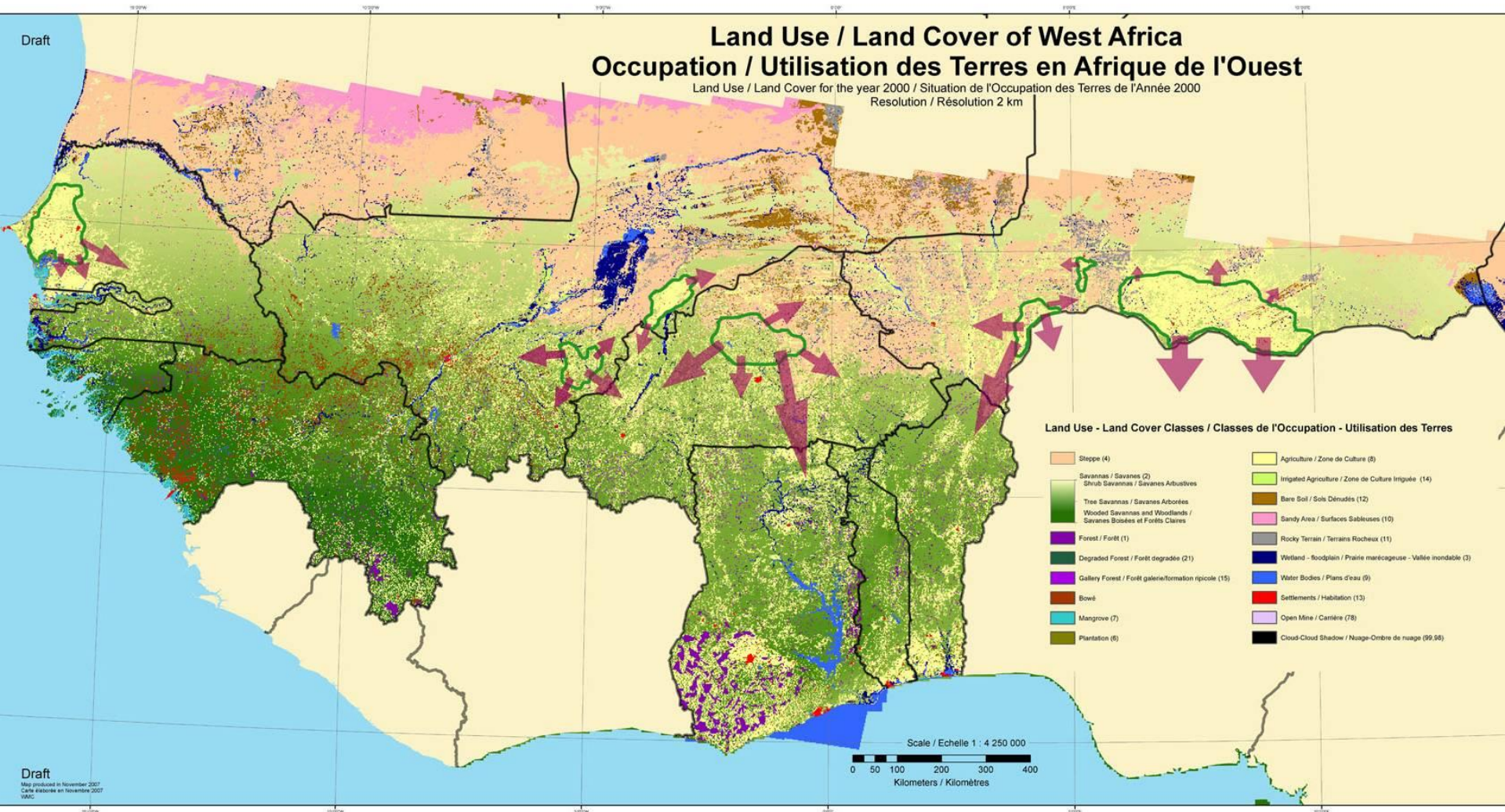
Central Mali

**450,000 hectares of new agroforests
developing on the Seno Plains**

The scale of transformation only uncovered in 2011



Major agroforestry regions in West Africa and potential directions of expansion




Malawi Maize Lands

**Farmer Managed Natural
Regeneration Practiced by
1 Million Farmers**





THE RANGELANDS
Shinyanga, Tanzania
Severe desertification
through to the late 1980s

A photograph of a lush, green woodland area. In the foreground, there are tall, dry grasses and some green plants. In the background, there are dense trees and shrubs. The sky is overcast.

**Community-Based Regeneration of woodlands and
grazing lands covering about 500,000 ha in 934 villages**
Awarded the UNDP Equator Prize

***Faidherbia albida* is commonly found
in cereal crop systems in Ethiopia**



Ethiopia: FMNR in Ethiopian villages

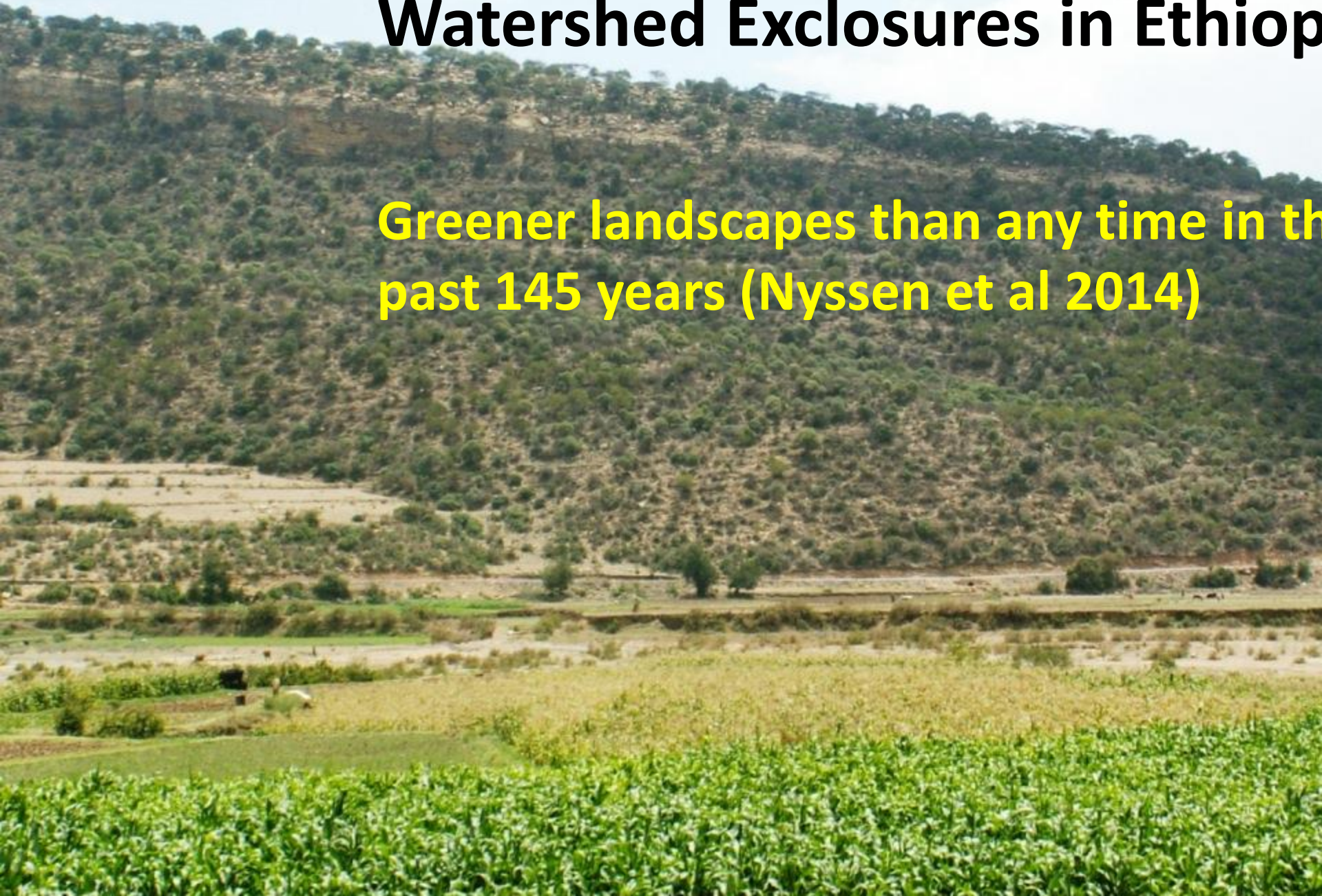


A photograph showing two people in a field of young, green trees. A man in a grey jacket and cap stands in the center, while a woman in a blue shirt and cap stands on the right, holding a clipboard. The background features a large, rocky, reddish-brown hill under a cloudy sky. The ground is covered with dry grass and small shrubs.

Assisted Natural Regeneration on grazing land in Ethiopia

DEGRADED FOREST LANDS: Massive Watershed Exclosures in Ethiopia

**Greener landscapes than any time in the
past 145 years (Nyssen et al 2014)**



Restoration Investments

Getting the Biggest Bang for the Buck

Tree plantations: > \$1000/ha

Assisted natural regeneration of
trees: \$30-50/ha

Vision for the Drylands

2nd Africa Drylands Declaration *Djamena, August 2014*

«**WE RECOMMEND AND PROPOSE** that the drylands development community  **commit seriously to achieving the goal of**

*Enabling EVERY farm family and
EVERY village across the drylands of Africa*

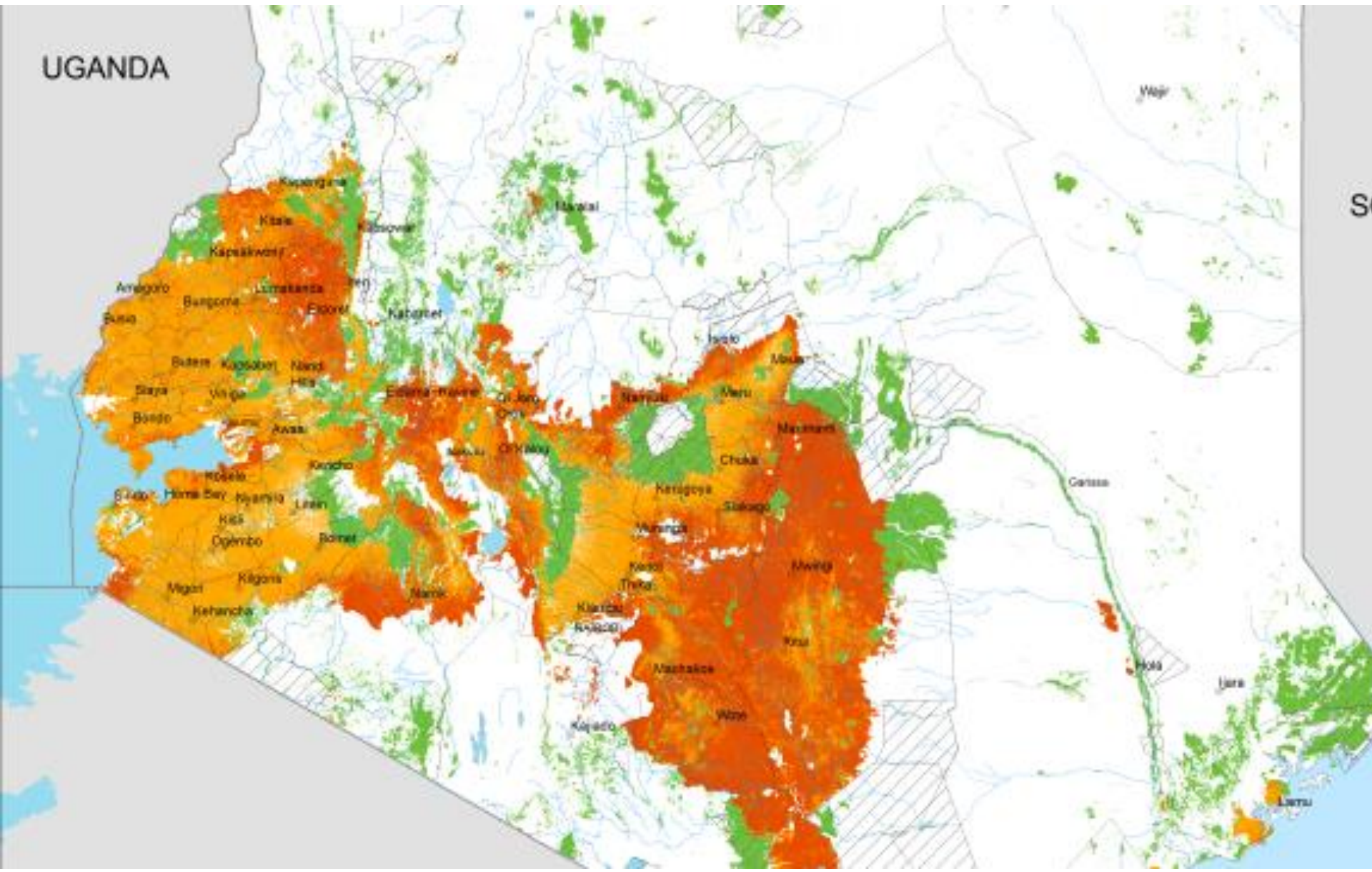
**to be practicing Farmer-Managed Natural
Regeneration by the year 2025."**

*“Farmer-Managed Natural
Regeneration (FMNR) is a
foundational practice for Resilience
in the Drylands of Africa.”*

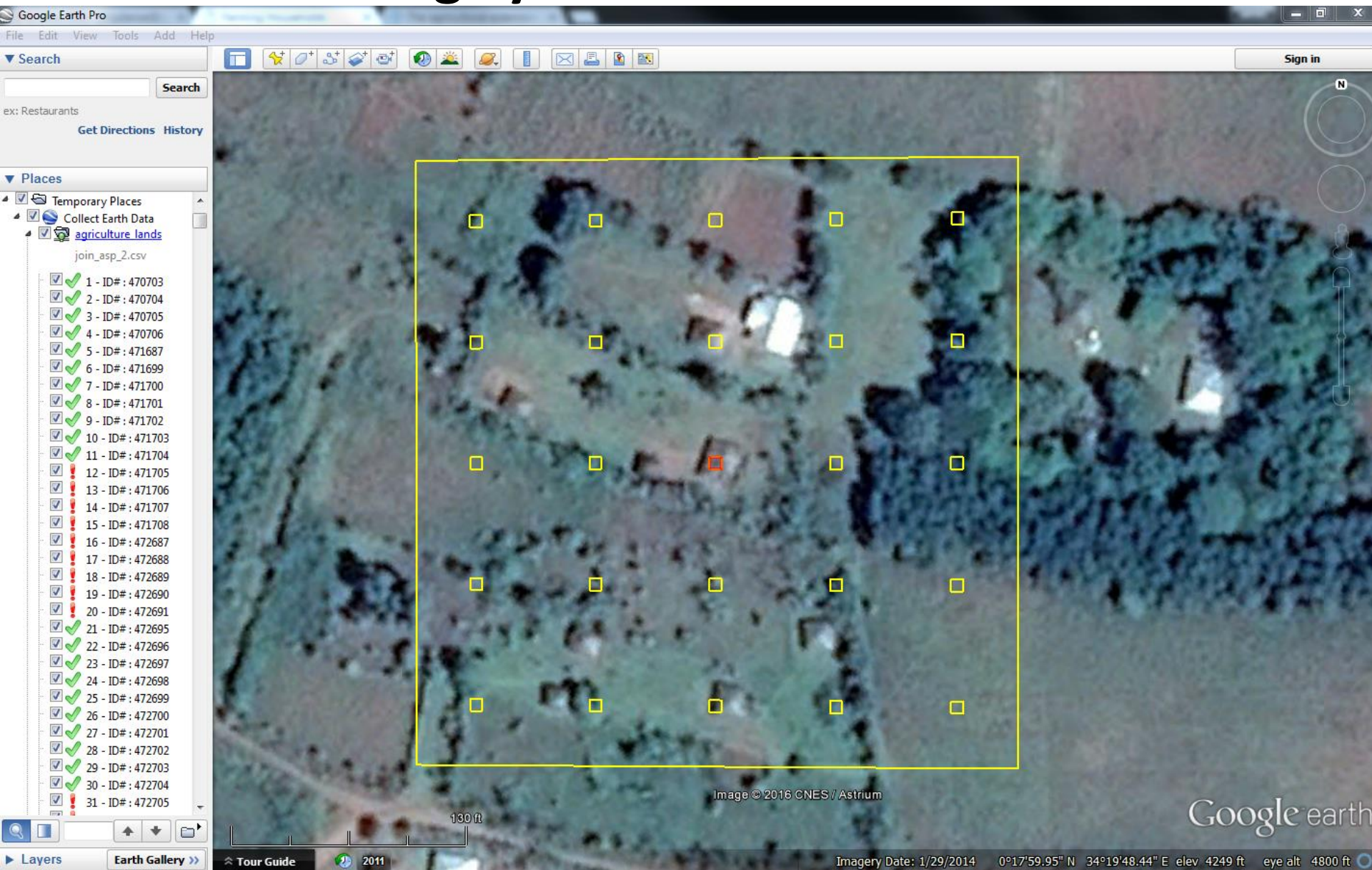
***World Bank Drylands Investment
Strategy***

Kenya Restoration Target: 5.1 m ha

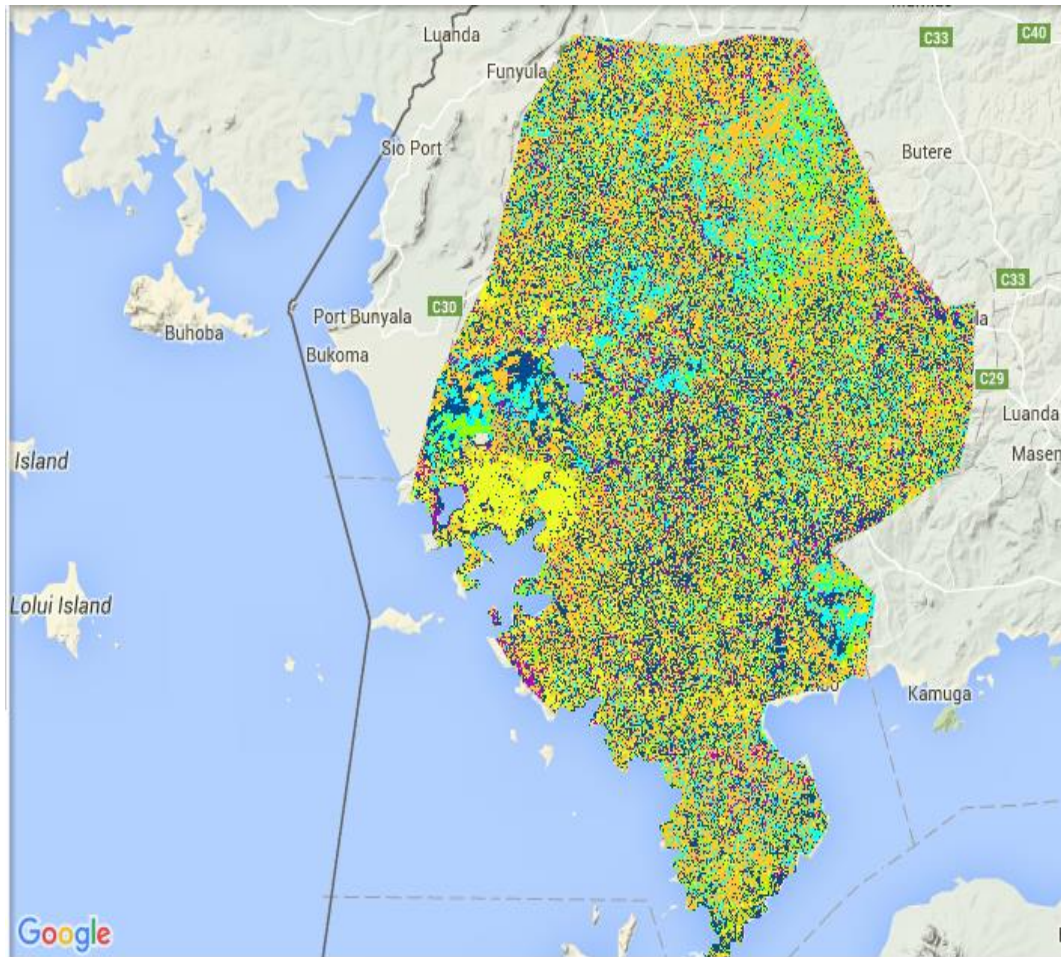
Already >10% tree cover on 70% of agric land



Creating a Tree Cover Baseline and Tracking System with Collect Earth



Percentage Tree cover on Nyanza County farmlands, Kenya



Classes

na-2%

4-8%

10-19%

20-29%

30-39%

40-49%

50-59%

60-69%

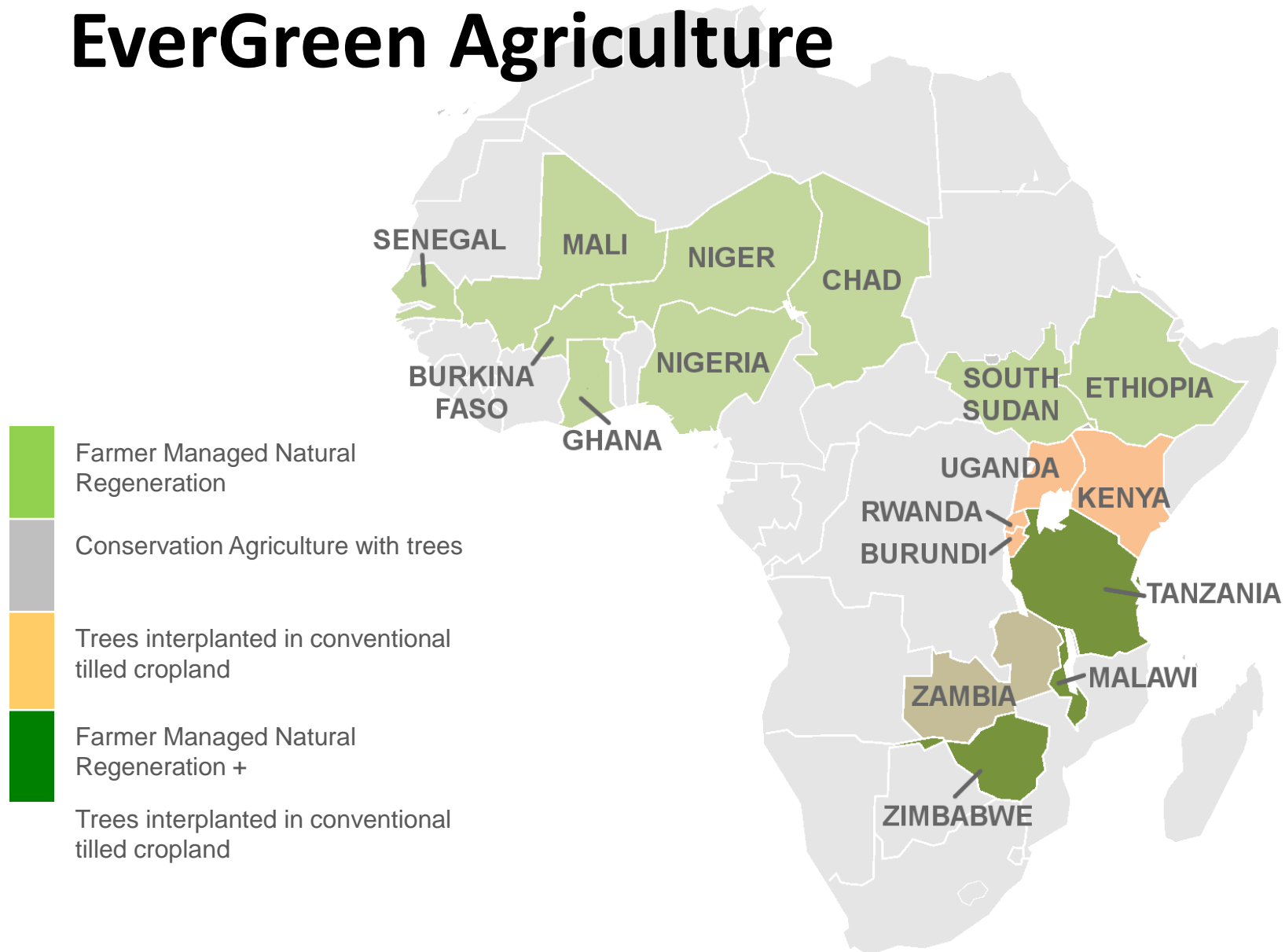
70-79%

Zero Net Land Degradation by 2030

Zero Carbon Emissions by 2050

EverGreening Africa & The World

18 African countries are now engaged in EverGreen Agriculture



A Recent Development

The Initiatives for Land, Lives and Peace Program

Is joining up with the *Land Restoration Community*

to make *EverGreening Africa* a bridge to peace-building and conflict resolution.

Conclusions – Way Forward

- Land degradation in Africa is a serious crisis
- But evergreening has taken root and it is spreading rapidly. Millions of smallholders are adopting effective land regeneration methods.
- Success will require a broad-based EverGreening Movement for land regeneration and food security
- It will require setting targets and carefully monitoring progress. The tools for that are now available.
- And it will require cross-sectoral coordination and goodwill with an *'All-In'* spirit of collaboration.

***For More Information
and to Get Engaged***

Evergreen Agriculture web site
www.evergreenagriculture.net

Email contact:
d.garrity@cgiar.org

The Next Step for the 3rd African Drylands Week:

1. *There is now a **continental target**.*

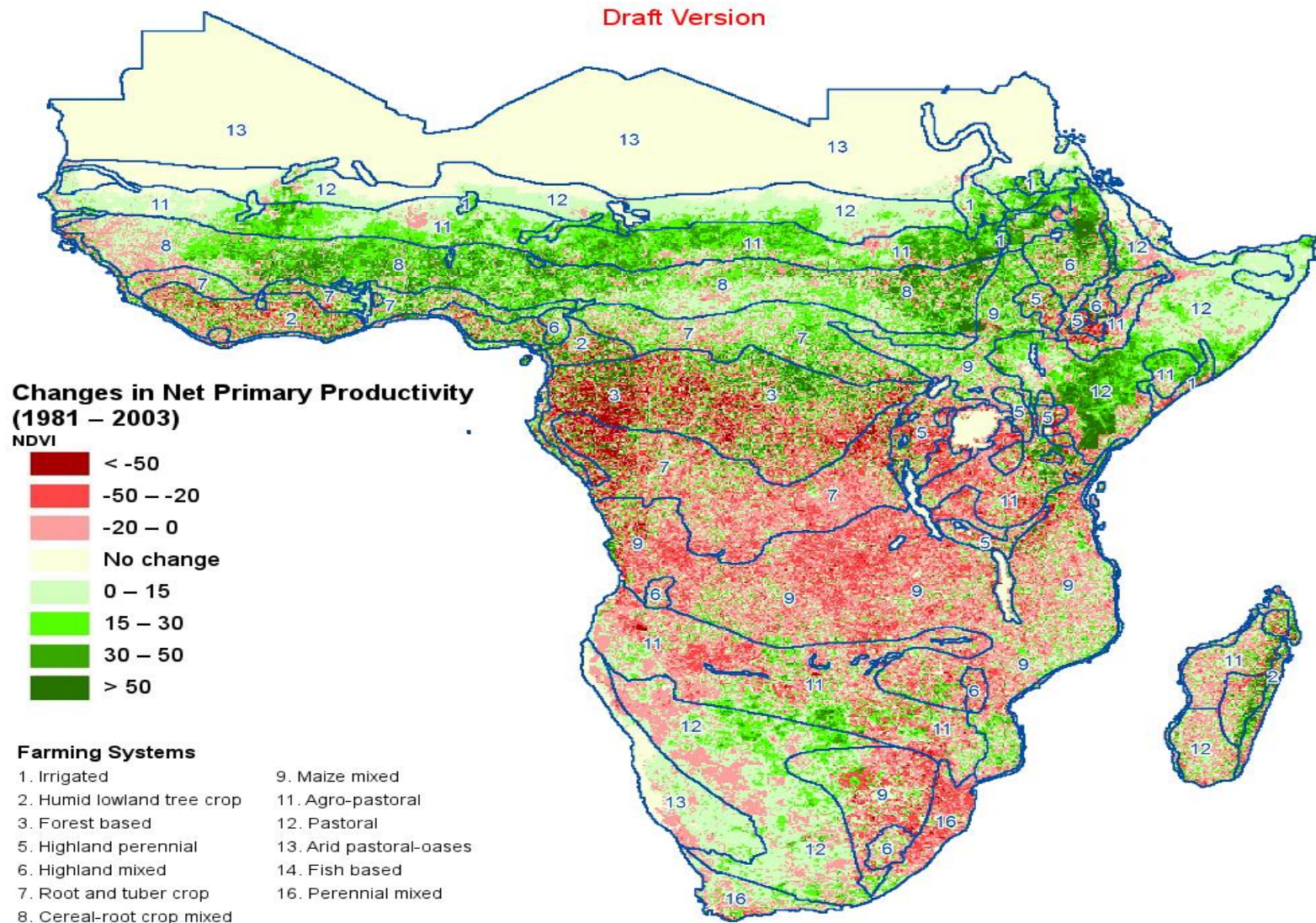
2. *It's high time to develop a **detailed strategy and plan to achieve it!***

3. *And to **monitor progress** across the continent every 3-5 years!*

The European Commission
Challenge:
Scale-Up EverGreen
Agriculture to
50 million farmers in Africa

Alarming Land Degradation in Southern Africa

Trend in biomass productivity by farming system

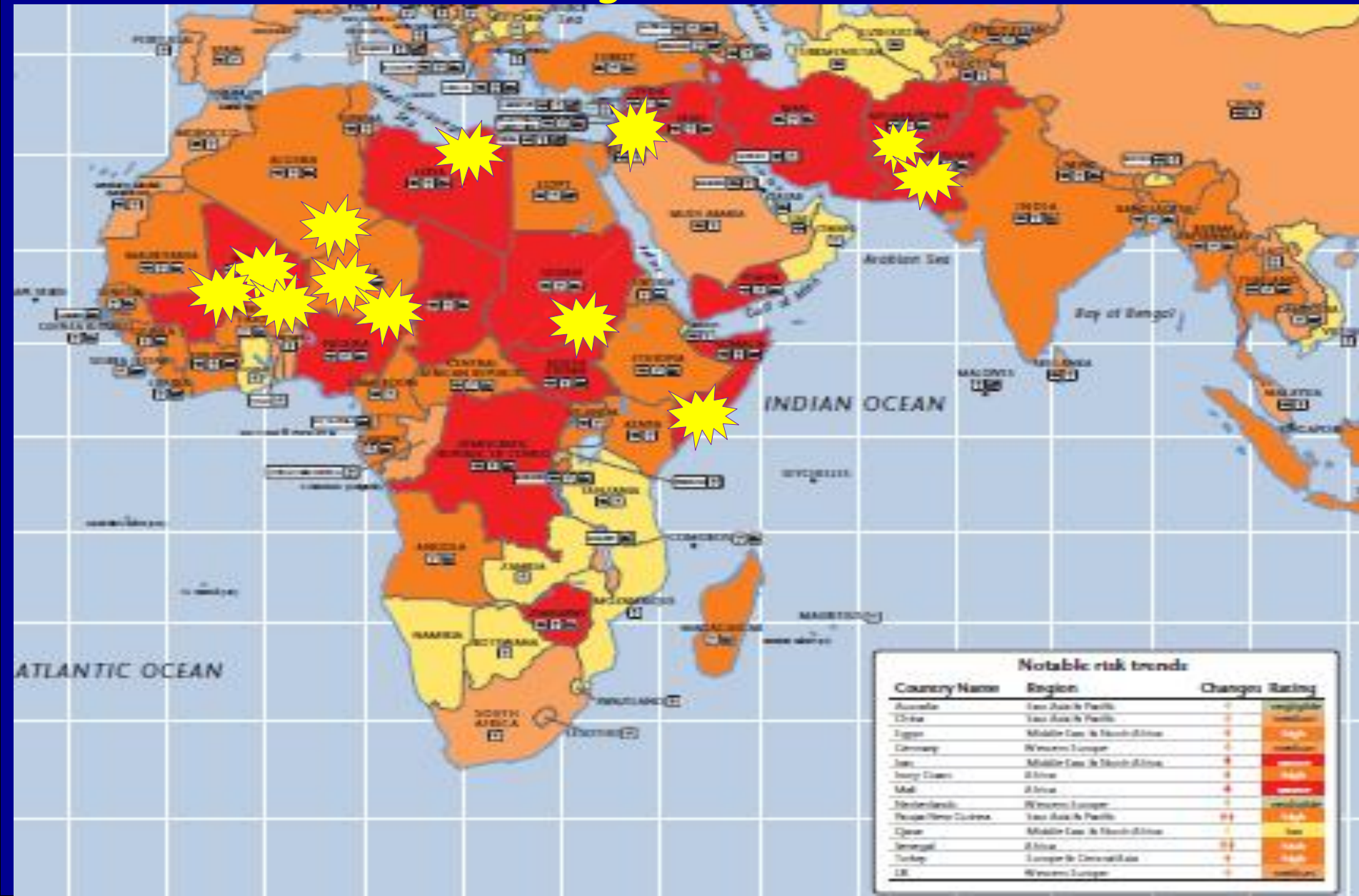


A Grassroots Movement for Landscape Restoration Across Southern Africa

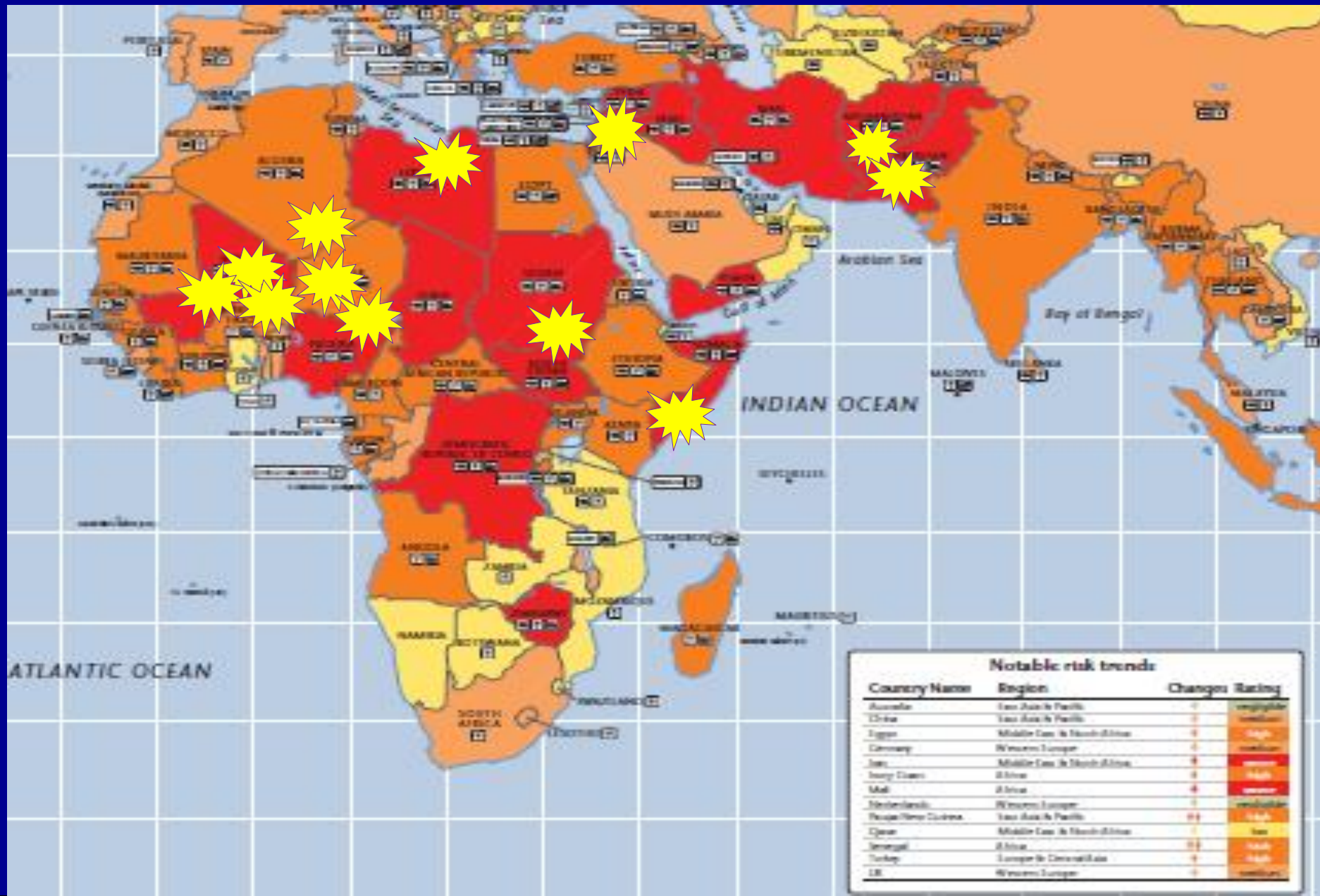
Grassroots as the basis for scaling-up

Building on success. Scaling-up from demonstrated success in grassroots movements and scaling-up successes

EverGreening for Peacebuilding: *Overcoming Political Violence*



Terrorism & Political Violence



Country Name	Region	Changes	Rating
Australia	East Asia & Pacific	-1	very low
China	East Asia & Pacific	-1	very low
Egypt	Middle East & North Africa	-1	high
Germany	Western Europe	-1	medium
Iran	Middle East & North Africa	-1	very high
Israel	Middle East & North Africa	-1	high
Italy	Western Europe	-1	medium
Japan	East Asia & Pacific	-1	very low
Kenya	Eastern Africa	-1	high
Libya	Middle East & North Africa	-1	very high
Malawi	Eastern Africa	-1	low
Malaysia	East Asia & Pacific	-1	very low
Maldives	South Asia	-1	very low
Marshall Islands	Western Europe	-1	very low
Mexico	Latin America & Caribbean	-1	medium
Nigeria	Western Africa	-1	high
Qatar	Middle East & North Africa	-1	very low
Romania	Eastern Europe	-1	medium
Saudi Arabia	Middle East & North Africa	-1	very high
South Korea	East Asia & Pacific	-1	very low
Taiwan	East Asia & Pacific	-1	very low
Tanzania	Eastern Africa	-1	low
Turkey	Western Europe	-1	medium
U.S.	Western Europe	-1	medium

Link Fertilizer Subsidies to Scaling-Up Fertilizer Tree Technologies

New COMESA Platform

- 1. Strengthen member countries' ability to scale-up fertilizer tree technologies** by linking with fertilizer subsidy programs.
- 2. Assist countries** to share their experiences in developing such linkages to enhance the impact and welfare benefits of input subsidy programs.
- 3. Regenerate soils:** create a sustainable nutrient system.
- 4. Reduce fertilizer importation bills.**



Conservation agriculture with reduced tillage and *trees* increases productivity while restoring land quality and reducing labor.

What is Evergreen Agriculture?

A form of more agroecologically intensive farming that integrates trees into crop and livestock production systems.

***Evergreen farming systems* are ‘double-story’ systems** that feature both perennial and annual species (food crops and trees), maintaining a green cover on the land throughout the year.

Types of Agroforestry

- 1. Agroforests: combinations of perennial species on arable land**
- 2. Home gardens with perennials**
- 3. Woodlots or farm forests**
- 4. Trees on field and farm boundaries**
- 5. Sylvopastoral systems: Trees in pastures**
- 6. Evergreen Agriculture: Trees intercropped with field crops (including alley cropping)**

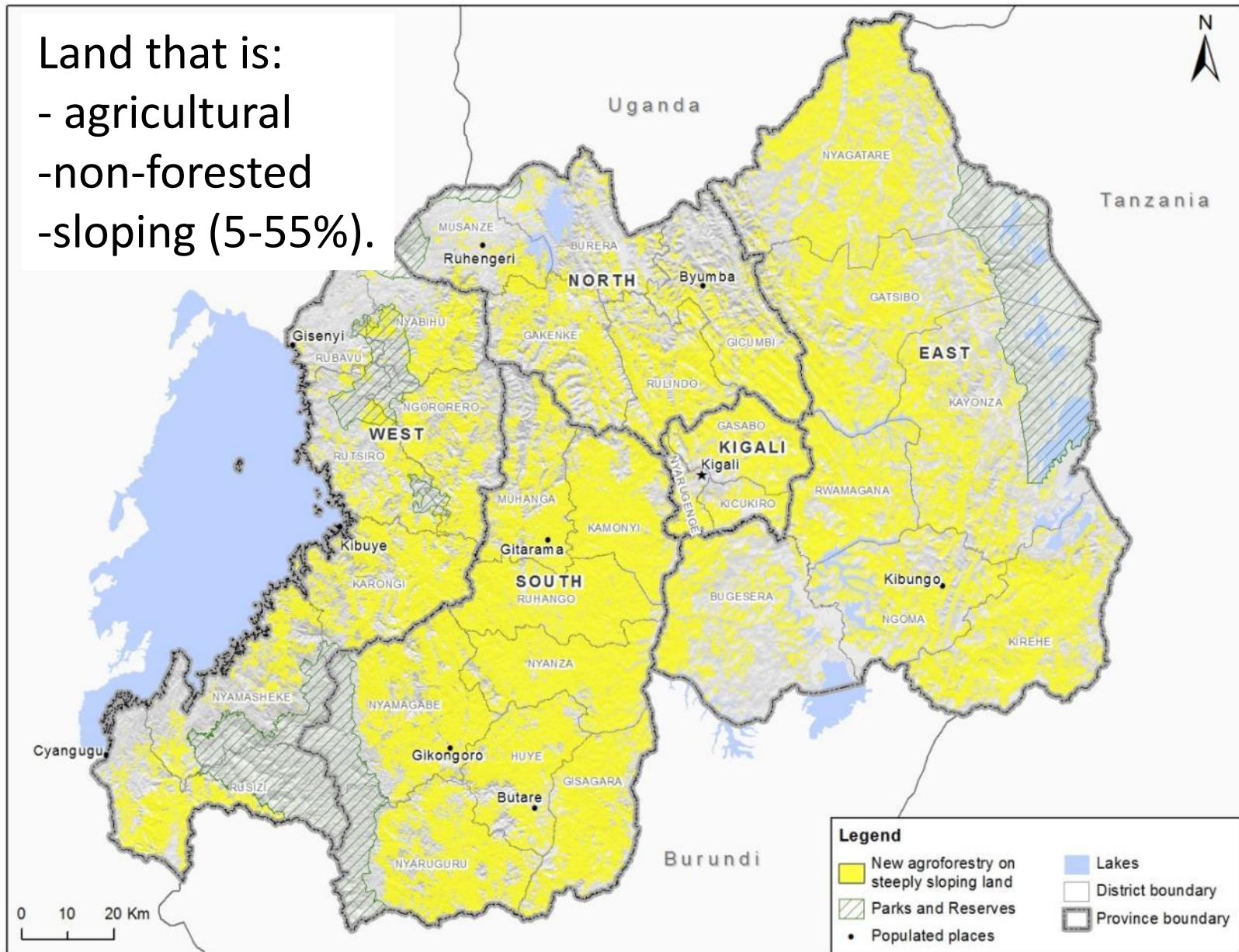
Types of Evergreen Agriculture

- 1. Farmer-Managed Natural Regeneration (FMNR)
on cropland**
- 2. Conservation agriculture with trees (CAWT)**
- 3. Conventional agriculture interplanted with trees
(including alley cropping systems)**

Rwanda's plan for restoration interventions

Land that is:

- agricultural
- non-forested
- sloping (5-55%).

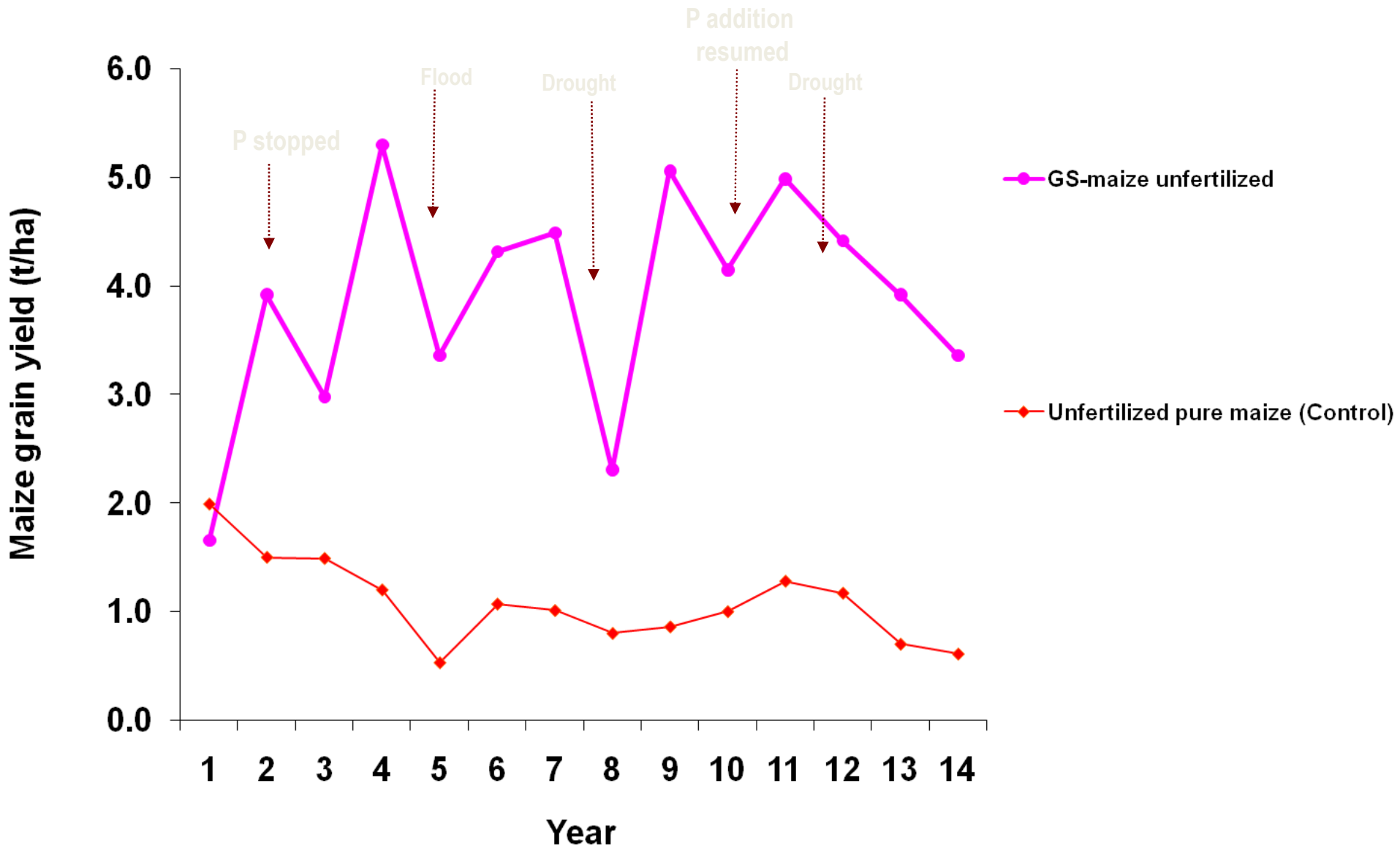






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Long-term maize yield without fertilizer in a *Gliricidia* system



Malawi National Agroforestry Food Security Programme

