CLIMATE-SMART Agriculture 2015

Global Science Conference

March 16-18, 2015
Le Corum, Montpellier France

Prioritizing and evaluating climate-smart practices and services

B Campbell,
C Corner-Dolloff, E Girvetz,
T Rosenstock and many others (CGIAR)

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Montpellier

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Outline

- Introduction – tradeoffs & context specificity
- "CSA-Plan" - 4-step set of planning and implementation tools
  - CSA Country Profiles
  - Prioritization in Guatemala, Mali, Viet Nam
  - Implementation in Africa
- Conclusions

Compendium of CSA practices
65 practices/22 indicators

Photo:
K. Tully

Key word search

144,567 papers

Abstract/title review

16,254 papers

Full text review

6,100 papers

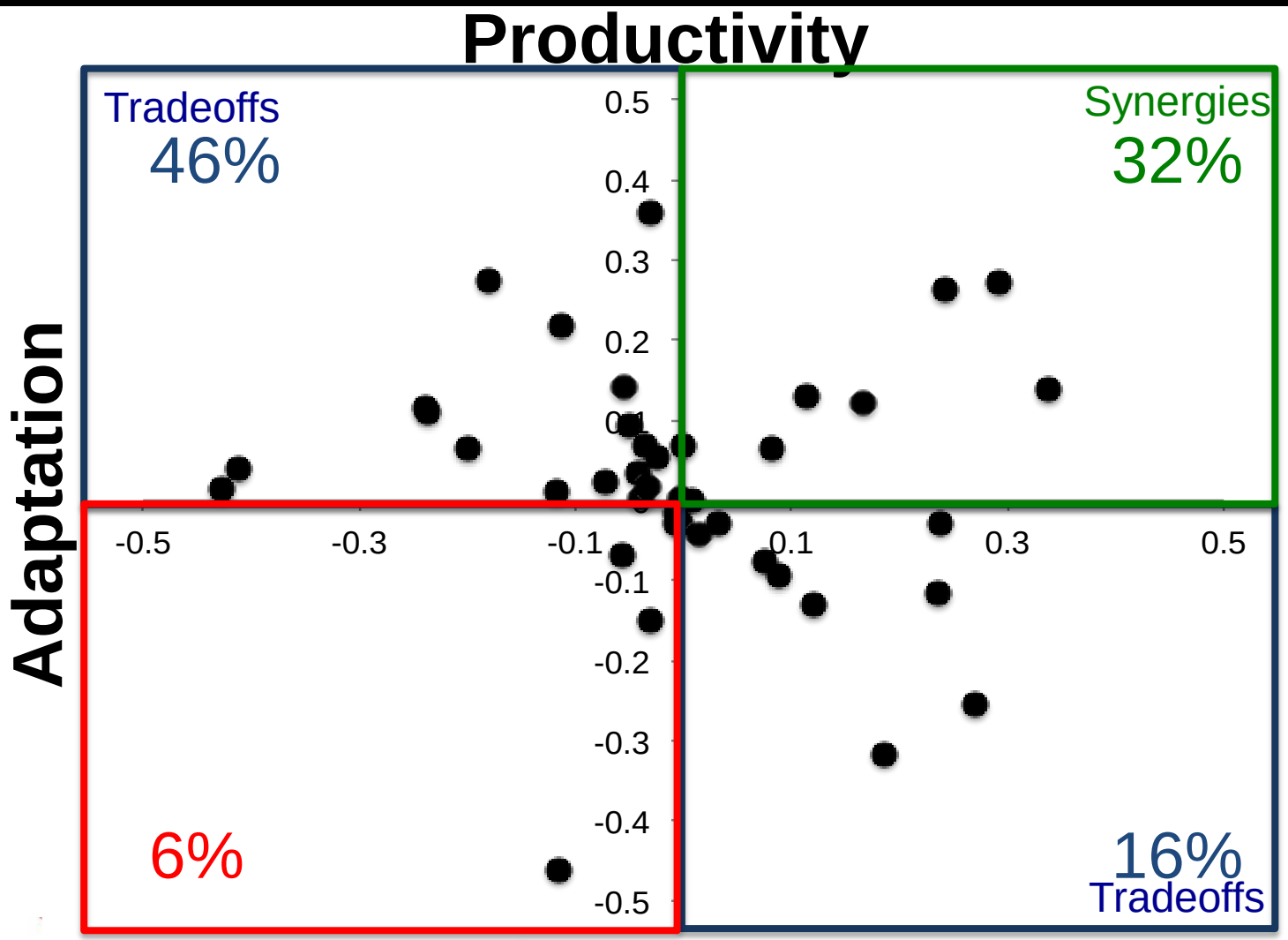
Data extraction

~120,000 data points

World Agroforestry Centre

CIAT
Centro Internacional de Agricultura Tropical
International Center for Tropical Agriculture
Consultative Group on International Agricultural Research

Synergies and tradeoffs between food security and adaptation with CSA



Mean effect from random sample of 130 studies (*55 comparisons)*

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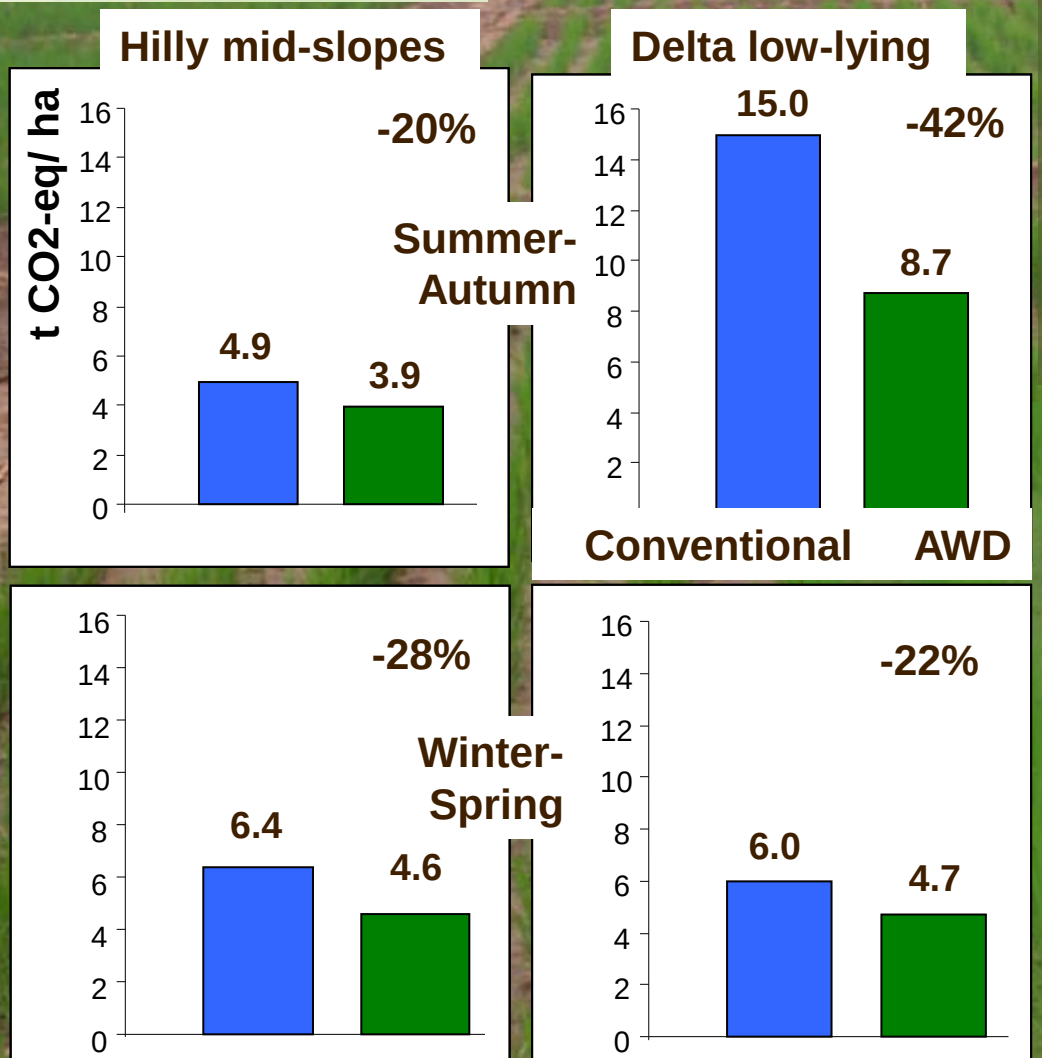
Alternate-Wetting-and-Drying (AWD)

IRRI
INTERNATIONAL RICE RESEARCH INSTITUTE



- Keep flooded for 1st 15 days and at flowering
- Irrigate when water drops to 15 cm below the surface

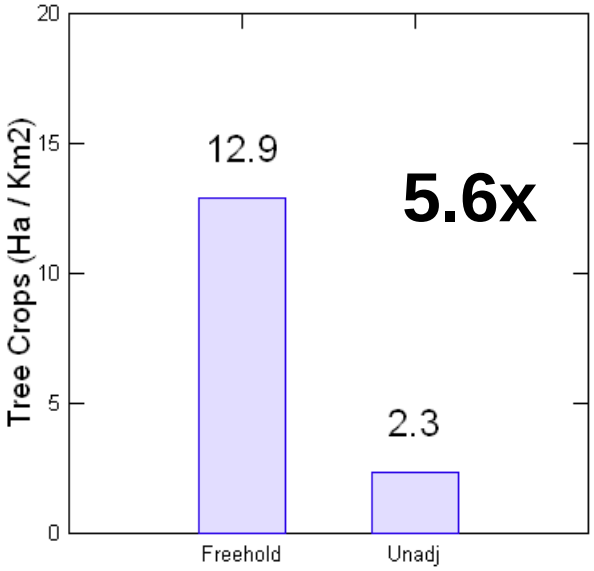
30% water

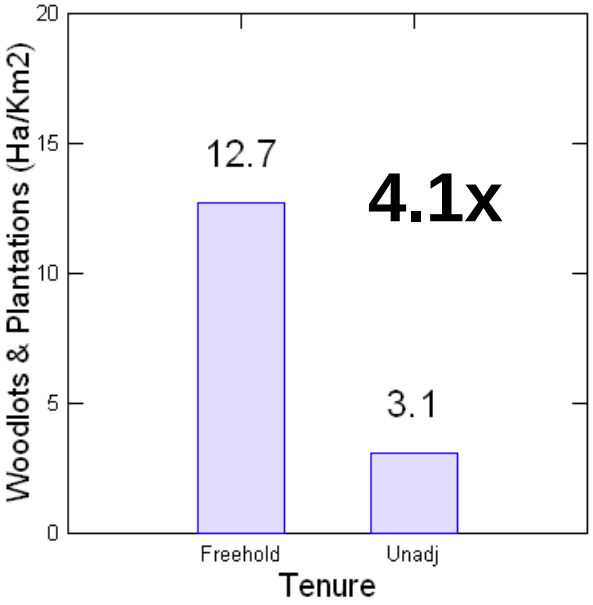
20-50% GHG

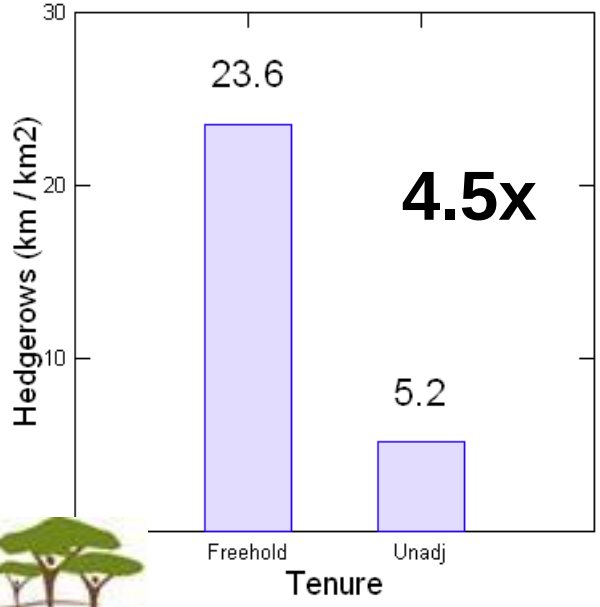
Without compromising yield

Sander et al. in press IRRI

Agroforestry: Integrating trees on farms







Diversified livelihoods, as much as 5 additional uses

Carbon

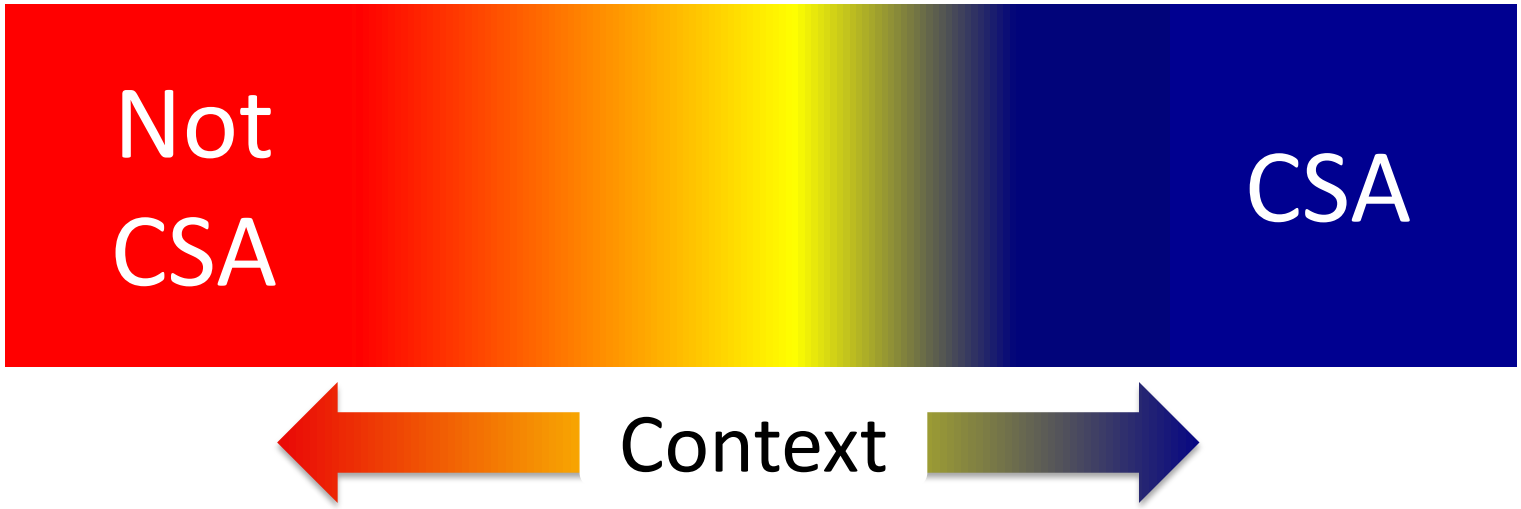
Reppin in prep

	Unadjud	Freehold	Tenure Effect
Net returns to land ($ ha^{-1} y^{-1})	$126	$288	2.28
Woody crops, woodlots etc (ha km^{-2})	5.4	25.6	4.7

World Agroforestry Centre

Norton-Griffiths 2012

No blanket recommendations



Many practices/programs/policies can be CSA **somewhere**

But **none** are likely CSA everywhere

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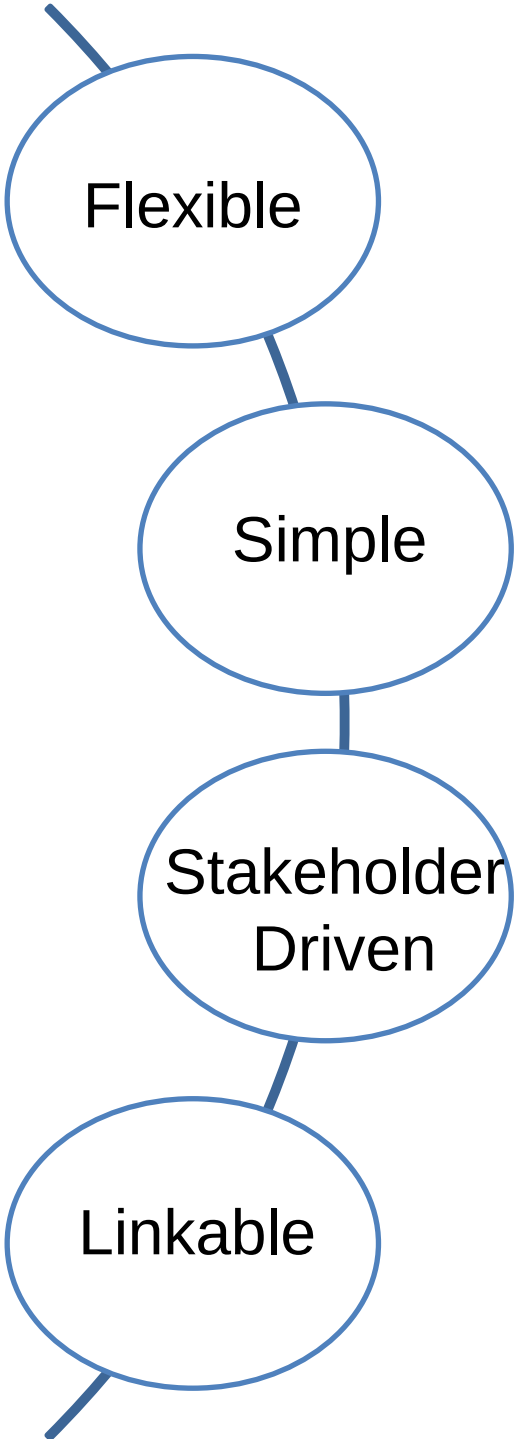
Rosenstock et al. unpublished

Global Alliance CSA: 500 million smallholders
AU-NEPAD: 25 million smallholders

Photo:
Neil Palmer (CIAT)

CSA-Plan:

A multi-step planning and implementation guide to scaling CSA



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CSA-Plan

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Engagement

Situation Analysis
Risks and Enabling Conditions

Vulnerability & Impacts + Readiness

Stocktaking for CSA Action

Targeting & Prioritizing
Practices, Programs and Policies

Trade-offs & Value for Money

CSA Investment Portfolios

Programing Design
Guidelines & Implementation

Knowledge into Action

Taking CSA to Scale

Monitoring and Evaluation
Across Scales and Systems

Evidence Based Results Framework

Learning from Experience

Capacity development

CSA-Plan

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Situation Analysis

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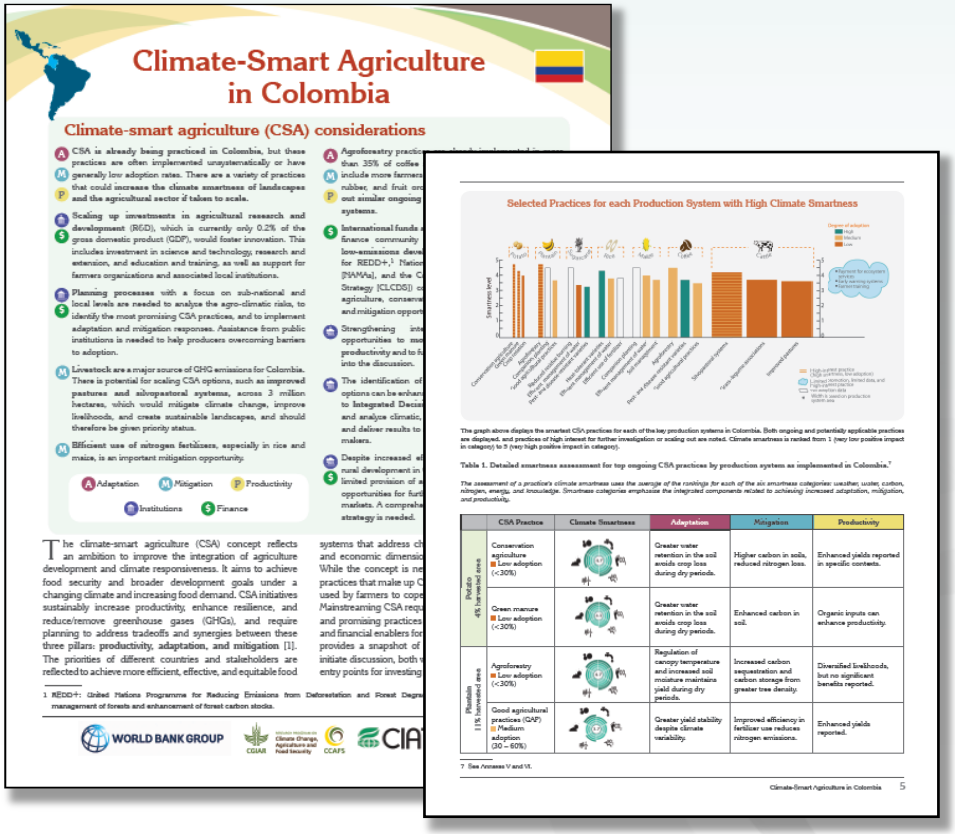
Stocktaking for CSA Action

- Indicators & targets to achieve
- Agricultural snapshot
- Future climate impacts
- Ongoing & promising CSA practices
- Institutions & policy entry points
- Finance mechanism



CSA-Plan

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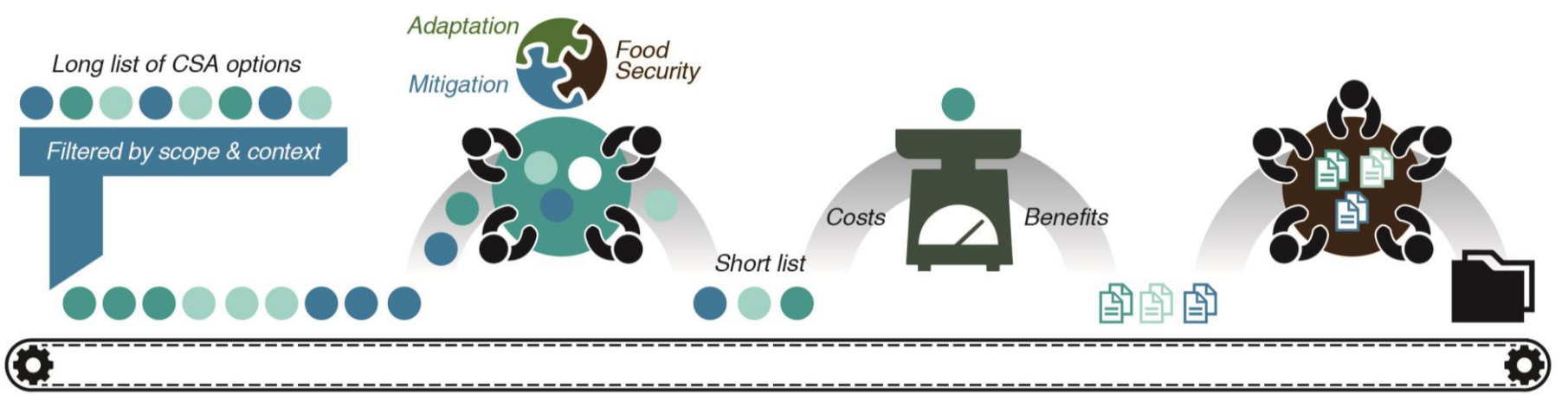
Prioritization
Action Research Methodology



Results
Ranked **long list** of CSA practices

Results
- **Short list** of priority practices and programs
- Stakeholder selection via **workshops**

Results
Ranked short list based on **economic analysis**

Results
- **CSA investment portfolios**
- Identified opportunities and constraints

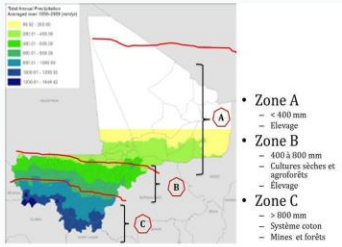
Prioritization in action

Guatemala — Ministry of Agriculture, Livestock, and Food

- 'Dry corridor' - severe drought in 2014
- Objectives
  - Assess and validate the previously incentivized practices from food for work program
  - Prioritize practices for promotion by government extension.

Mali — National Science Policy Dialogue Platform

- Three zones prioritized – cc impact, production systems
- Objectives:
  - Create technical info for farmers
  - Cross-ministerial CSA programs to incentivize adoption & investment



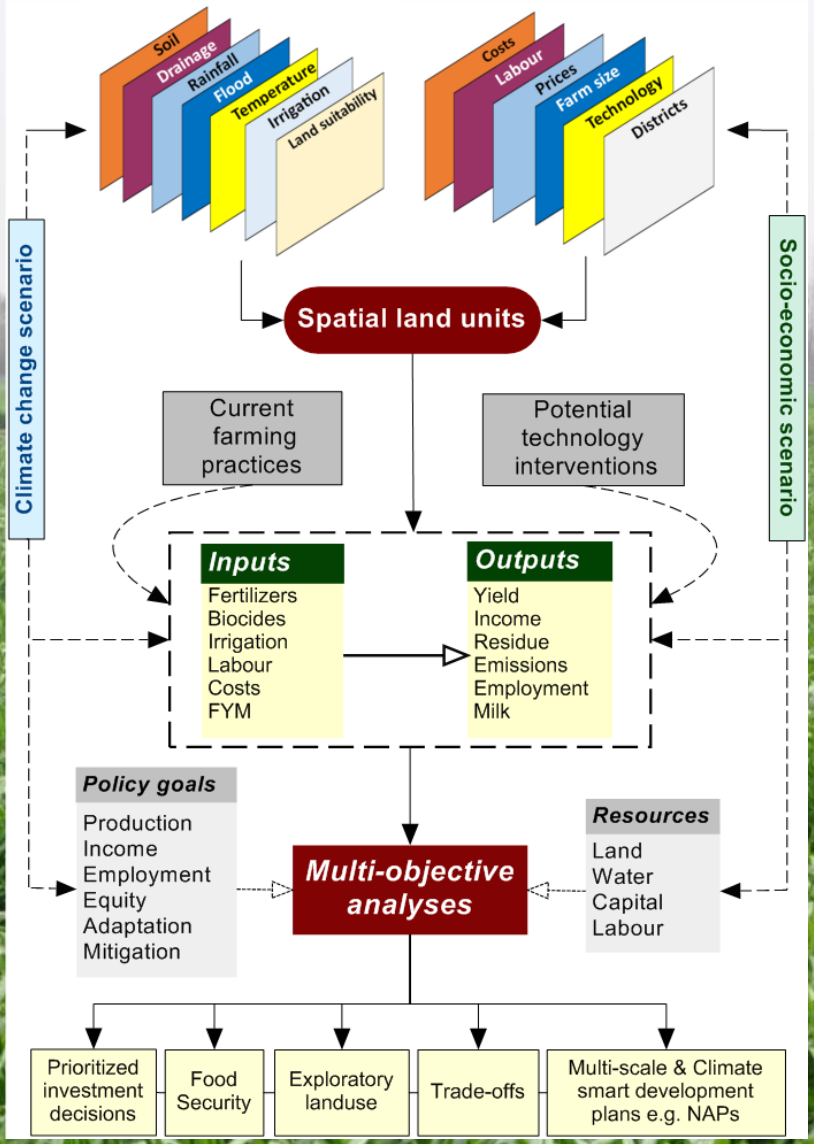
Colombia — Local organization: Foundation Rio Las Piedras

- Objectives:
  - Evaluate ongoing CSA practices
  - Improve existing practices
  - Create programs to scale up high outcome practices

Photos: Neil Palmer (CIAT)

Multiple prioritization tools

- Spatially explicit
- Integrated modeling framework
- Climatic and socio-economic scenarios
- Supports multi-objective trade-off analyses



CSA-Plan

- CSA Toolbox
- Decision trees
- Business models

CSA-Plan

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Evidence Based Results Framework

Learning from Experience

Indicators and metrics

CSA-Plan

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Capacity development

CSA Integration Across Scales in Africa

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African Union – New Partnership for African Development

NEPAD TRANSFORMING AFRICA

CAADP The Comprehensive Africa Agriculture Development Programme

AFRICA CSA Alliance

Regional Economic Communities (RECs)

COMESA

SADC SOUTHERN AFRICAN DEVELOPMENT COMMUNITY TOWARDS A COMMON FUTURE

CEDEAO ECOWAS

National Agricultural Investment Plans (NAIPs)

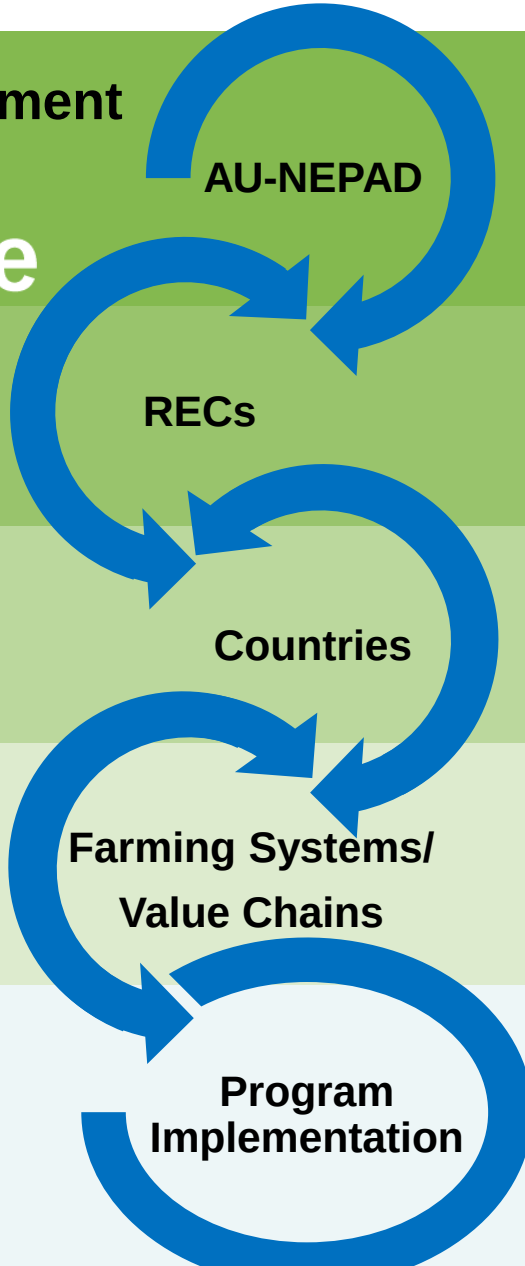
Other National Level Policies (NAPAs/NAPs/NAMAs, etc.)

Programmatic Investments and Policies

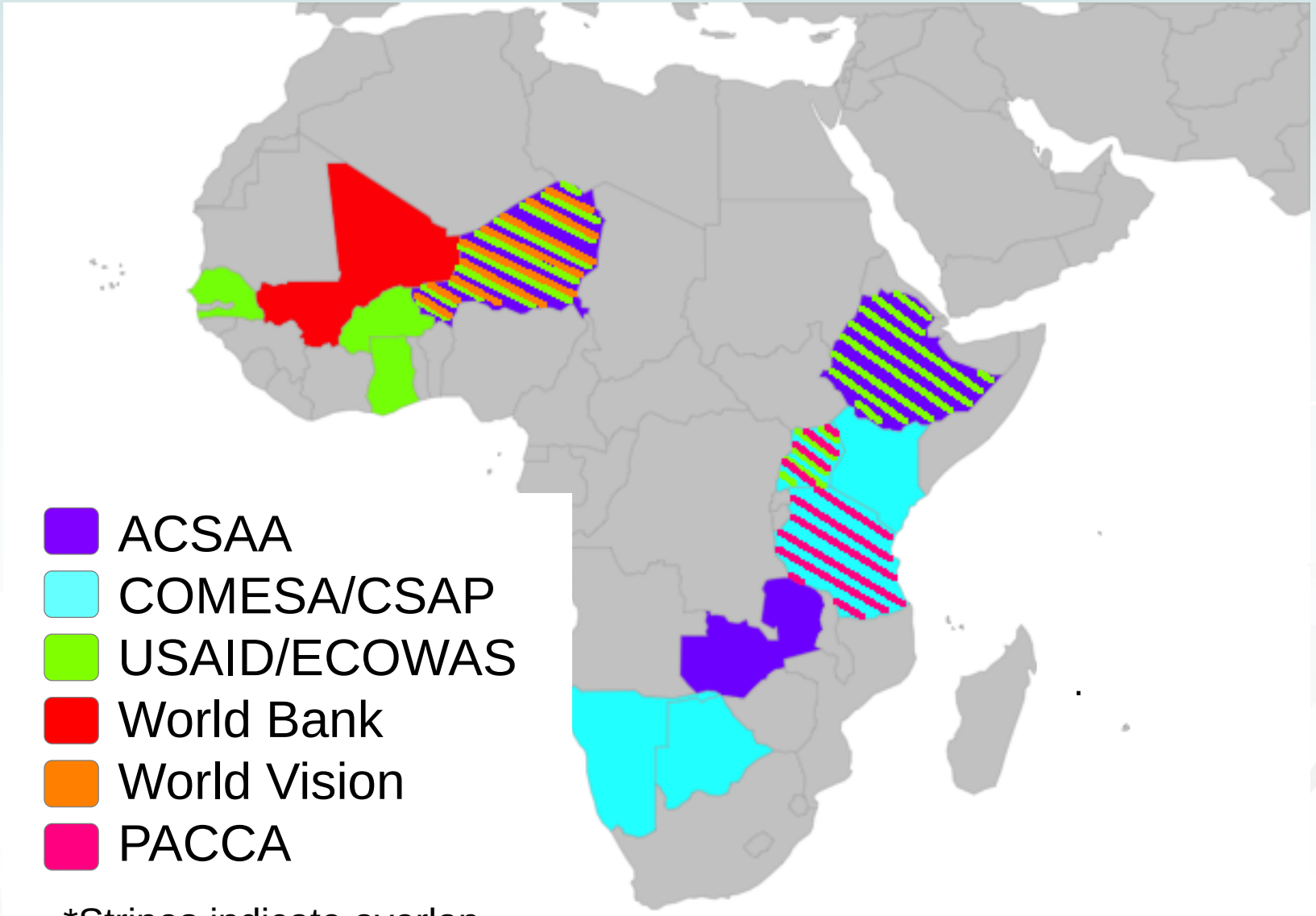
Staple Crops, Cash Crops, Livestock/Dairy, etc.

CSA Adoption by farmers

Through development partner implementation



Current Engagements for Scaling CSA in Africa



CSA Integration Across Scales in Africa

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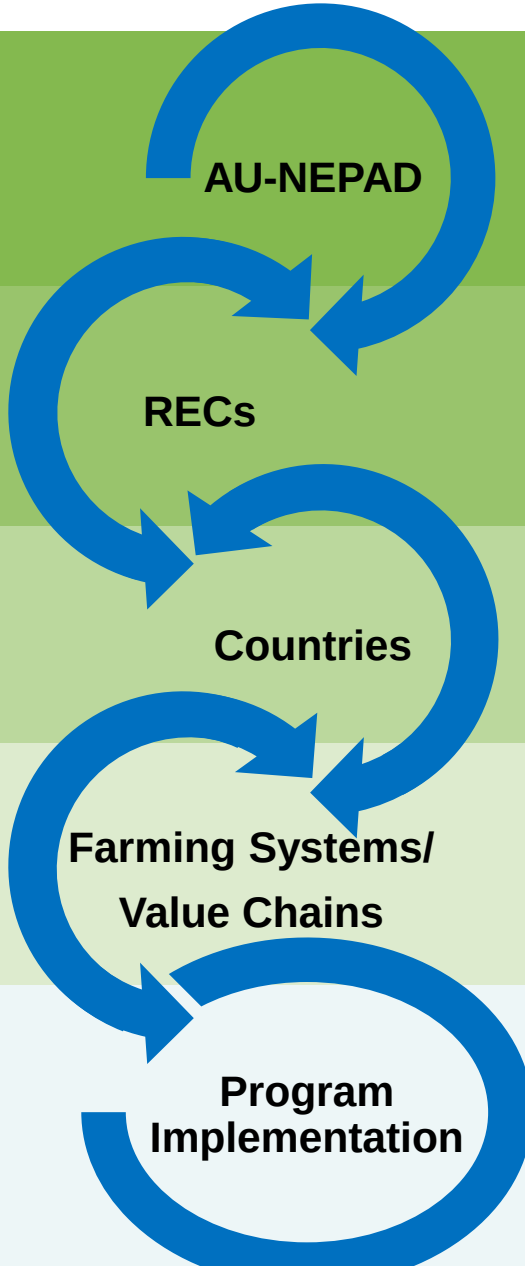
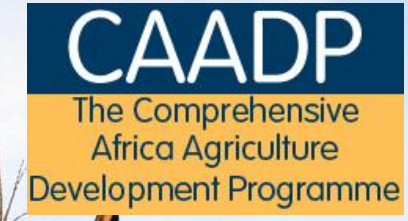


Alliance for CSA in Africa

Empowering 6 million smallholder farmers in Sub-Saharan African by 2021



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Thanks!

For more information check out our posters

Tuesday: 38, 42, 59 **Wednesday: 59, 126**

Overarching Issues

- Operational Minimum Criteria for being CSA
  - Modified within bounds by RECs & Countries
  - Indicators & criteria chosen at REC/County level
  - MRV or other similar approach
- Links directly to the engagement pathways, strategy, and country engagement plan
- Tools and analyses incorporated from Technical Support Workstream

Conclusions

- Major investments in CSA coming
- Key challenge: What is CSA for a particular context
- Now testing a set of planning tools in multiple situations
- We can support CSA through deep engagement with non-research stakeholders