



The Country Level Soil Health Consortia

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Overview of IPNI

***Better Crops, Better Environment ...
...through Science & knowledge management***



IPNI Strategic Plan

Mission Statement: *The mission of IPNI is to develop and promote scientific information about the responsible management of plant nutrition for the benefit of the human family.*

Goals

Provide collaborative leadership development on global plant nutrition issues.

Facilitate research on environmentally responsible use of plant nutrients needed for agriculture to meet future global demand for food, feed, fiber, and fuel.

Provide science-based plant nutrient and fertilizer use information to industry, farmers, agricultural and environmental leaders, scientists, and public policy-makers.

Fulfill member needs that align with IPNI goals and resources.

Leadership & Collaboration

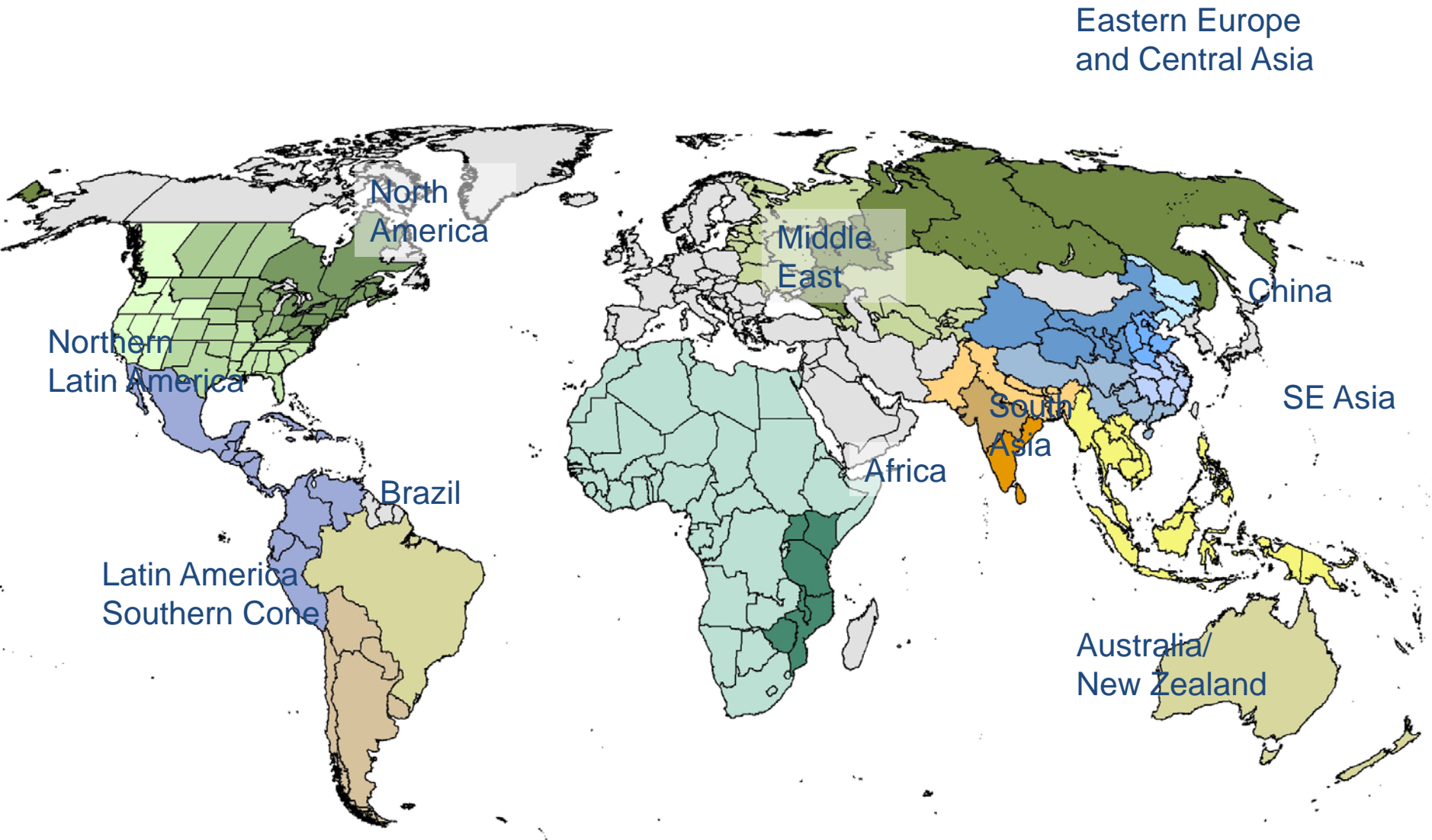
Research

Education

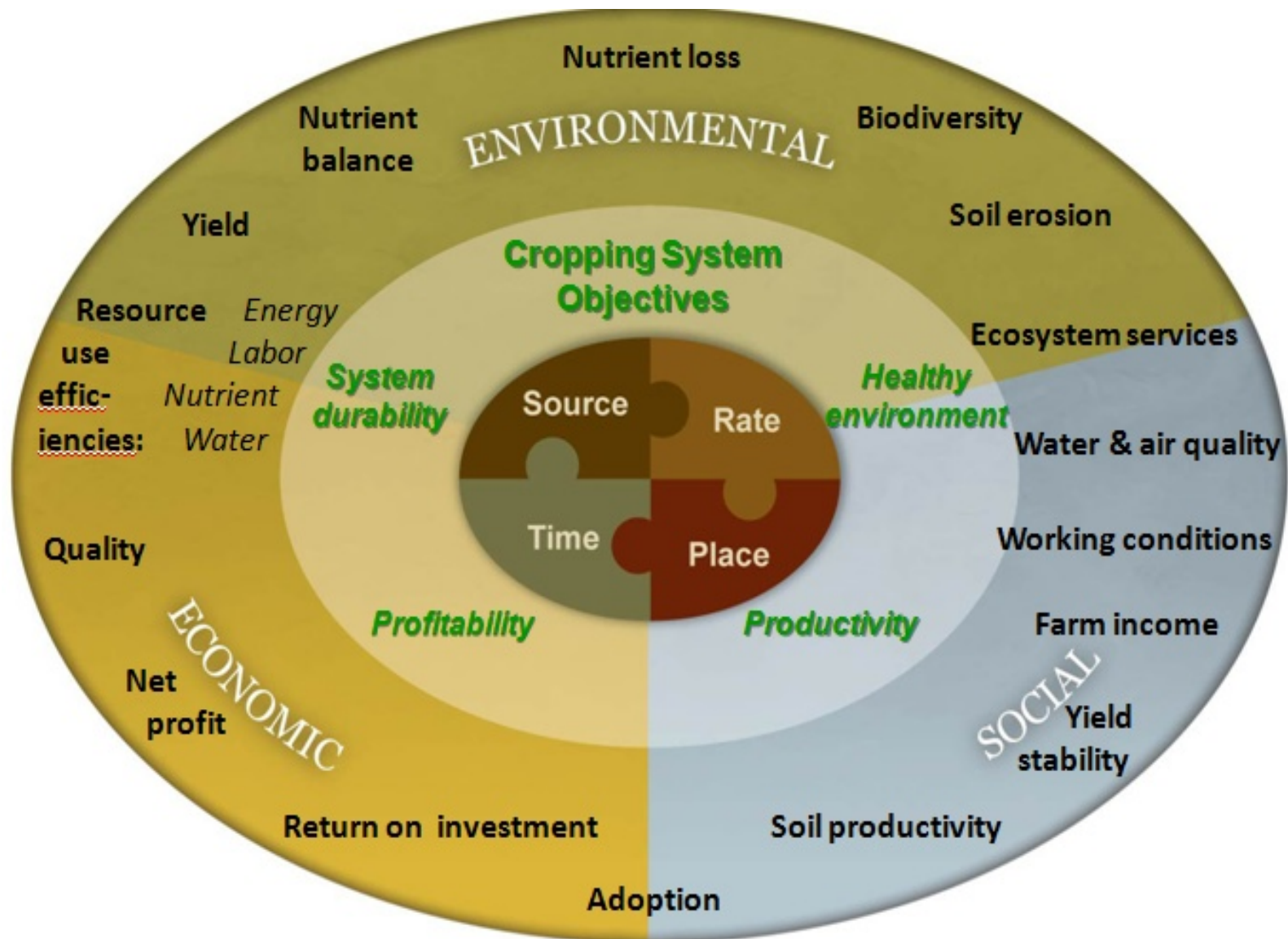
Fertilizer Industry Support



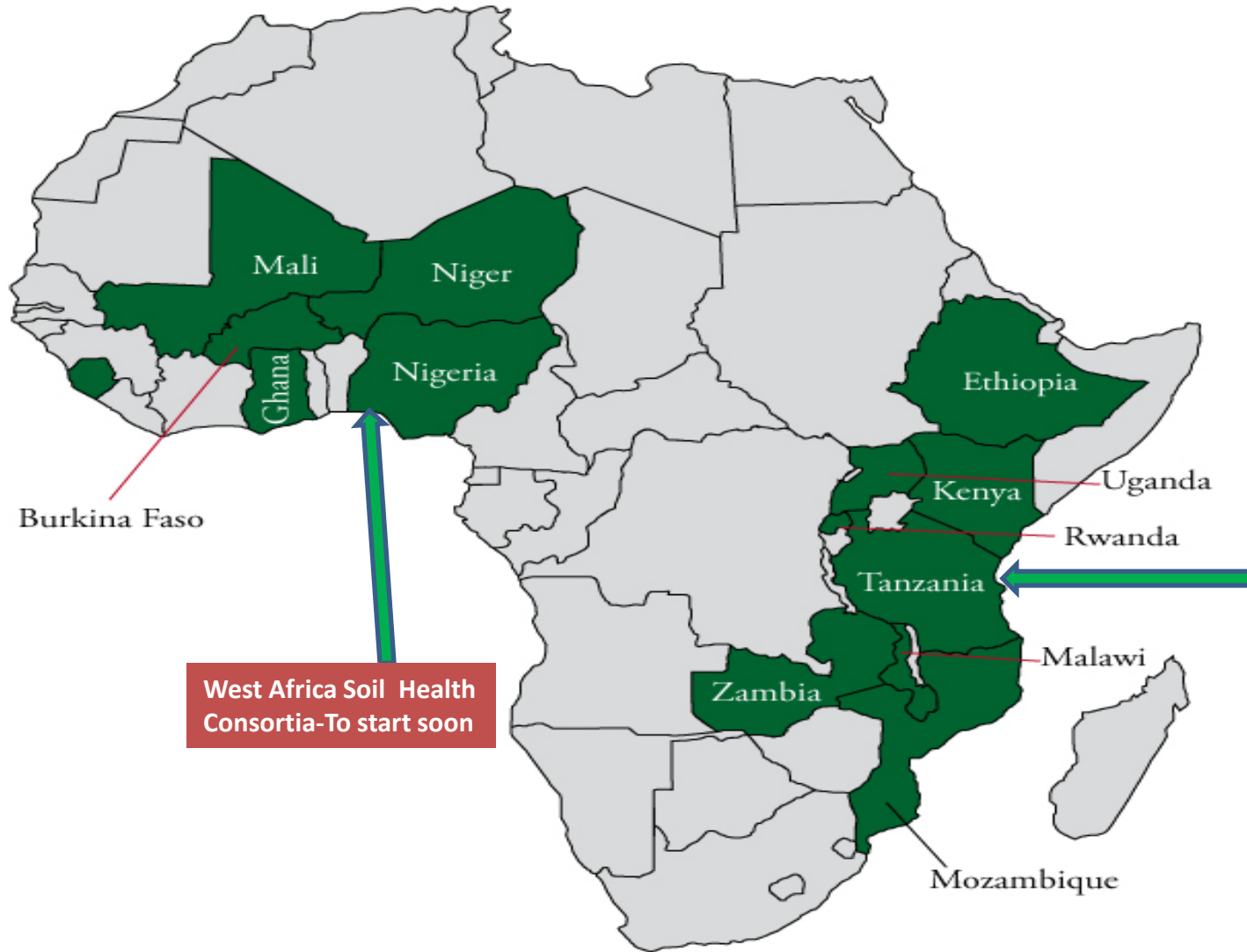
IPNI Current Programs



4R Nutrient stewardship framework



Consortia mandate region



Burkina Faso

West Africa Soil Health Consortia-To start soon

ESA Consortia
mandate
region

Mozambique

Why consortia

- Lot of success stories of ISFM have been reported
- Institutions that have reported successes include: AGRA, IFDC, NARS, CIAT, IITA, ICRAF, IPNI, Universities etc
- Limited sharing and comparison of knowledge
- Generated knowledge has therefore not translated into widespread increase in crop yields

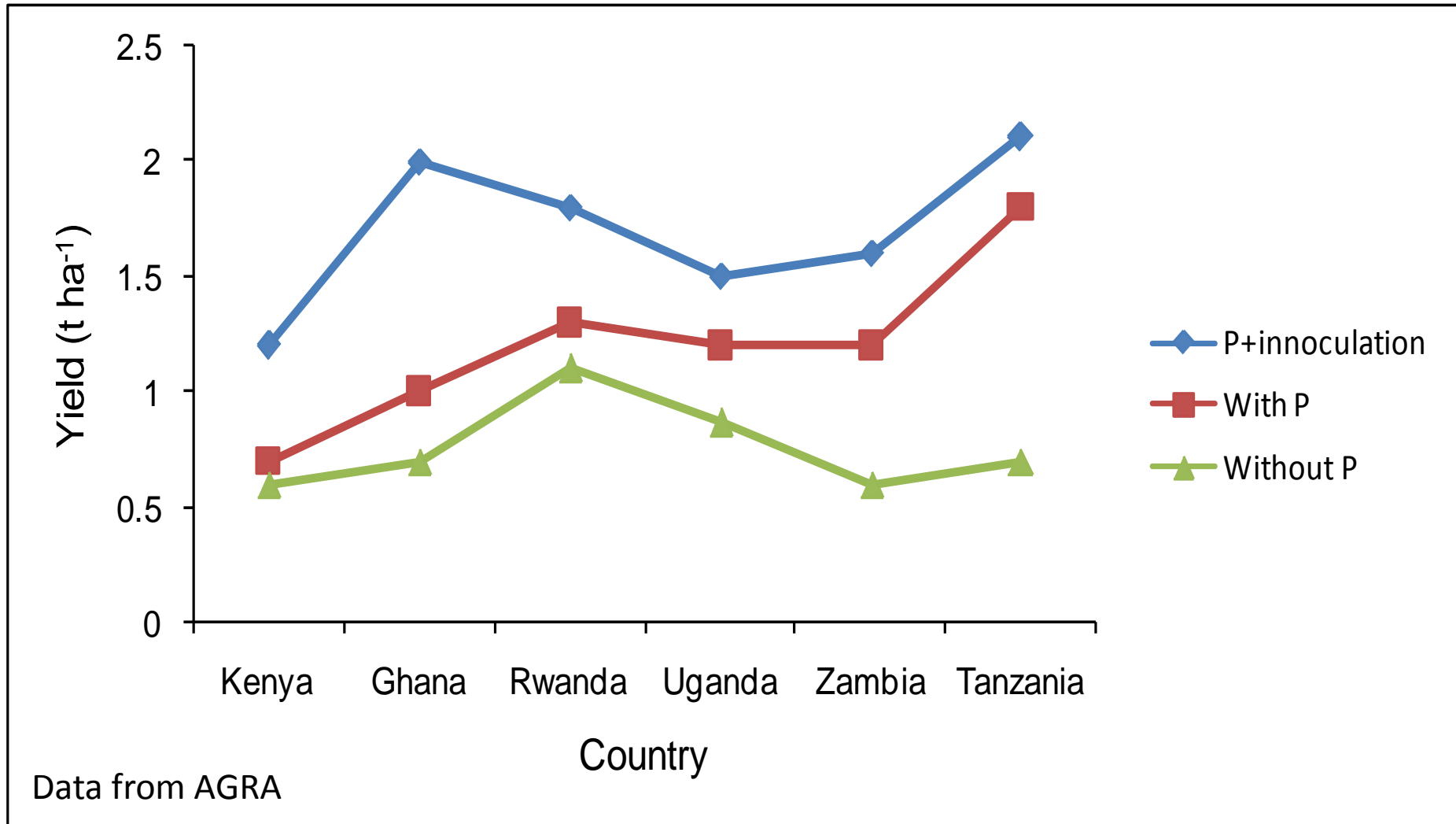
Reasons: Farmers are not adopting ISFM,
-Policy makers do not know ISFM
-Scientists are not in agreement

Putting success stories into Perspective

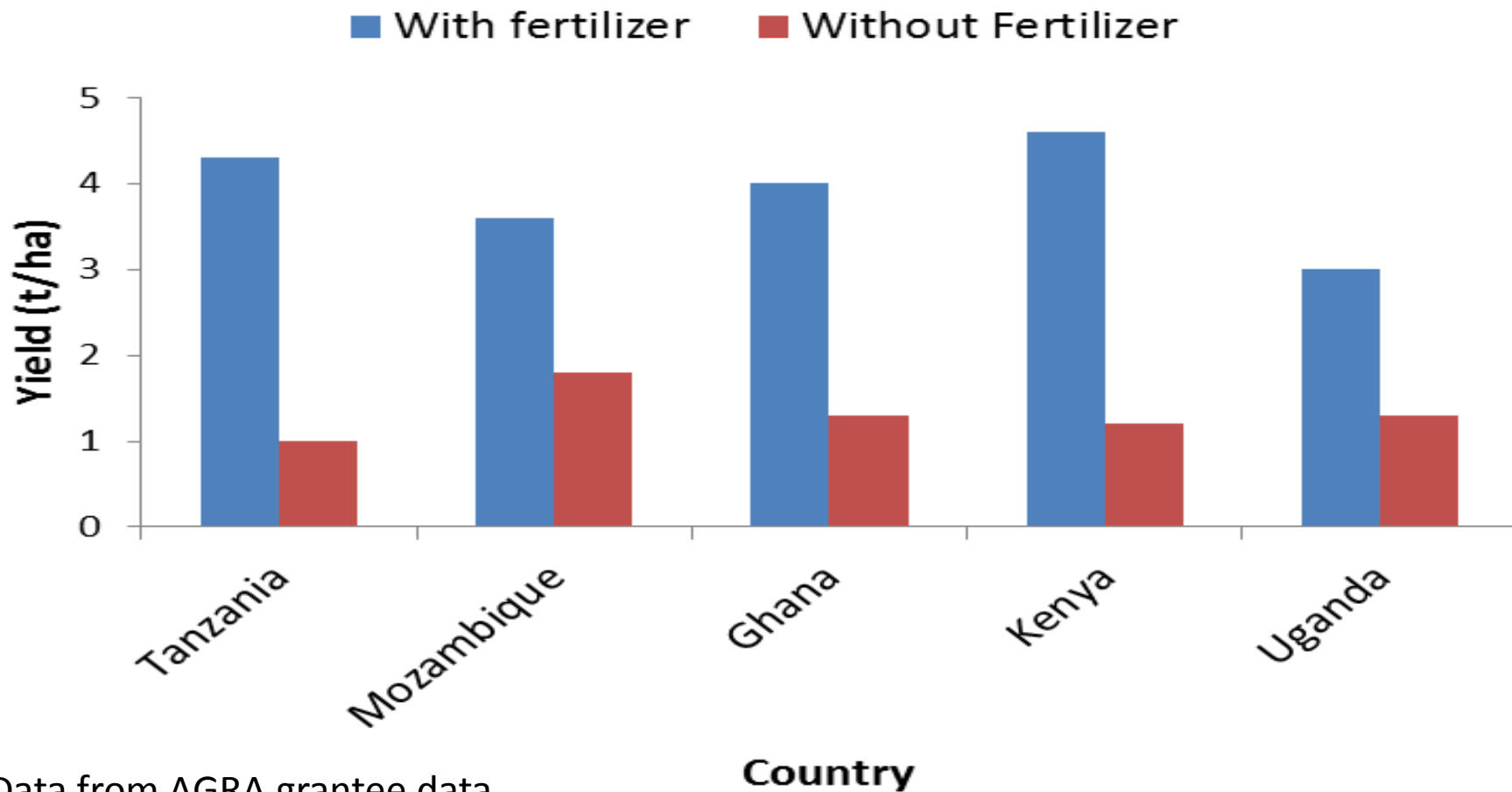
Crop response to ISFM in Central Kenya



Doubling and Tripling Soybean yields with ISFM in 6 African countries

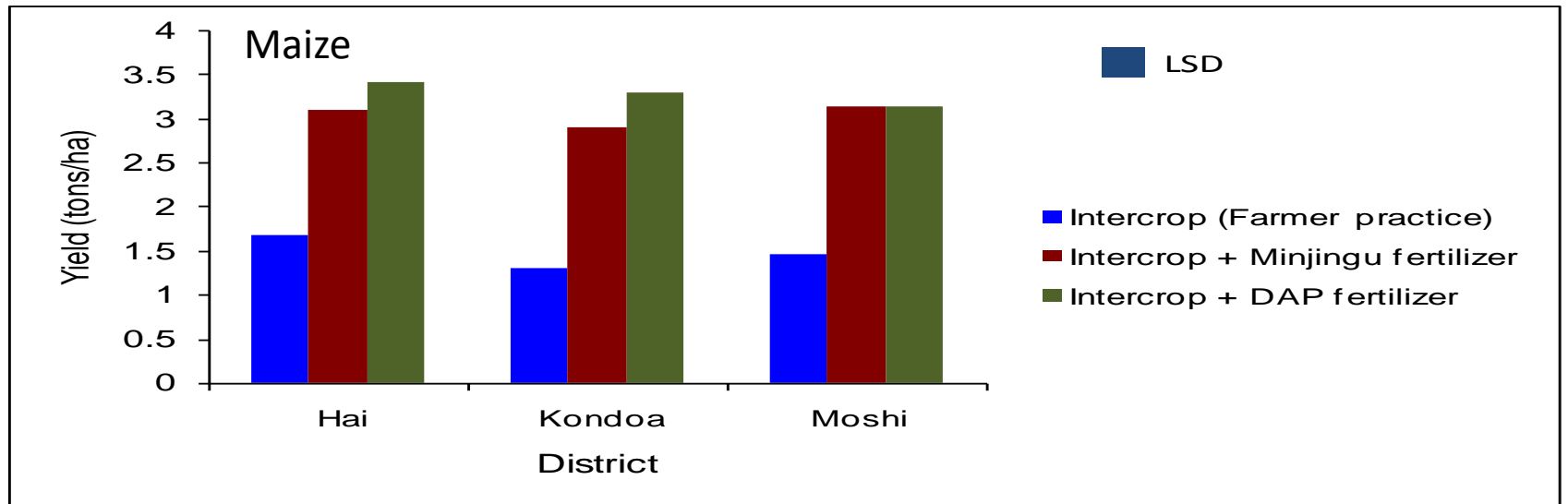
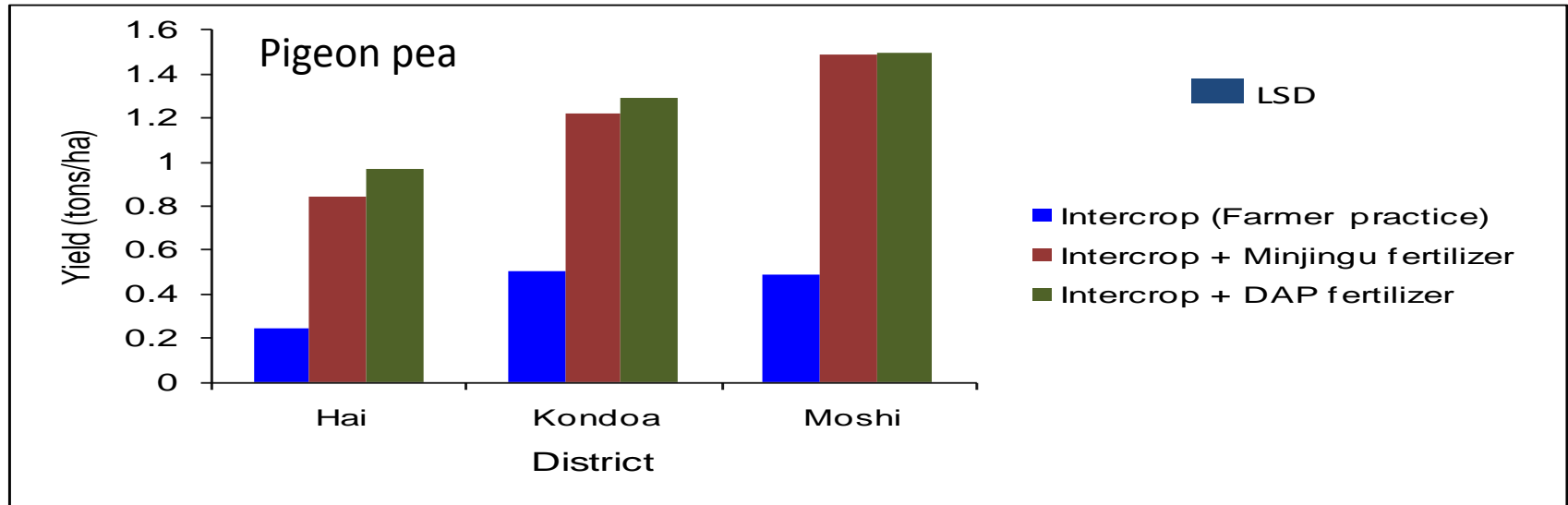


Doubling and Tripling Maize Yield in Eastern, Southern and Western Africa with ISFM



Data from AGRA grantee data

Fertilizer and Maize-Pigeonpea Intercrop more than doubled Maize and Pigeonpea Yields in N Tanzania



Courtesy of Stephen Lyimo

How About Economic Returns?

- For over 90% of above cases, Net profits were positive and high (US\$ 300-1200 ha⁻¹ per season)
- Benefit-cost ratio of more than 2 implying that the returns on investments were attractive
- Solutions can be achieved with ISFM but bringing ISFM adoption to scale has remained a challenge
- That is the key mandate of country level soil health consortia

Reasons for low uptake of ISFM

- Lack of harmony of message across institutions, poor communication to farmers , policy makers and extension services
- Farmers may not be able to access resources that are required for successful ISFM interventions
- ISFM that works for one region may be a total failure in another region
- Blanket recommendations are therefore inappropriate

Consortia brings together various stakeholders to:

- To evaluate existing data together,
- Pin down on what works where
- Develop effective communication tools on ISFM
- 8 countries are involved: Kenya, Uganda, Tanzania, Rwanda, Ethiopia, Mozambique, Malawi and Zambia
- Each country has brought together, Multi disciplinary, Multi institutional ISFM stakeholders

Objectives of country consortium

- To pull together ISFM data/knowledge and harmonize it in a way that reveals most appropriate ISFM technologies
- Create a one stop shop country ISFM dbase
- Develop targeted communication tools, e.g policy briefs for policy makers, extension manuals for farmers

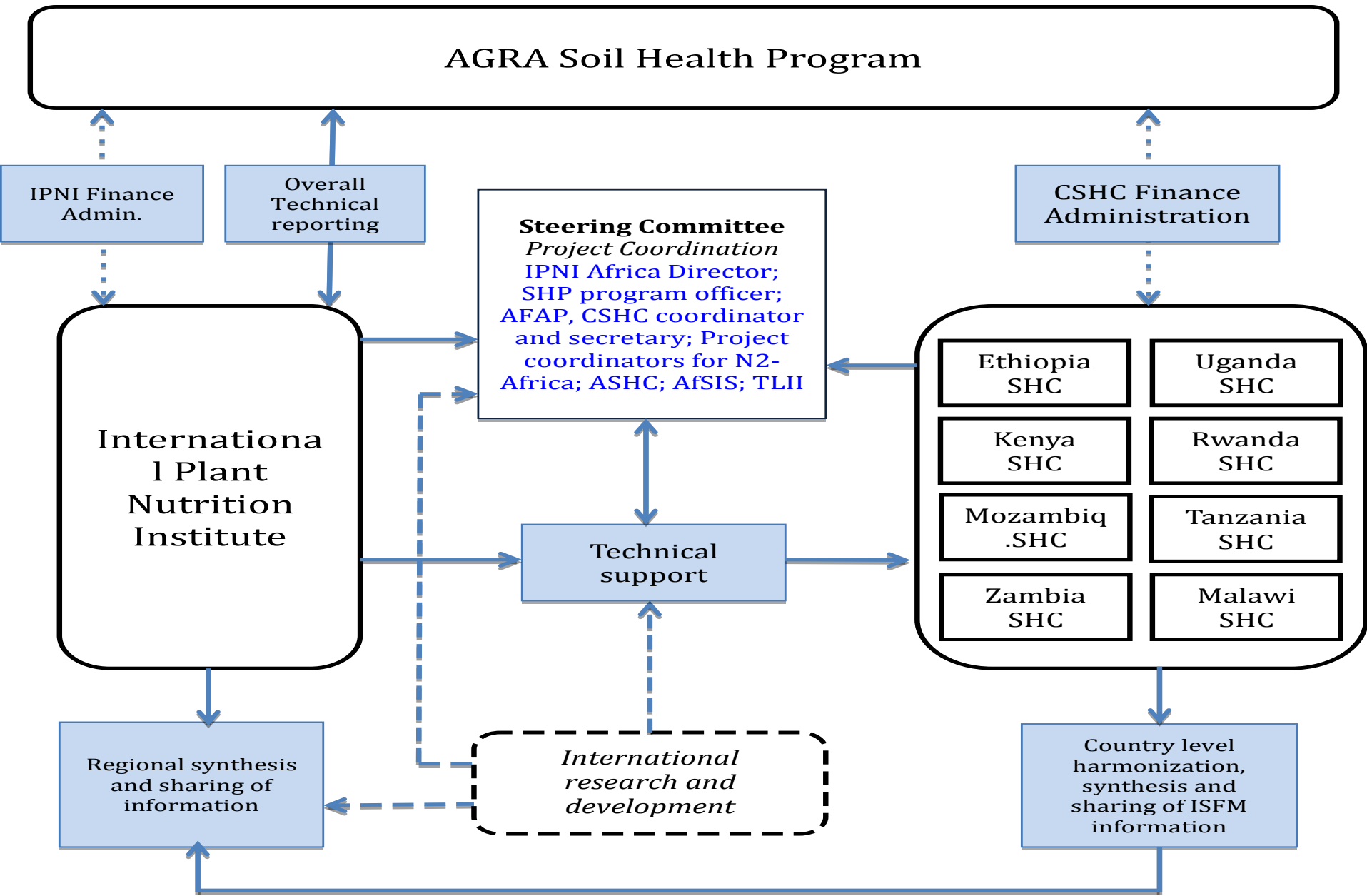
IPNI and Mozambique Soil Health Consortia

- Collaboration & Technical Backstopping on
 - Baseline surveys and data interpretation
 - Data analysis-Social, Statistical, Spatial, Meta-analysis
 - Support website development and management
 - Development of ISFM communication tools (policy, extension and training etc)
 - Link KSHC to regional ISFM knowledge resources

Regional Approach

- Regional coordination is based at IPNI SSA Office -Nairobi
- IPNI will develop uniform data collection templates for all the 8 countries eg baseline questionnaires
- Uniform templates will enable comparisons and recommendations for scaling up across countries
- Each country will have a dbase connected to the regional dbase at IPNI
- The idea is to allow meta-analysis, cross comparison of data by crop, ISFM technology and region

Regional structure of the consortia



Expected outcomes from country consortia

- Agreement on best ISFM technologies at the national level between researchers, extension systems, development programs and policy makers
- Harmonization of efforts to disseminate ISFM technologies at the country level
- Increased crop productivity through improved access and utilization of harmonized information ISFM technologies by farmers

Targeting Information need for various stakeholders

- Farmers- Demonstration bulletins-very simple, photos of how it can be done. Preferably in language that farmer can understand
- Extension-Extension bulletins-A bit more technical details, photos, pictures, graphs and answers to the question why, Easy to use to explain to farmers
- Policy makers- Policy briefs, straight to the point, emphasizing on impacts and success stories. No treatment comparisons and statistics here
- Scientists-More technical, clear demonstration of significant differences and data interpretation, show field scale variability
- Donors-Answer questions on why invest. Success stories etc

Be Your Own Maize Doctor



Maize leaves showing nitrogen deficiency (yellowing)

Maize leaves showing phosphorus deficiency (purple veins)

Maize leaves showing potassium deficiency (yellowing and necrosis)

Why is my maize 'looking unhealthy' this season? Every grower should learn to recognize the symptoms of nutrient deficiency. Signs that a maize crop is still used to care or some of the nutrients that are essential for healthy plant growth and profitable yields. This can be your own maize doctor. It is important to

BE YOUR OWN SOYBEAN DOCTOR

PRODUCING HIGH YIELD: High quality soybeans may appear simple on the surface. To someone driving down the road or flying over a soybean field, it might look like easy, just plant the seeds, stand back and let them grow, then return at the end of the growing season to harvest and market, right?

But wait a minute... suppose there is a problem with an area of a field, or maybe an entire field. Is it a nutrient deficiency or toxicity? Too much or too little moisture? Could it be a plant disease or some kind of insect? Maybe a situation related to a herbicide, fungicide, or other plant protection product, or even a seed problem? A combination of causes?

While prevention may be the best medicine, sometimes a field problem must be treated almost like a crime scene. Diagnostic tests such as analysis of topsoil, subsoil, and plant tissue may be in order. Even if you have field scouts checking your crop, there is no substitute for walking the rows and taking a close look at the plants and growing conditions yourself.

"Invariably, we find a nutrient deficiency quite like an example. We are showing a computer that includes characteristics the symptoms of"



Essential nutrients for the best yield for your

maize

For farmers in Western Kenya



Africa Soil Information Service



Improve your MAIZE HARVEST with COWPEA and FERTILIZER

General Tip: If you plant maize after cowpea, you can get good yields with a small amount of fertilizer. If you plant maize after another maize crop, you will need to use larger amounts of fertilizer to get good yields.

Improved Seed: Use improved seed, suckers and roots because they mature faster, and are more resistant to weed and disease attack, as well as drought. Select seeds that work well in your area and combine with fertilizer and organic matter.

Fertilizer: Applying the correct fertilizer in the right way will increase the quantity and quality of your yield – especially when combined with organic matter. Using less than the recommended amounts or no fertilizer at all will result in poor crop quality.

Manure & other organic matter: To make fertilizer work better, add manure or other organic matter that is available in your area (e.g. chicken dropping, cow dung, sliver and compost).

Good farms contain these with good agricultural practices (correct planting time and spacing, timely weeding, not planting the same crop every season and water management)

FOR MORE INFORMATION CONTACT:

Good soil Good harvest Better life



Get healthier yields with ISFM

ISFM = Improved Seed + Fertilizer + Manure

Improved Seed

Use improved seed, suckers and roots because they mature faster, and are more resistant to weed and disease attack, as well as drought. Select seeds that work well in your area and combine with fertilizer and organic matter.



Fertilizer

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TUMIA MBOLEA YA FOSFORASI ILI KUBOresha MAZAO



KWENYE KILIMO BORA CHA Mseto wa MAHINDI NA MBAAZI

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