



# Africa RISING

## introduction and update

Irmgard Hoeschle-Zeladon, Peter Thorne, Carlo Azzari, and Peter Ballantyne

USAID Seminar, Washington DC, 4 June 2015





# Outline

- Africa RISING
- Results so far
- Prognosis



- Identify and evaluate demand-driven options for sustainable intensification that contribute to rural poverty alleviation, improved nutrition and equity and ecosystem stability
- Create opportunities for smallholder farm households to move out of poverty and improve their nutritional status, while maintaining or improving ecosystem stability
- Facilitate partner-led dissemination of integrated innovations beyond Africa RISING action research sites





# Focus

West Africa: Sustainable intensification of cereal-based farming systems - led by IITA

East and Southern Africa: Sustainable intensification of maize-legume-livestock integrated farming systems - led by IITA

Ethiopian Highlands: Sustainable intensification of crop-livestock systems - led by ILRI

Cross-region M&E project – led by IFPRI



- Six countries
- 85 sites
- Completed 3 cropping seasons
- \$50 million committed by USAID to 4 linked projects
- Additional \$30 million already leveraged for SI
- 13,000 farm households directly participating in Africa RISING research
- 240 national and international research participants
- 90 local, national and international organizations directly involved

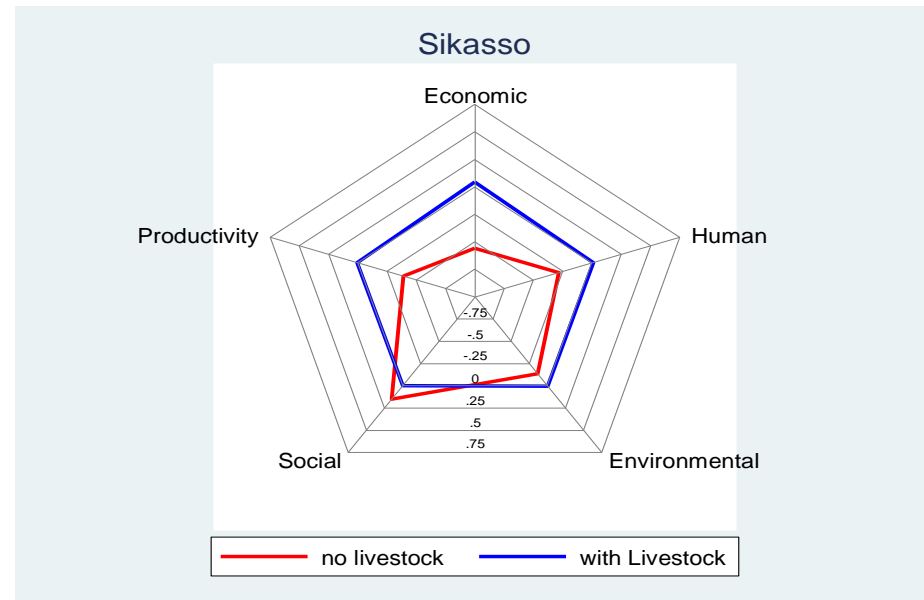




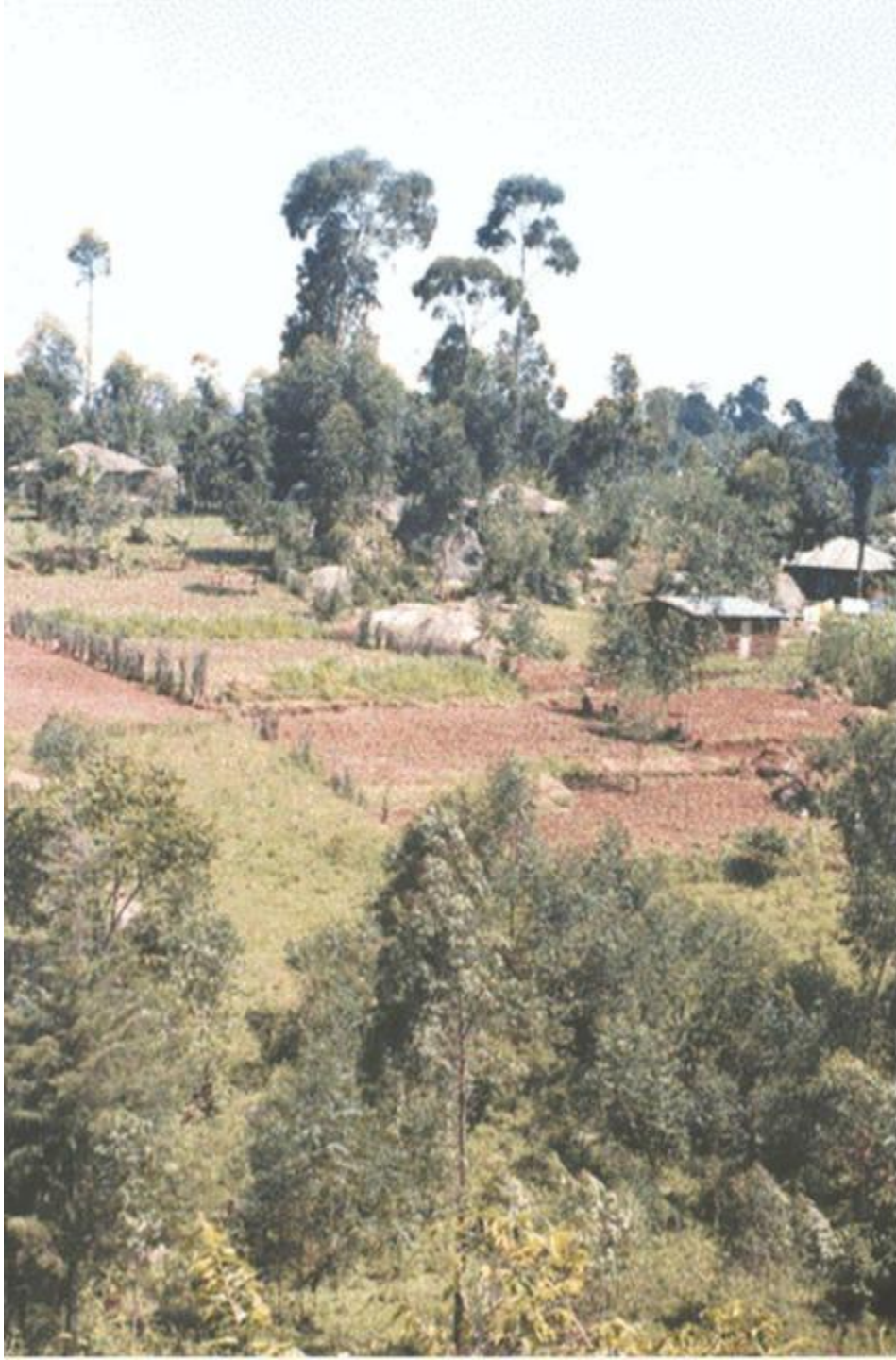
# Systems

Household scale with emphasis on whole systems. Why?

- Farmers manage systems
- Systems shape household options and decisions in multiple dimensions
- Households decisions influence and are influenced by activities at community, landscape, and regional scales
- Synergies and tradeoffs influence scalability

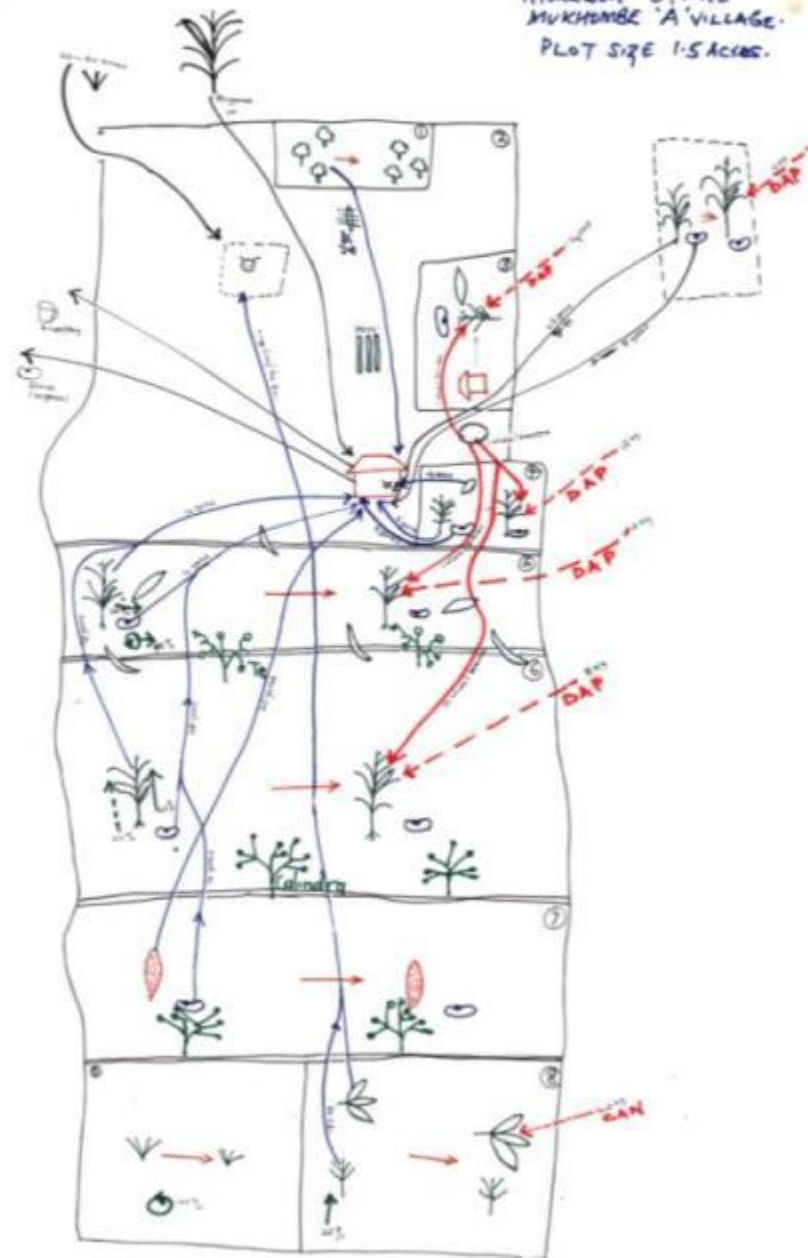






5/9/2001.

MORRISON OPIAYO  
MUKHOMBE 'A' VILLAGE.  
PLOT SIZE 1.5 ACRES.

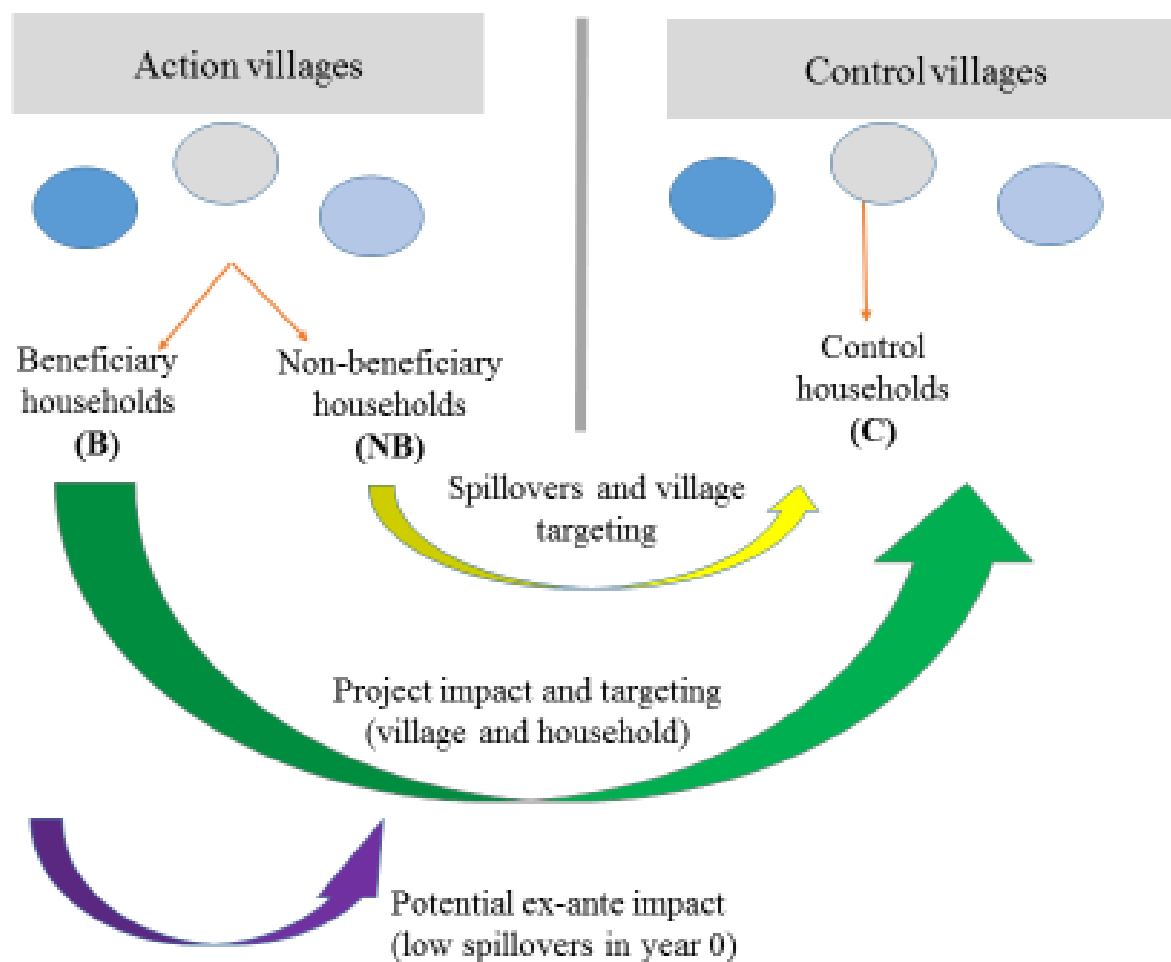




- **M&E:** Site characterization, stratification, and selection
- **M:** Web-based project mapping and monitoring tool
- **E:** Quasi-RCT
  - Measure both direct and indirect effects of the program
  - Compare three groups: beneficiaries, non-beneficiaries (in action sites), and control households
  - Calculate difference before-after the program for beneficiaries-controls\*

*\*Depending on the country, ARBES baseline data were collected after one or two (main season) harvests since the program's inception. Results shown hereafter are only from the baseline and, hence, might encompass both the early impact of the program and the eventual systematic targeting effect.*







# Nutrition

Intensified production systems can be designed to produce more nutritious combinations of food

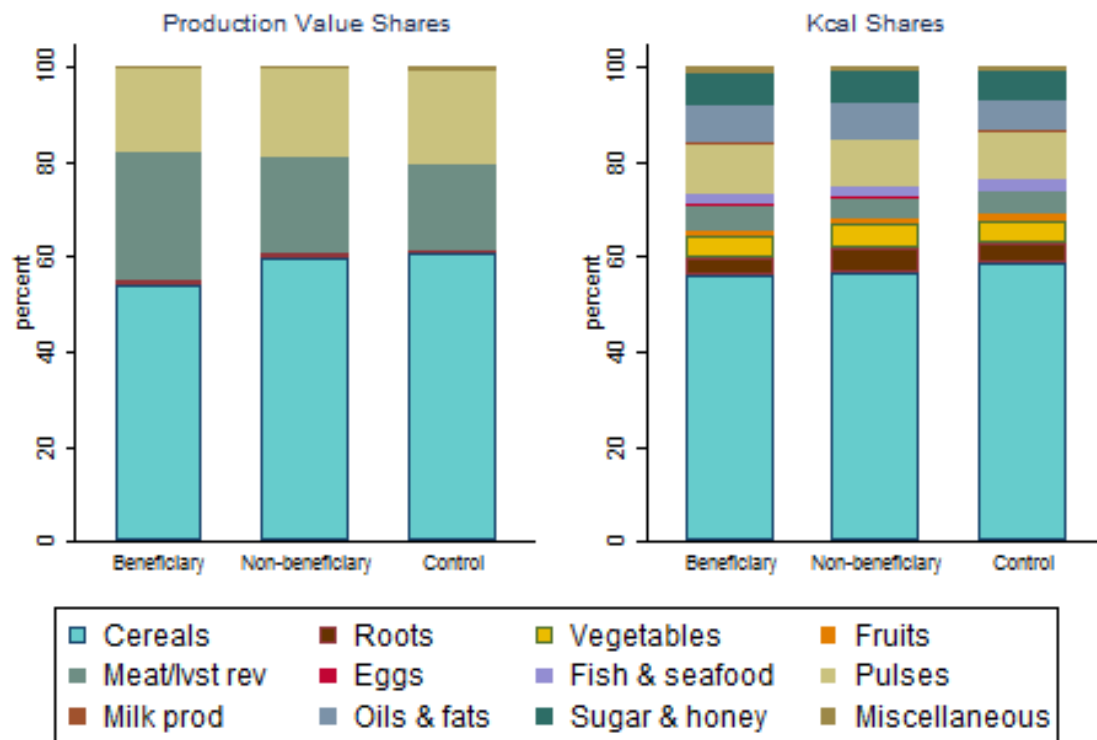
- Introducing nutritious legumes into maize-based-systems in Malawi has improved diet quality in around 1000 households so far.
- In Ghana, contributions of livestock products to household nutrition have been low. Introduction of small-scale intensified poultry systems are changing this on 200 trial farms.





In Malawi, beneficiaries are shifting towards higher value products and a more diverse diet

## Production Diversity vs Consumption Diversity





# Income

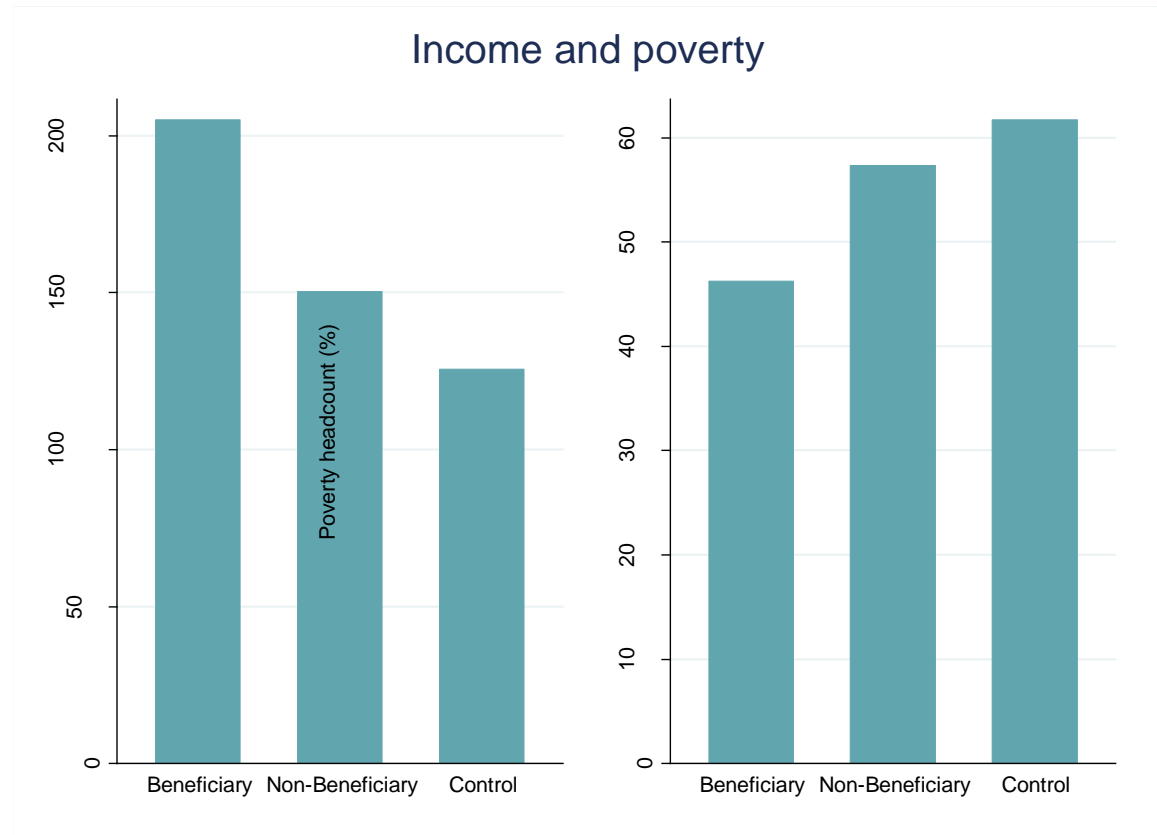
Intensification can increase household income, contributing a wide range of livelihoods benefits.

- Improved seed potato storage and marketing in the Ethiopian Highlands is generating up to USD1000 per season. Investing in a water pump allows out-of-season crop production





For beneficiaries in Malawi, the value of the harvest is increasing; and poverty levels are going down, compared to the control.







# Gender

Equitable outcomes can sustain mixed systems in the longer term

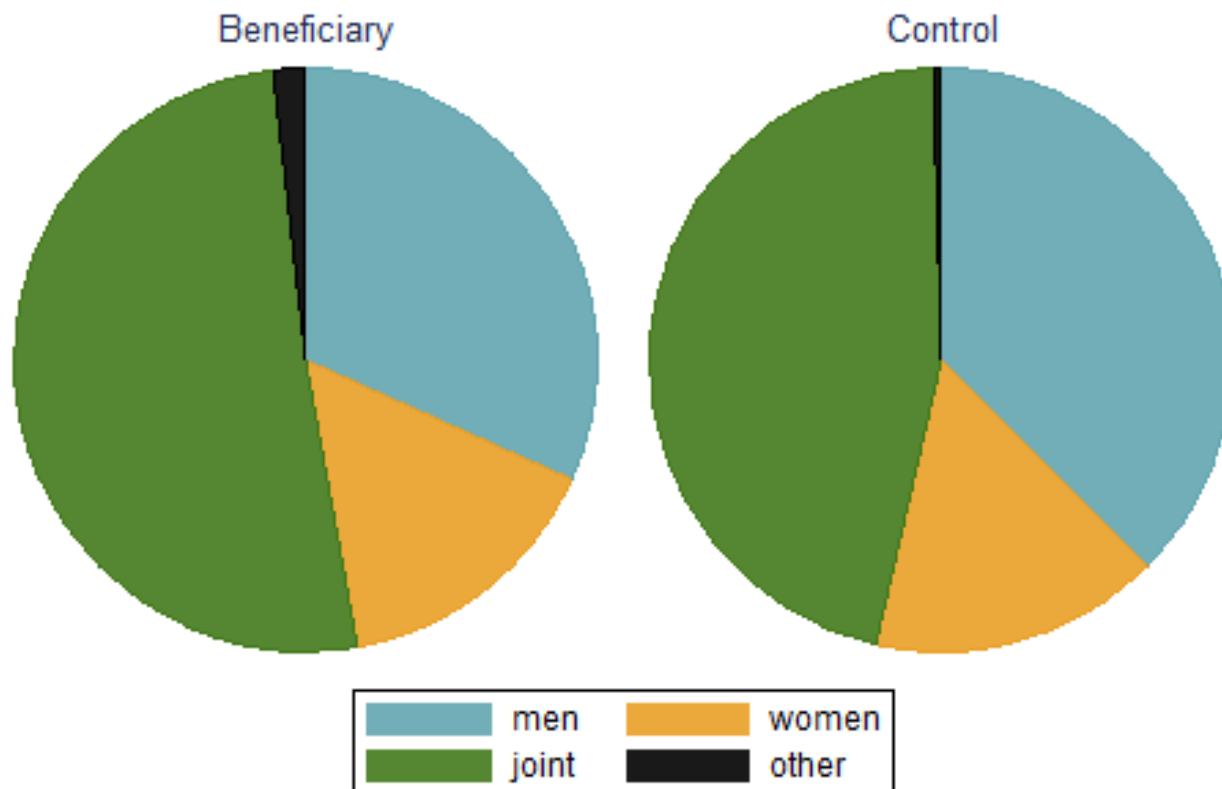
- In Ethiopia, constraints have been dis-aggregated by gender and national partners have been capacitated in methods for gender analysis
- In Tanzania, capacity building in vegetable production, crops generally grown by women, has increased household income and consumption of nutritious foods such as amaranthus.





Beneficiaries in Ethiopia have more joint control over cropping decisions

## Gendered Control of Crop Resources Percentage of Area



Natural resources management issues can affect individual households but also influence sustainability at wider (e.g. landscape scales).

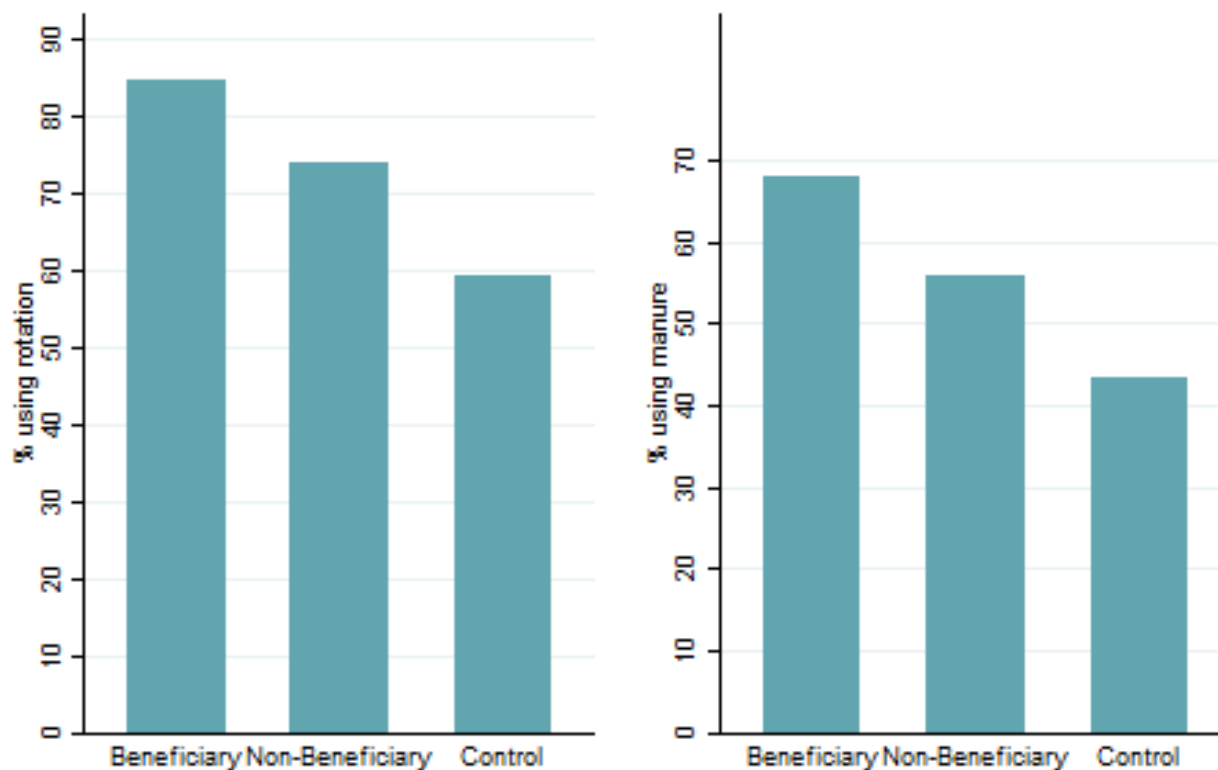
- In Ethiopia, working with local government agencies, Africa RISING is identifying intensification strategies that are effective at wider (landscape / watershed) scales.
- In Tanzania, water harvesting reduces soil erosion and increases water availability to crops during drought spells





In Malawi,  
beneficiaries are  
adopting rotation  
and improved  
manure  
management  
practices

Agricultural management practices  
% of households





More efficient use of inputs and higher production levels contribute directly to household wellbeing and potentially generate increased incomes.

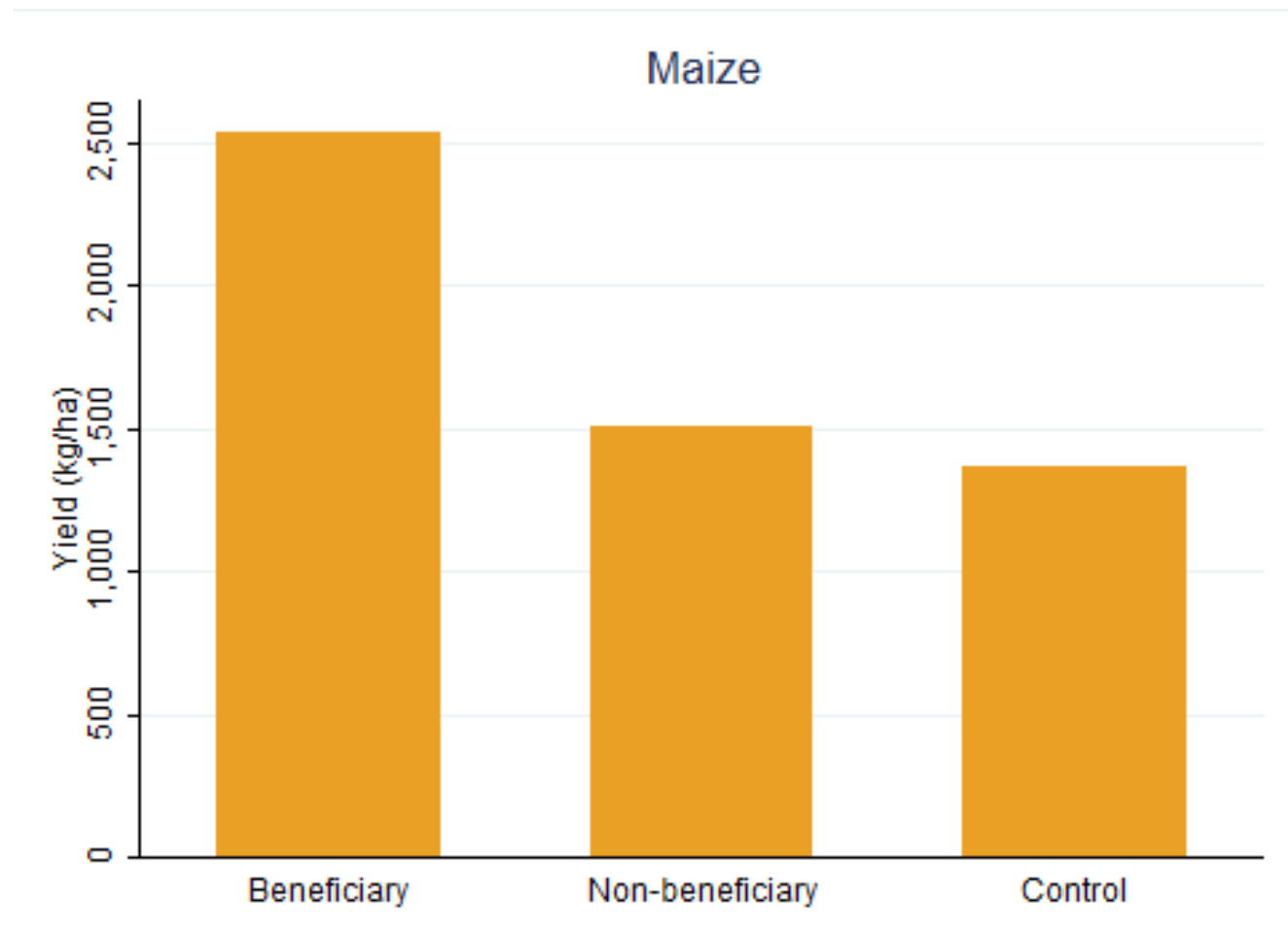
- In Ethiopia, matching fertilizer application rates to the potential of crops and soils to respond can reduce input costs and increase production levels.
- 1300 farmers are experimenting with doubled up legumes in Malawi to increase subsequent maize yields while reducing the need for N fertilizer (by 50%).







In Tanzania,  
beneficiaries are  
realizing higher  
maize yields



- Multi-actor 'whole system' Innovation platforms empowering farmers in all countries
- Farmer 'researchers' driving local system research agendas in Ethiopia
- Ethiopia community platforms established with gender champions to ensure optimum participation of women
- 85 graduate students working in Africa RISING research activities.





# Influence

- DFID investing \$10m over 5 years in enabling environments (markets, policies) for SI
- Mission development projects buy in Tanzania (\$2.2m / year), Mali (\$15m over three years)
- AR practices in Ethiopia providing government 'benchmarks' for cereal production and livestock feeding practices
- CIP sweet potato project under AR led to USAID mission project to scale this out

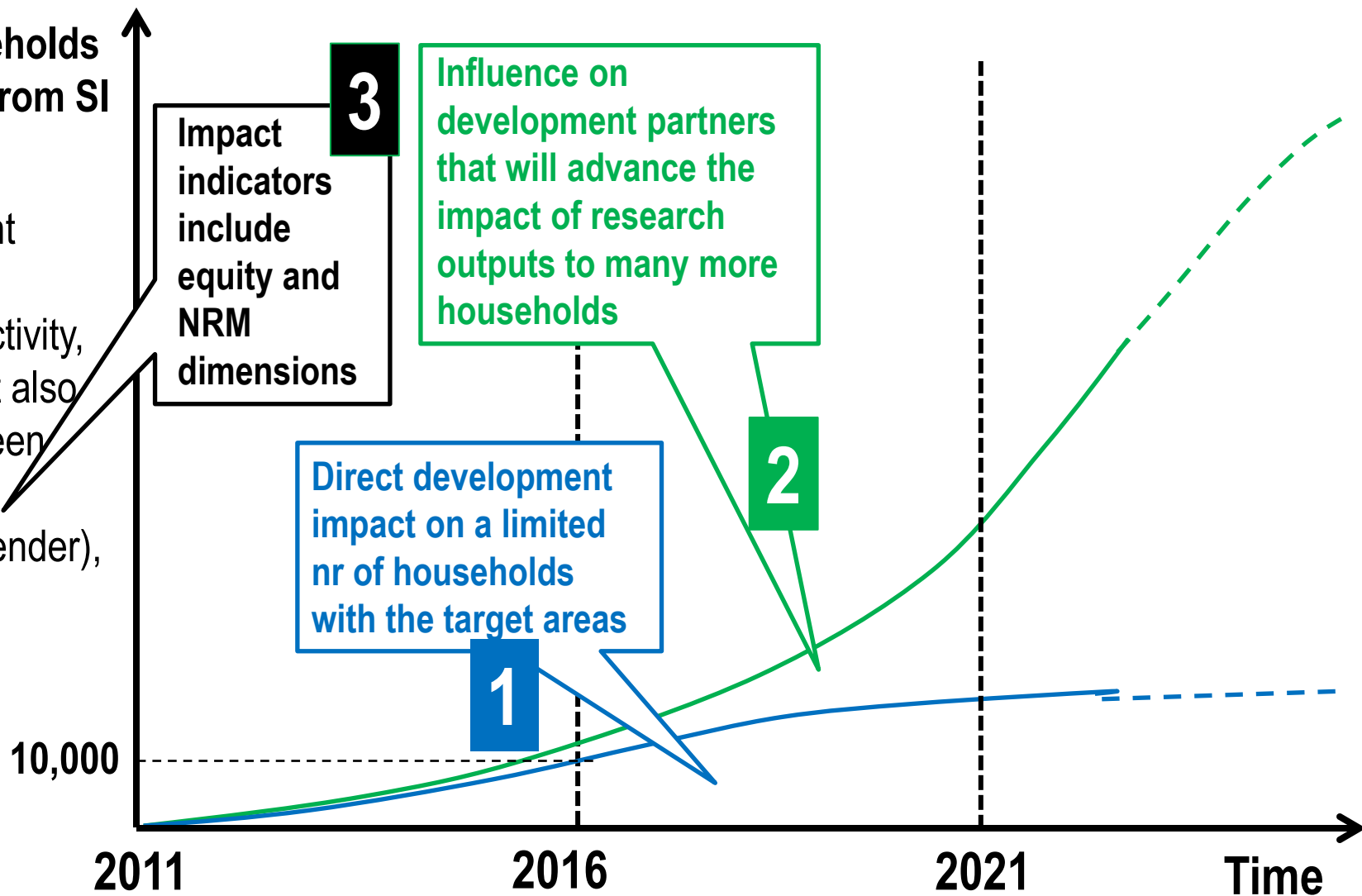




# Success...

**Nr of households benefiting from SI agriculture**

Development Impact (e.g., productivity, income), but also equity between households (including gender), NRM



Research  
Outputs

Development  
Outcomes

Pilot  
Scaling

Mainstreaming  
Scaling

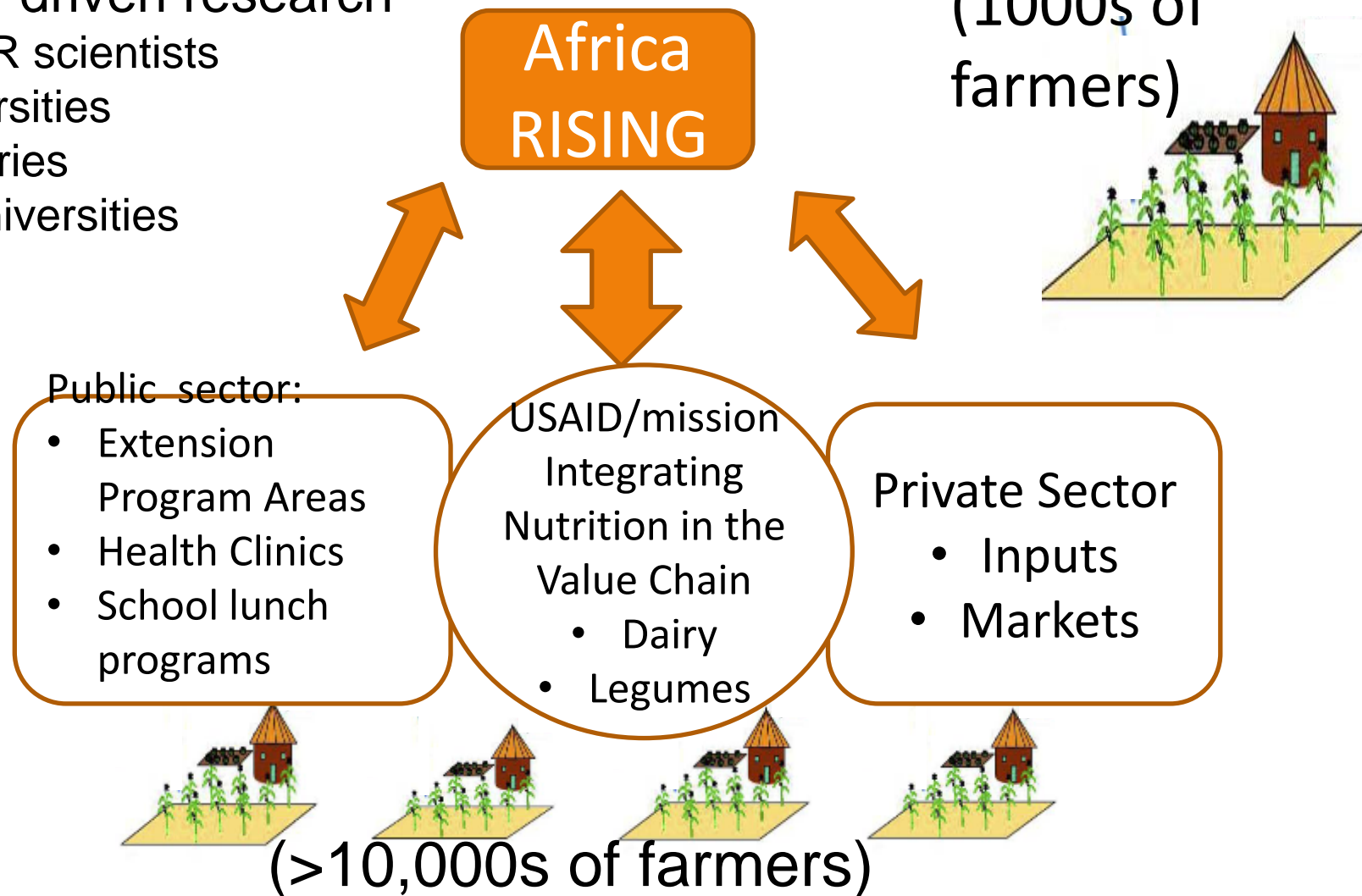




# Scaling

## Farmer-driven research

- CGIAR scientists
- Universities
- Ministries
- US universities



- Reinforce focus on FTF indicators
- Knowledge and capacity building for development impact
- Strong, successful partnerships
- Best of science, expertise on mixed farming systems centred on people





*Africa Research in Sustainable Intensification for the Next Generation*  
**africa-rising.net**



The presentation has a Creative Commons licence. You are free to re-use or distribute this work, provided credit is given to ILRI.