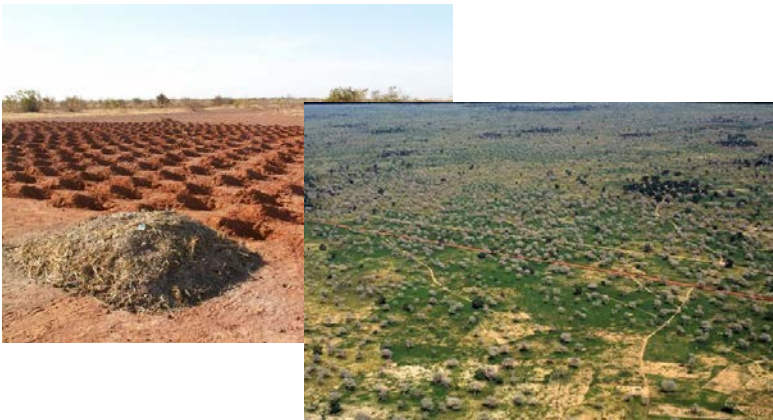


# Guiding Investments in Sustainable Agriculture in Africa (GISAIA)

## Overview of Burkina Faso Case



Melinda Smale for team  
July 16, 2014

# Key elements in this region

- Changing gender roles in sorghum production
- Persistent question: is it seed supply or demand that most constrains adoption
- Long-term efforts to “push back the desert” through innovative soil fertility and water management practices

# Teams

Theme 1	Theme 2	Theme 3
Veronique Theriault	Led by INERA	Andrew Dillon
Melinda Smale	Vero and Duncan advising	Maria Porter
GRA to be hired		Aissatou Ouedraogo
Duncan contributing		Melinda Smale
*note that research on themes 1 and 3, and team contributions, are interrelated.		

Environment and Agricultural Research Institute (INERA)	Division for Economics and Sectoral Statistics (DGESS)	Innovations for Poverty Action (IPA) and Agrodia
Isabelle Dabire	Bationo Bessolbie	Nicolo Tomaselli
Souleymane Ouedraogo		Estelle Plat
Adama Traore		
Karim Savadogo		

# Theme 1:

## Promoting sustainable intensification

Sub-questions	Outputs	Due
1. Which strategies and policies have contributed to/constrained the sustainable intensification ? of major cereals (sorghum, maize)?	State –of-the-art assessment (1 paper, sorghum and maize)	12/2014
2. Document overall use patterns for seed, mineral and organic fertilizer, and related soil and water management practices	Descriptive analysis of a)panel data and b) RCT baseline data (1 paper, sorghum and maize)	3/2015
3. Compare the determinants of adoption on collective and individual fields, including gender analysis	--Panel data analysis of adoption and impacts (multiple papers)	12/2015
4. Assess the impacts of use input use (all of the above) on well-being of smallholder farm households, including gender analysis	--PSM (binary and generalized), MVP, and IV analysis of baseline data (multiple papers, sorghum)	12/2015

# Theme 1 (cont'd)

Sub-questions	Outputs	Due
1. Are fertilizer recommendations for sorghum appropriate?	Assessment of the yield response and profitability of alternative fertilizer dosages on sorghum; Field experiment in Centre Nord and research paper	12/2015

## Theme 2: Effects of fertilizer subsidies

Sub-questions	Outputs	Due
1. How have subsidies influenced fertilizer use, the well-being of smallholders, and the role of the private sector?	Exploratory paper	3/2015

# Theme 3: Innovative approaches

Sub-questions	Treatments
1. How does the adoption of the mini-kit affect smallholder farm households?	random distribution of kits in 80 villages compare users, non-users
2. What are the input/information externalities associated with adoption of the mini-kit?	80 villages (treatment Group A) 20 control villages compare control and treatment
3. Does targeting key farmers in social networks enhance adoption?	Compare Group A to free distribution of kit based on criteria of Group B: centrality (16 villages ) Group C: influence (16 villages)
4. Is it price or liquidity which most constrains adoption?	Compare Group A to input fair purchasers Group D: early commitment, market p Group E: late commitment, market price Group F: late commitment, lower price (12 villages each)

# Survey data summary

- Components:
  - “listing” including household and plot details (168 villages, 11,141 households);
  - “social network census” (125 villages, 6765 households)
  - “baseline” (100 villages, 2760 households)
  - “adoption” survey

# Panel data summary

- Continuous agricultural survey
  - 4,130 households/year
  - 2,500 households from 2009/10 to 2012/13
  - 14 questionnaires
    - Socio-demographic characteristics
    - Plot characteristics
    - Input use and purchase
    - Soil and water conservation practices
    - Labor
    - Non-farm income
    - Equipment