

Gender Cross-Cutting Research Activity

Gendered Perspectives for Conservation Agriculture: Local soil knowledge and crop-livestock interaction

Introduction

The Sustainable Agriculture and Natural Resource Management Collaborative Research Support Program (SANREM CRSP) is in its fourth phase of using science to improve the livelihoods and food security of small farmers in the developing world. The current phase focuses on conservation agriculture production systems (CAPS), defined by the following components: year-round soil cover, no tillage, and crop rotation. It includes the Gendered Perspectives for Conservation Agriculture cross-cutting research activity (CCRA), which addresses gender-related factors that contribute to the success or failure of CAPS. Socio-economic factors such as increased labor requirements—especially for women—are among the critical constraints to adoption of CAPS (Giller, 2009).



1. Describe the quality of the soil.
2. Which one is better?
3. How do you know?



Indigenous women interpreting soil photographs (Illangama, Ecuador).

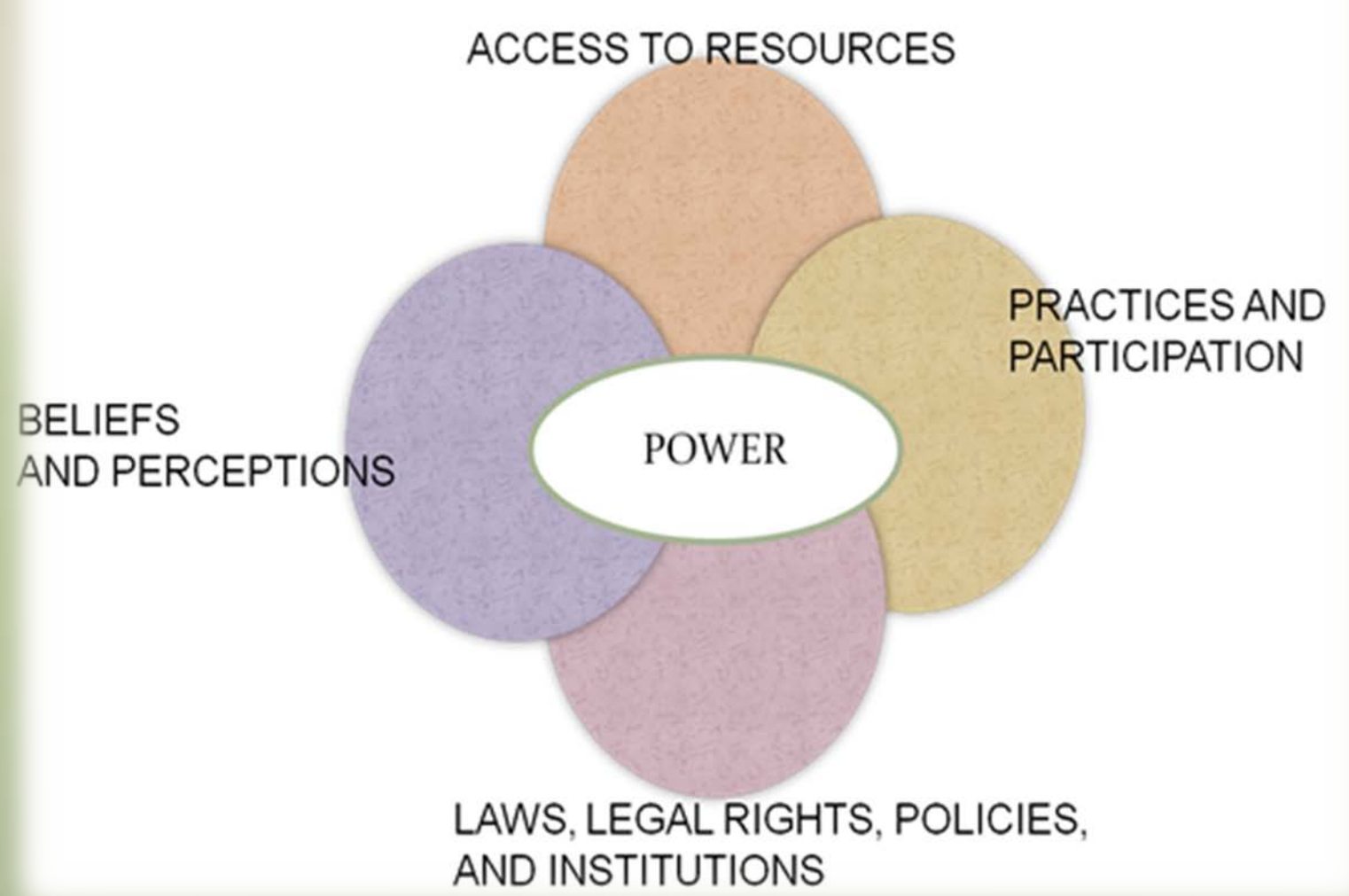
Dr. Maria Elisa Christie, Keri Agriesti, and Jess Martin

Research Objectives

Objective 1: Document differences in men and women's knowledge, beliefs, and perceptions of soil fertility.

Objective 2: Document the gendered nature of crop-livestock interaction with respect to the conservation objective of maintaining crop residue cover on the soil.

Power and the Four Dimensions

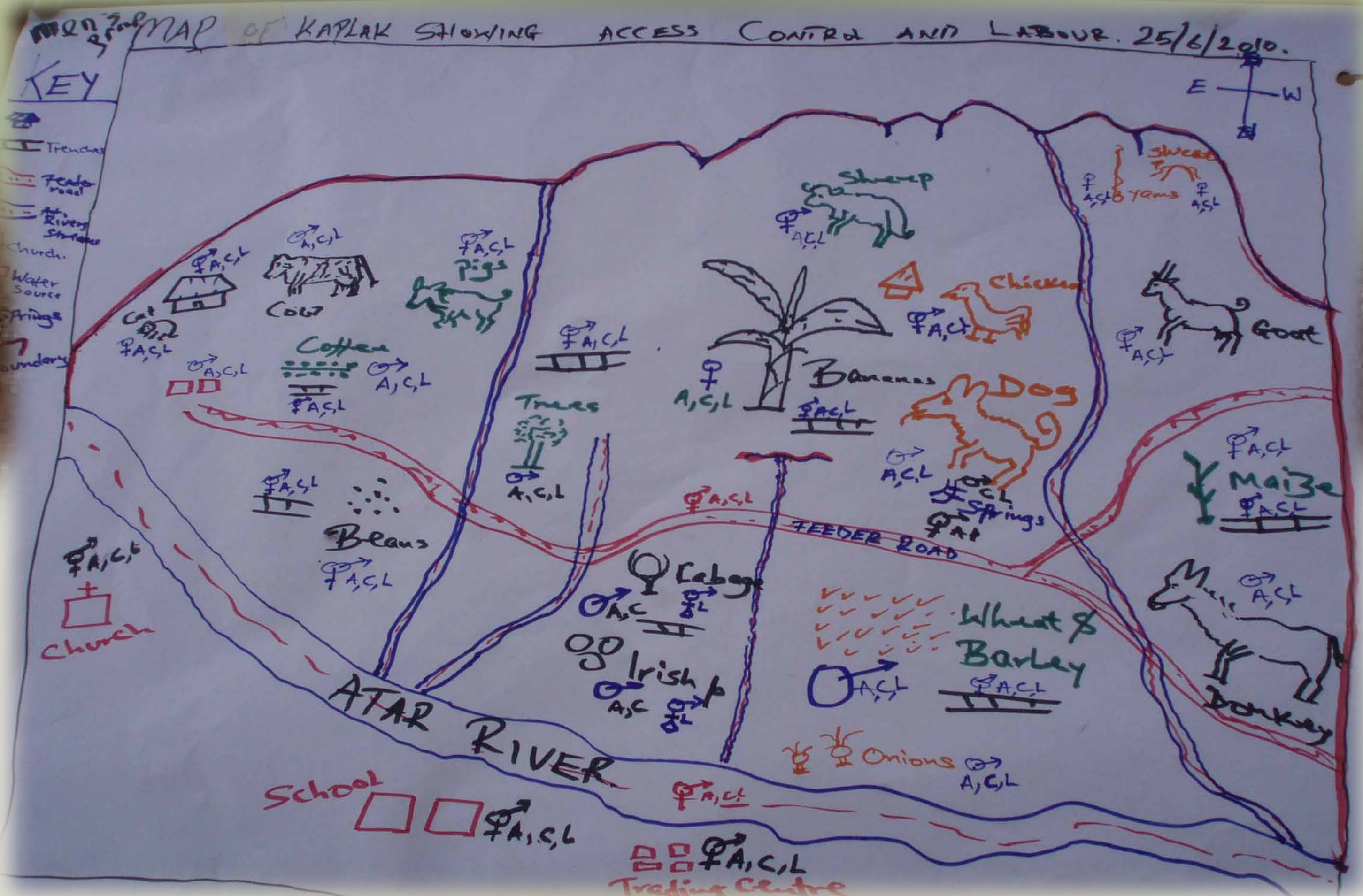


Hypothesis

Women will identify soil variables relating to fertility while men will identify variables related to field labor.

Methodology

Researchers use participatory, qualitative techniques, including: focus group discussions, socio-economic activity charts, participant observation, transect walks, structured and unstructured interviews, participatory mapping, and interpretation of photographs and soil samples. Gender disaggregated data is gathered by dividing men and women into different groups to carry out activities, and then coming back together to present as a whole.



Map of Kaplak showing access, control, and labor (Kapchorwa, Uganda).

Access to Resources

Using participatory methods to map gendered landscapes showing access, control and labor in relation to productive and reproductive activities—including gardening and raising small animals.

Research Data

From 2009 to 2010, focus group activities, including soil interpretation were conducted in: Mali, Ghana, Uganda, Ecuador, Kenya, and Philippines. Fieldwork begins in Bolivia and the Philippines in 2011, and India and Cambodia in 2012.

	mentioned frequency	Mali Fambougou		Ghana New Nyali		Uganda Kaplak		Philippines Rizal		Philippines Tamboboan	
		Men	Women	Men	Women	Men	Women	Men	Women	Men	Women
soil physical properties	color	x	x	x	x	x	x	x	x	x	x
	texture	x	x	x	x	x	x	x	x	x	x
	coarseness					x		x			x
	stickiness										
	hardness			x		x	x	x			
	organic matter	x		x		x		x			
	aeration										
	drainage	x		x		x				x	
	relief	x				x		x		x	
	depth					x					
		5 2		1 5		5 8		4 7		3 5	
				Men 18				Women 27			
soil fertility indicators	crop health	x	x	x	x	x	x	x	x	x	x
	organic matter	x		x		x		x			
	animal presence			x						x	
	tree growth			x	x	x		x	x		
	pests/weeds			x				x		x	
	roots in sample										
	weathering					x	x				
	nutrient deficiency							x		x	
		2	1	4	4	4	5	4	5	3	3
				Men 17				Women 18			
labor related properties	plowing	x	x			x		x			
	stickiness										
	hardness			x		x	x				
	drainage	x		x		x	x			x	
	pests/weeds			x				x	x		
	erodibility	x				x					
		3	1	1	2	4	2	1	4	1	1
				Men 10				Women 10			

"x" denotes that a variable is mentioned by the group of either men or women

Anticipated Products

Two MSc theses, peer-reviewed journal articles, methodological tools for future research and projects. Recommendations for building on women's knowledge for promotion of CAPS.

Impediments Encountered

1. Understanding beliefs and perceptions requires ethnographic techniques and understanding of local culture and language.
2. Researchers mistranslate and summarize indigenous and local knowledge into Western science constructs.

Practices and Participation

Who does what?



Men and women farming (Tiraque, Bolivia).

Acknowledgements

This publication/presentation was made possible by the United States Agency for International Development and the generous support of the American People for the Sustainable Agriculture and Natural Resources Management Collaborative Research Support Program under terms of Cooperative Agreement No. EPP-A-00-04-00013-00.

References

Giller, K. E. (2009). Conservation agriculture and smallholder farming in Africa: The heretics' view. Field crops research 114(1): 23.
Rubin, D. C. Manfre and K.N. Barrett. (2009). Promoting Gender Equitable Opportunities in Agricultural Value Chains [Handbook]. Greater Access to Trade Expansion (GATE) Project under the Women in Development IQC. USAID.