

# Gender Cross-cutting Research Activity of SANREM IL

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# Gender is important to conservation agriculture

- Agricultural knowledge, practices, and resources are gendered.
- CAPS can affect men's and women's time, resources, and labor differently.
- Women and/or men can support or resist a project—based on the above or other gender considerations—which can determine its success or failure.



Bolivia



Gender CCRA goal: identify gender-related factors that contribute to the success or failure of CAPS



Philippines



# Objectives

- 1) Document **differences** in men and women's **knowledge**, beliefs, and perceptions of **soil quality**
- 2) Document the **gendered** nature of **crop-livestock interaction** with respect to maintaining crop residue cover on the soil
- 3) Document the **gendered** nature of **tillage**, including division of labor, access to assets, and knowledge, beliefs and perceptions





# Initial activities

- Haiti - presentation to students at the State University of Haiti
- Mali - rapid gender assessment
- Ecuador, Uganda and the Philippines - workshop in gender and participatory methods, rapid gender assessment



Mali



Ecuador

# Primary research sites



Bolivia

Sank'ayani  
Alto, Tiraque,  
Cochabamba  
District,  
Bolivia



Cambodia

Pichangva  
Rattanakmondol,  
Battambang,  
Cambodia



Philippines

Claveria,  
Misamis  
Oriental,  
Northern  
Mindanao



Uganda

Tororo &  
Kapchorwa,  
Uganda



# Qualitative & participatory methods



Focus group discussions



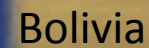
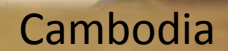
Household interviews



Participant observation



Cambodia





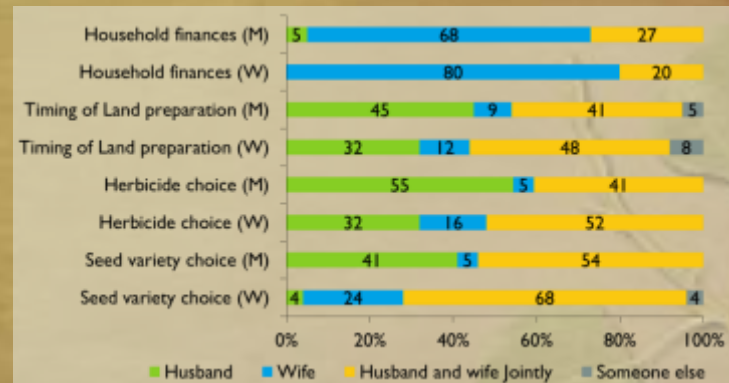
# Quantitative methods

- Soil sampling and fertility analysis
  - Bolivia and the Philippines
- Survey
  - Cambodia
- Geospatial analysis
  - The Philippines and Cambodia

Philippines



**“Who makes the decision?”**



# Research findings:

## Gender and local soil knowledge

- Bolivia
  - Men and women described soil based on gendered practices on the farm

“Good soil must maintain moisture.”

“Good soil should be smooth for plowing and little slope.”

–Male farmer, Bolivia, July 2011

“You can pasture sheep on the good soil.”

“Soil must be able to grow potatoes and give good yield.”

-Female farmer, Bolivia, July 2011





# Gender and local soil knowledge

- Philippines
  - Gendered soil knowledge relates to broader livelihood activities
  - Men used more physical soil terms to describe soils, particularly ones relating to topography
  - Women used terms relating to quality, land use, and inputs to describe soils



# Gender and local soil knowledge

## Men's FGDs

Pichanva



Fertile



Medium

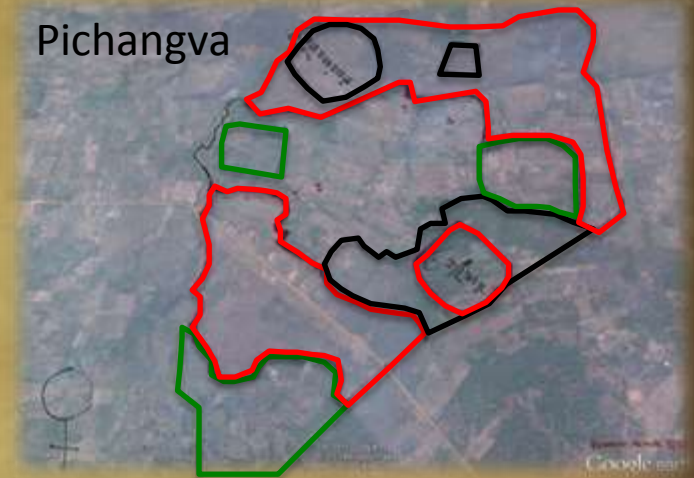


Degraded



## Women FGDs

Pichangva



Boribo



Boribo

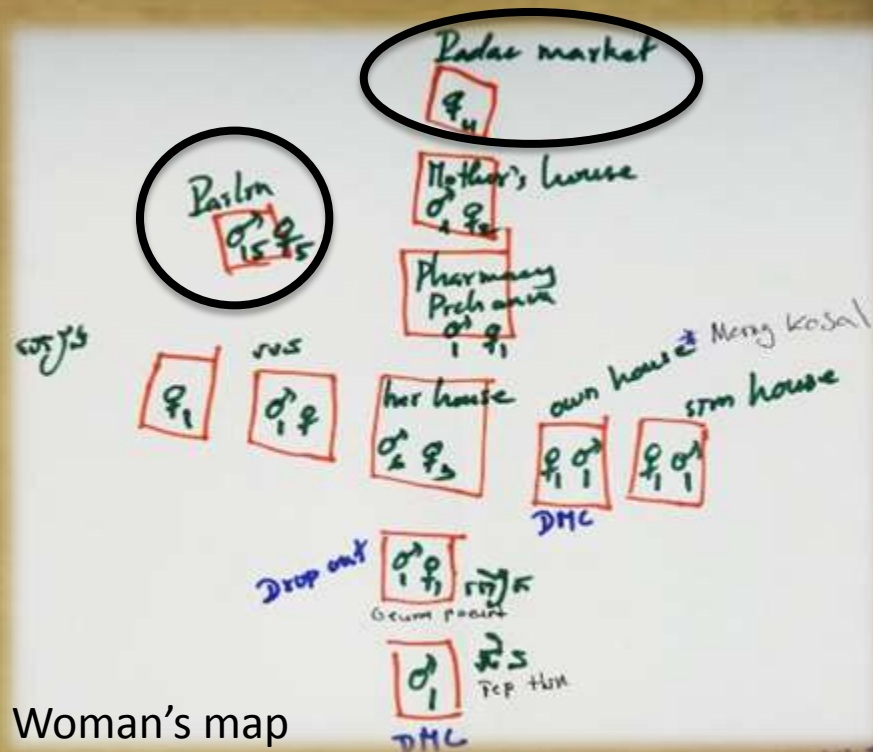


- Cambodia
  - Women drew localized areas of fertile and degraded soils whereas men drew more generalized areas





Man's map



Woman's map

- Men discuss CA with other men when they are working on their plot or visiting a neighbor's plot.
- Women discuss CA in a greater variety of spaces including household gardens, pagodas, and markets.

# Gender and local soil knowledge

- Uganda
  - Men were familiar with soils associated with rice paddies
  - Women were familiar with soils used to smear and repair floors
  - Both said that the use of herbicides and CA have improved their soils





# Research findings:

## Gender and crop-livestock interaction



- Bolivia
  - Women used crop cover as feed for sheep

# Gender and crop-livestock interaction



- Philippines
  - Little crop-livestock interaction; crop cover was not used as feed
  - Pastureland is becoming limited, which burdens men





# Gender and crop-livestock interaction

- Cambodia

- Most farmers now rely on two-wheeled tractors for land preparation, but cattle remain an important source of financial capital
- Farmers who focused on upland cash crop production perceived cattle as a burden, yet kept them under other people's care
- Men and women both have control over decisions regarding cattle, including the allocation of income from their sale



# Gender and crop-livestock interaction

- Uganda

- Farmers do not pasture animals in fields
  - Children help pasture
- Most farmers hire plow animals mainly worked by men but women helped
- Planting Napier grass was a way to feed livestock and retain residues
- Mucuna beans as a cover crop was used by men as feed for livestock and by women to cook and sell





# Research Findings: Gender, tillage, and mechanization



- Bolivia
  - Tilling is an important source of income for men that work as hired labor



# Gender, tillage, and mechanization

- Philippines
  - Very little tractor use, mostly animal powered
  - Land preparation is men's responsibility
  - Both men and women believe tillage is necessary for good production





# Gender, tillage, and mechanization

- Cambodia
  - Extensive tractor use; primarily two-wheeled
  - Land preparation is men's responsibility and key to masculine identity
  - Men and women believe CAPS can reduce their labor burden in land preparation
    - Gender roles do not change with increased “free time”



House and field are  
linked through  
decisions made  
jointly in the  
household



# Gender and tillage and mechanization

## Uganda

Most farmers still plowed once a season despite saying they were practicing CA. This is usually done by men and many make additional income from it.



Farmers in Kapchorwa rarely used the MFI because most do not own their own oxen and their donkeys are not trained to use it.

Farmers in Tororo used it more often.

There is a perception that women can't use a traditional plow. The MFI is seen as lighter and easier to use so women are more likely to use it.





# Other key findings

- Soil and agricultural knowledge are gained from gendered livelihood activities
  - The home is an important site for additional income and agricultural conversations
- Decision-making is complex and situated
  - Asking “Who makes the decision to experiment with CAPS?” is not enough
- Men and women get CAPS and other information from different places and people



# Division of Labor

- Uganda
  - Men are responsible for plowing or finding someone to plow; it is a common additional source of income for them.
  - Women are responsible for weeding and/or finding people to help weed.
  - Men usually spray the herbicide and/or hire someone to do this. Men are usually the ones to buy the herbicide.



Uganda





# Decision-making: example from Uganda

- Based on a preliminary analysis, men have more input in deciding to experiment CAPS.
  - In several cases, men would come back from trainings with herbicides and inform their wives they would be reducing tillage and spraying.
  - In other cases, both the husband and wife/wives would decide together after attending a training or talking with another farmer who practices.
  - In two cases in Kapchorwa, the women we spoke with were not aware that there was a garden/plot on their farm under CAPS.
- The only instances when women had a larger role in deciding to experiment CAPS was when the household was headed by a widow.



Women and their decisions affect the farm even if they are not responsible for tilling, crop cover, and crop rotations.

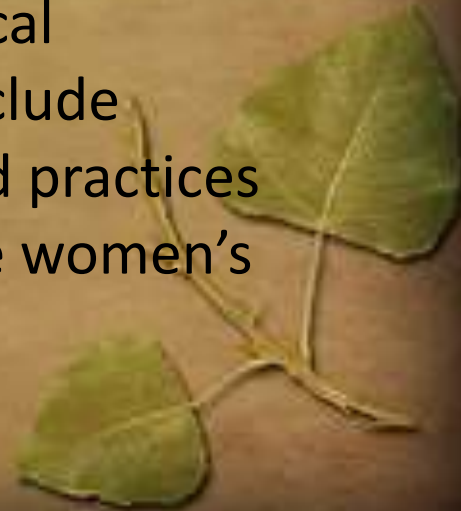


Uganda



# Development Recommendations

- More trainings w/women
  - Herbicides
  - MFI (animals, parts, and repair)
- Information sharing and gendered space
  - Build upon existing information pathways to ensure men and women both have access to agricultural training and support services.
  - Incorporate information beyond the technical components of CA applied in the field to include decisions made in the home that affect field practices
  - Demonstrations and trainings should include women's crops and spaces



# Development Recommendations

- Restitution events
  - Giving back, ground truth data, and build relationships
- Intra-household decision-making
  - If decisions are made jointly, ensure that men's and women's concerns and interests are addressed.
- Consider the social and political implications of access to the MFI
  - Place the MFI in the hands of women, including widows
- **“If you want an idea to spread, just tell the women.”** – Male Farmer, Uganda, May 2014



Philippines





# Outputs

- 2 student MS theses
- Publications
  - Harman Parks, M., M. Christie & I. Bagares (2014)  
Gender and conservation agriculture: constraints and opportunities in the Philippines. *GeoJournal*, 1-17.
  - Christie, ME., M. Harman Parks & M. Mulvaney (2014)  
Gender and local soil knowledge: linking farmers' perceptions with fertility analysis in the Philippines. *Singapore Journal of Tropical Geography*, submitted.
- Presentations at academic and professional conferences
  - AAG, SEDAAG, ASA/CSSA/and SSSA



# Capacity Building

## Long-term trainings



Keri Agriesti  
Thesis (MS Geography,  
pending):  
*"Gender, Local Soil  
Knowledge, and Access  
to Resources in the  
Andean region, Bolivia"*



Mary Harman Parks  
Thesis (MS  
Geography, 2013):  
*"Using Qualitative GIS  
to Explore  
Conservation  
Agriculture in the  
Philippines"*



Daniel Sumner  
Thesis (MS  
Geography, 2014):  
*"Gendered  
Dimensions of  
Conservation  
Agriculture in  
Northwestern  
Cambodia"*





# Capacity building

## Short-term trainings



**Philippines (2010):**

**Farmers:** 19 men, 32 women

**Philippines (2012):**

**Team members:** 3 men, 5 women

**Farmers:** 44 women, 39 men



**Uganda (2010):**

**Team members:** 3 men, 3 women

**Farmers:** 21 men, 12 women

# Capacity building

## Short-term trainings



**Bolivia (2011):**

**Team members:** 2 men, 3 women

**Farmers:** 10 men, 13 women



**Cambodia (2013):**

**Team members:** 8 men,

**University of Battambang**

**Students:** 1 man, 1 woman



# Thank you! Questions?



Uganda

