

# What do we know about gender and agriculture in Africa?

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# outline

1. Gender matters: evidence from research
2. How can we address gender gaps?  
Evidence from impact evaluation of policies.
  - a) Direct effects on beneficiaries
  - b) Indirect effects on different genders within beneficiary households
3. Building the evidence base

# Why gender matters for agriculture: evidence from research

- A range of research shows that male and female farmers in Africa face different sets of constraints in the main markets that matter for agriculture: land, capital, labor and output markets
- In addition, men and women often face differential institutional environments (e.g. restrictions on movement)
- All of these will affect relative productivity of male and female farmers and their income

# Evidence from research

- Given the range of different market constraints, let's focus on male/female productivity differentials and get rid of as many market differences as we can
- Look at the household level – arguably at this level men and women (might) face similar constraints
- Focus on efficient household production, ask the question: *is it possible for the household to reallocate inputs across male and female farmers/plots and get increases in output for the same level of inputs?*

# Gender matters: evidence from Burkina Faso

- Udry (1996) compared yields between male & female plots *within* HH's
- Women-controlled plots are farmed with fewer inputs (labor, fertilizer) & yields are 30% lower
- Inefficiencies imply 6% loss of HH output
  - Reallocating some of current inputs to women would get this gain, so would giving all plots to the men

## Similar pattern in Ghana, with a tricky explanation

- Goldstein & Udry (2008) found similar initial results in Ghana – women have much lower maize & cassava yields than men in the same household
- The cause in Ghana is different – women fallow their land less (and as it turns out, so do some men) in this shifting cultivation system.

# Ghana, cont.

- Fallowing is driven by one's connections to social & political networks (which protects you from expropriation during the fallow period) – with women being less well connected (and some men)
- Yield losses from this source of inefficient fallowing are costly: aggregate estimate just under 1% of Ghana's 1997 national GDP

# So what do we know for policy?

- Research points to household inefficiencies by gender that reduce productivity
- Given the multitude of factors that go into the determination of agricultural outcomes, we need a rigorous method of determining policy impacts: Impact evaluation
- But, there is currently little impact evaluation evidence on gender differentiated program effects



# Thinking about policy effects

- A. Male vs female beneficiaries (i.e. who gets the program)
- B. Spillover benefits: effects on those of diff genders w/in the household of the beneficiary (whomever the beneficiary is)

# A. Male vs female beneficiaries

- Deininger et al's Ethiopia land impact evaluation (2008) found significant impacts on female-headed HHs
- Female-headed HHs with certificates were 20% more likely to make soil & water conservation investments in land & spend more time on these investments

# Impacts by gender

Intervention	Outcome(s)	Impacts by gender
Ethiopia land certification	Tenure security, land investment & rental market participation	-Female-headed HHs 20% more likely to invest in land & spend 72% more time on land investments & repairs -No difference in tenure security or land rental
Kenya export crop adoption & marketing	Export crop cultivation, HH income, marketing costs	
Malawi rainfall insurance	Adoption of hybrid seed credit	
Ethiopia roads & ag extension	Poverty & consumption growth	
Kenya fertilizer	Adoption of fertilizer	

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# Unpacking gender insignificance

- We are testing the hypothesis: the gender difference is not statistically different from zero
- Two ways this can happen:
  - 1. We can't tell – the estimates are so noisy as to be indistinguishable → **NO information for policy**
  - 2. The difference is actually zero (well estimated) → **policy relevant result**



## B. Spillover benefits

- Field (2005) found substantial spillover impacts of national land titling program on women in urban Peru
- In addition to increases in female land title holders, program also led to substantial 21% reduction in birthrates in program areas
- Women's role in HH decision-making also increased

# So we need more and better evidence

- Keep in mind that a well estimated zero result is informative
  - If the policy is aimed at a documented gender gap, it has failed to address it
  - If the policy is not aimed at a gender gap, men and women are affected equally
- So what is the problem now:
  - Many IEs already done did not collect enough observations to tell
  - A well estimated zero is often not reported in publications (publication bias)
  - Gender analysis isn't always done

# How to get to more evidence (more on this later)

- The way to better policy is impact evaluations that are well designed to capture gender differences
- This does not mean (only) projects targeted at women – this is a small fraction of what we do
- It means understanding gender-differential effects in the important projects (e.g. large budget, pressing issue, innovative design)
- Encouraging news from the field

# So what do better evaluations look like?

- Start from an understanding of what existing gender issues are in your target population
- Think about causal chain of the project and how it might be different for men and women and then choose outcomes of interest accordingly
- Make sure the data is sufficient for this, and that the analysis gets done