



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Feed the Future Africa Great Lakes Region Coffee Support Program (AGLC) Policy Roundtable

Topic: Challenges and Opportunities for Women in the Rwandan Coffee Sector

August 2017 • Puebla, Mexico



USAID
FROM THE AMERICAN PEOPLE

MICHIGAN STATE UNIVERSITY

UNIVERSITY OF RWANDA



GLOBAL KNOWLEDGE INITIATIVE



Institute for Policy Analysis and Research - Rwanda

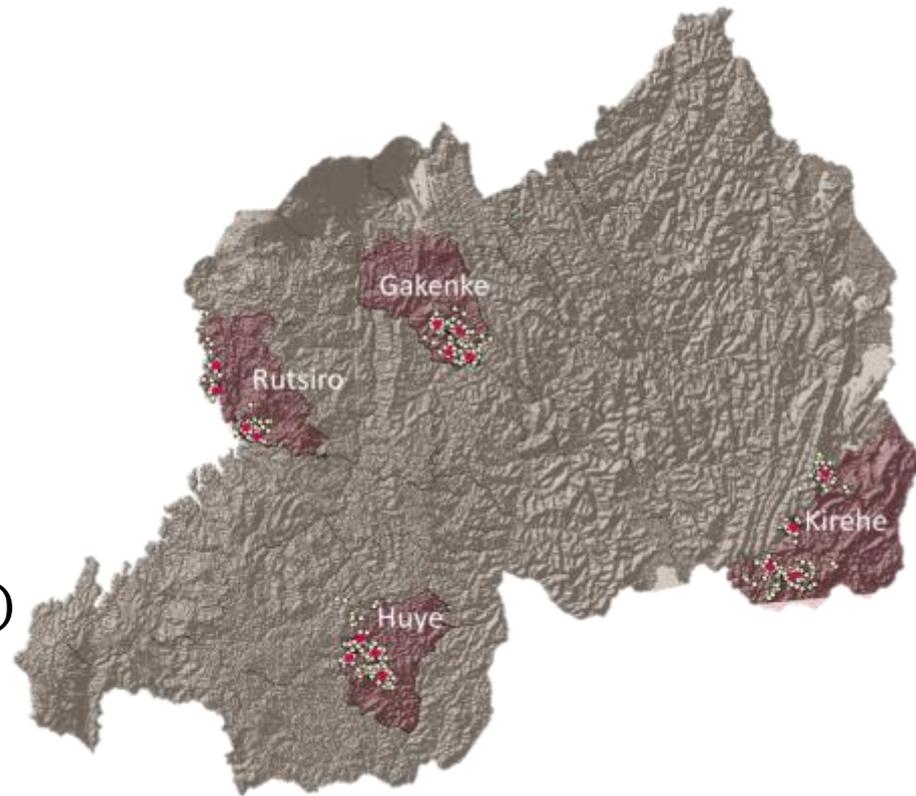
Introduction

Africa Great Lakes Coffee project

- AGLC is a 3-year USAID-funded initiative - coffee sector in Rwanda and Burundi (the Africa Great Lakes region)
- 6 Partners
 - 2 Rwanda: Inst. of Policy Analysis and Research (IPAR) and Univ. of Rwanda (UR)
 - 2 Burundi: University of Ngozi, Polytechnic Univ. of Gitega
 - 2 USA: Michigan State University (MSU) and Global Knowledge Initiative (GKI) in Washington D.C.
 - Numerous public and private sector partners
- Objectives:
 - Reduce antestia bug/potato taste defect (PTD)
 - Raise coffee productivity

Baseline/midline survey of coffee growers

- Geographically dispersed sample across four coffee growing districts: Rutsiro, Huye, Kirehe and Gakenke.
- 64/32 HHs randomly selected from listings of each of the 16 CWSs
 - Baseline (64 x 16 = 1024 HHs)
 - Midline (32 x 16 = 512 HHs)



Qualitative Research Included:

- Key informant interviews
- Focus group discussions

Guiding question:

What are the differences between male and female heads of households that produce coffee in Rwanda?

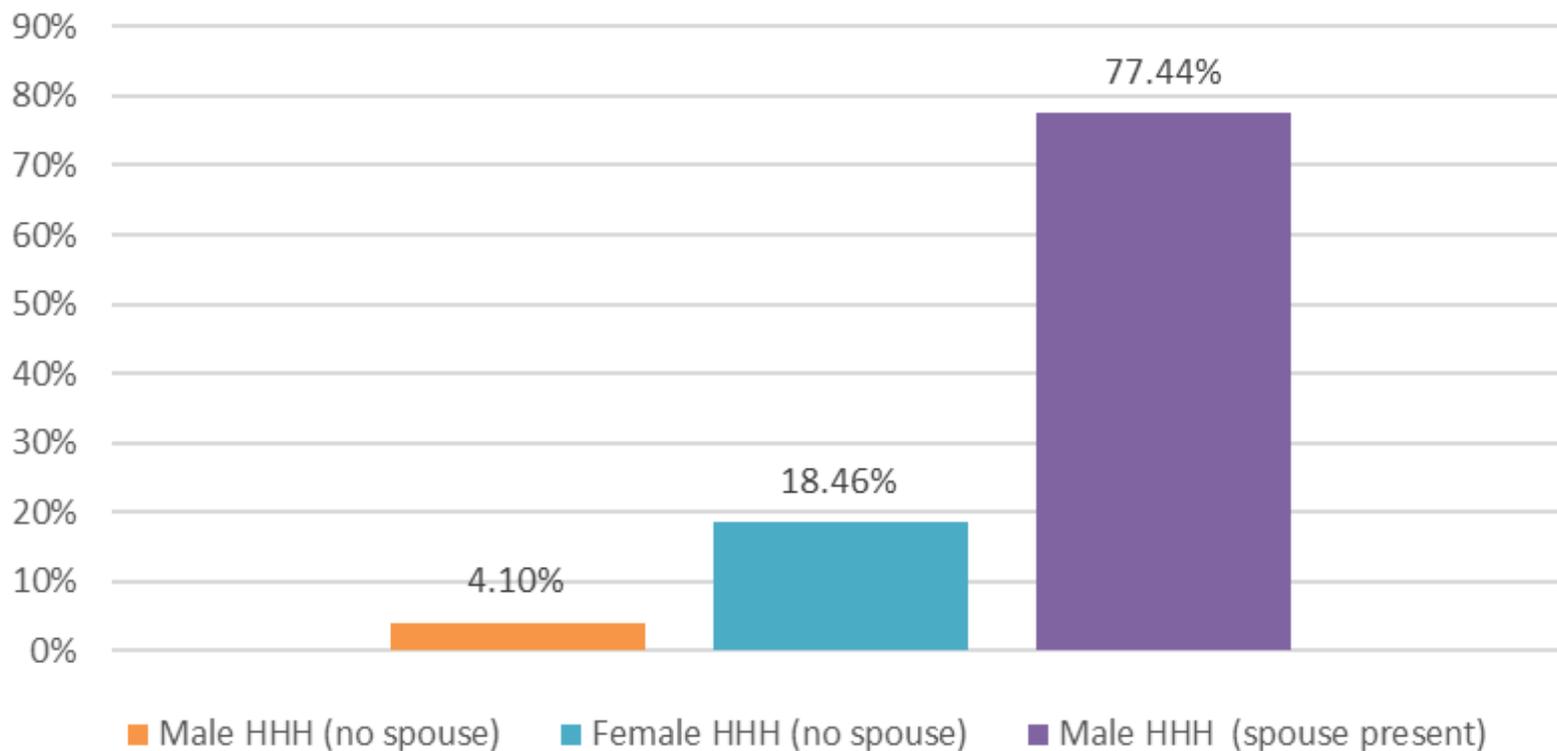


Applying pesticide

Research Findings – Rwanda

(a few)

Sample by Gender of the Head of the Household



**Are the female-headed
households different than the
male-headed households?**

Women are older

Table 1. Age of the Head of Household by Gender

| | Females | | Males | |
|--------------|---------|--------|-------|--------|
| | Total | % | Total | % |
| Less than 35 | 7 | 3.70% | 159 | 19.04% |
| 36-50 | 42 | 22.22% | 298 | 55.69% |
| 51-65 | 89 | 47.09% | 261 | 31.25% |
| More than 66 | 51 | 27% | 117 | 14.01% |
| Average age | 58.14 | | 49.49 | |

Women are more illiterate (cannot read or write), and have less adult help in the HH.

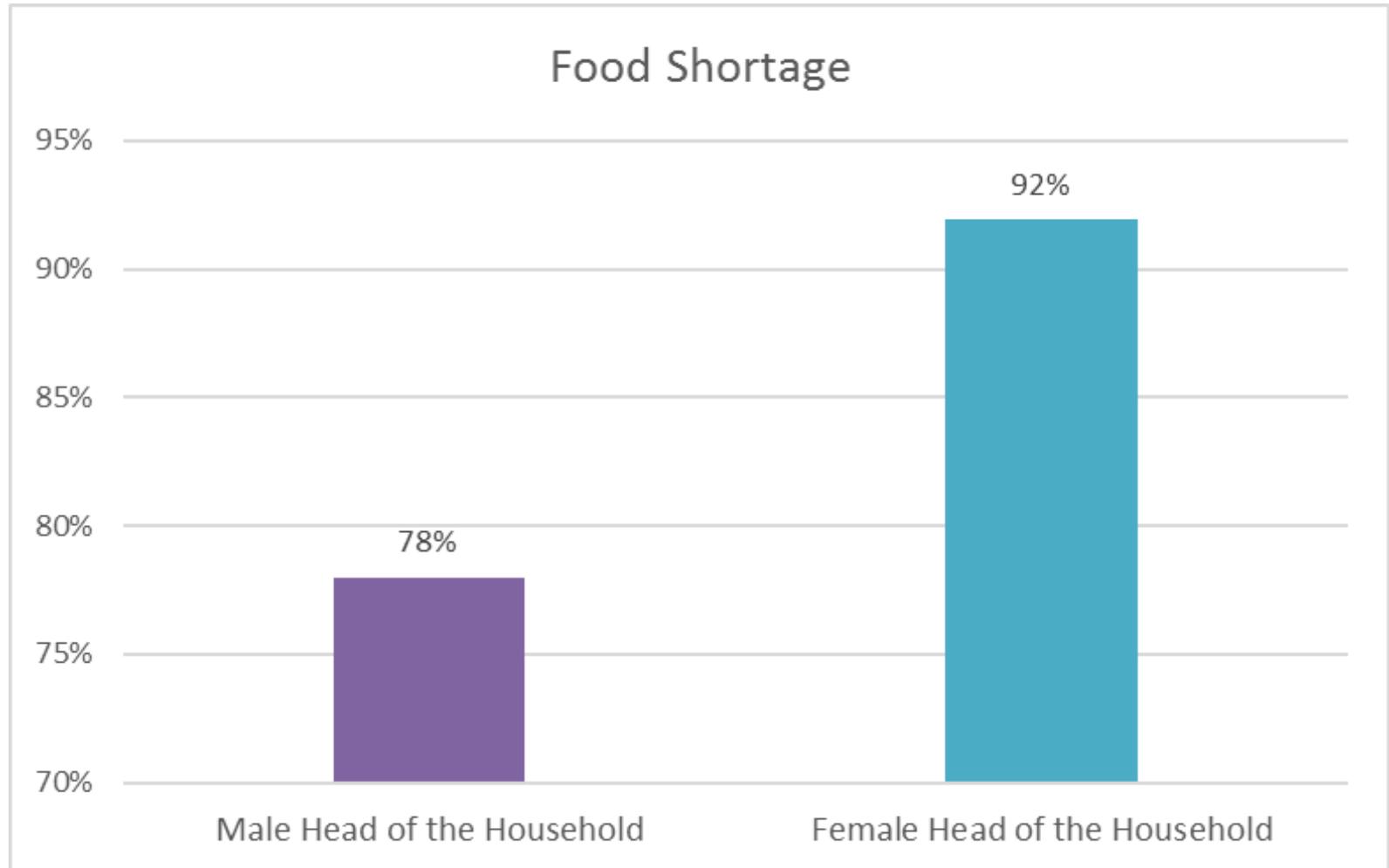
Table 2. Socio-demographic statistics

| | Females | | | | Males | | | | p-value |
|----------------------------|---------|--------|-------|--------|-------|--------|-------|--------|---------|
| | Total | Median | Mean | St Dev | Total | Median | Mean | St Dev | |
| Age | | 59.00 | 58.14 | 11.96 | 48 | 58.00 | 57.14 | 11.96 | <0.001 |
| Illiteracy | 113 | | 59.79 | | 212 | | 25.38 | | <0.001 |
| Widow | 147 | | 77.8 | | 17 | | 2 | | <0.001 |
| Household size | | 4 | 4.23 | 2.05 | | 5 | 5.57 | 2.08 | <0.001 |
| Children under 16 | | 1 | 1.46 | 1.31 | | 2 | 2.24 | 1.53 | <0.001 |
| Adults older than 65 | | | 0.306 | 0.49 | | | 0.22 | 0.54 | <0.001 |
| Active Adults in Household | | 2.00 | 2.47 | 1.57 | | 3.00 | 3.10 | 1.60 | <0.001 |
| Cooperative member | 118 | | | | 449 | | | | 0.03 |

Completed primary:
Males: 39%
Females: 20%

Note: p-value denotes significance of statistical test for differences in distributions across gender of the head of the household

... more likely to experience food shortage in the HH.



Are the female-headed farms different than the male-headed farms?

... less land, less area with coffee.

Table 3. Farm Characteristics

| | Females | | | | Males | | | | <i>p</i> -value |
|------------------------------------------------|---------|--------|---------|---------|-------|--------|----------|----------|-----------------|
| | Total | Median | Mean | St Dev | Total | Median | Mean | St Dev | |
| Total land owned (sq meters) | | 7369 | 10243 | 10144.4 | 1000 | | 12380 | 10756.21 | 0.0129 |
| Total land for cultivation (sq meters) | | 5970 | 8691.69 | 8822.97 | 8348 | | 10584.04 | 9257.95 | 0.0106 |
| Total area under coffee production (sq meters) | | 1264 | 2534.78 | 3786.5 | 1960 | | 3420.2 | 5090.9 | 0.0244 |
| Household grows other crops besides coffee | 188 | | | | 829 | | | | |
| Percentage of the land growing coffee | | 0.024 | 0.33 | 0.27 | | 0.27 | 0.35 | 0.26 | 0.2640 |

Note: *p*-value denotes significance of statistical test for differences in distributions

... more years growing coffee, fewer trees, older trees. Smaller harvest, less money from coffee, but coffee is a larger share of total income.

Table 4. Coffee Production

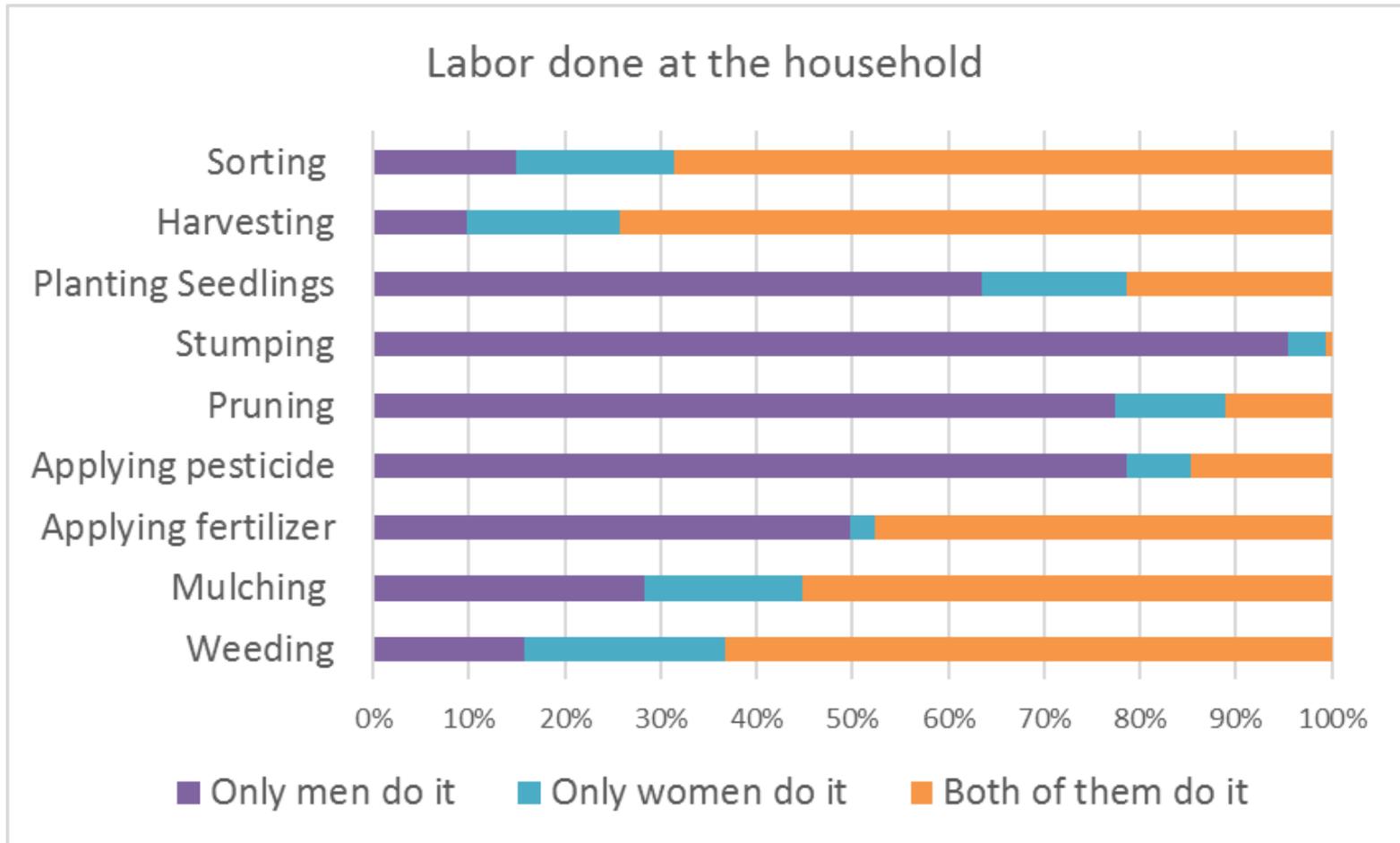
| | Females | | | Males | | | p-value |
|--------------------------------------------|---------|-----------|-----------|-----------|-----------|-----------|---------|
| | Median | Mean | St Dev | Median | Mean | St Dev | |
| Years growing coffee | 30 | 28.84 | 15.96 | 20 | 22.21 | 14.88 | <0.001 |
| Productive trees | 300 | 596.16 | 894.7 | 412 | | | 0.0668 |
| Age of trees | 25 | 27.72 | 15.15 | 18.1 | | | <0.001 |
| Total cherry harvest (2015) | 420 | 733.30 | 1296.78 | 600 | | | 0.0379 |
| Total Income (coffee and non-coffee, 2015) | 199000 | 362639.50 | 522608.20 | 380850.00 | 614516.30 | 1560121 | 0.03 |
| Total Income from Coffee (2015) | 83000 | 159993.40 | 310968.80 | 136940.00 | 226591.20 | 379563.90 | 0.02 |
| Coffee as a share of income (2015) | 0.45 | 0.49 | 0.31 | 0.42 | 0.43 | 0.27 | 0.015 |
| Income not including coffee | 99000 | 202646.1 | 363117.8 | 210000 | 387637.1 | 1316427 | 0.015 |

On average, coffee is 50% of the income for coffee households headed by females

Note: p-value denotes significance of statistical test for differences in distributions across gender of the head of the household

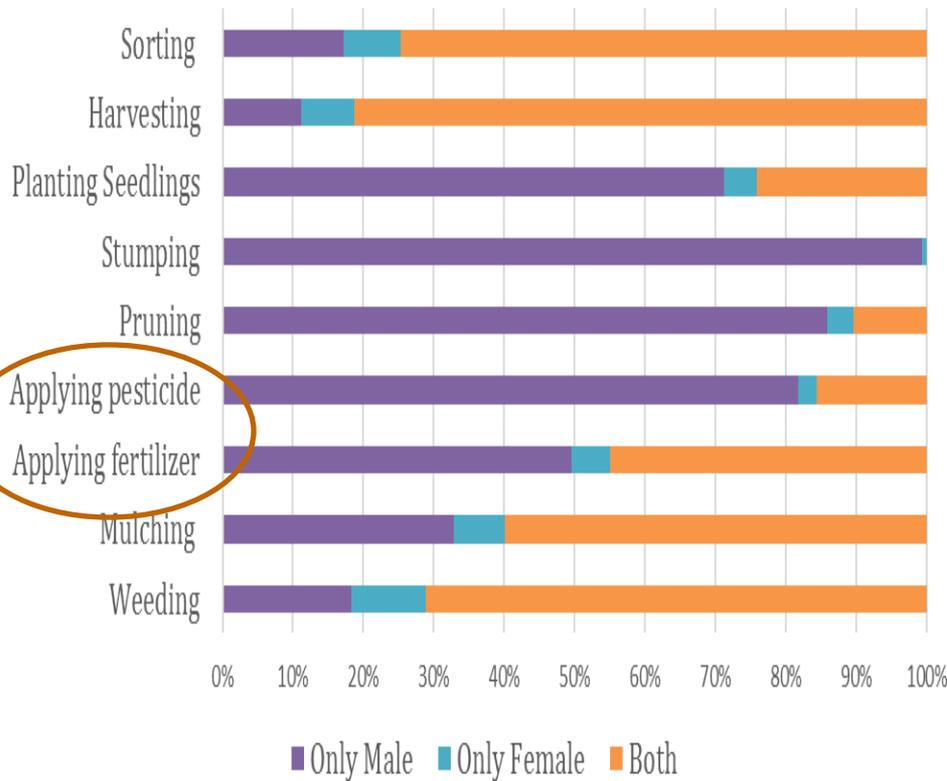
9 farm tasks by gender

Surprise: “Female” always less than “male” or “both” in combined sample.

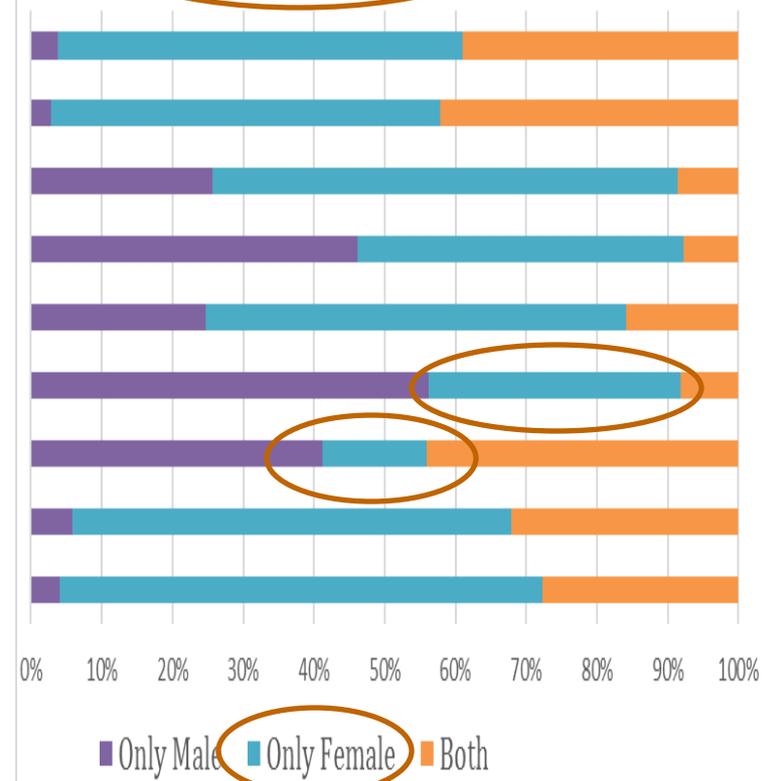


Not a Surprise: In female HHH, females do most of every task except pesticide and fertilizer.

Male head of the household



Female head of the household



Mulching, pruning and applying pesticide are activities where female HHHs more likely to hire a worker.

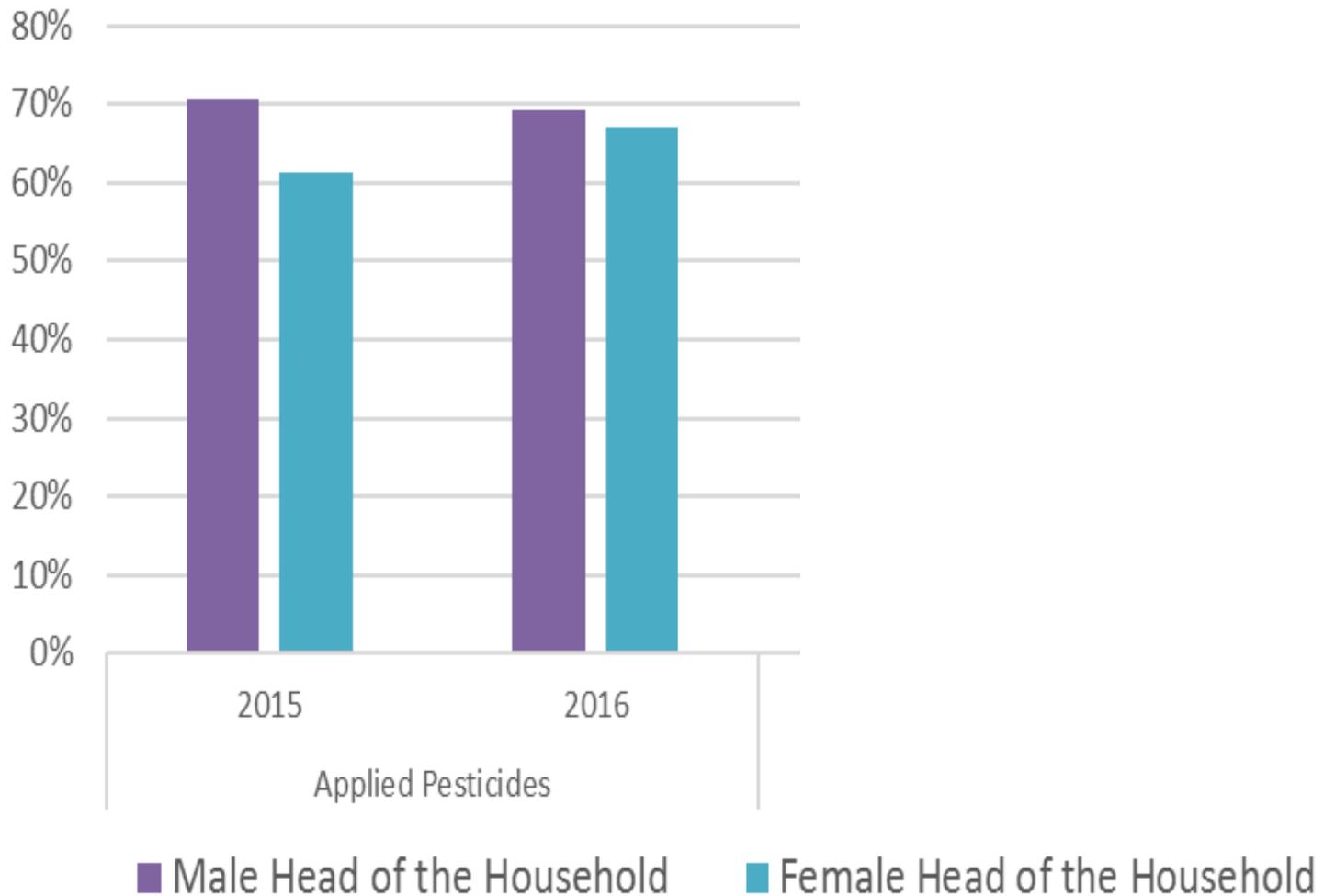
Table 5. Coffee Labor

| | | No one is doing this activity (HH or labor) | Labor hired outside of the household | Labor done at the HH and also hired | Only family is providing this labor |
|---------------------------|-------------------|---------------------------------------------|--------------------------------------|-------------------------------------|-------------------------------------|
| Weeding | Male Head of HH | 0.24 | 7.19 | | |
| | Female head of HH | 0.53 | 9.52 | | |
| <u>Mulching</u> | Male Head of HH | 7.43 | 12.81 | | |
| | Female head of HH | 10.05 | 18.52 | | |
| Applying Fertilizer | Male Head of HH | 26.71 | 4.07 | | |
| | Female head of HH | 33.86 | 7.41 | | |
| <u>Applying Pesticide</u> | Male Head of HH | 28.74 | 10.66 | 12.22 | 48.38 |
| | Female head of HH | 39.15 | 22.22 | 8.47 | 30.16 |
| <u>Pruning</u> | Male Head of HH | 5.03 | 19.64 | 13.17 | 62.16 |
| | Female head of HH | 8.99 | 37.57 | 10.05 | 43.39 |
| Stumping | Male Head of HH | 77.37 | 3.11 | 2.63 | 16.89 |
| | Female head of HH | 83.07 | 10.05 | | |
| Planting Seedlings | Male Head of HH | 78.44 | 1.20 | | |
| | Female head of HH | 77.78 | 3.70 | | |
| Harvesting | Male Head of HH | 0.48 | 4.91 | | |
| | Female head of HH | 2.12 | 6.35 | | |
| Sorting | Male Head of HH | 37.37 | 0.48 | 4.79 | 57.37 |
| | Female head of HH | 43.39 | 1.06 | 4.76 | 50.79 |

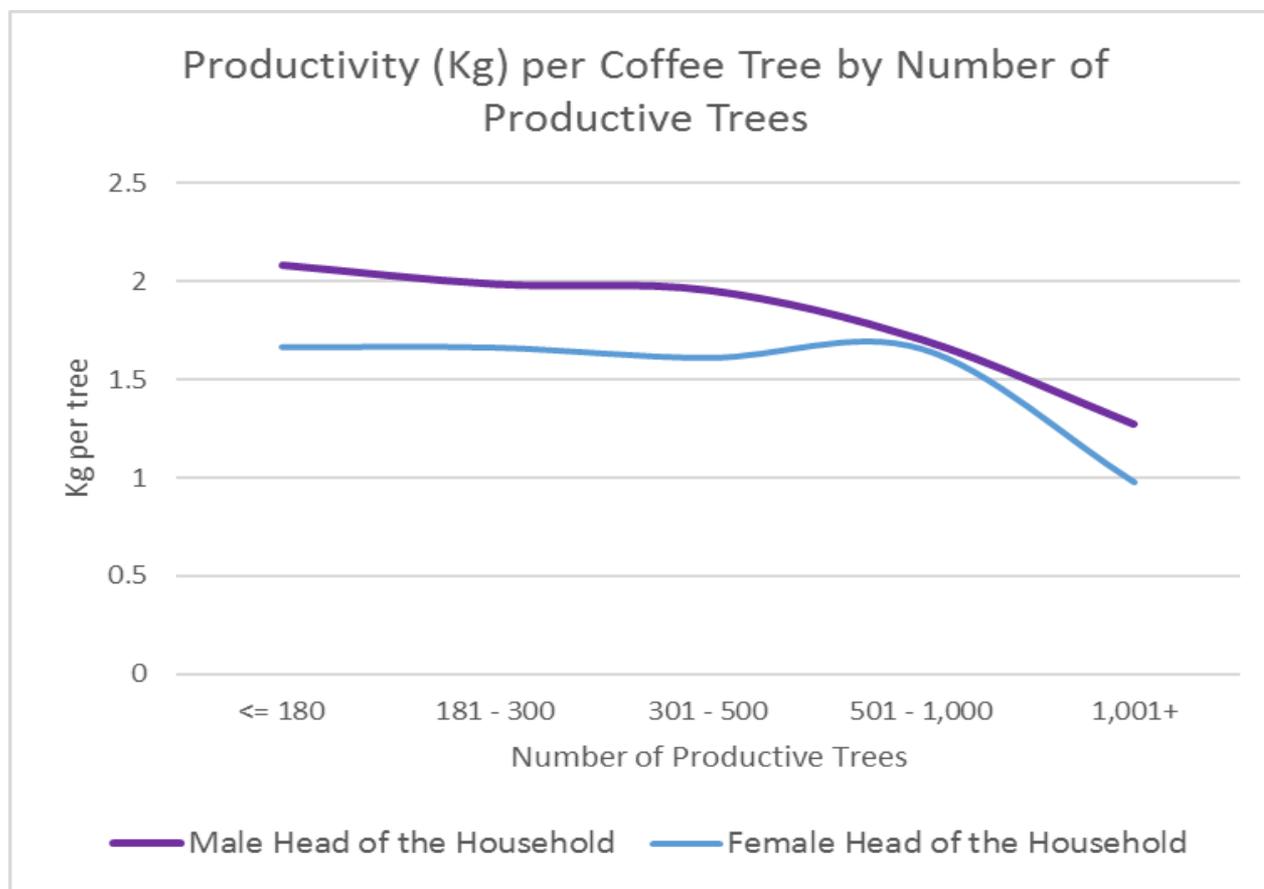
Female HHH have 20% higher cost of production.

Female HHH profits from coffee are LESS. On average, only 80% of male HHH.

Gender and Input Application



Therefore, not surprising, female HHHs have lower productivity per coffee tree.



Coffee money

| Sex of person who received the money | N | % |
|--------------------------------------|-----|-----|
| Male | 293 | 57% |
| Female | 127 | 25% |

* 18% non-respondent

| Gender of Coffee Decision Making | N- Midline | % - Midline |
|----------------------------------|------------|-------------|
| Male | 132 | 25% |
| Female | 107 | 21% |
| Both M&F | 272 | 54% |

| Who decided what to do with income from cherry sale?* | N | % |
|-------------------------------------------------------|-----|-----|
| Head of household | 213 | 54% |
| Spouse | 17 | 4% |
| HHH and spouse | 168 | 42% |

Top 10 Things For Which Coffee Money is Used

All households

| Use of Money | % Saying They Used the money for this |
|--------------------------|---------------------------------------|
| 1 Food | 45% |
| 2 Health services | 45% |
| 3 Household expenses | 43% |
| 4 School expenses | 35% |
| 5 Other farm investments | 26% |
| 6 Livestock | 22% |
| 7 Clothing | 21% |
| 8 Household goods | 20% |
| 9 Coffee Related Work | 10% |
| 10 Savings | 4% |

| 2015 Income from Coffee | US\$ |
|-------------------------|-------|
| Female HHH | \$200 |
| Male HHH | \$283 |

Conclusions re: Areas to Focus

IMPORTANT AREAS TO FOCUS (rank order)

1. Lack of control of household resources limits women's ability to invest in their coffee (e.g., purchasing inputs).
2. Involve more young people, especially young women, in coffee to address the increasing age of coffee farmers.
3. While trainings have supported women's empowerment, need to train both men and women to ensure men are on board with implementation of best practices.
4. While coops can train women on activities they can do without their husbands, it's little use when women cannot purchase the equipment to perform these activities (e.g., sprayers).



Thank You!

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