

Supplementary information

The majority of the households (86.4%) were male-headed (Table 1). There are several variables that show significant statistical variation between MHHs and FHHs. There were more male respondents in the MHHs than there were in the FHHs (69% versus 3%). The MHHs were also ahead of the FHHs in most household characteristics: percentages of hired labor, own radio, own bicycle and household size. The MHHs were ahead of the FHHs in numbers of male members, members aged 0-17, members aged 18-60, land size holdings (acres) and maize produced (kgs). The FHHs were only ahead of the MHHs in the number of family members who were above 61 years old.

There was no significant difference between the MHHs and the FHHs concerning the amount of maize sold. However, as we saw in the tobit regression, if other variables that might influence the quantity of maize sold are controlled for, then we see that gender of the household head becomes a significant factor in the quantity of maize sold in kgs.

Furthermore, the results of Table 2 (a) and 2 (b) show that there is a statistically significant difference in maize yield across the provinces as well as across the districts. Across the provinces, Manica produces more maize than Tete province, while in terms of the districts, Sussundenga takes the lead, followed by Manica and lastly Angonia.

Table 3 shows the intra-household characteristics of the households under study. The results show that there are statistically significant differences between husbands in MHHs, wives in MHHs, wives in FHHs, husbands in FHHs and adult females (single/widowed) and all the variables under test, except for membership of a farmers' organization.

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25 Table 1. Household characteristics

Variable	MHHs (n=255)	FHHs (n=40)	Total (n=295)	χ^2 measure of difference	p-value
Gender of respondent (% male)	69.41	2.50	39.66	64.688	0.000**
Sold maize (% yes)	52.94	57.50	53.56	0.289	0.591
Group membership (% yes)	60.22	67.50	61.50	0.738	0.390
Ownership of livestock (% yes)	90.80	84.20	89.90	1.589	0.208
Accessed extension services (% yes)	46.27	47.50	46.44	0.144	0.885
Accessed market information (% yes)	27.40	28.00	27.50	0.061	0.952
Obtained credit (% yes)	85.88	85.00	85.76	0.022	0.822
Used hired labor (% yes)	40.48	57.50	42.81	4.086	0.043**
Own radio (%)	77.27	57.89	74.64	6.516	0.011**
Own mobile phone (%)	59.34	57.89	59.14	0.028	0.867
Own bicycle (%)	65.56	34.21	61.29	13.597	0.000**
				t-value	
Household size (absolute numbers)	7.13 (3.67)	5.30 (2.48)	6.88 (3.58)	3.051	0.003**
Household size (adult equivalent)	3.59 (2.07)	2.63 (1.48)	3.46 (2.03)	2.849	0.005**
Female members (in numbers)	3.44 (1.95)	3.25 (1.56)	3.41 (1.90)	0.587	0.558
Male members (in numbers)	3.48 (1.83)	2.82 (1.83)	3.41 (1.84)	1.981	0.049**
Members aged 0-17 (in numbers)	3.46 (2.28)	2.73 (1.93)	3.36 (2.25)	1.930	0.055*
Members aged 18-60 (in numbers)	3.18 (1.70)	2.55 (1.71)	3.09 (1.71)	2.182	0.030**
Members aged 61+ (in numbers)	0.34 (0.64)	0.53 (0.68)	0.37 (0.65)	1.666	0.097*
Land size holding (acres)	5.05 (4.70)	3.69 (3.64)	4.85 (4.58)	1.717	0.087*
Area under maize (acres)	2.36 (1.93)	2.40 (2.99)	2.37 (2.11)	0.0830	0.934
Maize produced (kgs)	2270.58 (2107.28)	1546.03 (1696.87)	2170.38 (2067.96)	2.043	0.042**
Maize sold (kgs)	347.17 (597.49)	298.21 (491.42)	340.42 (583.48)	0.486	0.627
Off-farm income (MT)	22460.36 (30439.26)	21761.94 (35362.60)	22359.18 (31110.90)	0.115	0.908

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27 Table 2 (a). Maize yield by province

	Manica	Tete	t-value	p-value
Yield (kgs/ha)	2967.49	2342.46	1.841	0.067*
	(2935.57)	(1870.49)		

28 *Figures in parentheses are standard deviations; *significant at 10% level*

29 Table 2 (b). Maize yield by district

	Manica	Sussundenga	Angonia	F-value	p-value
Yield (kgs/ha)	2710.96	3263.13	2328.82	2.750	0.066*
	(2639.65)	(3211.67)	(1876.42)		

30 *Figures in parentheses are standard deviations; *significant at 10% level*

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33 Table 3. Intra-household characteristics

Variable	Husbands in MHHs (n=255)	Wives in MHHs (n=268)	Wives in FHHs (n=7)	Husbands in FHHs (n=7)	Adult females (single/widow) (n=33)	Total (n=570)	ANOVA	
							F- value	p-value
<i>Average age (years)</i>	48.9	39.1	42.6	44.0	54.1	44.9	18.09	0.000**
Age: 18-40 (%)	32.3	58.0	57.1	50.0	21.2	44.2	13.08	0.000**
Age: 41-60 (%)	45.2	32.4	28.6	50.0	42.4	38.9		
Age: 61+ (%)	22.6	9.5	14.3	0.0	36.4	16.9		
<i>Education level (average years)</i>	3.91	2.6	1.9	2.8	1.1	3.1	11.42	0.000**
Education: none (%)	17.1	35.3	42.9	50.0	51.6	28.2	10.92	0.000**
Education: primary education (1-7 years) (%)	70.5	60.9	57.1	50.0	48.4	64.4		
Education: secondary + (%)	12.4	3.8	0.0	0.0	0.0	7.5		
<i>Main occupation (%)</i>								
Agriculture, self- employed, farming	86.7	96.6	100.0	33.3	97.0	92.1	2.45	0.045**
Salaried employment	6.0	0.4	0.0	50.0	0.0	3.2		
Self-employed off farm	4.4	0.4	0.0	16.7	3.0	2.3		
Others	2.9	2.6	0.0	0.0	0.0	2.5		
<i>Marital status</i>								
Married living with spouse	92.5	99.3	85.7	85.7	0.0	89.8	22.45	0.000**
Married but spouse away	1.2	0.7	14.3	14.3	0.0	1.1		
Never married	0.4	0.0	0.0	0.0	3.0	0.5		
Divorced/separated	1.2	0.0	0.0	0.0	18.2	1.6		
Widow/widower	4.7	0.0	0.0	0.0	78.8	7.1		
<i>Membership in farmer organization</i>	60.3	66.0	28.6	57.1	75.0	63.5	1.777	0.132

34 ** shows significance at 5% level; wives in MHHs are more than the husbands due to polygamous setting

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