XXXX LOCATION AND PROJECT DETAILS XXXX

RHoMIS
Rural Household Multi Indicator Survey

Report DATE

Survey Overview

- 296 household interviewed
- 7 kebeles
- Conducted in July 2017

Region	Interviews
A	42
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Data summary – page 1

Indicators of food security and poverty

Quartile	Total value of activities ($/person/day)	Average cash income ($/person/day)
Lower	$0.13	$0.00
Lower middle	$0.40	$0.08
Upper middle	$0.77	$0.23
Upper	$1.79	$0.62

Quartile	Hungry months	Hungry score	Dietary diversity	Progress of out poverty
Lower	2	4	2	13.0
Lower middle	2	3	3	15.5
Upper middle	2	3	3	17.3
Upper	1.5	2	3	18.3

Farm and household characteristics

Quartile	# of HH members	Land owned (ha)	Land cultivated (ha)
Lower	7	1.5	1.0
Lower middle	6	2	1.9
Upper middle	6	2	2.0
Upper	5	2	2.5

Data summary – page 2

Natural resource management

- NRM practices

Biological methods	% of HHs practicing
Live checkdams	9.7%
Mulching	14.2%
Vegetative fencing	0%
Strip cropping	0%
None	84.8%

Soil and water conservation	% of HHs practicing
Soil bund	19.7%
Stone bund	0.7%
Fayna Juu	12.1%
Bench terracing	0.7%
None	79.2%

Gully control	% of HHs practicing
Stone checkdams	12.1%
Brushwood checkdams	11.4%
Gabion	1.0%
None	84.8%

- Stove types
  - Traditional: 93.1%
  - Improved: 6.9%

Agricultural practices

- Crops and livestock

Most important crops	% of HHs growing crops
Maize	80%
Wheat	45%
Teff	42

Livestock kept	% of HHs keeping animal
Cattle	81.3%
Goats	43.3%
Sheep	28.7%
Chicken	42.9%
Donkeys/ horses	56.1%
Bees	2.1%

Off-farm income sources

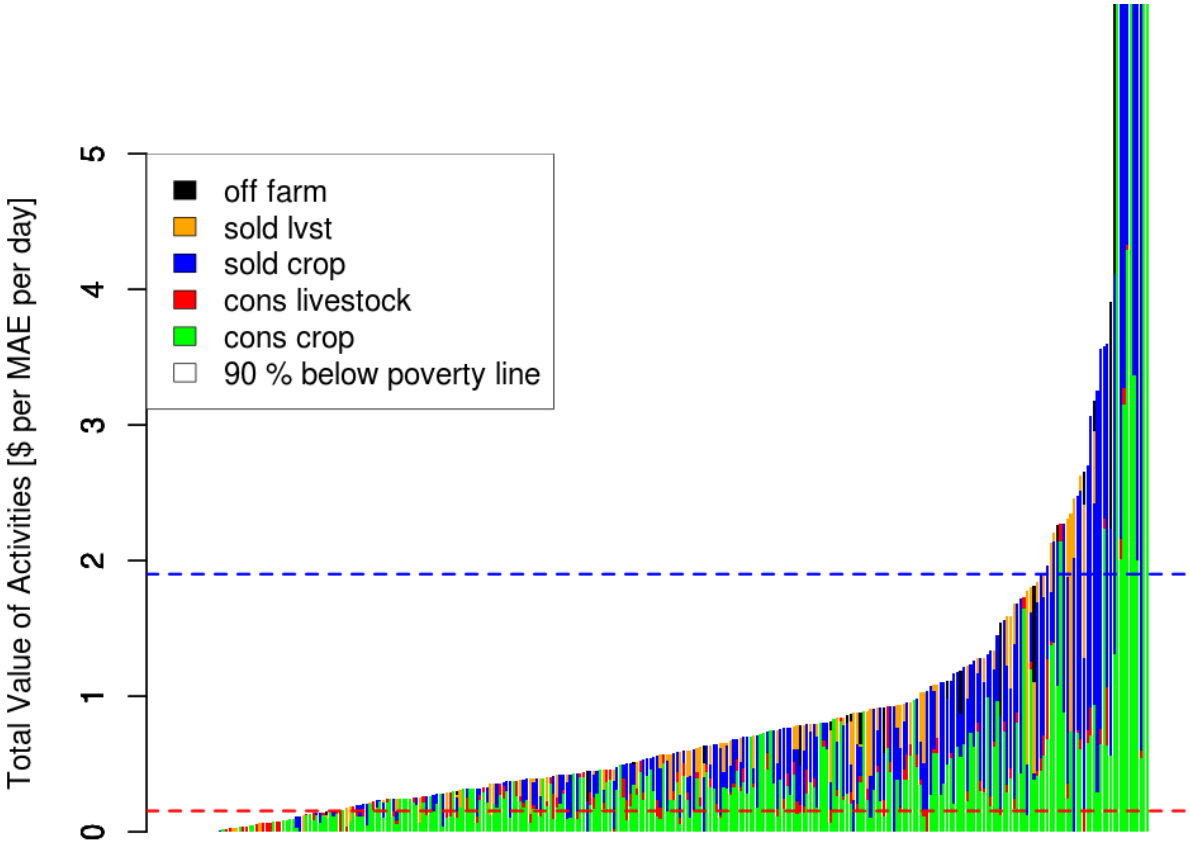
- 88% of households have no source of off-farm income

Trees and NTFPs

- No households collect edible forest products
- 42% of households collect fuels for home use
- 4% gather fuel (wood) for sale
- 25.3% of households make use of trees on their land (non-felling use)
- 6% of households own fruit trees

Household Incomes, Productivity and Food Availability

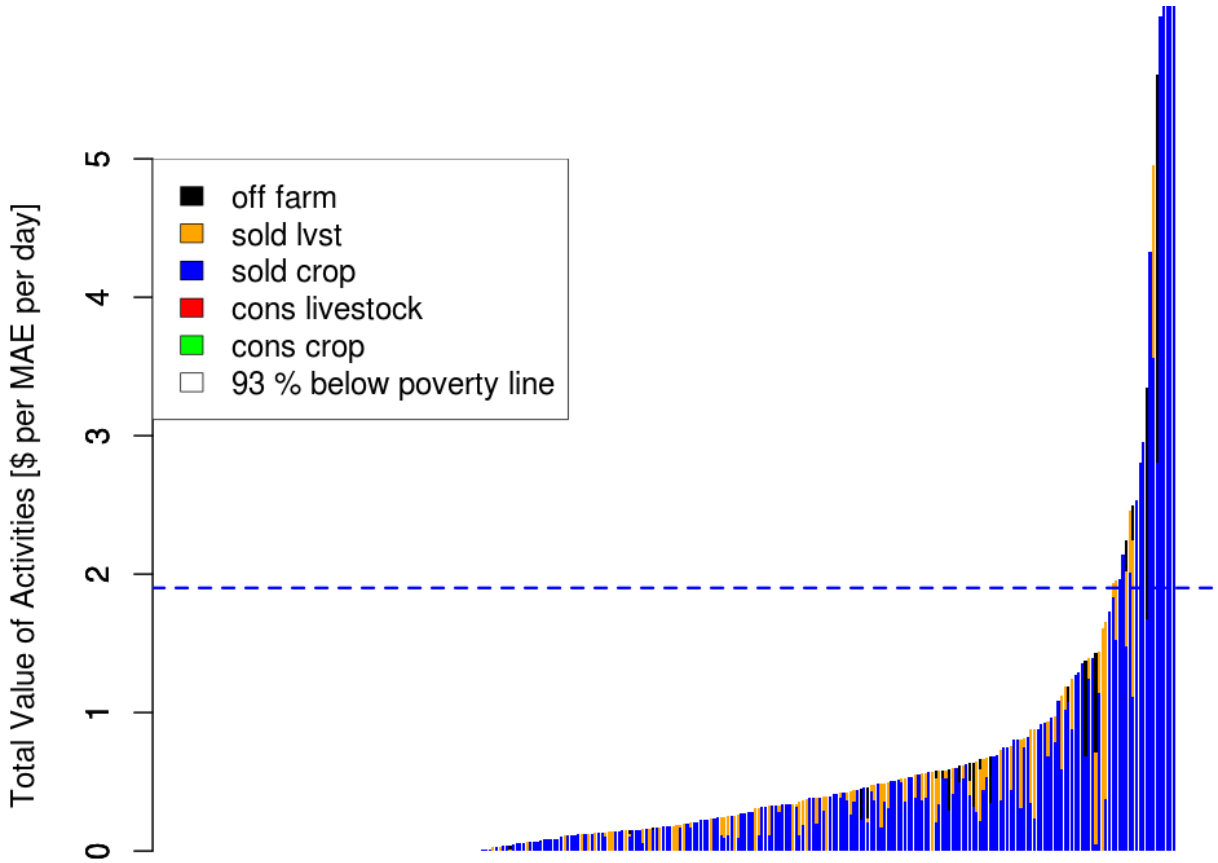
Total Value of Activities



Each bar represents one household. The height of each bar represents the total economic value of all farm produce and off farm work, using local prices. It is an *over-supply indicator* as even food which is consumed in the home is assigned a monetary value.
The colours in each bar represent potential income from different sources.
The red dashed line indicates the “calorie line” of 2500 kcal per adult male equivalent person, and the blue line represents the “poverty line” equivalent to $1.90 per person per day.

The graph shows that the majority (90%) of households fall below the poverty line, even when this over-supply indicator is used. These data also show a reliance on consumed crops and sold crops (blue and green sections of lines) by most households.

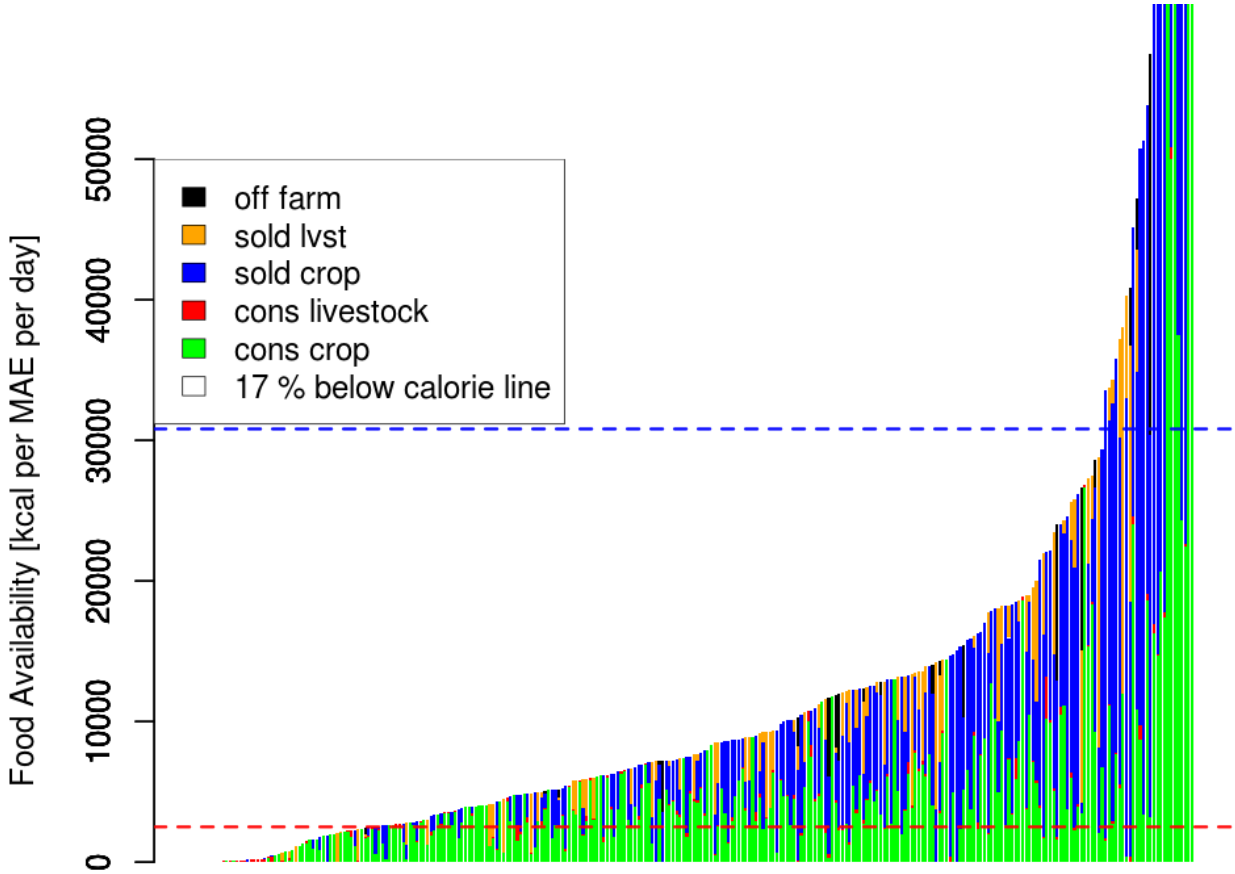
Actual Cash Incomes



Each bar represents one household. The height of each bar represents the actual cash incomes available to each household ($ per male adult equivalent person per day). The colours in each bar represent calories from different sources.
The blue line represents the “poverty line” equivalent to $1,90 per person per day.

The graph shows that the majority of households (93%) fall below the poverty line when cash income alone is considered. 28% households reported they receive zero cash income.

Potential Food Availability



Each bar represents one household. The height of each bar represents the total calories potentially available to the household (calories per male adult equivalent person per day). It is a *potential* indicator as all food consumed *and* all income is included, assuming that all income is spent purchasing local staple crops. The colours in each bar represent calories from different sources.
The red dashed line indicates the “calorie line” of 2500 kcal per adult male equivalent person, and the blue line represents the “poverty line” equivalent to $1,90 per person per day.

The graph shows that (17%) of households fall below the calorie line, even when using this oversupply indicator. These data also show a reliance on consumed crops and sold crops (blue and green sections of lines) by most households.

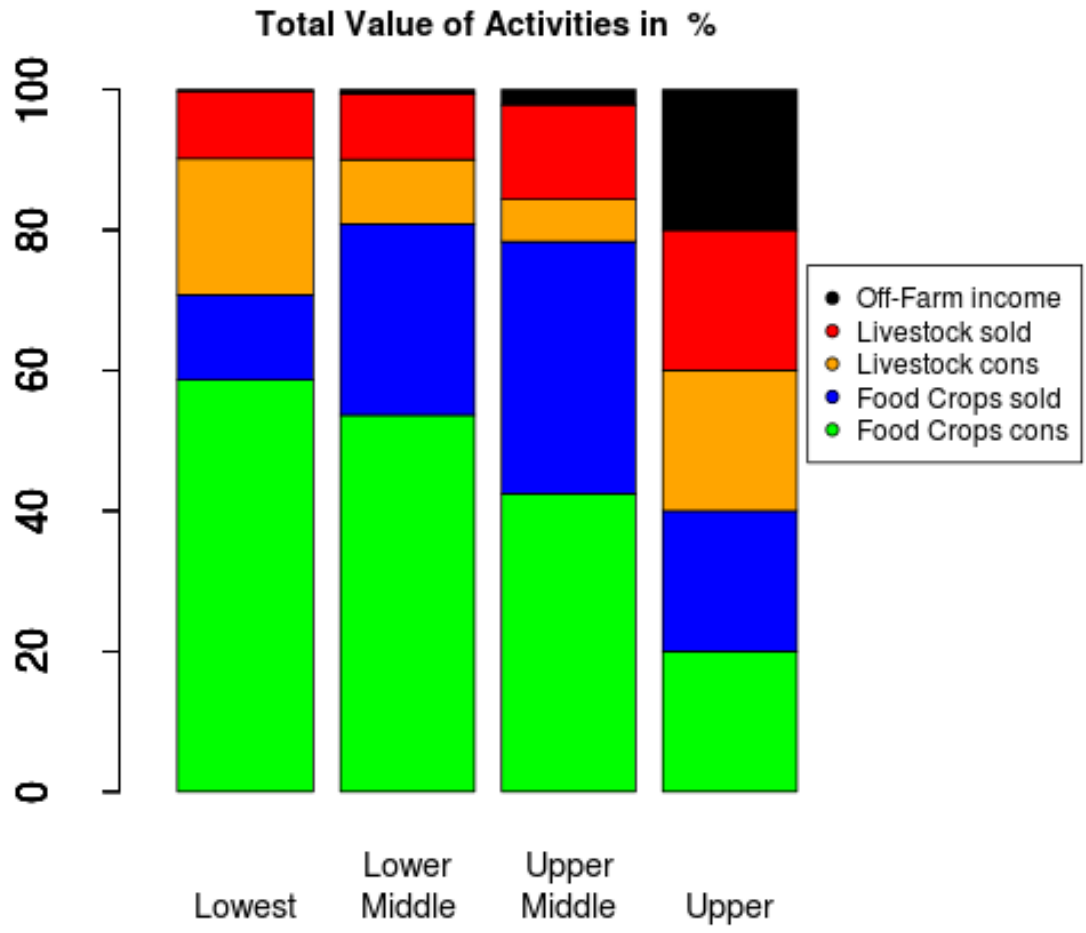
Dividing the population into quartiles

The study population was divided into quartiles, based on the total value of activities for each household.
These wealth ranked quartiles can be used to compare against one another.

Quartiles	Number of households	Total Value of Activities ($/pers/day)	Food Availability (kcal/pers/day)
Lowest	73	0.13	1,763
Lower middle	72	0.40	5,790
Upper middle	72	0.77	11,153
Upper	72	1.79	25,090

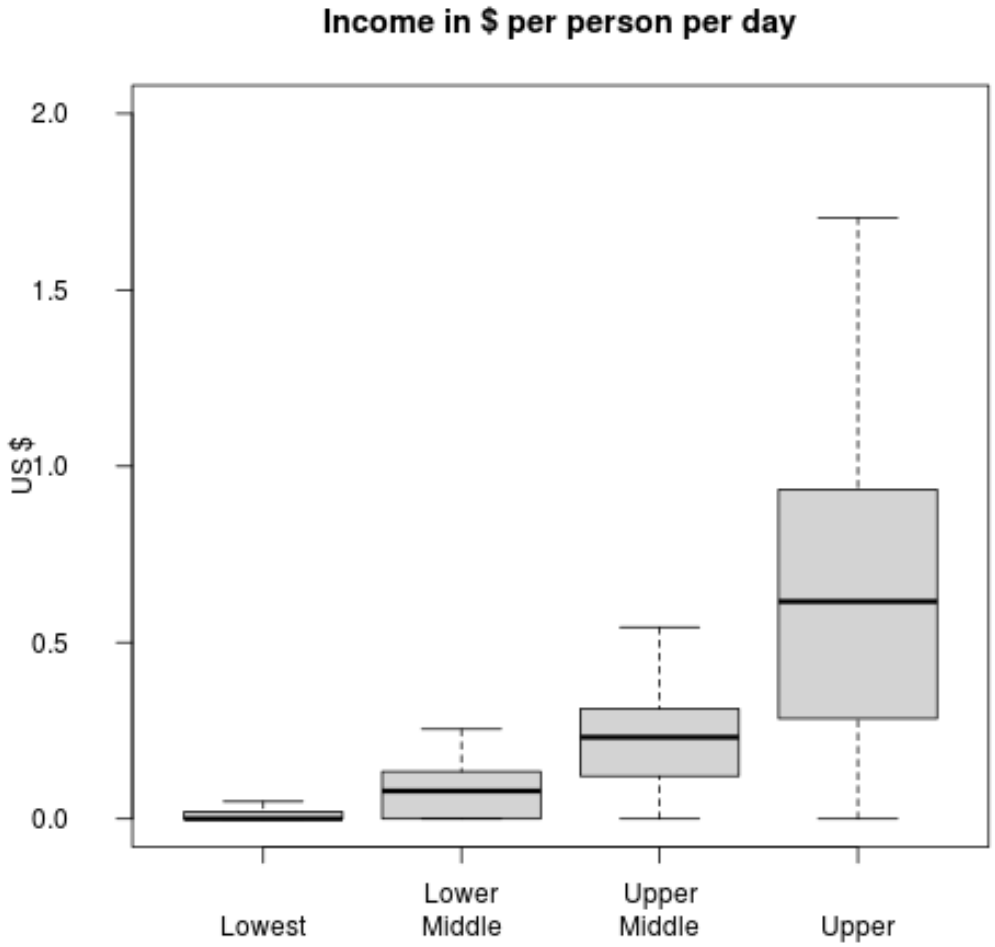
The table shows that while all the quartiles are living under the poverty line, the lower three quartiles are more closely grouped in comparison to the wealthiest quartile, both in terms of $/person/day and food availability. Person here refers to male adult equivalent. This pattern is visible elsewhere in the data, for example in sources of income and calories (pg. 8) where only the wealthier quartile derive the greater part of their income from sources other than cropping, and in experience of hunger (pg. 13) where there is sizeable group who do not experience hunger while the majority of households do experience hunger.

Source of income and calories, mean per quartile



The graph shows that the majority of calories and income are derived from crops. Only the upper quartile of households derive the greater part of their incomes from sources other than crops. Households from all quartiles rely upon livestock, although this forms a minority of the income and food source compared to cropping. There does not appear to be many opportunities for off-farm income.

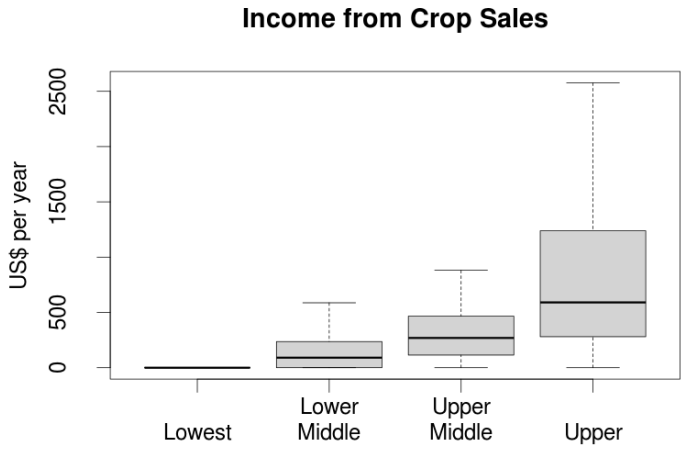
Average cash incomes: USD per person per day

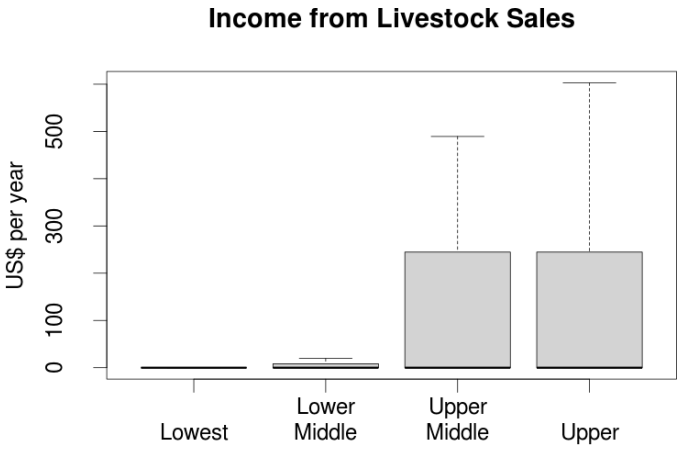


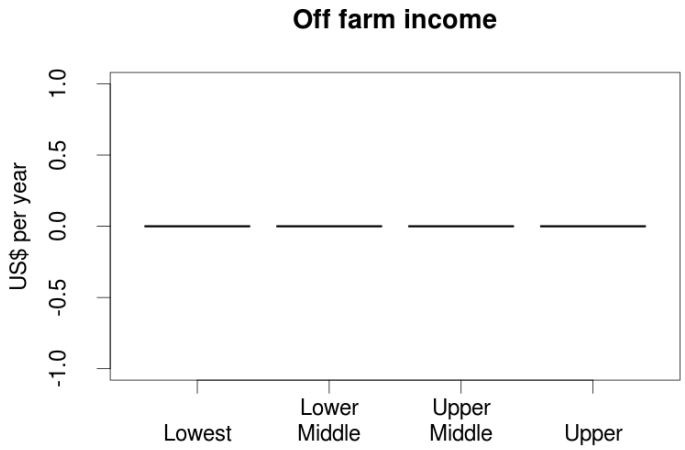
Quartiles	USD/person/day (median)	USD/person/day (IQR)*
lowest	0.00	0.02
lower middle	0.08	0.13
upper middle	0.23	0.18
upper	0.62	0.65

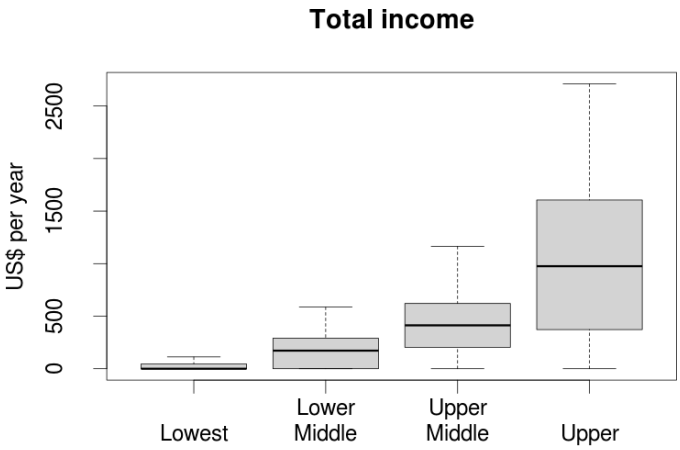
***Inter-quartile range (IQR)** is the numerical illustration of the box and whisker plots (grey boxes and dotted lines in the graphs). IQR shows the range in which the middle 50% of the data lies (the dotted lines show the range where 90% of the data lies). IQR is useful for understanding if there are large differences between individual responses (large IQR) or responses were generally similar (small IQR). IQR in this report is shown as range value followed by the upper and lower points of the range in brackets.

Average cash incomes from different sources (per household per year)









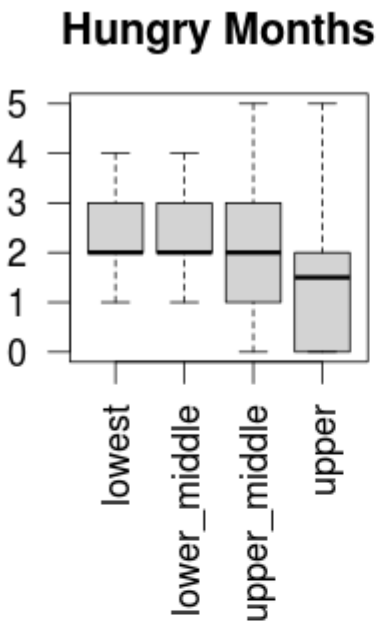
Quartile	Crop Sales (median)	Crop Sales (IQR)*	Lstk Sales (median)	Lstk Sales (IQR)*	Off Farm (median)	Off Farm (IQR)*	Total Income (median)	Total Income (IQR)*
lowest	0	2	0	0	0	0	0	45
lower middle	91	231	0	4	0	0	172	284
upper middle	269	349	0	245	0	0	413	409
upper	590	932	0	245	0	0	976	1165

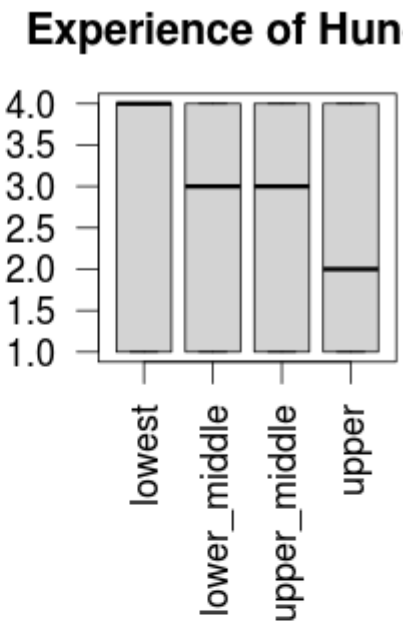
The data show that income differences between quartiles is as a result of differences in income from crops and livestock, while median off farm income is zero for each quartile.

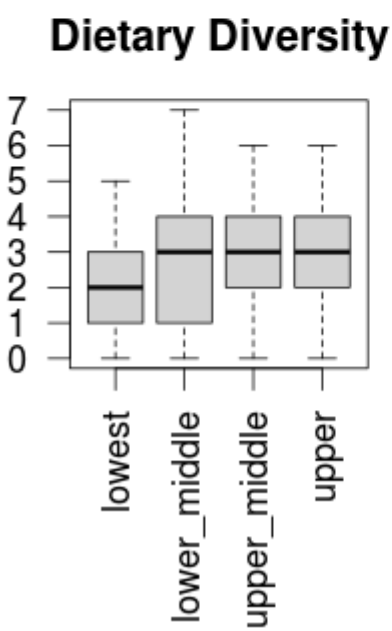
* See previous page for an explanation of inter-quartile range (IQR)

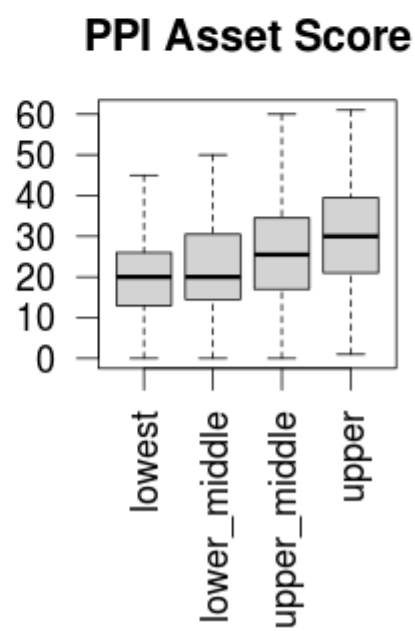
Indicators of Food Security and Poverty

Welfare indicators per quartile









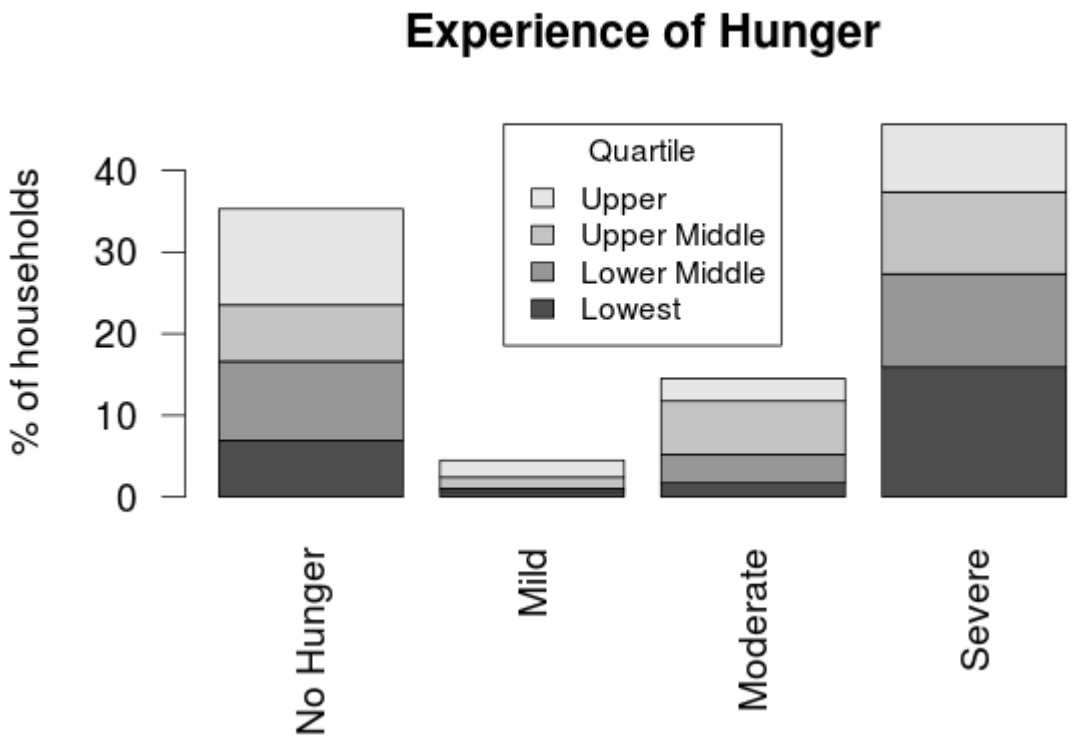
The following 5 pages give more information on these indicators.

Welfare indicators: medians per quartile

Quartile	Hungry Months (median)	Hungry Months 1.0 (IQR)	Hunger Score (median)	Hunger Score (IQR)	Dietary Diversity (median)	Dietary Diversity (IQR)	PPI Asset Score (median)	PPI Asset Score (IQR)
lowest	2.0	1.0 (2.0-3.0)	4.0	3.0 (1.0-4.0)	2.0	2.0 (1.0-3.0)	20.0	13.0
lower middle	2.0	1.0 (2.0-3.0)	3.0	3.0 (1.0-4.0)	3.0	3.0 (1.0-4.0)	20.0	15.5
upper middle	2.0	2.0 (1.0-3.0)	3.0	3.0 (1.0-4.0)	3.0	2.0 (2.0-4.0)	25.5	17.3
upper	1.5	2.0 (0.0-2.0)	2.0	3.0 (1.0-4.0)	3.0	2.0 (2.0-4.0)	30.0	18.3

Households' welfare indicator scores generally increase as in accordance with the wealth quartiles. This shows that the wealth quartiles may be trusted as an indicator of overall household well-being.

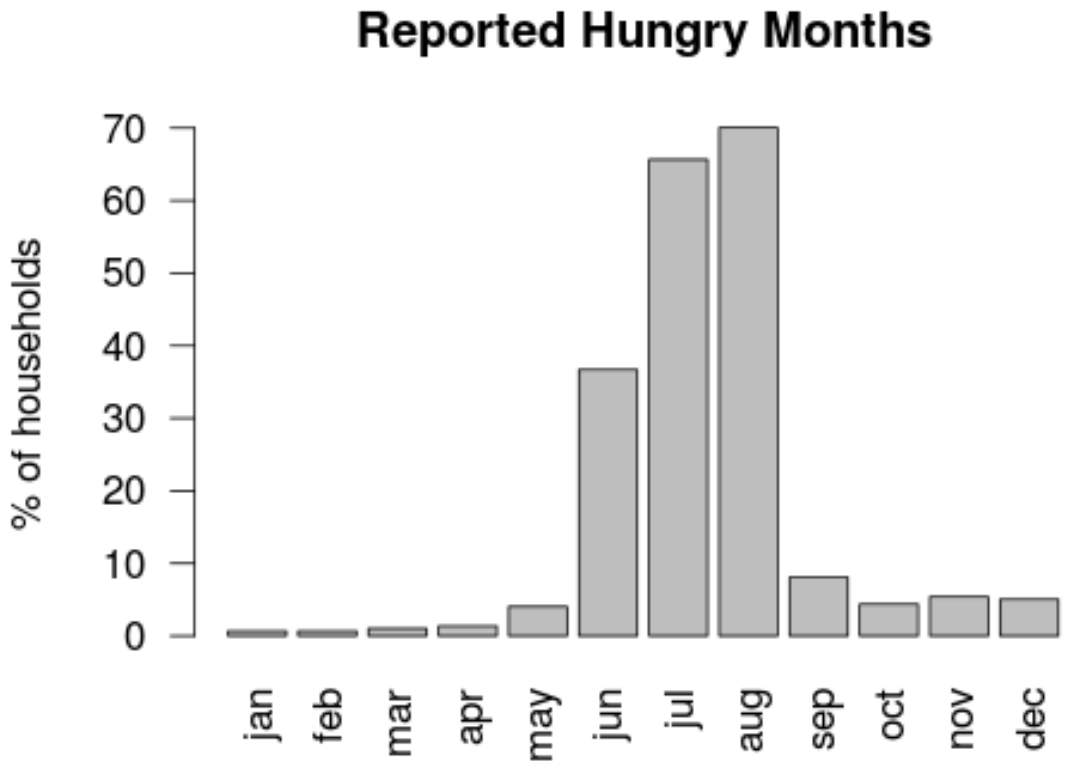
Hunger



Quartile	Food Secure (% of HHs)	Mildly Food Insecure (% of HHs)	Moderately Food Insecure (% of HHs)	Severely Food Insecure (% of HHs)
lowest	6.9	0.7	1.7	15.9
lower middle	9.7	0.3	3.5	11.4
upper middle	6.9	1.4	6.6	10.0
upper	11.8	2.1	2.8	8.3
Total	35.3	4.5	14.5	45.7

Households tend to either report severe food insecurity, or no food insecurity. All wealth quartiles tend to experience lack of food, although there is a slightly higher proportion of households from poorer quartiles who experience greater food insecurity. The metric here uses the Household Food Insecurity Access Scale measurement method. The food security module asks respondents to describe behaviours and attitudes that relate to the domains (e.g. quantity and quality) of the food insecurity experience.

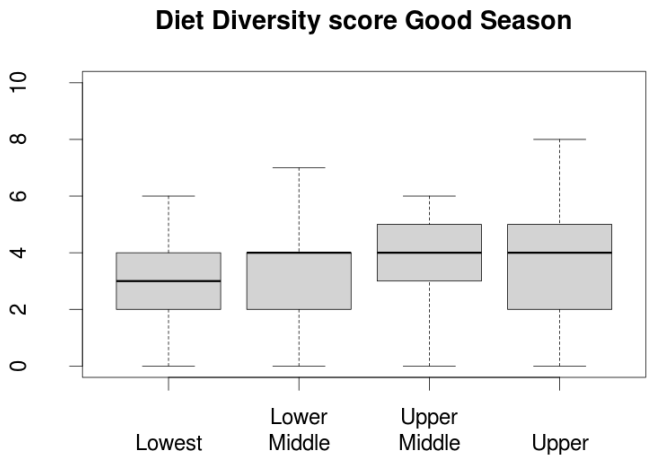
Hungry Months

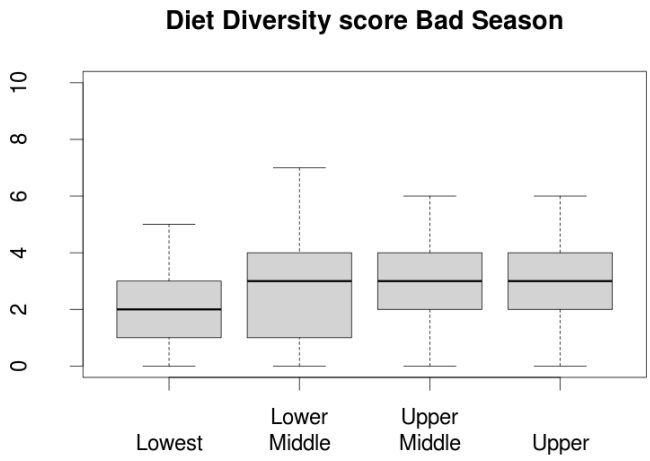


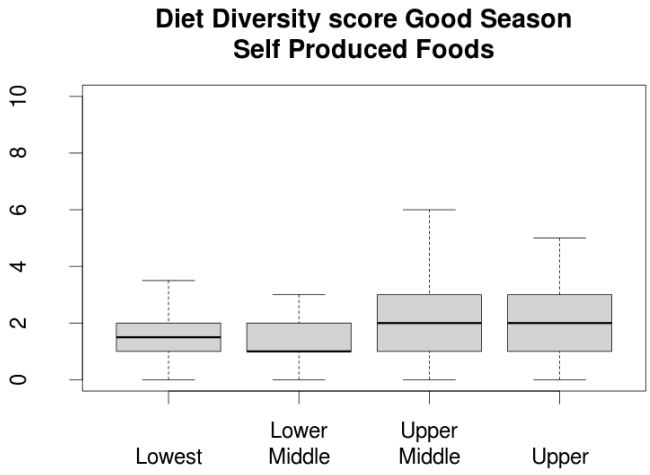
Month	jan	feb	mar	apr	may	jun	jul	aug	sep	oct	nov	dec
% of HHs	0.7	0.7	1.0	1.4	4.2	37.7	66.1	69.9	8.0	4.5	5.5	5.2

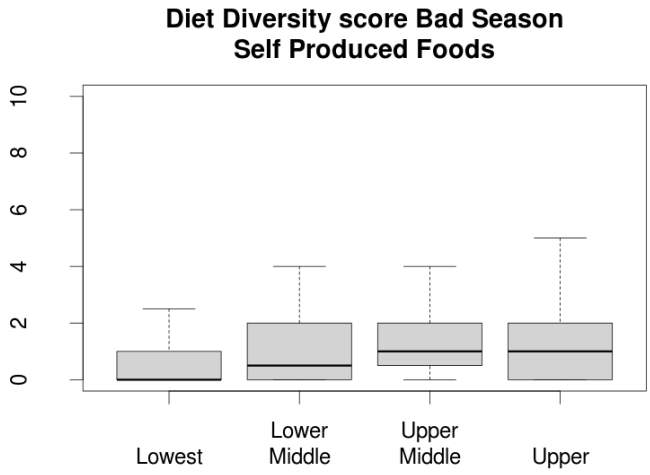
There is a clear lean season in the year in June, July and August during which the majority of the population reported lack of access to food.

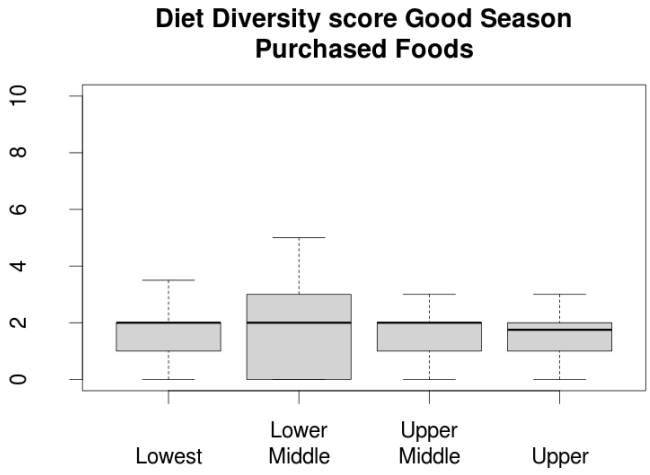
Dietary Diversity

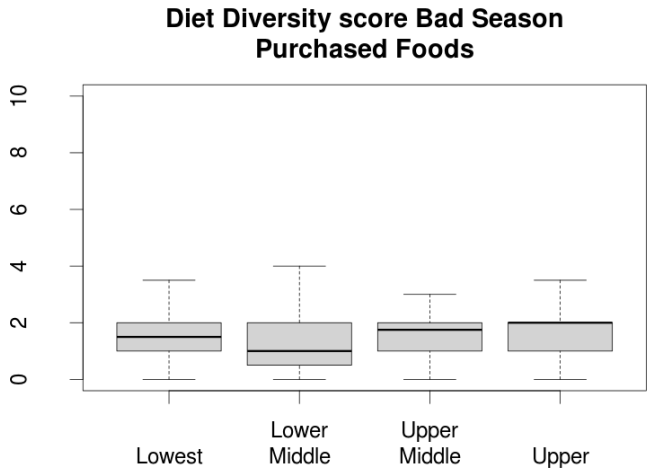












The data show that dietary diversity is very low. These scores indicate that malnourishment is likely. For an explanation of how this indicator is calculated please see overleaf.

Dietary Diversity

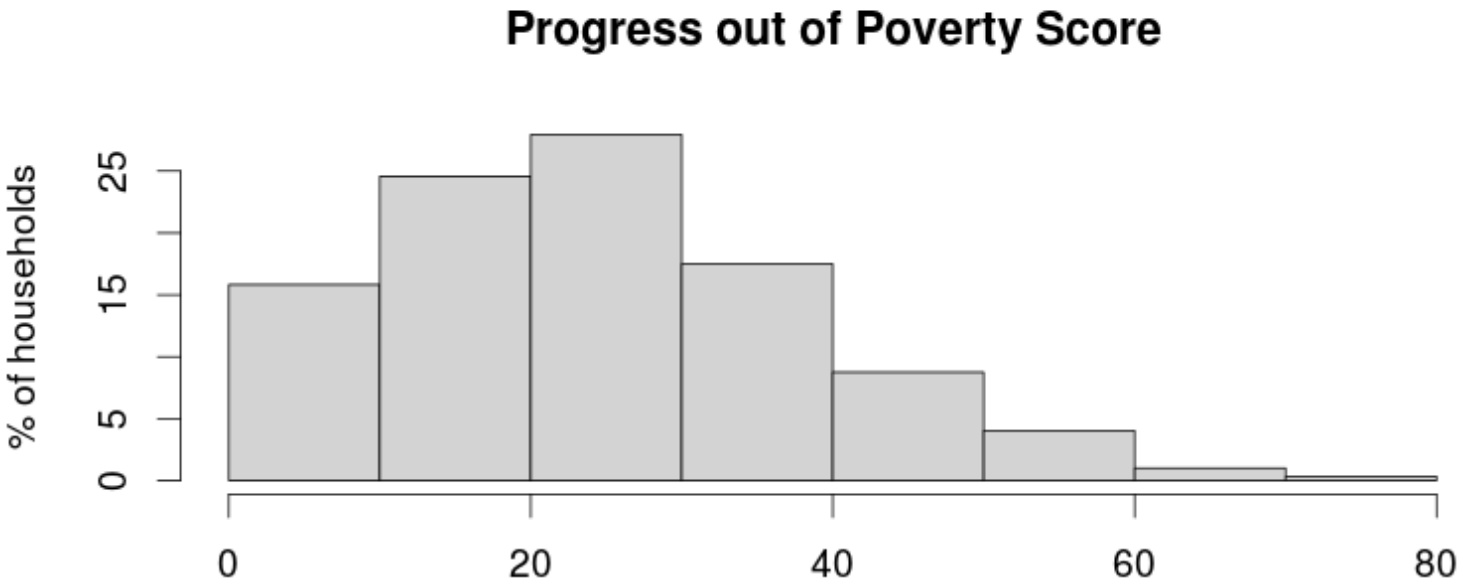
Quartiles	lowest	lower middle	upper middle	upper
Good Season (median)	3	4	4	4
Good Season (IQR)	2 (2-4)	2 (2-4)	2 (3-5)	3 (2-5)
Bad Season (median)	2	3	3	3
Bad Season (IQR)	2 (1-3)	3 (1-4)	2 (2-4)	2 (2-4)
Farm Based Good Season (median)	1.5	1	2	2
Farm Based Good Season (IQR)	1 (1-2)	1 (1-2)	2 (1-3)	2 (1-3)
Farm Based Bad Season (median)	0	0.5	1	1
Farm Based Bad Season (IQR)	1 (0-1)	2 (0-2)	1.5 (0.5-2)	2 (0-2)
Purcahsed Good Season (median)	2	2	2	1.5
Purcahsed Good Season (IQR)	1 (1-2)	3 (0-3)	1 (1-2)	1 (1-2)
Purcahsed Bad Season (median)	1.5	1	1.75	1.75
Purcahsed Bad Season (IQR)	1 (1-2)	1.5 (0.5-2)	1 (1-2)	1 (1-2)

The Household Dietary Diversity Score (HDDS) is based on asking how often households consume foodstuffs from 10 different food groups. Households are asked how often they eat these foods per month during the 'good season' and the 'bad season'. They are then asked if the foods come from their own farms or if they are purchased.
A score of 5 or above implies adequate nutrition, below does not.

All quartiles show, on average, below adequate dietary diversity suggesting that malnutrition may occur. During the lean season (June to August) this is particularly severe.

Households tend to purchase foodstuffs all year round, and self produced foodstuffs are scarce during the lean season.

Progress out of Poverty Indicator

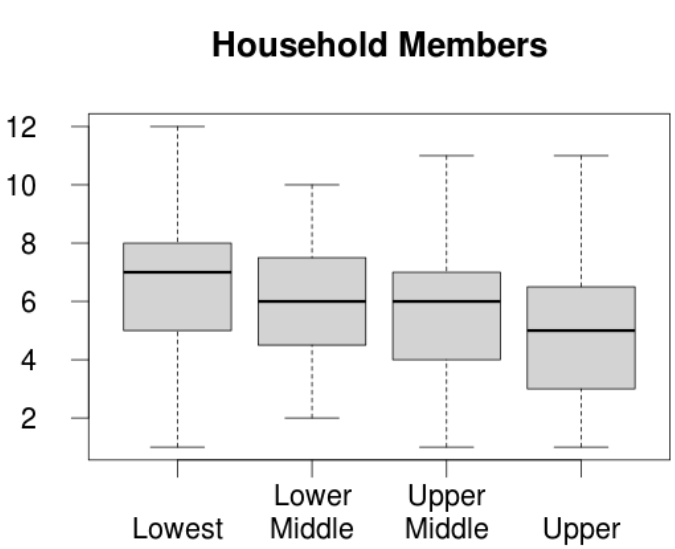


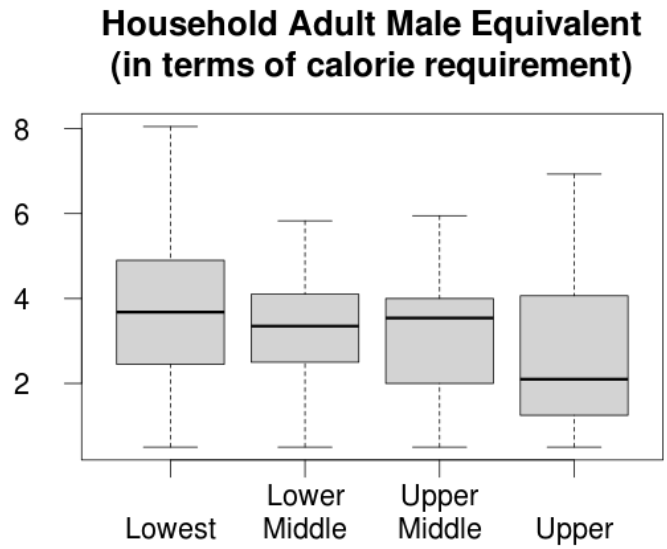
Score range	0-09	10-19	20-29	30-39	40-49	50-59	60-69	70-79
% of HHs	16	25	28	18	9	4	1	0
Likelihood (%) of HHs being below the poverty line	92	83	75	59	45	50	21	14

The PPI score is based on asset ownership, and is calibrated per country. The higher the score, the less likely a household is to be in poverty. The PPI scores above were calibrated to the (old) $1.75 poverty line.
The data here show that we would expect the vast majority of the population to be living in poverty.

Farm and Household Characterstics

Household characteristics by quartile

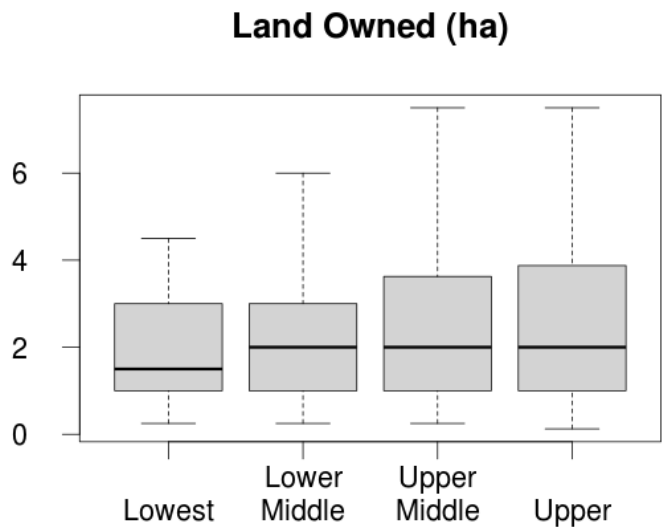


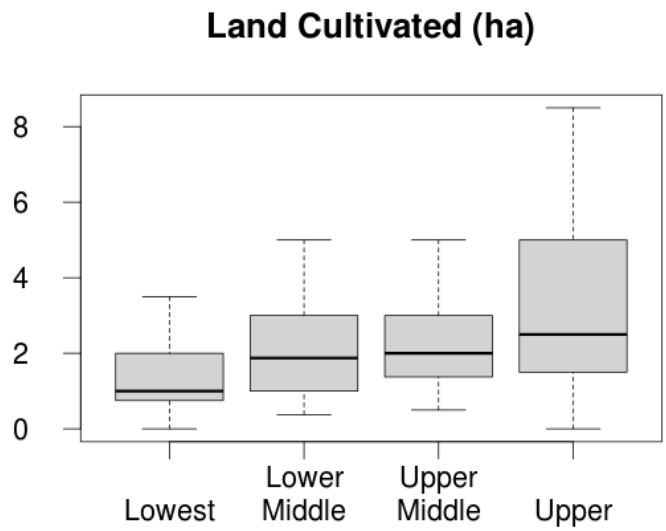


Quartile	HH members (median)	HH members (IQR)	Male Adult Equivalent (median)	Male Adult Equivalent (IQR)
lowest	7.0	3.0 (5.0-8.0)	3.7	2.5 (2.5-5.0)
lower middle	6.0	2.5 (5.0-7.5)	3.4	1.6
upper middle	6.0	3.0 (4.0-7.0)	3.5	2.0
upper	5.0	3.3	2.1	2.8

Poorer households tend to have larger families (median of seven household members); richer households tend to have smaller families (median of five household members).

Household characteristics by quartile

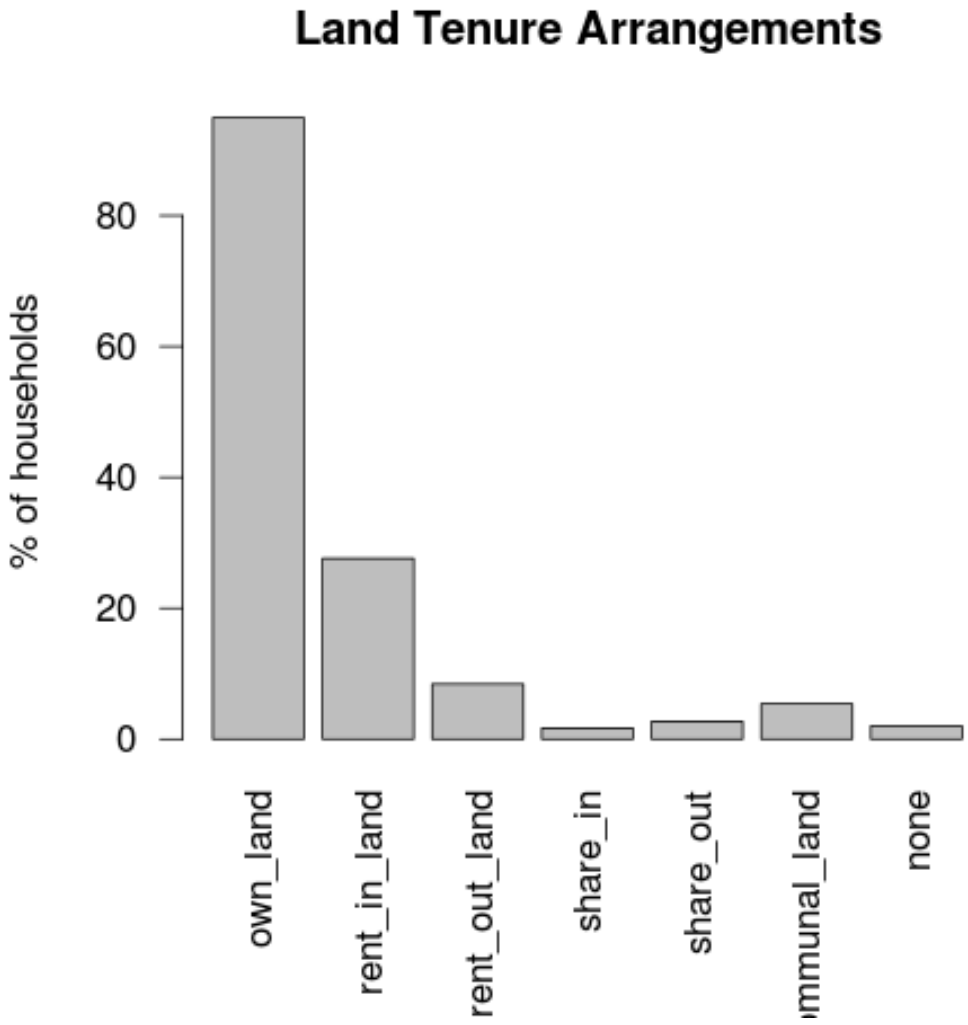




Quartile	Land Owned (median)	Land Owned (IQR)	Land Cultivated (median)	Land Cultivated (IQR)
lowest	1.5	2.0	1.0	1.3
lower middle	2.0	2.0	1.9	2.0
upper middle	2.0	2.6	2.0	1.6
upper	2.0	2.8	2.5	3.5

Most households own between 1.5 and 3 hectares of land. This remains fairly constant between wealth quartiles. However wealthier households tend to cultivate more land than poorer households. This may well be due to wealthier households renting land.
As crops are the main source of income in this location, access to a greater quantity and higher quality land will be a major driver of wealth.

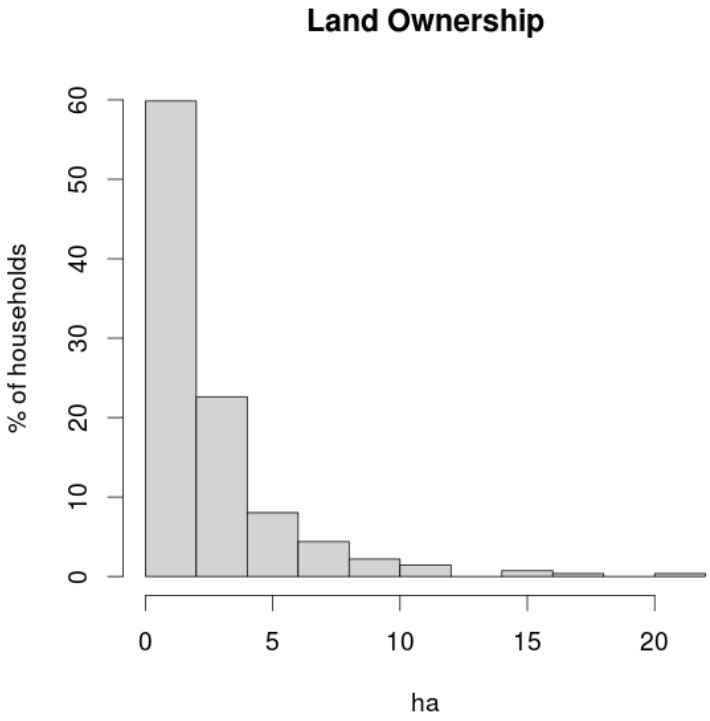
Land Tenure

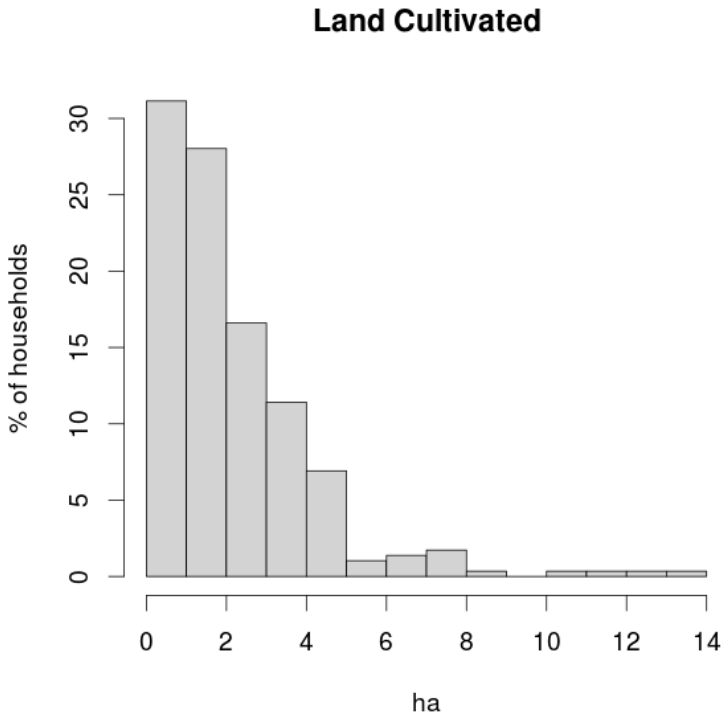


Tenure	own land	rent in land	rent out land	share in	share out	communal land	none
% of HHs	94.8	28.0	8.7	1.4	2.8	5.5	2.1

Overall, the data show that land is mainly owned or rented in. Shared land or communal land was not commonly reported. Almost all households have access to some land.

Land Sizes



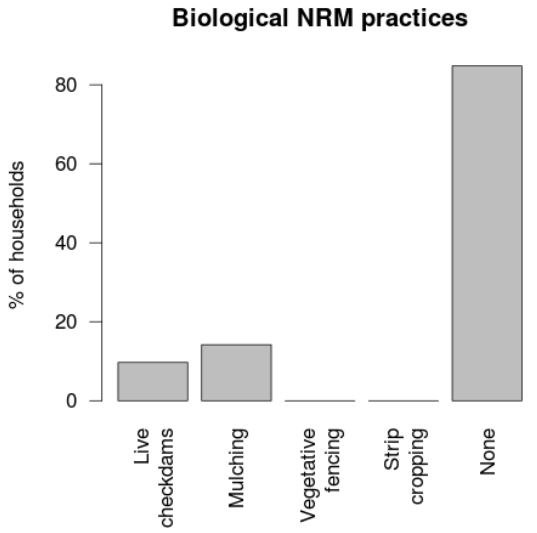


Land area (ha)	0-2	2-4	4-6	6-8	8-10	10-12	12-14	14-16	16-18	18-20	20-22
Land owned (% of HHs)	59.9	22.6	8.0	4.4	2.2	1.5	0.0	0.7	0.4	0.0	0.4
Land cultivated (% of HHs)	59.2	28.0	8.0	3.1	0.3	0.7	0.7	0.0	0.0	0.0	0.0

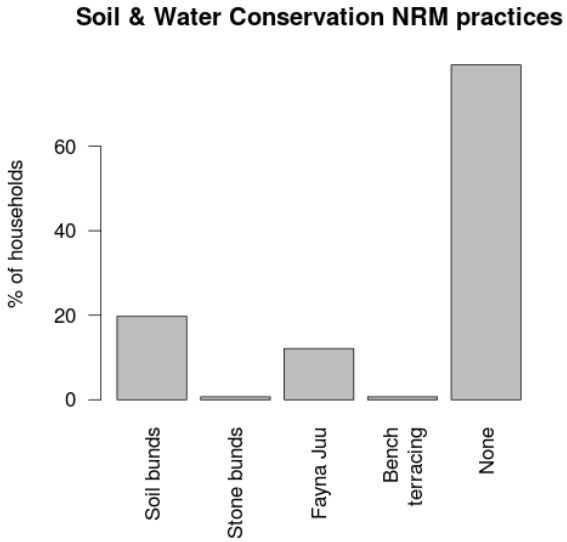
Overall, the data show that most households own and cultivate less than 2 ha of land. Almost all households own and cultivate less than 5 ha.

Natural Resource Management

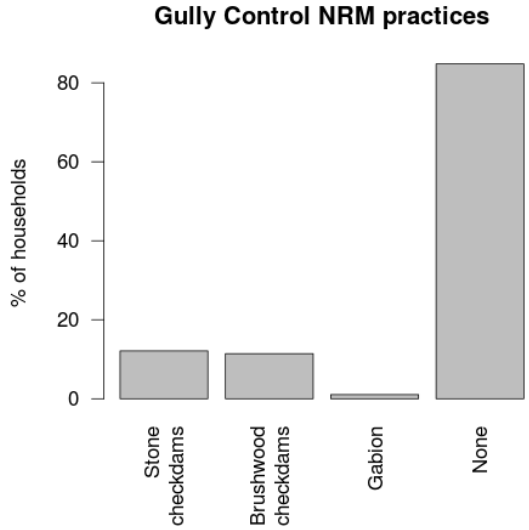
NRM practices



Live checkdams	9.7%
Mulching	14.2%
Vegetative fencing	0%
Strip cropping	0%
None	84.8%

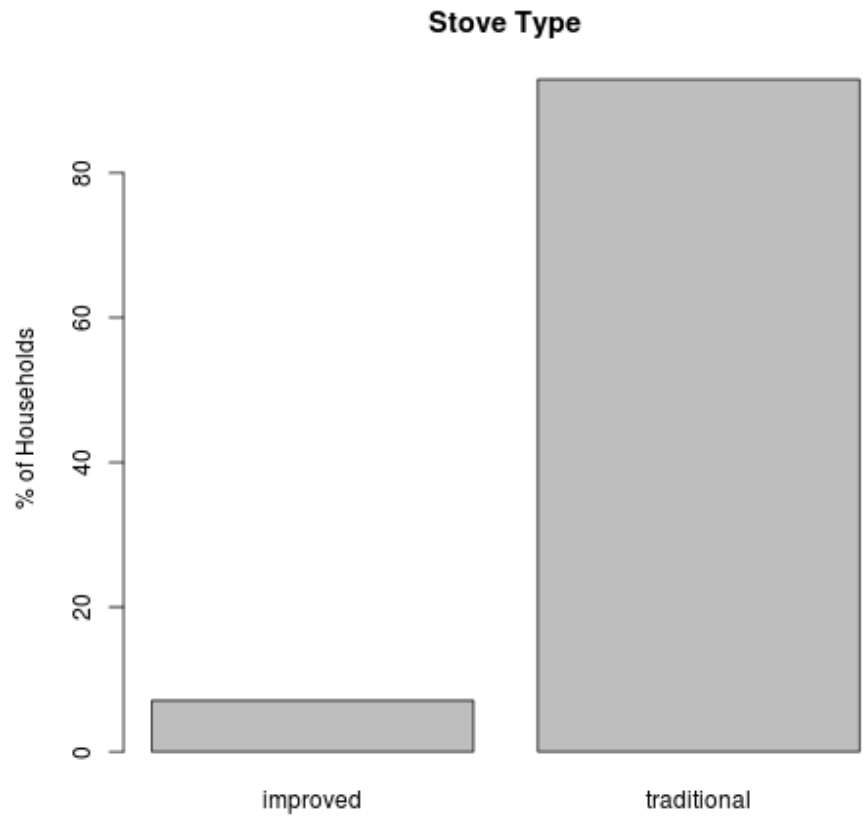


Soil bund	19.7%
Stone bund	0.7%
Fayna Juu	12.1%
Bench terracing	0.7%
None	79.2%



Stone checkdams	12.1%
Brushwood checkdams	11.4%
Gabion	1.0%
None	84.8%

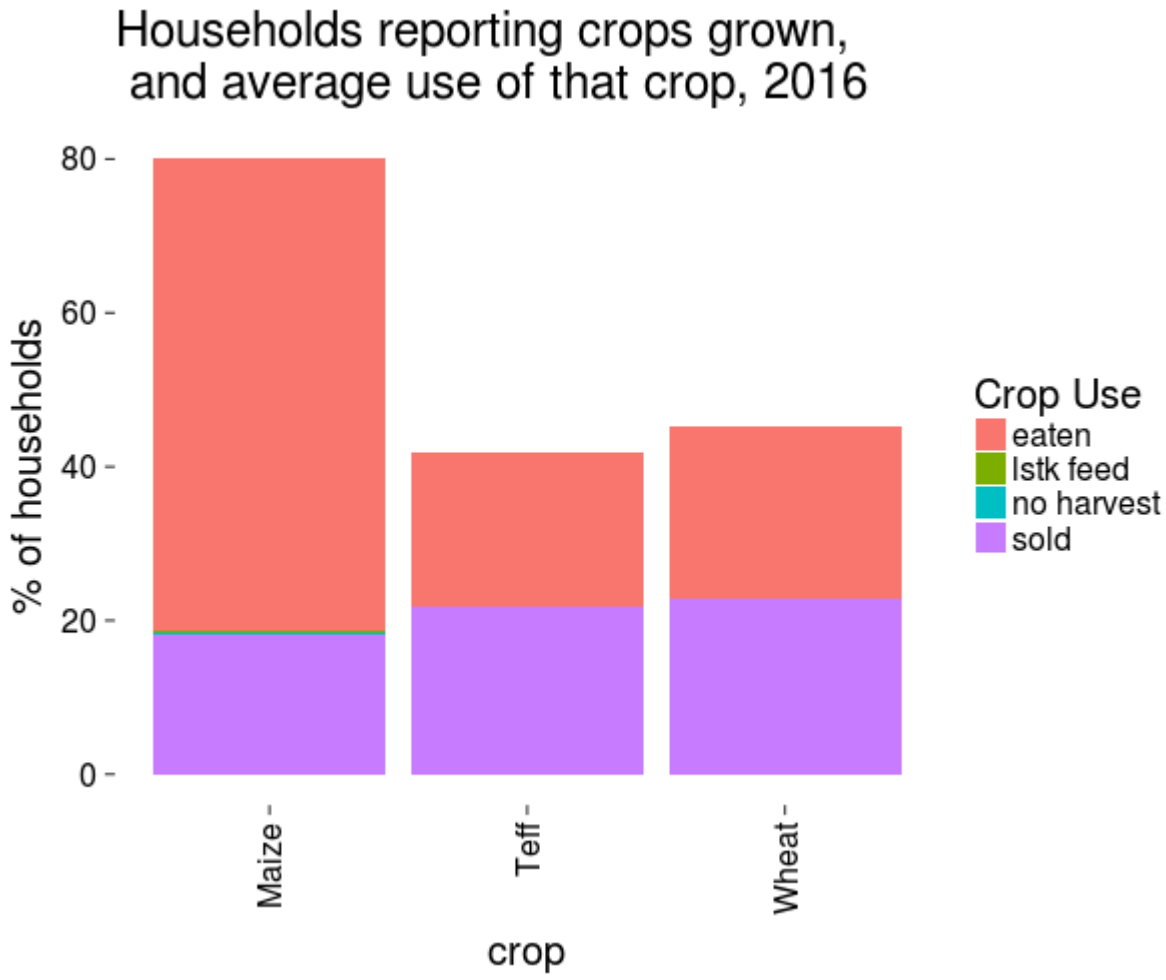
Stove Types



Stove type	%
improved	6.9
traditional	93.1

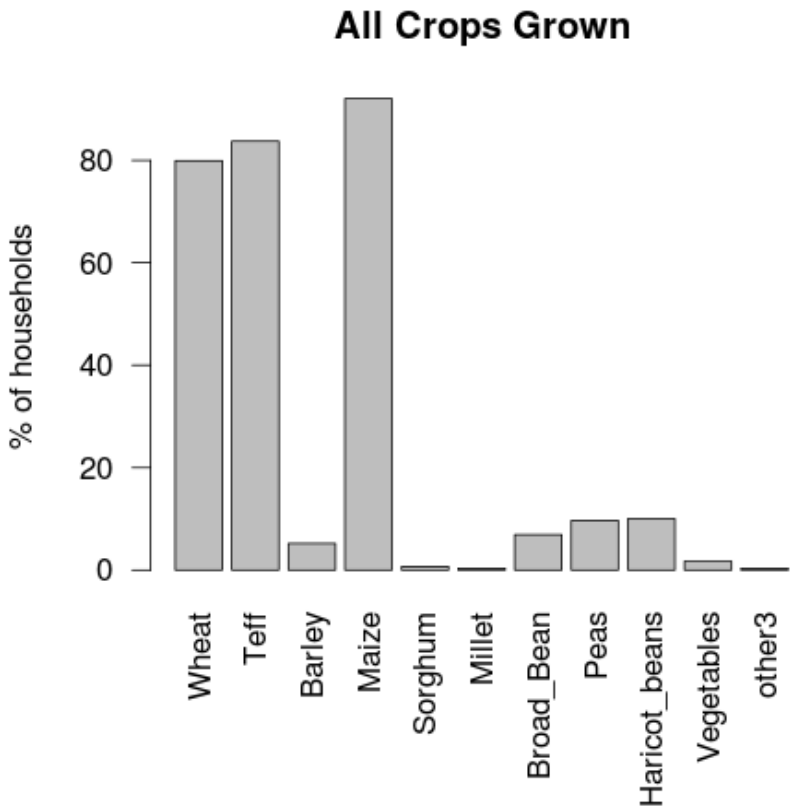
Agricultural Practices

Crops Grown

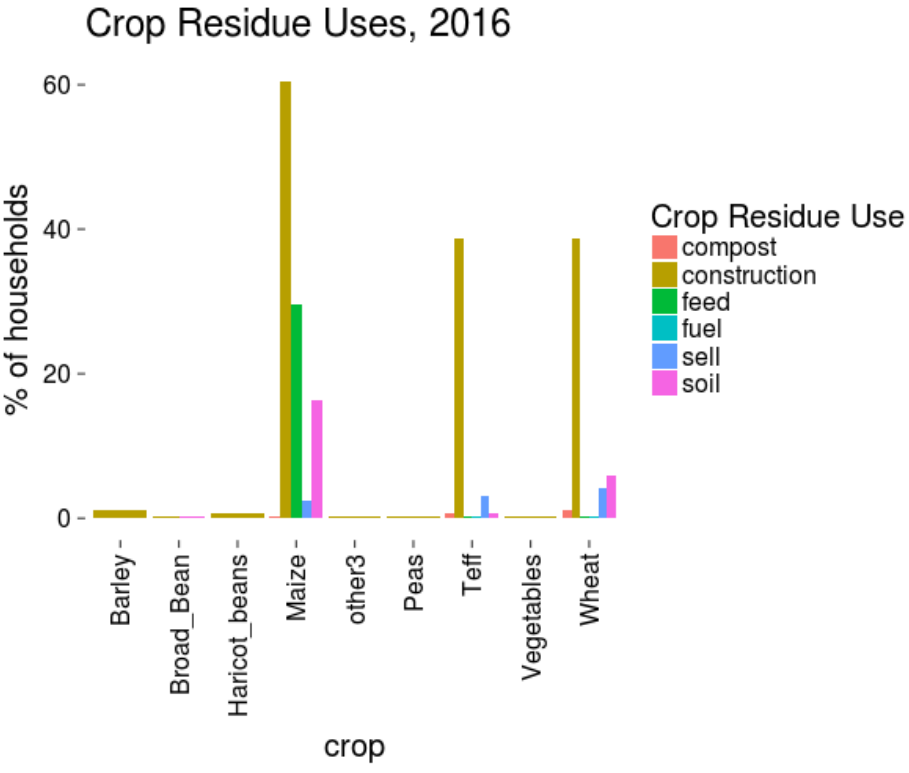


Households were asked what were their most important crops were, with a selection limit of a maximum of 4 crops.
The responses were maize (selected by 80% of respondents), wheat (selected by 45% of respondents) and teff (selected by 42% of respondents). Maize was mainly used for home consumption, where as wheat and teff were equally consumed and sold.

Other Crops

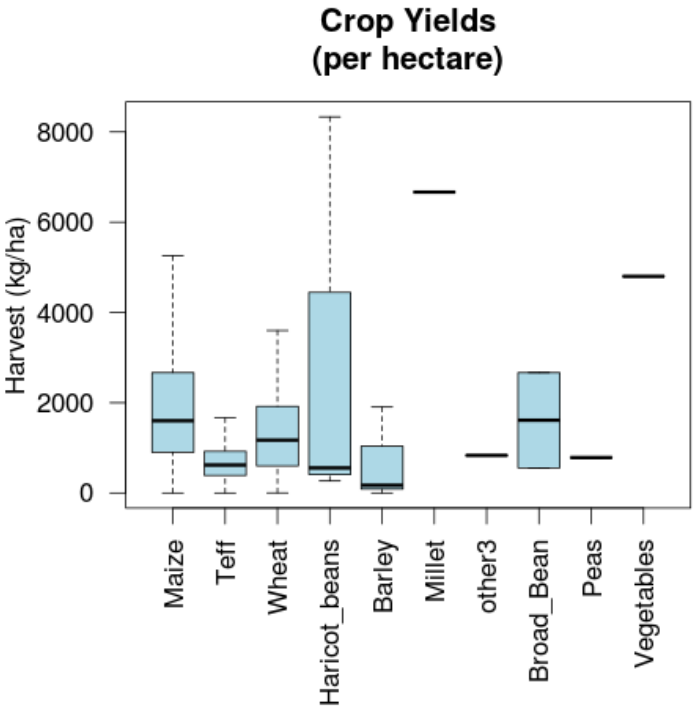


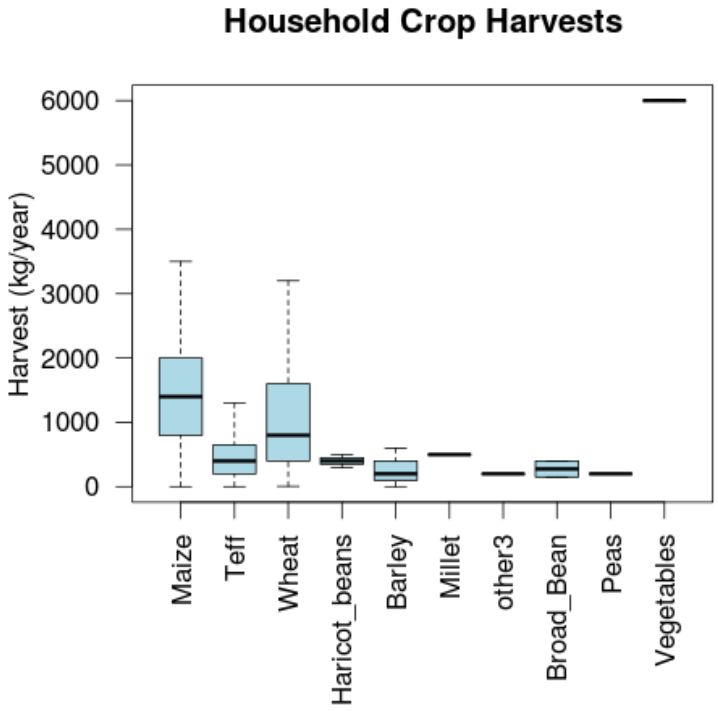
Crop	% of HHs
Wheat	79.9
Teff	83.7
Barley	5.2
Maize	92.0
Sorghum	0.7
Millet	0.3
Broad_Bean	6.9
Peas	9.7
Haricot_beans	10.0
Vegetables	1.7
other3	0.3



Crop residues were mainly used for construction or animal feed.

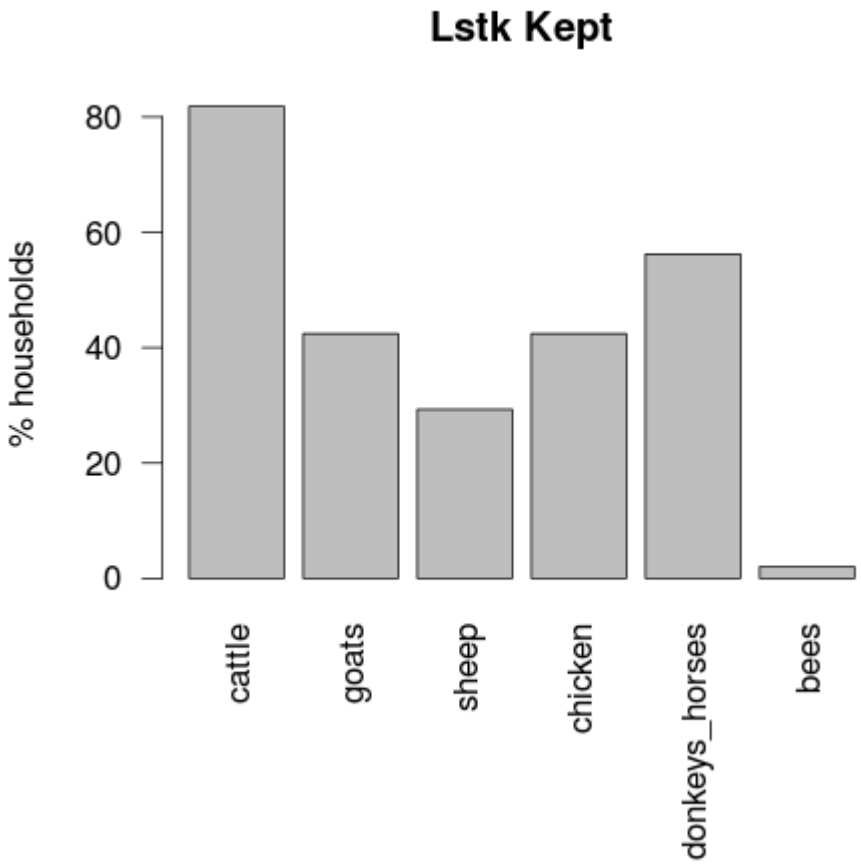
Crop yields



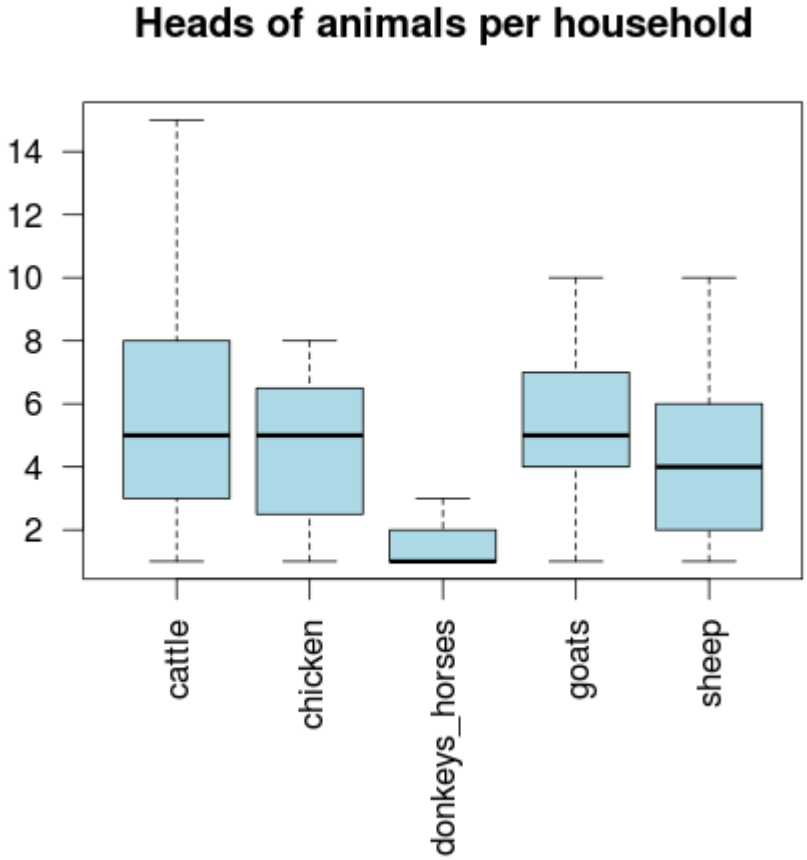


crop	Yield (kg/ha) (median)	Yield (kg/ha) (IQR)	Harvest (kg/yr) (median)	Harvest (kg/yr) (IQR)
Maize	1600	1600	1400	1200
Teff	620	620	400	400
Wheat	1143	1143	800	1200
Haricot beans	4300	4300	400	100
Barley	171	171	200	300
other3	833	833	200	0
Broad_Bean	1611	1611	275	125
Peas	784	784	200	0
Vegetables	4800	4800	6000	0

Livestock kept



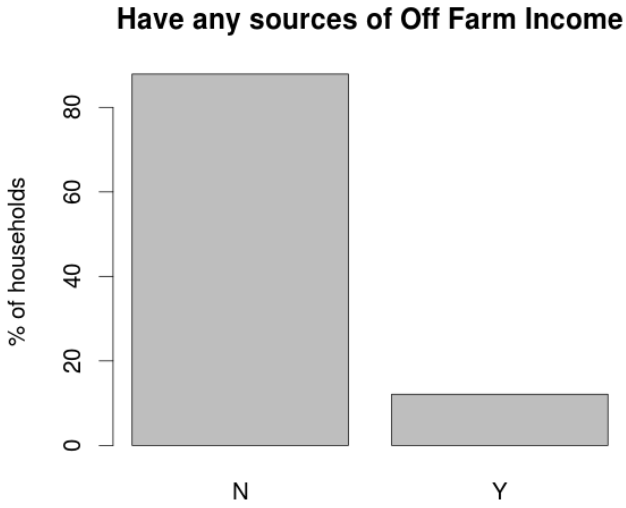
Animal	% of HHs
cattle	81.3
goats	43.3
sheep	28.7
chicken	42.9
donkeys/ horses	56.1
bees	2.1



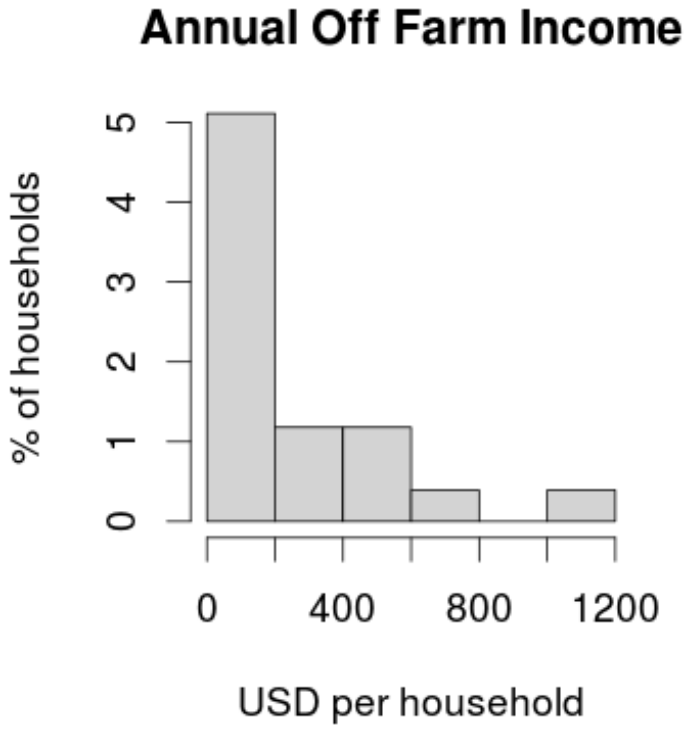
Animal	Heads (median)	Heads (IQR)
cattle	5	5
chicken	5	4
donkeys/ horses	1	1
goats	5	3
sheep	4	4

Off Farm Income Sources

Off Farm Incomes



Most households (88%) have no source of off farm income. Twelve percent have a source of off farm income. No household has more than one source.

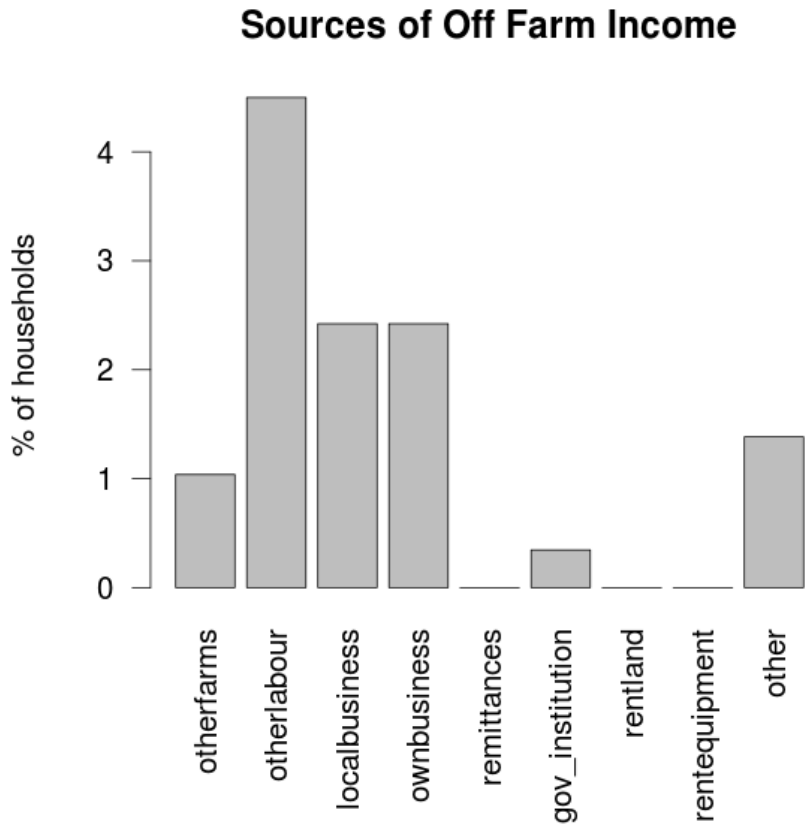


Of the households who earn off farm income, they mostly earn less than 200 USD per year.

Overall, the data show that most households have no off farm income. Those who do, tend to derive it from selling labour to non agricultural activities (e.g. mining), or small businesses.

Income ($USD)	0 - 200	200 - 400	400 - 600	600 - 800	800 - 1000	1000 – 1200
% of HHs	5.1	1.2	1.2	0.4	0.0	0.4

Off Farm Activities

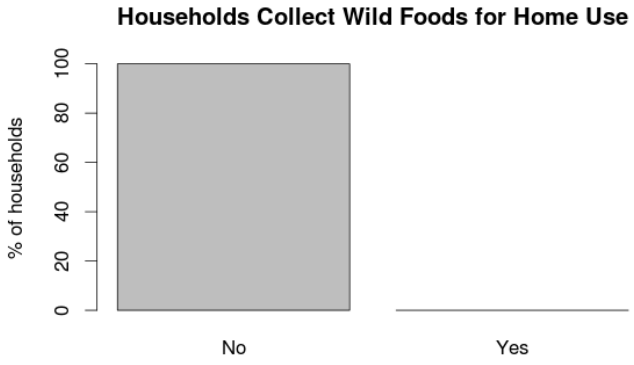


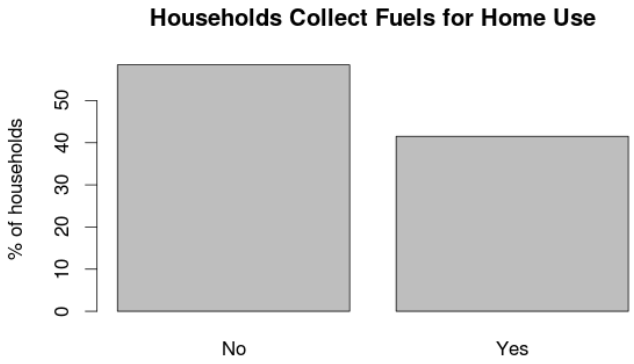
Job	% of HHs
otherfarms	1.0
other labour	4.5
local business	2.4
own business	2.4
remittances	0
government/ institution	0.3
rent land	0
rent equipment	0
other	1.4

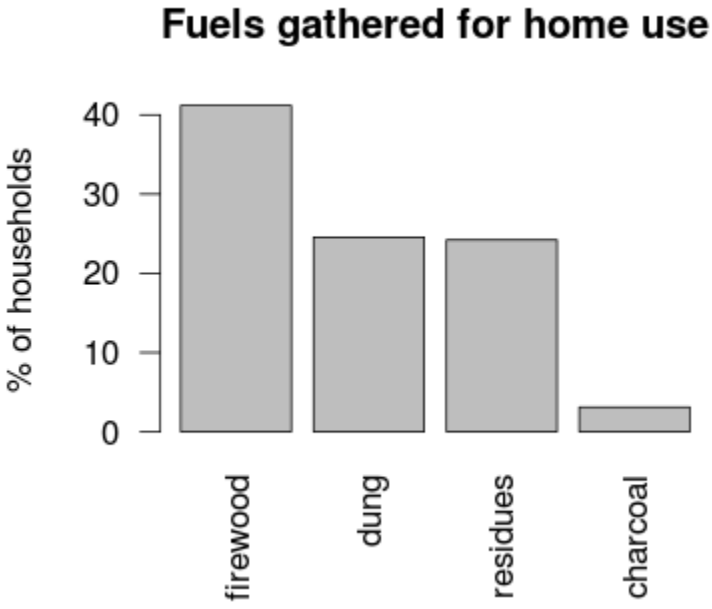
'Other' in this case referred mainly to mineral mining.

Trees on and off farm, and NTFPs

Forest products and environmental resources collected for home use



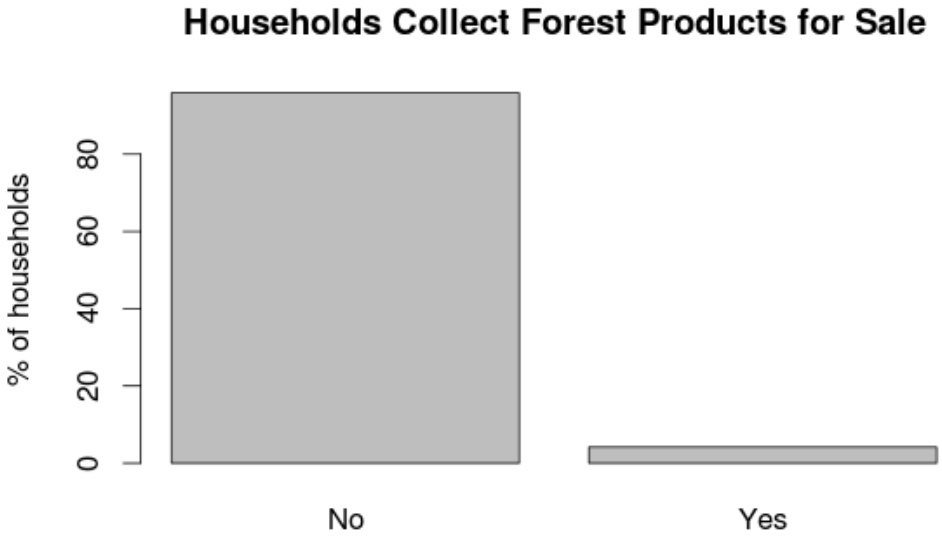




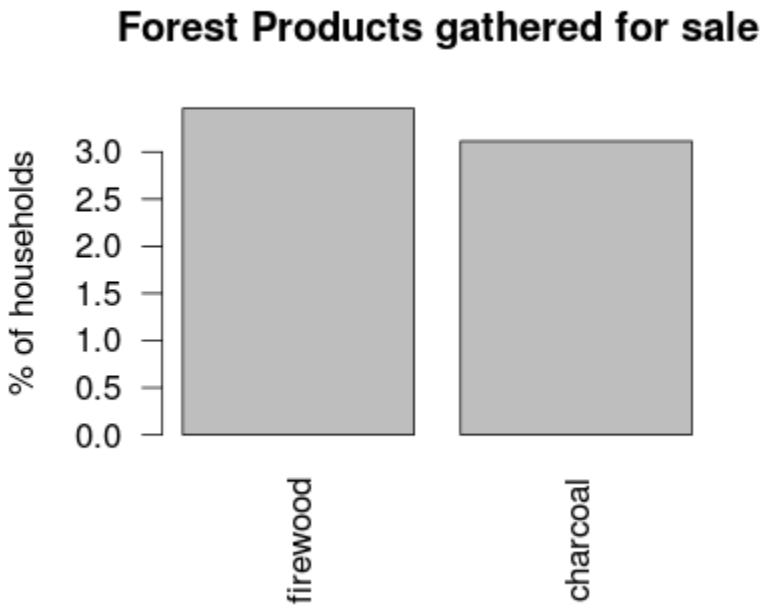
- Edible forest products for home consumption are not collected.
- 42% of the study population collect fuels for use at home.
- Firewood is the most popular fuel for home use, gathered by 41.2% of households, followed by dung and crop residues.

Fuel	% of HHs collect
firewood	41.2
dung	24.6
residues	24.2
charcoal	3.1

Forest products and environmental resources collected for sale



- Only 4% of the population gather any product for sale
- The product gathered is wood (for both fuelwood and charcoal making)

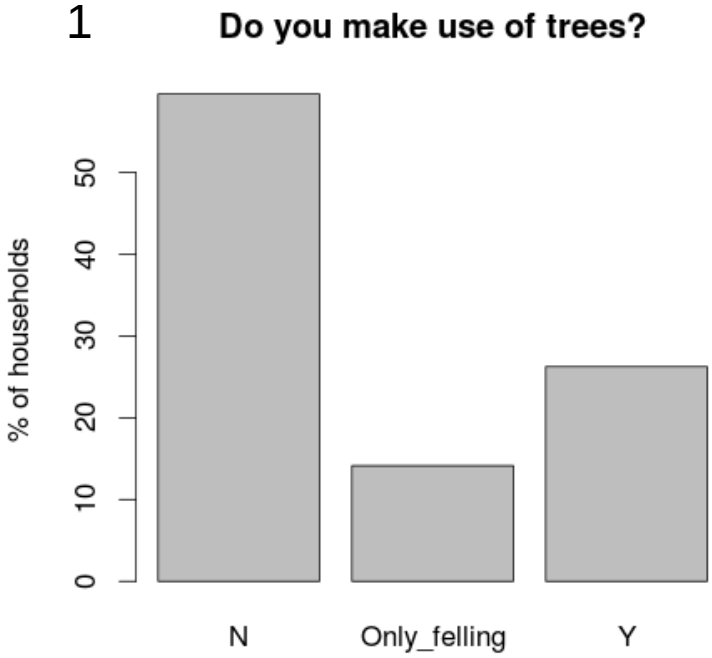


Forest product	% HH collect
firewood	3.5
charcoal	3.1

Overall, the data show that the only forest products gathered for sale are firewood and charcoal and levels of collecting are low, with 3.5% of households gathering wood for firewood and 3.1% gathering wood for charcoal making.

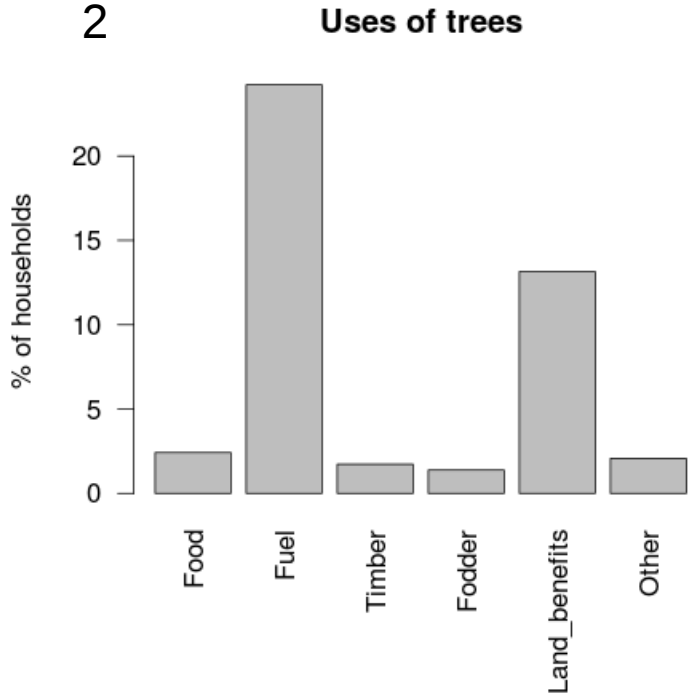
Uses of trees on farm

1



Manage Trees?	% HH
N	60.2
Only felling	14.5
Y	25.3

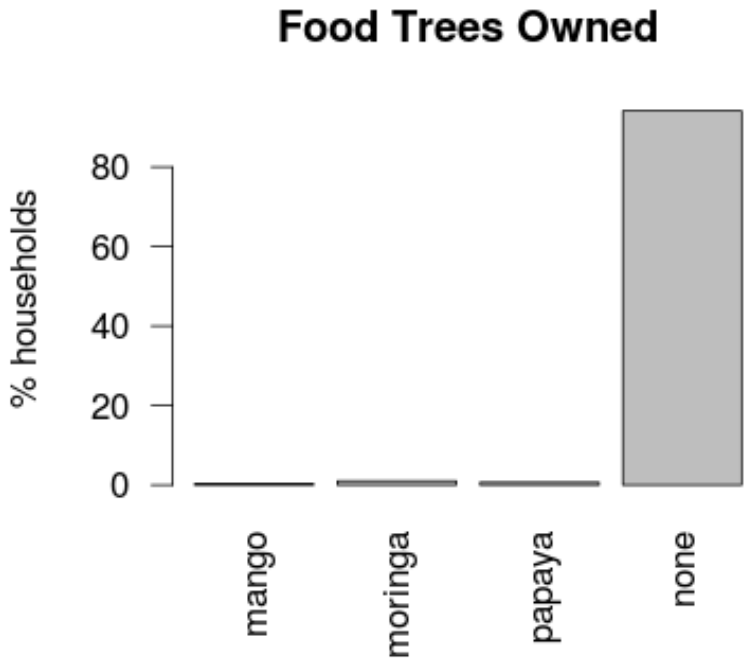
2



Use	% HH
Food	2.4
Fuel	24.2
Timber	1.7
Fodder	1.4
Land benefits	13.1
Other	2.1

Overall, the data show that 39.8% of households actively make use trees on their farm (graph 1). Of the households that use the trees on their land, the main use is as a source of fuel, the second is to provide benefits to the land (graph 2).

Food trees owned

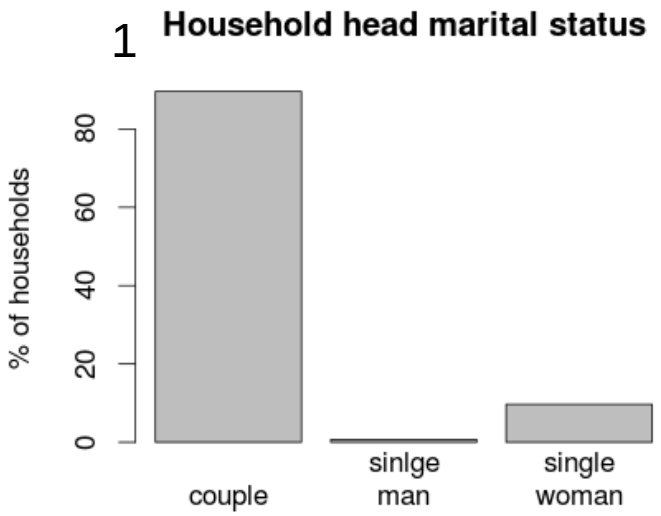


Tree	% of HHs
mango	0.3
moringa	1.0
papaya	0.7
none	94.1

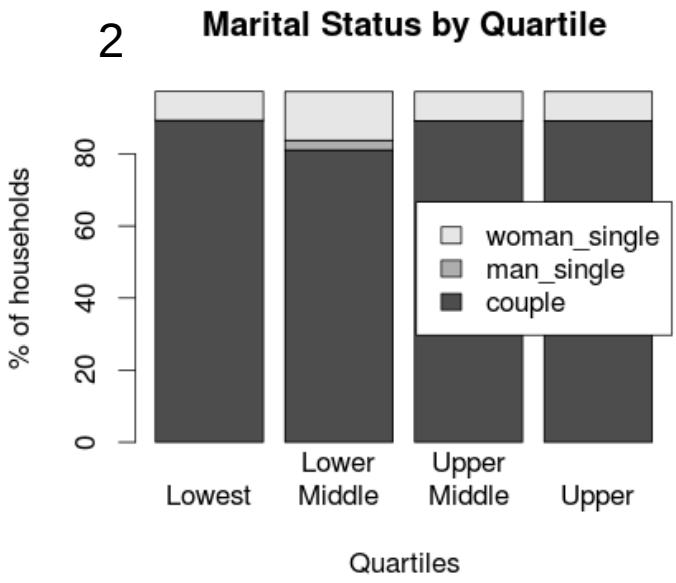
Most households (94%) report owning no trees which produce foodstuffs.

Annex - household heads

1

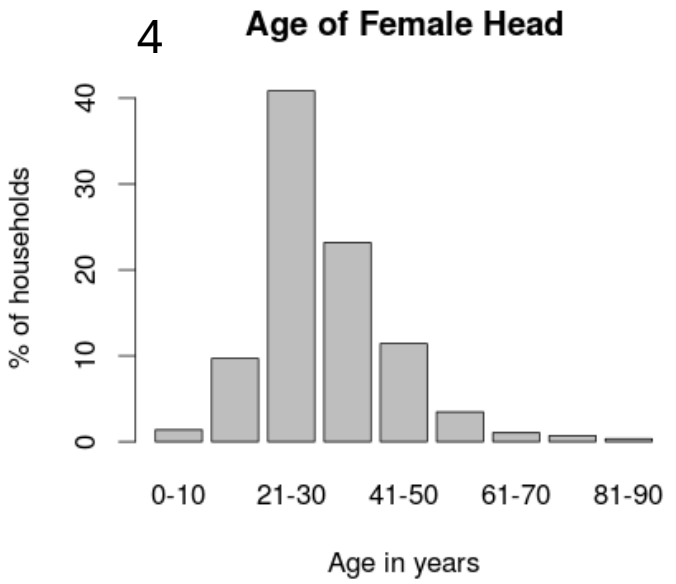


2



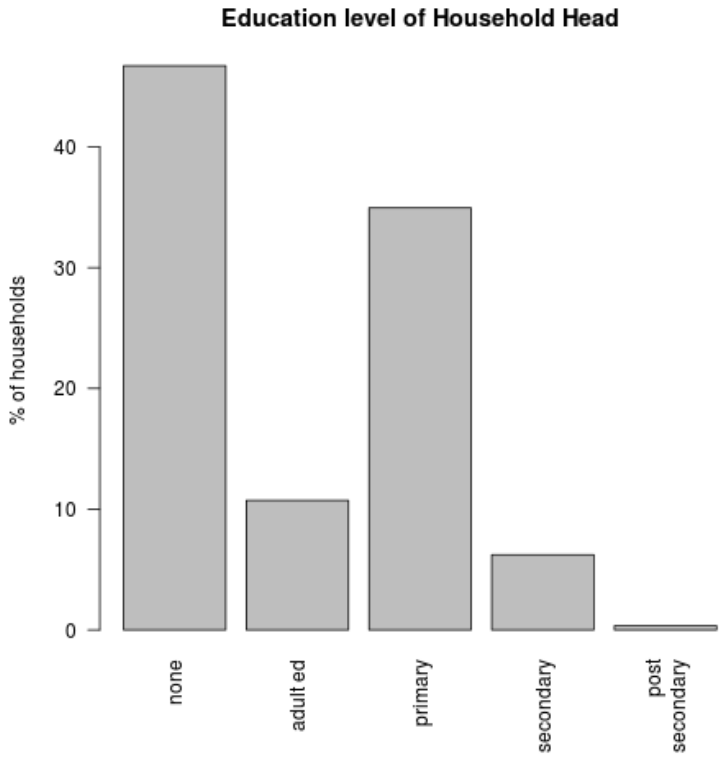
3

4



Graph 1 shows that 90% of households are headed by a married couple, 10% have a single woman head, and less than 1% have a single male head.
Graph 2 shows that the different marital statuses are distributed evenly between the quartiles.
Graphs 3 & 4 show that most common age range for a male household head is 31-40 and the most common age range for a female household head in 21-30.

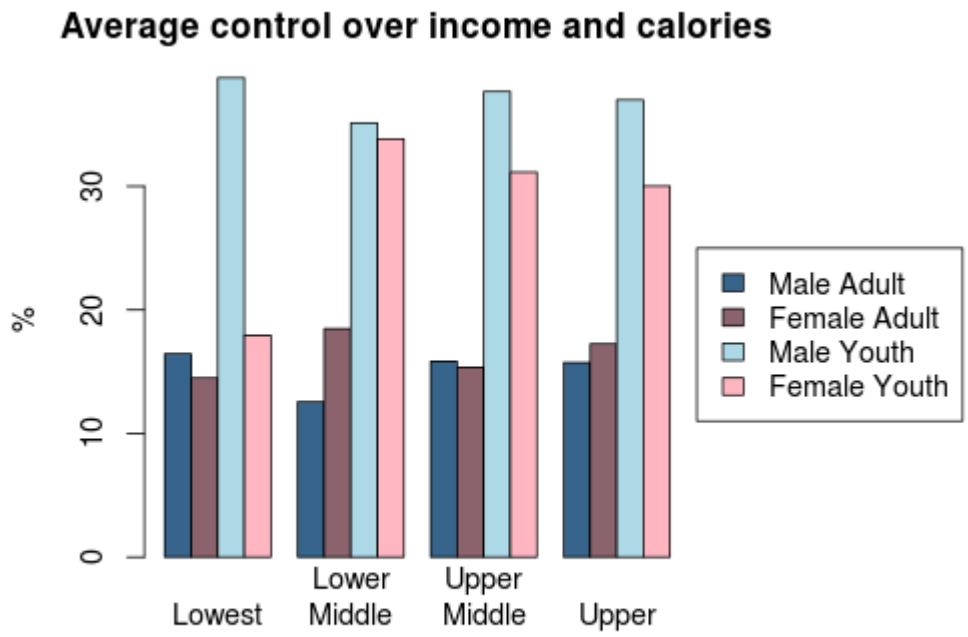
Annex - household head education



Quartile	No school (% of HHs)	Adult education (% of HHs)	Primary (% of HHs)	Secondary (% of HHs)	Post-secondary (% of HHs)
lowest	11.8	4.8	8.0	0.7	0.0
lower middle	14.2	1.7	7.3	1.4	0.0
upper middle	11.8	3.5	8.3	1.4	0.0
upper	9.0	0.7	11.4	2.8	0.3
Total	46.7	10.7	34.9	6.2	0.3

Overall the data shows low levels of education; high illiteracy is likely. The upper quartiles has slightly higher levels of education than others.

Annex - gendered control of resources



Quartile	Male	Female	Male Youth	Female Youth
lowest	16%	15%	38%	19%
lower middle	14%	18%	35%	33%
upper middle	15%	16%	38%	31%
upper	16%	17%	37%	30%

Gendered control of resources is calculated according to the who makes decisions over the use of income or the consumption of foods.
Youth show a surprisingly high degree of control; more so than adults. Division of responsibility between males and females is generally quite equal.